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CHAPTER XI

FOREIGN MARKETS AND FOREIGN CREDITS

By James Harvey Rogers

I. FOREIGN MARKETS

Exports.—The value of American exports, which increased greatly each year from 1922 to 1925, declined slightly in 1926; and in 1927, while undergoing a mild increase, it still remained a little below the maximum reached in 1925. In 1928, however, the rapid increase was resumed and during that year reached a total 34 per cent greater than in 1922. When changes in the aggregate weight of exports are considered instead of changes in value, the results are different. Thus measured, the volume of our outgoing trade rose during the period, but showed considerable declines both in 1925 and 1927.

The explanation of the divergence in 1925 seems to lie in variations in both prices and quantities, spread over a considerable number of articles.

Table 1.—Total Annual Exports of the United States, 1922–1928

(Value in millions of dollars; volume in millions of tons)

Year	Value	Volume in cargo tonnage of water-borne exports	Value with important price changes eliminated[a]
1922	3,971	42.5	4,009
1923	4,343	49.1	4,213
1924	4,772	52.3	4,676
1925	5,093	49.7	4,976
1926	5,002	67.7	5,245
1927	5,067	56.9	5,467
1928	5,321	....	.....

[a] For exact description of character of the data of this column, see footnote 1.

Sources: Values are taken from *Monthly Summary of Foreign Commerce*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce. Cargo tonnage figures for 1922–1925, inclusive, are taken from the *Statistical Abstract of the United States*, compiled on the basis of data gathered by United States Shipping Board, Bureau of Research, Division of Statistics. Data for 1926 and 1927 are taken from *Special Report*, Division of Statistics, No. 298 of the United States Shipping Board.

Description of data: Value data were gathered by the United States Customs Service and compiled by the United States Department of Commerce. They are subject to errors of valuation and of other accidents of declaration.

Data of value in Table 1 include the trade of the United States Customs Area (which includes continental United States, Alaska, Hawaii, and Porto Rico) with other countries (including the Philippine Islands and the Virgin Islands) plus shipments from continental United States to Alaska, Hawaii, Porto Rico, Guam, and American Samoa. To give the trade of continental United States alone, it would be necessary to deduct the small exports of Alaska, Hawaii, and Porto Rico to foreign countries.

In 1926, on the other hand, while a major explanation of the divergence between weight and value is to be found in the increase of approximately 16,000,000 tons in the export of coal, largely to Great Britain and presumably to some of its European coal customers, occasioned during that year by the British coal strike, perhaps just as potent a separating influence is found in the drastic decline in the price of our largest export, raw cotton.

In order to get another approximate measure of the physical volume of our export trade, as well as for other purposes which will appear later, price changes of a number of important exports have been eliminated. This has been accomplished by computing the annual value of each such export at its average price for the period.[1] The resulting total value, with the prices of a number of important exports thus kept constant, are given in the third column of Table 1. So measured, our total exports, instead of showing a slight decline in 1926 and 1927, increased regularly throughout the period. This conclusion is confirmed by the calculations of the Department of Commerce, using a more elaborate method for eliminating price changes.

The geographic distribution of our outgoing trade has varied considerably during the period from 1922 to 1928. Table 2 gives the total value of exports, by large geographic divisions and by important subdivisions, for the seven years under discussion.

Of our total exports, substantially one-half goes to Europe. The remaining one-half is divided into three roughly equal parts—one going to Canada, another to Latin America, and the third to all the rest of the world combined. Of our exports to Europe, somewhat more than a third goes to the United Kingdom, about one-fifth to Germany, and considerably less to France, the next in order of importance of our European customers. Of our total sales to Latin America, Cuba, Argentina, and Mexico account for considerably more than half; and of those to the rest of the world, Japan, Australia, and China take the largest portions.

But during the last seven years, the proportions of our total exports going to various parts of the world have changed greatly among them-

[1] The exact method used was the following: Of every commodity for which both values and quantities are given in Table 3, the total value each year was divided by the corresponding total quantity. Of the resulting prices, simple arithmetic averages were computed for the six years 1922–1927. These average prices were then multiplied by the quantities exported each year. The resulting products were used as the revised total values of each export thus treated. To get the grand totals by years and by geographical divisions, these revised values were in turn added to the actual values of exports of lesser importance and of those for which no quantities are available. The method is little more than a makeshift but would seem to be generally valid for procuring the approximate results desired. The results agree fairly well with those yielded by the more refined index method employed by the Bureau of Foreign and Domestic Commerce for determining year to year changes in like magnitudes.

TABLE 2.—ANNUAL EXPORTS OF THE UNITED STATES, 1922–1928

(In millions of dollars)

Division	Average 1910–14	1922	1923	1924	1925	1926	1927	1928
Grand total	2,243	3,971	4,343	4,772	5,093	5,002	5,067	5,321
Europe	1,350	2,083	2,093	2,445	2,602	2,310	2,314	2,375
United Kingdom and Irish Free State	568	856	882	983	1,039	990	851	861
Germany	304	316	317	440	470	364	482	467
France	139	267	272	282	280	264	229	241
Italy	66	151	168	187	205	157	132	162
Netherlands	105	118	109	152	142	136	148	142
Belgium	53	102	101	116	120	99	116	112
Spain	26	71	62	71	79	68	74	87
Denmark	15	36	39	43	56	51	59	47
Soviet Russia in Europe	24	20	4	41	68	48	64	73
Remainder of Europe	50	146	139	130	143	133	159	183
Canada, Newfoundland, and Labrador	320	583	660	634	660	747	844	925
Latin America	302	558	695	770	882	872	846	878
Cuba	63	128	192	200	199	160	155	128
Argentina	47	96	113	117	149	144	163	179
Mexico	53	110	121	135	145	135	109	116
Brazil	32	43	46	65	87	95	89	100
Caribbean Region[a]	74	122	143	163	200	219	223	247
Remainder of Latin America	33	59	80	90	102	119	107	108
Rest of the World	271	747	895	923	949	1,073	1,063	1,143
Total Asia included above	121	449	511	515	487	565	560	654
Japan	45	218	264	250	228	261	258	288
Australia	39	81	120	125	149	169	159	141
China	22	100	109	109	94	110	84	137
Africa	25	56	61	70	89	101	107	117
Porto Rico[b]	33	58	77	78	78	85	86	82
Hawaii	25	54	66	70	73	76	80	78
Philippine Islands	23	43	49	60	61	69	70	80
British India	11	31	30	35	38	50	63	54
Remainder of rest of the World	48	106	119	126	139	152	156	166

[a] Includes Central America, West Indies (except Cuba), Colombia, and Venezuela.

[b] Includes only exports from continental United States to the Territory.

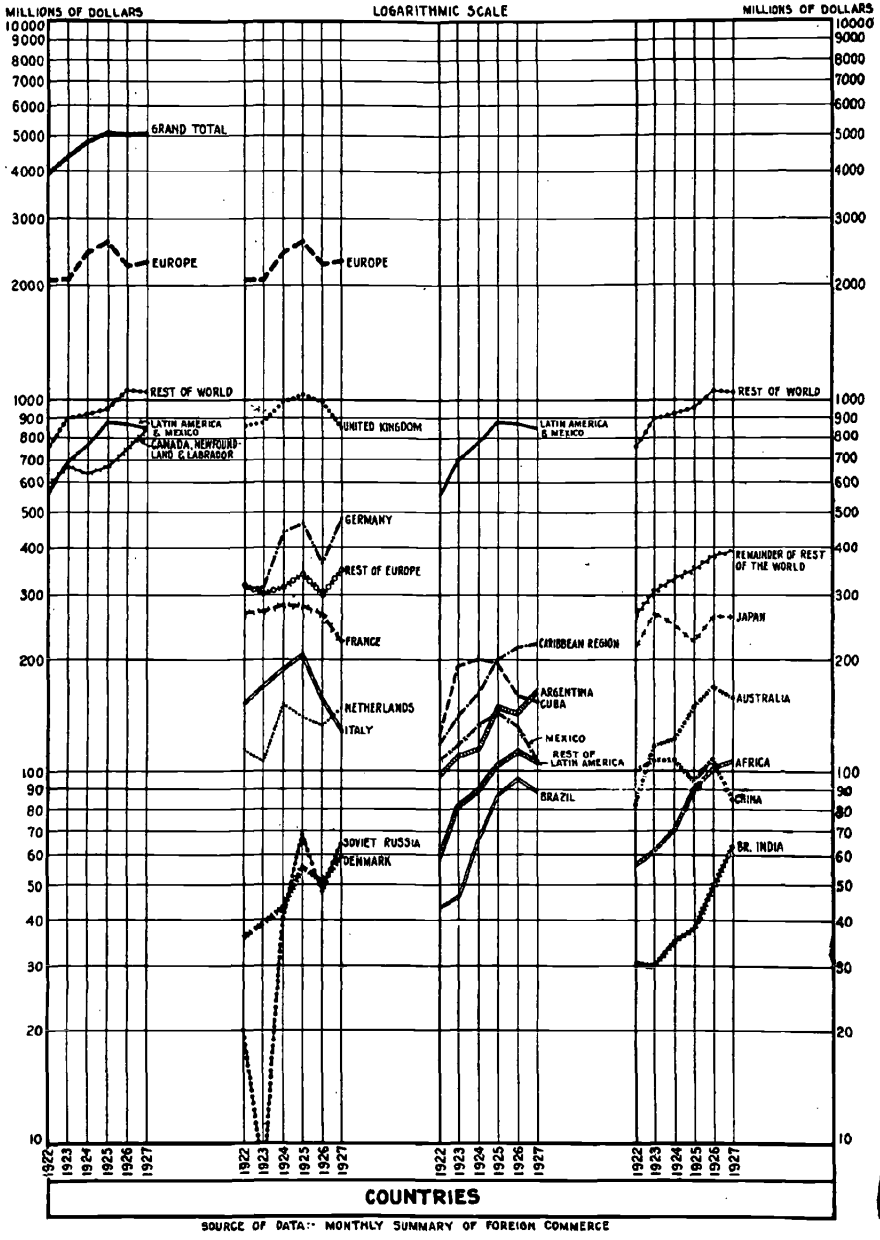
Source: *Monthly Summary of Foreign Commerce*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce.

selves. In order to bring out the more significant of these relative changes, the device of the logarithmic chart has been introduced. By plotting, for each territorial division, the logarithm of its total takings of our export trade each year instead of the total takings themselves, graphs showing the relative changes in the proportions taken by each of the geographical areas will result.[2] In Chart 1 are represented on such a logarithmic scale, (1) the total value of our exports distributed according to the major geographic divisions to which they were sent; and (2) the

[2] Since the logarithm of any multiple of a given number is equal to the logarithm of the number plus the logarithm of the multiplier, equal proportional changes in the original items are represented by equal absolute changes in the logarithms.

totals going to each major division in turn distributed among the principal receiving countries.

CHART 1.—EXPORTS OF THE UNITED STATES ANNUALLY, 1922–1927



SOURCE OF DATA:· MONTHLY SUMMARY OF FOREIGN COMMERCE

By reference to this chart, it will be seen that, during the period under discussion, exports to all three of the other main divisions gained more

largely than did those to Europe. Also, of those to Europe, it will be seen that, while the United Kingdom, France, and Italy hardly maintained their takings, the portions taken by Germany—which, even when price changes are allowed for, have already reached their prewar level—increased rapidly, as did those taken by the Netherlands. Meanwhile, exports to all the rest of Europe moved gradually upward. Of our exports to Latin America, the increases in the purchases of two of our three largest customers—Cuba and Mexico—did not keep up proportionally with the increases of the rest of the countries, most of which greatly enlarged their takings. Finally, an analysis of the changes in our exports to other parts of the world shows, with the exception of those to Australia, that the chief increases have come not in the takings of important old customers but rather in those of new ones. Much, then, of the recent expansion of our export trade, other than that to Australia and to Canada, came through the development of new and formerly little-used markets, rather than through the extension of old ones.

When important price changes are eliminated[3] (see Chart 2), many differences appear in the movements.[4] Exports to the United Kingdom, instead of showing a nearly horizontal trend, carry a marked upward trend. Likewise those to France and to Italy no longer show declining trends. In the Pacific, too, the nearly horizontal trend formerly found for Japan has shot rapidly upward, showing clearly that the general falling off of our sales in that country was fictitious and a result of price changes only. Nevertheless, confirmation is found for the conclusion above reached: that, in volume, our exports to Canada and to Latin America—as well as to outlying parts of the world including Oceania and many parts of Asia—have increased more rapidly than those to Europe. Within Europe, the elimination of important price changes brings into even bolder relief the preponderant increases to Germany and to Russia as contrasted with those to our former allies. In Latin America, the great increases of our exports to Argentina, to Brazil, and to certain of the smaller countries, as compared with those to two of our largest customers of long standing, Cuba and Mexico, are in every sense real and not the results of mere price fluctuations.[5]

Of more direct importance for American business conditions is the commodity content of our outgoing trade. Our chief exports were made up as shown in Table 3.

[3] For exact description of method used, see footnote 1.

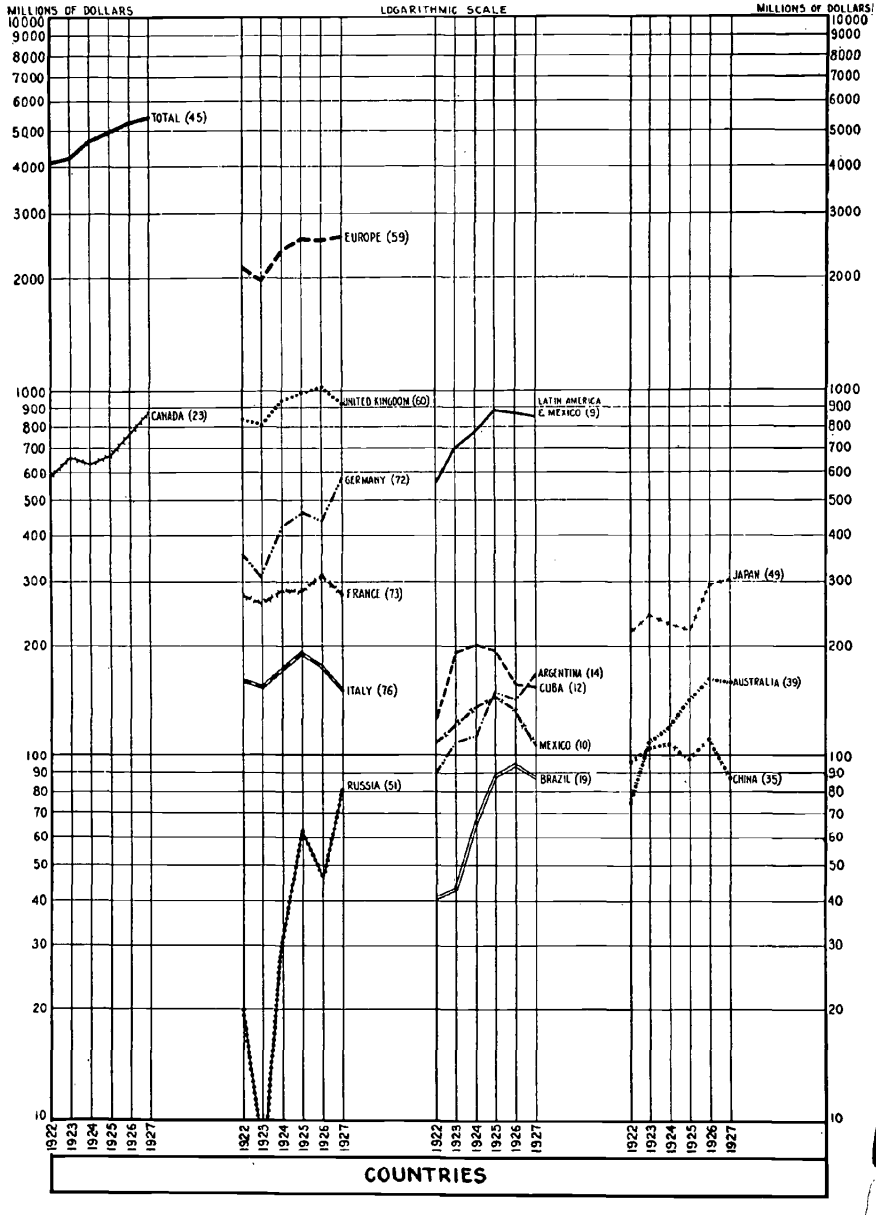
[4] Reference is here made to the period 1922–1927 only. The data for 1928 are not yet available.

[5] This conclusion cannot be drawn directly from the chart, for the reason that price changes have actually been eliminated only in the case of a small proportion of the exports to Latin American countries. It is known, however, that the prices of the highly varied manufactured goods which make up the bulk of the trade have not fluctuated sharply, and such changes as have occurred have affected the several countries in roughly similar measure.

"King Cotton" still holds first place. Nor has there yet appeared an aspiring rival to dispute its position. In spite of the much-vaunted

CHART 2.—EXPORTS OF THE UNITED STATES ANNUALLY, WITH IMPORTANT PRICE CHANGES ELIMINATED, 1922–1927

Inserted figures indicate per cents actual value of adjusted items are of original total values.



Americanization of world industry, the exports of machinery of all type combined prove but a poor second to cotton, totaling in value a scant

TABLE 3.—ANNUAL EXPORTS OF DOMESTIC GOODS OF THE UNITED STATES, BY COMMODITIES, 1922–1928

(Value in millions of dollars; quantity in millions of unit specified. For basis of totals, see description of data in note to Table 1. The figures for individual commodities do not include shipments to Alaska, Hawaii, and Porto Rico)

Commodity	1910–14		1922		1923		1924		1925		1926		1927		1928	
	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
Total	2,243	.....	3,971	.....	4,343	.....	4,772	.....	5,093	.....	5,002	.....	5,067	.....	5,321	....
1. Cotton, raw—pounds	552	4,420	673	3,153	807	2,743	951	3,483	1,060	4,384	814	4,692	826	4,897	920	4,579
2. Machinery	154	.....	239	.....	288	.....	317	.....	385	.....	400	.....	435	.....	497	....
3. Wheat—bushels	55	57	206	165	116	99	237	166	149	87	202	138	240	168	120	96
4. Iron and steel	142	.....	189	.....	234	.....	221	.....	224	.....	250	.....	234	.....	262	....
5. Gasoline, naphtha, and other finished light products—gallons	17	147	127	579	138	846	167	1,186	198	1,290	263	1,784	210	1,824	232	2,174
6. Passenger automobiles[a]	17	19	51	67	91	127	113	151	185	244	176	239	208	279	264	368
7. Leaf tobacco—pounds	45	388	146	431	152	474	163	547	153	468	137	479	139	506	154	575
8. Cotton manufactures	45	.....	139	.....	138	.....	133	.....	148	.....	131	.....	132	.....	135	....
9. Copper, (refined)—pounds	[b]118	.....	89	653	110	729	138	1,010	140	968	121	856	125	922	140	948
10. Fruits	28	.....	74	.....	67	.....	96	.....	101	.....	110	.....	120	.....	128	....
11. Boards and timber—board feet	62	2,709	67	1,882	103	2,368	102	2,638	99	2,508	97	2,694	107	2,951	108	3,119
12. Lard—pounds	56	501	91	767	130	1,035	126	944	118	689	109	699	92	681	99	760
13. Lubricating oil—gallons	25	191	77	331	77	348	87	379	91	403	86	389	89	404	92	456
14. Wheat flour—barrels	51	11	86	15	88	16	91	16	85	11	83	12	85	13	74	12
15. Kerosene—gallons	64	1,056	83	895	77	848	89	916	84	877	100	925	79	810	93	918
16. Chemicals	20	.....	52	.....	57	.....	53	.....	58	.....	65	.....	73	.....	75	....
17. Bituminous coal—tons	34	14	66	11	105	19	71	15	68	16	156	31	71	16	59	14
18. Meats—pounds	63	.....	135	799	150	1,037	114	803	118	612	99	481	64	356	61	365
19. All other to outside customs area	617	.....	1,242	.....	1,240	.....	1,322	.....	1,446	.....	1,410	.....	1,536	.....	1,616	....
20. Total shipments to Alaska, Hawaii, and Porto Rico	78	.....	139	.....	175	.....	181	.....	183	.....	193	.....	202	.....	192	....

Source: *Monthly Summary of Foreign Commerce*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce. Only items aggregating $50,000,000 in at least one year are included.

[a] Quantity in thousands (passenger cars except electric).

[b] All copper (not stated separately).

half. Nevertheless, the path of cotton has not been consistently upward. Severe declines below the 1925 level appeared in 1926 and in 1927. Both are explained by price recessions, as the physical volume of the exports increased considerably during those years. In 1923 and again in 1928, when the total value increased considerably, the actual quantities exported were substantially reduced.

Of significance for American manufactures, as contrasted with agriculture, are the extraordinary and almost uninterrupted increases in the value of our exports of machinery and automobiles. Since 1922, total values of machinery have doubled and those of passenger automobiles more than quintupled, and the quantities exported have increased in similar proportion. Exports of gasoline and of fruits have also increased greatly and almost continuously throughout the period, while those of meats have declined, until in 1928 they were below their prewar level in value despite much higher prices.

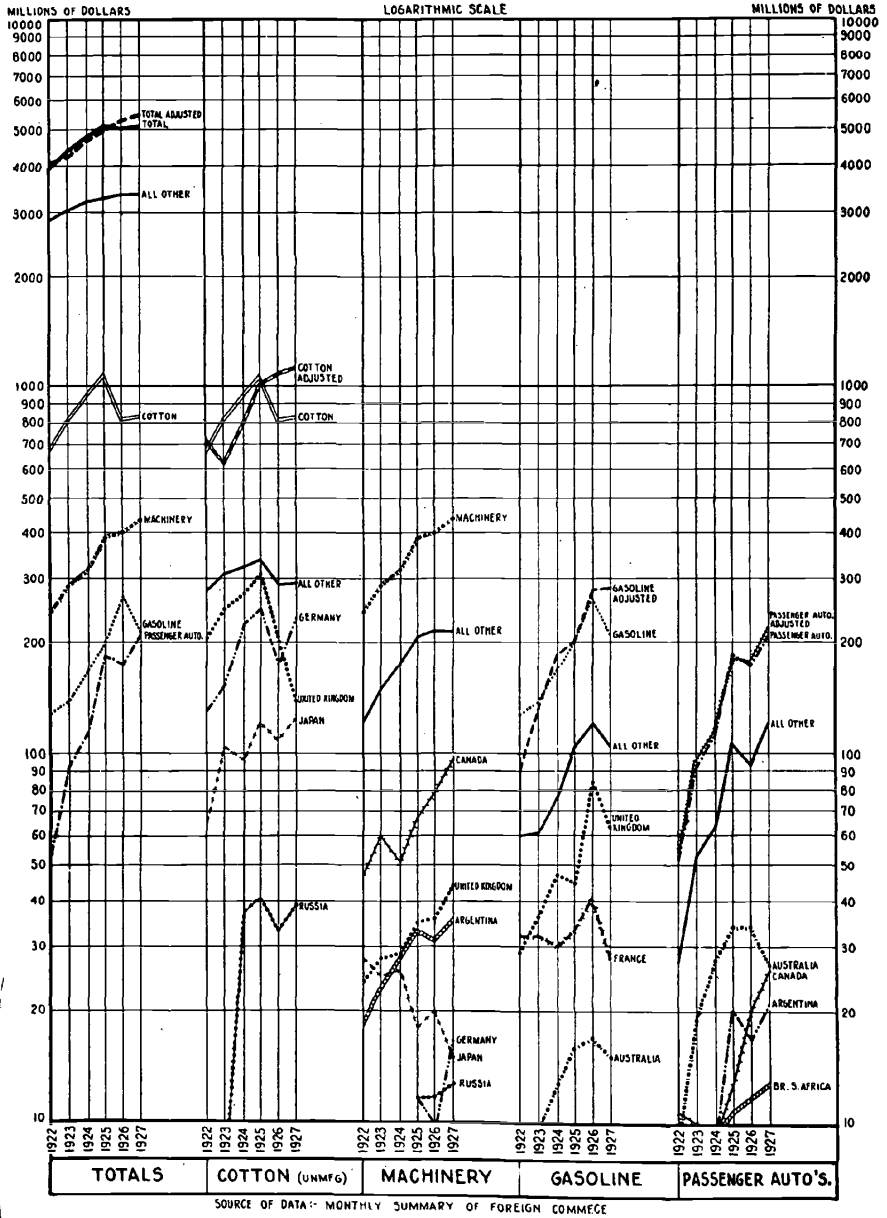
Many shifts in the relative positions of our exports have taken place in the short period under consideration. In certain cases, the changes have resulted largely from variations in prices of important articles; but in others, equally important fluctuations in physical volume have appeared. In order to distinguish between the two types of changes, values of each of the major exports, so far as quantities are available, have been computed at the average price[6] at which it sold during the period. These values, with price fluctuations thus largely eliminated, are plotted along with the actual values in Chart 3.

How much the variations in prices have affected the total value of our exports is seen in the graphs. The volume of foreign sales of cotton increased yearly from 1923 to 1927, but declined somewhat in 1928; on the other hand, the values in both 1926 and 1927 were much below those of 1924 and 1925, and even in 1928, despite an increase in price, the value remained somewhat below the values in those years. Exports of gasoline and allied products increased greatly in quantity throughout the entire period, but the values in 1927 and 1928 were considerably less than in 1926. With meats, the quantities from 1923 to 1927 declined even more rapidly than values, while with automobiles, the rises (temporarily halting in 1926) appear almost equally rapid in quantities and in values throughout the entire period 1922–1928.

The destinations of the chief items of our export trade are also shown in Chart 3. Among the foreign purchasers of our cotton, the first place, formerly held by the British, in 1927 passed to the Germans. The purchases by the Japanese increased greatly throughout the period up to

[6] This method of measuring quantities has an advantage over the usual one in that it facilitates comparisons with corresponding values at the same time that the relative importance of the export is kept automatically in the mind of the reader. Also the effects of price changes are brought out more clearly.

CHART 3.—EXPORTS OF THE UNITED STATES ANNUALLY, 1922–1927, COMMODITY DISTRIBUTION



1927, but fell off in 1928. Of machinery, the wide geographic distribution of our sales is clearly evident. Canada naturally holds first place. In spite of its tariff walls, industrially it has long been a part of the United States; and recently, on account of those same trade barriers

combined with the "imperial preference" policy of the British Empire, it has attracted an ever increasing number of American branch plants. The notable increase in its takings of American machinery during the period under discussion is to be remarked. Curiously enough, the United Kingdom, with its pre-eminence in machinery manufacture, takes second place in our exports of machinery, as a result of an increase throughout the period hardly less rapid than that of Canada. The rapid increases to Argentina, especially in the early part of the period, are to be noted, as are those to Australia. But above all, attention is called to the extraordinarily rapid advance in machinery sales to the many and diverse countries included under the caption "All other." Of automobiles, the greatly enlarged sales to Argentina, Australia, and British South Africa (though in the case of Australia some decrease occurred in 1927 and 1928) constitute probably the most phenomenal development, though the steep incline of the "All other" curve indicates the rapid increase in exports of these, as of machinery, to all other parts of the world.

Imports.—While the value of American merchandise imports was one-third larger in 1928 than in 1922, considerable declines appeared both in 1924 and in 1927 and a small decline also in 1928. The aggregate weight, as given by the cargo tonnage, showed similar declines. When changes in the prices of important articles are eliminated, although the decline of 1924 again appears, the imports of 1927 remain almost exactly equal to those of 1926. (There was, moreover, an increase in 1928, although precise computations are not yet available.)

TABLE 4.—TOTAL ANNUAL IMPORTS OF THE UNITED STATES, 1922–1928

(Value in millions of dollars; volume in millions of tons)

Year	Value	Volume in cargo tonnage of water-borne imports	Value with important price changes eliminated[a]
1922	3,298	44.7	3,745
1923	4,027	43.3	3,990
1924	3,851	40.9	3,755
1925	4,479	43.1	4,291
1926	4,693	44.0	4,546
1927	4,442	42.0	4,551
1928	4,372	....	.....

[a] For exact description of character of the data of this column, see footnote 1.

Source: Values are taken from *Monthly Summary of Foreign Commerce*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce. Cargo tonnage figures for 1922–1925 inclusive, are taken from the *Statistical Abstract of the United States* compiled on basis of data gathered by United States Shipping Board, Bureau of Research, Division of Statistics. Data for 1926 and 1927 are taken from *Special Report* No. 298 Division of Statistics of the United States Shipping Board.

Description of data: See footnotes to Table 1.

The geographic distribution of our import trade shows many interesting characteristics. In Table 5 is shown the total value distributed, first by major geographic divisions and then by important countries making up the larger areas. Europe continues to supply the largest single portion, which, although it shows a considerable decline from the full one-half of prewar years, still makes up somewhat more than one-fourth of the total. Latin America comes second with a supply but slightly less in value than that of Europe. Canada, on the other hand, is responsible for less than half as much as that originating either in Latin

TABLE 5.—ANNUAL IMPORTS OF THE UNITED STATES, 1922–1928

(In millions of dollars. See also description of data in note to Table 1)

Division	1910–14	1922	1923	1924	1925	1926	1927	1928
Grand total	1,790	3,298	4,027	3,851	4,479	4,693	4,442	4,372
Europe	837	991	1,157	1,096	1,238	1,286	1,276	1,249
United Kingdom and Irish Free State	279	357	404	366	414	385	360	350
Germany	177	117	161	139	164	198	201	222
France	130	143	150	148	157	152	168	159
Italy	51	64	92	75	102	103	109	102
Netherlands	35	64	78	74	93	102	87	84
Belgium	40	54	68	66	69	78	72	75
Remainder of Europe	125	192	204	228	239	268	279	257
Canada, Newfoundland, and Labrador	119	366	418	402	458	485	484	499
Latin America	434	815	1,050	1,059	1,041	1,094	1,019	1,030
Cuba	122	268	376	362	262	251	257	203
Brazil	111	120	143	179	222	235	203	221
Mexico	71	132	140	167	179	169	138	125
Argentina	33	86	115	75	80	88	97	99
Chile	23	60	92	98	89	81	62	75
Caribbean Areas[a]	57	105	124	137	163	219	222	266
Remainder of Latin America	17	44	60	41	46	51	40	41
Rest of World	400	1,126	1,402	1,294	1,742	1,828	1,663	1,594
Total Asia, included above	259	827	1,020	931	1,319	1,401	1,257	1,169
Japan	85	354	347	340	384	401	402	384
Straits Settlements	25	94	154	148	314	384	278	204
China	35	135	188	118	170	143	152	140
British India	56	91	128	103	144	151	131	149
Hawaii	45	73	101	108	103	98	109	117
Philippine Islands	19	62	78	97	112	104	116	115
Porto Rico	37	60	80	77	93	90	97	97
Africa	23	65	87	73	92	96	93	90
Dutch East Indies	9	34	55	58	96	120	92	86
Alaska	19	51	54	55	55	73	51	68
Australia	12	36	41	33	55	46	39	32
Ceylon	10	20	28	25	48	56	41	31
Remainder of rest of the World	25	51	61	59	76	66	62	81

[a] Includes Central America, West Indies (except Cuba), Colombia, and Venezuela.

Source: *Monthly Summary of Foreign Commerce*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce.

America or in Europe. All the rest of the world together accounts for but little more than that already attributed to Europe.

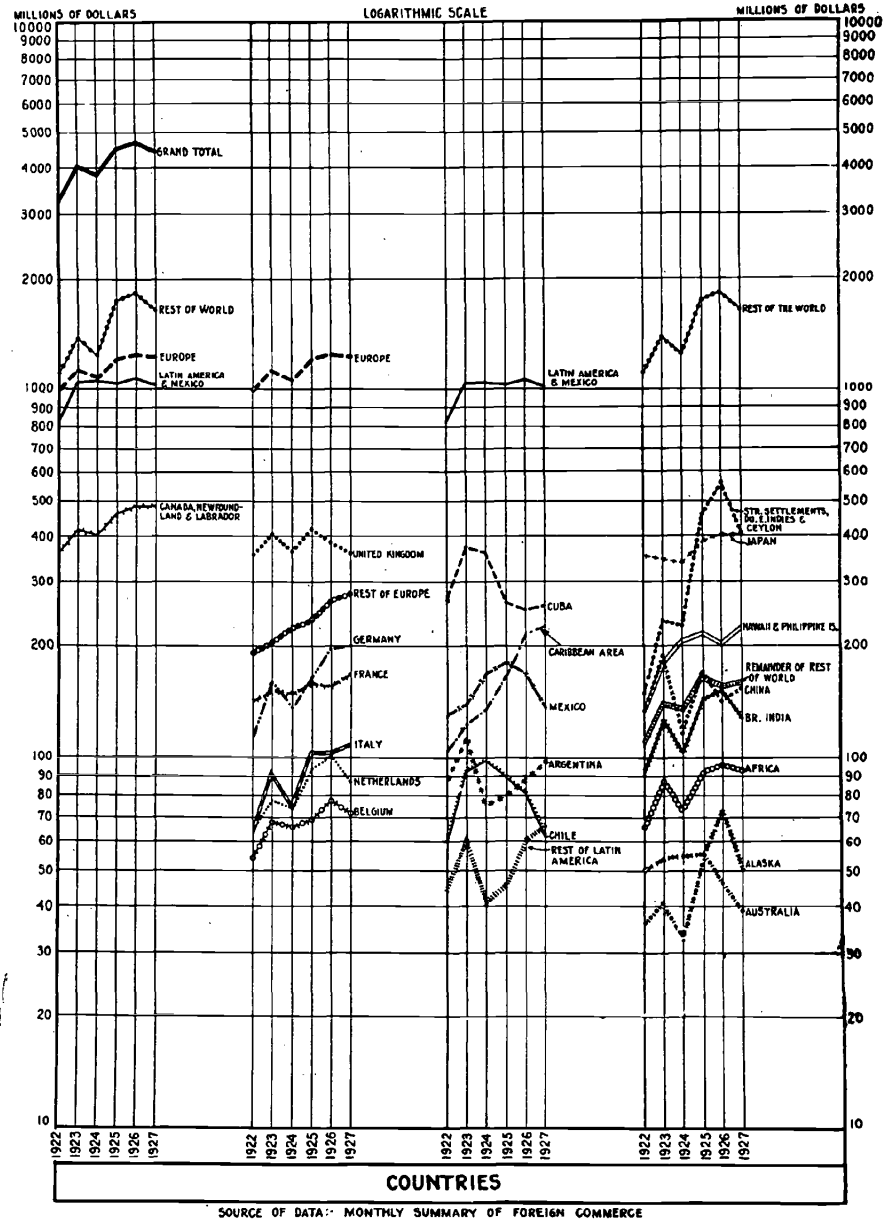
Within the main geographic areas in Europe, it is the United Kingdom which purveys the largest single portion of our import trade; and while before the war and still in 1922 France accounted for the next larger portion, more recently her part has been greatly exceeded by that of Germany. In Latin America, Cuba with its great sugar plantations continues our largest supplier, but, by the end of the period, accounted for only a slightly larger proportion of our imports than did Brazil with its vast production of coffee. Mexico, which in 1922 surpassed Brazil in the value of its exports to the United States, showed in 1928 an actual decline as compared with 1922, having thus dropped back to its prewar position. The Caribbean States during each year have shown an increase, usually very marked. In the rest of the world, while Japan continues our most important supplier, our great demands for rubber have brought, during several recent years, the combined imports from the Straits Settlements, Ceylon, and the Dutch East Indies into a position of even greater importance. China, on the other hand, has little more than maintained the position which it held in 1922.

In order to bring out more clearly the relative changes in the proportions of our imports coming from the various parts of the world, the device of the logarithmic chart will again be resorted to. In Chart 4, the logarithms of the value of our imports from various parts of the world, instead of the actual value, are represented. Hence, in the various graphs, equal absolute changes represent equal proportional changes in the values of the imports.

The values of our imports thus represented and distributed according to geographic sources show many changes during the period since 1922. It is immediately evident that, of our incoming trade from Europe and from Latin America, the values have increased proportionally less than those from Canada and much less than those from the rest of the world. Also, of those from Europe, the rapid increase in the value of imports from Germany, Italy, and from most of the other countries, as contrasted with those from the United Kingdom and from France, are extremely noticeable.

In Latin America, the rapid increases of our imports from the newer and smaller countries, especially from the Caribbean area, as compared with those from the older and more established markets, are especially to be noted. And as regards the rest of the world, the extraordinary increases from the Straits Settlements and other rubber producing countries, from our territorial possessions, from British India, and from Africa are to be contrasted with the smaller increases from our older suppliers, such as China, Japan, and Australia.

CHART 4.—IMPORTS OF THE UNITED STATES ANNUALLY, 1922–1927

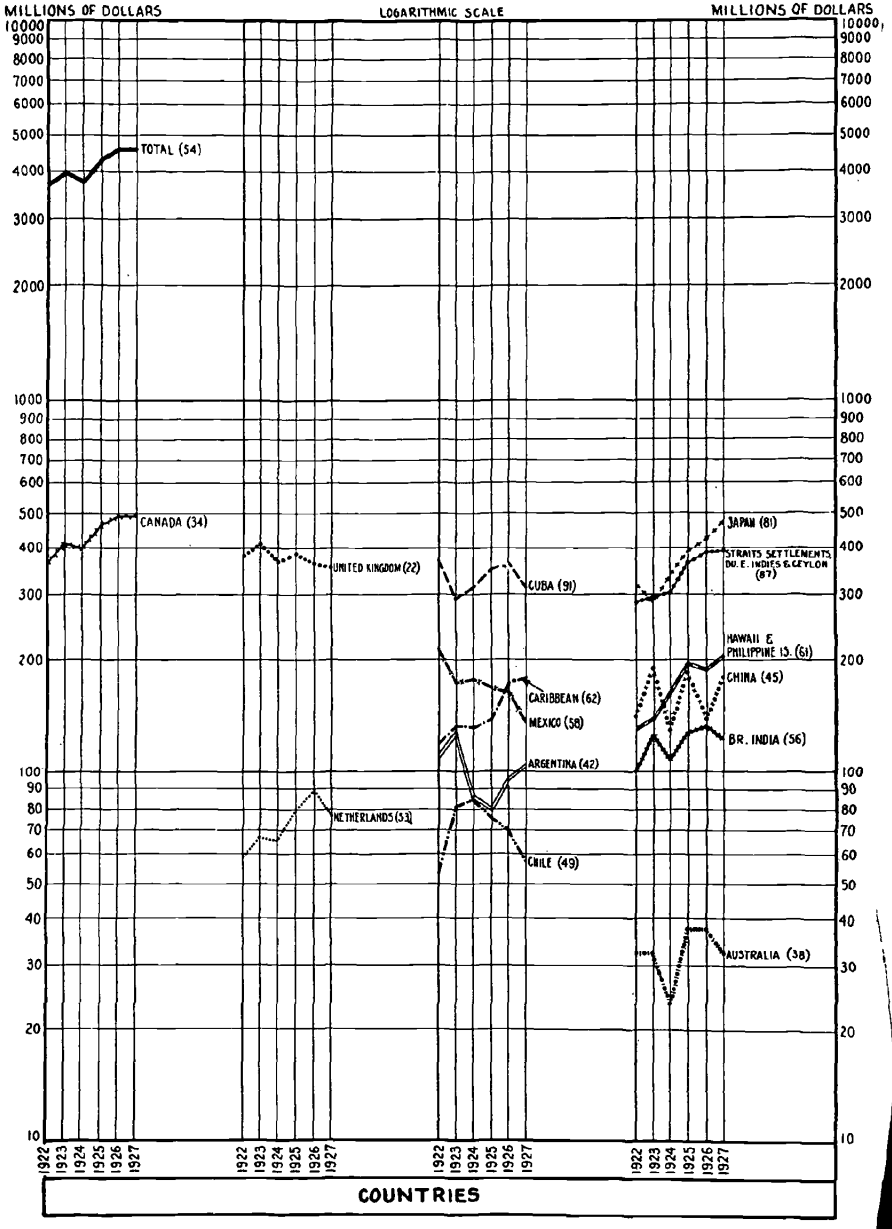


SOURCE OF DATA: MONTHLY SUMMARY OF FOREIGN COMMERCE

With imports, then, as with exports, much of the recent increase has come from the development of new and formerly little-known markets rather than through the extension of older ones.

CHART 5.—IMPORTS OF THE UNITED STATES ANNUALLY, WITH IMPORTANT PRICE CHANGES ELIMINATED, 1922–1927

Inserted figures indicate per cents actual values of adjusted items are of original total values



When important price changes are eliminated (see Chart 5), certain changes in the above conclusions appear, especially in connection with

TABLE 6.—ANNUAL IMPORTS OF FOREIGN MERCHANDISE BY THE UNITED STATES BY COMMODITIES, 1922–1928

(Value in millions of dollars; quantity in millions of units specified. For the basis of totals see description of data in note to Table 1. The figures for individual commodities, except sugar, fruits, and nuts, do not include imports from Alaska, Hawaii, and Porto Rico)

Commodity	1910–14		1922		1923		1924		1925		1926		1927		1928	
	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity
Total	1,790	.....	3,298	.....	4,027	.....	3,851	.....	4,479	.....	4,693	.....	4,442	.....	4,372	.....
1. Raw silk—pounds	77	24	366	51	392	50	328	51	396	64	393	66	390	74	368	75
2. Cane sugar[a]	169	612	329	1,156	498	942	489	1,040	362	1,163	337	1,201	382	1,111	337	1,080
3. Crude rubber—pounds	86	106	102	674	185	692	174	735	430	888	506	926	340	955	245	978
4. Coffee—pounds	102	899	161	1,246	190	1,408	249	1,421	286	1,284	323	1,493	264	1,433	310	1,457
5. Newsprint paper—pounds	5	238	72	2,059	98	2,618	101	2,714	104	2,897	124	3,701	131	3,974	139	4,314
6. Fruits and nuts	48	.....	99	.....	101	.....	102	.....	129	.....	128	.....	126	.....	134	.....
7. Furs	23	.....	68	.....	88	.....	88	.....	115	.....	118	.....	124	.....	109	.....
8. Hides and skins—pounds	105	531	107	551	119	532	75	357	97	362	97	369	113	447	151	506
9. Tin—pounds	42	106	41	135	61	154	69	146	95	172	105	173	101	159	87	175
10. Wood and manufactures	42	.....	97	.....	121	.....	112	.....	120	.....	102	.....	93	.....	80	.....
11. Raw wool—pounds	39	208	87	376	130	394	93	268	142	329	107	310	83	267	80	245
12. Tobacco—pounds	37	58	74	81	67	63	84	72	81	82	70	72	84	106	63	78
13. Wool manufactures	22	.....	59	.....	69	.....	69	.....	74	.....	71	.....	79	.....	78	.....
14. Petroleum—gallons	5	.....	70	5,347	54	3,445	74	3,267	75	2,597	79	2,536	78	2,451	90	3,350
15. Burlaps—pounds	29	421	49	521	67	598	59	576	85	626	82	599	67	570	80	620
16. Cotton manufactures	67	.....	87	.....	100	.....	91	.....	80	.....	67	.....	66	.....	69	.....
17. Oil seeds	15	.....	44	.....	68	.....	50	.....	65	.....	72	.....	64	.....	61	.....
18. Vegetable oils	27	.....	58	.....	61	.....	62	.....	75	.....	65	.....	61	.....	63	.....
19. Fertilizers[b]	41	863	45	1,340	64	1,858	67	1,893	78	2,268	69	2,082	59	1,819	78	2,533
20. Pulp (sulphite)[b]	15	472	40	636	49	712	51	834	54	866	61	924	58	925	56	948
21. Cocoa—pounds	16	142	32	345	34	414	29	378	38	382	43	426	57	425	47	379
22. Flax and hemp	32	.....	49	.....	48	.....	57	.....	52	.....	53	.....	54	.....	51	.....
23. Copper, unrefined	28	.....	38	303	56	395	59	471	49	379	56	444	52	439	68	543
24. Raw cotton—pounds	21	111	48	186	49	187	49	161	53	157	46	181	46	206	43	172
25. Diamonds[c]	35	.....	43	454	52	540	47	502	50	514	51	555	41	446	42	440
26. Vegetable fibers[b]	.....	.....	23	187	32	244	38	226	57	238	50	223	39	206	36	216
27. All other outside customs area	632	.....	931	.....	1,088	.....	1,001	.....	1,142	.....	1,302	.....	1,299	.....	1,300	.....
28. All other receipts from Alaska, Hawaii, and Porto Rico, other than sugar, fruits, and nuts	30	.....	79	.....	86	.....	84	.....	95	.....	116	.....	91	.....	107	.....

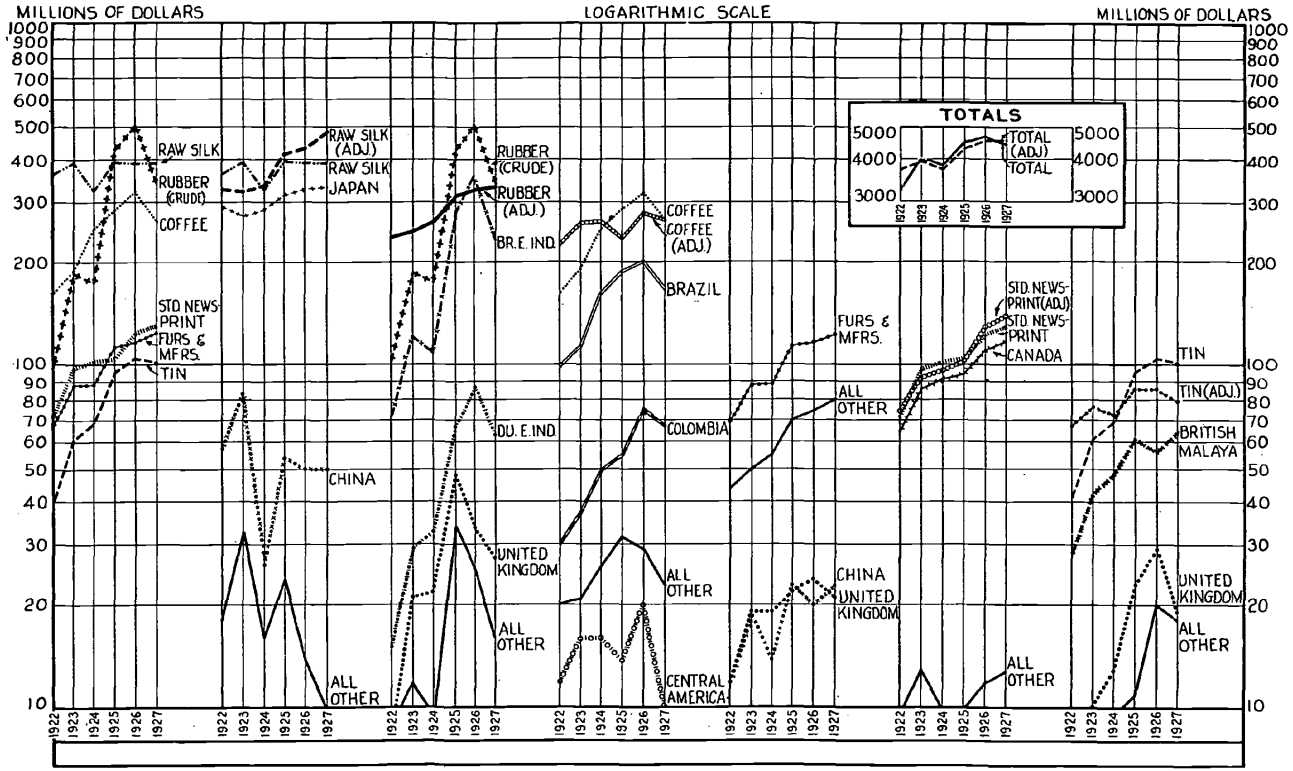
Source: *Monthly Summary of Foreign Commerce*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce.

[a] Tens of millions of pounds.

[b] Thousands of tons.

[c] Thousands of carats (cut but not set).

CHART 6.—IMPORTS OF THE UNITED STATES ANNUALLY, 1922–1927



our trade with the Far East. Thus measured, our imports from the rubber-growing countries no longer rose more rapidly after 1922 than did those from Japan and from our insular possessions. The rapidity of the rise in imports from British India is considerably reduced. It is evident that the drastic fluctuations in the price of rubber served greatly to distort the changes in the values of our imports from certain rubber-producing countries, while the smaller fluctuations in the prices of silk affected the value of our large imports from Japan.

Of more significance in its bearing on American industry is the commodity content of our import trade. The principal items are enumerated in Table 6.

It will be noted immediately what prominent proportions of the total are made up of silk, sugar, rubber, and coffee. In fact, in 1926, these four articles alone made up in value one-third of the total of our imports, and in 1928, in spite of a drastic decline in the price of rubber, more than one-fourth. Most of the remainder of those which bulk high in value are, like three of the above, raw materials admitted with little or no tariff restriction.

During the period since 1922, important changes have occurred in the relative proportions made up by the various components. Chart 6, in which the logarithms of the values of each import, instead of the values themselves, are plotted, makes clear the relative movements of the values of the various items. Especially to be noted are the enormous increases in rubber and in tin down to 1926, and the rapid increase, scarcely broken to 1928, in copper, newsprint, furs, and cocoa. When important price changes are eliminated, many of the most pronounced inclines are much reduced. Rubber and tin show almost unbroken upward trends throughout the period, but with slopes much less than those of newsprint and fertilizers, or only about the same as that of raw silk, the actual value of which followed an almost horizontal trend throughout the period. Petroleum, although its actual value showed an upward trend, has, until 1927, a pronounced downward slope when the changes in its price are eliminated; and although a marked rise occurred in 1928, the total import was still much below that for 1922.

II. FOREIGN LOANS

Extension of Idea to All Investments.—Any discussion of foreign loans in their relationships to international trade or to business conditions in the lending country must necessarily involve the broader consideration of all credit transactions with the outside world. Whether the advance of funds takes the form of a public flotation of security issues, a direct investment in the construction of a foreign plant, or a temporary loan by a finance institution, there are so many elements of similarity in the resulting influences set into operation that few advantages and many

disadvantages might be expected to arise from more narrowly limiting the problem. Consequently, in this study of the effects of foreign loans on business conditions in the United States, all kinds of credits will be considered.

In securing any worthwhile estimate of the volume of such credits, almost insuperable difficulties are encountered. Although several compilations by independent investigators are published periodically, all are subject to grave error. In fact, it is only of the publicly floated issues that many of the outstanding details ever become generally known. And even with regard to such credits, important uncertainties inevitably arise. That an issue was floated in New York may not mean that all the securities were sold to Americans even in the first instance. This is especially true in cases of issues by Canadian firms, which are beginning to use New York's financial facilities much as businesses do which are located in Michigan or in Ohio. And even when securities are originally sold here, there is nothing to prevent their being rapidly resold to people in other countries. Statistics of both these types of "backwash" are as yet extremely inaccurate.

Our statistical information is even more rudimentary on other types of credits. Privately granted credits and direct investment, once they reach the public press, are "caught" as they appear. But what proportion of them receives publicity? And what fraction or multiple of the actual cash involved in those which do, gets mention in the press dispatches? Indeed, in certain direct investments, it is difficult to determine even theoretically what should be included. For example, an oil company incorporated in New Jersey, but conducting extensive operations in Latin America, floats a loan in New York City to provide funds for the purchase of barges and loading machinery necessary for the transport of crude oil to its refineries here. What proportion of the loan represents an investment in Latin America? Finally, credits of extremely informal character are doubtless continually arranged between head offices and branches of banks and of other finance institutions both American and foreign, as well as between banks only partially interconnected by stock ownership, and between important correspondents. Informal credits, too, are likely to be contracted between head offices and branch manufacturing plants which American firms are fast constructing in many parts of the world. Of the amounts of such credits, little more than the wildest guesses are available.

In the face of all these obstacles, the Finance and Investment Division, Bureau of Foreign and Domestic Commerce, United States Department of Commerce, has compiled a series of estimates of the various types of the foreign credits of the United States. While admittedly subject to a wide margin of error, so many cross-checks have been used in their compilation, that the gross estimates, which alone are presented

in this study, cannot but command respect. On account of his interest in the subject, Dr. Ray O. Hall, who for the last two years has been in charge of the compilation of the *Balance of International Payments of the United States*, has kindly consented to reconstruct for this study the estimates for earlier years, using the method which has apparently given such excellent results in the handling of the 1926 and 1927 data. His revised estimates are used throughout the remainder of this chapter.

Facts of Foreign Loans.—Outstanding at the end of each of the years 1922–1927 our total foreign investments are estimated[7] as shown in the following statement:

1922	$ 8,522,000,000
1923	8,775,000,000
1924	9,589,000,000
1925	10,405,000,000
1926	11,195,000,000
1927	12,187,000,000

Similar estimates of the investments of foreigners in American securities and properties at year-end dates are given in the following statement:[8]

1922	$2,808,000,000
1923	3,052,000,000
1924	3,096,000,000
1925	3,301,000,000
1926	3,469,000,000
1927	3,700,000,000

The estimated service actually paid to Americans by foreigners and to foreigners by Americans are given in Table 7. In the same table are added the amounts of the service on inter-government war debts, and the estimated amounts of service on short-term obligations of all sorts. The final balances represent estimates of the net sums entering into our balance of international payments for each year on account of indebtedness outstanding during that year.

[7] Estimate by Ray O. Hall, Assistant Chief of the Finance and Investment Division, Bureau of Foreign and Domestic Commerce, United States Department of Commerce, Washington, D.C. At the ends of 1926 and 1927, range estimates are given as follows: 1926, $10,500,000,000 to $12,500,000,000; 1927, $11,500,000,000 to $13,500,000,000. Estimates for other years are probably not more accurate.

Description of data. In making the estimates of this table the following method was used: The estimated value of the total American investments abroad at the end of the calendar year 1925, as given on page 15 of the *Balance of International Payments of the United States in 1925*, was taken as a base. For the other years, cumulative additions to and subtractions from this base were made on the basis of the yearly investments of Americans abroad, as given in the first "Balance" column of Table 8.

[8] Description of data. In making the estimates of this table the following method was used: From the total investments of foreigners in the United States at the end of 1927, as given on page 25 of the *Balance of International Payments of the United States in 1927*, have been subtracted the cumulative flotations each year as given in the "Balance" of "Investments of Foreigners in the United States" in Table 8.

TABLE 7.—INTEREST AND COMMISSION

(In millions of dollars)

Year	Received from foreigners			Paid to foreigners		B alance
	Interest on long-term private investments	Short-term interest and commissions	War-debt receipts of United States Treasury	Interest on long-term private investments	Short-term interest and commissions	
1922	526	25	158	120	24	565
1923	560	30	259	140	40	669
1924	596	35	183	150	42	622
1925	639	45	186	165	64	641
1926	678	57	195	190	78	662
1927	738	57	206	203	78	720

Source: Revised estimates of balance of international payments of the United States for calendar years 1922–1927, inclusive, by Ray O. Hall. Hereafter this reference will be condensed to: Revised estimates by Ray O. Hall. War-debt receipts of United States Treasury include interest and principal.

TABLE 8.—ANNUAL CHANGES IN PRIVATE FUNDED CAPITAL ITEMS, 1922–1927

(In millions of dollars)

Year	American investments abroad, new long-term	Refunding and backwash	Balance	Investments of foreigners in United States securities	Refunding and backwash	Balance	Net export of long-term capital
1922	1,220	478	742	80	74	6	736
1923	581	328	253	308	64	244	9
1924	1,424	610	814	131	87	44	770
1925	1,593	777	816	283	78	205	611
1926	1,653	863	790	709	541	168	622
1927	1,974	982	992	931	700	231	761

Source: Revised estimates by Ray O. Hall.

Descriptions of data: "United States investments abroad, new long-term" is the sum of "Foreign security investments of Americans" and "Direct foreign investments of Americans."

"Refunding and backwash" is the sum of "Refunding to Americans," "Bond redemption and sinking-fund payments from foreigners" and "Resale of investments to foreigners."

No allowance has been made for "Discounts on investments abroad."

Net annual increases in our long-term foreign investments, divided into "publicly floated" and "direct investments," are given in Table 9.

Estimates of the reverse items, of purchases by foreigners each year of American properties and securities, are given in Table 10.

In Table 11 are given estimates of the yearly net balances of the movements of funded and unfunded credits and direct investments.[9]

[9] In the first column are entered the direct estimates made by Ray O. Hall. In view of the admitted unreliability of the "unfunded items" entering into these estimates, the same balances have been recompiled with a method similar to the one in general use in the British balance of payments. More explicitly, the combined estimates of the movements in the balance of payments of all items—visible and invisible—except credits of all sorts, are assumed to be accurate in the sense that errors a

TABLE 9.—LONG-TERM FOREIGN INVESTMENTS OF AMERICANS

(In millions of dollars)

Year	Publicly floated	Direct investments	Total
1922	626	116	742
1923	206	47	253
1924	701	113	814
1925	597	219	816
1926	550	240	790
1927	735	257	992

Source: Revised estimates by Ray O. Hall.

Description of data: "Publicly floated" is the balance of "Foreign security investments of Americans," "Refunding to Americans," "Bond redemption and sinking-fund payments from foreigners" and "Resale of investments to foreigners."

TABLE 10.—LONG-TERM INVESTMENTS IN THE UNITED STATES BY FOREIGNERS

(In millions of dollars)

Year	Net investments by foreigners in U. S. securities	Direct investments	Balance
1922	−4	10	6
1923	234	10	244
1924	24	20	44
1925	175	30	205
1926	136	32	168
1927	203	28	231

Source: Revised estimates by Ray O. Hall.

TABLE 11.—NET AMERICAN INVESTMENTS AND SHORT-TERM CREDITS ABROAD

(In millions of dollars)

Year	Estimate of Ray O. Hall of net balance of funded and unfunded credits	Estimate based on British balance of payments method
1922	260	198
1923	−42	−54
1924	458	521
1925	539	443
1926	119	34
1927	641	621

Source: Revised estimates by Ray O. Hall.

Description of data: The estimate of Ray O. Hall is the balance of net "Private, funded capital items" and net "Unfunded items." The estimate based on the British balance of payments method is the balance of the net "Commodity and miscellaneous items" and the "Pure cash items."

mutually counteracting. The remainder required to establish an equilibrium of payments each year is accordingly regarded as a net balance of credits extended. Since the basic assumption upon which the method rests is subject to grave inaccuracies both theoretical and practical, only to the extent that all the errors are counteracting in character will the final balance prove valid.

Data are not available for determining the distribution of our foreign investments, either according to the uses to which the derived funds have been put, or even according to the geographic locations of the borrowers. *For publicly floated issues alone* these data are available, and in Table 12 such a distribution is given. The reader is warned that no deductions have been made either for issues only nominally placed in New York or for repurchases by foreigners of large blocks of issues, the bulk of which have remained in this country.

TABLE 12.—GEOGRAPHIC DISTRIBUTION OF FOREIGN CAPITAL ISSUES PUBLICLY OFFERED IN THE UNITED STATES FROM 1922 TO 1928; NEW NOMINAL CAPITAL

(In millions of dollars)

Item	1922	1923	1924	1925	1926	1927	1928
Total	682	414	928	1,085	1,135	1,376	1,191
Government and official guaranteed	486	295	777	649	583	852	624
Corporate	197	118	152	437	551	524	568
Europe, total	214	108	530	652	495	571	597
Government and guaranteed	136	78	508	409	188	289	231
Corporate	78	30	22	242	307	282	366
Latin America, total	223	114	148	133	355	359	268
Government and guaranteed	161	63	75	87	284	296	238
Corporate	63	52	74	46	71	63	29
Canada, total	129	118	146	150	238	268	188
Government and guaranteed	77	81	105	70	80	142	73
Corporate	52	37	40	80	158	127	115
Far East, total	113	71	96	142	32	145	131
Government and guaranteed	111	71	81	75	20	113	76
Corporate	3	...	15	67	12	32	54
United States territories and possessions, total	3	3	8	10	14	32	9
Government and guaranteed	1	3	8	9	12	11	5
Corporate	2	...	...	1	3	21	4

Source: Special circulars on foreign security offerings, Finance and Investment Division, Bureau of Foreign and Domestic Commerce, Department of Commerce.

Description.—The above data are subject to serious inaccuracies. From the total nominal capital of foreign issues have been subtracted only the estimated refunding to Americans. Thus, no allowance is made for purchases at a price other than par, or for purchases by foreigners of capital issues publicly offered in the United States.

In spite of the undependability of the estimates of many of the individual items which have appeared in the foregoing tables, the outstanding fact remains that the expansion of American foreign investments during the period under discussion has been very large and generally increasing. What is the explanation of this comparatively new phenomenon in American economic life? And how important are its effects on American business?

Reasons for Expansion.—To answer the first question, a comparison will be made between the interest rates in New York and in the other large investment centers of the world, during the period under discussion. In Chart 7 are represented the best estimates available of both long- and short-term interest rates in New York, London, Amsterdam, and Berlin, together with long-term interest rates in New York.

Not only were both long- and short-term rates in New York generally declining throughout the period, but they were usually lower than those prevailing in other investment markets. In fact, Paris and Berlin have been completely out of the investment competition, and London, the long-established center of most of such financing, has generally had the handicap of tighter money.

TABLE 13.—SHORT-TERM INTEREST RATES IN IMPORTANT MONEY CENTERS

Year and month	New York	London	Berlin	Amsterdam	Long-term bond yield, New York
1922					
January	4.50	3.60	....	....	5.17
February	4.13	3.26	....	....	5.13
March	4.13	3.28	....	....	5.07
April	4.00	2.62	....	....	4.97
May	3.38	2.34	....	....	4.94
June	3.25	2.40	....	....	4.93
July	3.38	1.97	....	....	4.87
August	3.25	2.27	....	....	4.81
September	3.50	2.50	....	....	4.77
October	3.75	2.41	....	....	4.82
November	4.00	2.52	....	....	4.90
December	4.00	2.55	....	....	4.87
1923					
January	4.00	2.27	....	....	4.86
February	4.00	2.48	....	....	4.89
March	4.00	2.28	....	....	4.97
April	4.13	2.11	....	....	5.00
May	4.13	2.01	....	....	4.98
June	4.13	2.10	....	....	4.98
July	4.13	3.24	....	....	5.01
August	4.13	3.18	....	....	4.99
September	4.13	3.18	....	....	5.02
October	4.13	3.29	....	....	5.02
November	4.13	3.30	....	....	5.01
December	4.13	3.27	....	....	5.01
1924					
January	4.13	3.29	....	4.88	4.95
February	4.13	3.54	....	5.19	4.95
March	4.00	3.20	....	5.13	4.96
April	3.88	3.07	....	5.06	4.95
May	3.25	3.05	....	4.19	4.90
June	2.25	3.03	....	3.56	4.84
July	2.00	3.59	....	3.13	4.80
August	2.13	3.79	....	2.88	4.80
September	2.13	3.74	....	3.25	4.78
October	2.25	3.72	....	4.63	4.77
November	2.36	3.72	....	4.44	4.76
December	2.88	3.73	....	4.00	4.78

TABLE 13.—(*Continued*)

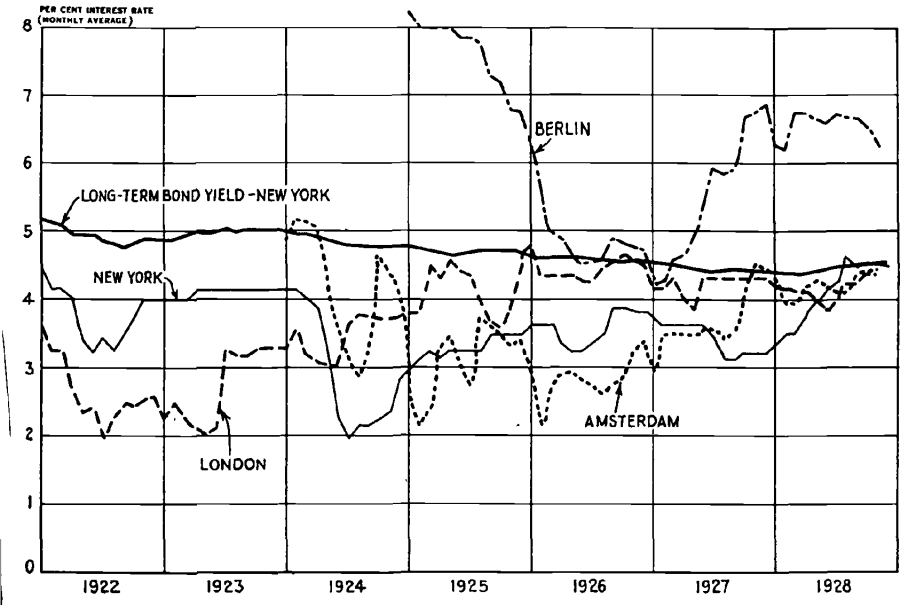
Year and month	New York	London	Berlin	Amsterdam	Long-term bond yield, New York
1925					
January	3.00	3.80	8.38	2.63	4.78
February	3.13	3.83	8.00	2.14	4.76
March	3.25	4.48	8.00	2.34	4.76
April	3.13	4.30	8.00	3.23	4.72
May	3.25	4.59	8.00	3.45	4.67
June	3.25	4.44	7.83	3.08	4.66
July	3.25	4.35	7.83	2.72	4.69
August	3.25	3.94	7.78	3.72	4.72
September	3.50	3.68	7.27	3.63	4.72
October	3.50	3.57	7.16	3.47	4.73
November	3.50	3.92	6.78	3.34	4.74
December	3.50	4.67	6.75	3.43	4.70
1926					
January	3.63	4.76	6.28	2.95	4.66
February	3.63	4.31	5.46	2.19	4.63
March	3.66	4.37	5.00	2.67	4.63
April	3.38	4.33	4.88	2.90	4.61
May	3.25	4.37	4.69	2.95	4.58
June	3.25	4.27	4.53	2.83	4.58
July	3.38	4.26	4.54	2.74	4.60
August	3.50	4.45	4.61	2.63	4.59
September	3.88	4.54	4.88	2.78	4.60
October	3.88	4.69	4.82	2.83	4.60
November	3.82	4.57	4.63	3.21	4.56
December	3.82	4.53	4.72	3.39	4.55
1927					
January	3.75	4.17	4.20	2.97	4.54
February	3.63	4.19	4.23	3.47	4.53
March	3.63	4.33	4.59	3.50	4.51
April	3.63	4.04	4.61	3.47	4.47
May	3.63	3.88	4.90	3.46	4.46
June	3.63	4.34	5.39	3.57	4.51
July	3.50	4.33	5.90	3.53	4.51
August	3.13	4.33	5.82	3.45	4.48
September	3.13	4.32	5.90	3.56	4.45
October	3.25	4.32	6.69	4.11	4.43
November	3.25	4.33	6.76	4.50	4.42
December	3.25	4.31	6.87	4.49	4.40
1928					
January	3.38	4.19	6.27	4.29	4.38
February	3.50	4.18	6.20	3.97	4.38
March	3.50	4.12	6.72	3.97	4.37
April	3.75	4.02	6.71	4.18	4.38
May	4.00	3.97	6.66	4.27	4.42
June	4.13	3.82	6.59	4.18	4.50
July	4.25	3.99	6.74	4.10	4.54
August	4.63	4.27	6.68	4.13	4.59
September	4.50	4.23	6.65	4.39	4.57
October	4.50	4.35	6.57	4.40	4.57
November	4.50	4.38	6.28	4.44	4.55
December	4.50	....	....	....	4.59

Source: London rates for 1922 and 1923 are taken from the *London Economist*. All others are fr the *Federal Reserve Bulletin*.

Description of Data.—The rates used are the open-market rates for prime bankers' acceptanc Although the London rates for 1922 and 1923 are not available in the *Bulletin*, the same method computation has been employed. The rates given are monthly averages of the daily quotations t are published in the *London Economist*. The data for the long-term bond yield are taken from "Statistical Bulletin" of the *Standard Trade and Securities Service*, published by the Standard Statis Co., Inc.

With regard to long-term interest rates in absolute values, little can be said. Bond yields depend so completely on the types of bonds for which they are computed that, for absolute comparisons, little confidence can be placed in any of those at present published. There seems little doubt that during most of the period, long-term funds could be borrowed in New York more easily than in London. Not only was the available supply almost always greater, but the stronger competition among American investment bankers in turn enhanced the position of the borrowers. Under such circumstances, the plentiful supply of investment

CHART 7.—SHORT-TERM INTEREST RATES IN IMPORTANT MONEY CENTERS, 1922–1928



funds in this country has been sought by eligible borrowers in many parts of the world. Borrowers in a position to do so have sought the market where capital could be secured in the amounts desired at the cheapest cost.[10]

Analysis of Anticipated Effects of Foreign Loans.—The effects of a flotation of foreign loans or other forms of foreign investments in this country will differ much according to the disposition of the proceeds of the sale of the securities. In general, they may be divided into three cases.

[10] The abrupt decline in borrowings in this country by foreigners with the rapid increase in interest rates after the middle of 1928 lends support to this thesis. Also, it is an open secret that many foreign flotations have already been arranged for and that their public announcement awaits only more favorable money and investment conditions.

Case I.—When all or a large portion of the derived funds are used for the purchase of American products, the effect is direct and immediate. The resulting stimulus to business, spreading forward, backward, and sidewise, while varying in character and in importance according to the types of goods purchased, is obvious.

Case II.—When the proceeds are shipped in gold, the effects on American business are altogether different. Not only is there no direct stimulus, as is the case when an equivalent amount of American goods are sold, but the shipping of the gold is itself a deflationary influence, and, except to the extent that the Federal Reserve banks increase their credit expansion, proves a retarding rather than a stimulating influence.

Case III.—When the funds borrowed are largely transferred and spent in other countries, the effects on American business, while important, are less direct, less evident, and much less clearly defined than in the other two cases just discussed. Nevertheless, irrespective of their destination, the transfer of the funds acts directly not only on the international exchange value of the currency of the country receiving them but also on that of the currency of the lending country itself. The resulting movements in exchange rates, sometimes involving much of the world, are largely responsible for all the further indirect effects on American prosperity or depression.

To the extent that the international value of the currency of the borrowing country is improved, goods purchasable by its inhabitants in other countries are correspondingly reduced in price; and, to the extent that dollar rates are lowered by the transfer, a further impetus is given to the purchase by all outsiders of American rather than of other foreign wares, while exports to the United States are correspondingly discouraged.

Between gold standard and other stable exchange countries, these movements in exchange rates are relatively insignificant; consequently the resulting stimulus toward the purchase of American and other foreign goods is correspondingly slight. When the borrowing country is on a depreciating paper standard, the *main* influence—operating, as it does, on the unstable currency—while immediate and great, provides a stimulus toward the purchase of foreign goods almost as great as toward that of American goods in particular.

If the transfer of such borrowed funds is at any time so great as to depress dollar exchange rates to the gold-shipping points, naturally gold flows out to other countries in sufficient quantities to bring the rates back within their normal range of the gold parity. The effect of such an outflow, as explained under Case II, far from stimulating, tends to depress American trade.

On the other hand, to the extent that the fall in dollar exchange does not lead to an outflow of gold, purchases of American products are stimulated by the reduction of their prices in terms of other currencies.

But, as mentioned above, on account of the slightness of the reduction in exchange rates necessary in order to cause the flow of gold between gold standard countries, such an influence would necessarily prove slight in stimulating exports to any part of the world. However, it would normally be of greater importance in stimulating sales to inhabitants of borrowing countries on depreciating paper standards. In such cases, not only would the fund transfers reduce slightly dollar exchange rates with the rest of the world, but they would very likely improve substantially those of the borrowing country, whose inhabitants would find the prices of foreign products on that account correspondingly reduced. Their purchases in the United States and, to a slightly less extent, those in other countries would therefore normally increase.

The extensions of credit to silver standard countries have, in certain cases, other interesting consequences. When the new funds are used for the purchase of goods in the lending, or other nonsilver standard countries, or for the procuring of gold to be imported, the effects are not different from those already discussed in Cases I and II above. If the funds are transferred for expenditure in the borrowing or other silver standard country, however, the effects may be different from any of those above discussed. Virtually the sale of the dollar exchange in the silver standard country amounts to the "offer" of gold for silver or to the "bid" for silver with gold. If the size of the credit thus being transferred is large, it might cause the value of gold to fall considerably in terms of silver, or of silver to rise in terms of gold, and thus stimulate the buying of all silver standard countries in gold standard countries while discouraging that of the latter in the former.

Finally the effects in countries in which gold-exchange standards are operated may be different still. If the funds are transferred for expenditure at home, the resulting sales of dollar exchange, if large, causing as they would, rates on all gold standard countries—and with them, those on most other countries—to weaken, would make necessary the purchase by the home central bank or other control agency, of dollar, or other, gold exchange, to approximately the extent of the transfers. Thus credit would be inflated at home against an equivalent balance held abroad; whereas, under the gold standard, international shipments of the monetary metal would have automatically transferred from somewhere the foreign balance to the borrowing country.

Such a discussion as the above, however, is far too simplified even for the problem under discussion. As in most fields of economic research, not only are "cause and effect" relationships inadequate when quantitative results are sought, but very often even the oversimplified logical reasoning which is used to uncover them proves a perverting rather than a clarifying means of analysis. A special application of the general idea of economic equilibrium will therefore be introduced.

III. COMPARISON OF THE MOVEMENTS OF FOREIGN TRADE WITH THOSE OF FOREIGN INVESTMENTS

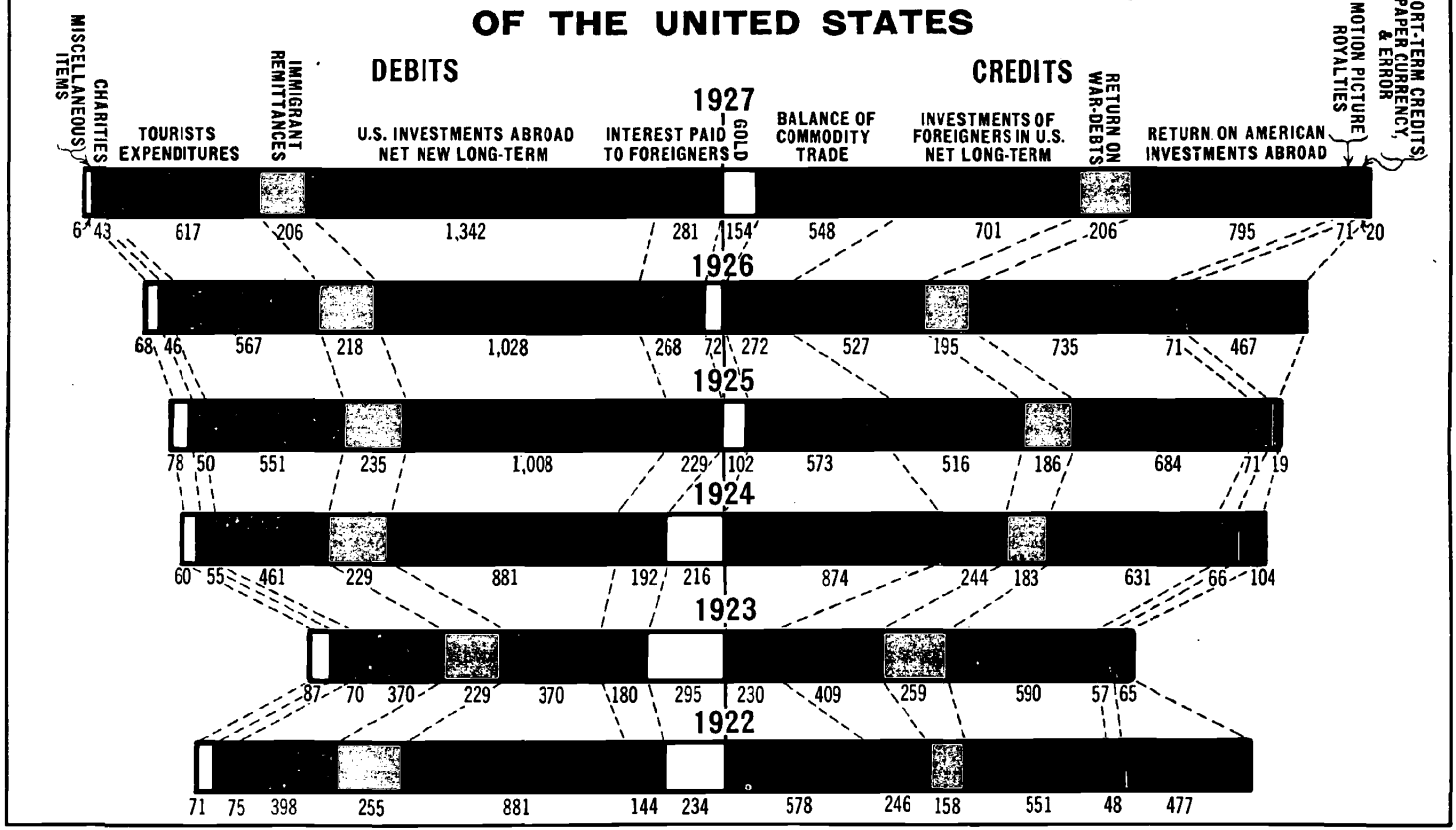
The General Idea of the Balance of Payments.—Even such an improved device as the statement, now available for the United States, cannot, for any chosen period, represent an actual balance of international payments. It is neither a balance sheet nor a profit and loss account.[11] In fact, even theoretically, its two sides do not balance. Many goods and services, and especially securities purchased on margin, are sold on open account, the required payments being made after varying periods have elapsed. Also, in certain cases, payments are arranged in advance of the proposed purchase of goods. Such lags, either way, may cause the goods, services, and securities exported to appear in the balance of payments of one year, while the corresponding credit or cash transfers connected with the payments may show in that of another. Provided the balances carried over from one year to the next are substantially equal, no great distortion would appear. Perhaps, with most goods and services, such as cotton and Canadian electrical power, for example, sold regularly and with standardized methods of delivery and of payment, such balances in general can be relied upon pretty nearly to cancel each other. With certain others, however, the situation is clearly very different. Securities bought on margin, for example, might be carried over the year-end in great or small volume, according to speculators' judgments as to their future values; and in years of rapidly rising prices, like 1926 and 1927, the original purchase prices might be entirely paid by the resale of comparatively small portions of the original totals, thus leaving a net transfer of securities with no counterbalancing item of payments. As to how great both these types of distortions may have proved in years like 1926 and 1927, only guesses can be made. Also, the question might be raised as to what should be done even theoretically with the huge stock-market operations of a great foreign branch bank located in New York. Are their holdings of securities exported? And, are the New York funds with which they are carried a form of international credits? If the securities are counted without the borrowed funds, the balance is "out" on one side; and if the funds transferred for margins are included without a corresponding proportion of the securities purchased, a reverse lack of balance appears.

But, what is perhaps of much greater importance, suspended accounts arising from various sorts of credit transactions provide an additional source of error even in the theoretical balance. Certain securities are issued and sold to the American public months in advance even of the deposit of the derived funds to the accounts of the foreign borrowers, who

[11] *The Balance of International Payments of the United States in* 1927, p. 55.

CHART 8.

BALANCE OF INTERNATIONAL PAYMENTS OF THE UNITED STATES



(*Facing page* 736.)

may further delay their transfer. Other flotations, on the contrary, are made for no other purpose than to fund, at varying and extended intervals, outstanding credits granted earlier, the proceeds of which have already been expended or transferred. Of neither of these types of lags can the balance of payments, as at present compiled, take account.

Finally, all the "finance bills" and international money-market loans made through the drawing and sale of long bills—important as they have come to be in the adjustment of both exchange and interest rates—are at present so inaccurately reported as automatically to be eliminated from consideration.

When all of these untabulated items are added to the necessarily extremely informal credit arrangements between head offices and branches of many business firms—as well as of banks, both American and foreign, and the but slightly less informal ones between industrial and financial institutions only partially owned one by another—it is seen that even a theoretically accurate balance could not be expected. And when, in addition, allowances are made for the inaccuracies necessarily appearing in the estimates of the amounts of even the visible items of our international trade, the statement cannot be regarded as holding except within very wide limits of error.

Nevertheless, the device, as an instrument of analysis, represents a great advance over those previously in use, and consequently will be used in this study. In Table 14 are represented, for each year of the period, the estimated value of each of the major items included in the balance of international payments of the United States.

In order that the relative magnitudes of the various items may be more readily seen, the data of this table, in simplified and combined form, are further represented in Chart 8.[12]

The statement, it will be seen, has a debit and a credit side. On the left (or debit) side are entered all items requiring payments to be made outside the country during the year; and on the right (or credit) side, all those requiring for their accomplishment payments from outside to persons living within the country.

Facts—Balance of International Payments.—Reference to either the table or the chart shows how completely the entire balance is dominated by the loan and investment items. True, either merchandise exports or imports alone are each year much larger than any other single item. Nevertheless, the commodity balances of trade, although they have varied within comparatively wide limits, make up only small portions of the totals. In fact, if tourists' expenditures, which in a very real sense are to be regarded as a type of commodity imports, are included in the

[12] The method of presentation is taken from the *Monthly Bulletin* of The National City Bank of New York, entitled "Economic Conditions, Governmental Finance, United States Securities," Sept., 1927.

TABLE 14.—CONDENSED BALANCE OF INTERNATIONAL PAYMENTS OF THE UNITED STATES, CALENDAR YEARS, 1922–1927

Class of transaction	1922			1923			1924			1925			1926			1927		
	Credit	Debit	Bal.	Credit	Debit	Bal.	Credit	Debit	Bal.	Credit	Debit	Bal.	Credit	Debit	Bal.	Credit	Debit	Bal.
Commodity trade except silver	3,927	3,341	+ 586	4,264	4,032	+232	4,691	3,853	+ 838	5,009	4,471	+ 538	4,918	4,668	+ 250	4,961	4,434	+ 527
Silver	63	71	− 8	72	74	− 2	110	74	+ 36	99	64	+ 35	92	70	+ 22	76	55	+ 21
Total of commodity trade	3,990	3,412	+ 578	4,336	4,106	+230	4,801	3,927	+ 874	5,108	4,535	+ 573	5,010	4,738	+ 272	5,037	4,489	+ 548
Tourist expenditures	95	493	− 398	114	493	−379	115	576	− 461	110	661	− 551	142	709	− 567	153	770	− 617
Return on American investments abroad:																		
(a) Long-term	526	.....	+ 526	560	.....	+560	596	.....	+ 596	639	.....	+ 639	678	.....	+ 678	738	.....	+ 737
(b) Short-term	25	.....	+ 25	30	.....	+ 30	35	.....	+ 35	45	.....	+ 45	57	.....	+ 57	57	.....	+ 58
Interest paid to foreigners:																		
(a) Long-term	.....	120	− 120	.....	140	−140	.....	150	− 150	.....	165	− 165	.....	190	− 190	.....	203	− 270
(b) Short-term	.....	24	− 24	.....	40	− 40	.....	42	− 42	.....	64	− 64	.....	78	− 78	.....	78	− 03
Return on war debt	158	.....	+ 158	259	.....	+259	183	.....	+ 183	186	.....	+ 186	195	.....	+ 195	206	.....	+ 208
Immigrant remittances	45	300	− 255	66	295	−229	56	285	− 229	40	275	− 235	35	253	− 218	35	241	− 246
Charitable and missionary contributions	.....	75	− 75	.....	70	− 70	.....	55	− 55	.....	50	− 50	.....	46	− 46	.....	43	− 76
Motion picture royalties	50	2	+ 48	60	3	+ 57	70	4	+ 66	75	4	+ 71	75	4	+ 71	75	4	+ 63
Miscellaneous invisible items	329	400	− 71	316	403	− 87	346	406	− 60	332	410	− 78	366	434	− 68	410	416	− 1
Total commodity and miscellaneous items	5,218	4,826	+ 392	5,741	5,550	+191	6,202	5,445	+ 757	6,535	6,164	+ 371	6,558	6,452	+ 106	6,711	6,244	+ 467
Foreign security investments of Americans	.....	1,104	−1,104	.....	534	−534	.....	1,311	−1,311	.....	1,374	−1,374	.....	1,413	−1,413	.....	1,717	−1,717
Refunding to Americans	146	.....	+ 146	82	.....	+ 82	291	.....	+ 291	245	.....	+ 245	182	.....	+ 182	208	.....	+ 208
Discount on investments abroad	101	.....	+ 101	48	.....	+ 48	125	.....	+ 125	119	.....	+ 119	121	.....	+ 121	120	.....	+ 120
Direct foreign investments by Americans	.....	116	− 116	.....	47	− 47	.....	113	− 113	.....	219	− 219	.....	240	− 240	.....	257	− 257
Bond redemptions and sinking fund payments from foreigners	92	.....	+ 92	81	.....	+ 81	119	.....	+ 119	221	.....	+ 221	322	.....	+ 322	304	.....	+ 304
Resale of investments to foreigners	240	.....	+ 240	165	.....	+165	200	.....	+ 200	311	.....	+ 311	359	.....	+ 359	470	.....	+ 470
Investments of foreigners in United States securities	70	74	− 4	298	64	+234	111	87	+ 24	253	78	+ 175	677	541	+ 136	903	700	+ 203
Direct investments by foreigners	10	.....	+ 10	10	.....	+ 10	20	.....	+ 20	30	.....	+ 30	32	.....	+ 32	28	.....	+ 28
Total private, funded capital items	659	1,294	− 635	684	645	+ 39	866	1,511	−645	1,179	1,671	− 492	1,693	2,194	− 501	2,033	2,674	− 641
Unfunded capital items (short-term credit)	375	.....	+ 375	3	.....	+ 3	187	.....	+ 187	.....	47	− 47	382	.....	+ 382	.....	.....	.....

Pure cash items:																			
Gold	37	275	− 238	29	323	−294	62	320	− 258	262	128	+ 134	116	214	− 98	201	207	− 6
Changes in ear-marked gold	4	.....	+ 4	5	6	− 1	46	4	+ 42	15	47	− 32	50	24	+ 26	183	23	+ 160
Currency	40	.....	+ 40	50	.....	+ 50	.....	20	− 20	.....	30	− 30	.....	.....	.....	.....	.....	.....
Grand total	6,333	6,395	− 62	6,512	6,524	− 12	7,363	7,300	+ 63	7,991	8,087	− 96	8,799	8,884	− 85	9,128	9,148	− 20

Description of data: In this combined balance Hall's "Commodity trade except silver" has replaced the sum of "Merchandise exports and imports (as reported)," "Bunker coal and oil sales to foreign vessels," "Ship chandling, ship repairs, and tonnage dues," "Sale of vessels," "Unrecorded parcel-post shipments (adjusted for gifts)," and "Other merchandise adjustments;" "Return on American investments abroad—long-term" has replaced "Yield of long-term private investments received from American investments abroad;" "Return on investments abroad—short-term," the "yield of short-term interest and commissions collected from foreigners abroad;" "Interest paid to foreigners long-term," the "Yield of long-term private investments—paid to foreign investors in the United States;" "Interest paid to foreigners—short-term," the "Yield of short-term interest and commissions—paid to foreigners abroad;" "Return on War-debt" the sum of the items "Principal" and "Interest" under "War-debt receipts of United States Treasury;" "Miscellaneous invisible items," the sum of "Freight payments and receipts," "Ocean-borne passenger traffic (by 'substitution')," "Other United States Government receipts; United States Government payments; and foreign representations here," "Insurance transactions" and "Miscellaneous minor items;" "Foreign security investments of Americans," the sum of "Foreign securities publicly offered here (par value)" and "Foreign stocks and bonds bought from foreigners in small lots;" "Discount on investments abroad," the sum of "American underwriters' commissions" and "Securities issued below par;" "Resale of investments to foreigners," the sum of "Resale to foreigners of direct investments" and "Foreign stocks and bonds resold to foreigners;" "Investments of foreigners in United States securities," the sum of "American stocks and bonds sold to foreigners," "Redemption and sinking-fund payments to foreigners" and "American stocks and bonds bought back from foreigners." The other items, whose titles are identical in both tables, are identical in content also.

"In the present survey the geographic limits of the United States . . . include continental United States, Alaska, Hawaii, and Porto Rico. They exclude the Philippines, the Panama Canal Zone, Guam, Samoa, and Virgin Islands; these are counted as foreign countries."—*Balance of International Payments of the United States in 1927*, by Ray O. Hall, p. 56.

Source: Estimated Balance of International Payments of the United States, Calendar Years 1922–1927, Inclusive, as revised for this study by Ray O. Hall, Assistant Chief, Finance and Investment Division, Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce:

balance of trade, in three of the six years under discussion the balance becomes adverse, while in the other three it remains but mildly favorable. In fact, our numerous travelers abroad furnish almost enough funds for the payment of the entire interest on all our outstanding foreign investments.

The largest single item[13] on either side of the balance for every year, except 1923, is that of our new investments abroad. Likewise on the opposite side of the balance the largest item, except for two years, 1922 and 1924, is the interest received on outstanding obligations held abroad. Both sides of the account, therefore, are in general dominated by items growing out of our large foreign investments. Relatively insignificant in size, when compared with the return on such investments, is the item made up of both principal and interest payments on the war debt to the United States of various foreign governments. Gold movements, on the other hand, make up only minute portions of the totals.

But far more important even than the relative magnitudes of the various items of the balance is the degree of their adjustability. In other words, which are the magnitudes following independent courses dominated largely by influences unconnected with the balance or lack of balance in international payments? And which, on the other hand, are those readily and sensitively adapting their movements to changes in exchange rates and related phenomena directly connected with disturbances in such a balance?

The older theory of international trade assumed that between gold standard countries, as between other countries on the same metallic standard, the money metal supplied the one and only immediately adjustable element in the balance. Whatever other adjustments appeared might be traced directly to influences set in motion by the international movements of the precious metals. The movements of gold out of a country with that metal as a standard led ultimately to a corresponding reduction in prices and consequently to an increase in sales (and a decrease in purchases) abroad of goods and of services sufficient not only to restore the balance but in general also to recover much of the lost gold. Conversely, when gold was shipped into a country, prices would rise by an amount sufficient to re-establish the balance and to get rid of much of the unsought gold so recently shipped in. Possible credit adjustments did not pass unmentioned by the more careful writers, but, even by them, were usually relegated to a minor position.

In recent years it has been learned that, at least in the United States, prices are not nearly so responsive to gold movements as had been supposed.

[13] It should be noted, however, that if only balances were represented, as in the cases of merchandise trade, tourists' expenditures, and gold, this statement would not hold.

The adjustability of these various items is difficult to test statistically. Considerable variations are to be noted in the merchandise balance of trade; but, as already pointed out, wide differences in the values both of imports and of exports frequently appear on account of almost purely accidental movements of prices of such important articles as cotton, silk, or rubber. Certainly, by no stretching of the imagination could such adjustments be interpreted as being in any important way connected with restorations of international balances of payments. Moreover, payers of international, as of domestic interest, except in the cases of governments, fortunately continue to pay according to what they owe rather than according to the effects of their actions on various international balances of payments; and the declarations of dividends, as always, depend on boards of directors, if not on the affairs of their companies. Little adjustment in such items can accordingly be expected.[14] Furthermore, recently arrived immigrants continue to send money to their relatives at home, and American tourists continue their expenditures without regard to the effects of their actions on the American balance of payments.

A similar review of the numerous items entering into our international accounts yields the presumption that all except credit items, securities, and gold are either relatively fixed in magnitude or else move largely under the influence of forces *temporarily* almost completely independent of balance-of-payments considerations.

In total value, the gold movements have been seen to be relatively very small indeed. Their influence in adjusting disturbed equilibria, however, is unquestionably great. Nevertheless, in all countries with highly developed money markets and modern lending institutions, there is little doubt that it is the operations of the credit mechanisms—sometimes as a result of gold movements, sometimes in anticipation of them, but perhaps often in response to still other influences—which provide the most sensitive adjustments in our balance of international payments. Even when gold is ultimately to be moved, the effects on credit conditions are apt to precede by months the actual shipments.

With a general tightening of credit conditions, foreign borrowing in this country is discouraged while American borrowing abroad is stimulated, and *vice versa*. In general, it is largely through such credit influ-

[14] Even in the case of private borrowers in Germany, no disturbance of their own international accounts can be expected to affect their payments. In spite of laborious legal opinions to the contrary, such payments take automatic precedence over all payments by the Reparations' Agent, for the simple reason that there is no way of stopping them. So long as German exchange is sold freely in any part of the world, and so long as the German Government does not make illegal the discharge of honestly contracted obligations, such payments will be made whether international accounts are thereby thrown out of equilibrium or not.

ences, combined with the movements of the monetary metals, that the equilibrium of payments can be maintained.

Nor does the force of the above considerations apply exclusively to short-term credits. As has been frequently demonstrated, a tightening of money rates almost invariably[15] carries with it a rise in interest rates, a fall in bond prices, and a consequent curbing of security flotations. Reverse monetary conditions provide a corresponding stimulus to security flotations.

Moreover, in certain countries, special credits have at times been arranged for the avowed purpose of correcting exchange or of otherwise relieving the effects of an adverse balance of payments.

Far from being a fixed item in our balance of international accounts, credit transactions are usually the most sensitively adjustable of any. Prices, it is true, tend to adjust themselves, but usually with a considerable lag. Only prices of securities, which in the final analysis are an integral part of the credit structure, and to a much less extent those of commodities sold on the speculative exchanges, move quickly and rapidly enough to play any immediately important part in restoring a disturbed balance of international payments.

Unfortunately, the results just arrived at analytically cannot be tested satisfactorily with statistics. While the amounts of most of the long-term obligations are fairly accurately determined, it is not they which furnish the element most quickly responsive to changes in credit conditions. Of the short-term credits, on the other hand, which seemingly furnish the most highly sensitive of all the adjustments, available estimates are the least dependable.[16] Consequently, the wide fluctuations observable in the magnitude of this item may be as much a result of inaccurate estimates as of changes in the amounts of the credits themselves. Nevertheless, the large variations would seem to indicate, in their magnitudes at least, a high degree of flexibility.

But what of the long-run effects? Can adverse balances over an indefinite period of time be continually adjusted by a resort to borrowing? Evidently not. Credit represents postponement of payment with a

[15] Notable exceptions have occurred, especially in periods of great currency disturbance.

[16] An exact description of the questionnaire upon which the estimates were based is given in *The Balance of International Payments of the United States in* 1925, p. 45. It includes year-end estimates of total deposits with foreign banks, and of foreigners with American banks; total loans and advances to foreign banks, and by foreigners to American banks; and short-term international investments for the account either of the bank or of its customers.

In 1927 the returns, which were received from 167 leading international banks and investment houses, proved irreconcilable with certain known facts. The results, therefore, were ignored in that year. For a full account, see *The Balance of International Payments of the United States in* 1927, p. 45.

charge in the meantime for the privilege of delaying the day of reckoning. Defaulted debts must be paid, with interest, and, in the final analysis, such payments, except for insignificant amounts of the monetary metals utilizable for such purposes, are largely based upon the excess of exports over imports of goods and services. The same is evidently true of interest charges on debts and returns of all sorts on other kinds of investments. The analysis upon which such deductions are based is irrefutable, and the validity of the results themselves is no longer seriously questioned. Slowly but surely, and usually very gradually, far-reaching changes—yet to be described—in the economic systems of both the lending and borrowing countries make their appearance. New equilibria are established. Certain elements giving rise to a change in trade balances make their entrance.

The very accumulation itself of long-continued adverse balances, thus corrected by ever increasing credits, often sets up powerful forces operating not only to prevent current maladjustments, but also to correct the cumulated deficits. The stimulus to increased tourists' expenditures and to the migration of American industry are explained in detail below. Furthermore, if a rare and entirely different sort of influence may be cited, to certain countries of former greatness and wealth, for which the adverse balances of trade are but indications of a process of gradual impoverishment and of chronic business depression, not only are charities and immigrant remittances stimulated, but in them the incentive for the sale of international securities as well as of shares in their own enterprises and in their properties becomes ever stronger. It is under just such a stimulus that, over a long period of time, a continued import of capital may take care, for the borrowing countries, of an equally long series of otherwise adverse balances of payments; and besides, during the interim, may provide the means of payment of the interest and dividends on the securities which have been but recently exported. It is in such a period for certain countries that the United States is playing the rôle of chief lender and chief purchaser of an ever increasing volume of exported securities.

There is a danger, however, of overemphasizing the *international* character of the transactions under discussion. In essential elements, an international credit is not different from a domestic one. A primitive and remote state like Florida begins to develop. Funds are borrowed in the wealthier states to finance the development. Essentially, the exchange problem is the same as though Florida were a foreign country under a stable and enlightened government and with a well-regulated currency system of its own. The credits which are secured in New York and elsewhere, if wisely granted, will have to be paid. And in order for payment to be made, money, goods, and services must be exported (or taken by tourists) from Florida in sufficient amounts to provide the sums

required, or else new credits must be raised. The raising of credits at home, for use in making payments outside, would drain the country of an equivalent amount of cash and would consequently fall under the first alternative, above cited, of exporting money, goods, and services. Since, however, the currency available for export could make up but an insignificant portion of the total outside obligations, payments in this case, as in those in which foreign countries are involved, would rest in the final analysis on an equivalent export of goods and of services from the borrowing state.

Comparison of Movements of Foreign Trade and Foreign Credits.—In order to test statistically whether or not any observable relationships seem to exist between the movements of our international trade on the one hand and those of our foreign loans and investments on the other, a number of comparisons will be made.[17] The following are the foreign loan items:

Annual total of new foreign loans and investments[17] in excess of refunding and commissions.

Annual total of new *long-term*[18] foreign loans and investments in excess of refunding and commissions.

Net[19] annual new foreign loans, investments, and credits of all sorts in excess of refunding, commissions, repurchases by foreigners, and purchases by foreigners of American securities and properties.

Net[18] annual new foreign *long-term* loans and investments in excess of refunding, commissions, backwash, and of net purchases by foreigners of American securities and properties.

These will each in turn be compared with the following foreign trade items:

Annual total of commodity exports.
Annual total of exports (visible and invisible).[20]
Annual balance of commodity trade.
Annual balance of trade (visible and invisible).
Annual balance of commodity trade, including gold movements.
Annual balance of trade (visible and invisible), including gold movements.

In Chart 9 are represented the total trade and total credit items. Reference to this chart shows, for commodity exports, little observable likeness either to total or to long-term loans and investments. When invisible as well as visible items are included in exports, however, the

[17] An additional comparison of interest is between the net foreign investment in any year and the estimated yield in the same year from previous investment. Such a comparison will show that, particularly in the last three years, the relationship between the two figures is close, but it is too early as yet to determine whether this is likely to be a continuing relationship.—Note by George O. May, Director

[18] Revised estimates by Ray O. Hall.

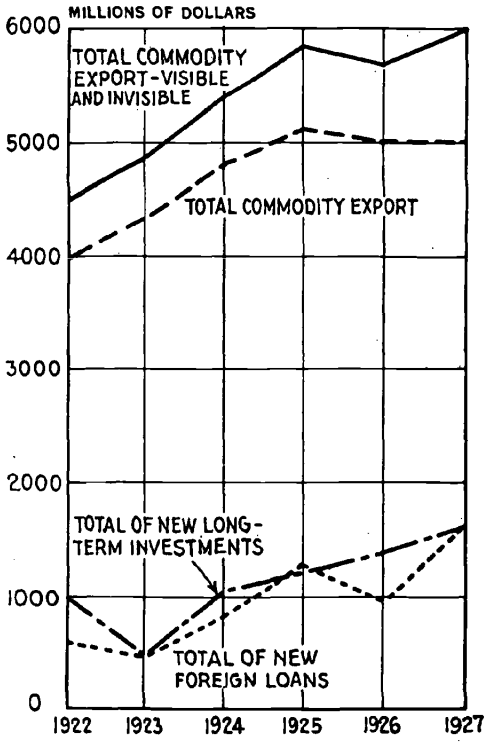
[19] Compiled with the use of the British method.

[20] Includes "total commodity trade," "tourist expenditures," "motion picture royalties," and "miscellaneous invisible items."

series shows considerable similarity in movement (though not in the absolute magnitudes of the yearly items) with that of total new American loans and investments abroad. It likewise shows some rough similarity in movement to new long-term investments.

Comparisons of *net* new long-term foreign investments and *net* foreign investments and credits of all sorts with each of the series of exports in turn yield less noticeable similarities.

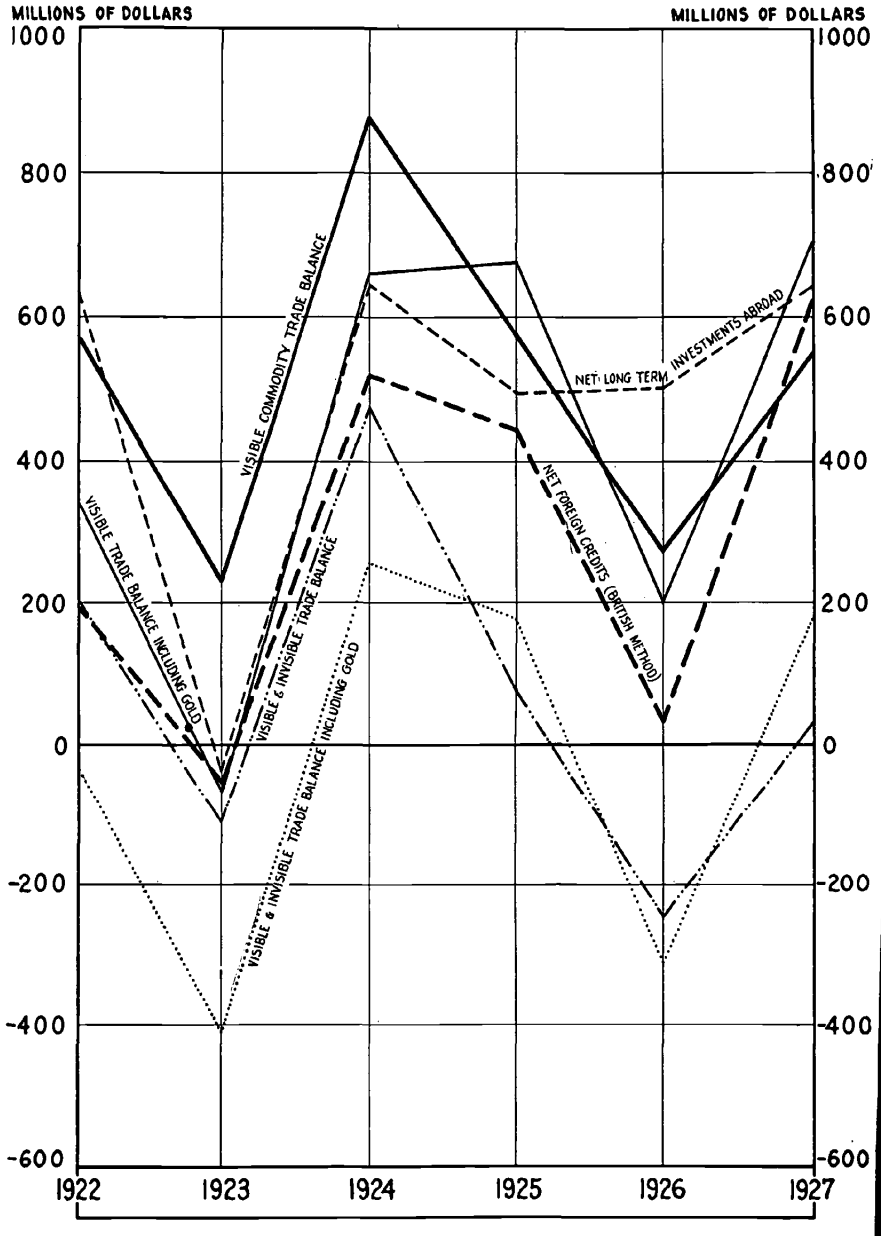
CHART 9.—FOREIGN CREDIT AND EXPORT, 1922–1927



If, instead of total exports, export *balances* are considered, as in Chart 10, much more clear-cut similarities make their appearance. Net long-term foreign credits show, especially in the earlier years, considerable likeness in movement to balances of commodity trade, both when invisible items of trade are included and when they are excluded. If gold shipments are included in the visible trade balances, the similarity of the two series, not only in movements, but in the absolute magnitudes of their items, becomes somewhat enhanced.

Much more evident, and apparently even more significant, is the high correspondence in the movements of the *two types of balances of trade* on

CHART 10.—COMPARISON OF TRADE BALANCES AND FOREIGN CREDITS, 1922–1927



the one hand and those of the *net foreign credits of all sorts* placed in the United States on the other. Moreover, the correspondence is almost equally high whether the visible balance alone is used or whether invisible items are also included.

Finally, whether the net credits series is compiled by the American[21] or by the British[22] method, the great similarity persists. A more thorough study of these and allied series would therefore seem warranted.

The net credits[23] curve always (except in 1922 and in 1927) lies between the two trade balance curves, with the visible balances larger and with the combined visible and invisible balances correspondingly smaller. It will be noted, however, that, in the earlier part of the period, it was with the items of the lower series that the credit items almost exactly coincided; while, in the latter part of the period, it was with those of the upper. In fact, in the year 1922 it was slightly below the lower, while in the last year, 1927, even the visible commodity balance of trade was exceeded by the net foreign credits floated. Thus, at the beginning of the period, American credits were used only in amounts not quite sufficient to cover our net balance of trade when all of our big invisible imports were included, while in 1927 they were taken in amounts slightly greater even than the net commodity balance alone. And when it is further borne in mind that the spread of the two balances has gradually increased from approximately $375,000,000 in 1922 to $517,000,000 in 1927, the probable significance of the change becomes even more striking. The question naturally arises: "How much, if the present extraordinary method of financing exports continues, shall we lend at the end of another six years in order to continue our favorable commodity balances of trade?"

The influence of gold shipments has been significant. To understand its character and importance, two further series have been compiled. The monetary metal has been regarded as simply another article of international commerce, and the two types of trade balances have been recompiled with its inclusion. The resulting series have been inserted in Chart 10. Reference to this chart will show that, while the inclusion of the gold has made the fluctuations of each of the balances in turn correspond more closely with those of the net foreign credits series, it has had very different effects on the absolute magnitudes of the items. In the visible balance series, its inclusion has almost invariably tended to bring the magnitudes of the items of that series into correspondence with those of the items in the credits series. Its combination with the more comprehensive trade balances, on the other hand, has yielded a series with items more widely different in magnitudes from those of the credits series than were the original ones. What deductions, if any, can be drawn from these observations?

[21] The American method is that of direct estimates of all constituent items.

[22] For detailed description of the British method see p. 728, note 9.

[23] On account of the admitted undependability of several important constituent items used in the compilations according to the American method, these credits have been computed according to the British method.

Evidently, during the six year period under discussion, gold generally moved in such ways as to adjust balances in *visible* trade to correspondence with the net credit balances. The one exception in 1925, when there was a net export of gold, seems to be only a partial one; for, although the recorded shipments increased the difference in the magnitudes of the items of the two series, it brought into somewhat closer correspondence the directions of their movements. Is there any plausible explanation for the high similarity in absolute magnitudes, as well as in movements, of the two series of net foreign credits and balances of commodity trade, including gold? Superficially, the most obvious reply is that, otherwise than with gold shipments, our favorable balances of commodity trade may be regarded as being largely financed by the new foreign credits and other investments placed each year in this country. In fact, in 1922, 1923, 1924, and 1926, when new net credits alone were not sufficient to pay for the balance of commodity trade, gold was imported in quantities sufficient to make up much of the deficits. Again in 1927, when net foreign credits were somewhat more than enough to pay for the commodity balance, gold was exported in sufficiently large quantities to take up the excess, and to reverse the relative sizes of the items. In 1925, on the other hand, a net export of gold widened an otherwise very narrow difference in the items of the two series.

While the adjustment of the two series is far from complete, and while the comparatively near approach to equality of most of the individual items may be accidental and passing, the high correlation of the movement of the two series, even for so short a period as six years, would seem to indicate some sort of causal interconnection. The question arises, as to whether the export balances are adjusting themselves to the volume of foreign credits, or whether, reversely, it is the volume of foreign credits which is adjusting itself to an otherwise favorable balance of payments. The fact that, in most of the years, gold moved in such ways as to take up much, but not all, of the differences indicates that neither trade nor credits will adjust themselves completely without friction. On the other hand, the trade balance is the wider mover of the two. And it may be held, in fact, that the bulk of international commodity exchanges cannot be regarded as really voluntary. We must, in effect, export cotton and copper and we must import sugar and coffee. Nor is the situation very different with many types of highly manufactured articles. But the narrower, and at times apparently lagging, fluctuations in the net credits series would seem to lend support to the analytical conclusion that it is in the net foreign credits rather than in the commodity balances of trade that much of the year-to-year adjustment of our balances of international payments makes its appearance.

Whether or not such a conclusion is valid, the close correspondence in the movements of the two series from year to year seems to leave little

doubt that our favorable trade balances are dependent on a continuation of increasing net foreign lendings.

The question may legitimately be asked whether the close correspondence found between trade balances and net foreign credits is not a purely mechanical result. At first glance, it might appear to be nothing else—especially when the net credits are compiled with the use of the British method. The gross commodity trade items are by great odds the largest in the balance. But, to get the foreign credits balance each year, these large dominating items of commodity trade are combined with the much smaller ones of invisible trade, purely financial items such as interest, dividends, etc., and gold and currency. The remainder required to establish an equilibrium each year is, by defintion, the net foreign credit item for that year. If, therefore, errors of a type to affect net balances of commodity trade were made, while all other errors occurring in the estimated items of invisible trade, those purely financial, and all others except credits, were either nonexistent or were counteracted by one another, the identical errors would appear in the net foreign credits items. On the other hand, the net foreign credits items also absorb all the errors in the items other than those of commodity trade. The answer to the question, whether the correspondence between trade balances and net foreign credits is mechanical or not, depends, therefore, upon whether the errors in the estimates of commodity trade or those to be found elsewhere are the dominating ones. It would seem that the greater accuracy of the estimates of the commodity trade balances would more than compensate for their larger size; but upon this question, the writer is unable to pass judgment. It will be assumed, however, with considerable confidence, that the correspondence is not mechanical.

IV. SUMMARY

1. The value of our visible exports makes up approximately 10 per cent of our domestic production of *exportable commodities*. Of our total production, the percentage is much less. (Visible imports throughout the period have been slightly less valuable.)

2. While the values, both of exports and of imports, have shown a general tendency to increase during the past six years, the proportions which they make up of our total production have, on the contrary, maintained a gradual downward trend.

3. Our largest exports, with the proportion which the value of each makes of total exports, from 1922 to 1927 inclusive, are shown in the following tabulation:

Commodity	Value	Per cent
Total	$28,247,000,000	100.0
Cotton (unmanufactured)	5,131,000,000	18.1
Machinery	2,064,000,000	7.3
Iron and steel	1,352,000,000	4.8
Wheat	1,150,000,000	4.1
Gasoline and allied products	1,103,000,000	3.9
Leaf tobacco	890,000,000	3.2
Passenger autos	824,000,000	2.9
Cotton (manufactured)	821,000,000	2.9
Copper (refined)	723,000,000	2.6
Meats	680,000,000	2.4
Lard	666,000,000	2.4
Fruits	568,000,000	2.0
Coal (bituminous)	537,000,000	1.9
Kerosene	512,000,000	1.8
Lubricating oil	507,000,000	1.8

4. Our largest imports, with the proportion which the value of each makes of the total imports, during the period under consideration, are shown in the following tabulation:

Commodity	Value	Per cent
Total	$24,789,000,000	100.0
Cane sugar	2,397,000,000	9.7
Raw silk	2,265,000,000	9.1
Crude rubber	1,737,000,000	7.0
Coffee	1,473,000,000	6.0
Fruits and nuts	685,000,000	2.8
Wood and manufactories	645,000,000	2.6
Raw wool	642,000,000	2.6
Newsprint	630,000,000	2.5
Hides and skins	608,000,000	2.5
Furs	601,000,000	2.4
Cotton manufactures	491,000,000	2.0
Tin	472,000,000	1.9
Tobacco	455,000,000	1.8
Petroleum	430,000,000	1.7
Wool manufactures	421,000,000	1.7
Burlaps	409,000,000	1.7
Vegetable oils	382,000,000	1.5
Fertilizers	382,000,000	1.5
Oil seeds	363,000,000	1.5
Pulp (sulphite)	313,000,000	1.4
Flax and hemp	313,000,000	1.4
Copper (refined)	310,000,000	1.4
Cotton (unmanufactured)	291,000,000	1.2
Diamonds	284,000,000	1.1
Cocoa	233,000,000	0.9
Vegetable fibers	233,000,000	0.9

5. But perhaps the outstanding change in our foreign commerce in recent years has been the exportation of American industries themselves

Because of the extreme difficulty of exporting to countries with high tariff walls, many American firms have constructed branch manufacturing or assembling plants behind the walls. Moreover, the lower and gradually decreasing foreign price levels have encouraged the migration.

6. The foreign capital issues publicly offered in the United States have tended to increase from year to year since 1922 absolutely, but not in proportion to total capital issues so offered.

7. In certain years, especially toward the latter part of the period under discussion, foreign purchases of American securities and the placing of foreign funds in the New York money market have largely counterbalanced the larger foreign lendings of Americans.

8. A striking similarity in the amounts as well as in the movements of our balance of commodity trade with net foreign credits and other investments is discovered. These likenesses, while noticeable in the comparison between long-term investments and commodity balances of trade, became closer when short-term credits were included in investments and gold movements in commodity balances of trade.

9. No evidently significant correspondences appear between foreign credits or investments and the total exports of the United States, though a slight correlation appears between total merchandise exports to Canada and Europe, respectively, and the corresponding net nominal long-term publicly floated credits to each.

10. In the balance of international payments of the United States, the dominating positions held by credits of various sorts, by interest payments, and by tourist expenditures were observed.

11. The readily adjustable items—other than gold—in our balances of payments seem to be largely included in the investment and credit items rather than in the balances of commodity trade.

In general outlines, the picture seems to be about as follows: In a period of the world's history characterized by the most extraordinary technical advances which have yet been known, the United States holds perhaps the dominating position. Not only have its scientists been responsible for a large share of the recent mechanical inventions and its business executives for an even larger contribution of effective operating organizations, but its citizens as a whole, on account of their wealth and savings, have been prepared and eager to finance the ever advancing changes.

In direct contrast to the healthy and stimulating conditions in this country during the period under consideration are the general poverty and dejection in many of the countries of central and eastern Europe, the social and economic unrest and business depression almost uniformly prevalent in the domain of our former allies, and the disturbed currency, banking, and debt conditions, only gradually being corrected, in almost

all of the western European countries alike. Finally, in the newer parts of the world, as always, are vast regions with their great but perhaps largely undiscovered resources, many untouched and others in all the various stages of development, awaiting alike the transforming influence of modern business organization. Under such circumstances, our plentiful and generally excellent products have naturally tended to flow to other parts of the world, while our large supplies of savings have naturally been pulled away to the countries of central Europe and to the new and undeveloped countries to the north and to the south.

The flow of goods, however, has met with many obstacles, while the outflow of capital from the United States to other parts of the globe has been greatly stimulated by an unusual combination of circumstances. The resulting flood of new American capital has in turn temporarily lifted the most formidable barrier to the outflow of goods.

Many of our otherwise best customers live behind high tariff walls, and most of the rest of them are fast building up theirs. Besides, even if we succeed in scaling their walls, we require of many of them, in order to repay us, that they bring their wares over the much higher wall which surrounds us. Even under such discouraging circumstances, our export trade during the past six years has in general continued to increase. What is the explanation? How has the double obstacle been surmounted? The answer is clear and significant.

The second obstacle, that of our own tariff walls, by the extraordinary set of circumstances already referred to and to be further amplified, has been temporarily removed for us.

In order to make payments for the surplus of our exports over imports, our customers have not been required in the normal way to scale our high tariff walls with excessively dutiable articles. Whatever portion of the balance has not been taken care of by the steady growth of our tourists' expenditures has been automatically handled in another way. The low interest rates and the supply of funds in our great money market have made of New York the cheapest international market, where funds are sufficiently plentiful for all to borrow. The resulting large flotations of foreign loans, and of all other kinds of foreign investments and foreign credits placed in this country, have been sufficient not only to take care of any excess of exports over imports but, also, when combined with tourists' expenditures, immigrant remittances, and relatively small shipments of gold, to provide means of making to us all other necessary payments.

The first type of barrier, the high tariff walls erected against American products, are in some cases being scaled; but, what is vastly more disconcerting, many of these are being permanently avoided by the establishment of American controlled factories on the other side. Thus, substantial portions of our most highly developed and most profitable

industries are actually migrating to foreign countries, carrying with them not only American organization and methods but also American talent, with all the resultant loss of purchasing of American domestic products and of the stimulus to American business in general.

Besides being an era of extraordinary technical advance, the present is likewise, as in no other stage of history, a money and credit age. In such a financial world, the rôle of the United States, and of New York in particular, while not a dominant but rather an aspiring one, is shared by but a single serious competitor. Moreover, during the special six-year period under discussion, the older rival has labored under so many serious domestic handicaps that the younger aspirant has, at least temporarily, taken first place. Along with the assumption of so prominent and so powerful a rôle, many significant and perhaps unexpected changes have occurred.

Because of the unquestioned stability of the dollar in the foreign exchange markets of the world, and because of the broad and active markets for securities and investments of all sorts as well as for short-term paper and bank credits, New York gradually became a safe and otherwise desirable place for the deposit, by central banks and other foreign financial institutions, of temporarily idle but readily available funds; and, with the deposit of such funds, the breadth and activity of the New York market in liquid paper of all types inevitably grew. With this added prestige and with the larger deposit of foreign funds, came further imports of gold, further loosening of the money market and an easing of longer-term interest rates. And with the loosening of the capital market, came larger flotations of borrowers living in all parts of the world; and with the increase in foreign flotations, New York's position as an international financial center became even more firmly established. Of the more significant financial happenings of the period, many have seemingly been associated with this extraordinary and ever cumulating financial development of our great monetary center.

Out of this unusual situation have come many by-products of especial significance for the purposes of this study. Because of our low interest rates and plentiful funds available in an indisputably stable monetary unit, credits to many parts of the world and in almost all approved forms have been granted in generally increasing amounts. Along with the increase in foreign credits have come larger purchases of American securities, larger foreign bank balances maintained in New York, and a favorable balance of commodity trade actually in excess of the remainder of the net credits granted. The excess, meanwhile, in a curiously equivalent amount—if the questionable accuracy of the data permits their use—has been made up by a net import of gold, which, far from shutting off merchandise exports, seems temporarily to have stimulated them further. The large imports of gold not only have failed

to raise American commodity prices, but in the past five years have not even kept them from taking a mildly downward trend.

Further, since it is only through price changes that gold movements directly affect merchandise trade balances, the normal checks to American exports have simply failed to operate. On the other hand, as has already been mentioned, the gold imports, by further loosening rates in the New York market, have generally stimulated the placing in this country of increased foreign credits. These, in turn, have largely removed, both in this country and abroad, the chief monetary influence toward further price changes.

Meanwhile, this new situation, because of the failure of the normal correctives to operate, becomes even more extraordinary. Should our foreign credits cease now, and with them our entire favorable balance of merchandise trade, not only would gold probably not cease to come in, but its import very likely would increase in volume—so great has become the interest charge annually required.

In conclusion, the outstanding effects on American industry of the happenings, above outlined, can be summarized under the following heads:

1. Large exports made possible by the great volume of foreign credits placed in this country.
2. Resulting stimulus to export industries.
3. The continuance of easy money rates in New York resulting from its developing financial prestige and from the uncertain currency conditions abroad, causing foreign balances substantially to increase and gold imports to grow.
4. A resulting stimulus to speculation and to business, arising from easy and plentiful short-time money.
5. A further lowering of interest rates throughout the country, and a resulting stimulus to business and to investment in domestic as well as in foreign securities.
6. Finally, the heavy and rapidly increasing payments required of foreigners, combined with the maintenance of our high tariff policy, are forcing slowly and gradually, but none the less surely, an ever wider separation in prices at home and abroad, with a resulting rapid increase in the expenditures of American tourists abroad and the migration of American industry to many foreign countries.

The close correlation between the movements of the foreign credits placed in this country and those of our balances of commodity trade seems to indicate a close interconnection between the two—*even from year to year*. Even if the estimates, upon which the comparisons are based, were sufficiently accurate to assure the validity of the high correlation discovered, the question as to whether trade followed automatically the loan or whether, on the contrary, the credits were placed in order to relieve otherwise severe maladjustments in our international balances of payments, remains unanswered. During a period when prices in this country and those in many others were being artificially restrained from

separating, relatively low interest rates prevailed in the United States. Under such circumstances, the plentiful, generally excellent, and cheap American products and capital were urgently demanded by the less fortunate but recovering countries of Europe and also by the rapidly developing countries which make up much of the rest of the world. Between credits and trade, seemingly minor adjustments took place in both directions.

What is of outstanding importance is that the large foreign borrowings in the United States made unnecessary for the borrowing countries a larger export of gold and consequently, in spite of large purchases abroad, enabled them the more easily to restrict the fall of prices; while to the United States, the resulting reduced imports of gold made generally unnecessary the restrictions against a further general price rise. And it was the failure of prices, in the borrowing countries and others, to fall sufficiently, and of those in the lending country to rise sufficiently, which in turn made possible the continued large balances of exports from the United States. It is clear, therefore, that in the last resort, our foreign loans and investments, combined with heavy and increasing tourists' expenditures, were making possible the continuance of our favorable balances of trade.

The resulting stimulus to export industries during the period is qualitatively immediately evident, though the ultimate effects on American business as a whole are quantitatively obviously impossible to trace.

It must be continually borne in mind that our exports aggregate in value but little more than 10 per cent of our output of exportable articles and a much smaller proportion still of our entire production. What then, it may reasonably be asked, can be the importance to American industry as a whole of a very large absolute increase in so small a proportion of the total?

In certain industries, it is true, a large increase in the consumption of its products signifies comparatively little. In others, such as the growing of cotton, an increase of 10 per cent in consumption might often mean, for a whole section of the country, the difference between genuine prosperity and deep depression. Furthermore, the stimulus to the business of mail-order houses, and of their suppliers and others throughout the country, resulting from "good times" in the South, while quantitatively impossible to evaluate, is beyond question, great. Similarly, an increase in the foreign sales of machinery or of automobiles, by stimulating activity in those industries and in turn in those of their suppliers, might confidently be expected to bring important, but as yet unmeasured, prosperity to a considerable portion of American industry.

The influences operating through the money and investment markets are even more difficult to evaluate quantitatively. A comparatively small import of gold, for example, serving, as it usually does, as a direct

inflationary force, and also as a net increase in the reserves of our Federal Reserve banks, may lead to a manifold expansion of bank credit throughout the country. Moreover, the extent of the possible, or even probable, expansion depends very much upon the uses to which the proceeds are put. Should they be used continually for stock speculation alone, their influence might be very great indeed. On the other hand, the more they flow away to less active *business* uses, the less become the credit expansion possibilities. It is nevertheless true that, whatever their use through our banking and credit machinery, the possibilities of their expansion is several fold.[24] So long, in fact, as the operations growing out of the credit expansion do not so upset the balance of international payments as to cause a reverse outflow of gold or its equivalent, the expansion in business lending may be at least four, perhaps ten, times the gold import, while that in lending for speculative purposes might be much greater still.

The annual imports of gold, therefore, continuing throughout much of the period, and its exports during 1925 and 1927, in their influence on American business, may perhaps be ranked as of *primary* importance.

[24] For more complete analysis of this subject, the reader is referred to an earlier publication of the writer, *Stock Speculation and the Money Market*, 1927.