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CANADA  
DEPARTMENT OF TRADE AND COMMERCE  
DOMINION BUREAU OF STATISTICS  
INTERNAL TRADE BRANCH

ESTIMATED BALANCE  
of  
INTERNATIONAL PAYMENTS  
for  
CANADA  
1926 - 1930

Together with Description of  
Methods used

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DEPARTMENT OF TRADE AND COMMERCE  
DOMINION BUREAU OF STATISTICS - CANADA  
INTERNAL TRADE BRANCH

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NOTE - This bulletin is the result of investigations carried on at intervals during several years. The staff of the Dominion Bureau of Statistics was greatly assisted through valuable contributions made by Professor F.A. Knox of Queen's University, and Professor K.W. Taylor of McMaster University. Special mention should be made of the work of Professor J.F. Parkinson of Toronto University, who spent several months in the Bureau working on this special study, and who, besides making original contributions, has consolidated all available materials into this bulletin.

ESTIMATED BALANCE OF INTERNATIONAL PAYMENTS  
FOR CANADA, 1926-1930

The estimates of the international balance of payments for the year 1930 are presented herein together with revised estimates for the four previous years. The most noticeable features of the 1930 statement are the continued reduction in the volume of merchandise trade, the alteration in the gold movement and the unfavourable balance, including all items visible and invisible, of approximately \$160 millions. The obvious inference to be drawn from these factors is that Canada has continued to receive foreign capital imports, on balance, either in the form of loans directly floated abroad or as foreign investments in Canada or both. This inward movement of capital, which recommenced in 1929, is in marked contrast to the export of capital which took place in differing degrees in the period 1923-28, under the influence of a succession of favourable balances of current payments.

Analysis of the individual items of international receipts and payments for 1930 reveal little of significance. Debit balances were shown by freight payments (\$32 millions), interest payments (\$184 millions), immigrants' remittances (\$9 millions) and movements of gold and subsidiary coin (\$14 millions), to name only the more important. Credit balances were indicated by the tourist traffic, Canada's principal invisible export (\$166 millions), insurance services (\$7 millions) and smaller net gains on account of government receipts, reparations, immigrant capital, etc.

More significant, of course, are the alterations in the various items in the statement as compared with the estimates for the previous year. Here the tremendous changes wrought in Canada's international transactions in goods and services by the world depression which began at the end of 1929, and by the difficulties involved in the marketing of wheat, are apparent.

Merchandise exports fell from \$1,200 millions in 1929 to \$900 millions in 1930, using approximate figures. The causes of this decline are too well understood to detain us here; added to the difficulties of marketing the wheat at remunerative prices, Canada was naturally affected by the downward trend, world-wide in its incidence, of the prices of all products, particularly of those primary and agricultural commodities of which our exports are so largely composed. In actual fact, a preliminary investigation would appear to indicate that the decline in the value of exports for 1930, which is general to the whole list of commodities as well as to farm products, is largely a price decline. That is to say, if we eliminate the fluctuations in prices by revaluing the quantities exported in the fiscal year ending 1931 at the export prices prevailing in the previous fiscal year, domestic exports would show a decline of only 13.3% as compared with a decrease based on declared values of 28.6% (or roughly 25% for the calendar year). (1)

(1) See preliminary report on the Trade of Canada, 1930-31, published by this Bureau.



CANADA'S ESTIMATED BALANCE OF INTERNATIONAL PAYMENTS, 1926-1930.  
(\$000's omitted)

	1926		1927		1928		1929		1930	
	Exports Visible and Invisible	Imports Visible and Invisible	Exports Visible and Invisible	Imports Visible and Invisible	Exports Visible and Invisible	Imports Visible and Invisible	Exports Visible and Invisible	Imports Visible and Invisible	Exports Visible and Invisible	Imports Visible and Invisible
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1. <u>Commodity Trade - Recorded</u>										
merchandise exports and imports	1,283,939	1,008,342	1,238,782	1,087,118	1,374,246	1,222,318	1,208,338	1,298,993	905,370	1,008,479
<u>Deductions for settlers' effects</u>	-12,326	-21,774	-11,020	-22,504	-10,926	-21,395	-11,679	-24,614	-10,957	-23,814
and other non-commercial imports	-	24	-	1,860	-	19,230	-	19,420	-	7,470
Unrecorded imports of ships										
Real Total of Commodity Trade	1,271,613	986,592	1,227,762	1,066,474	1,363,320	1,220,153	1,196,659	1,293,799	894,413	992,135
2. Exports and imports of gold coin, bullion and subsidiary coin	80,131	47,126	64,231	31,257	107,614	39,659	50,598	3,746	25,343	39,062
3. Freight payments and receipts n.o.p.	88,714	106,288	189,826	109,140	88,266	115,433	85,541	130,855	68,815	100,908
4. Tourist expenditures	201,167	98,747	238,477	108,750	275,230	107,522	309,379	121,645	279,238	113,292
5. Interest payments and receipts	55,452	223,639	64,885	235,052	80,966	246,916	87,886	258,907	88,220	272,586
6. Immigrant remittances	15,550	20,509	15,433	22,423	14,421	23,195	14,036	23,385	14,000	23,000
7. Government expenditures & receipts	11,948	10,863	11,850	11,751	11,819	11,030	11,750	11,300	11,750	10,379
8. Government receipts, reparations	1,757	-	6,791	-	4,688	-	4,325	-	4,000	-
9. Charitable and missionary contri- butions	814	1,878	873	1,766	1,373	1,800	900	1,800	900	1,800
10. Insurance Transactions	10,835	23,827	19,194	29,486	35,761	28,790	31,990	24,418	29,483	22,138
11. Advertising Transactions	3,143	4,500	4,482	4,800	3,858	5,000	4,000	5,280	4,000	6,000
12. Motion picture royalties	-	3,500	-	3,500	-	3,750	-	3,750	-	3,750
13. Capital of immigrants and emigrants	14,945	14,689	14,545	12,611	14,783	11,178	14,117	11,496	11,083	9,424
14. Earnings of Canadian residents employed in U.S.A.	10,000	-	11,000	-	13,725	-	13,725	-	3,696	-
15. Exports and imports of electrical energy (1)	4,600	89	4,798	87	-	-	-	-	-	-
16. Difference between all exports and imports (2)	-	228,422	-	137,050	-	201,398	65,475	-	159,533	-
Total .....	1,770,669	1,770,669	1,774,147	1,774,147	2,015,824	2,015,824	1,890,381	1,890,381	1,594,474	1,594,474

1) Included in Commodity Trade since 1928.

2) This item represents (a) Canadian capital invested abroad in 1926, 1927, 1928, and foreign capital invested in Canada in 1929 and 1930, and  
(b) errors and omissions.



Perhaps the best illustration of the special difficulties presented to Canada by a slump in world prices is provided by the following table. This shows that Canada, in common with most countries whose exports are made up largely of primary products, received a much greater reduction in the prices of her export commodities than the compensating decline in the prices of goods which are normally imported.

# INDEX NUMBERS OF EXPORT AND IMPORT VALUES (2)

(CANADA'S FOREIGN TRADE)

(Base 1931-100)

		EXPORTS	IMPORTS
Calendar year	1926 .....	147.0	131.7
	1927 .....	144.0	127.0
	1928 .....	137.6	127.3
	1929 .....	136.9	122.9
	1930 .....	117.2	115.1

In other words, the purchasing power of Canada's exports showed a marked decrease in 1930, a fact which helps to explain the persistence of the unfavourable balance of merchandise trade which was first displayed in 1929.

At the same time, the actual merchandise balance in 1930 showed practically no change, since imports registered a similar decline of \$300 millions from the 1929 high of approximately \$1,300 millions to \$1,000 millions. The excess of imports was therefore roughly \$100 millions, as in 1929.

As in the previous year, no compensation for the unfavourable balance of merchandise payments can be looked for amongst the "invisibles"; on the contrary the net receipts from the tourist traffic were reduced by \$22 millions in 1930, and the principal invisible payment, that for interest and dividends on foreign investments in Canada, showed a higher debit balance of \$184 millions which is some \$13 millions more unfavourable than in 1929.

This is to be expected in the nature of such payments which represent, in large measure, the fixed interest charges on bonds and debentures held abroad, in which no important defaults have occurred. Increasing foreign investments in Canada required an increase in service charges. The declining surplus from merchandise exports, out of which a large portion of these payments are ultimately made, created serious problems of international financing for many countries in 1930. It so happens that for Canada, however, no insurmountable difficulties occurred because of the assistance she received, on international account, from foreign loans and investments.

Freight payments in 1930 were less unfavourable than in 1929 by \$13 millions by reason of the considerable reduction in imports from the U.S.A., on which the freight costs constitute the greater part of Canada's total freight payments. Earnings of Canadian residents who cross into the U.S.A. daily for employment there registered a decline of \$10 millions as a result of the inactivity of the American automobile business. Finally the international gold movement showed a net reversal of \$61 millions; more specifically, a net export of \$47 millions in 1929 had become a net import of \$14 millions in 1930.

It is this phenomena of gold imports which probably holds within it the most significant indication of the changing movements in Canada's international transactions in goods and services in 1930. Before proceeding to a discussion of this aspect of the situation it is necessary to examine the statements of international transactions for the earlier years shown in the table. As previous estimates have pointed out, the chief feature of each of these earlier statements is the regularly recurring net credit balance, made possible largely by the surplus of merchandise exports over imports. Thus for the three years 1926-28 the excess of exports over imports were \$285 millions, \$161 millions and \$143 millions respectively.

Correspondingly, the surplus of receipts (visible and invisible) over payments, excluding the movements of short and long term capital, were \$228 millions, \$137 millions and \$201 millions. It was then argued that since as a matter of practice, and assuming normal exchange movements, there cannot be persistent lack of balance in the international transactions of a country, there must have been a net outward movement of capital from Canada. Owing to the necessarily hypothetical character of much of the data which serves as a basis for our calculations and estimates, it could not be asserted that the surpluses shown during these years represented the actual net movement of capital funds out of Canada. Separate calculations made at the time, however, did suggest that undoubtedly

(2) Prices and Price Indexes 1930, D.B.S.



the growing export of Canadian capital, whether in the form of short term investments in New York or by the purchase of foreign securities abroad, exceeded the importation of foreign capital into Canada.

In 1929 the exports of Canada declined drastically by \$167 millions. Imports in that year on the contrary were increased by \$73 millions to a new high level, so that a decided shift in the balance of payments took place. Or, taking into account the invisible items as well, a surplus (of all exports) equal to \$201 millions in 1929 became a deficit of \$65 millions in 1930, involving a real change in the balance of \$266 millions. This turnover, considered in the light of the total of Canada's international transactions (approximately \$3,800 millions in 1929) suggests a transfer problem of some magnitude. How was it possible for Canada to continue to pay for her merchandise imports and the relatively fixed sums due on the invisible services, at a time when the chief supply of foreign funds, constituted by the merchandise exports, had diminished so greatly?

That the difficulty existed is evident if we examine the state of foreign exchanges. Generally speaking, the foreign exchanges were at a premium during 1929 and the early part of 1930, the price of New York funds being for a considerable period beyond the gold export point. Despite the correspondingly increased cost of foreign purchases caused by the higher price of foreign exchange, imports, as explained, did not show any decrease until 1930, when the reduction matched that of the exports. Similarly, it is quite clear from the statistics shown in the Summary Balance of Payments that the trade deficit of 1929 was not counterbalanced by an export of gold; on the contrary, the net outward movement of the metal in 1929 was only \$47 millions, a reduction of \$20 millions on the net outward flow for 1928. Parenthetically it is interesting to observe that during this period of restricted bullion gold exports the stimulus provided by the premium on gold (expressed in terms of the foreign exchanges) was sufficient to divert the Canadian output of quartz gold to foreign purchasers in the United States instead of the Canadian Mint, to which most of it nominally goes. The increase in exports of quartz gold in 1929 was one of more than \$20 millions above the normal export of \$8-\$10 millions.<sup>(1)</sup>

No such tendency manifested itself in the case of bullion gold and gold coin, the stocks of which displayed an apparent passivity throughout the period. The only other source of foreign funds available to offset the deficit in the balance of payments for 1929 is, of course, that of foreign capital imports. There is only a limited amount of statistical information as to capital movements, but were all the details known (and some of the movements are incapable of actual measurement) it is believed they would show that the net movement of short and long term capital was inward. It is quite apparent that with the high rates payable for foreign funds in 1929, some diminution must have taken place in what had been, until then, a considerable export of Canadian funds for the purchase of foreign securities on the New York Stock Exchange, a development which came to an end, in any case, with the spectacular fall in such values in October, 1929. It is equally certain that a good deal of the short term deposits held by Canadians in foreign money markets was repatriated during this period, though here again exact information cannot be available.

The short term funds employed abroad by the Chartered Banks, and kept largely in New York, fell steadily from \$188 millions at the beginning of 1929 to \$98 millions at the end of the year, a reduction of \$90 millions in the twelve month period.

Indeed it can be fairly remarked that the Canadian holdings of foreign investments and short term balances have acted as a shock absorber in reducing the effects of the mal-adjustment in Canada's balance of international payments during 1929 and in 1930.

For the rest, the position has been made easier by the continuation of the movement of foreign capital into the country, which, over the whole period, has more than counterbalanced the diminution in the supply of foreign funds which resulted from the deficit in the merchandise and invisible balances of Canada. Thus the table of estimated foreign investments in Canada<sup>(2)</sup> demonstrates an increase of \$233 millions in the total during 1929, which roughly indicates the influx of foreign capital. Against that must be set the corresponding increase in Canada's investments abroad, which rose by \$37 millions during the same period.

The net inflow of slightly less than \$200 millions of long term capital, added to the return of \$90 millions of short term foreign balances of the Banks may be said to have offset the turnover in the balance of the non-capital items (visible and invisible) which amounted, in 1929, as stated, to \$265 millions.

(1) See Introduction.

(2) See table under Section 5 - Foreign Investments in Canada.



Turning to 1930 it is clear from a preliminary examination of the data relating to capital movements that while the circumstances were somewhat different, the importation of foreign capital again assumed considerable importance and assisted in the maintenance of equilibrium in the balance of international payments.

There is no evidence in the monthly statements of the Chartered Banks of any reduction in the short term foreign assets; indeed these are already probably near their necessary minimum, having regard to the normal operations of the Banks.

It has not been possible to calculate the net increase in foreign investments in Canada during 1930, but from the table below, which shows only one phase of the capital investment, it appears that the interest in Canadian investments shows little abatement.

TOTAL PUBLICLY OFFERED CANADIAN SECURITIES PURCHASED<sup>(1)</sup>

(Net nominal capital, less refunding)

(000,000's omitted)

	<u>In U.S.A.</u>	<u>In Great Britain</u>
	\$	\$
1926 .....	296.59	29.16
1927 .....	316.80	34.02
1928 .....	237.36	99.63
1929 .....	289.69	74.12
1930 .....	281.29	17.01

Some light is thrown on the approach to equilibrium in the balance of payments in 1930, by the change in the direction of the monetary gold movements, or by the state of foreign exchanges, both of which reflect the influx of foreign funds. In the early part of 1930 the Canadian dollar was quoted at a slight discount in New York, a condition lasting, however, only until May, when it returned to par. From then onward the demand for Canadian dollars in New York was sufficient to maintain the exchange at a premium of approximately one per cent, until early in December. Coincidental with these fluctuations in the exchange, the gold movement to and from Canada was sluggish in the first six months of the year, but showed a considerable inward movement in the September and December quarters, nearly \$15 millions of gold coin and bars being imported in August alone, and a slightly larger amount was imported in the course of the next three months.

In December, New York balances again went to a premium and the net export of gold was approximately \$13 millions in that month. Considering the year as a whole the imports of gold coin and bullion and other coin exceeded the exports by \$13.7 millions, a condition which has not existed since 1925.

In other words, the evidence of the fluctuations in the exchange and in the gold movements throughout the year would seem to indicate that once the spring seasonal imports were financed there was no evidence of any maladjustment in Canada's balance of international transactions. On the contrary, the demand for Canadian funds strengthened the position of the dollar and necessitated the remittance of gold to Canada from the United States in the financial markets of which country these influences are mainly felt.

The fact that this occurred during a period when the balance of current payments (excluding only capital items) was increasingly unfavourable, warrants the conclusion that the influx of foreign capital must have been both persistent and of considerable dimensions.

It is impossible to attempt to correlate the fluctuations in the gold and foreign exchange movements with the influx of foreign capital. The monthly data of capital fluctuations, etc., is not available. The tendency, however, is self-evident and by no means unfamiliar in Canadian economic development.

The response of the gold flows to the relatively slight changes in the foreign exchanges in 1930 presents, of course, a problem rather more complex than the discussion above would appear to recognize. Not all of the inflow was automatic and explainable in terms of the favourable balance of payments (if capital items be included therein) and the strength of the Canadian dollar on foreign money markets. It is equally possible that purchases of gold were made abroad by the Chartered Banks, at little or no profit, for the purpose of strengthening their reserves.

(1) Totals for both countries include a small amount of Newfoundland securities



Even this operation, however, which involves a depletion of the foreign balances of Canadian banks, would only become possible at a period when the foreign balances were ample--when, in short, the balance of transfers on international account was sufficiently favourable to Canada to sustain these foreign purchases without depressing the external value of the currency.

Finally, another explanation of the events of 1930 suggests itself. The considerable degree of interest in foreign investments displayed by Canadian investors in the last five or six years has already been indicated. The favourable state of the balance of payments throughout that period and the easy money market rates prevailing would both operate to stimulate an outward movement of capital for the purchase of foreign securities. For example, the estimated Canadian investments abroad, which stood at \$1,139 millions at the beginning of 1926, had increased to \$1,739 millions by January, 1929, a net increase of \$600 millions in the course of three years. It is quite evident from the fragmentary data which is available that this outward movement of capital showed a great slackening in 1929, the increase in foreign investments being less than \$40 millions in that year. It is possible (although the estimates to support this conclusion have not yet been made) that some liquidation of Canadian capital invested abroad took place in 1930. Such an eventuality would tend still further to facilitate the restoration of that equilibrium in the balance of international payments which the declining merchandise exports might otherwise have threatened.

#### DEDUCTIONS FROM COMMODITY TRADE STATISTICS

##### SETTLERS EFFECTS, ARTICLES AND ANIMALS FOR EXHIBITION PURPOSES AND OTHER NON-COMMERCIAL IMPORTS AND EXPORTS

It will be observed in the Summary Estimated Balance of Payments that deductions have been made from the totals of the recorded merchandise exports and imports. The explanation of these deductions, the effect of which is to reduce the value of the total trade of Canada by roughly thirty to thirty-five million dollars, is as follows:-

The Canadian import statistics are stated to include all goods "entered for consumption", i.e., goods that have passed through the customs into the possession of the importer, whether on payment of duty or free of duty. Rightly so, for our purpose, the returns do not include transit trade, nor goods when they first go into bonded warehouses. They do include, however, certain imports which are not purchased by Canadian nationals, but are in the nature of gifts and donations, and similar non-commercial items for which no international transfer of funds is necessary. Such items must accordingly be deducted from the recorded value of merchandise imports and exports. The list includes, inter alia:- the value of settlers effects, articles to be ex-warehoused for ships' stores, advertising material presumed to be received gratis, cinematograph films for which payment is ultimately made on a royalty basis and accounted for separately in the balance of payments, donations of articles from abroad, etc. The separate values of each are abstracted from the trade returns, and the totals deducted from the recorded values of merchandise imports and exports. In addition, adjustments have to be made for articles and animals imported and exported for exhibition purposes, an item hitherto overlooked in our computation of the real balance of merchandise trade.

These latter commodities are imported free of duty, if used for exhibition purposes, on the understanding that they will be exported or otherwise dealt with within three months, and are accordingly recorded as imports ex-warehouses for exhibition purposes. If these articles or animals are subsequently sold in Canada, a return must be made, and duty paid, and the commodities are again recorded as imported ex-warehouse for consumption purposes under the appropriate classification. To avoid this obvious duplication we deduct the first value from imports and (in the case of exhibition animals) from Canadian exports.

The effect of these reductions in the totals of merchandise trade in 1930 is to reduce the imports by nearly \$24,000,000, and the exports by approximately \$11,000,000. On the other hand, an addition must be made to the recorded import statistics to account for the importation by Canadian Companies of ships, discussed in the following section:-

Incidentally, it may be noted here that, beginning with the calendar year 1928, the values of the trade of Canada in electrical energy are included in the summary of merchandise imports and exports. The separate recording of this item in the balance of payments (item 15) ceases, therefore, in that year.



• Unrecorded Imports of Ships.

The fact has already been mentioned that the Customs' statistics of imports and exports, do not provide a complete account of Canada's purchases and sales abroad of commodities. The case of imported ships provides another important illustration of this, and in the absence of detailed statistics, estimates must be made as to the value of this trade. The only vessels, the purchases of which are recorded in the Canadian Trade Returns, appear to be those imported for use in the coasting trade from countries other than the United Kingdom, the customs classifications of which are as follows:-

- (1) "Ships built in any foreign country, if British registered since September 1, 1902, on application for license to engage in the Canadian coasting trade!"

and

- (2) "Vessels, dredges, scows, yachts, boats and other water borne craft, built outside of Canada for use in Canadian waters (not including vessels engaged in the coasting trade, nor vessels in transit between Canada and any place outside thereof)."

Imports of small pleasure and sports boats, skiffs, canoes, launches, etc.-- are all recorded--but the totals under (1) and (2) above are so small (\$263,000 in 1930, \$504,000 in 1929) that it is perfectly clear that in this period, which saw, for example, the purchase by the C.P.R. of several Empress or Duchess liners, the purchases of new vessels from Great Britain are not included.

It would seem from the customs classification above that all vessels for use in the foreign trade, whether produced in Great Britain or elsewhere, are excluded from the import statistics, and even vessels for coastwise service, if constructed in Great Britain, are similarly excluded. Foreign built ships, if entering Canada for use in the coastal or lake trade must pay duty and transfer to a Canadian port of registry, and it is fairly clear that the recorded imports of ships, which show a negligible amount from Great Britain and the balance of \$250,000 from the United States in 1930, are of this category, - foreign built and for use in coastwise or lake trade

The great majority of shipping purchases by Canadian companies, i.e., those of British and foreign construction for use in international trade, and those British manufactured ships intended for coastal trade, are not shown in the import returns.

The theoretical explanation of this exclusion may be that it is a distortion of the facts to consider these ships as Canadian imports when they are not physically imported into Canada and earn all their revenue 'outside' Canada<sup>in</sup> international trade. This explanation, of course, cannot apply to British built ships imported for use in the coastal traffic. It is clear, however, that from the point of view of Canada's balance of international transactions, such purchases involve a transfer abroad of Canadian funds. Since we estimate the earnings of Canadian vessels as a 'receipt' we must equally charge the foreign cost of these vessels as a 'payment'.

Similarly old ships purchased or sold abroad are not recorded in the trade returns and the values (which appear to have been very small in recent years) must also be estimated.

In the past, this Bureau has circularised Canadian Shipping Companies for their purchases of foreign ships, new and old. What information we have (by no means complete for all years 1926-30) suggests that the use of the statistics given in the British Trade Returns relating to ships and boats exported to Canada, new, complete<sup>in</sup> would be the most satisfactory, since practically all new vessels purchased by the large Canadian lines are built under contract in that country. The British figure for 1929 (converted into dollars) of \$19,228,700 compares favourably with that obtained from the shipping companies, and we accordingly use that figure as a measure of the invisible import of ships revising in the same manner the estimates published for previous years.

The British statistics for 1930 are not yet available, but from information received from the Canadian companies, we judge that their purchases of ships show a considerable decline on the 1929 figures, and estimate the payments to be \$7,470,000 for that year.



## IMPORTS AND EXPORTS OF GOLD COIN AND BULLION AND SUBSIDIARY COIN.

Gold, of course, is one of Canada's important metal products, and as such figures prominently amongst the export values under the classification "gold bearing quartz, nuggets and bullion obtained direct from mining operations". In addition to this, however, there is a considerable international traffic, affecting Canada, in gold in the form of bullion, bars, and coin, which is not shown in the merchandise trade returns. This gold movement arises from the fact that in a country, such as Canada, where the monetary standard is based upon gold, gold has an additional function, - that of the money metal, of a medium of exchange. In other words, movements of monetary gold are dictated by considerations arising from the exigencies of the financial mechanism, by the state of the Chartered Banks' or Dominion Notes' Reserves, by the foreign exchanges, or, more comprehensively, by changes in Canada's balance of international payments.

The operation of the gold standard postulates the unimpeded movement of monetary gold internationally. Because of the light which the details of such gold movements throw upon certain phenomena referred to above, it is expedient, therefore, to keep separate record of imports and exports of monetary gold. The earlier discussion on the equilibrium of the balance of payments in 1930 illustrates the importance of this knowledge.

The figures recorded in the Summary Balance of Payments (item 2) are taken from the Customs' reports and adjusted slightly for unrecorded gold imports and exports, and represent the international movement of monetary gold coin and bullion and subsidiary coin.

Of course, the distinction between exports of monetary and commodity gold in the Trade Returns is somewhat artificial, since both fulfil ultimately the same purpose, that of paying for our imports of goods and services. There can be no valid reason for differentiating between gold bullion obtained direct from mining operations and sold abroad to, say, the U.S. Assay Office at New York, and gold produced in Canada, minted at Ottawa, and then withdrawn by banking institutions, for example, and exported to New York. The export returns for the period 1929-30 provide a significant illustration of this thesis. The monthly returns for late 1929 and the spring of 1930 show a relative immobility of monetary gold movements outwards, but exports of quartz gold increased from an average of \$8-10 millions in previous years to almost \$30 millions in 1929 and the Ottawa Mint was for a time relatively idle.

There is, in general, however, a greater degree of rigidity in direct gold exports, and a greater sensitiveness in monetary gold movements to alterations in the balance of payments. For that reason, it is the movements of the latter type which are most illuminating for the purpose of analysis, and separate records are therefore kept.

### FREIGHT PAYMENTS AND RECEIPTS

Many countries value their imports and exports on a C.I.F. basis, i.e., the value of the goods at the point of entry into (or export from) the country, which value will include the cost of freight and insurance, etc., to the national boundary. In these cases the problem of estimating the freight payments and receipts made to (or received) from foreign countries does not arise in quite the same form as with Canada since such expenses are included in the recorded valuations of foreign trade. Canada, however, values its imports at their fair market value in the country whence exported at the point of original shipment to Canada. The freight charges paid on imports from this point of original shipment to a Canadian port or boundary point are not included in the Customs Import Valuations, and must be estimated for inclusion as one of the 'invisible' items in the balance of international transactions. Similarly in the case of exports, Canada does not value these f.o.b. boundary (or port) but at the point of original shipment, so that freight from this point of origin by rail to the boundary (or port) must also be estimated.

It is obvious that the results of these calculations of freight payments have a value quite apart from the use to which they are put in the balance of international payments.

1. They provide a more accurate picture of the real values of exports and imports, which the present recorded values do not give. Thus, Canadian imports are higher by the amount of freight paid thereon to United States railroads and to British and foreign vessels which carry the goods to our ports and boundaries. These expenses are



included in the real purchasing price. For the same reason, Canadian exports are higher by the amount of freight earned by Canadian railroads and lake steamers, etc., which carry the goods from the point of origin to the boundary or ports, and by the revenues earned by Canadian vessels carrying exports across the ocean.

Actually, the addition of the estimated freight costs to the recorded values indicates that Canada's imports are undervalued to a greater extent than her exports.

2. The estimates of freight received and paid may be applied to individual commodities with very illuminating results. For example, the recorded value of some 17 million tons of coal imported from the U.S.A. in 1930 was approximately 47 million dollars. This figure represents the price at the mine or point of original shipment. If we add to this the cost of freight to the Canadian boundary, an expense ultimately paid by the Canadian importer, the value of coal imported is increased to 74 million dollars.
3. Finally, the estimates of 'invisible' freight imports and exports can be used to convert Canadian trade figures to a c.i.f. basis, for more accurate comparison with the trade returns of other countries. If this were done, the total trade of Canada would be represented as somewhat greater than the present figures show. Without this adjustment there frequently appear discrepancies between the trade statistics of different countries relating to the same inter-area trade, i.e., between Canada and other countries.

#### DESCRIPTION OF METHOD OF CALCULATION OF FREIGHT PAYMENTS AND RECEIPTS

During the last few years the Bureau has made a careful study of the problems inherent in the computation of freight payments and receipts and some improvements or alterations in the methods previously used have been made; revised estimates made back to 1926 are presented in the present bulletin.

Quite briefly, the freight payments made by Canada to foreigners arise from the import trade, and can be placed under three headings.

##### I. Freight Payments made by Canada.

(a) Freight earned by U.S. railroads carrying export goods to the Canadian boundary. This item is easily the most important of the 'invisible' freight calculations, by reason of the large percentage of Canada's imports which originate in the U.S.

(b) Freight earned by British and foreign vessels carrying Canadian imports from overseas.

(c) Ocean freight paid on imports coming into Canada via the U.S.A. Railroad freight expenses in the U.S. on these imports<sup>are</sup>, of course, already included under (a).

These three constitute the "payments" or debit items.

##### II. Freight Receipts by Canada are as follows:

(a) Freight earned by Canadian railroads, etc., carrying exports to the ports or boundary.

(b) Freight earned by Canadian vessels carrying exports overseas.

(c) Freight earned by Canadian railroads on the transit traffic, i.e., that which is received from and delivered to foreign connections. For example, the Canadian National Railway moves several million tons of American commodities in bond from the St. Clair River points through Ontario to Buffalo or Montreal. The earnings on this traffic constitute an invisible freight receipt (export) and while not analogous with the other categories listed above, it is convenient to include it under this section of the balance of payments. The methods of estimating the magnitude of freight payments follows:-



I. (a) Freight paid to U.S. railroads on imports from U.S.A.

The Annual Summary of Monthly Traffic Reports, issued by the Bureau of Statistics, lists the 'tonnage of revenue freight received from foreign connections destined to Canadian points' (16,757,912 tons in 1930). This total, however, refers only to revenue freight, and will not include the considerable quantity of coal and some less important commodities which the Canadian railroads import for their own use from the U.S.A.

In addition, it appears that some of the coal imported into Canada is purchased from American exporters at or near the border, at a price which necessarily includes freight to that point. The recorded Canadian import value will therefore include the freight expense. For these reasons, a separate calculation is made in respect of the freight paid on coal imports, not already included in the import price.

The assumption is now made that the tonnage of non-coal revenue freight received from foreign connections represents the total imports via land from the U.S.A.

This is not strictly true. Some overseas imports at the Atlantic and St. Lawrence ports, etc., are included herein, but the proportion is sufficiently small to be neglected (say 5%). The next step is to compute a weighted average freight rate to be applied to the tonnage of non-coal imports from U.S.A., in order to arrive at the freight costs. This method of estimate is more likely to yield satisfactory results than the more normal procedure of taking an estimated percentage of the value of imports as the probable cost of freight, because of the fact that fluctuations in railway rates are less frequent than alterations of prices.

To compute an average freight rate, therefore, a calculation has been made from figures relating to freight earned by all U.S. railroads on different commodities, published by the Inter-State Commerce Commission, relating to 1929. Thus, by dividing the "tonnage of revenue freight originated" into the freight revenue--for each of the more important commodities entering into the Canadian import trade--we arrive at a freight earned per ton for the "average haul". The rates so obtained apply to 80% of the non-coal freight actually imported into Canada from U.S. by rail in 1929. The weighted average was \$5.48 per ton, and may be applied to the total tonnage imported if we assume that the "average haul" for each commodity on the U.S. railroads corresponds to the average haul for that commodity to the Canadian boundary--which cannot be far wrong.

This average rate must be adjusted downwards to make allowance for several corrections.

- (1) Import tonnage from U.S.A. as recorded above is too high by reason of the inclusion of some ocean imports already referred to.
- (2) Some Canadian imports from U.S. are bought from wholesalers at Lake ports or boundary points at a price which includes freight.

In order to make allowance for these facts, the average rate per ton is arbitrarily reduced to \$5 and may be adjusted in future years in line with general alterations in freight rates. Freight paid on 7,980,087 tons of non-coal imports in 1930 is therefore estimated at \$39,900,000.

Freight paid on coal imported from U.S.A.

It is impossible to apply the same method to the calculation of coal freight because:-

- (1) The railways import coal for their own use, the figures for which are not recorded in the same return.
- (2) Some imports of coal may be recorded at a price which includes freight, as when purchased through a wholesaler at, say, Cleveland or Buffalo. It would, therefore, be inaccurate to consider all U.S. coal imported as coming direct from the mines, and valued



on that basis in the Canadian import returns. An alternative method of estimating the freight (not already included in the import price) so paid is to consider it as represented by the difference between: (a) The U.S. value of coal exported to Canada, which is the value at the boundary or ports and therefore includes freight, and (b) the Canadian recorded value of coal imported from the U.S., which is the value at the mine, or at the point of original shipment in the United States, which may of course, be a boundary point or Lake port.

This method of estimate takes advantage of the differences in the method of valuation adopted by the two countries, and avoids the statistical difficulty mentioned above. Using the methods described, the estimate for freight paid to U.S. railways is derived as follows:-

COAL (in thousands of \$)					
	1926	1927	1928	1929	1930
<u>Anthracite</u>					
Exported from U.S.A. (U.S. values)	40,273	32,130	32,277	32,569	24,075
Imported from U.S.A. (Canadian values)	29,989	24,130	23,299	22,899	21,164
Difference-being freight paid	10,284	8,000	8,978	9,670	2,911
<u>Bituminous</u>					
Exported from U.S.A. (U.S. values)	52,202	55,620	50,128	54,217	49,982
Imported from U.S.A. (Canadian values)	25,443	29,004	24,885	25,882	25,363
Difference-being freight paid	26,759	26,616	25,243	28,335	24,619
Total freight paid Anthracite & Bituminous	37,043	34,616	34,221	38,005	27,530

NON-COAL FREIGHT (in thousands of tons)					
	1926	1927	1928	1929	1930
Total-'Revenue freight received from foreign connections destined for Canadian points'.	18,466	17,229	18,365	20,465	16,758
Total Coal	10,885	9,382	8,955	9,916	8,778
Total of non-coal	7,581	7,847	9,410	10,549	7,980
(Thousands of \$)					
Freight paid on non-coal imports from U.S. at \$5 per ton.	37,907	39,234	47,050	52,747	39,900
Estimate Freight paid to U.S. railroads, coal and non-coal imports	74,950	73,850	81,271	90,752	67,430

I (b) Ocean freight paid to British and foreign vessels carrying imports to Canada.

Imports into Canada from overseas are similarly valued in the Canadian customs returns as at the point of origin abroad. If carried in British or foreign vessels, the freight so earned (net, after deduction for expenses in Canadian ports) constitutes an invisible import.



Method of Estimate.

The Annual Shipping Report (compiled by the Department of Customs) lists the tonnage of freight, entered and cleared, in British, foreign and Canadian vessels for the fiscal year. Hitherto, in making the estimate of freight costs, the method was to take the total of British and foreign carried tonnage (imports) which was then multiplied by an average ocean freight rate (based upon \$7.50 per ton for 1928 and adjusted for other years in accordance with the Economist Index Number of ocean freight rates). A deduction of 33 1/3% from these estimated gross earnings was made in order to allow for that portion of the earnings of British and foreign vessels expended in Canadian ports. This percentage was arrived at as a result of a detailed study, made for the year 1925. Statistics of the principal ports were examined, the actual harbour and pilotage dues paid in each port being estimated for all non-Canadian shipping. Loading and unloading expense was taken at twenty-five cents a ton cargo; brokerage and commissions at five cents a ton net register; supplies purchased at ten cents a ton net register; and expenditure by crews at one dollar a head. The final result proved to be 35% of the estimated freight earnings for Canadian cargo of British and foreign ships in 1925.

One-third of the gross earnings of British and foreign vessels carrying Canadian imports and of Canadian ships carrying exports is therefore deducted from gross earnings in our calculation of freight payments and receipts.

Certain revisions have had to be made in the estimates of the gross earnings of foreign vessels, although the basic method has been retained. (1) The explanation of these changes is as follows:-

- (1) The figures given in the Shipping Reports relating to the tonnage carried in Canadian and British vessels (the primary data) are ambiguous for our purpose. The nationality of a vessel is apparently determined by its port of registry. Certain Canadian-owned vessels are registered in Great Britain or elsewhere, and are, therefore, recorded as British ships. The most important example of this is the C.P.R. Line, most of whose vessels are in this sense 'British'!

The tonnage of freight carried by these and any other Canadian-owned vessels must be (1) deducted from the totals described as "entered in British and foreign vessels", thereby reducing the debit item and (2) added to the tonnage of exports carried in Canadian vessels, constituting an additional "credit" item in the balance of payments. Extensive confidential enquiries were made in 1930 amongst Canadian shipping companies, the C.P.R., Imperial Oil, McColl Frontenac, etc., in order to discover the port of registration of their vessels in order to determine the 'nationality' and to find out the volume of freight carried annually in these same vessels, both of imports and of exports.

As a result of this investigation the figures of inward freight tonnage carried in British and foreign vessels must be reduced by 10% to offset the inclusion of Canadian-owned vessels in the statistics. Similarly the total tonnage of exports reported as carried by Canadian vessels will be increased by 40% to allow for other Canadian vessels recorded as British.

These alterations reduce the net debit on account of shipping freight in the balance of payments by five to seven millions of dollars.

- (2) A further refinement of method which has been adopted is to discriminate between inward and outward freight rates. By taking the figures of operations submitted by the various companies doing Canadian business--figures showing the tonnage carried and the freight revenues received, two weighted average ocean freight rates were struck for 1928, viz., import rate \$9.65 per ton; export rate \$7.07 per ton.

- (1) A normal method of estimate is to determine the percentage which the freight expense bears to the value of goods carried by vessels of a number of sampled firms in any one year. This method is unsuited to Canadian purposes, since "values" imported in British, Canadian and foreign vessels are not recorded. In any case the use of this method is very dubious in view of the difficulty of making adjustments in the basic percentage to provide for: (1) changes in the value of imported and exported goods--the basic % alters inversely. (2) alterations in ocean freight rates--the basic % varies directly. The method described above is therefore adopted, with slight modifications.



The ocean freight rates for preceding years (and for 1930), adjusted in accordance with the Economist index number of freight rates are, therefore, estimated as follows:-

<u>Year</u>	<u>Index No.</u>	<u>Import</u>	<u>Export</u>
1926	109.7	\$ 10.71	\$ 7.85
1927	109.7	10.70	7.85
1928	98.8	9.65	7.07
1929	96.8	9.45	6.93
1930	94.8	9.25	6.78

The difference between the import and export rates is explained by the different nature of the traffic. Exports are bulky and cheaper to carry, imports are more compact and expensive. The distinction is especially important in the balance of payments by reason of the fact that the proportion of tonnage carried in Canadian vessels appears to be greater in respect of exports, where the freight rates are lower. The import traffic is more largely carried by British and foreign vessels at, of course, what are more expensive rates.

- (3) The Shipping Reports compile statistics of tonnage for fiscal years ending in March, while the Balance of Payments is concerned with calendar years. The error involved in the application of the (for example) 1929 freight rates to the tonnage ascribed to the year ending March, 1930, is sufficiently small as to be negligible: this factor is therefore ignored.

Applying the computed freight rates to the tonnage imported in British and foreign vessels, and making the usual deductions for port expenses, and for freight imported in Canadian vessels (recorded as British), freight payments by Canada are estimated as follows:-

(Thousands of \$)				
<u>1926</u>	<u>1927</u>	<u>1928</u>	<u>1929</u>	<u>1930</u>
28,739	33,116	32,167	38,213	32,000 <sup>x</sup>

- II (b) Freight Receipts earned by Canadian Vessels are similarly estimated--the basic figure of export tonnage carried in Canadian vessels being increased by 40% to take account of those Canadian vessels which would be recorded as "British". The estimates are as follows:-

(Thousands of \$)				
<u>1926</u>	<u>1927</u>	<u>1928</u>	<u>1929</u>	<u>1930</u>
15,580	12,634	12,096	9,311	7,000 (est.)

- I (c) Ocean Freight payments made by Canada on imports via U.S.A.

Canadian trade returns show that between ten and fifteen million dollars worth of imports from overseas enter Canada via the United States. The freight paid on this relatively small volume of imports constitutes an invisible import. The railway freight paid for transit across U.S.A. is included in the calculation under Section IA. An estimate must now be made of the ocean freight paid from point of origin to the U.S. port, the assumption being that these imports are carried in non-Canadian vessels.

The method used was to estimate the tonnage of this trade, this figure being multiplied by the inward ocean freight rate for the particular year. To estimate the tonnage from the recorded statistics of the value of goods imported into Canada via U.S.A., it has been necessary to make some rough calculation of the average value per ton of all ocean imports into Canada. The result varies from \$55 to \$62 for 1926-29. The application of these values to imports via U.S.A. gives the tonnage required, and this figure is multiplied by the freight rate to arrive at the total freight cost on these imports.

<sup>x</sup> This is a rough estimate. Shipping figures for 1930 not yet published: the 1929 estimate is therefore roughly adjusted on the basis that imports from overseas fell from \$405 millions to \$355 millions, and the freight rate from \$9.45 per ton to \$9.25. Overseas exports fell from \$663 millions to \$493 millions, and the rate from \$6.93 per ton to \$6.78.



Several objections may be made to this method: firstly, the statistics of imports via U.S.A. are on a fiscal year basis; and secondly, the assumption that imports via U.S.A. are of a similar nature (in respect to bulk and value and therefore, by inference, to freight rates) to those entering Canada direct, may be invalid. In point of fact the goods coming via U.S.A. are largely raw materials from South and Central America and the Far East, and are probably worth less per ton than the manufactured goods coming direct to Canada from Europe, etc.

The total amounts involved are so relatively small, however, that no adjustments have been made and it is believed that to estimate this freight payment as being equal to 15% of the value of imports via the U.S.A. will be sufficiently accurate for future calculations.

Freight paid on Imports via U.S.A.-

(Thousands of \$)

<u>Fiscal year ending</u> <u>March</u>	<u>Imports from Overseas</u> <u>via U.S.A.</u>	<u>Ocean Freight</u> <u>Paid</u>
1927	\$ 12,761	\$ 2,174
1928	12,118	1,995
1929	11,043	1,890
1930	9,850	1,478
1931	8,000 (est.)	1,200

II. Freight Receipts - Rail

Canadian exports are valued in the Trade Returns as at the point of original shipment in Canada. It is necessary, therefore, to calculate the freight earned by Canadian railways and vessels in transporting commodities to the boundary or ports of exit. There are, however, one or two exceptions to the general rule that exports are valued as at the point of origin. Some Canadian export commodities are sold f.o.b. destination and the customs valuation therefore includes freight to the point of destination. This is the practice, for example, in the flour and grain products trade, where the export value includes freight to the ports and sometimes to the foreign destination. In this latter case some allowance should be made for freight credited to Canada in the export valuations but actually earned by British and foreign vessels who carry part of the flour exports.

Caution must also be exercised in applying the term "point of original shipment". For example, grain shipped from Port Arthur and Fort William via Buffalo has Port Arthur or Fort William as the point of original shipment; but in the case of grain shipped from these ports to Montreal and afterwards exported, Montreal becomes the point of original shipment for customs purposes, the freight from head-of-lakes to Montreal being included in the values shown in the invoices from which trade returns are compiled. In the first case, grain carried from Port Arthur in Canadian ships to Buffalo earns inland freight which is not included in customs figures, and in the second case the inland freight to Montreal is already included in the customs valuation of exports. Freight receipts for grains and flour and other milled products must, therefore, be treated separately from the main calculation.

With the above principles for guidance the following methods were adopted to estimate receipts not already included in customs valuations.

(a) Freight earned by Canadian railroads, carrying Canadian exports  
(exclusive of grain, flour and milled products)

The Summary of Monthly Traffic Reports compiled by the Bureau shows (a) the volume of railway freight delivered to foreign connections (ports of exit or boundary points) and (b) railway freight received from foreign connections destined for foreign points (this is the in-transit traffic, which also brings revenue into Canada, the estimate of which must again be a matter of separate calculation for the reasons explained below).

The actual Canadian export traffic handled by rail is shown by the difference between (a) and (b), and amounted to 18,155,091 tons in 1929 and 14,969,443 tons in 1930. (See table on page 15).

The figures for wheat and grains, flour and other milled products must be abstracted from these figures, being the subject of a special calculation below.



For the remaining tonnage of Canadian exports it is assumed that the freight paid thereon from the point of original shipment to the port or boundary is not included in the respective export valuation. Extensive inquiries amongst exporters of wood, wood-pulp, newsprint, logs, timber, paper, etc. (which general classification provided a large proportion of the total tonnage of direct export of Canadian goods) demonstrated conclusively that the invariable custom is to value the exports for customs purposes as at the point of original shipment which, in most cases, was the same thing as the f.o.b. mill value. The initial assumption then, seems fairly valid and is in accordance with the instructions issued by the Customs authorities.

The next step is to apply a flat rate per ton of freight to the figures of tonnage exported for each of the important commodity classes (excluding grains, flour, etc.). The Transportation Branch of the Bureau has selected for each of these commodities an export rate, being the through freight rate on the typical export haul for that commodity. The results obtained by this method are likely to be as accurate as is possible. Flat rates per ton do not vary greatly for slightly longer or shorter hauls, and export rates are generally lower than interprovincial rates, a factor which tends to invalidate the use of the ton-mile rates formerly adopted in this computation. Flat rates per ton are therefore selected, and the calculation has been still further shortened and simplified by combining these export rates into a weighted average export freight rate which has been applied to the total tonnage of goods exported (excluding, of course, grains and flour). This average worked out to approximately \$4 per ton for 1928-29; in view of the slight changes in railway rates during the period, this figure is adopted for all five years.

#### FREIGHT RECEIPTS - RAIL

	1926	1927	1928	1929	1930
Total delivered to Foreign connections - tons	30,399,334	35,410,684	40,168,070	35,160,291	28,073,015
Received from foreign con- nections destined to foreign points (in transit traffic) - tons	15,201,374	16,131,481	16,826,459	17,005,200	13,103,572
Total Canadian Export Trade (A) - tons	15,197,960	19,279,203	23,341,611	18,155,091	14,969,443
<u>Production</u>					
(1) Canadian grains - tons	2,771,254	7,107,479	10,886,099	6,129,933	5,428,934
(2) Canadian flour and other milled products - tons	1,266,505	1,167,830	1,425,576	1,241,758	902,566
Total exports, grain, flour & other milled products (B) - tons	4,037,759	8,275,309	12,311,675	7,371,691	6,331,500
Difference (A) minus (B) = Amount of Canadian exports not specially accounted for - tons	11,160,201	11,003,894	11,029,936	10,783,400	8,637,943
<u>Freight Receipts</u>					
At average flat rate of \$4 per ton on export traffic: receipts =	\$44,640,804	\$44,015,576	\$44,119,744	\$43,133,600	\$34,551,772

#### Freight receipts on exports of grain, flour and other milled products

Canadian shipping and railway companies earn large sums annually for the carriage of export grain but by far the greater proportion of these earnings are included in the recorded value of exports as already explained. It is only necessary, therefore, to take account of the invisible portion so far as the balance of international payments statement is concerned. The following is a list of customs ports of exit showing the geographical location of the point of original shipment for grains for purposes of export valuation in the trade returns:-

<u>Customs Port of Exit</u>	<u>Point of Original Shipment</u>
Montreal	Montreal
Quebec	Quebec
St. John, N.B.	St. John, N.B.



Customs Port of Exit - Con.

Halifax, N.S.  
 Vancouver, B.C.  
 Prince Rupert, B.C.  
 Coaticook, Que. )  
 Sherbrooke, Que.)  
 St. John, Que. )  
 Welland )  
 Niagara Falls )  
 Bridgeburg )  
 Prescott )  
 Cornwall )

Point of Original Shipment - Con.

Halifax, N.S.  
 Vancouver, B.C.  
 Prince Rupert, B.C.  
  
 Mostly Fort William and Port Arthur  
  
 Georgian Bay ports

Working on the basis of the foregoing table, and taking into account the various routes and methods by which the grain traffic is moved, the 'invisible' items in inland freight payments and receipts for grain are calculated as explained in the following brief notes:-

Freight earned by Canadian carriers

1. United States grain in bond from Port Colborne to Montreal. Quantities obtained from Grain Trade Report. Rates from Transportation Branch, D.B.S.
2. United States grain in bond from Georgian Bay ports by rail to Montreal, American Seaboard, Canadian Seaboard, etc. Quantities from Grain Trade Report. Rates from Transportation Branch, D.B.S.
3. Canadian grain from Georgian Bay ports by rail to border points. Quantities from Grain Trade Report. Rates from Transportation Branch, D.B.S.
4. Canadian grain carried in Canadian ships from Fort William and Port Arthur to Buffalo. Quantities and rates from Transportation Branch, D.B.S.
5. Canadian grain from Fort William and Port Arthur by rail to Coaticook, etc. Quantities from Grain Trade Report. Rates from Transportation Branch, D.B.S.
6. United States grain in transit. This in-transit grain is included in the general in-transit estimate especially compiled and is neglected here to avoid duplication.

Payments to United States

7. Grain shipped from Fort William and Port Arthur to Canadian ports in U.S. vessels. Grain Trade Report.
8. Transshipments of Canadian grain from Buffalo to Montreal in U.S. vessels. Transportation Branch.

That is to say, the quantities shipped by the various routes for the crop years are abstracted from the Report on the Grain Trade of Canada, and placed on a calendar year basis, and in some cases converted from bushels into units of 100 lbs. to which the rates are applicable. Average Lake freight rates on wheat are obtained from the Grain Trade Reports and applied to the related shipments; rail freight rates are obtained from the Transportation Branch. For the sake of convenience the net "credit" for grain freight is carried forward to the Summary. The estimates for grain work out as follows:

GRAIN FREIGHT RECEIPTS

	1926	1927	1928	1929	1930
1. U.S. Grain from Pt. Colborne to Montreal	\$ 943,594	\$ 2,015,948	\$ 1,908,647	\$ 554,118	\$ 427,813
2. U.S. Grain Georgian Bay Ports by rail	1,701,796	3,601,445	2,728,080	2,148,988	1,244,612
3. Georgian Bay Ports by rail	876,826	543,837	648,384	462,253	436,760
4. Shipments from Port Arthur to Buffalo in Canadian vessels.	980,966	896,122	1,166,948	248,091	274,059
5. Fort William and Port Arthur via Coaticook by rail	1,485,000	661,610	1,084,050	422,965	195,337
	5,988,182	7,718,962	7,536,109	3,836,415	2,578,581



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GRAIN FREIGHT PAYMENTS

	1926	1927	1928	1929	1930
7. Grain shipped from Port Arthur to Canadian Ports in U.S. vessels	\$ 90,000	\$ 120,000	\$ 240,000	\$ 100,000	\$ Nil
8. Transshipments Buffalo to Montreal	1,005,002	2,772,749	3,645,704	1,040,667	1,115,427
	1,095,002	2,892,749	3,885,704	1,140,667	1,115,427

NET GRAIN FREIGHT RECEIPTS BY CANADA

4,893,180 4,826,213 3,650,405 2,695,748 1,463,154

II. (b) Freight earned by Canadian vessels carrying exports to overseas has already been discussed and estimated under Section I (b) above.

II. (c) Freight Receipts from In Transit Traffic.

The Summary of Monthly Traffic Reports compiled by the Bureau of Statistics shows, inter alia, the volume of 'freight received from foreign connections destined for foreign points'. This is the in transit traffic on which Canada can be said to earn 'invisible' receipts which must be included in the balance of international transactions. This movement of goods in transit across Canada is particularly heavy on the lines running across South Western Ontario between Detroit and Buffalo, and on the Canadian section of the line running between Chicago, Montreal and the New England States. The assumption has hitherto been made that the Ontario in transit traffic is carried on purely Canadian lines, earning revenues from U.S. shippers, all of which will accrue to Canada in the balance of payments.

Actually, of course, the largest part of the Ontario traffic (75% approximately) consists of American traffic passing over American owned or leased lines; over the Michigan Central, the Wabash Railroad and the Pere Marquette. This does not mean, however, that Canada should not be credited with some freight receipts from the traffic. The operating expenses of the line are incurred and disbursed in Canada; the receipts come largely from American shippers. This, then, is clearly an "international" transaction.

It is necessary, therefore, to make separate calculations in order to arrive at:

(a) Freight receipts by Canada arising from in-transit traffic on American owned or leased lines in Ontario.

(b) Freight receipts by Canada arising from in-transit traffic on purely Canadian lines in all other provinces, and on the Canadian National line in S. Ontario.

Receipts from in-transit traffic are calculated separately for each province in accordance with the form of the Traffic Report Statistics. The details given below are for 1929 and indicate the nature of the primary data on which the estimates are made.

1. <u>In-Transit Traffic</u> , New Brunswick	475,194 tons
Quebec	2,379,078 "
British Columbia	301,600 "
Other provinces (negligible)	21,081 "
Total .....	3,176,953 "
2. <u>In-Transit Traffic</u> , Ontario	13,828,247 "
	17,005,200 "

The tonnage carried under Section 1 (all provinces except Ontario) was carried very largely on Canadian-owned lines, and is described briefly on the next page.



New Brunswick: Goods received from points on the Maine - New Brunswick frontier and carried back into Maine further south, or possibly exported via St. John. It will also include traffic received from the New Brunswick ports ("foreign points") destined to points in Maine or elsewhere at a through rate. In any case the haul is relatively short, and the freight rate to be adopted is arbitrarily placed at \$1.00 per ton.

Quebec: A movement of traffic from the Chicago region across Quebec in bond, and back into U.S.A. to Portland, Maine, whence exported. The traffic is largely wood pulp and paper and anthracite coal. There is a reverse movement-- imports via Maine and Quebec to the American Middle West. Again, for a relatively short haul across the province the freight rate is arbitrarily placed at \$1.00 per ton.

British Columbia: Goods coming from the Far East via Vancouver transhipped in bond to Chicago and Eastern American points. For example, silk from Japan and China, etc., destined for Central and Eastern American points is shipped in special fast freight trains and pays a high rate, equivalent to passenger tariffs, of approximately \$9.00 per cwt. The actual details of this commodity traffic (not shown separately in Canadian import statistics) can be obtained from the Foreign Commerce and Navigation reports of the U.S.A. by referring to imports at the ports of entry under the three regions, St. Lawrence, Buffalo and Chicago. For 1928 the imports into U.S.A. of this in-transit traffic were:

	<u>St. Lawrence Ports</u>	<u>Buffalo Ports</u>	<u>Chicago Ports</u>
Raw Silk .... Lbs.	10,296,466	6,913,234	192
Silk Waste .. Lbs.	467,573	4,988	-
Total ... Lbs.	10,764,039	6,918,222	192

Total revenues to Canadian railways at \$9.00 per cwt. would then be in the neighbourhood of \$1,600,000. For the whole of this long-distance in-transit traffic an arbitrary estimate of \$10.00 per ton has seemed reasonable.

Ontario: The Traffic Reports show in-transit traffic of 13,828,247 tons for 1929. Of this it appears that the C.N.R. carries approximately 2,500,000 tons. The rest of the traffic was carried by American owned or leased lines, principally by (a) Wabash Railway, (b) Pere Marquette, (c) Canada Southern or Michigan Central. These American lines have running rights and leases on the Canadian National, but since the revenues received from American shippers are almost entirely spent in Canada in the form of operating expenses, we are justified in including these earnings in the general category of Canadian freight receipts from in-transit traffic.

As a basis for our estimate we use therefore, the statistics published in the Traffic Report relating to the total operating expenses of U.S.A. lines in Canada, from which we have abstracted those dealing with the three lines referred to (which together constitutes 90% of the total of such expenses). Details are shown overleaf.

A deduction must be made from this total to allow for freight receipts derived from traffic originating in Canada, which is not in-transit traffic, and, therefore, does not merit inclusion as a receipt chargeable to foreigners.

Analysis of the reports dealing with freight carried by American-leased railways in Canada shows that over the years 1926-28, approximately 70% of the traffic originated in the United States. That proportion, then, of the total operating expenses is appropriated as a freight receipt by Canada.

#### Transit Traffic on the C.N.R.

Statistics in the possession of the Bureau show that the C.N.R. carries itself approximately 2,500,000 tons of in-transit traffic in Ontario. (See table overleaf). This consists of commodities moving in bond from Chicago and the West generally, to Detroit and Sarnia, thence through Ontario to Buffalo, or through to Montreal (1/6 of the traffic) for shipment abroad. These commodities include mainly grains, flour, fruits and vegetables, dressed meats and packing house products, anthracite, ores and timber (see Traffic Report - Ontario Section). The average length of haul is about 300 miles. The average earnings of all Canadian railways or revenue freight in 1929 was 1.09 cents per ton mile, or say approximately \$3.00 per ton for this particular haul. This flat rate is therefore applied to the



tonnage carried. Appended below are the details relating to the in-transit traffic and the estimates of receipts for inclusion in the balance of payments, computed by the methods referred to.

IN-TRANSIT TRAFFIC

(Canadian and U.S.A. Leased Lines in Canada)

	1926	1927	1928	1929	1930
			<u>Tons</u>		
Nova Scotia	471	1,599	1,949	2,204	2,129
New Brunswick	275,738	393,193	383,681	475,194	488,445
Quebec	1,700,762	2,036,957	2,269,459	2,379,078	1,374,737
Ontario	12,894,410	13,391,021	13,876,051	13,828,247	11,038,602
Manitoba	960	1,113	840	401	234
Saskatchewan	14,713	16,566	15,319	18,475	10,289
British Columbia	314,320	291,027	279,160	301,601	189,136
Total tonnage	15,201,374	16,131,481	16,826,459	17,005,200	13,103,572
Portion carried by C.N.R. in Ontario	903,633	2,427,373	2,224,211	2,500,000	2,500,000

TOTAL OPERATING EXPENSES U.S.A. LINES IN CANADA

Canada Southern	\$ 14,340,865	\$13,853,171	\$14,229,387	\$15,248,455	\$12,615,200
Pere Marquette	3,060,500	3,118,938	3,121,628	3,270,152	2,957,892
Wabash (in Canada)	5,203,016	5,459,299	5,728,102	5,812,423	5,093,484
(Other U.S. railways in Canada negligible)					
Total .....	22,604,381	22,431,408	23,079,117	24,331,030	20,666,576

ESTIMATES OF FREIGHT RECEIPTS ON IN-TRANSIT  
TRAFFIC

New Brunswick (at \$1 per ton)	\$ 300,000	\$ 400,000	\$ 400,000	\$ 500,000	\$ 500,000
Quebec (at approx- imately \$1 per ton)	1,700,000	2,000,000	2,300,000	2,400,000	1,400,000
British Columbia (at approximately \$10 per ton.)	3,100,000	3,000,000	2,800,000	3,000,000	1,900,000
Ontario (carried by C.N.R. at approx- imately \$3 per ton)	2,700,000	7,200,000	6,700,000	7,500,000	7,500,000
U.S.A. - leased lines in Canada (at 70% of operating expenses)	15,800,000	15,700,000	16,200,000	17,000,000	14,500,000
Total estimated receipts from in-transit traffic	23,600,000	28,300,000	28,400,000	30,400,000	25,800,000

Addendum - CANADIAN RAILROADS OPERATING IN THE UNITED STATES

The chief lines owned and operated by Canadian railway companies in the United States are:

1. New England.
2. Central Vermont.
3. Grand Trunk Western Lines.
4. Duluth, Winnipeg and Pacific.

Easily the most profitable of these lines is the G.T.W., which covers the most densely populated area of the State of Michigan (Chicago and Grand Haven to Sarnia). Commodities passing from Chicago district into Canada, and lake traffic unloaded at Grand Haven, traverse this route. The receipts on these lines, earned in U.S., may be taken as expended in the United States, so that it is not necessary to estimate the value of this item for inclusion in the invisible freight receipts.



It appears that the net receipts transferred to Canada are very small and are amply covered in our separate statement of interest receipts and payments. This case, of course, is not quite analagous with that of Canadian lines leased by American railways. The Canadian National own the U.S. lines outright and separate statistics are available. American railways in Canada are leased lines, the operating expenses incurred in Canada are paid largely by American shippers, and it is neither correct nor practicable to include these receipts as "interest payments".

SUMMARY TABLE OF INVISIBLE FREIGHT RECEIPTS AND PAYMENTS

1926 - 1930

(Thousands of Dollars)

RECEIPTS

	1926	1927	1928	1929	1930
Inland freight receipts (on non-grain exports)	44,641	44,016	44,120	43,134	34,552
Inland freight receipts from grain exports (net)	4,893	4,826	3,650	2,696	1,463
Inland freight receipts from in-transit traffic	23,600	28,300	28,400	30,400	25,800
Total rail receipts	73,134	77,142	76,170	76,230	61,815
Earned by Canadian Ships on exports	15,580	12,684	12,096	9,311	7,000
Total .....	88,714	89,826	88,266	85,541	68,815
<u>PAYMENTS</u>					
On imports - to U.S. railways	74,950	73,850	81,271	90,752	67,430
On imports - to British and foreign ships	28,739	33,116	32,167	38,213	32,000
On imports - on account of ocean imports via U.S.A.	2,599	2,174	1,995	1,890	1,478
Total .....	106,288	109,140	115,433	130,855	100,908

TOURIST EXPENDITURES

The estimates of the sums transferred internationally on account of the tourist traffic are published annually by the Bureau in a bulletin entitled "The Tourist Trade of Canada". The most recent bulletin, released in June 1931, contains the result of a more elaborate survey carried through in 1930 with the collaboration of the U.S. Department of Commerce, as to the expenditures of American tourists entering Canada by automobile. The effect of this inductive enquiry has been to reduce slightly the estimates of the expenditures of tourists from other countries in Canada, and to increase slightly the estimates of expenditures of Canadian tourists abroad.

As was to be expected, in view of the economic depression with its dual consequence of declining incomes and reduced prices, the gross total of the tourist trade in 1930 showed a decline on the 1929 estimates. Thus, the estimated expenditures of foreign tourists in Canada declined from \$309,379,000 in 1929 to \$279,238,000 in 1930. It is quite possible that in 1930 some American tourists who, in more prosperous times might have gone overseas, were diverted to Canada, attracted by the relative cheapness of an automobile holiday in this country. This factor may explain the comparatively slight decline of less than 10% in Canada's income from the tourist trade. Of course, it must be remembered that until 1930 the volume of foreign visitors (particularly from the U.S.) had been steadily increasing as a knowledge of the advantages of a Canadian holiday become more widespread.

The three groups of Canadian tourist abroad--those leaving via ocean ports, those crossing into the U.S. by automobile and those entering the U.S. by rail or steamer--each showed a reduced expenditure in 1930. The total import of foreign tourist services, in other words, declined from \$121,645,000 in 1929 to \$113,292,000 in 1930.

Although the estimates made in the bulletin referred to have been incorporated without alteration in the Balance of Payments, it must be pointed out that certain assumptions thereby involved require explanation.



(1) The estimates of expenditures of overseas visitors in Canada do not include the amounts paid on ocean transportation to Canada. Where such visitors travel on foreign vessels no international transaction takes place, but in the case of British and foreign visitors travelling by Canadian vessels to and from Canada, an invisible receipt of funds is involved, and an estimate of the magnitude of this would seem to be warranted. On the other hand, it is possible that the estimated average amount spent in Canada itself by overseas tourists is already too high since it is arrived at by comparison with the amounts spent by Canadians abroad (for which the questionnaire method has already yielded satisfactory results)--which sums include steamship expenses. On balance, it is believed that this "credit" estimate is slightly higher than the facts warrant.

(2) The estimate of the expenditures abroad of Canadian overseas tourists takes into account the purchase of steamship tickets. In so far as Canadian Steamship Companies (notably the C.P.R.) carry a good deal of this passenger traffic no international transaction takes place and the "debit" estimate is too high by that amount.

It has seemed reasonable, therefore, to assume that these two defects in the estimates involve exactly counterbalancing errors, and since they concern only the ocean tourist traffic, we do not expect them to make any appreciable difference in the net tourist estimates, in which the Canada-U.S.A. boundary movement is predominant. For this latter traffic it is believed that the estimates are reasonably accurate, and we therefore carry the estimates already published into the balance of payments without adjustment. Those interested in the methods used in the computation of tourist expenditures are referred to the Bulletin mentioned previously.

#### RECEIPTS AND PAYMENTS OF INTEREST AND DIVIDENDS

For a country like Canada which is, on balance, a large debtor nation on international account, the interest and dividend payments remitted abroad annually are correspondingly important, and occupy a prominent position in her international transactions. After tourist expenditures the gross movement of funds on account of interest and dividends is the greatest of the invisible transfers. A good deal of attention, therefore, has been given to the problems involved in making the calculation of the amount of funds remitted and received annually in the form of interest on foreign investments and it is believed that the revised estimates shown in the Summary Balance of Payments are more accurate than those previously published.

More information has recently become available, the effect of which is to require a downward revision in previous estimates of the international interest receipts and payments. The nature of such information is shown in the discussion of the methods of estimate used. Briefly speaking, it has been proved that some of the earlier estimates of the total foreign investments in Canada were invalid and, more important from the point of view of the balance of payments, the computed rate of interest paid on foreign investments in Canada has hitherto been placed at too high a figure.

The table below incorporates the revised estimates of foreign (British, U.S.A. and other countries) investments in Canada. The totals shown as at the beginning of each of the years 1926-29 do not differ greatly from those shown in previous estimates, but some of the constituent estimates have been altered for the reasons indicated in the explanations of method given in succeeding pages.

TABLE I. - Estimated Foreign Investments in Canada, 1926-1930.  
(000's omitted)

	1 Jan. 1926	1 Jan. 1927	1 Jan. 1928	1 Jan. 1929	1 Jan. 1930
Government Securities (Dominion, Provincial, Municipal)	1,157,670	1,190,772	1,199,492	1,179,027	1,184,670
Railways	1,424,726	1,439,642	1,504,825	1,537,924	1,674,865
Other Public Utilities (Heat, Power, Traction, Light & Telephone etc.)	473,625	559,839	593,944	573,464	628,230
Pulp and Paper & Lumber Industries	368,555	395,955	475,343	510,531	520,248
Mining Industry	212,006	214,606	226,120	273,912	281,600
Metal Industries	548,525	542,580	543,203	561,966	546,915
All Other Industries	451,932	452,833	469,348	490,469	492,376
Trading Establishments	191,461	209,510	222,563	234,753	250,000
Finance and Insurance	155,906	161,121	189,480	192,304	209,022
Land and Mortgage	320,000	325,000	334,346	338,029	338,033
Total Foreign Investment	5,304,406	5,491,859	5,758,664	5,892,379	6,125,959



It should be pointed out that the general principle adopted in compiling the above statement is that the total foreign investment in each class of security or enterprise should be considered in terms of the amount of capital 'employed' and not as the par value of the securities represented thereby. In other words, in estimating the amount of foreign capital invested in the various industrial groups, the method has been to take the total amount of capital employed in that group as shown by the annual statistics of the Census of Manufactures and to compute the foreign share of such capital in the light of the geographical distribution of ownership of capital stock (bonds, preference and common stock) in the industry in so far as this factor is known.

Rate of interest paid on foreign investments.

For the reason just given, the estimates of the rates of interest earned by foreigners on their investments in Canada must be calculated as a return on the capital employed, and not upon the nominal value of such investments. In most cases the rate of interest paid on the capital employed proves to be somewhat lower than that paid on the subscribed or nominal capital, which will occur in all those cases where companies have increased their capital equipment by putting aside money out of profits to acquire further assets or to build up reserves.

To assist in the calculation of a weighted average interest rate applicable to the sum total of foreign investments, it has been possible to take a number of very extensive samples relating to the 1929 operations of a good proportion of the firms in each of the groups of public utilities (other than railways), pulp, paper and wood, mining, metal, and 'all other' industries. Previous estimates of interest rates have been revised on the basis of these results.

Interest and Dividend Rates estimated as paid on Foreign Investments in Canada, 1926-1930

	1926	1927	1928	1929	1930
On Government Securities	4.50	4.53	4.49	4.48	4.38
Railways	4.08	4.08	4.17	4.11	4.08
Other Public Utilities	3.48	3.06	2.93	2.98	3.14
Pulp & Paper, and Lumber	2.45	1.98	2.89	2.72	2.92
Mining	3.45	2.95	3.47	4.08	4.24
Metal Industries	3.53	3.87	4.47	4.14	4.00
All Other Industries	5.56	6.84	6.70	7.46	8.00
Trading Establishments	4.70	4.40	3.40	4.10	4.11
Finance and Insurance	5.22	5.16	4.96	5.04	5.00
Land and Mortgage	4.85	4.85	4.75	4.84	4.73
Weighted Average	4.15	4.18	4.24	4.31	4.37

The net result appears to be that the weighted average interest rates finally adopted (and shown in the table reproduced above) are much lower than those used hitherto. These rates, which vary between 4.15% and 4.37%, are, roughly, a full percent lower than previous estimates, and their adoption as the basis for this important calculation would seem to require some explanation. This is easily given; the results shown are supported by the conclusion which a process of a priori reasoning would seem to dictate. Thus, in the first place, it is clear that 63% of the total foreign investments in Canada on the first of January, 1930, were in governmental and railway securities, a large percentage of which consists of bonds which pay interest at a relatively low and stable rate. Actually, the total amount of foreign investment in fixed interest bearing securities will constitute an even higher percentage of total foreign investments, though the exact figure is not known.

In the second place, the computed average interest paid is calculated as a percentage of the capital employed in the various industrial groups and will, as suggested above, necessarily be lower than the rates paid on capitalisation, the more familiar connotation.

Taken together, these two factors would support the use of a series of computed average interest rates, which are both low and stable, showing little evidence of the fluctuating profits which have been typical of common stock investments in Canada in the last five years.

The estimated amounts of interest paid annually on foreign investments in Canada 1926-30 have, therefore, been reduced by sums varying roughly from \$20 - 50 millions in conformity with the argument stated. A further slight adjustment has been made to take



account of the interest paid on half the net annual addition to the foreign investments in Canada during the course of each of the years under review.

The following pages are submitted in explanation of the methods by which the various totals of foreign investment in Canada and the rates of interest and dividends paid thereon, have been estimated.

#### Government Securities (Dominion, Provincial and Municipal)

The Public Accounts of Canada record the amount of funded debt payable in London, New York and Canada as at the close of each fiscal year. The amounts outstanding for London and New York provide a rough basis for the estimate of the British and American investments in this type of security. Some adjustment, however, has been made in these totals to take account of the repurchase by Canadians and others of such bonds as mature abroad, and of the international movement of the government bonds repayable in Canada. The figures, which relate to the fiscal year, are then adjusted to a calendar year basis. The details for 1930, given below, indicate the estimated distribution of ownership.

#### DOMINION GOVERNMENT FUNDED DEBT

January 1, 1930

Estimated: Held in Canada .....	\$ 1,706,202,867
" " United States of America .....	\$ 250,508,100
" " Great Britain .....	\$ 271,417,662
Total .....	\$ 2,228,128,669

The bonded indebtedness of the provinces is shown in the Canada Year Book as at the end of their respective fiscal years, the total for the nine provinces in 1929 being \$819,517,036. The British and foreign participation in the total is obtained by means of periodical enquiries at the Provincial Governments, and by reference to new flotations as they occur.

#### PROVINCIAL GOVERNMENTS FUNDED DEBT

Estimated: Held in Canada .....	\$ 471,976,816
" " United States of America .....	\$ 279,992,784
" " Great Britain .....	\$ 63,279,807
" Elsewhere .....	\$ 5,541,000
Total .....	\$ 820,790,407

The total bonded indebtedness of all classes of municipalities are similarly collated by the Finance Branch of the Dominion Bureau of Statistics and reproduced in the Year Book. For 1929 the total was \$1,135,022,889. An extensive enquiry amongst the municipal authorities of Canada relating to the years 1929 and 1930 disclosed the fact that the proportion of municipal securities owned outside Canada was considerably less than that hitherto adopted in making these estimates. Estimates as to the total of foreign investments in Government Securities previous to 1930 therefore appear in the current table in a revised form, the reduction being approximately \$130 millions in the totals for each of the years 1926-29.

#### MUNICIPAL GOVERNMENTS BONDED INDEBTEDNESS

January 1, 1930

Estimated: Held in Canada .....	\$ 773,462,033
" " United States of America .....	\$ 165,372,146
" " Great Britain .....	\$ 142,598,444
" Elsewhere .....	\$ 5,959,815
Total .....	\$ 1,087,392,438

The estimated foreign investments in all forms of Government Securities of Canada is, therefore, \$1,184,662,758 as at January 1, 1930, compared with \$1,179,027,051 for January 1, 1929, and these totals are carried into the table. Working back from the 1929 estimate, the increases or decreases in foreign investments in this field as computed at the time can be used to obtain the totals for previous years which are as shown in the table.

#### Estimated Rate of Interest paid on Government Securities.

The Public Accounts record the amounts of funded debt payable in London and New York, together with the interest payable thereon, which can be computed as a percentage



of the principal of the debt for each of the years in question.

The average rate paid on the total bonded debt of the provinces is derived from the statistics (reproduced in the Year Book) of total debt and total interest due thereon for each fiscal year.

The average rate paid on the bonded indebtedness of municipalities is taken to be the computed average shown by a small number of cities for which the financial statements record this information.

Finally, the three averages computed as above were combined into one weighted average for each of the years 1926-30, the results being: 1926, 4.50%; 1927, 4.53%; 1928, 4.49%; 1929, 4.48%; 1930, 4.38%. The seemingly low averages derived by this method is explainable in terms of the large volume still outstanding of Dominion bonds at 3 and 3½%.

### Railways

In accordance with the interpretation of the term 'capital invested' adopted for these estimates, the basic data for the estimate of foreign investment in Canadian railways is the total shown in the Steam Railway Statistics of Canada under the heading 'investments in road and equipment' and not that of the par value of the stocks and bonds outstanding.

From this figure, which is published annually, are deducted: (1) an amount equal to the bonds issued by Provincial Governments on account of grants to railways, in order to avoid a duplication of this investment, and (2) an amount approximately equal to the investment in the United States portion of Canadian lines, this being considered as an investment abroad of Canadian railways. These deductions made, we have a figure which represents the net amount invested in Canadian railways and not duplicated elsewhere in the statistics of capital.

In order to obtain an estimate of the British and foreign participation in Canadian railway investments, information was obtained from the companies in 1930 as to distribution of ownership of stocks and bonds, etc., at the beginning of previous years, the percentages being then applied to the net total of capital invested in the railways. On the basis of this information, the estimates for years 1926-28 were revised and published in the last bulletin relating to foreign investments in Canada. The increase in British and foreign investments in railways during 1929 is estimated to have been approximately as follows: U.S.A., \$104,691,000; Great Britain, \$28,000,000; Other Countries, \$4,250,000; Total, \$136,941,000.

This accretion, added to the foreign investment as at the first of January, 1929, of \$1,537,924,000 gives an estimate for the first of January, 1930, of \$1,674,865,000.

By comparison, the total capital invested in Canadian railways as at the first of January, 1930, is calculated for this purpose, as follows:

Total (31 Dec. 1929) as per Steam Railway Statistics .....	\$3,153,350,000
Deduct for provincial duplications, approximately .....	100,000,000
Deduct for U.S. portion of lines, approximately .....	112,000,000
Total .....	<u>\$2,941,350,000</u>

The non-Canadian portion of this total equals \$1,674,865,000 or 56.9%, as compared with 53% on the first of January, 1929.

### Interest paid on Railway Securities.

The Statistics of Steam Railways show both the capitalization of Canadian railways and, under Income Account, the amounts paid as interest on funded debt and dividends, the total of which can be computed as a percentage of capitalization. Since the capitalization of railways is higher than the capital invested by approximately 20%, the rate of interest actually paid on capital invested must be increased by 20% of that computed as paid on capitalization, the results being as shown in the Summary Table.

### Other Public Utilities.

This item comprises Traction, Light, Heat, Power and other forms of electrical public utility companies, Telephones, and an estimate of capital employed in public utilities for which complete statistics are not available, such as natural and fuel gas companies, together with electric stations other than central electric.

It will be observed that the estimates of foreign investments shown in the table are higher (by approximately \$120 millions) than those previously published by the



Bureau, the explanation being that an enquiry amongst public utility companies in 1930 revealed the fact that the non-Canadian ownership of capital appears to be approximately 45% of the total, a somewhat higher proportion than was formerly estimated. The method of estimating the foreign investments as at the beginning of earlier years was to take the estimate of foreign investment for the first of January, 1930, (computed below) and to make adjustments for the net loss or accretion which occurred in previous years by reason of foreign purchase or sale of investments in this group.

Total investments in public utilities as at the beginning of 1930 are as follows: in Central Electric Stations \$1,055 millions (Census of Industry) to which is added 10% to take into account stations other than central electric; in electric railways, etc., \$240 millions (Electric Railway Statistics); in telephone \$235 millions (Telephone Statistics of Canada); in public utilities not recorded - gas, etc., a rough estimate of \$25 millions; total \$1,461 millions, of which the non-Canadian share of 45% amounts to \$628,230,000.

Working back from this estimate, the subtraction or addition of the estimated net increments and losses in foreign investments in this class during the previous years gives the revised estimates of foreign investments as shown in the summary table.

#### Estimated Average Rate of Interest paid.

An enquiry recently addressed to a number of miscellaneous public utility companies elicited the information that in 1929, 40 of such concerns (including the non-interest or non-dividend paying companies) paid interest and dividends of \$17,547,089 on a total capital employed of \$587,697,361, which gives a weighted average of 2.98%. A smaller sample of 16 companies, the annual statements of which are available back to 1926, was taken in order to get the trend of interest rates, and the 1929 figure was used as a basis for a calculation for other years. The rates so derived are shown in the summary table.

#### Pulp, Paper and Lumber Industries.

The estimates of foreign investments in this group of industries for 1926-29 (shown in the table) have been revised to take into account the fact that the previous assumptions as to the distribution of ownership of capital were invalid, the amounts of non-Canadian capital invested being less each year, by roughly \$100 millions, than was estimated. An extensive enquiry addressed to companies in this group in 1930 brought out the fact that the non-Canadian ownership of stocks and bonds was approximately only 38% of the total of such capital in that year.

The basic data as to the total employed in the pulp, paper and lumber industries is given in the annual Census of Manufactures, the figure for the wood and paper group being \$1,152,000,000 on the first of January, 1930. To this is added an estimate of \$167 millions as the amount of capital employed in logging (complete statistics are not available) and \$50 millions as the amount of capital invested in timber limits, giving a total of \$1,369,075,000 for the whole group. These estimates for logging and timber limits, especially the latter, are somewhat arbitrary, and for that reason are very conservative.

The foreign investment in this group of industries, therefore, being 38% of the total capital employed, is estimated at \$520,248,000 as on the first of January, 1930, and the estimates for previous years are obtained by adjusting this figure in accordance with the estimated movements of international capital in this industrial group during each previous year. The results are shown in the Summary Table.

#### Estimated Average Rates of Interest paid.

A recent enquiry addressed to a large number of pulp, paper and wood product industries elicited the fact that in 1929, 124 concerns paid interest and dividends of \$6,622,459 on a total capital employed of \$244,582,736, giving a weighted average rate of 2.72%. A smaller sampling was made of 11 of the larger corporations whose financial statements are available back to 1926 in order to discover the trend of interest rates, the averages so obtained being revised in accordance with the more accurate estimate for 1929. The rates thus computed (see table) are admittedly low (and considerably lower than those previously adopted as a result of a less satisfactory sampling) but are not unexpected in an industry which is particularly over-capitalized, and which has been passing through a difficult period in its development.



## Mining and Mineral Industries.

The figures relating to capital employed in this group are taken from the annual reports on Mineral Production of Canada, published by the Bureau. The group includes, inter alia, metal and non-metal mining industries, clay products and other structural materials, and non-ferrous metal smelting and refining industries. The explanation of the inclusion of these non-mining operations lies in the difficulty of distinguishing between the capital employed in the actual mining activities and the processing operations of the same concern.

Furthermore, certain statistics (of capital employed) included under mining are duplicated by inclusion in the similar statistics of the Census of Manufactures which are used in other sections. To avoid this error they have been deducted from the total of capital employed in the metal industry group.

The capital employed in the mining industry on the first of January, 1930, is shown in the annual report on mining (as Dec. 31, 1929) at \$867,021,000. This includes capital employed in all operating mines in the Dominion and excludes non-operating mines, holdings of mineral rights, and capital employed for prospecting and exploration. As estimated of \$13,000,000 has been added to the \$867,000,000 to cover these excluded items. It was felt that since such activities often represent capital investment from abroad in Canada, any statement of capital investments should make some allowance for them.

An extensive enquiry conducted in 1930-31 amongst mining companies indicated that the British and foreign share of capital ownership was 32% or \$281,600,000 out of a total, at the above date, of \$880,000,000.

### Interest paid on Capital Employed in Mining.

For 1929, 175 concerns were sampled. On a total capital employed of \$329,178,115, they paid interest and dividends of \$13,441,935, which is an average of 4.08%. Only 40 of these paid any interest or dividends, but the figures of the more profitable undertakings bring up the average. A sampling of 9 dividend paying mines (the largest) for which annual figures are available back to 1926 is used to obtain what is assumed to be the trend of interest rates for the whole industry. Revising these rates on the basis of the more accurate estimate for 1929, results are given as shown in the table.

### Metal Industries.

The statistics of total capital employed in the metal industries are taken from the Annual Census of Manufactures.

The table below indicates the groups which make up the item "metal industries", and the capital employed.

**TABLE A. - METAL INDUSTRIES - TOTAL CAPITAL EMPLOYED**  
(\$000's omitted)

	1 Jan. 1926	1 Jan. 1927	1 Jan. 1928	1 Jan. 1929	1 Jan. 1930
Iron & Steel Products	567,912	597,982	638,915	702,931	754,989
Non-Ferrous Metals	181,600	202,503	208,957	253,367	298,721
Non-Metallic Minerals	239,824	251,724	280,033	298,693	329,449
<b>Total Metal Industries</b>	<b>989,336</b>	<b>1,052,209</b>	<b>1,127,905</b>	<b>1,254,991</b>	<b>1,383,159</b>

Included in the above figures are the statistics for capital employed in non-ferrous metal smelting and refining (included in non-ferrous metals) and in salt, clay products, cement and lime (of the non-metallic mineral group). All these are duplicated in the mining and minerals group which has already been treated; hence the totals below have been subtracted from the totals of capital employed in Table A.



TABLE B.- CAPITAL EMPLOYED IN CERTAIN MINING AND MINERAL INDUSTRIES (STATISTICS  
DUPLICATED ELSEWHERE)  
( '000's omitted)

	1 Jan.1926	1 Jan.1927	1 Jan.1928	1 Jan.1929	1 Jan.1930
Non-Ferrous Metal Smelting	61,692	82,779	85,357	120,036	146,699
Salt	2,564	2,783	3,195	4,423	4,576
Clay Products	27,761	28,152	30,438	32,473	34,190
Cement	38,082	42,380	40,509	47,679	50,882
Lime	5,154	5,826	6,200	6,952	7,405
Total	135,253	159,920	165,709	211,563	243,752

For our purposes, therefore, the capital employed in the metal industries, making allowance for duplications elsewhere, is for 1926-30 as follows:

TOTAL CAPITAL EMPLOYED - METAL INDUSTRIES

1926	1927	1928	1929	1930
854,083	902,289	962,196	1,043,428	1,139,407

To compute the foreign share in the ownership of capital employed, the figures for the first of January, 1930, are taken as a starting point. A very wide sampling amongst iron, steel and other metal firms established the estimate of 48% as the amount of British and foreign investment on that date, as shown by the distribution of capital stock. On this basis, the foreign investments in the metal industries are therefore estimated at \$546,915,000 as on January 1, 1930. Working back from this date, the estimated increases or decreases in foreign investment in this group are used to obtain the amount of foreign capital invested as at the beginning of preceding years. The estimates obtained by this method are as shown in the table of foreign investments.

These results are considerably higher (by at least \$200 millions for each year) than the estimates already published. The principal reason for this is that the starting point for the original estimates was capitalization plus an allowance for the estimated difference between capitalization and capital employed. Recent investigations prove the allowance to have been much too small. The comprehensive investigation conducted in 1930-31 enables a more accurate estimate to be made.

Estimated Rates of interest paid on Capital Employed in Metal Industries.

A sampling of 142 concerns was conducted as for the year 1929. On a total amount of capital employed of \$276,499,499, these firms paid interest and dividends of \$11,447,479, which is an average rate of 4.14%. The trend for the whole period was obtained by a small sampling of 14 larger metal concerns the earlier statements of which were available, dividends and interest paid being calculated as a percentage of total assets.

Using the rates obtained by this sampling, and adjusting them on the basis of the estimate for 1930 of 4.14%, the averages were obtained as shown in the table.

All Other Industries.

The total amount of capital employed in this group, as shown in the Census of Manufactures, is as follows:

( '000's omitted)

	1 Jan.1926	1 Jan.1927	1 Jan.1928	1 Jan.1929	1 Jan.1930
Vegetable Products	439,491	449,259	494,176	531,919	569,065
Animal Products	210,015	225,939	233,114	243,550	243,825
Textiles	305,776	317,275	346,512	365,721	383,154
Chemicals	126,483	133,407	134,619	148,940	165,887
Miscellaneous	103,282	109,670	111,178	119,603	130,118
Total	1,185,047	1,233,550	1,319,599	1,409,733	1,492,049



A wide sampling by questionnaire amongst this group of industries established the estimate of 33% as the approximate amount of British and foreign ownership at the beginning of 1930, as shown by the distribution of capital stock. On this basis the British and foreign investments in all other industries are represented by \$2,376,000 out of the total capital employed of \$1,492,049,000 on the first of January, 1930.

Working back from this date, the estimated increases or decreases in foreign investments in this group in each previous year have been applied to this basic estimate in order to obtain the amounts outstanding as at the beginning of previous years.

#### Average Rate of interest paid 1926-30.

For 1929, 147 returns from companies were sampled. On a total capital employed of \$203,413,354 they paid interest and dividends totalling \$15,176,693, being an average of 7.46%. To obtain the corresponding rates for previous years back to 1926, and for 1930, an examination was made of the financial statements of 22 of the larger "all other" corporations, and total dividends and interest paid was worked out as a percentage of the total assets. The rates so derived gave the trend, and adjusting these on the basis that 1929 = 7.46% the average rates were computed as shown in the table.

#### Trading Establishments.

Total capital employed in this group of enterprises was shown by the Census of Trading Establishments in 1924 to have been \$1,580,124,000. On the basis of the answers given at the time in respect to distribution of ownership of capital stock, it was estimated that British and foreign investment in this group was approximately 9% of the total investment.

For the first of January, 1930, the total capital employed is believed to have been in the neighbourhood of \$2,000,000,000 and the British and foreign share of this to have been approximately \$250,000,000 or 12½%. This estimate, together with those for intermediate years, has been made by calculating the net annual increment in foreign investment in this field from what information was available, but it has not been possible to check the results by means of independent estimates derived by taking agreed percentages of the total capital employed.

The Census of Trading Establishments now being conducted in connection with the decennial census of 1931 will make available more accurate statistics both of the total capital employed and of the international distribution of ownership.

#### Average Rate of interest paid.

The balance sheets and revenue accounts of important trading companies for which information back to 1926 is available, were examined and the total sum paid in interest and dividends in each year were expressed as a percentage of the total capital invested in that group of concerns. The rates so derived are entered in the table. It may be criticized that this method of estimating interest rates ignores the fact that the large majority of trading establishments are not incorporated companies such as those of which the sample is composed. This, of course, is true, but the probability is that most of the foreign investments in this field consist of large scale chain stores, etc., which usually take the corporate form.

#### Finance and Insurance.

This item includes banks, Canadian and non-Canadian insurance companies, trust companies, investment trusts and other forms of financial institution. Apart from banks, trust and insurance companies, no official statistics are available. For banks, the term 'capital employed', as used in previous sections, is taken to mean 'liabilities to shareholders', i.e., capital plus reserve funds. On this basis, the total capital as at the first of January, 1930, was \$301,029,000. Information secured as to the distribution of ownership of the shares of the chartered banks shows that on the same date, 10.12% were held in Great Britain and the Empire, 17.30% in U.S.A. and 1.29% elsewhere, a total non-Canadian ownership of 28.71%. This gives a non-Canadian investment in banks of approximately \$86,425,000.

For insurance companies, the general principle adopted is that 'capital employed' consists of the surplus of assets over liabilities excluding capital stock, the details of which are published annually by the Dominion Superintendent of Insurance.



The statistics of capital (excess of assets over liabilities) for purely Provincial companies are not available in any combined total, but since these companies control approximately only 5 to 10% of the fire and 2 to 3% of the life business, and the foreign participation in this more local enterprise is probably small, the problem is narrowed down to the field of Dominion licensed companies.

Adequate statistics are available of the capital employed by both Canadian and non-Canadian companies and the theoretical problem as to the proportion held by non-Canadians is decided as follows:

- (1) The capital stock of British and foreign companies licensed to do business in Canada is considered as being wholly owned by the parent British and foreign companies.
- (2) The capital stock of purely Canadian companies is considered, for this purpose, to be wholly owned in Canada.

These assumptions, of course, are not strictly valid. Investment interest in each type of company is international, but in the absence of the details of the exact distribution of ownership, which only an elaborate questionnaire can give, it is believed that the errors involved in the assumption are mutually counterbalancing and the estimates are reasonably correct.

Dominion Insurance Companies, 1 Jan. 1930.

Capital employed = surplus of assets over liabilities excluding capital stock.

<u>Fire</u>	British Companies	\$ 32,468,833
	Foreign "	25,538,977
<u>Life</u>	British "	\$ 19,688,473
	Foreign "	26,816,964
Total British & Foreign capital employed .....		<u>\$104,513,247</u>

For Trust Companies, which, on account of the nature of their transactions, are peculiarly provincial institutions, the totals of paid up capital plus reserves must be taken for both the Dominion and Provincial licensed groups. It is assumed for this purpose that the non-Canadian ownership of capital bears the same ratio to the total capital as in the case of banks above. Thus, the non-Canadian investment is estimated at \$18,086,000 out of a total capital employed of approximately \$62,994,060.

The total foreign investment in all financial institutions and insurance companies is therefore estimated at \$209,022,000 as at the first of January, 1930. Estimates have also been made by this method for previous years back to 1926, and the revised figures, which are somewhat higher than the estimates made in previous bulletins, are carried into the table. It is necessary, however, to point out that these are probably under-estimates by reason of the exclusion of any calculation for other forms of financial institution (such as investment trusts) the accounts of which are not yet compulsorily lodged with government departments.

Average Rates of interest paid.

These were obtained by listing for each year, in one column, the total of capital plus rest (for banks) and the excess of assets over liabilities excluding capital stock (for all Canadian fire and life insurance companies). This represents the capital invested in this group. In the second column were listed the interest and dividends paid by the same banks, and by all Dominion life and fire companies. The sampling for insurance makes use only of the published statistics (summarized in the annual reports of the superintendent of insurance) of Canadian companies; separate details of interest and dividends are not available in the case of British and foreign companies. The weighted average interest rates derived by this method are shown in the table.

Land and Mortgages.

The estimates of foreign capital invested in this field are the most unsatisfactory of all by reason of the absolute lack of data and they cannot therefore be regarded as much more than an 'intelligent guess'. The item includes capital invested in or loaned on land and real estate or invested in land and mortgage companies.



It excludes land or other real estate used for the general purposes of business as included in previous items, and timber limits, allowance for which has been made under the pulp, paper and lumber section. The estimates of foreign investments for the first of January, 1926, were made very arbitrarily on the basis of the foreign investments in loan and trust companies and of the assets in Canada of the principal British and foreign loan and mortgage associations, together with other miscellaneous data respecting interests in land acquired by non-Canadians. The estimate for the first of January, 1930, is that out of a total of \$563,394,000, the non-Canadian holdings of land and real estate and loans made thereon was as follows: British, \$189,160,000; U.S.A., \$97,960,000; other countries, \$50,913,000 or a total non-Canadian investment in Canada of \$338,033,000 (60%). These figures all exclude private capital in the form of home-sites, houses and farms.

#### Average Rate of interest paid.

Foreign investment in city lands and other such real estate in many cases brings no annual income, but on the contrary bears an annual cost in the form of taxes. For this reason, the computed average rate must be lower than that normally paid on mortgages. It has seemed reasonable therefore to consider as typical the rate of interest earned by the Dominion loan companies on the total assets (and published annually by the Superintendent of Insurance) since the principal business of these companies is the lending of funds on first mortgage securities, and to take three quarters of this as the average estimated rate returned on all investments in land.

#### CANADIAN INVESTMENTS ABROAD AND INTEREST RECEIVED THEREON

The estimated sum received annually from Canada's foreign investments is, of course, not so large as the corresponding payments to foreigners who have invested in Canada, but the present estimate of \$88 millions in 1930 is sufficiently large to warrant careful calculation.

As in the case of the similar payments outwards, the estimated holdings of foreign investments by Canadians is treated as the basic figure, and a computed weighted average interest rate is applied thereto.

The table below shows the estimated Canadian investments abroad, under the various classifications, as at the beginning of each calendar year. The first item consists, of course, of purely short term balances. The estimates under the first four headings are believed to be reasonably accurate since they are compiled largely from official statistics. Direct industrial investments abroad by Canadians is arrived at by frequent enquiry of the Canadian corporations who maintain foreign branch plants; but the data is insufficient and the estimate is purposely kept low. The miscellaneous foreign investments of Canadians, quantitatively the most important form of capital exports, is a rough estimate, since direct information is meagre as to the purchase and sale of foreign stocks and bonds by Canadians on foreign (particularly the New York) Stock Exchanges.

It is hoped that in the near future more information will become available and better methods devised for estimating the magnitude of these two latter forms of foreign investment.

#### ESTIMATED CANADIAN INVESTMENTS ABROAD, 1926-1930

	<sup>000's</sup> 1 Jan. 1926	<sup>000's</sup> 1 Jan. 1927	<sup>000's</sup> 1 Jan. 1928	<sup>000's</sup> 1 Jan. 1929	<sup>000's</sup> 1 Jan. 1930
Canadian Government loans and balances abroad	56,695	47,426	47,244	57,810	46,731
Foreign balances of Chartered Banks	196,231	260,560	238,447	187,597	97,997
Foreign Securities held by Banks	102,420	89,227	95,682	67,363	68,104
Foreign investments of Insurance Companies	245,890	269,459	285,969	293,391	350,467
Direct Industrial Investments Abroad	260,000	275,000	297,818	329,132	354,132
Miscellaneous foreign Investments	275,172	338,914	613,914	803,914	863,914
Total .....	1,139,415	1,330,586	1,579,074	1,739,207	1,776,255



The methods, by which the weighted average rate of interest to be applied to the estimates of capital invested abroad is computed, are described in the paragraphs below. Here again the estimates must be rather more arbitrary than those adopted for the calculation of the per-contra investment, since we are not able to draw upon official statistics to the same extent, nor to make frequent use of the questionnaire method of obtaining samples.

DIVIDEND AND INTEREST RATES ESTIMATED AS RECEIVED ON  
CANADA'S FOREIGN INVESTMENTS

	1926	1927	1928	1929	1930
Canadian Government loans and balances	3.47	4.51	3.85	3.13	3.85
Foreign balances of Chartered Banks	4.50	4.06	6.04	7.61	2.93
Foreign Securities held by Banks	5.10	5.36	5.53	5.50	5.40
Foreign Investments of Insurance Companies	5.75	5.73	5.69	5.67	5.46
Direct Industrial Investments	4.08	4.08	4.17	4.11	4.08
Miscellaneous foreign investments	3.75	3.91	4.38	4.60	5.25
Weighted Average	4.49	4.46	4.88	5.00	4.91

It will be observed that the weighted average rates of interest come out rather higher by 30 to 70 points than those estimated as paid on foreign investments in Canada. It is, of course, to be expected in general that a higher rate than is paid at home is necessary in order to attract Canadian capital abroad.

The gross movement of interest inwards is calculated by multiplying the total capital investment figure by the computed average interest rate for the corresponding year, and adding to the product six months' interest on the total increase or decrease in foreign investments in the succeeding year.

The following paragraphs are submitted in explanation of the methods by which the various items of foreign investment abroad, and the rates of interest earned thereon, have been estimated.

Canadian Government credits and balances abroad.

This item comprises the amount outstanding on account of loans made by Canada to foreign governments, during and after the war, and the balances kept by the Dominion Government in banks in New York and London. The details are abstracted from the Public Accounts, which show approximately \$7 millions owing by Greece, \$24 millions owing by Roumania, and balances in New York to the extent of \$29 millions, as at the end of the fiscal year, March 1930. These statistics have been reduced to a calendar year basis for inclusion in the statement of foreign investments. Interest received on foreign loans (together with some repayment of principal) is shown in the Public Accounts, and the earnings on the Government bank balances abroad estimated at \$500,000 annually.

The average rate of interest shown in the table is then derived by comparing actual interest received with the capital sum in each year.

Balances of Chartered Banks abroad.

This item is calculated from the end of the year returns published by the Chartered Banks and consists of the difference between the assets and liabilities abroad of all Canadian Banks for the stated dates. The details for the 31st of December, 1929, (say, 1st Jan. 1930) are appended.

(000's omitted)

<u>Foreign Assets</u>		<u>Foreign Liabilities</u>	
Due from Banks in U.K.	\$ 5,199	Deposits outside Canada	\$441,622
" " " elsewhere	96,453	Due to Banks in U.K.	26,729
Call and short-loans outside		" " " elsewhere	81,254
Canada	245,172		
Other current loans and discounts outside Canada	250,638		
Total earning assets	597,462		549,605
Non-earning assets - i.e. U.S. & other foreign currencies	50,140	Excess of assets over liabilities	97,997
Total .....	647,602	Total .....	647,602



It may be argued that the interest which Canadian banks receive on their foreign loans and which they pay on their foreign deposits have no place in the balance of international payments in so far as they will probably remain on deposit abroad in the one case, and be paid out of non-Canadian profits on the other--that no international transactions are involved.

The same problem has already been discussed in the section devoted to the earnings of Canadian insurance companies abroad. In this particular case the justification for including the bank earnings is the same--we count the increase in the foreign assets of Canadian banks as an increase in foreign investments, as an export of Canadian capital (if we include this item in the balance of payments). In so far as this increase of assets was made as a result of foreign earnings, it is not really an export of Canadian capital; hence we compute the net interest earnings and count them as an import of funds in the balance of payments so as to compensate.

Estimated Rate of interest received.

In order to preserve a uniform method of calculating the interest received on foreign investments, it becomes necessary to apply a computed average rate to the figure which represents the net foreign investment, i.e., excess of foreign assets over foreign liabilities plus half the increase or decrease that total in the succeeding year. A glance at the table above, however, makes it abundantly clear that, in the first place, not all the assets can be said to earn revenue, i.e., foreign coin and currency held, and secondly, that the call and other loans outside Canada will earn a considerably higher rate of interest than must be paid on deposits, so that it will not be correct to apply some average lending rate to the net surplus of assets abroad without adjustment and explanation. It has been possible, however, to make a reasonably satisfactory calculation as to what the net interest receipts would be, for each of the five years in question, the method being, briefly, to use the annual averages as shown in the Year Book instead of the year end statistics and to estimate the probable interest paid or received on each item in the accounts. The details of this calculation are available in this Bureau to those interested.

The difference between total interest payments (on liabilities as defined above) and total interest receipts (on assets) gave the estimated annual earnings of Canadian banks on their surplus of assets abroad. The results were found to be very little different from what would have been obtained by applying a flat rate (that charged on call loan renewals in N.Y.) to the net surplus of assets shown at the end of each year plus half the increase or decrease in the succeeding year. In order, therefore, to keep the general symmetry of method we have adopted this more simple device. The rates used are as shown in the table.

NON-CANADIAN SECURITIES HELD BY CANADIAN BANKS

Foreign investments of the chartered banks are not shown separately in the combined monthly statements, but the information has been obtained direct from the various institutions. The total foreign investments of all the banks on the first of January, 1930, was \$68,105,000, an increase of \$742,000 on the 1929 figures.

Estimated Rate of interest received.

Banks are particularly conservative in their investment policy and their holdings are largely in government and municipal bonds, Treasury bills and the like, much as are the foreign investments of most Canadian Insurance Companies. It has seemed reasonable, therefore, to take the computed rate of interest earned by the four largest insurance companies on their total investments in bonds, debentures and debenture stocks (domestic and foreign) as being typical of bank investments. This method makes the fairly reasonable assumptions that the geographical distribution of the foreign investments of banks is the same as for the insurance companies, and that the foreign bonds of the latter bring in the same rate of return as the foreign and domestic bonds. The computed rates applicable to foreign investments of banks are shown in the table.

FOREIGN INVESTMENTS OF CANADIAN INSURANCE COMPANIES

Foreign assets of Canadian companies are abstracted separately from the annual statements in the report of the Superintendent of Insurance. It will be noticed there that these assets pertain entirely to Canadian Life Companies, so that a slight addition has been made to cover life companies which do not record their foreign assets separately, and the foreign assets of other than life companies. Recent totals are as follows:

	<u>Jan. 1929</u>	<u>Jan. 1930</u>
Foreign assets of Canadian Insurance Companies	\$293,391,000	\$350,468,000



Estimated Rate of interest earned.

To compute the rate of interest applicable to these investments we take the figure given in Table 21A of the Insurance Report relating to 'total ledger assets, book value'. This item includes all the investments of Canadian companies, in which loans on real estate, policy loans, bonds and debentures and stocks predominate. This relates to domestic and foreign investments. Table 31A gives the total of interest, dividends and rent received which can be calculated as a percentage of the relative investments (assets). Thus, the statement for the year ending the 31st of December, 1930, shows that the interest on \$1,436,192,207 of total ledger assets of all Canadian companies was \$78,431,040, a return of 5.46%. The results for 1926-30 are: 1926, 5.75; 1927, 5.73; 1928, 5.69; 1929, 5.67; 1930, 5.46.

Assuming that the interest and dividends received on foreign investments are at the same level as those received from total (domestic and foreign) investments, and assuming also that the companies distribute the foreign investments amongst the different classes (policy loans, etc., bonds, stock) in the same proportions as domestic investments, then we are justified in taking these rates, already weighted as they are, as fair averages to be applied to the foreign investments of the insurance companies.

DIRECT CANADIAN INVESTMENTS IN INDUSTRIAL UNDERTAKINGS ABROAD

The total shown in the table under this heading comprises estimates relating to the following: (1) The branch plants and other assets abroad of Canadian concerns which have been expanded outside the national boundaries, mainly in the United States. A number of these concerns have been noted, and details obtained as to the amounts of capital involved. (2) The two principal Canadian railway systems which have large mileages owned or controlled in the United States, as discussed in the section on freight payments. The net profit on these operations are believed to be small. Details as to the amounts of capital invested are obtained from the Transportation Branch of this Bureau. (3) Canadian controlled companies, the entire operations of which take place abroad, such as the public utility corporations in Central and South America. About a dozen of these companies have been noted. Although Canadian companies, with Canadian head offices and active Canadian management, some of the largest of these concerns have only a small amount of Canadian capital invested in them, most of it being British or European. An estimate of the amount of Canadian investment is made still more difficult by the fact that most of the securities are unregistered, i.e., payable to bearer, and at the same time are actively traded in on the London, New York, Brussels, Toronto and Montreal Exchanges. Any estimate of the Canadian portion, therefore, cannot be regarded with much confidence, but it is believed that the estimates incorporated herein are conservative.

Estimated Rate of interest earned.

It is impossible to compute the rate of interest earned on such investments except by a frequent circularization of all the corporations and railways concerned, an impracticable procedure. Rough estimates can be made, however, on the basis of the more plentiful material available in respect to similar domestic concerns. The average rate of interest earned by all Canadian railways on their capital invested has been adopted as typical for this whole class of foreign investments, in which foreign railways comprise a large portion, after making comparisons with the rates suggested by miscellaneous data dealing with the profits of foreign companies in South America and elsewhere.

CANADIAN INVESTMENTS IN MISCELLANEOUS FOREIGN SECURITIES

This item consists of all those holdings of foreign stocks and bonds not included in any of the above categories. Little direct information is available and a considerable margin of error is likely to be present.

Some little information is available in the reports and estimates of the U.S. Department of Commerce as to the sales by U.S. bond houses and banks to foreigners and Canadians, and record is kept in this Bureau of the new foreign issues to which Canadians would be likely to subscribe. With a realisation of the inadequacy of this method of computation, the sums shown in the table have been estimated at what is believed to be a conservative figure.

Estimated Rate of interest earned.

Owing to the varied nature of these investments, it becomes impossible to make a direct sampling of interest rates. The actual rates of yield are probably low by



reason of the fact that purchases in many cases were made originally for capital appreciation, rather than for immediate dividends. At a rough guess, the rates would be at least equal to the computed rates paid by Canadian industrial enterprises—(pulp and paper, mining, metal, all other) on their capital employed. A simple average of these rates is therefore applied in this case.

#### REMITTANCES MADE BY IMMIGRANTS

A considerable amount of money is mailed by immigrants in Canada to friends and relatives abroad. Newly arrived people in the Canadian west begin to repay those who assisted them in coming to Canada in the first place and to help bring out others. At Christmas the traditional gifts now take the form of money. In the case of a country like Canada where so many of its people have family ties abroad some estimate of the volume of remittances is necessary for inclusion in the balance of payments. There is, of course, a reverse movement of funds from Canadian emigrants (mainly the U.S.) into Canada.

It has not been possible to obtain any direct information as to the sums of money remitted on these counts. It is believed that a large proportion of the remittances will be made by the simplest method, that of the Post Office money order. In addition, of course, it is certain that remittances are made through the agencies of banks and express companies who have developed the business of foreign remittances very energetically in recent years, and some currency will be sent through the mail. It is impossible even to guess at the volume of these remittances.

For purposes of estimate therefore, we have made the admittedly arbitrary assumption that the sums remitted by immigrants through these non Post Office channels is equal to the amount of money order remittance arising out of pecuniary transactions (small purchases abroad, etc.). That is to say, by this device of substitution, we take the totals of Post Office money order remittances as equivalent to the total sums transferred abroad by immigrants in Canada and remitted here by Canadian emigrants abroad. The money order statistics are recorded in the Canada Year Book by fiscal year and have been adjusted to a calendar year basis, and the results are incorporated in the Summary Balance of Payments. The estimates for 1930, for which Post Office statistics are not yet available, are made tentatively as follows: remitted abroad by immigrants in Canada, \$23 millions; remitted to Canada by Canadian immigrants, \$14 millions.

#### EXPENDITURES OF GOVERNMENTS

This item comprises on the 'debit' side expenses incurred abroad incidental to the operations of Canadian government departments, and includes, inter alia: The operation of Canadian legations, grants to the League of Nations and other expenses connected therewith, advertising and exhibition expenditures and the maintenance of immigration and commercial intelligence services abroad. The items are abstracted from the relevant sections of the report of the Auditor General and amounted to a total of \$3,372,000 for the fiscal year ending March, 1930. In addition, the payment of pensions to persons resident in Great Britain, the United States and elsewhere is included in the above heading, details being obtained from the Board of Pensions Commissioners for Canada. This item accounts for between six and seven million dollars annually, making a total 'debit' of \$10,379,000 in 1930. Expenditures in Canada by British and foreign governments on account of consular and diplomatic services and the like, and by the British and other Ministries of Pensions, provide a contra item of what appears, from very rough estimates, to be a very similar amount—\$11,750,000 per annum in recent years. These figures, of course, do not include interest on government debt paid or received from abroad, since this is provided for in the calculations of interest under Section 4 of the balance of payments. Supplies purchased abroad are similarly excluded because of their inclusion in merchandise imports.

#### WAR DEPT RECEIPTS - REPARATIONS

The Dominion of Canada has received certain special monies in recent years, arising out of the various German reparation settlements, in amounts which have varied with the alterations in the annuities which Germany has paid. Canada's percentage share of the total proportion allotted to the British Empire was settled at the Spa Conference in 1920, and remains virtually the same today. The reduction in Germany's payments proposed by the Hague Agreement, which adopted the Young plan with minor modifications, will involve a slight reduction in Canada's receipts in subsequent years. The following particulars of reparation receipts have been abstracted from the Public Accounts of Canada and, since the amounts are relatively small and unchanging, fiscal year receipts are entered in the summary balance of payments opposite the previous calendar year.



Received on account of German reparations for fiscal years ending March 31st:

1927, \$1,756,704; 1928, Dawes Plan, \$5,002,047, pre-Dawes Plan arrears, \$3,789,430; 1929, \$4,025,165; 1930, \$4,325,274; 1931, estimated at \$4,000,000. To the receipts for the fiscal year ending in 1932 might be added the sum of \$662,442 received from the British Treasury in final settlement of war claims.

#### EDUCATIONAL, CHARITABLE AND MISSIONARY CONTRIBUTIONS

Canadian colleges and research institutions receive grants from British and American endowments, notably from the Carnegie and Rockefeller foundations; religious bodies in Canada receive contributions from parent bodies and others abroad.

On the other hand, Canadian churches maintain missionary services abroad out of the proceeds of Canadian contributions.

It is difficult to estimate the sum total of these remittances and receipts involving, as they do, thousands of separate organization units. From information supplied by the chief American foundations and from a number of Canadian colleges and religious bodies, relating to the year 1928, we judge that the total annual receipts from abroad have varied between \$500,000 and \$1,500,000 in recent years.

An earlier enquiry addressed to the various religious organizations gave somewhat incomplete results which seem to suggest annual remittances abroad of approximately \$1,800,000.

#### EARNINGS OF CANADIAN INSURANCE COMPANIES ABROAD, AND OF BRITISH AND FOREIGN INSURANCE COMPANIES IN CANADA

The preliminary abstract of statements of insurance companies in Canada for the year 1930, published by the Department of Insurance, Ottawa, discloses the fact that in that year there were 13 Canadian life companies transacting business in foreign fields, in Great Britain, the United States and its possessions throughout the West Indies and in Central and South American Countries. Business was also carried on farther afield in India, Ceylon, China, the Malay States, Japan, Syria, Egypt, Palestine and South Africa. Table 5A of the 1930 Report shows that Canadian life companies had 876,981 assurance policies in force abroad at the end of the year covering risks of nearly three billion dollars. The significance of their foreign operations is brought out in Table 4A which indicates that out of a total premium income of \$298,226,671 received by Canadian life companies on account of life assurance and annuities, \$154,380,656 (or more than 50%) was received from foreign business. The corresponding receipts from fire insurance abroad was slightly more than six million dollars. The importance of these foreign operations in respect of life and fire insurance obviously warrants the inclusion in the balance of payments of an estimate of the net income derived therefrom.

Against this item, of course, must be set the net earnings of British and foreign insurance companies in Canada. Thus, in 1930 there were 28 Canadian, 8 British and 18 Foreign insurance companies actively conducting life business in Canada. The proportions in which the three groups of companies share the Canadian business is brought out by the following table, taken from the 1930 Report.

#### LIFE INSURANCE IN CANADA

	Premium Income & consideration for annuities 1930	Net amount of new business paid for in cash, 1930	Net amount in force Dec. 31, 1930
	\$	\$	\$
Canadian Companies	145,346,015	594,843,540	4,319,430,221
British Companies	4,935,663	10,769,103	117,494,846
Foreign Companies	73,942,742	279,275,855	2,055,571,155
Total	222,724,615	884,888,498	6,492,496,222



With regard to fire insurance, 52 Canadian, 63 British and 103 foreign companies were in active business in 1930 in Canada. The distribution of the new fire business, indicated by the net premiums written in 1930, is shown in the following table:

FIRE INSURANCE IN CANADA

	Net premiums written, 1930	Gross amount of policies new and renewed
Canadian Companies	11,249,320	1,893,663,707
British Companies	25,742,067	4,517,521,923
Foreign Companies	20,101,511	3,866,221,366
Total .....	55,092,898	10,277,407,001

Similarly for the various classes of casualty insurance, the Canadian, British and foreign groups each received in the neighbourhood of 14 million dollars of premium income in 1930.

So far as the balance of payments is concerned, the situation may be put as follows: (1) Canadian insurance companies earn monies abroad represented by the excess of foreign receipts over foreign disbursements (including taxes, expenses and commissions) which may be said to arise from the export of Canadian insurance "services". (2) A counterbalancing and smaller import of British and foreign insurance "services" arises out of the operations of British and foreign companies in Canada.

The figures relating to the excess of foreign receipts over foreign disbursements for Canadian companies can be calculated from the published statistics of the Department of Insurance and the question arises: How shall it be brought into the balance of payments?--as a net invisible export, i.e., a credit item representing an inflow of funds to that extent?

The theoretical (and statistical) difficulty is that not all of such earnings are remitted to Canada. In a large measure they will be left abroad in the form of new foreign investments. On the other hand, the increase in the insurance companies' holdings of foreign investments will not measure the extent to which foreign earnings have been left abroad because the companies frequently increase their foreign investments by the use of Canadian funds.

There is, of course, a fairly clear correlation between the increase in foreign business and earnings, and the increase in foreign investments. Insurance companies are compelled by law in many countries to hold domestic investments in proportion to domestic risks. Nevertheless, a large part of the net revenues of insurance companies earned abroad is available to pay for imports in times of unbalanced merchandise trade, for example. The possibility of this should be brought out in the balance of payments by treating the total excess of foreign receipts over foreign disbursements as an invisible export involving an inflow of funds. In order to indicate the real nature of such revenues it must be understood that on the debit side, included in the item 'export of capital' is an amount equal to the increase in foreign investments held by insurance companies.

Exactly the same reasoning may be applied to the treatment of the earnings of foreign insurance companies in Canada. The net excess of receipts over disbursements is an import of foreign services, and the funds are assumed to flow outwards. The compensatory movement is shown in the increase of Canadian investments held by British and foreign insurance companies in Canada, i.e., by the inward flow of capital.

This appears to be the best approach to the problem. It is not possible to obtain from the insurance companies their net foreign receipts or remittances because their books are not set up to record such information. In any case the use of such data, if obtainable, would be questionable. As stated, it would indicate neither the quantitative importance, nor the trend of insurance transactions in the balance of payments. The net remittance might show fluctuations from year to year according to the varying investment policy of the domestic Head Office and might be inflated in any one year by reason of the inclusion of profits made on the sales of foreign investments. It may also be argued in favour of the treatment suggested above that if the increase in the Canadian investments of foreign insurance companies (along with other foreign stock holders) is to be shown in the balance of payments as an inflow of foreign capital, which, of course, is the case, then the net gains of foreign companies in Canada, which provided the means for such new investments ought to be shown on the other side of the statement of the balance of payments.



The same argument applies to the increase in investments abroad by Canadian insurance companies.

Insurance Remittances made direct.

It is probable that certain insurance costs are paid by people domiciled in Canada through the mail or by bank remittance direct to foreign insurance companies which do not maintain branch offices in Canada. In the case of immigrants from U.S.A. and Great Britain it is probable that the majority of the premiums are paid in Canada (and therefore recorded) since most of the important life offices have branches in Canada—the inconvenience of foreign remittance would recommend this procedure. There are, however, certain cases of unrecorded insurance remittances but in the absence of concrete information, they are assumed to be relatively small and counterbalanced by direct insurance remittances to Canada.

Earnings of Canadian Insurance Companies Operating Abroad.

Life Insurance -

Acting upon the assumptions discussed above the calculation of the net gain on the foreign operations of Canadian life companies is made by taking the premium income earned outside Canada (Annual Report, Table 34A) and deducting from this: (1) The total disbursements in respect of Death Claims, Surrender Values, Dividends to Policy Holders, Life Annuities, etc. (Annual Report, Table 34), and (2) the General Expenses. The total expenses incurred on foreign business is not shown separately, but Table 36A would appear to indicate that the general expenses and taxes incurred by Canadian companies on both domestic and foreign business over the last four years averages 25.3% of the total premium income. The foreign disbursements under general expenses is therefore computed at 25% of the total foreign premium income.

The estimate for 1930, using this method, is arrived at as follows:

<u>CANADIAN LIFE COMPANIES</u> (000's omitted)	
Total premium income outside Canada .....	\$131,318
Consideration for Annuities .....	23,062
Total .....	<u>154,380</u>
Net Disbursements - Claims, Annuities, etc. ....	86,452
Expenses - 25% of total premium income .....	38,595
Total .....	<u>125,047</u>
Computed net gain .....	<u>29,333</u>

Fire Insurance -

17 Canadian companies conducted fire insurance business outside Canada in 1930, chiefly in Newfoundland, the United States, Great Britain, and the West Indies. One company wrote risks in most parts of the world. The net gain on foreign business, however, does not appear to be large. In 1929, premiums received were \$6,519,000; losses paid or incurred were \$3,144,000; and general expenses and taxes taken as 50% of the premium income (the average for all fire insurance in Canada) are estimated at \$3,259,000. The net gain to Canadian fire offices on their foreign business for 1929 is, therefore, estimated at \$116,000. For other than life and fire insurance, the total net gain of Canadian companies appears to have been less than one million dollars in 1930, and the foreign share of this may be considered as negligible.

Earnings of British and Foreign Insurance Companies in Canada.

Life Insurance -

The net gain of British and foreign life companies, derived from their Canadian operations, is computed by exactly the same method as in the contra item. From the published figures relating to income in Canada of British and foreign companies, including premiums, interest, dividends, rents, are deducted:

- (1) The income derived from interest, dividends, and rents, shown separately. Allowance has already been made for this credit.



item in the calculation in the balance of payments relating to interest on foreign investments in Canada.

- (2) Disbursements of the companies in Canada, including taxes, general expenses, deaths, maturities, etc. These details are available in a summarized form in the Annual Reports. The residual figure may be considered as net gain earned by British and foreign companies in Canada, and amounted in 1930 to \$17,922,000, a decrease of nearly \$2,000,000 on the estimated 1929 results.

### Fire Insurance.

Against the premium income of British and foreign companies in Canada must be set the losses and adjustment expenses incurred, and the general expenses and taxes. By this method, the computed balance, on fire account, in favour of British and foreign companies amounted to approximately \$1,316,000. The net gain under this heading has diminished considerably from the 'high' of 1929 of over 8 million dollars, due not so much to a decrease in premium income as to an increasing volume of losses.

### OTHER FORMS OF INSURANCE UNDERTAKEN BY BRITISH AND FOREIGN INSURANCE COMPANIES

The premiums received on the various forms of casualty insurance—accident, automobile, guarantee, etc., in 1929 was as follows:-

British Companies .....	\$ 13,859,000
Foreign Companies .....	\$ 15,765,000
Total .....	\$ 29,624,000

Assuming that the net gain from such business amounts to 10% of the premium income (this percentage being derived from the fire insurance statistics, where details are available) the net gain for 1929 may be estimated at \$2,962,000.

Total casualty insurance for 1930 showed a very slight decrease on the 1929 results. The net gain of British and foreign companies is therefore estimated at \$2,900,000.

### SUMMARY - INSURANCE, PAYMENTS AND RECEIPTS (000's omitted)

Net gain of Canadian companies abroad	Life	\$29,333
" " " " " "	Fire	150
Total .....		\$29,483
Net gain of British and foreign companies in Canada	Life	\$17,922
do	Fire	1,316
do	Casualty	2,900
Total .....		\$22,138

The estimates for the years 1926-29 have been revised, and the results obtained by the above methods are shown in the Summary Balance of Payments. It will be observed therein that by reason of a slight decrease in the operations of British and foreign insurance companies in Canada since 1927, and a marked increase in the activities of Canadian companies abroad, the net 'debit' balance of approximately \$13 millions in 1926 had become a credit balance of \$7 millions by 1929.

### ADVERTISING EXPENDITURES

The trade statistics of Canada show the amount of advertising materials imported into this country but, of course, no record is available as to the sums received by Canadian newspapers and other advertising media on account of services performed in Canada for British and foreign advertisers. That the amount of such advertisement is fairly considerable cannot, however, be doubted. Thus, the U.S. Bureau of Foreign and Domestic Commerce (Finance and Investment Division) reported in 1929 that "the total foreign advertising bill of the United States was not less than \$50,000,000-- much of this goes to Canada".



There is also a flow of advertising funds in the reverse direction. The total sum spent by the Canadian government on account of advertising and exhibitions, or in connection with immigration is already allowed for in the estimate of government expenditures. In addition, however, the Provincial governments remit funds abroad to pay for advertising services, particularly in connection with the tourist business, and as an aid to the marketing of provincial products. Canadian exporters and the railway companies all advertise abroad.

It is believed that the majority of foreign advertising in Canada is undertaken through the medium of the newspaper and magazines, although bill-boards, radio and street car signs may account for a little foreign revenue. In this connection it must be remembered that the advertisement expenses in Canada of branch plants of American concerns do not constitute a foreign receipt but are chargeable to Canadian profits.

A questionnaire addressed to the principal newspapers and magazines in Canada elicited the information that for 140 out of the 175 agencies included in the survey the total amount of revenue directly derived from British and American sources was approximately \$2,700,000 in 1929 and \$2,635,000 in 1930, of which the greater part came from the United States. Allowing for non-recorded newspaper and magazine revenues and for other forms of advertising services bringing in foreign receipts, we estimate the total credit item on advertising account to be \$4,000,000 in 1929 and 1930. On the "debit" side no estimate had been made in previous years but recent enquiries suggest that in actual fact the outflow of advertising funds, far from being negligible, is greater than the corresponding inflow. The most important category is provided by the larger Canadian industrial corporations and railways, 19 of which concerns spent \$2,340,000 in 1929 and \$2,679,000 in 1930 in foreign advertising. The railway expenditures abroad make up the greater part of these totals but it is believed that if it were possible to obtain the foreign advertisement expenses of all forms of Canadian enterprises, the results would be at least double the above amounts. To this must be added the sums spent in advertising by Provincial governments, including herein the maintenance of colonization and immigration branches abroad, and Boards of Trade and Chambers of Commerce. From the evidence provided by the Public Accounts of the provinces and by answers to questionnaires, we estimate that \$500,000 will cover this item. The total 'debit' on advertising is estimated, therefore, to have been \$5,280,000 in 1929 and \$6,000,000 in 1930.

#### MOTION PICTURE ROYALTIES

There are roughly 1,100 moving picture theatres in Canada, all making use of imported films and, frequently, of foreign projection apparatus. As a rule, films and apparatus are not bought outright but are leased or hired on a royalty basis. For this reason the value assigned to the imports of cinematograph films in the Trade returns was deducted from the total of imports and it therefore becomes necessary to estimate the actual remittances sent abroad annually in payment of royalties and rentals in this industry. We have no direct information to go upon at the moment. The U.S. Department of Commerce estimates that the foreign receipts of American motion picture producers is roughly \$70,000,000 per annum. Assuming this to be correct it seems reasonable to conclude that the Canadian contribution to this total is about 5% or \$3,500,000 annually. This figure is taken as the total 'debit' and is believed to be a conservative estimate since no account has been taken of payments to Great Britain (known to be small) for films and to the foreign producers of talking picture machines which also pay royalties.

#### CAPITAL OF IMMIGRANTS AND EMIGRANTS

An attempt is made herein to estimate the amount of monetary capital brought into Canada by immigrants and taken out by emigrants. The only suitable method appears to be to estimate the per capita amount of capital brought into or taken out of the country by the several classes of immigrants and emigrants (by country of origin or destination) and to multiply these amounts by the corresponding numbers of people involved. The estimated amounts per capita brought in are necessarily very arbitrary, and the statistics of total emigration, at least, not very satisfactory, so that no great reliance can be placed on the final estimates of the gross investments of immigrant capital. It may be advanced, however, in support of such inadequate estimates, that the main purposes in compiling the balance of payments statement, namely, to indicate the net movement of funds each year and the variations in their figure from year to year, will be served by their inclusion.



## Immigration into Canada

Immigrants into Canada are classified according to the following table, taken from the current Canada Year Book.

### IMMIGRANTS INTO CANADA

Fiscal years ending March 31st	Immigrant Arrivals from -			Total
	United Kingdom	United States	Other Countries	
1926	37,030	18,778	40,256	96,064
1927	49,784	21,025	73,182	143,991
1928	50,372	25,007	75,718	151,597
1929	58,880	30,560	78,282	167,722
1930	64,082	30,727	68,479	163,288
1931	27,584	24,280	36,359	88,223

A movement not shown in the immigration figures is that of returned Canadians who originally left Canada to reside in the United States and who on returning to Canada declared their intention of resuming their residence in this country. Since the statistics include only those who have been in the United States for more than six months such returning Canadians may be considered as bringing in capital, the result of their earnings in the United States, in much the same manner as immigrants into Canada from that country. Hitherto this consideration has been ignored in our calculation of capital imported by immigrants, and the present estimates are higher, on that account, than those previously published.

### CANADIANS RETURNED FROM THE UNITED STATES

Fiscal year ending March, 1926 .....	47,221
1927 .....	56,957
1928 .....	39,887
1929 .....	33,797
1930 .....	29,830
1931 .....	30,209

### Capital brought in by Immigrants

For purposes of estimate, the fiscal year statistics of immigrants and returning Canadians are adjusted to a calendar year basis on the assumption of equal monthly distribution. The next task is to estimate the amount of cash which each class of immigrant shown in the above tables may be said to import. In the first place, it must be remembered that of the immigrants properly so called, slightly less than 45% of the total in recent years consist of adult women and children under 14, the effect of which should be to reduce any estimate of per capita imports made on the basis of male immigrants. It is also certain that of the immigrants from Great Britain and the continent of Europe, many will have had their travelling expenses in Canada paid by relatives already here and some by the various settlement or charitable agencies in this country.

Taking all these factors into account, and after making comparison with the estimates used on former occasions (notably those of Prof. Viner in respect to the period 1900-1913, and of Coats' Cost of Living Report 1914) it has seemed reasonable to take the following as typical of the per capita import of capital of immigrants, by country of origin: Great Britain, \$50; Other Countries, \$25; U.S.A. (farmers and farm labourers) \$500; Other U.S. immigrants, \$100; U.S.A. returning Canadians, \$100.

The explanation of the large sum assigned to farmer immigrants from the United States is that this estimate must include, in many of such cases, an amount representing the proceeds of sale of farms and farm buildings in the United States, whence they come with some of their livestock and implements to buy cheaper land in Canada.

The totals in the table following are carried into the balance of payments as an invisible export, i.e., a receipt of foreign funds.



ESTIMATED TOTAL CAPITAL IMPORTED BY IMMIGRANTS INTO CANADA

Imported by Immigrants from -	1926	1927	1928	1929	1930
Great Britain	2,329,750	2,530,000	2,843,900	3,139,000	1,835,400
U.S.A. (farmers & farm labourers)	4,306,500	4,151,500	4,435,000	3,818,000	3,172,000
U.S.A. (other immigrants)	1,233,100	1,570,900	2,030,200	2,304,700	1,954,500
U.S.A. (returning Canadians)	5,452,300	4,415,400	3,532,500	3,082,200	3,011,400
Other Countries	1,623,750	1,877,100	1,941,025	1,773,250	1,109,750
Total .....	14,945,000	14,544,900	14,782,625	14,117,150	11,083,050

Capital taken out by immigrants

No official statistics of emigration from Canada are kept but it is possible to make a reasonable calculation as to its volume by the use of the British and U.S. official statistics relating to immigration from Canada. The sources of information are given in the footnotes. As in the similar case of returning Canadians, whom we included in the immigration total, it has been decided to include in the statistics of emigration the numbers of U.S. citizens returning to that country permanently, being former residents of Canada.

It need hardly be said that statistics of emigration, by the very nature of things, are nonetoo reliable, particularly in the case of the movement across the Canadian-U.S.A. boundary, but it is believed that the table below indicates sufficiently the variations in the movement.

EMIGRATION FROM CANADA - CALENDAR YEARS

	1926	1927	1928	1929	1930
Emigrants to U.S.A. (1)	93,468	76,830	63,488	69,131	47,800
Emigrants to Great Britain (2)	10,481	12,570	15,804	12,294	15,820
Emigrants to Other Countries (3)	4,054	2,71	2,458	2,524	2,606
U.S. Citizens - former residents of Canada - returning permanently to the United States (4)	9,500	8,716	7,670	8,022	9,167
Total Emigration	117,503	100,887	89,420	91,971	75,393

- (1) U.S. Department of Labour, Bureau of Immigration - 'immigrant aliens admitted to the U.S.A., who gave Canada as their last permanent residence, during calendar years'. The 1930 figure is an estimate on the basis of the published statistics for 11 months only.
- (2) Official British Statistics (Board of Trade Journals) 'immigrants from Canada'.
- (3) Counting the emigration to the U.S.A. and Great Britain, and allowing for immigration into Canada and the computed natural increase in the population of Canada, the total loss of population not otherwise accounted for in the inter-censal period 1911-1921 was 3.2% of the recorded emigration. This percentage is therefore applied to the total of recorded emigration to the U.S.A. and Great Britain in order to compute the amount of emigration to other countries.
- (4) U.S. Bureau of Immigration - These statistics only began to be published in 1928, and relate to fiscal years. They are therefore adjusted to a calendar year basis. The figures shown for 1926 and 1927 are estimates.



Capital taken out by emigrants per capita.

It will be seen in the above table that the greater part of the emigration movement was to the United States, particularly in the earlier years. It may be assumed that a considerable share of the total is made up of younger Canadians seeking more remunerative employment across the border, and of some Canadians and former U.S. residents who have met failure and unemployment in Canada. Also, rather less than 40% of the emigrants to the U.S.A. in 1930 were listed as having no occupation, largely women and children, and only slightly more than 10% of the total were farmers and members of the professional and commercial classes who might be expected to take with them larger amounts of capital comparable with that assumed to be brought in by farmer immigrants from the United States.

In view of these considerations it is considered that \$125 per capita is a reasonable estimate of the amount of money taken out of Canada by all emigrants (1). The results are shown in the following table:

ESTIMATED TOTAL CAPITAL TAKEN OUT BY EMIGRANTS FROM CANADA

	1926	1927	1928	1929	1930
	\$	\$	\$	\$	\$
Emigrants to U.S.A.	11,683,500	9,603,750	7,936,000	8,641,375	5,975,000
Emigrants to Great Britain	1,310,125	1,571,250	1,975,500	1,536,750	1,977,500
Emigrants to Other Countries	506,750	346,375	307,250	315,500	325,750
U.S. Citizens returning	1,187,500	1,089,500	958,750	1,002,750	1,145,875
Total .....	14,687,875	12,610,875	11,177,500	11,496,375	9,424,125

- (1) This estimate is roughly equal to that adopted by Viner - "Canada's Balance of International Indebtedness 1900-1913", allowing for the alterations in the general price level in the intervening period.

EARNINGS OF CANADIAN RESIDENTS EMPLOYED IN THE U.S.

As the recent annual statements of the U.S. Bureau of Foreign and Domestic Commerce on the "Balance of International Payments of the United States" have pointed out, there has been a considerable number of Canadian residents commuting daily for employment in the United States. The automobile workers of Windsor and other border cities who have been on the pay-roll of Detroit factories provide the best illustration of this form of invisible earnings.

The estimates of the U.S. Bureau of Canadian earnings for the period 1928 and 1929 amounted to \$12,000,000 in Detroit, \$2,625,000 in Buffalo and \$300,000 in Niagara Falls, N.Y. The per-contra estimate of the earnings of American residents employed in Canadian boundary cities was \$1,200,000. The net "credit" for those years is therefore placed in the summary balance of payments at \$13,725,000.

The present business depression, which has been particularly acute in the automobile industry, was responsible for a very pronounced shrinkage in the amount of pay-rolls of Canadian commuters working in the United States (minus the per-contra movement).

The net figure for the Detroit region in 1930 seems to have been only about \$2,790,000, and for the Buffalo district about \$906,000, according to recently published American estimates.

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