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The United States Balance of Payments, 1861-1900

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THIS paper presents estimates of each of the components of the balance of international payments of the United States for the period 1861-1900. Annual figures of the net international capital movements were derived through the residual method, a procedure which requires independent estimation of each of the visible and invisible items on current account and of net gold and silver movements to compute the yearly net flow of capital across the nation's boundaries. The estimates, together with North's estimates on the balance of international payments for 1790-1860, are the first attempt to employ the residual method in a comprehensive fashion in this field.¹

Two sets of data on the nation's international economic transactions were available for the late nineteenth century. As part of his investigation of the mechanism of adjustment under an inconvertible paper standard, Frank D. Graham in 1922 developed independent estimates for the following invisible items: freight payable and receivable, net interest payments, loans floated, and repayments on loans for the fiscal years 1860-78.² His data suffer from some important limitations. No explicit references were made to the technique of calculation. More significantly, several items on current account were omitted from his international balance sheet. In addition, the volume of loans floated and repayment of loans do not represent accurately the annual net international capital movements of the United States. No provision was made for short term capital movements or for other forms of long term capital transactions. The fragmentary character of Graham's data

¹ For recent annual balance of payments estimates for nineteenth-century Great Britain cf. Albert H. Imlah, "British Balance of Payments and the Export of Capital, 1816-1913," *Economic History Review*, 2d series, Vol. 2, 1952, pp. 234-239, and Alexander K. Cairncross, *Home and Foreign Investment, 1870-1913*, Cambridge University Press, 1953, p. 180.

² Frank D. Graham, "International Trade Under Depreciated Paper—the United States, 1862-1879," *Quarterly Journal of Economics*, November 1922, p. 231.

Note: This paper is a substantial revision of the statistical chapter of my doctoral dissertation "Cyclical Fluctuations and the International Capital Movements of the United States, 1866-1897" (Columbia University, 1955). It was prepared at the suggestion of Professor James W. Angell and has benefited from the constructive criticisms of Mr. Karl Hansson of the United Nations Secretariat, Dr. Charles Hoffman of Queens College, and Dr. Douglass North of the National Bureau of Economic Research and the University of Washington.

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accounts largely for the discrepancies between the totals of his credit and debit items.

The second set of statistics were the estimates prepared by Bullock, Williams, and Tucker of Harvard University in 1919.³ Their figures, covering the three periods 1850-73, 1874-95, and 1896-1914 as part of a comprehensive treatment for 1789-1914, have acquired a semi-official status in U.S. balance of payments statistics.⁴ It is important to recognize that these data are not annual figures. Besides, Bullock and his colleagues did not identify, let alone develop, estimates for such items as emigrants' funds and the outlays of foreign passenger lines in U.S. ports. Moreover, immigrant remittances were not calculated for 1850-73 and were lumped together with "miscellaneous items" for 1874-75. Similarly, no estimates were made for marine insurance receipts and payments and bankers' commissions for 1850-73 and 1874-95, and they were classified with the miscellaneous category for 1896-1914. Tourist expenditures for all three periods were derived as "net," as no systematic effort was made to derive two independent estimates of U.S. tourist expenditures abroad and foreign tourist outlays in the United States. Finally, inadequate official merchandise export and import data were accepted.⁵

Since the international economic transactions of the United States during the late nineteenth century developed an extraordinary complexity, it is necessary to overcome the limitations of the fragmentary approaches to balance of payments estimation by employing an alternate method. Scientific procedure requires that each of the many components be properly identified and distinguished from other parts of the balance of payments. The best possible series must be constructed to mirror the impact of the secular, cyclical, and extra-economic pressures operating on the magnitude of the particular economic variable over the forty year span. This does not permit lumping two or more items together or into a "miscellaneous category" or assuming that one or more items on the credit side can exactly offset specific items on the debit side for one or for forty years.⁶

I have constructed series for the largest possible number of distinct

³ Charles L. Bullock, John H. Williams, Rufus S. Tucker, "The Balance of Trade of the United States, *Review of Economic Statistics*, July 1919, pp. 213-268.

⁴ See, for example, their use in *Historical Statistics of the United States, 1789-1945*, Bureau of the Census, pp. 242-243.

⁵ Bullock et al., pp. 223, 227, 231, 232.

⁶ In what was probably the best balance of payment estimates by a contemporary, the *Journal of Commerce* in 1895 assumed that the amount of such diverse items as immigrant remittances and outlays of outgoing steerage passengers and second class passengers who did not use bankers' credit was offset by the cash and credit brought by foreign travelers and settlers. Cf. *The Journal of Commerce and Commercial Bulletin*, July 8, 1895. This article, "Our International Balance Sheet" was reproduced in the *Commercial Yearbook*, Vol. 1, 1896, pp. 225-231.

items in the balance of payments on current account. Wherever the data were fragmentary, it was necessary to make arbitrary assumptions, which undeniably increased the margin of error. For each series, including the derived set of net international capital movements, the direction of the movement over periods of varying duration, rather than the absolute level at one point in time, may be more significant. Each series in its final form is expressed in tenths of millions of dollars. Figures of smaller magnitude would convey artificially achieved accuracy. On the other hand, rounding series to the nearest million dollars for the items of smaller magnitude would obscure annual variations over substantial periods of time.

Each series is expressed in terms of gold. Since the United States was on an inconvertible paper standard from 1861-79, several important sets of estimates involved conversion from currency terms to gold values.

Visible Items

Quantitatively, the visible items represent the most significant portion of the balance of international payments of the United States in the late nineteenth century. Among the series examined in this section are merchandise exports, merchandise imports, sale of ships, and net gold and silver movements.

MERCHANDISE EXPORTS

The official series on commodity exports (including re-exports) that appear in the annual volumes on commerce and navigation require one important modification. Under legislation passed in 1820, only those shippers who transported their goods to foreign nations by sea were compelled to declare the value of the exports.⁷ Although government officials compiling foreign trade statistics complained frequently,⁸ it was not until April 1, 1893 that a law requiring exporters to clear goods shipped by railroads and other land vehicles was enacted.⁹

Thus discrepancies between reported exports and actual exports became considerable in the late nineteenth century. The extension of the American rail net to the Canadian and Mexican borders and the growth of their railroad systems increased the volume of overland trade and aggravated the situation.

The underreporting of overland exports in the official trade statistics evolved through two stages. Before fiscal 1871, government agencies

⁷ *Annual Report on the Commerce and Navigation of the United States*, Treasury Department, Bureau of Statistics, 1874, pp. xv-xvii, hereafter referred to as *Commerce and Navigation*.

⁸ *ibid.*, 1867-92, passim.

⁹ *Monthly Reports*, Treasury Department, Bureau of Statistics, 1894, p. 687.

did not collect any data on the shipments of goods by rail or carriage to Canada or Mexico. Despite their relative insignificance, as early as 1867, Alexander Delmar, first director of the Treasury Department's Bureau of Statistics, noted discrepancies in the figures on U.S. exports to Canada ranging between \$6 and \$11 million between the American and Canadian returns for the fiscal years 1865-67.¹⁰ This condition was probably one factor in the voluntary partial underreporting that characterized the nation's overland export statistics, 1871-93. Differences of \$10 to \$15 million between the Canadian and U.S. statistics (about twice the reported overland trade) were noted during the 1870's (see Table 1, cols. 9 and 10). Between 1885 and 1893, the authorities estimated that the extent of the underreporting of overland exports was more than \$20 million or amounts representing the bulk of the reported statistics.¹¹ Accordingly the development of more realistic statistics required the estimation of the values of commodities shipped from the United States that had been excluded from the official data. This operation is discussed in the following sections.

The Northern Border

The Canadian trade statistics of imports from the United States provided the point of departure for the adjustments performed on the official U.S. series. The first stage involved obtaining two sets of figures as comparable as possible. For fiscal 1861-79, the task required the resolution of two formidable difficulties. Before 1873, the U.S. data, unlike the Canadian series, show exports to British North America and to Canada with no adequate breakdown by provinces, a factor of considerable importance, since the geographic area encompassed by "Canada" evolved before 1867. Until that time, with the establishment of the Dominion of Canada, the provinces of Quebec and Ontario were described as Canada. The formation of the Dominion involved the addition of New Brunswick and Nova Scotia. Three years later, in 1870, Manitoba joined the Dominion, then British Columbia in 1871, and Prince Edward Island in 1873. If the Canadian figures are used to measure the exports of the United States to Canada, no question exists as to the scope of the coverage.

Another problem is involved in the use of the U.S. series for total

¹⁰ *Commerce and Navigation*, 1867, pp. xxii-xxiv. Commenting on the 1820 law, Delmar observed: ". . . when the law was passed, there were no railway carriages in vogue; nevertheless a considerable portion of the foreign trade of the United States (across our land frontier) was even then transported, as some of it is still, on wagons, sleds and other vehicles; while at the present day our export traffic to British North America by railway is large."

¹¹ The unofficial estimate of the government of the gap in the reported overland trade to Canada in 1885 was between \$22 to \$25 million; in 1888, \$20 million. Finally, the figure for underreporting to all areas was estimated at \$27,433,816 in 1892. Cf. *Commerce and Navigation*, 1886, p. xii; 1888, p. xii; and 1892, p. xxxi.

TABLE 1
 United States and Canadian Series on United States Merchandise Exports to Canada, 1861-1900
 (thousands of dollars, gold values, unless otherwise noted)

UNITED STATES SERIES										
Fiscal Year	Domestic Gold and Merchandise Exports		Merchandise Exports				CANADIAN SERIES		DIFFERENCE	
	Total (mixed values) (1)	Gold (2)	Merchandise (currency values) (1) - (2) (3)	Average Gold Premium		Merchandise Exports		Total (5) + (6) (7)	Calculated (8) - (7) (9)	Reported (10)
				(8)	(4)	Domestic (3) x (4) (5)	Foreign (6)			
1861	11,750	—	11,750	11,750	2,229	13,979	20,206	+6,227		
1862	11,282	467	10,815	10,603	2,061	12,665	22,643	+9,979		
1863	18,431	3,661	14,769	10,773	2,652	13,425	18,458	+5,033		
1864	26,267	2,379	23,888	15,293	2,420	17,713	(7,952)	—		
1865	18,306	2,830	15,477	7,666	906	8,572	14,821	+6,249	+5,994	
1866	15,334	4,267	11,066	7,882	1,123	9,004	15,243	+6,238	+7,643	
1867	12,442	3,110	9,332	6,618	510	7,128	14,061	+6,933	+11,093	
1868	14,816	1,841	12,975	9,275	2,035	11,311	22,660	+11,349		
1869	18,189	610	17,579	12,785	2,859	15,643	21,497	+5,854		
1870	19,366	1,465	17,901	14,518	3,952	18,470	21,697	+3,228		
1871	26,528	2,144	24,384	21,636	4,488	26,124	27,186	+1,062		
1872	24,795	3,337	21,458	19,193	4,838	24,032	33,742	+9,710		
1873	32,358	4,007	28,350	24,738	4,185	28,923	45,189	+16,266	+12,411	
1874	40,871	3,622	37,249	33,258	4,579	37,837	51,707	+13,870	+10,200	
1875	32,667	2,071	30,596	27,148	3,951	31,099	48,930	+17,831	+15,660	
1876	32,003	2,057	29,946	26,291	3,430	29,721	44,100	+14,379	+10,508	
1877	36,195	1,453	34,742	32,198	2,677	34,875	49,376	+14,501	+13,052	
1878	34,614	811	33,802	32,978	3,344	36,322	48,003	+11,681	+10,536	
1879	28,394	1,222	27,172	27,064	2,432	29,496	42,170	+12,674	+13,158	

continued on next page

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TABLE I concluded

UNITED STATES SERIES										
Fiscal Year	Domestic Gold and Merchandise Exports		Merchandise Exports			CANADIAN SERIES (8)	DIFFERENCE			
	Total (mixed values) (1)	Gold (2)	Merchandise (currency values) (1) - (2) (3)	Average Gold Premium (8) (4)	Domestic (3) x (4) (5)		Foreign (6)	Total (5) + (6) (7)	Calculated (8) - (7) (9)	Reported (10)
1880					26,757	2,703	29,460	28,194	+9,981	
1881					34,200	3,704	37,903	36,339	+9,630	
1882					33,235	3,266	36,500	47,053	+14,023	
1883					40,717	3,701	44,417	55,147	+14,878	
1884					40,424	3,882	44,306	49,786	+5,480	
1885					34,112	4,133	38,246	45,577	+7,331	
1886					30,644	2,819	33,463	42,819	+9,336	
1887					32,328	2,660	34,988	44,796	+9,808	
1888					33,074	2,809	35,882	46,440	+10,558	
1889					38,279	2,329	40,608	50,029	+9,422	
1890					37,328	2,954	40,282	51,366	+11,084	
1891					36,053	2,095	38,148	52,033	+13,886	
1892					41,006	2,294	43,300	51,742	+8,442	
1893					43,027	3,767	46,794	52,340	+5,545	
1894					50,041	6,623	56,664	50,746	-5,918	
1895					47,788	5,067	52,855	50,179	-2,674	
1896					53,063	6,625	59,688	53,529	-6,158	
1897					58,465	6,464	64,929	57,023	-7,905	
1898					77,450	6,264	83,714	74,825	-8,889	
1899					81,010	6,965	87,995	88,467	+472	
1900					88,030	7,290	95,320	102,080	+6,760	

For column notes see bottom of next page.

domestic exports of merchandise and gold to Canada for fiscal 1862-79. With the exception of the Pacific Coast the United States operated on an inconvertible paper standard. It was consequently necessary to subtract the gold exports from the total exports and deflate the residual quantity of merchandise exports (expressed in currency values) by the prevailing average annual gold premium to obtain a series of U.S. merchandise exports to Canada. To these figures were added the foreign exports of the United States to Canada¹² (already expressed in gold values), to obtain a series of total merchandise exports to Canada which could be compared with the Canadian returns, and the differences calculated between them. Since the problems of geographical ambiguity and inconvertible currency did not exist during fiscal 1880-1900, the variations between the Canadian and U.S. series could be computed without further difficulty for those years (see Table 1).

Columns 7 to 9 of that table show that for most years the Canadian series were substantially larger than the figures of the U.S. government. The Canadian statistics were, however, inadequate for computing accurately the magnitude of the unreported overland exports. A second stage of refinement required three distinct types of modifications in the Canadian series.

The first were the most arbitrary changes, introduced primarily to produce reasonable consistency in the final results. For 1861-72, \$300,000 was added for unreported exports into those parts of British North America that were not included in Canada. Since the Canadian figure for 1864 was fragmentary, it was arbitrarily adjusted to produce a value \$6 million above comparable U.S. statistics. Most serious were

¹² One defect in Delmar's procedure of comparing Canadian and U.S. trade statistics was the failure to include foreign exports.

Col. 1: From *Commerce of the United States and Europe with American Countries, 1851-1895, with trade under Reciprocity Agreement of 1890*, United States Treasury, Bureau of Statistics, 1896, p. 55.

Col. 2: 1862 and 1863—From *Commerce and Navigation of the United States*, U.S. Treasury, 1862 and 1863. 1864-79—From the *Statistical Abstract of the United States, 1879-1905*; passim.

Col. 4: C. Evans, *Exports, Domestic from the United States to All Countries, 1789-1883*, 48th Cong., 1st sess., H. Misc. Doc. 49, Part 2, Vol. 24, 1884, p. 244.

Col. 5: 1862-79—Obtained by deflating the data in col. 3 by the data in col. 4. 1880-1900—From the *Statistical Abstract of the United States*, Vol. 25, 1905, p. 185.

Col. 6: 1861-72—From *Commerce and Navigation of the United States, 1873-1900*—From the *Statistical Abstract of the United States*, Vol. 25, 1905, p. 185.

Col. 8: 1861-73—From the *Special Report of Trade between Canada and the United States for the Use of the International Commission*, Dominion of Canada, Dept. of Trade and Commerce, *Quebec, August 1898*, Ottawa, Dawson, 1898, pp. 250-259. 1874-1900—*Report of the Department of Trade and Commerce*, Part 1, *Canadian Trade*, 1908, Dominion of Canada, Ottawa, 1909, pp. 414-415. 1864 data are fragmentary.

Col. 10: From U.S. Treasury Department, Bureau of Statistics, *Commerce and Navigation of the United States, 1867, 1874-1883*, and *Monthly Report*, April 1874, pp. 427-428.

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the adjustments of more than \$10 million for fiscal 1869–71, when the U.S. series on total exports rose more rapidly than the Canadian series. Clearly the Canadian figures are drastically out of line, since in 1869 and 1870 the U.S. data did not include any report of overland exports. The same conclusion must be reached for 1880 and 1881 where the official U.S. figures are greater than the Canadian, although partial returns for Quebec, Ontario, Manitoba, and the northern territory produce Canadian figures approximately \$10 million greater than the U.S. ones (Table 1, col. 10). The U.S. figures have consequently been employed in the initial adjustments for 1880 and 1881.

In those years where substantial excesses of the Canadian figures over the comparable U.S. data were recorded, the former series did not adequately reflect the full flow of overland exports. In 1867, Delmar recognized this deficiency as a basic limitation of the Canadian series.¹³ Column 10 of Table 1 shows for the years 1874–85 the reported net difference between the Canadian and U.S. returns. The U.S. figures are higher for some products and the Canadian data for other products. For example, in 1883 the Canadian net excess of \$14,878,000 reflects a combination of Canadian excess reports of \$23,919,000 and U.S. excess reports of \$9,041,146.¹⁴ In 1894–1900, after the U.S. government began to collect more accurate and complete data on overland exports, the Canadian data constituted in most years less than 90 per cent of the corresponding U.S. values. Accordingly, I assumed that underreporting by the Canadians increased gradually from 5 per cent in 1860's to 10 per cent in 1888–93. The differences between the adjusted Canadian series and the U.S. series were then calculated (Table 2, col. 7).

A final adjustment of the Canadian series was required. Canadian import figures exclude the inland freight charges contained in the export statistics of the United States. Penelope H. Hartland has computed a series of freight ratios on overland exports to Canada for the calendar years 1868–1900. I applied the ratios, converted to a fiscal year basis, to the differences between the adjusted Canadian data and the U.S. data to adjust the former series for the absence of overland freight payments (Table 2, col. 9). The values derived were used to adjust for the deficiency in the reporting of overland exports in the U.S. series.

The Southern Border

Estimating unreported land exports to Mexico required different procedures. The statistics compiled by the Mexican government on imports from the United States were inadequate. Goods on ships stopping at Mexican ports en route to Panama were sometimes classified as imports. Additional confusion arose from the assignment of imports

¹³ *Commerce and Navigation*, 1867, p. xxii.

¹⁴ *Commerce and Navigation*, 1883, pp. lxxvii–lxxxvi.

U. S. BALANCE OF PAYMENTS, 1861-1900

TABLE 2
Adjustments to United States Series on United States Merchandise Exports to Canada, 1861-1900
(thousands of dollars, unless otherwise noted)

Fiscal Year	U. S. Series (1)	Canadian Series (2)	Initial Adjustments (3)	Canadian Underreporting (%) (4)	Canadian Underreporting (amount) (5)	Adjusted Canadian Series (2)+(3)+(5) (6)	Calculated Difference (6) - (1) (7)	Average Freight Rate on U.S. Overland Exports (\$) (8)	Adjustment for Overland Freight Payments (7) x (8) (9)	Total Adjustments to U.S. Series (7) + (9) (10)
1861	13,979	20,206	300	5	1,025	21,532	7,552	12.16	918	8,471
1862	12,665	22,643	300	5	1,147	24,090	11,425	12.16	1,389	12,815
1863	13,425	18,458	300	5	1,938	19,396	5,970	12.16	726	6,697
1864	17,713	7,952	300	5	1,201	25,214	7,501	12.16	912	8,413
1865	8,572	14,821	300	5	756	15,877	7,305	12.16	888	8,193
1866	9,004	15,243	300	5	777	16,320	7,316	12.16	890	8,205
1867	7,128	14,061	300	5	718	15,079	7,951	12.16	967	8,918
1868	11,311	22,660	300	6	1,378	24,338	13,027	12.16	1,584	14,611
1869	15,643	21,497	13,878	6	833		14,711	12.16	1,789	16,500
1870	18,470	21,697	15,598	6	935		16,513	11.43	1,887	18,400
1871	26,124	27,186	11,293	6	678		11,971	10.27	1,229	13,200
1872	24,032	33,742	300	6	2,043	36,085	12,053	9.90	1,192	13,245
1873	28,923	45,189		7	3,163	48,352	19,429	9.09	1,766	21,195
1874	37,837	51,707		7	3,619	55,326	17,489	7.82	1,368	18,857
1875	48,930	48,930		7	3,425	52,355	21,256	7.11	1,511	22,767
1876	29,721	44,100		7	3,087	47,187	17,466	5.31	927	18,393
1877	34,875	49,376		7	3,456	52,832	17,958	6.30	1,131	19,089
1878	36,322	48,003		8	3,820	51,843	15,521	7.83	1,215	16,736
1879	29,496	42,170		8	3,374	45,544	16,048	8.05	1,292	17,340

continued on next page

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TABLE 2 concluded

Fiscal Year	U.S. Series (1)	Canadian Series (2)	Initial Adjustments (3)	Canadian Underreporting (%) (4)	Canadian Underreporting (amount) (5)	Adjusted Canadian Series (2)+(3)+(5) (6)	Calculated Difference (6) - (1) (7)	Average Freight Rate on U.S. Overland Exports (\$) (8)	Adjustment for Overland Freight Payments (7) x (8) (9)	Total Adjustments to U.S. Series (7) + (9) (10)
1880	29,460	28,194	9,981	8	3,550	42,991	13,531	7.61	1,030	14,561
1881	37,903	36,339	9,630	8	3,803	51,336	13,433	6.43	864	14,296
1882	36,500	47,053		8	3,764	50,817	14,317	5.15	737	15,054
1883	44,417	55,147		9	4,963	60,110	15,693	5.61	880	16,574
1884	44,306	49,786		9	4,481	54,267	9,960	6.83	680	10,641
1885	38,246	45,577		9	4,102	49,678	11,433	6.22	711	12,144
1886	33,463	42,819		9	3,845	46,672	13,210	6.97	921	14,130
1887	34,988	44,796		9	4,032	48,828	13,839	7.61	1,053	14,893
1888	35,882	46,440		10	4,644	51,084	15,202	6.47	984	16,186
1889	40,608	50,029		10	5,003	55,032	14,425	6.25	902	15,326
1890	40,282	51,366		10	5,137	56,502	16,200	6.25	1,014	17,234
1891	38,148	52,033		10	5,203	59,237	19,089	6.35	1,212	20,301
1892	43,300	51,742		10	5,174	56,916	13,616	7.13	971	14,587
1893	46,794	52,340		10	5,234	57,574	10,779	7.55	814	11,593
1894	56,664	50,746								
1895	52,855	50,179								
1896	59,688	53,529								
1897	64,929	57,023								
1898	83,714	74,825								
1899	87,995	88,467								
1900	95,320	102,080								

Col. 1: From Table 1, col. 7.

Col. 2: From Table 1, col. 8.

Cols. 3 and 4: Based on procedures described in text.

Col. 5: Based on applying percentages used in col. 4 against adjusted Canadian data based on cols. 2 and 3.

Col. 8: Obtained by averaging the calendar year data from col. 5 of Table VIII of the Freight Section of Penelope Hartland's unpublished manuscript, "Canada's Balance of Payments 1868-1952." The value for 1869 was also used for 1861-68.

to the country providing shipping facilities rather than to the nation of origin.¹⁵

The U.S. series on overland exports was used as a point of departure. Before the mid-1880's, overland trade was only a small portion of the total exports to Mexico.¹⁶ As late as 1883, Joseph F. Nimmo, Jr., Director of the Bureau of Statistics of the Treasury Department, believed the official figures to be reasonably accurate. By 1885, with the opening of Mexican railroads, he believed unreported exports to be worth more than \$1.5 million.¹⁷ In 1885-93, the magnitude of unreported overland shipments substantially increased. One indication was the widening gap between the defective Mexican data and the U.S. series.¹⁸

The adjustments made (Table 3, col. 2) reflect these considerations; nominal amounts were assigned before 1885 and larger ones for the later years. When the figures are added to the estimates of unreported shipments to Canada (col. 4) and to the reported overland trade (col. 6) it is possible to construct new series for total overland exports for 1861-93 (col. 7). The last step involved the addition of the estimates of total unreported overland exports (col. 5) to the official data on total merchandise exports (col. 8) to derive a revised series of total exports for fiscal 1861-93 (col. 9).

MERCHANDISE IMPORTS

The official series on merchandise imports requires two significant adjustments. Both relate to the valuation of imports by the authorities.

The first modification concerns only the figures on general imports for the period July 1, 1883 to August 1, 1890. As a result of the enactment of section 7 of the tariff act of March 3, 1883, which went into effect July 1 of that year, the dutiable value of imported goods was computed at a level substantially less than their actual cost or value to the importer. This provision explicitly excluded:¹⁹

The cost of transportation, shipment and trans-shipment, with all the expenses included, from the place of growth, production or manufacture whether by land or water, to the vessel in which shipment is made to the

¹⁵ Daniel Cosío Villegas, *Historia Moderna de México, La República Restaurada*, Vol. 11, *La Vida Económica* por Francisco R. Calderón (Mexico, Editorial Hermes, Buenos Aires, 1955), pp. 193-197.

¹⁶ *ibid.*

¹⁷ *Department of State Consular Reports*, "Report from the Consuls of the United States," no. 94, June 1888, "Imports into Mexico," 1888, pp. 417, 420, 429.

¹⁸ For example, the Mexican figure for fiscal 1889-90 was 29,080,276 pesos. With the average exchange rate of 1.27 pesos per dollar, this amount would be equivalent to \$22,879,839 or \$9,594,552 greater than the U.S. figure of \$13,285,287. Cf. "Importaciones," 1889-1890 (Mexico, Topografía de la Oficina Impresora de Estampillas, Palacio Nacional 1893), pp. 131-181; Secretaría de la Economía Nacional, Dirección General de Estadística, "Anuario de los Estados Unidos Mexicanos," 1941 (Mexico, 1943), p. 934; and *Statistical Abstract of the United States*, 1905, p. 190.

¹⁹ *Commerce and Navigation*, 1886, p. xi.

BALANCE OF PAYMENTS

TABLE 3
Total Adjustments to Total Overland and Total Merchandise Exports of the United States, 1861-1900
(millions of dollars)

Fiscal Year	OVERLAND EXPORTS TO MEXICO			UNREPORTED OVERLAND EXPORTS TO CANADA (4)	OVERLAND EXPORTS TO ALL COUNTRIES			TOTAL MERCHANDISE EXPORTS		
	Reported (1)	Unreported (2)	Total (1) + (2) (3)		Reported (5)	Unreported (2) + (4) (6)	Total (5) + (6) (7)	Official Series (8)	Adjusted Series (6) + (8) (9)	
1861		0.5	0.5	8.5		9.0	219.6	228.5		
1862		0.1	0.1	12.8		12.9	190.7	203.6		
1863		0.1	0.1	6.7		6.8	204.0	210.8		
1864		0.1	0.1	8.4		8.5	158.8	167.4		
1865		0.3	0.3	8.2		8.5	166.0	174.5		
1866		0.7	0.7	8.2		8.9	348.9	357.8		
1867		0.8	0.8	8.9		9.7	294.5	304.2		
1868		0.9	0.9	14.6		15.5	282.0	297.5		
1869		1.0	1.0	16.5		17.5	286.1	303.1		
1870		1.1	1.1	18.4		19.5	392.8	412.3		
1871	0.8	0.3	1.1	13.2	9.3	22.8	442.8	464.3		
1872	0.7	0.5	1.2	13.2	7.2	21.0	444.2	457.9		
1873	0.5	0.9	1.4	21.2	9.8	31.9	520.5	544.6		
1874	0.6	0.8	1.4	18.9	7.9	27.6	586.3	606.0		
1875	0.8	0.6	1.4	22.8	6.8	30.1	513.4	536.8		
1876	0.6	0.7	1.3	18.4	5.8	24.9	540.4	559.5		
1877	0.9	0.7	1.6	19.1	19.8	26.2	602.5	622.3		
1878	1.0	0.7	1.7	16.7	7.4	24.8	694.9	712.3		
1879	0.9	0.7	1.6	17.3	7.4	25.5	710.4	728.5		
1880	1.0	0.9	1.9	14.6	5.8	21.3	835.6	851.1		
1881	0.9	1.0	1.9	14.3	8.3	23.6	902.4	917.7		
1882	2.4	1.1	3.5	15.1	12.1	28.3	750.5	766.7		
1883	4.3	1.3	5.6	16.6	25.1	43.0	823.8	841.7		
1884	3.6	1.4	5.0	10.6	26.6	38.6	740.5	752.6		

continued on next page

U.S. BALANCE OF PAYMENTS, 1861-1900

TABLE 3 concluded

Fiscal Year	OVERLAND EXPORTS TO MEXICO			UNREPORTED OVERLAND EXPORTS TO CANADA (4)	OVERLAND EXPORTS TO ALL COUNTRIES			TOTAL MERCHANDISE EXPORTS	
	Reported (1)	Unreported (2)	Total (1) + (2) (3)		Reported (5)	Unreported (2) + (4) (6)	Total (5) + (6) (7)	Official Series (8)	Adjusted Series (6) + (8) (9)
1885	2.0	1.6	3.6	12.1	24.2	13.7	37.9	742.2	755.9
1886	1.7	3.0	4.7	14.1	19.1	17.1	36.3	679.5	696.7
1887	2.0	3.2	5.2	14.9	21.4	18.1	39.5	716.2	734.3
1888	2.8	4.8	7.6	16.2	22.1	21.0	43.1	696.0	716.9
1889	3.9	5.0	8.9	15.3	28.4	20.3	48.8	742.4	762.7
1890	5.0	6.5	11.5	17.2	33.0	23.7	56.7	857.8	881.6
1891	7.0	5.0	12.0	20.3	31.9	25.3	57.2	884.5	909.8
1892	6.6	6.0	12.6	14.6	33.2	20.6	53.8	1,030.3	1,050.9
1893	11.8	3.0	14.8	11.6	43.9	14.6	58.5	847.7	862.3
1894	7.1		7.1		49.2		49.2		892.1
1895	8.7		8.7		49.9		49.9		807.5
1896	10.6		10.6		61.1		61.1		882.6
1897	13.8		13.8		65.1		65.1		1,051.0
1898	12.0		12.0		73.3		73.3		1,231.5
1899					83.9		83.9		1,227.0
1900					110.5		110.5		1,394.5

Col. 1 and 5: Obtained from *Commerce and Navigation of the United States*, U.S. Treasury, Bureau of Statistics, 1871-1900.
 Col. 2: Based on procedure described in text.
 Col. 4: From Table 2, col. 10.
 Col. 8: *Historical Statistics of the United States, 1789-1945*, Dept. of Commerce, 1949, p. 244.

BALANCE OF PAYMENTS

United States; the value of the usual and necessary sacks, crates, boxes or covering of any kind in which such merchandise is contained; commission at the usual rates, but in no case less than $2\frac{1}{2}$ per centum, and brokerage, export duty, and all other actual or usual charges for putting up, preparing, and packing for transportation or shipment.

This method of valuation was abandoned after the passage of section 19 of the act of June 10, 1890. Under its provisions, imports were estimated at the "actual market value or wholesale price" of these commodities at the port of export.²⁰

While the 1883 legislation was in effect, it is clear that the value of imports was substantially understated. Nimmo estimated that the reported imports of \$667,697,693 for fiscal 1883-84 should be upgraded by 5 per cent to \$700,000,000 to reflect the excluded costs.²¹ Accordingly, without further information on the magnitude of these charges, I adopted this 5 per cent increase for the period July 1, 1883 to August 1, 1890 (Table 4, col. 2).²²

The second source of inaccuracy in the official import statistics relates to the extent of illegal undervaluation and smuggling. Douglass North has indicated the formidable proportions this factor had assumed between 1845 and 1860 (see his paper in this volume). The outbreak of the Civil War and the adoption of highly protective tariffs in the late nineteenth century did not arrest these illegal operations. On the contrary, the high duties placed a premium on evasion.

Moreover, it was not until 1874 that the Anti-Moiety Act was passed. Before that time, the proceeds of the fines collected were distributed in the following manner, 50 per cent to the Treasury, 25 per cent to the informer, and 25 per cent to the collector, naval officers, and surveyors. The informers, generally Treasury agents, were thus given a vested interest in the violation of the law. Edward Young, Chief of the Bureau of Statistics of the Treasury Department, in February 1874 estimated that 3 per cent of the value of imports should be allowed for smuggling and undervaluation.²³

Still another factor that contributed to undervaluation was the requirement under Section 17 of the Internal Revenue Act of 1862 that all imports receive consular certification of the accuracy of the invoices. Since the consuls, as agents of the State Department, were intent on encouraging exports, they did not rigorously enforce this provision.

²⁰ *Commerce and Navigation*, 1891, pp. xi-xii. The act became effective on August 1, 1890.

²¹ *Commerce and Navigation*, 1884, p. xi.

²² The import figure of \$77,559,304, for July 1890, has been adjusted. These additions to imports more than counterbalanced the inadequate reporting of overland exports. This underscores the massiveness of capital imports in 1886-91 (see Table 27 below).

²³ Edward Young, "Foreign Indebtedness of the United States," *Monthly Report of the Chief of the Bureau of Statistics*, Treasury Department, 1874, February 1874, pp. 251-252.

TABLE 4
Total Merchandise Imports of the United States, 1861-1900
(dollar figures in thousands)

Fiscal Year	GENERAL IMPORTS		ADJUSTMENT FOR UNDERVALUATION AND SMUGGLING (3)	MERCHANDISE IMPORTS, ADJUSTED SERIES (4)
	Official Series (1)	Adjusted for Underestimation under 1883 Law (2)		
1861	\$289,311		3%	\$297,990
1862	189,357		3	195,038
1863	243,336		3	250,636
1864	316,447		3	325,940
1865	238,746		3	245,908
1866	434,812		3	447,856
1867	395,761		3	407,737
1868	357,436		3	368,159
1869	417,506		3	430,031
1870	435,958		3	449,037
1871	520,224		3	535,831
1872	626,595		3	648,526
1873	642,136		3	661,400
1874	567,406		3	584,428
1875	533,005		3	548,995
1876	460,741		2	469,956
1877	451,323		2	460,349
1878	437,052		2	445,793
1879	445,778		2	454,694
1880	667,955		2	681,314
1881	642,615		2	655,518
1882	724,640		2	739,133
1883	723,181		2	737,645
1884	667,698	\$701,083	2	715,105
1885	577,527	606,403	2	618,532
1886	635,436	667,208	2	680,552
1887	692,320	726,936	2	741,475
1888	723,957	760,155	2	775,358
1889	745,132	782,389	2	798,037
1890	789,310	828,776	2	845,352
1891	844,916	848,755	1	857,243
1892	827,402		1	835,676
1893	866,401		1	875,065
1894	654,995		1	661,545
1895	731,970		1	739,290
1896	779,725		1	787,522
1897	764,730		1	772,377
1898	616,050		1	622,211
1899	697,148		1	704,119
1900	849,941		1	858,440

Col. 1: From *Historical Statistics of the United States, 1789-1945*, p. 244.

Col. 2: Obtained by adjusting data in col. 1 by 5 per cent (Joseph F. Nimmo's estimate in *Commerce and Navigation of the United States, 1884*, p. xi) for 1884-90 and the figure for July 1890 of \$77,559,304.

Col. 3: Based on discussion in the text.

Col. 4: Obtained by multiplying values in col. 1 for 1861-83 and 1892-1900 and the values in col. 2 for 1884-91 by the percentages in col. 3.

BALANCE OF PAYMENTS

The problem of undervaluation was a source of continuous concern to Congress and the Treasury Department until 1890.²⁴ Finally, the Customs Administration Act of 1890, providing for penalties for violations on a sliding scale basis, reduced the scale of undervaluation. The *Journal of Commerce* in July 1895 estimated from a New York Customs House report that extra duties were imposed on \$1.7 million of imports because of attempted undervaluation during fiscal 1894-95.²⁵ It assumed that the authorities were able to detect at least one-third of the total undervaluation of \$5 million. This would represent less than 1 per cent of the total merchandise imports.

Given this fragmentary information and recognizing that undervaluation varied from commodity to commodity, I scaled down the percentage of undervaluation by 1 per cent each fifteen years, from 3 per cent for 1861-65 to 1 per cent for 1891-1900 (Table 4).

SALE OF SHIPS

During the Civil War, a substantial portion of the American merchant marine was sold to foreigners. Official statistics exist on the gross tonnage sold to aliens,²⁶ and Douglass North has prepared estimates on the price per ton of ships sold, 1821-1914, which reflect changes in cost of construction. For the crucial period 1861-65, a figure of \$50 a ton was employed.²⁷ I have incorporated his series in Table 27, the summary presentation of all items in the balance of international payments.

NET GOLD AND SILVER MOVEMENTS

Only one adjustment was made to the official series on net gold movements. As has been demonstrated, the official statistics failed to report adequately overland shipments to Canada and Mexico. At the same time, the Canadian Government compiled data on imports from the United States, which provided the basis for the subsequent adjustments. This procedure is equally applicable to the gold export statistics. Accordingly, the official series on net gold movements was adjusted only for those years in which the Canadian return exceeded the U.S. figure by the calculated difference (see Table 5).

The official U.S. series on net gold and silver movements were not subject to further revision despite the fact that significant disparities may exist between the statistics of the U.S. government and other

²⁴ Cf. the appendix to the *Report of the Secretary of Treasury 1885, . . . 1886*, and R. Elberton Smith, *Customs Valuation in the United States: A Study in Tariff Administration*, University of Chicago Press, 1948, pp. 102-132.

²⁵ *The Commercial Yearbook*, Vol. 1, 1896, pp. 225-231.

²⁶ *Historical Statistics of the United States, 1789-1945*, Dept. of Commerce, 1949, pp. 209-210.

²⁷ For another set of estimates of ship sales during the Civil War, cf. Graham, p. 231.

U.S. BALANCE OF PAYMENTS, 1861-1900

TABLE 5

Adjustments to the Net Gold Movements of the United States, 1861-1900

Fiscal Year	(thousands of dollars)			(millions of dollars)	
	U.S. Series (1)	Canadian Series (2)	Difference (2) - (1) (3)	Official Series (4)	Adjusted Series (3) + (4) (5)
1861		863	863	-14.9	-14.0
1862	467	2,530	2,064	+21.5	+23.6
1863	3,661	4,652	990	+56.6	+57.6
1864	2,379	2,474	95	+89.5	+89.6
1865	2,830	4,768	1,939	+51.9	+53.8
1866	4,267	5,182	914	+63.0	+63.9
1867	3,110	6,212	3,101	+22.0	+25.1
1868	1,841	4,849	3,008	+63.7	+66.7
1869	610	3,976	3,367	+21.9	+25.3
1870	1,465	3,027	1,562	+21.6	+23.2
1871	2,144	1,945	-199	+59.8	+59.8
1872	3,337	1,893	-1,444	+40.8	+40.8
1873	4,007	2,543	-1,465	+36.2	+36.2
1874	3,622	2,599	-1,023	+14.5	+14.5
1875	2,071	2,161	91	+53.3	+53.4
1876	2,057	1,972	-85	+23.2	+23.2
1877	1,453	1,933	480	+0.3	+0.8
1878	811	625	-186	-4.1	-4.1
1879	1,224	1,566	342	-1.0	-0.7
1880	982	1,154	172	-77.1	-76.9
1881	835	365	-469	-97.5	-97.5
1882	1,953	1,236	-717	-1.8	-1.8
1883	1,643	885	-758	-6.1	-6.1
1884	701	707	6	+18.3	+18.3
1885	579	1,575	996	-18.2	-17.2
1886	1,137	2,039	903	+22.2	+23.1
1887		311	311	-33.2	-32.9
1888		2,042	2,042	-25.6	-23.6
1889		508	508	+49.7	+50.2
1890		926	926	+4.3	+5.2
1891		1,652	1,652	+68.1	+69.8
1892	1,274	1,395	122	+0.5	+0.6
1893	5,470	5,882	412	+87.5	+87.9
1894					+4.5
1895					+30.1
1896					+78.9
1897					-44.7
1898					-105.0
1899					-51.4
1900					+3.7

Col. 1: From sources enumerated for Table 1, col. 2.

Col. 2: From sources enumerated for Table 1, col. 8.

governments in their reports of gold movements between them.²⁸ In this form, the two series will be employed to represent balancing items in the nation's international economic transactions, since both gold and silver were used as means of settlement during some or all years of the last four decades of the nineteenth century (see Table 27, lines 28 and 29).

The Shipping Account

The late nineteenth century witnessed major transformations in the movements and the relationships of the components of the shipping account. Among the items for which estimates have been computed are (1) freight income on exports carried in U.S. vessels, (2) freight expenditures on imports carried in foreign vessels, (3) freight income from the foreign carrying trade, (4) port outlays of the U.S. merchant marine in foreign ports, (5) port outlays of the foreign merchant marine in American ports, (6) marine insurance payments to foreign companies, and (7) marine insurance receipts of American companies.

OCEAN FREIGHT RECEIPTS AND PAYMENTS

In this section, an effort is made to construct a series on freight expenses paid on American imports carried in foreign vessels, a debit item in the U.S. balance of payments; and in turn a series on freight income received for American exports transported in American vessels, a credit item in the U.S. balance of payments. Excellent quantitative information is available for the computation of freight estimates. The federal government has compiled data, by fiscal years, on the value of merchandise imported into the United States in foreign vessels and on the value of merchandise exported in American vessels. The problem thus reduces itself to obtaining annual average estimates of the ratio of freight charges to the value of merchandise imported and exported.

A number of complicating factors preclude a simple solution to procuring such a ratio. In the period under consideration, several estimates were made. David A. Wells, in one of his reports as Special Commissioner of the Revenue, estimated it to be 8 per cent in the year 1869.²⁹ Financial writers accepted this figure for their calculations.³⁰ In early 1874, Edward Young of the Bureau of Statistics of the Treasury

²⁸ Cf. Oskar Morgenstern, *The Validity of International Gold Movement Statistics*, Special Papers in International Economics, No. 2, November 1955, International Finance Section Department of Economics and Sociology, Princeton University Press, 1955, p. 12, passim.

²⁹ *Report of the Special Commissioner of the Revenue upon the Industry, Trade, Commerce for the Year 1869*, 41st Cong., 2d sess., H. Exec. Doc. 27, p. xxx (cited henceforth as the Wells Report).

³⁰ *The Merchants' Magazine*, Vol. LXII, March 1870, pp. 232-233. The British statistician Mulhall used this figure for British foreign trade in this period (see *The Commercial Year-book*, Vol. 1, 1896, p. 226).

estimated 8 per cent to be a freight ratio on imports of "approximate accuracy."³¹ In early 1891, Secretary of Treasury Windom estimated "the cost of transportation at 10 per cent of the value of the goods."³² W. W. Bates, a Commissioner of Navigation, believed this ratio was 15 per cent on exports and 10 per cent on imports.³³ The *Journal of Commerce's* comprehensive survey of 1895 of the import trade in 1891-92 yielded a comparatively low ratio of 3.6 per cent.³⁴ The picture thus would appear hopelessly confused unless it is possible that this ratio fluctuated secularly and cyclically during the entire period. The existence of a flexible and changing percentage is accepted by Bullock, Williams, and Tucker as a key to understanding movements in freight charges: "From the evidence given, it is estimated that the rate of freight charges to value of goods carried during the period 1874-95 decreased from about 12 per cent to about 5 per cent."³⁵ These authors are correct about the direction of the trend although their figures may be subject to question.

The derivation of two freight series requires recognition of the fact that changes in an average freight ratio are the result of changes in the prices of exported and imported commodities and changes in the freight rates. To chart annual movements, it is necessary to obtain reasonably adequate annual indicators of both component parts.

INDEXES OF EXPORT AND IMPORT PRICES

With respect to American import and export price data, fortunately some useful data are available. Graham, in his treatment of international trade of the United States under a depreciated paper standard, compiled from Wesley C. Mitchell's study of the period data on the wholesale prices of imported, exported, and domestic commodities for 1865-78 by quarter. He constructed an index of import prices from fourteen series and an index of export prices from eighteen series by computing the arithmetic mean of each group for the entire period.³⁶

Unfortunately, Graham did not develop indexes for the Civil War years. Therefore, it was necessary to utilize the substance of his procedure to extend his indexes back to 1860. Fortunately, the series he computed were expressed in terms of 1860 as the base year. Accordingly, I developed an export price index from twelve series and an import price index from ten series for 1861-65.³⁷ These figures, both for exports and

³¹ Young, pp. 251-252.

³² *Economist*, Vol. XLIX, February 14, 1891, pp. 209-210.

³³ William Wallace Bates, *The Shipping Question in History and Politics*, p. 20, quoted in Bullock et al., p. 226.

³⁴ *The Commercial Yearbook*, Vol. 1, 1896, p. 229.

³⁵ Bullock et al., p. 227.

³⁶ Graham, pp. 249-257.

³⁷ Export prices were taken from Commerce and Navigation of the U.S. and import prices from Mitchell, *op. cit.*, pp. 339-367.

imports, were then linked to the Graham data to establish continuous series for 1861-78. T. J. Kreps, in his investigation of the terms of trade of the United States, 1880-1914, constructed an index of export prices based on twenty-eight items and an index of import prices based on twenty-nine items for fiscal 1879-1914.³⁸ Kreps's indexes were weighted and more refined than Graham's.

It is necessary to link the two sets of indexes to obtain one continuous series for import prices and one for export prices for the entire period. Fortunately the two sets overlap slightly. The Graham data terminate with December 1878. The Kreps figures begin with June 1878. I arbitrarily assumed that the value in the Graham series for the last six months of 1878 is equal to the first value in the Kreps series for fiscal 1878-79. This process of linking two sets of independently derived series can be justified if the criteria for the selection of the individual items in the construction of the index numbers are reasonably commensurate. In determining the items to be included in his export price index, Graham chose all those commodities exported by the United States on a scale sufficient to cause their price to be determined in a foreign market. In turn his index of import prices comprises "all those commodities, the import of which was great enough to be the determining factor in their prices."³⁹ Kreps was intent on selecting a list of commodities "which constituted in value a major proportion of our exports and imports" and which would give consideration to the changing composition of American trade. His export index includes items that constituted between 40 per cent and 45 per cent of the total value of all U.S. exports and his import index includes items between 30 and 40 per cent of the total value of all U.S. imports.⁴⁰

Constructing continuous series of index numbers of import and export prices for 1861-1900 with 1860 as a base year involved the following steps. Since Graham's series are expressed in dollar prices and reflect currency depreciation as well as price movements, the average annual premium on gold on a fiscal year basis was computed and used as a deflator. Two series of these prices were thus obtained in terms of gold values, which made them more comparable with the Kreps data of the post-Greenback period. The base years for the Kreps data were 1903-13. The base was shifted to 1879. The final value in the Graham series for the last six months of 1878 was equated to the fiscal 1878-79 value of the Kreps series and the two sets of series were linked (see Tables 6 and 7). In conformance with the general decrease in all

³⁸ T. J. Kreps, "Import and Export Prices in the United States and the Terms of International Trade, 1880-1914," *Quarterly Journal of Economics*, August 1926, pp. 708-726.

³⁹ Graham, pp. 249-257.

⁴⁰ Kreps, pp. 709-711. The appropriate price index for calculating freight ratios would weight the price of each commodity by its volume rather than by its value. Graham and Kreps did not employ this procedure.

types of prices in this period, both indexes show a considerable fall. With regard to the average freight ratio, the decline in import and export merchandise prices was of sufficient importance to offset, at least in part, the fall in ocean freight rates. Its role must not be neglected or obscured.⁴¹

INDEXES OF FREIGHT RATES

The second aspect of the problem involves the use of indexes of freight rates. The charting of movements in ocean freight rates, illustrating annual and long-term movements, 1861-1900, raises some formidable issues. Ocean freight rates for at least four decades after the Civil War declined persistently.⁴² This is generally explained in terms of the impact of the technological changes in shipping, including the increasing application of steam to marine transportation and the introduction of improvements in the construction of vessels and of superior techniques of handling ships and their cargoes, especially steam-hoisting machines and grain elevators. The decline in ocean freight rates was accentuated by the reduction in charges levied at various ports.⁴³ Accompanying the falling long-term trend were important short-run oscillations induced by wars, varying crop yields, and changes in business conditions.⁴⁴

A provisional freight rate index of American exports for 1860-1900, which effectively reflects these changes, has been prepared by Douglass North as part of his comprehensive research on ocean freight rates for 1753-1913.⁴⁵ I employed this series in calculating annual average freight ratios on exports. North's index was constructed from seven series of freight rates on important commodity exports. Its distinctive feature is that each series was weighted in ten-year sections by the average tonnage of the commodity exported during the particular decade. In this manner, provision was made for the change in the relative importance of commodities of varying bulk.

Unfortunately, no index has yet been constructed for freight rates on American imports for the last four decades of the nineteenth century. The principal material emanates from two sources, both British. The

⁴¹ The neglect of declining prices of merchandise import and exports is a major limitation in the treatment of this problem by Bullock et al., pp. 226-227. It accounts for their assertion that the average freight ratio declined from 12 per cent to 5 per cent, 1874-95.

⁴² V. D. Wickiser, "Shipping and Freight Rates in the Overseas Grain Trade," *Wheat Studies of the Food Research Institute of Stanford University*, Vol. xv, October 1938, p. 69.

⁴³ Frank Andrews, *Ocean Freight Rates and the Conditions Affecting Them*, Dept. of Agriculture, Bureau of Statistics Bull. 67, 1907, pp. 5-6. Great stress was placed on the impact of technological changes in shipping on freight rates as an illustration of innovation theory by Joseph A. Schumpeter, *Business Cycles*, McGraw-Hill, 1939, Vol. II, pp. 534-555 and 1059.

⁴⁴ Frank Andrews, pp. 6-8, and Wickiser, p. 69.

⁴⁵ I am especially indebted to Douglass North for making this series available to me as part of our cooperative effort in developing more accurate estimates of each item.

TABLE 6
Freight Income Earned by United States Vessels, 1861-1900
(dollar figures in millions)

Fiscal Year	EXPORT PRICE INDEX (1860 = 100) (1)	FREIGHT RATE INDEX (1860 = 100) (2)	RATIO: (2) ÷ (1) × 100 (3)	AVERAGE FREIGHT RATIO ON EXPORTS (4)	EXPORTS IN U.S. VESSELS (5)	FREIGHT INCOME		
						On U.S. Exports (4) × (5) (6)	On Foreign Carrying Trade (7)	Total (6) + (7) (8)
1861	99.3	127.5	128.4 %	14.1 %	\$180	\$25.4	\$6.4	\$31.8
1862	102.2	96.9	94.8	10.4	125	13.0	3.3	16.3
1863	85.8	67.2	78.3	8.6	132	11.4	2.8	14.2
1864	87.6	38.2	43.6	4.8	103	4.9	1.2	6.1
1865	91.0	67.9	74.6	8.2	93	7.6	1.9	9.5
1866	106.1	73.3	69.1	7.6	214	16.3	4.1	20.4
1867	122.8	80.2	65.3	7.2	181	13.0	3.3	16.3
1868	117.9	92.4	78.4	8.6	175	15.1	3.8	18.9
1869	120.6	82.4	68.3	7.5	153	11.5	2.9	14.4
1870	121.6	76.3	62.7	6.9	200	13.8	3.5	17.3
1871	123.2	92.4	75.0	8.3	190	15.8	3.9	19.7
1872	121.5	94.7	77.9	8.6	168	14.4	3.6	18.0
1873	117.7	119.8	101.8	11.2	172	19.3	4.8	24.1
1874	119.9	99.2	82.7	9.1	174	15.8	4.0	19.8
1875	125.5	96.9	77.2	8.5	156	13.3	3.3	16.6
1876	114.4	90.8	79.4	8.7	168	14.6	3.7	18.3
1877	110.4	81.7	74.0	8.1	165	13.4	3.3	16.7
1878	106.9	87.8	82.1	9.0	167	15.0	3.8	18.8
1879	112.5	88.5	78.7	8.7	128	11.1	2.8	13.9
1880	128.7	100.0	77.7	8.5	109	9.3	2.3	11.6
1881	128.8	84.7	65.8	7.2	117	8.4	2.1	10.5
1882	135.0	84.0	62.2	6.8	97	6.6	1.7	8.3
1883	119.8	70.2	58.6	6.4	104	6.7	1.7	8.4
1884	118.9	59.5	50.0	5.5	99	5.5	1.4	6.9
1885	111.3	57.3	51.5	5.7	82	4.7	1.2	5.9
1886	101.5	54.2	53.4	5.9	78	4.6	1.2	5.8
1887	105.8	51.9	49.1	5.4	73	3.9	1.0	4.9
1888	112.5	53.4	47.5	5.2	67	3.5	0.9	4.4
1889	107.7	59.5	55.2	6.1	83	5.1	1.3	6.4
1890	112.5	65.6	58.3	6.4	78	5.0	1.3	6.3
1891	94.2	62.6	66.5	7.3	79	5.8	1.4	7.2
1892	92.9	57.3	61.7	6.8	81	5.5	1.4	6.9
1893	95.5	53.4	55.9	6.1	71	4.3	1.1	5.4
1894	83.1	43.5	52.3	5.8	74	4.3	1.1	5.4
1895	80.3	47.3	58.9	6.5	62	4.0	1.0	5.0
1896	85.2	54.1	63.5	7.0	70	4.9	1.2	6.1
1897	80.3	56.5	70.4	7.7	80	6.2	1.5	7.7
1898	79.3	63.4	79.9	8.8	68	6.0	1.5	7.5
1899	84.6	52.7	62.3	6.9	79	5.5	1.4	6.9
1900	100.6	64.9	64.5	7.1	91	6.5	1.6	8.1

Footnotes to Table 6 on facing page.

British Board of Trade collected figures from a firm maintaining regular service in the American trade, 1884-1904, on such items as box and bale goods, wool, paper stock, and bricks.⁴⁶ But this source, sadly, provides too scanty data. In its annual circulars on tramp freight rates for leading world trade routes, the shipping firm of E. A. V. Angier presented discontinuous series on rails from Great Britain, ore and fruit from Mediterranean ports, tea from China, sugar from Cuba, and general goods from Hamburg to the North Atlantic ports of the United States.⁴⁷ The fragmentary character of these data militates against the construction of a reliable index.

I have used instead an index of outward freight rates for Great Britain, the greatest maritime power of the period and the one most involved in the American shipping trade. The most recent effort at the construction of British freight rate indexes was made by A. K. Cairncross.⁴⁸ His indexes, on a calendar year basis, are based on the solid foundation of both the Board of Trade data from regular liners and the Angier data on tramp steamers for all the leading trade routes of the world.⁴⁹ He attached double weights to the Board of Trade series of goods exported from the United Kingdom to the United States. The employment of this index for our problem involves making an arbitrary assumption that changes in British outward freights to all places of the world, 1870-1900, reflected corresponding movements in freight charges on U.S. imports. This contention does not appear to be unreasonable

⁴⁶ *Second Series of Memoranda, Statistical Tables, and Charts Prepared in the Board of Trade—with Reference to Various Matters Bearing on British and Foreign Trade and Industrial Conditions*, Great Britain, Board of Trade, Memorandum VIII, "The Course of Ocean Freight Rates During the Past Twenty Years," CMD, 2337; *Parliamentary Papers*, London, H.M. Stationery Office, 1905, Vol. LXXXIV, p. 263.

⁴⁷ E. A. V. Angier, *Fifty Years of Freight, 1869-1919*, London: Fairplay, 1920, passim, and L. Isserlis, "Tramp Shipping, Cargoes and Freights," *Journal of the Royal Statistical Society*, Vol. CL, Part I, 1938, pp. 104-121. Isserlis presented the Angier data not in absolute terms but as percentages of the average freight rate in the preceding year.

⁴⁸ A. K. Cairncross, pp. 170-180.

⁴⁹ See Isserlis, p. 122, and C. K. Hobson, *The Export of Capital*, London, Constable & Co., Ltd., 1914, pp. 178-184, 247-253.

Col. 1: 1861-65—From an index constructed from twelve series of export prices from *Commerce and Navigation of the United States, 1886*, p. xx. 1866-78 and the first six months of fiscal 1879—From Graham, p. 253. 1879-1900—From F. W. Taussig, *International Trade*, Macmillan, 1927, pp. 418-419 (data for 1879-1900 computed by T. J. Kreps). The figures for 1862-79 were deflated by the average annual premium, based on quarterly data obtained from Graham, p. 237 and Wesley C. Mitchell, *Gold Prices and Wages under the Greenback Standard*, University of California Publications in Economics, Vol. I; The University Press, 1908, pp. 2-15.

Col. 2: Obtained from Douglass North as a provisional freight rate index from part of a forthcoming study on ocean freight rates.

Col. 4: Obtained by multiplying Douglass North's estimate of 11 per cent as the average freight ratio for 1860 on U.S. exports by data in col. 3.

Col. 5: From *Historical Statistics of the United States, 1789-1945*, p. 217.

Col. 7: Obtained by multiplying data in col. 6 by 25 per cent.

TABLE 7
Freight Payments on Imports, 1861-1900
(dollar figures in millions)

<i>Fiscal Year</i>	<i>Import Price Index</i> (1860 = 100) (1)	<i>Freight Rate Index</i> (2)	<i>Ratio</i> (2) ÷ (1) × 100 (3)	<i>Average Freight Ratio on Imports</i> (4)	<i>Imports in Foreign Vessels</i> (5)	<i>Freight Payments on Imports</i> (4) × (5) (6)
1861	96.0	90	93.8%	7.1%	\$138	\$9.8
1862	94.8	80	84.4	6.4	116	7.4
1863	96.2	85	88.4	6.7	147	9.8
1864	109.1	110	100.8	7.6	255	19.4
1865	113.5	110	96.9	7.4	179	13.2
1866	138.8	120	86.5	6.6	343	22.6
1867	119.2	125	104.9	8.0	310	24.8
1868	114.3	105	91.9	7.0	256	17.9
1869	116.0	95	81.9	6.2	310	19.2
1870	125.0	90	72.0	5.5	318	17.5
1871	128.9	86.7	67.3	5.1	374	19.1
1872	120.4	90.8	75.4	5.7	458	26.1
1873	118.8	96.7	81.4	6.2	486	30.1
1874	113.0	94.1	83.3	6.3	417	26.3
1875	110.5	80.1	72.5	5.5	394	21.7
1876	98.9	73.9	74.7	5.7	327	18.6
1877	108.8	72.7	66.8	5.1	337	17.2
1878	110.0	72.7	66.1	5.0	313	15.7
1879	107.5	75.5	70.2	5.3	316	16.7
1880	118.3	76.4	64.6	4.9	513	25.3
1881	109.4	69.4	63.4	4.8	502	24.1
1882	106.3	67.3	63.3	4.8	583	28.0
1883	100.3	66.9	66.7	5.1	575	29.3
1884	90.8	64.0	70.5	5.4	550	29.7
1885	82.4	57.0	69.2	5.3	475	26.1
1886	83.1	60.7	73.0	5.5	527	29.0
1887	94.6	64.4	68.1	5.2	581	30.2
1888	92.9	66.0	71.0	5.4	608	32.8
1889	100.1	69.4	69.3	5.3	627	33.2
1890	101.8	68.1	66.9	5.1	668	34.1
1891	97.9	55.7	56.9	4.3	687	29.4
1892	93.3	49.1	52.6	4.0	655	26.2
1893	97.8	45.0	46.0	3.5	702	24.6
1894	83.8	45.0	53.7	4.1	509	20.9
1895	73.4	42.1	57.4	4.4	597	26.3
1896	76.5	39.6	51.8	3.9	633	24.7
1897	72.6	42.9	59.1	4.5	626	28.2
1898	68.6	41.3	60.2	4.6	497	22.9
1899	74.8	40.5	54.1	4.1	588	24.1
1900	81.0	41.3	51.0	3.9	708	27.6

Footnotes to Table 7 on facing page.

in the light of the world-wide developments affecting ocean freight rates and the vital role of the United Kingdom in U.S. shipping. To the degree that the movements in British freight rates are not reflected in the American freight rates the subsequent calculations contain a margin of error.

Since Cairncross's outward freight rate index begins in 1870, I lacked data for 1861-70. To remedy the deficiency, Douglass North constructed a provisional freight rate index on U.S. imports, based on six strategic series. This index was linked at the year 1870 with the Cairncross series.

RESULTS

To obtain two series for freight receipts on American exports and freight payments on American imports it was necessary to compute the annual ratios of the values in the freight rates indexes to the corresponding values in the export and import price indexes. The year 1860 was used as the base year for all four series, a decision motivated by the desire to employ North's figure of 11 per cent as the average freight ratio on American exports and of 7.6 per cent as the average freight ratio for American imports.

The results are fundamentally satisfactory. The two series of freight percentages not only mirror effectively the operation of the secular, cyclical and random extra-economic forces characteristic of the period, but also they correspond fairly closely with some of the important contemporary estimates. The 7.5 per cent figure for 1869 on exports is close to Wells's estimate of 8 per cent (Table 6, col. 4). More significant is the fact that the 4 per cent figure on imports, obtained through the use of a British freight rate index, is close to the *Journal of Commerce* estimate of 3.6 per cent for 1891-92 (Table 7, col. 4). The lower ratios derived for imports reflect the condition that, on the average, lighter weight goods came into the country than were carried out to foreign nations..

The annual freight ratios on exports were then applied to the series of exports transported in American vessels to obtain estimates of freight income earned by American vessels in the export trade (Table 6, col. 6).

Col. 1: 1861-65—From an index constructed from ten series of import prices from Mitchell, pp. 339-367. *1866-78 and the first six months of fiscal 1879*—From Graham, p. 253. *1879-1900*—From F. W. Taussig, pp. 418-419. The figures for 1862-79 were deflated by the average annual premium, based on quarterly data obtained from Graham, p. 237 and Mitchell, pp. 2-15.

Col. 2: 1861-70—From Douglass North as a provisional freight rate index. *1871-1900*—From Cairncross, p. 176.

Col. 4: Obtained by multiplying Douglass North's estimate of 7.6 per cent as the average freight ratio for 1860 on U.S. imports by col. 3.

Col. 5: From *Historical Statistics of the United States, 1789-1945*, p. 217, adjusted for illegal undervaluation at rates taken from Table 5, col. 4, and for 5 per cent underestimation of U.S. imports under the Tariff Law of 1883 for 1884-90 and July 1890.

BALANCE OF PAYMENTS

In a similar manner, the annual freight percentages were applied to the series on imports carried on foreign vessels, after adjusting the latter both for undervaluation during 1861-1900 and for failure to reflect the full value of the commodities placed on ships for fiscal 1884-90,⁵⁰ to obtain a set of figures of freight payments on American imports (see Table 7).

FREIGHT INCOME FROM THE CARRYING TRADE

The calculations of income from ocean freight require the inclusion of the receipts earned by the U.S. merchant marine in transporting goods between two foreign ports. I assumed that the income obtained in this fashion represented 20 per cent of total ocean freight receipts.⁵¹ The series derived in this manner may be found in column 7 of Table 6.

PORT OUTLAYS OF MERCHANT VESSELS

It is necessary to make provision for the disbursements made by foreign vessels in U.S. ports and by U.S. vessels in foreign ports. These included payments for harbor dues, loading and unloading expenses, and coal. The calculations were governed by two considerations. First, sailing vessels generally spent a smaller proportion of their income on these expenditures than did steam vessels. Second, U.S. ships, more fully loaded on their voyages than foreign ships, made relatively smaller outlays than vessels sailing under other flags.⁵²

To obtain average annual percentages for the total port outlays by the foreign ships in American ports, figures of 25 per cent for sailing vessels and $33\frac{1}{3}$ per cent for steam vessels were employed.⁵³ These ratios were then weighted by the proportion of the total tonnage of foreign vessels entering U.S. ports, represented by sailing and steam ships to obtain a continuous series of annual percentages. The data were available for 1864-1900. Values were assumed for 1861-63. Finally, these percentages were applied to the estimates of freight expenses paid on U.S. imports carried in foreign vessels to obtain a series of outlays in U.S. ports made by these vessels (see Table 8).

A similar method was adopted for the port disbursements of U.S. ships overseas. Ratios of 20 per cent for sailing vessels and 30 per cent for steam vessels were employed. The percentages were weighted by the proportion of the total tonnage of U.S. vessels that cleared from

⁵⁰ See the previous discussion of adjustments to merchandise imports.

⁵¹ This method was employed by Douglass North. See Worthy P. Sterns, "The Foreign Trade of the United States from 1820 to 1840," *Journal of Political Economy*, Vol. VIII, p. 53.

⁵² This procedure coincides with the one employed by North for 1821-60.

⁵³ Cf. the discussion of C. K. Hobson, *The Export of Capital*, pp. 171-173, 254-261. Edward Young estimated in 1874 port expenses of foreign ships to be approximately one-fourth (*op. cit.*, pp. 251-252). The *Journal of Commerce's* figure for 1894 was between 30 and 40 per cent. (Cf. *The Commercial Yearbook*, Vol. I, 1896, pp. 230-231.)

TABLE 8
Outlays of Foreign Ships in United States Ports, 1861-1900
(dollar figures in millions)

<i>Fiscal Year</i>	FOREIGN VESSELS		FREIGHT PAYMENTS ON IMPORTS		OUTLAYS OF FOREIGN SHIPS (3) × (4) (5)
	<i>Sailing</i> (1)	<i>Steam</i> (2)	<i>Outlays as a % of Payments</i>	<i>Total Payments</i>	
			(3)	(4)	
1861	74%	26%	27.2	\$ 9.8	\$2.7
1862	73	27	27.2	7.4	2.0
1863	72	28	27.3	9.8	2.7
1864	71	29	27.5	19.4	5.3
1865	71	29	27.5	13.2	3.6
1866	66	34	27.7	22.6	6.3
1867	61	39	28.2	24.8	7.0
1868	56	44	28.5	17.9	5.1
1869	56	44	28.5	19.2	5.5
1870	56	44	28.5	17.5	5.0
1871	57	43	28.4	19.1	5.4
1872	55	45	28.7	26.1	7.5
1873	52	48	28.8	30.1	8.7
1874	54	46	28.7	26.3	7.5
1875	50	50	29.0	21.7	6.3
1876	51	49	29.0	18.6	5.4
1877	54	46	28.7	17.2	4.9
1878	51	49	29.0	15.7	4.6
1879	50	50	29.0	16.7	4.8
1880	47	53	29.3	25.1	7.4
1881	41	59	29.8	24.1	7.2
1882	39	61	29.9	28.0	8.4
1883	37	63	30.0	29.3	8.8
1884	39	61	29.9	29.7	8.9
1885	38	62	30.0	26.1	7.8
1886	38	62	30.0	29.0	8.7
1887	36	64	30.1	30.2	9.1
1888	34	66	30.3	32.8	9.9
1889	30	70	30.6	33.2	10.2
1890	26	74	30.9	34.1	10.5
1891	25	75	31.1	29.4	9.1
1892	21	79	31.4	26.2	8.2
1893	22	78	31.2	24.6	7.7
1894	19	81	31.5	20.9	6.6
1895	19	81	31.5	26.3	8.3
1896	18	82	31.6	24.7	7.8
1897	17	83	31.7	28.2	8.9
1898	17	83	31.7	22.9	7.3
1899	13	87	32.0	24.1	7.7
1900	12	88	32.0	27.6	8.8

Cols. 1 and 2: The proportions of foreign sailing and steam vessels of all foreign vessels were obtained from the figures on the tonnage of foreign sailing and steam vessels entering U.S. seaports for 1864-1900 from the *Statistical Abstract of the United States, 1887*, p. 148; *1898*, p. 409; *1902*, p. 476. The proportions for the years 1861-63 were assumed.

Col. 3: Obtained by developing a weighted average through multiplying proportions in col. 1 by 25 per cent and in col. 2 by 33½ per cent. *Col. 4:* From Table 7, col. 6.

BALANCE OF PAYMENTS

U.S. seaports, represented by sailing and steam ships. The data were available for 1870-1900. The ratios for 1860-69 were assumed to be 23 per cent. The percentages derived in this manner were then applied to the series on total freight income earned by American vessels to obtain estimates of their disbursements in foreign ports (see Table 9).

MARINE INSURANCE

The basic assumption underlying the marine insurance estimates is that underwriting, by and large, followed the flag; exports in U.S. vessels were generally insured by U.S. companies, imports in foreign ships were insured by foreign companies.⁵⁴ This assumption was shared by both contemporaries and subsequent students.

The data employed in the calculations are the rates charged by underwriters on cargo taken by vessels sailing from New York to foreign ports. Throughout the last four decades of the nineteenth century, the figures compiled by the Atlantic Mutual Insurance Company appeared in the *Annual Reports of the Chamber of Commerce of the State of New York*. From 1860 to 1869, the only rates presented were for sailing vessels. For the Civil War years, 1861-63, figures on insurance for war risk were available. From 1870 to 1900 rates were given for both sail and steam vessels. The data are presented in the form of a range of rates for the two modes of shipping between New York and approximately twenty-six foreign ports. The basic problem was to estimate average marine insurance rates on commodity exports and imports from these data. For each year the averages of the ranges of rates between New York and each of twenty-six ports, by sail and steam, were computed, and the means of the averages calculated.

I assume that the rates charged by American and foreign companies were the same.⁵⁵ Allowance had to be made for the shifting proportions of the traffic carried by sailing and steam vessels. The proportions of the tonnage of foreign vessels entering U.S. ports by sail and steam were used to weight the two rates to help derive average annual rates charged by foreign insurance companies on U.S. imports. The series on U.S. imports in foreign vessels was adjusted to make provision for undervaluation. The same percentages were used for the various years as were applied in modifying total commodity imports. In addition, the figures for 1884-91 were raised by 5 per cent.⁵⁶ The average insurance rates were then applied to the adjusted series to determine the total marine insurance payments made by U.S. citizens to foreign insurance

⁵⁴ Imports in U.S. vessels insured by U.S. companies and exports in foreign vessels insured by foreign companies do not enter the balance of payments of the United States.

⁵⁵ Cf. William W. Bates, *American Marine: The Shipping Question in History and Politics*, Houghton Mifflin, 1893, pp. 38-39. He used the same average insurance rate for foreign and U.S. companies.

⁵⁶ See the earlier section on merchandise imports.

TABLE 9
Outlays of United States Ships in Foreign Ports, 1861-1900
(dollar figures in millions)

Fiscal Year	U.S. VESSELS		FREIGHT INCOME		OUTLAYS OF U.S. SHIPS (3) × (4) (5)
	Sailing (1)	Steam (2)	Outlays as a % of Income (3)	Total Income (4)	
1861	70%	30%	23.0	\$31.8	\$7.3
1862	70	30	23.0	16.3	3.8
1863	70	30	23.0	14.2	3.3
1864	70	30	23.0	6.1	1.4
1865	70	30	23.0	9.5	2.2
1866	70	30	23.0	20.4	4.7
1867	70	30	23.0	16.3	3.8
1868	70	30	23.0	18.9	4.3
1869	70	30	23.0	14.4	3.3
1870	67	33	23.3	17.3	4.0
1871	70	30	23.0	19.7	4.5
1872	69	31	23.1	18.0	4.2
1873	66	34	23.4	24.1	5.6
1874	64	36	23.6	19.8	4.7
1875	62	38	23.8	16.6	4.0
1876	64	36	23.6	18.3	4.3
1877	63	37	23.7	16.7	4.0
1878	64	36	23.6	18.8	4.4
1879	63	37	23.7	13.9	3.3
1880	62	38	23.8	11.6	2.8
1881	59	41	24.1	10.5	2.5
1882	54	46	24.6	8.3	2.0
1883	55	45	24.5	8.4	2.0
1884	56	44	24.4	6.9	1.7
1885	54	46	24.6	5.9	1.4
1886	52	48	24.8	5.8	1.4
1887	49	51	25.1	4.9	1.2
1888	44	56	25.6	4.4	1.1
1889	44	56	25.6	6.4	1.6
1890	40	60	26.0	6.3	1.6
1891	36	64	26.4	7.2	1.9
1892	38	62	26.2	6.9	1.8
1893	36	64	26.4	5.4	1.4
1894	35	65	26.5	5.4	1.4
1895	33	67	26.7	5.0	1.3
1896	30	70	27.0	6.1	1.7
1897	31	69	26.9	7.7	2.1
1898	28	72	27.2	7.5	2.0
1899	29	71	27.1	6.9	1.8
1900	24	76	27.6	8.1	2.2

Cols. 1 and 2: The proportions of U.S. sailing and steam vessels to all U.S. vessels obtained from the figures on the tonnage of U.S. sailing and steam vessels cleared from U.S. seaports for 1871-1900, from the *Statistical Abstract of the United States, 1887*, p. 148; 1898, p. 410; 1902, p. 477. The years 1861-70 were assumed.

Col. 3: Obtained by developing a weighted average through multiplying proportions in col. 1 by 20 per cent and in col. 2 by 30 per cent.

Col. 4: From Table 6, col. 8.

companies (Table 10). A similar procedure was adopted in the calculation of marine insurance income of U.S. companies (Table 11).

The data show a persistent secular decline in marine insurance rates charged by U.S. and, especially, by foreign insurance companies. Three factors account in varying degrees for this trend. Rates charged on sailing vessels generally experienced a moderate fall, although for some routes the rates remained constant or actually increased. More significant was the shift from sailing to steam vessels, for which lower rates were charged. Finally, with increasing competition for business during depression years, the rates on steam vessels declined substantially.⁵⁷ This pronounced fall in average rates retarded the enlargement of the net debtor position of the United States for marine insurance in the late nineteenth century.

The Passenger Account

During the last four decades of the nineteenth century the disposition of funds associated with the international movement of people across the boundaries of the United States constituted an increasingly significant and complex part of the nation's balance of international payments. These heterogeneous transactions included: (1) U.S. tourist expenditures abroad, (2) foreign tourists and transmigrants' disbursements in the United States, (3) immigrants' remittances to friends and relatives abroad, (4) immigrant's funds brought into the United States, (5) emigrants' funds taken out of the country, and (6) outlays by foreign passenger ships in U.S. ports. Deriving figures for most of the components

⁵⁷ For more data on the secular decline in marine insurance rates, see the rates, by sail and steam, charged by Belgian companies on cargo carried from Antwerp to New York in Paul Scholler, "L'évolution séculaire des taux de fret, et d'assurance maritimes, 1819-1940," *Bulletin de l'Institut de Recherches Economiques et Sociales*, Université Catholique de Louvain, Vol. xvii, no. 5, August 1951, pp. 519-557, esp. 544 and 555-557.

Col. 1: From *Historical Statistics of the United States, 1789-1945*, p. 217, adjusted for illegal undervaluation at rates taken from Table 5, col. 4, and 5 per cent underestimation under the Tariff Law of 1883 for 1884-90 and July 1890.

Cols. 2 and 4: The proportions of foreign sailing and steam vessels of all foreign vessels were obtained from the figures on the tonnage of foreign sailing and steam vessels entering U.S. seaports for 1864-1900 from the *Statistical Abstract, 1887*, p. 148; *1898*, p. 409; *1902*, p. 476. The proportions for 1861-63 were assumed.

Cols. 3 and 5: 1861-1900—Compiled from the range of rates on goods moving from New York to more than twenty foreign ports appearing in the *Annual Reports of the Chamber of Commerce of the State of New York*. The technique of derivation of the average rates for sailing and steam vessels is described in the text. The average rates on steam vessels for 1861-70 were unavailable and were assumed to be 1.70. Additional insurance for war risk, assumed at $\frac{1}{4}$ per cent in 1861, $\frac{3}{4}$ per cent in 1862, and 3 per cent in 1863, are included for these years.

Col. 6: Obtained by developing a weighted average through multiplying proportions of col. 2 by the average sailing rates in col. 3, and of col. 4 by the average steam rates in col. 5.

TABLE 10
Marine Insurance Payments to Foreign Companies, 1861-1900
(dollar figures in millions)

<i>Fiscal Year</i>	IMPORTS IN FOREIGN VESSELS (1)	FOREIGN SAILING VESSELS		FOREIGN STEAM VESSELS		AVERAGE INSURANCE RATES (6)	MARINE INSURANCE PAYMENTS (1) × (6) (7)
		<i>% of Total Foreign</i> (2)	<i>Insurance Rates</i> (3)	<i>% of Total Foreign</i> (4)	<i>Insurance Rates</i> (5)		
1861	\$138	74	3.20%	26	2.20%	2.94%	\$4.1
1862	116	73	3.35	27	2.45	3.11	3.6
1863	147	72	5.60	28	4.70	5.34	7.8
1864	255	71	2.30	29	1.70	2.12	5.4
1865	179	71	2.28	29	1.70	2.11	3.8
1866	343	66	2.35	34	1.70	2.12	7.3
1867	310	61	2.34	39	1.70	2.09	6.4
1868	256	56	2.36	44	1.70	2.07	5.3
1869	310	56	2.23	44	1.70	1.99	6.2
1870	318	56	2.22	44	1.77	2.02	6.5
1871	374	57	2.28	43	1.68	2.04	7.6
1872	458	55	2.28	45	1.67	2.01	9.2
1873	486	52	2.29	48	1.67	1.99	9.7
1874	417	54	2.29	46	1.66	2.00	8.3
1875	394	50	2.29	50	1.66	1.98	7.8
1876	327	51	2.29	49	1.66	1.98	6.5
1877	337	54	2.28	46	1.65	1.99	6.7
1878	313	51	2.13	49	1.41	1.78	5.6
1879	316	50	2.13	50	1.36	1.75	5.5
1880	513	47	2.19	53	1.36	1.75	9.0
1881	502	41	2.18	59	1.36	1.70	8.5
1882	583	39	2.22	61	1.35	1.69	9.9
1883	575	37	2.30	63	1.30	1.67	9.6
1884	550	39	2.30	61	1.42	1.76	9.7
1885	475	38	2.23	62	1.42	1.73	8.2
1886	527	38	2.23	62	1.42	1.73	9.1
1887	581	36	2.23	64	1.42	1.71	9.9
1888	608	34	2.23	66	1.29	1.61	9.8
1889	627	30	2.23	70	1.28	1.57	9.8
1890	668	26	2.24	74	1.25	1.51	10.1
1891	687	25	2.24	75	1.23	1.48	10.2
1892	655	21	2.24	79	1.18	1.40	9.2
1893	702	22	2.24	78	1.16	1.40	9.8
1894	509	19	2.22	81	1.09	1.30	6.6
1895	597	19	2.22	81	1.09	1.30	7.8
1896	633	18	2.22	82	1.10	1.30	8.2
1897	626	17	2.22	83	1.05	1.25	7.8
1898	497	17	2.22	83	1.03	1.23	6.1
1899	588	13	2.22	87	1.03	1.18	6.9
1900	708	12	2.23	88	1.02	1.17	8.3

Footnotes to Table 10 on previous page.

TABLE 11
Marine Insurance Income of United States Companies, 1861-1900
(dollar figures in millions)

<i>Fiscal Year</i>	EXPORTS IN U.S. VESSELS	U.S. SAILING VESSELS		U.S. STEAM VESSELS		AVERAGE INSURANCE RATES	MARINE INSURANCE INCOME (1) × (6)
		<i>% of Total U.S.</i>	<i>Insurance Rates</i>	<i>% of Total U.S.</i>	<i>Insurance Rates</i>		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1861	\$180	70	3.20%	30	2.20%	2.90%	\$5.2
1862	125	70	3.35	30	2.45	3.09	3.9
1863	132	70	5.60	30	4.70	5.33	7.0
1864	103	70	2.30	30	1.70	2.12	2.2
1865	93	70	2.28	30	1.70	2.11	2.0
1866	214	70	2.35	30	1.70	2.16	4.6
1867	181	70	2.34	30	1.70	2.15	3.9
1868	175	70	2.36	30	1.70	2.16	3.8
1869	153	70	2.23	30	1.70	2.07	3.2
1870	200	67	2.22	33	1.77	2.07	4.1
1871	190	70	2.28	30	1.68	2.10	4.0
1872	168	69	2.28	31	1.67	2.09	3.5
1873	172	66	2.29	34	1.67	2.08	3.6
1874	174	64	2.29	36	1.66	2.06	3.6
1875	156	62	2.29	38	1.66	2.05	3.2
1876	168	64	2.29	36	1.66	2.06	3.5
1877	165	63	2.28	37	1.65	2.04	3.4
1878	167	64	2.13	36	1.41	1.87	3.1
1879	128	63	2.13	37	1.36	1.85	2.4
1880	109	62	2.19	38	1.36	1.87	2.0
1881	117	59	2.18	41	1.36	1.84	2.2
1882	97	54	2.22	46	1.35	1.78	1.7
1883	104	55	2.30	45	1.30	1.85	1.9
1884	99	56	2.30	44	1.42	1.91	1.9
1885	82	54	2.23	46	1.42	1.86	1.5
1886	78	52	2.23	48	1.42	1.84	1.4
1887	73	49	2.23	51	1.42	1.82	1.3
1888	67	44	2.23	56	1.29	1.70	1.1
1889	83	44	2.23	56	1.28	1.70	1.4
1890	78	40	2.24	60	1.25	1.65	1.3
1891	79	36	2.24	64	1.23	1.59	1.3
1892	81	38	2.24	62	1.18	1.58	1.3
1893	71	36	2.24	64	1.16	1.55	1.1
1894	74	35	2.22	65	1.09	1.49	1.1
1895	62	33	2.22	67	1.09	1.46	0.9
1896	70	30	2.22	70	1.10	1.44	1.0
1897	80	31	2.22	69	1.05	1.41	1.1
1898	68	28	2.22	72	1.03	1.36	0.9
1899	79	29	2.22	71	1.03	1.38	1.1
1900	91	24	2.23	76	1.02	1.31	1.2

Footnotes to Table 11 on facing page.

entails the estimation of both the number of people annually engaged in the various transactions and the per capita monetary outlays made by them.

TOURIST EXPENDITURES

The extreme difficulty of estimating annual tourist outlays in the late nineteenth century has been reflected in the development of a primitive type of "round number" mythology. Wells in 1869 "assumed" the annual average outlay of a U.S. tourist at approximately \$1,000.⁵⁸ Later, estimates of total disbursements by U.S. tourists of \$40, \$50, or \$100 million were offered.⁵⁹ During an important controversy over the size of the invisible items in 1895, a prominent banker, Alfred Heidebach, first gave \$100 million and then shifted to \$50 million as the average annual estimate for the decade of 1880's.⁶⁰ The prominent economist Edward Atkinson believed \$100 million was "consistent with the common estimate. The question is, are there 100,000 Americans spending \$1,000 a year each in Europe on the average or a lesser number spending a greater average sum?"⁶¹

These examples indicate the extent of the confusion over an important invisible item in the nation's balance of payments.⁶² To clear the atmosphere, the principal elements in total tourist expenditures must be properly identified.⁶³

⁵⁸ Wells Report, pp. xxix-xxx.

⁵⁹ *Banker's Magazine of New York*, Vol. xxiv, April 1870, p. 844, and Vol. xliv, August 1889, pp. 85-86.

⁶⁰ Alfred S. Heidebach, "Why Gold is Exported," *Forum*, Vol. xviii, February 1895, pp. 647-651; and *Commercial and Financial Chronicle*, Vol. lx, April 6, 1895, p. 585.

⁶¹ *Bradstreet's*, Vol. xxiii, February 9, 1895, pp. 85-86.

⁶² For an exception see the results of the *Journal of Commerce* survey in the *Commercial Yearbook*, 1896, pp. 225-231.

⁶³ The following three sections summarize the salient features of a more extensive treatment, which will be published in a separate paper, of the methodology of tourist expenditure estimation in the late nineteenth century.

Col. 1: From Historical Statistics of the United States, 1789-1945, p. 217.

Cols. 2 and 4: The proportions of U.S. sailing and steam vessels to all U.S. vessels were obtained from the figures of the tonnage of all U.S. sailing and steam vessels cleared from U.S. seaports for 1871-1900 from the Statistical Abstract of the United States, 1887, p. 148; 1898, p. 410; 1902, p. 477. 1861-70 were estimated.

Cols. 3 and 5: 1861-1900—Compiled from the range of rates on goods moving from New York to more than twenty foreign ports appearing in the Annual Reports of the Chamber of Commerce of the State of New York. The technique of derivation of the average rates for sailing and steam vessels is described in the text. The average rates on steam vessels for 1861-70 were unavailable and were assumed to be 1.70. Additional insurance for war risk, assumed at ½ per cent in 1861, ¾ per cent in 1862, and 3 per cent in 1863, are included for those years.

Col. 6: Obtained by developing a weighted average through multiplying proportions of col. 2 by the average sailing rates in col. 3, and of col. 4 by the average steam rates in col. 5.

BALANCE OF PAYMENTS

TABLE 12
Composition of Alien Nonimmigrant Passengers, 1861-1900
(persons in thousands)

Fiscal Year	TOTAL ALIEN NON-IMMIGRANTS (1)	OCEAN BOUND FOREIGN TOURISTS			TRANSMIGRANTS						
		To Distant Lands		To Canada and West Indies		CANADIAN AND MEXICAN TOURISTS AND LABORERS					
		No. (2)	% of Total (2) ÷ (1) (3)	No. (5)	% of Total (5) ÷ (1) (6)	No. (7)	% of Total (7) ÷ (1) (8)	No. (9)	% of Total (9) ÷ (1) (10)	No. (9)	% of Total (9) ÷ (1) (10)
1861	2.5	0.6	25.0	0.6	0.1	2.0	0.5	20.0	1.3	53.0	
1862	2.5	0.6	25.0	0.5	0.5	2.0	0.5	20.0	1.3	53.0	
1863	2.3	0.6	25.0	0.5	0.5	2.0	0.5	20.0	1.2	53.0	
1864	1.0	0.2	25.0	0.2	0.2	2.0	0.2	20.0	0.5	53.0	
1865	0.4	0.1	25.0	0.1	0.1	2.0	0.1	20.0	0.2	53.0	
1866	4.5	1.1	25.0	1.0	0.1	2.0	0.9	20.0	2.4	53.0	
1867	4.1	1.0	25.0	0.9	0.1	2.0	0.8	20.0	2.2	53.0	
1868	5.9	1.5	25.0	1.3	0.1	2.0	1.2	20.0	3.1	53.0	
1869	10.3	2.6	25.0	2.3	0.2	2.0	2.1	20.0	5.5	53.0	
1870	15.7	3.9	25.0	3.5	0.3	2.0	3.1	20.0	8.3	53.0	
1871	26.3	6.6	25.0	5.8	0.5	2.0	5.3	20.0	13.9	53.0	
1872	18.2	4.5	25.0	4.0	0.3	2.0	3.6	20.0	9.6	53.0	
1873	13.3	3.0	22.7	3.1	0.3	1.9	2.8	21.2	7.2	54.2	
1874	14.6	4.0	27.7	3.5	0.3	2.0	3.2	21.7	7.1	48.5	
1875	17.1	4.1	23.9	5.6	0.3	1.6	5.3	30.8	7.5	43.7	
1876	20.0	5.8	29.0	4.3	0.4	2.0	3.9	19.7	9.9	49.3	
1877	23.1	5.6	24.2	4.3	0.5	2.0	3.9	16.9	13.2	57.0	
1878	19.3	5.7	29.6	2.2	0.1	0.6	2.1	11.0	11.3	58.8	
1879	20.1	6.3	31.1	2.1	0.6	2.8	1.5	5.4	11.8	58.7	

continued on next page

U.S. BALANCE OF PAYMENTS, 1861-1900

TABLE 12 concluded

TRANSMIGRANTS

Fiscal Year	TOTAL ALIEN NON-IMMIGRANTS (1)		OCEAN BOUND FOREIGN TOURISTS		To Distant Lands		To Canada and West Indies		CANADIAN AND MEXICAN TOURISTS AND LABORERS		
	No. (1)	% of Total (2) ÷ (1)	No. (2)	% of Total (3)	Total (4)	No. (5)	% of Total (5) ÷ (1) (6)	No. (7)	% of Total (7) ÷ (1) (8)	No. (9)	% of Total (9) ÷ (1) (10)
1880	26.9	25.2	7.0	25.2	2.2	0.4	1.7	1.8	6.7	17.7	65.0
1881	25.7	32.6	8.4	32.6	2.8	0.5	1.8	2.4	9.2	15.5	60.0
1882	27.8	32.7	9.1	32.7	4.6	0.3	1.0	4.3	15.6	14.1	50.7
1883	41.9	42.9	18.0	42.9	7.3	1.3	3.1	6.0	14.2	16.7	39.7
1884	42.0	52.9	22.2	52.9	6.2	1.8	4.2	4.5	10.6	13.5	32.2
1885	42.4	57.7	24.5	57.7	7.0	3.3	7.6	3.8	8.9	10.9	25.7
1886	23.7	73.9	17.5	73.9	6.2	4.0	16.8	2.2	9.3		
1887	22.9	77.7	17.8	77.7	5.1	2.2	9.3	3.0	13.1		
1888	20.6	83.3	17.2	83.3	3.4	2.3	11.3	1.1	5.4		
1889	20.8	83.1	17.3	83.1	3.5	2.0	9.6	1.5	7.4		
1890	21.1	85.9	18.1	85.9	3.0	1.7	7.9	1.3	6.3		
1891	18.7	73.8	13.8	73.8	4.9	2.5	13.5	2.4	12.8		
1892	21.3	75.4	16.0	75.4	5.2	2.2	10.1	3.1	14.5		
1893	40.8	92.9	37.9	92.9	2.9	0.9	2.3	1.9	4.8		
1894	33.0	93.1	30.7	93.1	2.3	0.9	2.7	1.4	4.2		
1895	21.2	73.4	15.6	73.4	5.6	2.0	9.3	3.7	17.3		
1896	21.2E	80.0	16.9	80.0	4.2	1.7	8.0	2.5	12.0		
1897	21.1E	80.0	16.9	80.0	4.2	1.7	8.0	2.5	12.0		
1898	21.1	80.0	16.8	80.0	4.2	1.7	8.0	2.5	12.0		
1899	22.9	80.0	18.3	80.0	4.6	1.8	8.0	2.7	12.0		
1900	25.4	80.0	20.3	80.0	5.1	2.0	8.0	3.1	12.0		

nationality, and destination of nonimmigrant passengers from *Commerce and Navigation of the United States, 1873-92*, and from *Immigration and the Passenger Movements at the Ports of the United States, U.S. Treasury, Bureau of Statistics, 1893-95. 1861-72 and 1896-1900*—Estimated as described in text. Data in col. 9 discontinued after 1885.

Col. 1: From *Statistical Abstract of the United States, 1890*, p. 214; 1902, pp. 433-434. Data for the years 1860-65 on a calendar basis and first half of 1866 were converted to a fiscal year basis; data for the years 1896 and 1897 were unavailable and were interpolated between the 1895 and 1898 figures. Cols. 2, 4, 5, 7, and 9: 1873-95—From tables on number, sex,

BALANCE OF PAYMENTS

PASSENGER MOVEMENTS

During the late nineteenth century federal agencies collected considerable data on both the inward and outward passenger movement. People arriving in the United States were classified into three groups: U.S. citizens returning from abroad, alien immigrants, and non-immigrants.

First, through the use of annual tables for fiscal 1873–95 compiled by the Statistics Bureau of the Treasury Department, entitled "Passengers arrived, Number, Sex, and Countries of Last Permanent Residence and Destination," it was possible to divide the alien nonimmigrant category into four subgroups: ocean-bound foreign tourists, transmigrants to nearby nations (Canada and West Indies), transmigrants to distant lands, and tourists and farm laborers from Mexico and Canada (Table 12).⁶⁴

Next, the major components of the outward passenger movement were analyzed and estimated.⁶⁵ By eliminating passengers departing for Canada and Mexico (transmigrants to Canada and the Canadian and Mexican tourists and farm laborers), I estimated the number of ocean-bound passengers leaving the nation after 1868, subdividing them into U.S. tourists, alien travelers bound for offshore lands, and emigrants. Of the ocean-bound passengers, I assumed that 2 per cent changed their plans or were unable to leave because of sickness or death. To derive a series on the number of U.S. tourists traveling on the high seas, I used the statistics on the number of U.S. citizens returning from abroad; I assumed that 3 per cent of the tourists did not return because of changes in plans, sickness, or death. The sum of these two groups of American and alien tourists was then subtracted from the total number

⁶⁴ Since no data were available for 1861–72, alien nonimmigrants were classified, according to the 1873 and 1874 proportions, as: ocean-bound foreign tourists, 25 per cent; transmigrants to Canada and West Indies, 20 per cent; transmigrants to distant lands, 2 per cent; Canadian and Mexican farm laborers and tourists, 53 per cent (through 1885 only). Similarly, using the 1893–95 proportions, the category was divided for 1896–1900 as: foreign tourists, 93 per cent; transmigrants to Canada and West Indies, 4.5 per cent; and transmigrants to distant lands, 2.5 per cent.

⁶⁵ These data, provided voluntarily by the steamship lines, were incomplete. See the discussion below of the adjustment made to the series on total emigrants in the section on emigrants' funds.

Col. 1: Based on the figures of total reported outward passenger movement from "Immigration into the United States" *Monthly Summary of Commerce and Finance*, U.S. Treasury Dept., Bureau of Statistics, June 1903, p. 4364. From these figures were subtracted the data on the departure of passengers bound for ports of adjacent North American countries, obtained from the tables of passenger departures by custom districts in *Commerce and Navigation of the United States* for 1868–88.

Col. 2: Obtained by adding 3 per cent to the series on U.S. citizens returning from abroad from the *Statistical Abstract of the United States*, 1890, p. 214, and 1890, pp. 433–434.

Col. 4: Obtained from material described in the footnote to cois. 2, 4, 5, 7, and 9 in Table 12 and adjusted by a 2 per cent figure.

TABLE 13
Composition of the Outward Ocean Passenger Movement, 1861-1900
(persons in thousands)

Fiscal Year	TOTAL OCEAN PASSENGER DEPARTURES (1)	ALIEN					
		U.S. TOURISTS		TOURISTS AND TRANSMIGRANTS		EMIGRANTS	
		No. (2)	% of Total (2) (1) (3)	No. (4)	% of Total (4) (1) (5)	No. (6)	% of Total (6) (1) (7)
1861		24.1		0.7			
1862		22.3		0.7			
1863		23.7		0.6			
1864		26.6		0.3			
1865		34.7		0.1			
1866		38.9		1.2			
1867		40.3		1.1			
1868	65.0	41.3	63.5	1.6	2.4	22.2	34.1
1869	67.1	27.6	41.1	2.7	4.1	36.8	54.5
1870	74.5	34.9	46.8	4.2	5.6	35.4	47.6
1871	78.1	45.0	57.6	7.0	8.9	26.2	33.6
1872	78.4	50.5	64.5	4.8	6.1	23.0	29.4
1873	107.0	49.2	45.9	3.2	3.0	53.7	50.1
1874	124.8	49.2	39.4	4.4	3.5	71.3	57.1
1875	146.3	51.6	35.3	4.5	3.1	90.2	61.7
1876	120.6	49.4	41.0	5.7	4.7	65.4	54.3
1877	121.2	42.7	35.3	6.3	5.2	72.2	59.6
1878	111.2	42.9	38.6	6.4	5.8	61.7	55.6
1879	98.6	56.9	57.7	7.3	7.4	34.5	34.9
1880	93.0	51.8	55.7	7.8	8.4	35.4	38.1
1881	102.0	50.0	49.0	8.8	8.6	43.2	42.3
1882	128.0	54.5	42.5	9.3	7.2	63.3	49.5
1883	148.8	69.3	46.6	29.1	19.6	60.4	40.6
1884	174.7	91.6	52.4	34.7	19.8	59.4	34.0
1885	223.2	100.2	44.9	41.8	18.7	95.5	42.8
1886	189.2	89.0	47.0	33.6	17.7	79.4	42.0
1887	182.9	95.1	52.0	29.0	15.9	67.2	36.7
1888	194.9	89.4	50.5	29.2	15.0	77.4	39.7
1889	239.6	83.7	34.9	27.3	11.4	136.9	57.1
1890	238.1	90.7	38.1	27.8	11.7	127.8	53.6
1891	246.5	91.9	37.3	24.7	10.0	138.7	56.3
1892	256.6	95.1	37.1	23.8	9.3	143.9	56.1
1893	230.6	93.4	40.5	36.0	15.6	101.3	43.9
1894	312.8	68.7	22.0	30.3	11.3	213.8	68.4
1895	329.6	103.7	31.5	15.3	4.6	210.6	63.9
1896	294.8	101.3	34.3	16.0	5.4	177.6	60.2
1897	260.1	98.8	38.0	16.6	6.4	144.7	55.6
1898	225.4	96.4	42.8	16.5	7.3	112.5	49.9
1899	256.0	98.1	38.3	17.9	7.0	140.0	54.7
1900	293.4	124.1	42.3	19.9	6.8	149.4	50.9

Footnotes to Table 13 on previous page.

BALANCE OF PAYMENTS

of ocean-bound passengers departing from the United States to obtain, as a residual element, figures for the annual volume of emigration. Since the passenger departure data became available in 1868, the statistics on U.S. tourists and alien travelers are presented from 1861 to 1900, and on emigration from 1868 to 1900 (see Table 13).

The third and final phase in the development of passenger statistics involved the estimation of the size of each of these three ocean-bound groups, classified by destination and by type of accommodation (i.e., cabin and noncabin) for the period 1873-94. Through a complex process involving both many assumptions and detailed calculations, it was possible to develop a breakdown of ocean-bound U.S. tourists, classified by destination (see Table 14). These data show that an overwhelming proportion of U.S. travelers went to Europe.

THE AVERAGE ANNUAL MONEY DISBURSEMENT

An effective analysis of tourist expenditures requires estimation of (1) transport charges (i.e., passenger fares), (2) daily living expenses and the length of stay in foreign countries, and (3) sundries, and purchases of goods and curiosities.⁶⁶

Passenger Fares

Information on ocean passenger fares charged by steamship lines for the trip from New York to the leading ports of Western Europe is available from guidebooks and other sources for the last four decades of the nineteenth century. The data do not show the pronounced secular downward drift of ocean freight rates. On the contrary, one authority has concluded that ocean passenger fares have fluctuated less and on the whole have been maintained at a higher level.⁶⁷ This relative stability can be attributed to the development of measures restricting competition in an industry characterized both by large capital outlays and high operating and maintenance costs and by continuing pressure to provide faster and better passenger service.

The development of more luxurious passenger accommodations produced higher first class fares, but with the relative growth of the tourist trade, some steamship lines charged special rates for second class, cabin, and other accommodation, or catered specifically to moderate income groups.⁶⁸ The ensuing calculations are based on the

⁶⁶ Cf. F. W. Ogilvie, "Tourist Traffic," *Encyclopedia of Social Science*, Vol. 14, pp. 661-664, and *The Tourist Movement, an Economic Study*, London, R. S. King & Son, Ltd., 1933, pp. 5-6, 11-36. See also, for a recent illustration of this approach for a later period, A. R. Prest, *Consumer Expenditures in the United Kingdom, 1900-1919*, Cambridge (England) at the University Press, 1954, pp. 170-174.

⁶⁷ Grover C. Huebner, *Ocean Steamship Traffic Management*, D. Appleton and Co., 1920, pp. 252-253.

⁶⁸ From 1860-1900 the ratio of tourists to the total population increased from 0.1 per cent to 0.2 per cent.

U. S. BALANCE OF PAYMENTS, 1861-1900

TABLE 14
Total Ocean-Bound United States Tourists, by Geographic Destination,
1873-1894
(thousands)

<i>Fiscal Year</i>	<i>Total</i> (1)	<i>Departing for Europe</i> (2)	<i>Departing for Latin America</i> (3)	<i>Departing for Asia and Oceania</i> (4)
1873	49.2	44.0	3.3	1.8
1874	49.2	38.9	7.2	3.1
1875	51.6	42.0	8.1	1.6
1876	49.4	39.8	6.3	3.3
1877	42.7	38.2	1.9	2.6
1878	42.9	38.5	5.9	4.2
1879	56.9	48.9	4.7	3.3
1880	51.8	43.8	3.9	4.1
1881	50.0	41.0	5.2	3.7
1882	54.5	45.0	6.5	4.0
1883	69.3	58.2	6.9	4.2
1884	91.6	78.0	8.8	4.8
1885	100.2	86.3	11.5	2.4
1886	89.0	75.0	10.9	3.0
1887	95.1	80.2	11.5	3.4
1888	98.4	83.2	12.9	2.4
1889	83.7	63.9	13.5	6.3
1890	90.7	73.6	13.3	3.9
1891	91.9	71.2	15.8	4.9
1892	95.1	73.6	17.4	4.0
1893	93.4	65.4	18.5	9.5
1894	68.7	44.4	19.0	5.3

Note: The figures in this table are from unrounded data.

Col. 1: Obtained by adding 3 per cent to the series on U.S. citizens returning from abroad from *Statistical Abstract of the United States, 1890*, p. 214, and *1902*, pp. 433-434.

Cols. 2, 3, and 4: Estimates derived by the author, based on the tables on passenger departures by custom districts for 1873-94 and by geographic destination for 1888-94 in various monthly, quarterly, and annual publications of the Bureau of Statistics of the U.S. Treasury.

assumption that the two forces counterbalance one other. For 1873-94, an average of \$80 one way, or \$150 round trip, plus \$20 gratuities to the employees of the steamship lines, or a total of \$170, is a reasonable annual estimate for the ocean transportation expenses of U.S. cabin passengers to Europe.⁶⁹ For tourists traveling by steerage, since rates fluctuated between \$25 and \$35 for one way, a figure of \$70 including

⁶⁹ The outlays have been adjusted to reflect the fact that children, 10 per cent of cabin passengers, traveled at half fare.

gratuities will be used. These passenger fares data apply only to the outlays of U.S. tourists, since alien travelers came to the United States on foreign lines.

The Length of Stay and Daily Travel Expenses

A distinction must be made between the length of stay and expenses of wealthy and of moderate income U.S. travelers, although the data are fragmentary. Despite the prevalent view that most wealthy travelers stayed for long periods, as early as 1866 one observer noted that "the majority of American travellers do not remain over six months on the Continent."⁷⁰ This condition prevailed when traveling conditions were hazardous and prior to the extensive development of the tourist trade. The notion of a relatively short stay is reinforced by Prest and Ogilvie, who estimated that the average American tourist in the early twentieth century spent twenty days in England or on the Continent.⁷¹

Moreover, the official series is entitled "United States citizens returning from abroad." Besides pleasure-seeking tourists, this category included commercial travelers and naturalized citizens who returned to visit friends and relatives. The duration of stay of the former and the per capita outlays of the latter were probably less than those of the average vacationing tourist. In the ensuing calculations for 1873-94, the average stay of U.S. cabin passengers in Europe and foreign tourists in the United States is set at sixty-five days and of noncabin passengers at fifty days. For the former group, this means a trip of more than three months, including the ocean voyage. The average stay of transmigrants to Canada and the West Indies was placed at five days, with an increasing daily disbursement.⁷²

For the earlier period, 1861-72, with fragmentary passenger statistics and cruder estimation, the derived results indicate a somewhat lengthier stay for the average tourist. The figures for 1895-1900 were adjusted to reflect factors other than changes in the duration of the trip.

An analysis of the daily expenditures of U.S. tourists, based on a study of guidebooks, shows considerable variation between wealthy and poor travelers, and that expenses were higher in Great Britain than on

⁷⁰ W. Pembroke Ftridge, *Harper's Handbook for Travellers in Europe and the Far East*, 1866, p.v. One modern study assumed that during the entire period 1870-1900 the average time spent abroad was one year (Simon Kuznets and Ernest Rubin, *Immigration and the Foreign Born*, NBER, Occasional Paper 46, 1954, p. 57). This figure implies that a moderate-income traveler would spend \$70 on ocean fares plus \$5 a day, or \$1,825 on living expenses (a total of approximately \$1,900). Wealthy travelers would spend \$170 on ocean transportation, plus \$7-\$10 a day or \$2,555-\$3,650 on maintenance expenses (a total ranging between \$2,725 and \$3,820). These, without considering the purchases of sundries, exceed by far the most extravagant contemporary estimates.

⁷¹ Prest, pp. 170-174.

⁷² This period coincides with the estimate of the stay in England of transmigrants to Europe of Ogilvie for the 1920's (*ibid.*).

the Continent, and in great cities, such as London, Paris, and Berlin, than in rural areas. Within this pattern, the fundamental trend was persistently upward throughout the late nineteenth century. After the depression of the 1870's traveling expenses advanced as railroad fares and the price of hotel coupons were raised. After 1885, prices rose at the first class hotels frequented by Americans in leading cities.⁷³

The calculations for 1873-94 are predicated on the assumption that daily expenses experienced the following pattern for travelers in Europe:⁷⁴

	<i>Cabin</i>	<i>Noncabin</i>
1860-68	\$6	\$4
1868-79	7	5
1879-85	8	6
1886-96	9	7
1897-1900	10	7

Similar estimates for foreign travelers' outlays in the United States are based on the belief that the disbursements of transmigrants roughly corresponded with those of foreign tourists. Their expenditures in a country as vast as the United States depended on the areas they visited and the time spent on long-distance railroad travel. New York, then as now, was the most expensive area. Hotel expenses were considerably higher than in Europe, although the differential declined with rising European charges toward the end of the nineteenth century. As late as 1893, one guide book estimated that the expenses of a trip to the United States were "almost inevitably" from one-fourth to one-third higher than for European travel.⁷⁵

These factors are reflected in my estimates. The percentage distribution of ocean-bound foreign tourists and transmigrants into cabin and noncabin passengers was used to derive figures for 1873-94. The maintenance outlays of alien cabin travelers were estimated at one-third higher than U.S. cabin travelers in Europe for 1873-85 and one-fourth higher for 1886-94.

Sundries

An important limitation of the estimates of tourist expenditures developed by Wells and other contemporaries is the failure to state how much was spent for sundry items and luxury goods. Travelers' credits

⁷³ In 1876, "the expense of travelling in Europe is unquestionably increasing on account of the steady rise in the cost of food, fuel, labor and almost anything else." A. Satchel's *Guide for the Vacation Tourist in Europe*, Hurd and Houghton, 1876, 5th ed., pp. xxx-xxxi; 1878-1879, 7th ed., pp. xxx-xxxii, p. 300; 1890, 19th ed., p. 10; and 1907, 36th ed., p. 10.

⁷⁴ The \$6 for cabin for 1860-68 is from Fetridge, pp. xx-xxiii.

⁷⁵ Karl Baedeker, *The United States with an Excursion into Mexico*, Leipsig, Karl Baedeker, 1893, p. xvii; 1899, pp. xviii, xix; and 1904, pp. xiii-xiv; and Satchel's, 1872, pp. xii-xiii; and 1907, p. 10.

from banks do not provide an accurate measure, since a large portion of expenditures in Europe and other areas was for commodities which may have been included in the statistics for merchandise imports.⁷⁶ Ogilvie estimated that in some areas 30 per cent of total tourist expenditures was for sundries in the 1920's⁷⁷ If this was a customary practice for wealthy U.S. travelers, such expenditures must have represented a considerable part of travelers' expenditures in the late nineteenth century.⁷⁸ The series for tourists outlays in this paper explicitly exclude disbursements for these sundry items.

Total Tourist Disbursement

It is now possible to integrate the data and develop a series showing total tourist outlays in Europe for 1873-94. The results are presented in Table 15. Provision also was made for the cost of tours to Latin America and Asia. Since most travelers to Latin America went to the West Indies, a tour of relatively short duration, \$500 appeared a reasonable sum for cabin passengers in the 1870's and somewhat larger amounts for later years. For Asia and Oceania, \$1,000 was used as the per capita outlay for cabin passengers, and smaller amounts were assumed for noncabin tourists. Finally, the figures for all three areas were combined to determine the outlays of all ocean-bound U.S. tourists for 1873-94. To complete the estimates for 1861-72, \$600, reflecting longer

⁷⁶ The undervaluation of imports, which has been reflected in the adjustments to the import series, was probably due to the unlimited free importation of personal effects such as professional books, implements, instruments, and tools of trade (cf. *Annual Report of the Secretary of Treasury, 1885*, p. 866).

⁷⁷ Ogilvie, "Tourist Traffic," p. 663.

⁷⁸ David Wells's "assumption" in 1869 is inaccurate in its statement of a per capita outlay of \$1,000 and of total United States outlays of \$37 million or net tourist outlays of \$25 million. First, it neglects the fact that 50 per cent of the outward bound passengers in 1868-69, including some U.S. tourists, were noncabin passengers. Second, it neglects U.S. tourist outlays for sundries. In 1868-69, approximately \$75 million of declared U.S. imports consisted of items for which a significant portion could have been obtained by tourists (*Commerce and Navigation, 1869*, pp. 142-144). Finally, it assumes that the number of foreign tourists was equal to the total included in the alien nonimmigrant category. In effect, they represent, according to my calculations, approximately 25 per cent of this group.

Col. 1: From Table 14, col. 2.

Cols. 2 and 8: Obtained as described in footnote to cols. 2, 3, and 4 of Table 14.

Col. 3: Obtained by multiplying col. 2 by \$170 as described in text.

Col. 4: Obtained by multiplying col. 3 by 90 per cent, based on the number of children traveling as cabin passengers, from *Monthly Summary of Commerce and Finance*, June, 1903, p. 4364.

Col. 5: Based on a sixty-five-day stay with a \$7 daily expense for 1873-78, \$8 for 1879-85 and \$9 for 1886-94, for cabin passengers, as described in text.

Col. 9: Obtained by multiplying data in col. 8 by \$70, as described in text.

Col. 10: Based on a fifty-day stay with a \$5 daily expense for 1873-78, \$6 for 1879-85 and \$7 for 1886-94.

U.S. BALANCE OF PAYMENTS, 1861-1900

TABLE 15

Total Outlays of United States Tourists in Europe, 1873-1894
(persons in thousands, total outlays in millions)

Fiscal Year	TOTAL NO. OF TOURISTS (1)	CABIN TOURISTS					NONCABIN TOURISTS					TOTAL TOURIST OUTLAYS (7)+(11)+(12)+(13)
		Transportation Total Outlays		Maintenance Outlays			No. (8)	Transportation Total Outlays		Maintenance Outlays		
		Un-adjusted (3)	Adjusted for Children (4)	Per Capita (5)	Total (2) x (5)	Total (4) + (6)		Per Capita (9)	Total (8) x (10)	Total (9) + (11) + (12)		
1873	44.0	\$ 3.6	\$ 3.4	\$455	\$ 9.6	\$13.1	22.9	\$1.6	\$250	\$ 5.7	\$ 7.3	\$20.4
1874	38.9	3.1	5.0	455	14.1	19.2	7.8	0.5	250	2.0	2.5	21.7
1875	42.0	5.2	5.0	455	13.9	18.9	11.3	0.8	250	2.8	3.6	22.5
1876	39.8	4.8	4.6	455	12.9	17.5	11.5	0.8	250	2.9	3.7	21.1
1877	38.2	3.4	3.2	455	9.1	12.3	18.3	1.3	250	4.6	5.9	18.1
1878	38.5	5.4	5.1	455	14.3	19.4	6.0	0.4	250	1.5	1.9	21.3
1879	48.9	5.7	5.4	520	17.5	23.0	15.2	1.1	300	4.6	5.7	28.6
1880	43.8	6.0	5.7	520	18.5	24.2	8.3	0.6	300	2.5	3.1	27.3
1881	41.0	6.1	5.8	520	18.7	24.5	5.1	0.4	300	1.5	1.9	26.4
1882	45.0	7.1	6.7	520	21.7	28.4	3.3	0.2	300	1.0	1.2	29.6
1883	58.2	7.5	7.1	520	23.0	30.2	14.0	1.0	300	4.2	5.2	35.3
1884	78.0	8.1	7.7	520	24.7	32.3	30.6	2.4	300	9.2	11.6	43.9
1885	86.3	7.9	7.5	520	24.3	31.8	39.6	2.8	300	11.9	14.6	46.5
1886	75.0	8.7	8.3	585	29.9	38.1	23.9	1.5	350	8.4	9.8	48.0
1887	80.2	9.4	9.0	585	32.4	41.4	24.8	1.7	350	8.7	10.4	51.8
1888	83.2	9.9	9.2	585	34.1	43.3	24.9	1.7	350	8.7	10.4	53.8
1889	63.9	10.5	10.0	585	36.2	46.2	2.0	0.1	350	0.7	0.9	47.0
1890	73.6	11.6	11.0	585	39.8	50.8	5.5	0.4	350	1.9	2.3	53.1
1891	71.2	11.7	11.1	585	40.3	51.5	2.2	0.2	350	0.8	0.9	52.4
1892	73.6	11.2	10.6	585	38.5	49.2	7.7	0.5	350	2.7	3.2	52.4
1893	65.4	8.0	7.6	585	27.5	35.1	18.3	1.3	350	6.4	7.7	42.8
1894	44.4	4.9	4.7	585	16.9	21.5	15.5	1.1	350	5.4	6.5	28.0

Note: The calculations in this table were based on unrounded data and are presented in rounded form as a final operation. Footnotes to Table 15 on previous page.

stays overseas, lower per capita outlays, but more cabin or wealthier passengers, was selected. Similarly, per capita outlays were assumed for 1895-1900 that bore a reasonable relation to 1891-94 values and reflected rising passenger fares and daily expenditures characteristic of the general upswing following the world-wide depression of 1890-97. Utilizing data developed by Jacob Viner for the years 1900-13 and Penelope H. Hartland for the period before 1900, I assumed that U.S. outlays in Canada and Mexico represented 5 per cent of the total U.S. tourist disbursements.⁷⁹ The results are shown in Table 16.

Similarly, the total expenditures of alien travelers were calculated for 1873-94. For 1861-72, a per capita outlay of \$750, one-third greater than the U.S. tourist expenditure in Europe, was estimated for ocean-bound foreign tourists and transmigrants. The figures for 1895-1900 were adjusted to reflect increases from the 1892-94 levels. To complete the picture, Canadian and Mexican travelers' expenditures in the United States were assumed to be 30 per cent of U.S. tourist outlays in those areas.⁸⁰ The series for alien travelers in the United States is shown in Table 17.

Immigrants' Funds

Funds brought in by newly arrived immigrants were a significant component of the nation's international economic transactions. The federal government has compiled statistics on the number of immigrants, by age and country of origin, for all of the years included in this study. But I needed information on the average amount carried in by each immigrant throughout the period 1861-1900, and estimates varied considerably.

Before 1873, the average amount brought in was considerably greater than after that year.⁸¹ In 1880, the Secretary of the British Legation in

⁷⁹ Cf. Jacob Viner, *Canada's Balance of International Indebtedness, 1900-1913, 1924*, pp. 83-87, and Penelope Hartland's paper in this volume.

⁸⁰ *ibid.*, Viner uses 50 per cent for 1900-13. See Penelope Hartland's paper for the earlier periods.

⁸¹ Edward Young stated (*Special Report on Immigration, 1872*, p. x): "It should not be forgotten, however, that those immigrants bring with them some money estimated at \$100 by Mr. Kapp [a New York State commissioner of emigration] and at \$80 by Mr. Wells, but inasmuch as a careful investigation was made at Castle Garden, New York, which resulted in establishing \$68 as the average sum brought by alien passengers, that amount is assumed as the correct one."

Col. 1: Obtained by adding 3 per cent to the series on U.S. citizens returning from abroad from the *Statistical Abstract of the United States, 1890*, p. 214, and *1902*, pp. 433-434.

Col. 2: Data obtained as described in text and in footnote to cols. 2, 3, and 4 of Table 14. They include estimates of outlays not only in Europe but in other areas.

Col. 4: Obtained by applying 5 per cent to the data in col. 3, based on assumption of Viner for the period after 1900 and Penelope Hartland's unpublished manuscript for 1868-1900.

TABLE 16
Total Expenditures of All United States Tourists, 1861-1900
(persons in thousands, total outlays in millions)

Fiscal Year	OCEAN-BOUND TOURISTS			TOTAL OUTLAYS OF TOURISTS IN CANADA AND MEXICO (4)	TOTAL OUTLAYS OF ALL TOURISTS (3) + (4) (5)
	No. (1)	Outlays			
		Per Capita (2)	Total (1) × (2) (3)		
1861	24.1	\$600	\$14.5	\$0.7	15.2
1862	22.3	600	13.4	0.7	14.1
1863	23.7	600	14.2	0.7	14.9
1864	26.6	600	16.0	0.8	16.8
1865	34.7	600	20.8	1.0	21.8
1866	38.9	600	23.3	1.2	24.5
1867	40.3	600	24.2	1.2	25.4
1868	41.3	600	24.8	1.2	26.0
1869	27.6	600	16.5	0.8	17.3
1870	34.9	600	20.9	1.1	22.0
1871	45.0	600	27.0	1.4	28.4
1872	50.5	600	30.3	1.5	31.8
1873	49.2	483	23.8	1.2	25.0
1874	49.2	571	28.1	1.4	29.5
1875	51.6	558	28.8	1.4	30.2
1876	49.4	552	27.3	1.4	28.7
1877	42.7	507	21.7	1.1	22.8
1878	42.9	631	27.1	1.4	28.5
1879	56.9	603	34.3	1.7	36.0
1880	51.8	645	33.4	1.7	35.1
1881	50.0	656	32.8	1.6	34.4
1882	54.5	680	37.0	1.9	38.9
1883	69.3	623	43.2	2.2	45.4
1884	91.6	582	53.3	2.7	56.0
1885	100.2	548	54.9	2.7	57.6
1886	89.0	638	56.7	2.8	59.5
1887	95.1	649	61.7	3.1	64.8
1888	98.4	645	63.5	3.2	66.7
1889	83.7	702	58.8	2.9	61.7
1890	90.7	711	64.4	3.2	76.6
1891	91.9	713	65.6	3.3	68.9
1892	95.1	690	65.6	3.3	68.9
1893	93.4	637	59.4	3.0	62.4
1894	68.7	628	43.1	2.2	45.3
1895	103.7	690	71.5	3.6	75.1
1896	101.3	660	67.2	3.4	70.6
1897	98.8	660	65.2	3.3	68.5
1898	96.4	750	72.3	3.6	75.9
1899	98.1	750	73.5	3.7	77.2
1900	124.1	750	93.1	4.7	97.8

Note: The figures in this table were derived from unrounded data and were rounded for presentation.

Footnotes to Table 16 on previous page.

BALANCE OF PAYMENTS

TABLE 17
Total Outlays of Alien Travelers in the United States, 1861-1900
(persons in thousands, total outlays in millions)

Fiscal Year	OCEAN-BOUND TOURISTS AND TRANSMIGRANTS TO DISTANT LANDS			CABIN TRAVELERS			NONCABIN TRAVELERS			TRANSMIGRANTS TO CANADA AND WEST INDIES			TOTAL OUTLAYS		
	No. (1)	Total Outlays (2)	No. (3)	Outlays		No. (6)	Outlays		No. (9)	Outlays		No. (12)	Outlays		No. (15)
				Per Capita (4)	Total (5)		Per Capita (7)	Total (8)		Per Capita (10)	Total (11)		Per Capita (13)	Total (14)	
1861	0.7	\$0.5							0.5	\$50	—	—	\$0.5	0.2	\$0.7
1862	0.7	0.5							0.5	50	—	—	0.5	0.2	0.7
1863	0.6	0.5							0.5	50	—	—	0.5	0.2	0.7
1864	0.3	0.2							0.2	50	—	—	0.2	0.2	0.4
1865	0.1	0.1							0.1	50	—	—	0.1	0.3	0.4
1866	1.2	0.9							0.9	50	—	—	1.0	0.4	1.4
1867	1.1	0.8							0.8	50	—	—	0.9	0.4	1.3
1868	1.6	1.2							1.2	50	\$0.1		1.3	0.4	1.7
1869	2.8	2.1							2.1	50	0.1		2.2	0.2	2.4
1870	4.2	3.2							3.1	50	0.2		3.3	0.3	3.6
1871	7.1	5.3							5.3	50	0.3		5.6	0.4	6.0
1872	4.9	3.7							3.6	50	0.2		3.9	0.5	4.4
1873	3.3		1.8	\$607	\$1.1	1.5		\$350	\$0.5	2.8	50	0.1	1.7	0.4	2.1
1874	4.3		2.9	607	1.8	1.5		350	0.5	3.2	50	0.2	2.4	0.4	2.8
1875	4.4		2.7	607	1.6	1.7		350	0.6	5.3	50	0.3	2.5	0.4	2.9
1876	6.2		3.9	607	2.4	2.3		350	0.8	3.9	50	1.2	3.4	0.4	3.8
1877	6.1		3.3	607	2.0	2.7		350	1.0	3.9	50	0.2	2.2	0.4	2.6
1878	5.8		5.1	607	3.1	0.8		350	0.3	2.1	50	0.1	3.5	0.4	3.9
1879	6.8		5.0	693	3.5	1.8		400	0.7	1.5	55	0.1	4.2	0.5	4.8
1880	9.2		8.4	693	5.9	0.8		400	0.3	1.8	55	0.1	6.3	0.5	6.8
1881	8.8		7.5	693	5.2	1.4		400	0.5	2.4	55	0.1	5.9	0.5	6.4
1882	9.4		8.2	693	5.7	1.2		400	0.5	4.3	55	0.2	6.4	0.6	7.0

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	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1883	19.3		15.2	\$693	\$10.6	4.1	\$400	\$1.6	6.0	\$55	\$0.3	\$12.5	\$0.7	\$13.2
1884	24.0		15.9	693	11.1	8.0	400	3.2	4.5	55	0.2	14.5	0.8	15.3
1885	27.7		17.7	693	12.3	10.0	400	4.0	3.8	55	0.2	16.5	0.8	17.3
1886	21.5		16.3	731	11.9	5.2	450	2.3	2.2	60	0.1	14.4	0.8	15.2
1887	19.9		13.7	731	10.0	6.2	450	2.8	3.0	60	0.2	13.0	0.9	13.9
1888	19.5		14.2	731	10.4	5.3	450	2.4	1.1	60	0.1	12.8	1.0	13.8
1889	19.3		15.9	731	11.6	3.4	450	1.5	1.5	60	0.1	13.3	0.9	14.2
1890	19.8		16.7	731	12.2	3.1	450	1.4	1.3	60	0.1	13.7	1.0	14.7
1891	16.3		14.4	731	10.5	1.9	450	0.9	2.4	60	0.1	11.5	1.0	12.5
1892	18.2		14.6	731	10.6	3.6	450	1.6	3.1	60	0.2	12.5	1.0	13.5
1893	38.8		26.1	731	19.1	12.7	450	5.7	1.9	60	0.1	24.9	0.9	25.8
1894	31.6		18.4	731	13.5	13.2	450	5.9	1.4	60	0.1	19.5	0.7	20.2
1895	17.5	\$11.4							3.7	65	0.2	13.1	1.1	14.2
1896	18.6	11.6							2.5	65	0.2	13.8	1.0	14.8
1897	18.6	11.6							2.5	65	0.2	13.8	1.0	14.8
1898	18.5	13.0							2.5	65	0.2	15.0	1.1	16.1
1899	20.1	14.1							2.7	65	0.2	16.3	1.1	17.4
1900	22.4	15.6							3.1	65	0.2	18.0	1.1	17.4

Note: The calculations in this table were made from unrounded data and were adjusted for presentation.

Col. 1: From Table 12, cols. 1 and 5.

Col. 2: Obtained by multiplying data in col. 1 by \$750 for 1861-72 and by the following values \$650, 1895; \$625, 1896; \$625, 1897; \$700, 1898-1900.

Cols. 3 and 6: Obtained as described in the text and footnote to cols. 2, 3, and 4 of Table 14.

Col. 4: Assumed to be 1/2 greater than U.S. cabin passenger in Europe for the years 1886-94.

Col. 7: Assumed to be \$100 greater than the outlays of U.S. noncabin passengers in Europe from Table 15, col. 10, for 1873-94.

Col. 9: From Table 12, col. 7.

Col. 10: Obtained by assuming a five-day stay including transportation expenses for these transmigrants.

Col. 12: Obtained by adding data in col. 11 to data in col. 8 for 1861-72 and 1895-1900 and to the data in cols. 4 and 7 for 1873-94.

Col. 13: Estimated to be 30 per cent of U.S. expenditures in Canada. See Penelope Hartland's unpublished manuscript.

Col. 14: Obtained by adding data in col. 12 to data in col. 13.

BALANCE OF PAYMENTS

Washington, citing the Secretary of the Board of Emigration in New York, referred to the effect of the cyclical depression after 1873 on the funds brought in by immigrants. . . . "They bring with them less ready money than formerly. For this he accounts by the great depression prevailing in Europe, owing to which they have been unable to realize as much on their scant property and effects as they used to in former days." The Emigration Board Secretary estimated an average of at least \$60 for the current year.⁸² The following year, the British Legation Secretary placed the figure at \$50 per head.⁸³ The *Commercial and Financial Chronicle* placed the figure at \$200 per head in 1881 and \$50 in 1895.⁸⁴ The *Chronicle* apparently felt that these transactions, although infrequently mentioned, were sufficient to offset the unfavorable tourist balance.

Another factor became important after 1890 when more detailed statistical information revealed the effect of the level of economic activity and living standards in the emigrating nations. Immigrants from the "old immigration" areas of northwestern and central Europe came with larger sums than did those from the "new immigration" regions of southern and eastern Europe (see Table 18).

TABLE 18
Average Amount of Funds Carried into the United States per capita from
Some Representative European Countries, First Half 1892, and Fiscal Years
1895 and 1896
(dollars)

Emigrating Country	First Half 1892	Fiscal Year 1895	Fiscal Year 1896
"Old":			
France	55.67	55.06	61.55
Wales	43.06	37.08	36.40
England	26.43	36.24	43.09
Germany	35.42	45.74	48.27
"New":			
Italy	11.77	14.73	12.60
Poland	12.31	23.19	24.10
Hungary	11.42	19.86	16.88

Source: *Quarterly Reports* No. 2, U.S. Treasury Dept., Bureau of Statistics, p. 8, and *Annual Report of the Superintendent of Immigration for the Fiscal Year 1892*, pp. 26-27; 1895, p. 11; and 1896, p. 6.

⁸² Great Britain, Foreign Office, *Report by His Majesty's Secretaries of Embassies and Legations on the Manufactures, Commerce and of the Countries in which they Reside*, Part III, "Report on the present immigration into the United States," by M. R. Drummond, May 3, 1880, *Parliamentary Papers*, London, H.M. Stationery Office, 1880, Vol. LXXII, pp. 368-378, esp. 370-372.

⁸³ *ibid.*, Vol. LXXXIX, 1881, pp. 282-284.

⁸⁴ *Commercial and Financial Chronicle*, Vol. xxxiv, May 6, 1882, p. 500; and Vol. LX, May 4, 1895, pp. 769-772.

The data that the immigration authorities collected in 1892 require two adjustments for purposes of deriving balance of payments estimates: (1) only immigrants over the age of twenty were questioned about their money, and (2), under the Act of March 3, 1893, if an immigrant could exhibit \$30, he was not required to specify the precise amount he was bringing in.⁸⁵ It was estimated that the amount reported represented between 25 and 33 $\frac{1}{3}$ per cent of the actual amount coming into the country.⁸⁶ Consequently, in the calculations of immigrants' funds brought into the country that follow, the statistics for the total number of immigrants over fifteen years of age were used.⁸⁷

These were divided into two categories: (1) "old immigration" plus the immigrants arriving from Canada and Newfoundland, and (2) the remainder.⁸⁸ In the last half of the period under study, 1880-1900, the "remainder" was overwhelmingly represented by the "new immigration" from southern and eastern Europe. It was assumed that the per capita contribution of all immigrants in (1) was three times as great as the amount for (2) for 1860-1900.⁸⁹ Within each group, the average sum was gradually scaled down from the pre-1873 peaks to the low points after 1890.⁹⁰ The average sums were multiplied by the number of immigrants over fifteen in each category. Two annual sets of figures were derived, as shown in Table 19, for the funds brought in by these two categories.

A final adjustment involved making provision for the funds brought in by immigrants who arrived in the United States over the Canadian border after 1885. The government's statistics are fragmentary in this flow of foreign-born to the United States. Kuznets and Rubin estimated that 393,000 immigrants arrived via Canada, 1885-90, of whom 368,000 survived until 1890. Since they estimated that an additional 675,000 immigrants, passing through Canada, 1891-1900, survived until 1900,

⁸⁵ *Annual Reports of the Superintendent of Immigration*, 1897, p. 4.

⁸⁶ *ibid.*, 1895, p. 13, and 1896, p. 10.

⁸⁷ Under fourteen years for 1899 and 1900.

⁸⁸ Most of the immigrants coming from Canada were people originating in northern and western Europe in the late nineteenth century; only a few were Canadian natives (cf. *Industrial Commission Reports*, Vol. 15, *Immigration*, 57th Cong., 1st sess., Vol. 78, H. Doc. 184, 1900-02, pp. 92-93). This division of the immigrants over fifteen presupposes that this age group is allocated in the same way among these two categories as all immigrants.

⁸⁹ The following statement by Jeremiah W. Jenks and W. Jett Lauck (*The Immigration Problem*, 4th ed., Funk & Wagnals, 1916, pp. 195 and 196), relating to a later period, provides support to this contention. "Immigrants from the South and East of Europe have usually had but a few dollars in their possession when their destination has been reached. During the years 1905-1909 the average amount of money in the possession of each person among these immigrants when they reached their port of disembarkation was about one-third as much as among immigrants from Northern and Western Europe. Later figures bring out the same condition."

⁹⁰ The per capita figures used for the Canadians, who are included with the "old" immigration, diverge from the \$25 employed in the unpublished study of the Canadian balance of international payments by Penelope Hartland.

BALANCE OF PAYMENTS

TABLE 19
Total Funds Brought in by All Immigrants, 1861-1900
(persons in thousands, total funds in millions)

Fiscal Year	TOTAL NUMBER REPORTED OVER 15 (1)	"OLD" AND CANADIAN OVER 15		"NEW" AND OTHER OVER 15		TOTAL FUNDS BROUGHT IN				
		No. (2)	Funds Brought in Average Amount (3)	Funds Brought in Total (2) x (3) (4)	No. (5)	Funds Brought in Average Amount (6)	Funds Brought in Total (5) x (6) (7)	By Reported (4) + (7) (8)	By Unreported (9)	Total (8) + (9) (10)
1861	93.8	83.5	\$75	\$ 6.3	10.3	\$25	0.3	\$ 6.5		\$ 6.5
1862	93.8	87.4	75	6.6	6.4	25	0.2	6.7		6.7
1863	163.3	153.5	75	11.5	9.8	25	0.2	11.8		11.8
1864	179.6	173.2	75	13.0	6.5	25	0.2	13.1		13.1
1865	240.7	225.5	75	16.9	15.2	25	0.4	17.3		17.3
1866	158.9	153.5	75	11.5	5.7	25	0.1	11.7		11.7
1867	276.8	264.9	75	19.9	11.9	25	0.3	20.2		20.2
1868	224.6	212.0	75	15.9	12.6	25	0.3	16.2		16.2
1869	273.0	256.9	75	19.3	16.1	25	0.4	19.7		19.7
1870	298.1	276.6	75	20.7	21.5	25	0.5	21.3		21.3
1871	250.2	235.2	75	17.6	15.0	25	0.4	18.0		18.0
1872	314.3	294.5	75	22.1	19.8	25	0.5	22.6		22.6
1873	355.1	318.9	75	23.9	36.2	25	0.9	24.8		24.8
1874	249.8	212.0	60	12.7	37.7	20	0.8	13.5		13.5
1875	183.2	148.4	60	8.9	34.8	20	0.7	9.6		9.6
1876	142.1	105.9	60	6.4	36.2	20	0.7	7.1		7.1
1877	118.1	91.2	60	5.5	26.9	20	0.5	6.0		6.0
1878	114.2	92.4	60	5.5	21.8	20	0.4	6.0		6.0
1879	143.3	118.3	60	7.1	24.9	20	0.5	7.6		7.6
1880	370.7	332.5	54	18.8	38.2	18	0.7	11.9		11.9
1881	516.0	461.3	54	24.9	54.7	18	1.0	25.9		25.9
1882	618.0	548.5	54	28.0	99.5	18	1.8	29.8		29.8
1883	459.5	395.6	54	21.4	63.9	18	1.1	22.5		22.5
1884	395.8	336.9	54	18.2	59.0	18	1.1	19.3		19.3

continued on next page

TABLE 19 concluded

Fiscal Year	"OLD" AND CANADIAN OVER 15				"NEW" AND OTHER OVER 15				TOTAL FUNDS BROUGHT IN		
	TOTAL NUMBER OVER 15 REPORTED		Funds Brought in		Funds Brought in		Funds Brought in		By Reported (4) + (7) (8)	By Unreported (9) (9)	Total (8) + (9) (10)
	No. (1)	(2)	Average Amount (3)	Total (2) x (3) (4)	Average Amount (5)	Total (5) x (6) (7)	Total (6) x (7) (6)				
1885	302.5	249.8	54	13.5	52.6	18	0.9	14.4	\$2.1	16.5	
1886	268.0	204.8	54	11.1	63.3	18	1.1	12.2	1.8	14.0	
1887	395.8	285.8	54	15.4	110.0	18	2.0	17.4	2.5	19.9	
1888	449.6	326.4	54	17.6	123.2	18	2.2	19.8	2.9	22.7	
1889	351.9	263.2	54	14.2	88.7	18	1.6	15.8	2.3	18.1	
1890	368.9	232.0	54	12.5	136.9	18	2.5	15.0	2.2	17.2	
1891	464.4	263.8	45	11.9	200.6	15	3.0	14.9	2.9	17.8	
1892	533.9	277.1	45	12.5	256.8	15	3.9	16.3	3.2	19.5	
1893	445.5	237.5	45	10.7	208.1	15	3.1	13.8	2.7	16.5	
1894	272.7	142.1	45	6.4	130.6	15	2.0	8.4	1.6	10.0	
1895	246.7	135.2	45	6.1	111.5	15	1.7	7.8	1.6	9.4	
1896	290.5	116.5	45	5.2	174.0	15	2.6	7.9	1.5	9.4	
1897	190.5	74.7	45	3.4	115.8	15	1.7	5.1	1.0	6.1	
1898	191.0	66.3	45	3.0	124.7	15	1.9	4.9	0.9	5.8	
1899	267.7	78.4	45	3.5	189.3	15	2.8	6.4	1.2	7.6	
1900	393.9	91.4	45	4.1	302.6	15	4.5	8.7	1.6	10.3	

Note: The figures in this table have been rounded after calculations were made in unrounded data both for immigration and immigrant funds.

Col. 1: From *Historical Statistics of the United States, 1789-1945*, p. 37.

Cols. 2 and 5: Based on proportions of total immigration data obtained from *ibid.*, pp. 33-36.

Col. 3 and 6: Based on discussion in the text.

Col. 9: Based on estimates of unreported immigration through Canada from 1885 to 1900 from Kuznets and Rubin, pp. 72-74 and discussion in text.

I used the same proportion as they did for the 1885–90 period to calculate an estimated nonreported immigration of 714,000.⁹¹ The figures of 393,000 for 1885–90 and 714,000 for 1891–1900 were distributed among the individual years in each period in accordance with the relative importance of its reported immigration. After eliminating the groups under fifteen, I applied the proportions for “old” and “new” immigration in the reported figures to divide these annual increments into two groups, each with their respective per capita funds. Estimates for the total amount of funds brought by immigrants arriving unreported over the Canadian border were thus derived for the years 1885–1900 and added to the funds brought in by the reported immigrants to obtain a series on total immigrants funds (Table 19).

Immigrants' Remittances

Only fragmentary data exist on immigrant remittances. The British Board of Trade compiled a series on the amount of money remitted by settlers in the United States and Canada from 1848 to 1887 to their friends in the United Kingdom.⁹² The data were collected by banks and mercantile houses. The series was considered incomplete by Robert Giffen and other officials of the Board of Trade, since data were unobtainable on remittances passing through private hands and from mercantile houses that did not cooperate in providing information. The only other series available are some partial annual estimates of remittances to Austria-Hungary from the United States for 1892–1902 supplied by the Bohemian Union Bank of Prague. In addition, official Austrian figures were prepared for the total amount of funds sent from all areas through Austro-Hungarian and other banks for 1893–1903.⁹³ This material constitutes the available statistics directly relevant to the period 1861–1900.

Fortunately, during the peak years of immigration in the first decade of the twentieth century estimates were prepared of the total immigrant remittances made through banks by various nationality groups for the calendar years 1907 and 1908 (Table 20). These figures constituted the basic source for the derivation of the series on immigrant remittances. It was necessary to obtain estimates, by nationality, both of the total number of remitters each year and of per capita remittances.

The basic assumption of the ensuing calculations is that the volume of recent immigration is the crucial factor determining the annual number

⁹¹ Kuznets and Rubin, *op. cit.*, pp. 72–74.

⁹² Great Britain, Board of Trade, Copy of Statistical Tables Relating to Emigration and Immigration from and into the United States in the year 1879 and report to the Board of Trade thereon, *Parliamentary Papers*, London, H.M. Stationery Office, 1880, Vol. LXXXI, pp. 8 and 16.

⁹³ *Reports of the Immigration Commission*, Vol. 37, *Immigrant Banks*, 61st Cong. 3d sess., S. Doc. 753, 1911, pp. 272–273.

U.S. BALANCE OF PAYMENTS, 1861-1900

TABLE 20
Immigrant Remittances through Banks, 1907 and 1908
(dollars)

Country	TOTAL		Per Capita (3)
	1907	1908	
	(1)	(2)	
Austro-Hungary	55.3	28.0	160
Germany	0.9	0.7	20
Italy	52.1	23.4	160
Balkans	2.7	2.4	115
Scandinavia	7.7	6.0	135
Other Europe	4.9	3.2	30
Other Countries	0.7	1.2	12
Russia and Finland	16.6	12.4	80
Total	141.0	77.6	

Source: *Immigration Commission Reports*, Vol. 37, p. 261.

of remitters for each nationality. This assumption is reinforced by an examination of the varied motives for the remittances, which included financial assistance to relatives and friends both for maintenance in the country of origin and for emigration to the United States. Repayment of debts contracted before or in the process of immigration was also an important factor. Finally, to many, immigration was temporary—a means to accumulate funds to live comfortably and finance expenses in the country of origin.⁹⁴ It is impossible to determine the relative importance of each of these considerations within any period.

For each year, a five-year moving average was employed with the most recent year weighted by two in order to determine the annual number of remitters for each nationality. For example, the amount of Austro-Hungarian remitters in 1907 was obtained by adding the number of Austro-Hungarian immigrants in 1903, 1904, 1905, 1906, and twice the figures for 1907, and dividing by six.⁹⁵ The year 1907 was weighted by two to give special emphasis to short-run current variations in the tide of immigration.

The figure derived in this fashion was then divided into the 1907 estimate of the dollar remittance through banks to Austria-Hungary to obtain the per capita remittances for 1907. The same procedure was repeated for 1908. The two sets of per capita remittances for each nationality were averaged to obtain arithmetic means for each nationality

⁹⁴ *ibid.*

⁹⁵ The worksheets underlying this operation can be obtained from the author.

BALANCE OF PAYMENTS

TABLE 21
Immigrant Remittances, by Nationality, Through Banks and Other Intermediaries, 1860-1900
(millions of dollars)

Calendar Year	Austria-Hungary (1)	Balkans (2)	Germany (3)	Great Britain and Ireland (4)	Italy (5)	Russia and Finland (6)	Scandinavia (7)	Other Europe (8)	Other (9)	Total (10)
1860			1.2	2.6	0.2		0.2	0.2	0.2	4.6
1861			1.0	1.8	0.2		0.2	0.2	0.2	3.6
1862			0.8	1.8	0.1		0.2	0.2	0.1	3.2
1863			0.7	1.9	0.1		0.3	0.1	0.1	3.2
1864			0.9	1.6	0.1		0.3	0.2	0.1	3.2
1865			1.1	2.3	0.1		0.5	0.2	0.2	4.4
1866			1.4	2.4	0.1		1.0	0.3	0.3	5.5
1867	0.1		1.9	2.6	0.2		0.9	0.3	0.3	6.3
1868	0.1		1.7	2.6	0.2		1.3	0.3	0.3	6.4
1869	0.1		2.2	3.1	0.2		2.9	0.4	0.4	9.3
1870	0.3		2.2	3.5	0.3		3.2	0.4	0.5	10.4
1871	0.4		2.0	3.4	0.3		3.1	0.3	0.5	10.0
1872	0.5		2.2	3.6	0.4	0.1	3.7	0.4	0.5	11.4
1873	0.8		2.3	3.5	0.8	0.1	4.4	0.5	0.7	13.1
1874	1.0		1.9	2.4	0.9	0.2	3.5	0.5	0.7	11.1
1875	1.1		1.9	1.7	0.8	0.3	3.0	0.5	0.6	9.9
1876	1.1		1.6	2.2	0.8	0.3	2.7	0.6	0.6	9.9
1877	1.1		1.3	3.2	0.8	0.4	2.3	0.5	0.6	10.2
1878	1.0		0.8	3.8	0.7	0.4	1.8	0.4	0.5	9.4
1879	1.0		0.8	4.2	0.7	0.4	2.1	0.4	0.5	10.1

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U. S. BALANCE OF PAYMENTS, 1861-1900

TABLE 21 concluded

Calendar Year	Great Britain and Ireland										Total (10)
	Austria-Hungary (1)	Balkans (2)	Germany (3)	Italy (5)	Russia and Finland (6)	Scandinavia (7)	Other Europe (8)	Other (9)			
1880	1.5		0.9	6.8	1.1	0.4	4.3	0.5	0.8	16.3	
1881	2.4		2.0	7.3	1.5	0.4	6.2	0.6	1.0	21.4	
1882	3.1		2.9	7.7	2.7	0.9	8.8	0.9	1.2	28.2	
1883	3.6		3.2	7.8	3.4	0.7	9.4	0.8	1.2	30.1	
1884	4.7		3.7	7.7	3.3	0.8	9.7	0.8	1.2	31.9	
1885	4.7	0.1	3.6	6.0	3.3	1.1	8.8	0.8	1.0	29.4	
1886	4.8	0.1	2.3	6.2	3.6	1.2	8.2	0.7	0.8	27.9	
1887	5.4	0.1	2.6	8.5	4.8	1.6	7.8	0.7	0.4	31.9	
1888	5.7	0.1	2.4	9.0	5.4	1.9	8.4	0.8	0.3	34.0	
1889	5.6	0.1	2.1	8.9	4.9	2.2	7.9	0.8	0.2	32.7	
1890	7.0	0.1	1.6	8.8	6.7	2.5	8.0	0.9	0.1	35.7	
1891	8.5	0.2	2.1	8.8	8.8	3.0	8.5	1.1	0.1	41.1	
1892	9.6	0.1	2.2	7.9	8.7	4.2	8.6	1.5	0.1	42.9	
1893	9.4	0.1	1.9	5.1	9.0	3.8	7.9	1.4	0.1	38.7	
1894	9.0	0.1	1.4	5.4	9.3	3.8	6.8	1.2	0.1	37.1	
1895	8.3	0.1	1.1	5.1	8.6	3.8	6.1	1.0	0.1	34.2	
1896	9.0	0.1	1.2	4.4	9.3	4.0	5.6	0.8	0.1	34.5	
1897	6.9	0.1	0.8	3.6	9.0	2.9	3.9	0.5	0.1	27.8	
1898	6.7	0.1	0.6	3.2	8.6	2.8	3.4	0.4	0.1	26.9	
1899	7.9	0.1	0.4	3.2	10.0	3.5	2.8	0.3	0.2	28.4	
1900	11.2	0.4	0.4	2.9	12.4	4.7	3.5	0.4	0.2	36.1	

Source: Data based on immigrant statistics, by nationality from *Historical Statistics of the United States*, pp. 33-36 combined, according to procedure described in text, with per capita remittances, by nationality from Table 20, except for col. 4. The data in col. 4 on remittances to Great Britain and Ireland for 1860-87 were obtained from *Parliamentary Papers*, Great Britain, Board of Trade, London, H.M. Stationery Office, 1888, Vol. cvii, p. 18.

(see Table 20).⁹⁶ These figures were then multiplied by the number of remitters to obtain a provisional series, for each nationality, of the total immigrant remittances through banks for the calendar years 1860-1900 (see Table 21).

For Great Britain and Ireland, the partial statistics of the Board of Trade on Remittances of the settlers in Canada and the United States for 1860-87 were adopted as representative of the total immigrant remittances to that area. The figures for 1888-1900 were derived by using the five-year moving average technique for 1887-1900 to calculate the annual number of remitters to Great Britain and Ireland for those years. The remittances were computed by applying the ratio of the number of 1888-1900 remitters to the number of 1887 remitters to the amount of funds sent back in 1887.⁹⁷ These figures were linked to the Board of Trade estimates to derive a continuous series for four decades.

Funds sent through immigrant banks did not represent all immigrant remittances. It was also customary for immigrants to send passage tickets to friends and relatives. Substantial evidence exists that the ratio of prepaid tickets to the volume of ocean-bound immigration fluctuated between 30 and 50 per cent, rising in periods of prosperity, declining in depressions.⁹⁸ Variations in steerage fares also occurred.⁹⁹

These estimates of remittances through banks and of outlays of prepaid tickets are the two identifiable components of total immigrants' remittances. The calculations are confined to them although the government figure of \$140.9 million of remittances through banks in 1907 represented only slightly more than 50 per cent of the total remittances of \$275 million in 1907.¹⁰⁰ The figure for total immigrant remittances is probably too high, however, it contains two spurious elements: (1) funds taken by emigrants out of the country, of considerable importance, 1900-10, and (2) remittances used to acquire imported goods in Europe, which would already be included in commodity imports.¹⁰¹

Two additional adjustments on the series for immigrant remittances

⁹⁶ Per capita remittances were high for the countries of the "new immigration" (Austria-Hungary and Italy) and low for the "old immigration" (Germany and other Europe). This condition was opposite to that for immigrants' funds.

⁹⁷ For "other Europe," in which Great Britain and Ireland were included for 1907-08 tabulation, the figure of \$30 was employed. "Other Europe" also includes France, Spain, Holland, Poland, Belgium, and Switzerland.

⁹⁸ *Industrial Commission Reports*, Vol. 15, *Immigration*, 57th Cong., 1st sess., H. Doc. 184, Vol. 78, 1902, pp. 95, 104, 115, and 118. Prepaid sales are higher "when we have prosperous times," p. 115.

⁹⁹ *ibid.*, pp. 103-104 and 115-117.

¹⁰⁰ *Immigration Commission Reports*, Vol. 37, p. 261. For an estimate of \$250 million in 1907 for total immigrant remittances, and \$120 million through banks and \$20 million through express companies. Cf. Spears, "What did America Pay Europe for Immigrant Labor," *North American Review*, Vol. CLXXXVII, January 1908, pp. 106-116.

¹⁰¹ Bullock et al., pp. 230-233.

through banks and other intermediaries were necessary. First the data had to be converted to a fiscal year basis by averaging the figures of the two adjacent calendar years. The material on the proportion of pre-paid passages and the data showing the tremendous variations between 1907 and 1908 both attest the highly cyclical character of immigrant remittances—newly arrived immigrants being highly vulnerable as marginal workers to the vicissitudes of industrial unemployment.¹⁰² The figures for remittances through banks and other intermediaries do not make adequate provision for these short-run variations, being based on five-year moving averages and constant per capita remittances. Accordingly, the series on immigrant remittances were modified by using Frickey's series on manufacturing production, adjusted for secular trend, as a cyclical deflator for the depressions of 1873-79, 1882-85 and 1893-97.¹⁰³ The revised figures have been added to the estimates of prepaid passage outlays to construct a continuous series of total immigrant remittances for 1861-1900 (see Table 22).

EMIGRANTS' FUNDS

An often neglected but significant item in the nation's balance of international payments in the late nineteenth century is the money taken by people emigrating from the United States. The overwhelming majority were recently-arrived immigrants who either were unable to make a satisfactory economic adjustment in the United States or originally intended to stay in this country only until they could make enough money to return home.¹⁰⁴

In Table 13, a series on ocean-bound emigrants was derived as the residual element in the reported outward passenger movement for 1868-1900. The data are not complete, but fortunately Kuznets and Rubin developed statistics for underestimated emigration for the decades ending 1880, 1890, and 1900.¹⁰⁵ I distributed these figures among each of the years in their decades in accordance with the relative importance of the year's reported emigration. For 1868-70, I added 25,500 for unreported emigration. For the first seven years, 1861-67, total emigration was assumed to be 15 per cent of total immigration.¹⁰⁶ The adjusted figures show clearly the effect of cyclical fluctuations in

¹⁰² Cf. Speare, pp. 115-116.

¹⁰³ Edwin Frickey, *Production in the United States*, Harvard University Press, 1947, p. 60.

¹⁰⁴ A small number of native-born emigrants, some with considerable wealth, left the nation to settle in Europe. In addition, some U.S. citizens and returning Canadians left the United States for Canada. Penelope Hartland believes that the amount of funds taken by these groups was nominal. See her manuscript on *Canadian Balance of Payments* since 1868, cited above.

¹⁰⁵ Kuznets and Rubin, pp. 73-76.

¹⁰⁶ This relationship appears to be reasonable for the relatively prosperous years in this period.

BALANCE OF PAYMENTS

TABLE 22
Total Immigrant Remittances, 1861-1900
(persons in thousands, dollar totals in millions)

Fiscal Year	REMITTANCES THROUGH BANKS AND OTHER INTERMEDIARIES			OCEAN-BOUND IMMIGRATION					TOTAL REMITTANCES (3) + (8) (9)
	Total (1)	Cyclical Deflator (2)	Adjusted Total (1) x (2) (3)	No. Persons (4)	% Prepaid (5)	No. Prepaid (4) x (5) (6)	Steerage Fares (7)	Total Pre-payment (6) x (7) (8)	
1861	\$ 4.1		\$ 4.1	89.8	40	39.9	\$25	\$1.0	\$ 5.1
1862	3.4		3.4	88.7	40	35.5	25	0.9	4.3
1863	3.2		3.2	172.8	40	69.1	25	1.7	4.9
1864	3.2		3.2	189.8	40	75.9	25	1.9	5.1
1865	3.8		3.8	226.5	40	90.6	25	2.3	6.1
1866	5.0		5.0	286.4	45	128.9	25	3.2	8.2
1867	5.9		5.9	292.3	40	116.9	25	2.9	8.8
1868	6.4		6.4	136.1	40	54.4	25	1.4	7.8
1869	7.8		7.8	331.6	45	149.2	25	3.7	11.5
1870	9.8		9.8	346.8	45	156.1	25	3.9	13.7
1871	10.2		10.2	274.2	45	123.4	25	3.0	13.2
1872	10.7		10.7	364.5	45	164.0	25	4.1	14.8
1873	12.3		12.3	421.9	50	211.0	25	5.3	17.6
1874	12.1	93	11.3	286.3	45	128.8	20	2.6	13.9
1875	10.5	85	8.9	203.4	40	81.4	20	1.6	10.5
1876	9.9	80	8.4	147.5	35	51.6	20	1.1	9.5
1877	10.1	79	8.0	119.7	30	35.9	20	0.7	8.7
1878	9.8	80	7.8	113.2	30	34.0	20	0.7	8.5
1879	9.8	83	8.1	146.5	30	44.0	20	0.8	8.9
1880	13.2		13.2	357.5	40	143.0	20	2.9	16.1
1881	18.9		18.9	544.0	40	217.6	20	4.4	23.3
1882	24.8		24.8	690.6	45	310.8	20	6.2	31.0
1883	29.2		29.2	533.0	40	213.3	20	4.3	33.5
1884	31.0	94	29.1	458.0	40	183.2	20	3.7	32.8

continued on next page

TABLE 22 concluded

Fiscal Year	REMITTANCES THROUGH BANKS AND OTHER INTERMEDIARIES			OCEAN-BOUND IMMIGRATION					TOTAL REMITTANCES (3) + (8) (9)
	Total (1)	Cyclical Deflator (2)	Adjusted Total (1) x (2) (3)	No. Persons (4)	% Prepaid (5)	No. Prepaid (4) x (5) (6)	Steerage Fares (7)	Total Pre-payment (6) x (7) (8)	
1885	30.7	86	26.4	357.0	30	107.1	20	2.1	28.5
1886	28.7	90	25.8	334.2	40	133.7	25	3.3	29.1
1887	29.9		29.9	490.1	45	220.5	25	5.5	35.4
1888	33.0		33.0	546.9	45	246.1	25	6.2	39.2
1889	33.4		33.4	444.4	40	177.8	25	4.4	37.8
1890	34.2		34.2	455.1	40	182.0	25	4.6	38.8
1891	38.4		38.4	560.1	40	224.0	25	5.6	44.0
1892	42.0		42.0	579.7	45	260.8	25	6.5	48.5
1893	40.8	93.5	38.1	439.7	50	219.9	25	5.5	43.6
1894	37.9	82	31.1	285.4	30	85.6	25	2.1	33.2
1895	35.7	85	30.3	258.3	35	90.4	25	2.3	32.6
1896	34.4	84	28.9	343.0	30	102.9	30	3.1	32.0
1897	31.2	80	25.0	230.5	30	69.2	30	2.1	27.1
1898	27.4		27.4	228.9	35	80.1	30	2.4	29.8
1899	27.7		27.7	310.4	40	124.2	30	3.7	31.4
1900	32.3		32.3	448.2	45	201.7	30	6.1	38.4

Note: The figures in this table have been rounded after calculations were used in unrounded data for immigration and the components of immigrant remittances.

Col. 1: Obtained by calculating the means of the calendar year data obtained from Table 21, col. 10.

Col. 2: Obtained by converting Frickey's calendar year index numbers on manufacturing production, adjusted for secular trend, into fiscal year data for the depressions of 1873-79, 1884-86, and 1893-97, and using the cyclical peak as the base year (Frickey, P. 60).

Col. 4: From *Historical Statistics of the United States, 1789-1945*, pp. 33-36.

Cols. 5 and 7: Based on discussion in text and sources cited.

molding short-run variations in emigration.¹⁰⁷ Depression, which restricted opportunities for immigrants, also accentuated the outward tide of emigration.¹⁰⁸

The second and more formidable problem is to ascertain the per capita amount of funds withdrawn by emigrants. A survey by the *New York Herald* in 1892 estimated that the average Italian emigrated with \$250 and Britisher with \$300. W. H. Allen of the Advanced Labor Club of Brooklyn in testimony before the Industrial Commission in 1902 considered this figure "fair" for unskilled laborers who stayed two years. For skilled workers, he believed the corresponding figures to be \$350 and \$400, with similar amounts for Chinese who stayed ten years.¹⁰⁹ Material submitted to the Immigration Commission shows that some emigrants returning to southern Europe took sizable sums out of the United States and affected the economies of their native countries.¹¹⁰ F. L. Dingley's estimate that emigrants took \$118 million from the country in 1888-89, however, appears highly exaggerated.¹¹¹ With a per capita figure of \$250, it would imply an exodus of more than 400,000, almost three times greater than my estimate.

Against these high per capita estimates, one must evaluate the following factors. Many emigrants, especially from southern Europe, could only save limited amounts since they arrived in the spring and returned to their native land in the fall.¹¹² The official interrogation of departing aliens by the immigration authorities after 1908 shows that between 70 and 80 per cent resided in the United States for less than five years.¹¹³ It can be argued that the remaining 20 per cent would be more capable of accumulating larger sums over longer periods of time. However, the outward exodus increased during depressions after many unemployed or bankrupt emigrants had drastically reduced or depleted their resources. Finally, passenger movement statistics show that the overwhelming number of emigrants traveled as noncabin or steerage passengers, which does not suggest the possession of great means.

Without further information available, it is necessary to make an arbitrary assumption. In the series on immigrant remittances, the sum

¹⁰⁷ For comparative purposes, cf. the British series for 1870-1900 on the total number of British and Irish and foreign immigrants arriving from the United States in the British Isles (Great Britain, Board of Trade, *Parliamentary Papers*, 1888, Vol. cvii, p. 18; 1902, Vol. cvi, pp. 36-37) and the Italian series for 1887-1900 on the number of Italians returning from the United States (*Immigration Commission Reports*, Vol. 4, *Emigration Conditions in Europe*, p. 229).

¹⁰⁸ Harry Jerome, *Migration and Business Cycles*, NBER, 1926, pp. 37, 100, 103, and 149.

¹⁰⁹ *Industrial Commission Reports*, Vol. 15, pp. 161-164.

¹¹⁰ *Immigration Commission Reports*, Vol. 4, pp. 230-234.

¹¹¹ F. L. Dingley, *European Emigration*, Special Consular Report of the Bureau of Statistics, Department of State, Vol. II, Washington, 1891, p. 249.

¹¹² *Industrial Commission Reports*, Vol. 15, pp. 52-53.

¹¹³ *Annual Reports of the Superintendent of Immigration*, 1908, p. 65; 1909, p. 24; 1910, p. 22; and 1911, p. 22-23.

of \$160 was used to represent the per capita remittances for Italians and Austro-Hungarians. Average emigrants could probably take as much as, if not more than, the highest average per capita remittance and considerably more than the per capita funds brought in by newly arrived immigrants. I selected \$160 as the average amount taken by emigrants in prosperous years. In a manner similar to the adjustment performed on the series on immigrant remittances, I made provision for the impact of depressions on the per capita withdrawals by emigrants. Frickey's series on manufacturing production, adjusted for secular trend, was selected as a deflator of \$160 for the depressions of 1873-79, 1882-85, and 1893-97. The per capita series derived in this manner was then multiplied by the adjusted data on emigrants to compute the annual amount of emigrants' funds withdrawn from the nation during the years 1861-1900 (see Table 23).

PORT OUTLAYS OF FOREIGN PASSENGER STEAMSHIP LINES

The outlays made by foreign passenger steamships in U.S. ports reduced the extent of U.S. indebtedness on tourist account.¹¹⁴ From the 1860's, foreign steamships played a dominant role both in the inward and the outward passenger movement.¹¹⁵ The *Journal of Commerce* estimated that \$6,600,000, or \$11,000 per vessel, represented the disbursements made by foreign steamships in U.S. ports.¹¹⁶

The data are thus fragmentary. Annual statistics on the number of foreign passenger ships arriving in U.S. ports for many years and additional information on their monetary outlays are not available. Under the circumstances, I arbitrarily assumed that the magnitude of the inward passenger movement is a good indicator of the number of foreign passenger ships in U.S. ports. The *Journal of Commerce* estimate of \$6,600,000, with 1887-94 as the base years, has been used to compute annual figures. The ratio of the inward passenger movement to that of the base years was applied to the \$6,600,000 to obtain a continuous series of port outlays of foreign passenger lines (see Table 24).

The Financial Account and the Balance of Payments

Among the important elements in the current account of the nation's international economic transactions are bankers' commissions and interest and dividend payments, which are calculated on a net basis and appear directly on the debit side of the balance of international payments. Most of the commissions earned by foreign bankers related to

¹¹⁴ See the remarks of F. E. Peabody in the *Banker's Magazine of New York*, Vol. 1, March 1895, pp. 537-546.

¹¹⁵ See the *Annual Reports of the Commissioner of Emigration of New York* for partial data on the number of foreign steamers.

¹¹⁶ The *Commercial Yearbook*, Vol. 1, 1896, pp. 225-231.

TABLE 23
Total Funds Taken by Departing Emigrants, 1861-1900
 (persons in thousands, dollar total in millions)

<i>Fiscal Year</i>	EMIGRANTS			PER CAPITA FUNDS TAKEN (4)	TOTAL FUNDS TAKEN (3) × (5) (5)
	<i>No. Reported</i> (1)	<i>No. Unreported</i> (2)	<i>Total</i> (1) + (2) (3)		
1861			13.8	\$160	\$2.2
1862			13.8	160	2.2
1863			26.4	160	4.2
1864			29.0	160	4.6
1865			37.2	160	6.0
1866			47.8	160	7.6
1867			47.4	160	7.6
1868	22.2	6.0	28.1	160	4.5
1869	36.8	9.9	46.8	160	7.5
1870	35.4	9.0	44.5	160	7.1
1871	26.2	4.2	30.4	160	4.9
1872	23.0	3.7	26.7	160	4.3
1873	53.7	8.6	62.3	149	9.3
1874	71.3	6.1	77.4	136	10.5
1875	90.2	14.4	104.6	128	13.4
1876	65.4	5.6	71.0	126	8.9
1877	72.2	6.1	78.3	128	10.0
1878	61.7	5.2	67.0	133	8.9
1879	34.5	5.5	40.0	160	6.4
1880	35.4	5.6	41.0	160	6.6
1881	43.2	3.5	46.7	160	7.5
1882	63.3	7.8	71.1	160	11.4
1883	60.4	7.4	67.8	160	10.8
1884	59.4	7.3	66.7	150	10.0
1885	95.5	11.7	107.2	138	14.8
1886	79.4	9.8	89.2	144	12.9
1887	67.2	8.3	75.5	160	12.1
1888	77.4	9.6	87.0	160	13.9
1889	136.9	16.9	153.8	160	24.6
1890	127.8	15.8	143.6	160	23.0
1891	138.7	12.6	151.3	160	24.2
1892	143.9	13.2	157.4	160	25.1
1893	101.3	9.2	110.6	150	16.6
1894	213.8	19.6	233.4	131	30.6
1895	210.6	19.2	229.8	136	31.3
1896	177.6	16.2	193.8	134	26.0
1897	144.7	13.2	157.9	128	20.2
1898	112.5	11.2	123.7	160	19.8
1899	140.0	12.7	152.7	160	24.4
1900	149.4	13.6	162.9	160	26.1

Col. 1: From Table 13, col. 6.

Col. 2: Based on discussion in the text and on figures from Kuznets and Rubin, pp. 73-76.

Col. 3: For 1861-67, emigration was assumed to be 15 per cent of immigration.

Col. 4: Based on discussion in text and on figures from an index of manufacturing production adjusted for secular trends (Frickey, p. 60) as a cyclical deflator for 1873-78, 1884-86, and 1893-97.

TABLE 24
Outlays of Foreign Passenger Steamships in United States Ports, 1861-1900
(dollar figures in millions)

<i>Fiscal Year</i>	INWARD PASSENGER MOVEMENT		FOREIGN PASSENGER STEAMSHIPS PORT OUTLAYS (3)
	<i>Number</i> (1)	<i>Index</i> (1887-94 = 100) (2)	
1861	112,604	24.1	\$1.6
1862	114,301	18.8	1.2
1863	199,743	26.0	1.7
1864	221,531	34.9	2.3
1865	287,390	42.1	2.8
1866	185,892	39.2	2.6
1867	342,162	56.6	3.7
1868	328,148	54.3	3.6
1869	386,071	63.9	4.2
1870	436,785	72.3	4.8
1871	386,271	63.9	4.2
1872	472,034	78.1	5.2
1873	520,885	86.2	5.7
1874	375,679	62.2	4.1
1875	295,530	48.9	3.2
1876	237,991	39.4	2.6
1877	206,503	34.2	2.3
1878	199,447	33.0	2.2
1879	253,210	41.9	2.8
1880	534,465	88.5	5.8
1881	743,712	123.1	8.1
1882	869,144	143.9	9.5
1883	712,515	117.9	7.8
1884	649,491	107.5	7.1
1885	535,009	88.6	5.8
1886	444,303	73.5	4.9
1887	605,385	100.2	6.6
1888	663,039	109.8	7.2
1889	546,513	90.5	6.0
1890	564,442	93.4	6.2
1891	668,236	110.6	7.3
1892	736,660	121.9	8.0
1893	634,354	105.0	6.9
1894	414,070	68.5	4.5
1895	401,822	66.5	4.4
1896	382,514	63.3	4.2
1897	363,206	60.1	4.0
1898	343,897	56.9	3.8
1899	429,796	71.1	4.7
1900	594,478	98.4	6.5

Col. 1: From the *Statistical Abstract of the United States, 1890*, p. 214, and *1902*, pp. 433-434.

Col. 2: Represent the data in col. 1 converted into index numbers with the 1887-94 = 100. The data for 1860-65 were on a calendar year basis; with the figure of the first six months 1866 they were converted to a fiscal basis.

Col. 3: Obtained by multiplying the *Journal of Commerce* estimate of \$6.6 million as the average for fiscal 1887-94 by the data in col. 2.

TABLE 25
Net Bankers' Commissions Paid to Foreign Bankers, 1861-1900
(millions of dollars)

<i>Fiscal Year</i>	IMPORTED GOODS		EXPORTED GOODS		TOTAL BANKERS' COMMISSIONS (5)
	<i>Cost</i> (1)	<i>Bankers' Commissions</i> (2)	<i>Value</i> (3)	<i>Bankers' Commissions</i> (4)	
1861	311.9	1.6	265.4	0.1	1.8
1862	206.0	1.0	223.8	0.1	1.2
1863	268.2	1.3	232.0	0.1	1.6
1864	350.7	1.8	175.8	0.1	2.0
1865	262.9	1.3	186.0	0.1	1.6
1866	477.8	2.4	382.7	0.1	2.6
1867	439.0	2.2	324.4	0.1	2.4
1868	391.4	2.0	320.1	0.1	2.2
1869	455.4	2.3	320.7	0.1	2.5
1870	472.1	2.4	433.7	0.1	2.6
1871	562.5	2.8	488.0	0.1	3.0
1872	683.8	3.4	479.5	0.1	3.6
1873	701.2	3.5	572.3	0.1	3.7
1874	619.0	3.1	629.4	0.2	3.4
1875	578.5	2.9	556.6	0.1	3.1
1876	495.1	2.5	581.3	0.1	2.7
1877	484.2	2.4	642.4	0.2	2.7
1878	467.1	2.3	734.2	0.2	2.6
1879	476.9	2.4	744.8	0.2	2.7
1880	715.4	3.6	864.7	0.2	3.9
1881	688.1	3.4	930.4	0.2	3.7
1882	777.0	3.9	776.7	0.2	4.2
1883	776.5	3.9	851.9	0.2	4.2
1884	754.5	3.8	761.3	0.2	4.1
1885	652.8	3.3	763.2	0.2	3.6
1886	718.7	3.6	703.9	0.2	3.9
1887	781.6	3.9	740.5	0.2	4.2
1888	818.0	4.1	722.4	0.2	4.4
1889	841.0	4.2	770.4	0.2	4.5
1890	889.6	4.4	889.1	0.2	4.7
1891	896.8	4.5	918.3	0.2	4.8
1892	871.1	4.4	1,059.1	0.3	4.8
1893	909.5	4.5	868.8	0.2	4.8
1894	689.0	3.4	898.6	0.2	3.7
1895	773.4	3.9	813.4	0.2	4.2
1896	820.4	4.1	889.7	0.2	4.4
1897	808.4	4.0	1,059.8	0.3	4.4
1898	651.2	3.3	1,239.9	0.3	3.7
1899	735.1	3.7	1,234.9	0.3	4.1
1900	894.6	4.5	1,403.8	0.4	5.0

Col. 1: Obtained by adding Table 5, col. 5; Table 7, col. 6; and Table 10, col. 7.
Col. 2: Obtained by multiplying col. 1 by $\frac{1}{2}$ per cent.
Col. 3: Obtained by adding Table 3, col. 9; Table 6, col. 8; and Table 11, col. 7.
Col. 4: Obtained by multiplying col. 3 by $\frac{1}{40}$ per cent.
Col. 5: Obtained by adding cols. 2 and 4 and an additional \$100,000 as commissions on other invisible transactions not directly related to the shipment of goods.

financing the movements of goods into and out of the United States. The special character of their function in performing these operations and in handling foreign exchange for invisible transactions justifies their treatment in this section rather than under the shipping account.

BANKERS' COMMISSIONS

Commissions charged by foreign (especially London) correspondent bankers to U.S. bankers for the services rendered in handling foreign exchange have received casual attention.¹¹⁷ The failure of a dollar exchange market to develop under the National Banking System produced a situation in which the great bulk of the nation's international transactions were conducted in sterling and other foreign currencies. Most of the commissions earned by British and other foreign bankers related to financing the flow of goods into the United States. It was customary for British and other foreign exporters to draw sterling bills on British banks, which authorized them through the issuance of commercial letters of credit. For this accommodation the U.S. importer paid his own banker a commission. The latter arranged with British correspondents for the commercial letter of credit, for which, in turn, a commission was paid. In the calculations that follow, I assumed that the typical bill of exchange was a bill for ninety days for financing total shipping costs including goods, ocean freight, and marine insurance charges, and that the commission for the acceptance of bills drawn under commercial letters of credit was $\frac{1}{16}$ per cent per month, or a total of $\frac{3}{16}$ per cent. In addition, the British banks imposed a charge for confirming the commercial letter of credit. In all, it seems reasonable to assume that the total commission represented $\frac{1}{2}$ per cent of the full value of goods imported.¹¹⁸

The foreign bankers collected compensation for rendering other services. Nominal charges, as low as $\frac{1}{40}$ per cent, were imposed for processing trade bills and documents issued by U.S. exporters and procuring the drawee's acceptance. I applied this low percentage to the full value of U.S. exports, including freight and marine insurance

¹¹⁷ Imlah's treatment of British bankers' commissions suffers from several limitations. It is estimated, following Giffen's lead, along with marine insurance as a flat or fluctuating percentage of British exports and imports. This procedure presupposes: (1) all British imports and exports were insured by British companies, (2) British companies did not insure goods moving between two foreign nations; (3) bankers' commissions on imports and exports were set at the same rate; (4) no bankers' commissions were imposed on invisible current and capital transactions; (5) in the forty years preceding 1914, no bankers' commissions were earned in financing goods moving between two foreign nations. Cf. Imlah, *op. cit.*, pp. 213-214.

¹¹⁸ On the validity of these assumptions for pre-1914 calculations and alternative arrangements existing between American and foreign bankers, cf. Albert C. Whitaker, *Foreign Exchange*, D. Appleton and Company, 1922, pp. 134-135, 180-189, and 202-207; Edgar S. Furniss, *Foreign Exchange*, Houghton, Mifflin, 1922, pp. 321-324; and Anthony W. Margraff, *International Exchange*, 2nd ed., National Life Building, 1904, pp. 109-110.

BALANCE OF PAYMENTS

receipts, to calculate such commissions. Finally, moderate fees were imposed for cashing drafts under traveler's credits, immigrant remittances, security purchases, and so forth, for which a minimum of \$100,000 a year seems reasonable. The total commissions of foreign bankers were computed by summing these values and a series was derived for the entire forty years (see Table 25).

NET INTEREST AND DIVIDEND PAYMENTS AND INTERNATIONAL CAPITAL MOVEMENTS

The culminating phase of the residual method of balance of payments estimation was the derivation of three series: net interest and dividend payments, net international capital movements, and the accumulating balance of indebtedness of the United States. This required arbitrary assumptions in the solution of formidable statistical and conceptual problems relating to two types of data.

The first problem entailed the selection of a "stock" estimate that would be representative of the nation's accumulating balance of indebtedness at any point within the period July 1, 1860 to July 1, 1900. Since the United States was a debtor nation, the accumulating balance of indebtedness can be calculated by subtracting the value of all foreign assets held by U.S. citizens from the value of U.S. assets held by foreigners. It must be emphasized that the three series derived in this section are *net* figures. Contemporaries attempted to develop partial or complete estimates of the nation's balance of international indebtedness, but aside from other limitations, they reflect the subjective judgments of informed observers who were unable to keep under continuous survey all of the items involved in an accurate assessment of the total international financial position of the United States.

Fortunately, another type of "stock" estimate is now available. As part of the cooperative effort involved in the development of a new set of annual balance of payment statistics extending from 1790 to 1900, Douglass North derived through the use of the residual method a final figure of \$379,200,000 for July 1, 1860 as representative of the accumulating balance of indebtedness of the United States. This figure is employed in the ensuing calculations.

The second step was the determination of the average rate of return to be applied in the series for net interest and dividend payments. In view of the preponderance of U.S. government bonds and railroad bonds and shares in the assets held by foreigners, it seemed desirable to calculate an annual average rate of return for each category and weight it according to its relative importance.¹¹⁹ The weights were developed

¹¹⁹ In these calculations, no direct use was made of rates of return on state and canal securities, investments in agricultural property, urban real estate, mining, insurance companies, and industrial activities such as breweries, flour mills, and textile mills, and bank

from direct estimates prepared by contemporaries, including the British and American financial press.¹²⁰ Although the data are fragmentary, it was possible for the period before 1880 to chart the decline in the relative importance of U.S. government bonds and the rise of railroad securities. After 1880, the estimate of Thomas Skinner of the London Stock Exchange in early 1888 of the amount and the form of American railroad securities held in Great Britain was used to determine the proportions in the years immediately preceding and following.¹²¹ Data on the average rates of return on these three components were assembled and weights applied to derive a series of annual average rates of return as presented in Table 26 (col. 11).¹²²

The series indicates the average yield on the total value of these securities held in the United States and abroad. For a given year, it does not accurately represent the effective rate of return received by foreign investors, because the composition of foreign-owned U.S. assets and the rates of return at which they were acquired diverged substantially from prevailing yields. For developing an interest and dividend series, the acquisition rate of return is of crucial significance.¹²³ Similarly, in depressions, the incidence of defaults on interest payments on bonds may be spread unevenly between foreign and domestic investors.

I adjusted the series to reflect these considerations. The most serious discrepancies between the calculated and adjusted rates of return prevailed in 1863-73. When the gold premium soared to great heights during the Civil War, European investors were able to purchase large quantities of government and other securities at substantial discounts.¹²⁴ After 1878, it was found that the calculation of annual averages was generally too low. The lists of U.S. railroad bonds quoted on the London Stock Exchange by the *Economist* and of other sources indicate that the average rates of interest on bonds in the portfolios of foreign investors were appreciably higher than those presented in column 11 of Table 26. Many of the securities were acquired before 1875, when the railroad loans negotiated abroad reflected the higher rates prevailing in European money markets. This factor does not apply to stock on which the average rate of return was as low, if not lower, than the dividend rate on

balances held by foreigners or of the earnings of U.S.-held direct and portfolio foreign investments and short-term indebtedness, which rose substantially in the late nineteenth century.

¹²⁰ For a list of these direct estimates, see the Appendix to my dissertation.

¹²¹ *Economist*, Vol. XLVI, January 7, 1888, p. 70.

¹²² The sources used are indicated at the bottom of Table 26.

¹²³ For each year, one must estimate a "marginal acquisition rate" on securities and assets purchased or sold. This rate, weighted in accordance with the relative importance of the transactions, can be used to alter the average prevailing yields on foreign-owned assets.

¹²⁴ Graham's series on net interest and dividend payments suffers from neglect of this factor. His estimates are considerably lower than those of contemporaries as well as those of the present series.

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TABLE 26
Average Rates of Return on United States Portfolio Investments Held Abroad, 1861-1900
(per cent)

Fiscal Year	GOVERNMENT BONDS			RAILROAD BONDS			RAILROAD SHARES			AVERAGE RATE OF RETURN	
	% of Total (1)	Average Rate of Interest (2)	Total (1) x (3) (3)	Total (4)	Average Rate of Interest (5)	Total (4) x (5) (6)	% of Total (7)	Average Dividend (8)	Total (7) x (8) (9)	[(3)+(6)+(9)] ÷ 100 (10)	Adjusted (11)
1861	40	6	240	50	7	350	10	8	80	6.9	6.2
1862	50	6	300	40	7	280	10	8	80	6.7	6.2
1863	60	6	360	30	7	210	10	8	80	6.5	6.4
1864	70	6	420	20	7	140	10	8	80	6.4	6.9
1865	80	6	480	10	7	70	10	8	80	6.3	7.4
1866	80	6	480	10	7	70	10	8	80	6.3	7.6
1867	80	6	480	10	7	70	10	8	80	6.3	7.5
1868	80	6	480	10	7	70	10	8	80	6.3	7.3
1869	80	6	480	10	7	70	10	8	80	6.3	7.0
1870	75	6	450	14	7	98	11	8	88	6.4	6.9
1871	69	6	414	19	7	133	12	8	96	6.4	6.7
1872	63	5.9	372	24	7	168	13	8	104	6.4	6.4
1873	57	5.8	331	29	7	203	14	8	112	6.5	6.2
1874	50	5.7	285	35	5.5	193	15	6	90	5.7	5.7
1875	45	5.6	252	40	4.0	160	15	5	75	4.9	5.3
1876	40	5.5	220	45	2.5	113	15	4	60	3.9	4.9
1877	35	5.3	186	50	4.43	222	15	3	45	4.5	4.4
1878	30	5.1	153	55	4.67	257	15	2.44	37	4.5	4.0
1879	25	5.0	125	60	4	240	25	2.48	61	4.3	4.5
1880	15	4.8	72	60	4.37	262	35	2.71	94	4.3	5.0
1881	5	4.6	23	55	4.37	240	35	2.90	101	3.6	5.5
1882				65	4.60	299	35	2.93	103	4.0	5.4
1883				65	4.74	308	35	2.83	99	4.1	5.3
1884				65	4.70	306	35	2.62	92	4.0	5.2
1885				65	4.71	306	35	2.25	79	3.9	4.7
1886				60	4.76	286	40	2.03	81	3.7	5.0

continued on next page

TABLE 26 concluded

Fiscal Year	GOVERNMENT BONDS			RAILROAD BONDS			RAILROAD SHARES			AVERAGE RATE OF RETURN	
	% Total (1)	Average Rate of Interest (2)	Total (3)	Average Rate of Interest (5)	Total (6)	% of Total (7)	Average Dividend (8)	Total (9)	[(3)+(6)+(9)] ÷ 100 (10)	Adjusted (11)	
1887			55	4.73	260	45	2.11	95	3.6	4.9	
1888			60	4.53	272	40	1.98	79	3.5	4.8	
1889			62	4.38	272	38	1.93	73	3.5	4.7	
1890			64	4.34	278	36	1.97	71	3.5	4.6	
1891			68	4.26	281	34	2.05	70	3.5	4.6	
1892			70	4.25	289	32	2.11	68	3.6	4.7	
1893			70	4.27	299	30	2.16	65	3.6	4.5	
1894			70	4.21	295	30	1.98	59	3.5	3.5	
1895			70	4.18	293	30	1.72	52	3.5	4.0	
1896			70	4.36	305	30	1.68	51	3.6	3.7	
1897			70	4.36	305	30	1.62	49	3.6	3.8	
1898			70	4.22	295	30	1.59	48	3.3	4.0	
1899			70	4.23	296	30	1.79	54	3.5	4.1	
1900			70	4.24	297	30	2.16	65	3.6	4.1	

Cols. 1, 4, and 7: Obtained from data in the appendix of my dissertation and from assumptions made concerning annual changes based on a reading of the contemporary financial press.

Col. 2: A rough approximation based on a study of the new issues and funding operations of the U.S. government, 1861-80, by Rafael B. Bayley, the *National Loans of the United States from July 4, 1876 to June 30, 1880* (Tenth Census of the United States, Statistics of Public Indebtedness, Washington, Government Printing Office, 1882), pp. 444-467, 474-478.

Col. 5: 1861-73—From the London Stock Exchange Lists in the *Economist*, 1876—From the *Banker's Magazine of New York*, Vol. 31, August, 1876, pp. 841-846, estimate of 65 per cent of railroads in default. 1874 and 1875—By interpolation. 1877 and 1878—The mean of the calendar year data from Poor's *Manual of Railroads* (New York, H. V. and H. W. Poor) 1895, pp. v, vii, 1898, p. xiii, 1902, p. xvi.

Col. 8: 1861-73—From the London Stock Exchange Lists of the *Economist*, 1890, 1891, and 1892-93—Poor's *Handbook of Investment Securities*, passim. 1877-87—From Poor's *Manual of Railroads*, 1895, pp. v, vii. 1888-97—From the Interstate Commerce Commission *Annual Reports on the Statistics of Railways in the United States*, Vol. ix, 1896, pp. 49-52; Vol. x, 1897, pp. 50-53. 1898-1900—From Poor's *Manual of Railroads*, 1902, p. xvi.

Col. 12: Based on discussion in text and the following sources: The London Stock Exchange Lists of the *Economist*; Frederick R. MacCaulay, *Some Theoretical Problems Suggested by the Movement of Interest Rates, Bond Yields and Stock Prices in the United States since 1856*, NBER, 1938, Table 1, A5-A20; Henry W. Swain, American Economic Association, *Economic Studies*, Macmillan, April 1898, pp. 70-71.

all U.S. shares.¹²⁵ The latter feature would be more than offset by the higher average yield prevailing on other forms of investment in industry, mining, real estate, and so forth, before 1893. As late as 1895, the *Journal of Commerce* selected $4\frac{1}{2}$ per cent as the average rate of return on all foreign-owned U.S. assets for the preceding seven years.¹²⁶ Bullock and his associates concluded that the average yield varied from 6 per cent to 4 per cent with a declining trend, 1874–95.¹²⁷ Consequently changes were made in the computed yield series (see Table 26, col. 12).

This adjusted series was then applied to the accumulating balance of indebtedness existing at the beginning of each fiscal year to obtain annual figures for net interest and dividend payments, international capital movements, and the accumulating balance of indebtedness. The average rate of return prevailing in fiscal 1861 was applied to North's figure of \$379,200,000 for the nation's net foreign indebtedness as of July 1, 1860. The resulting value for net interest and dividend payments was added to the other transactions, invisible and visible, on current account, which sum provided an estimate for the balance of payments on current account (see Table 27, line 27). The net international capital movements for fiscal 1861 were then computed as a residual item and added to the accumulating balance of indebtedness prevailing at the beginning of the year to obtain a figure for this category as of June 30, 1861 (see Table 27, lines 30 and 31), a process repeated for each later year.

The full statement of the U.S. balance of international payments for fiscal 1861–1900 is presented in Table 27.

Evaluation

The annual estimates of the visible and invisible items in the balance of international payments, 1861–1900, owing to limitations in the data and the arbitrariness of the assumptions, contain varying margins of error. Nevertheless, the techniques employed appear superior to the three alternatives of omitting items, combining heterogeneous items in a miscellaneous category, or of assuming that two or more items offset one another.

DIRECT ESTIMATES OF NET INDEBTEDNESS

Aside from their fragmentary and subjective character, the use of direct estimates of contemporaries in the derivation of balance of payments statistics raises important problems. Considerable fluctuations occurred in the market prices of U.S. securities and the value of other

¹²⁵ See the statement of Mr. Joseph Price of the English Association of American Bond and Shareholders on January 4, 1888, in the *Statist*, Vol. XXI, January 7, 1888, pp. 12–13.

¹²⁶ *Commercial Yearbook*, Vol. I, 1896, p. 226.

¹²⁷ Bullock et al., p. 226.

U. S. BALANCE OF PAYMENTS, 1861-1900

 TABLE 27
 The Balance of International Payments of the United States, 1861-1900
 (millions of dollars)

	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870
1. Merchandise exports	228.5	203.6	210.6	167.4	174.5	357.8	304.2	297.5	303.1	412.3
2. Sale of ships	1.3	5.8	11.1	15.0	16.7	1.3	0.6	0.9	1.2	1.1
3. Merchandise imports	298.0	195.0	250.6	325.9	245.9	447.9	407.7	368.2	430.0	449.0
4. <i>Balance of trade</i>	-68.2	+14.4	-28.9	-143.5	-64.7	-88.8	-102.9	-69.8	-125.7	-35.6
5. Ocean freight income	25.4	13.0	11.4	4.9	7.6	16.3	13.0	15.1	11.5	13.8
6. Carrying freight income	6.4	3.3	2.8	1.2	1.9	4.1	3.3	3.8	2.9	3.5
7. Port outlays of foreign merchant marine	2.7	2.0	2.7	5.3	3.6	6.3	7.0	5.1	5.5	5.0
8. Marine insurance income	5.2	3.9	7.0	2.2	2.0	4.6	3.9	3.8	3.2	4.1
9. Total shipping income	39.7	22.2	23.9	13.6	15.1	31.3	27.2	27.8	23.1	26.4
10. Ocean freight payments	9.8	7.4	9.8	19.4	13.2	22.6	24.8	17.9	19.2	17.5
11. Port outlays of U.S. merchant marine	7.3	3.8	3.3	1.4	2.2	4.7	3.8	4.3	3.3	4.0
12. Marine insurance payments	4.1	3.6	7.8	5.4	3.8	7.3	6.5	5.3	6.2	6.4
13. Total shipping payments	21.2	14.8	20.9	26.2	19.2	34.6	35.1	27.5	28.8	27.9
14. <i>Shipping balance</i>	+18.5	+7.4	+3.0	-12.6	-4.1	-3.3	-7.9	+0.3	-5.7	-1.5
15. Foreign tourist expenditures	0.7	0.7	0.7	0.4	0.4	1.4	1.3	1.7	2.4	3.4
16. Immigrants' funds	6.5	6.7	11.8	13.1	17.3	11.7	20.2	16.2	19.7	21.3
17. Port outlays of foreign passenger steamships	1.6	1.2	1.7	2.3	2.8	2.6	3.7	3.6	4.2	4.8
18. Total passenger receipts	8.8	8.6	14.2	15.8	20.5	15.7	25.2	21.5	26.3	29.5
19. U.S. tourist expenditures	15.2	14.1	14.9	16.8	21.8	24.5	25.4	26.0	17.3	22.0
20. Immigrants' remittances	5.1	4.3	4.9	5.1	6.1	8.2	8.8	7.8	11.5	13.7

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BALANCE OF PAYMENTS

TABLE 27 continued

	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870
21. Emigrants' funds	2.2	2.2	4.2	4.6	6.0	7.6	7.6	4.5	4.5	7.1
22. Total passenger payments	22.5	20.6	24.0	26.5	33.9	40.3	41.8	38.3	33.3	42.8
23. <i>Passenger balance</i>	-13.7	-12.0	-9.8	-10.7	-13.4	-24.6	-16.6	-16.8	-7.0	-13.3
24. Net bankers' commissions	-1.8	-1.2	-1.5	-2.0	-1.5	-2.6	-2.4	-2.2	-2.5	-2.6
25. Net interest and dividends	-23.5	-30.0	-30.9	-34.2	-44.8	-51.3	-57.7	-66.8	-69.1	-79.8
26. <i>Financial balance</i>	-25.3	-31.2	-32.4	-36.2	-46.3	-53.9	-60.1	-69.0	-71.6	-82.4
27. <i>Balance of payments on current account</i>	-88.7	-21.4	-68.1	-203.0	-128.5	-170.6	-187.5	-155.3	-210.0	-132.8
28. Net gold movements	-14.0	+23.6	+57.6	+89.6	+53.8	+63.9	+25.1	+66.7	+25.3	+23.2
29. Net silver movements	-1.7	-1.1	-2.1	+2.8	+6.0	+12.3	+16.8	+15.9	+15.5	+10.2
30. Net international capital movements	+104.4	-1.1	+12.6	+110.6	+68.7	+94.4	+145.6	+72.7	+169.2	+99.4
31. <i>Net accumulating balance of indebtedness</i>	483.6	482.5	495.1	605.7	674.4	768.8	914.4	987.1	1,156.3	1,255.7
1. Merchandise exports	464.3	457.9	544.6	606.8	536.8	559.5	622.3	712.3	728.5	851.1
2. Sale of ships	0.9	1.3	1.9	5.0	1.7	2.2	1.6	2.9	2.6	1.6
3. Merchandise imports	535.8	648.5	661.4	584.4	549.0	470.0	460.3	445.8	454.7	681.3
4. <i>Balance of trade</i>	-70.6	-189.3	-114.9	+26.6	-10.5	+91.7	+163.6	+269.4	+276.4	+171.4
5. Ocean freight income	15.8	14.4	19.3	15.8	13.3	14.6	13.4	15.0	11.1	9.3

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U. S. BALANCE OF PAYMENTS, 1861-1900

TABLE 27 continued.

	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880
6. Carrying freight income	3.9	3.6	4.8	4.0	3.3	3.7	3.3	3.8	2.8	2.3
7. Port outlays of foreign merchant marine	5.4	7.5	8.7	7.5	6.3	5.4	4.9	4.6	4.8	7.4
8. Marine insurance income	4.0	3.5	3.6	3.6	3.2	3.5	3.4	3.1	2.4	2.0
9. Total shipping income	29.1	29.0	36.4	30.9	26.1	27.2	25.0	26.5	21.1	21.0
10. Ocean freight payments	19.1	26.1	30.1	26.3	21.7	18.6	17.2	15.7	16.7	25.1
11. Port outlays of U. S. merchant marine	4.5	4.2	5.6	4.7	4.0	4.3	4.0	4.4	3.3	2.8
12. Marine insurance payments	7.6	9.2	9.7	8.3	7.8	6.5	6.7	5.6	5.5	9.0
13. Total shipping payments	31.2	39.5	45.4	39.3	33.5	29.4	27.9	25.7	25.5	36.9
14. <i>Shipping balance</i>	-2.1	-10.5	-9.0	-8.4	-7.4	-2.2	-2.9	+0.8	-4.4	-15.9
15. Foreign tourist expenditures	6.0	4.4	2.1	2.8	2.9	3.8	2.6	3.9	4.8	6.8
16. Immigrants' funds	18.0	22.6	24.8	13.5	9.6	7.1	6.0	6.0	7.6	18.6
17. Port outlays of foreign passenger steamships	4.2	5.2	5.7	4.1	3.2	2.6	2.3	2.2	2.8	5.8
18. Total passenger receipts	28.2	32.2	32.6	20.4	15.7	13.5	10.9	12.1	15.2	31.2
19. U. S. tourist expenditures	28.4	31.8	25.0	29.5	30.2	28.7	22.8	28.5	36.0	35.1
20. Immigrants' remittances	13.2	14.8	17.6	13.9	10.5	9.5	8.7	8.5	8.9	16.1
21. Emigrants' funds	4.9	4.3	9.3	10.5	13.4	8.9	10.0	8.9	6.4	6.6
22. Total passenger payments	46.5	50.9	51.9	53.9	54.1	47.1	41.5	45.9	51.3	57.8
23. <i>Passenger balance</i>	-18.3	-18.7	-19.3	-33.5	-38.4	-33.6	-30.6	-33.8	-36.1	-26.6
24. Net bankers' commissions	-3.0	-3.6	-3.7	-3.4	-3.1	-2.7	-2.7	-2.6	-2.7	-3.9
25. Net interest and dividends	-84.1	-86.8	-99.2	-101.6	-98.8	-95.6	-85.9	-75.8	-78.0	-78.7
26. <i>Financial balance</i>	-87.1	-90.4	-102.9	-105.0	-101.9	-98.3	-88.6	-78.4	-80.7	-82.6

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BALANCE OF PAYMENTS

TABLE 27 continued

	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880
27. <i>Balance of payments on current account</i>	-178.1	-308.9	-246.1	-120.3	-158.2	-42.4	+41.5	+158.0	+155.2	+46.3
28. Net gold movements	+59.8	+40.8	+36.2	+14.5	+53.4	+23.2	+0.8	-4.1	-0.7	-76.9
29. Net silver movements	+17.4	+25.3	+27.0	+23.6	+17.9	+17.4	+15.0	+8.0	+5.7	+1.2
30. Net international capital movements	+100.9	+242.8	+182.9	+82.2	+86.9	+1.8	-57.3	-161.9	-160.2	+29.4
31. <i>Net accumulating balance of indebtedness</i>	1,356.6	1,599.4	1,782.3	1,864.5	1,951.4	1,953.2	1,895.9	1,734.0	1,573.8	1,603.2
	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
1. Merchandise exports	917.7	766.7	841.7	752.6	755.9	696.7	734.3	716.7	762.7	881.6
2. Sale of ships	1.7	1.1	2.2	1.6	1.0	1.2	0.9	0.4	0.5	0.7
3. Merchandise imports	655.5	739.1	737.6	715.1	618.5	680.6	741.5	775.4	798.0	845.4
4. <i>Balance of trade</i>	+263.9	+28.7	+106.3	+39.1	+138.4	+17.3	-6.3	-58.3	-34.8	+36.9
5. Ocean freight income	8.4	6.6	6.7	5.5	4.7	4.6	3.9	3.5	5.1	5.0
6. Carrying freight income	2.1	1.7	1.7	1.4	1.2	1.2	1.0	0.9	1.3	1.3
7. Port outlays of foreign merchant marine	7.2	8.4	8.8	8.9	7.8	8.7	99.1	9.9	10.2	10.5
8. Marine insurance income	2.2	1.7	1.9	1.9	1.5	1.4	1.3	1.1	1.4	1.3
9. Total shipping income	19.9	18.4	19.1	17.7	15.2	15.9	15.3	15.4	18.0	18.1
10. Ocean freight payments	24.1	28.0	29.3	29.7	26.1	29.0	30.2	32.8	33.2	34.1
11. Port outlays of U.S. merchant marine	2.5	2.0	2.0	1.7	1.4	1.4	1.2	1.1	1.6	1.6
12. Marine insurance payments	8.5	9.9	9.6	9.7	8.2	9.1	9.9	9.8	9.8	10.1

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U. S. BALANCE OF PAYMENTS, 1861-1900

TABLE 27 continued

	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
13. Total shipping payments	35.1	39.9	40.9	41.1	35.7	39.5	41.3	43.7	44.6	45.8
14. <i>Shipping balance</i>	-15.2	-21.5	-21.8	-23.4	-20.5	-23.6	-26.0	-28.3	-26.6	-27.7
15. Foreign tourist expenditures	6.4	7.0	13.2	15.3	17.3	15.2	13.9	13.8	14.2	14.7
16. Immigrants' funds	25.9	29.8	22.5	19.3	16.5	14.0	19.9	22.7	18.1	17.2
17. Port outlays of foreign passenger steamships	8.1	9.5	7.8	7.1	5.8	4.9	6.6	7.2	6.0	6.2
18. Total passenger receipts	40.4	46.3	43.5	41.7	39.6	34.1	40.4	43.7	38.3	38.1
19. U. S. tourist expenditures	34.4	38.9	45.4	56.0	57.6	59.5	64.8	66.7	61.7	67.6
20. Immigrants' remittances	23.3	31.0	33.5	32.8	28.5	29.1	35.4	39.2	37.8	38.8
21. Emigrants' funds	7.5	11.4	10.8	10.0	14.8	12.9	12.1	13.9	24.6	23.0
22. Total passenger payments	65.2	81.3	89.7	98.8	100.9	101.5	112.3	119.8	124.1	129.4
23. <i>Passenger balance</i>	-24.8	-35.0	-46.2	-57.1	-61.3	-67.4	-71.9	-76.1	-85.8	-91.3
24. Net bankers' commissions	-3.7	-4.2	-4.2	-4.1	-3.6	-3.9	-4.2	-4.4	-4.5	-4.7
25. Net interest and dividends	-88.2	-84.4	-88.6	-89.6	-85.9	-93.1	-97.9	-106.9	-118.1	-124.8
26. <i>Financial balance</i>	-91.9	-88.6	-92.8	-93.7	-89.5	-97.0	-102.1	-111.3	-122.6	-129.5
27. <i>Balance of payments on current account</i>	+132.0	-116.4	-54.5	-135.1	-32.9	-170.7	-206.3	-274.0	-269.8	-211.6
28. Net gold movements	-97.5	-1.8	-6.1	+18.3	-17.2	+23.1	-32.9	-23.6	+50.2	+5.2
29. Net silver movements	+6.3	+8.7	+9.5	+11.5	+17.2	+11.7	+9.0	+12.6	+18.0	+13.8
30. Net international capital movements	-40.8	+109.5	+51.1	+105.3	+32.9	+135.9	+230.2	+285.0	+201.6	+192.6
31. <i>Net accumulating balance of indebtedness</i>	1,562.4	1,671.9	1,723.0	1,828.3	1,861.2	1,997.1	2,227.3	2,512.3	2,713.9	2,906.5

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BALANCE OF PAYMENTS

TABLE 27 continued

	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
1. Merchandise exports	909.8	1,050.9	862.3	892.1	807.5	882.6	1,051.0	1,231.5	1,227.0	1,394.5
2. Sale of ships	0.4	0.5	0.5	0.6	0.4	0.7	0.3	1.4	0.9	0.5
3. Merchandise imports	857.2	835.7	875.1	661.5	739.3	787.5	772.4	622.2	704.1	858.4
4. <i>Balance of trade</i>	+53.0	+215.7	-12.3	+231.2	+68.6	+95.8	+278.9	+610.7	+523.8	+536.6
5. Ocean freight income	5.8	5.5	4.3	4.3	4.0	4.9	6.2	6.0	5.5	6.5
6. Carrying freight income	1.4	1.4	1.1	1.1	1.0	1.2	1.5	1.5	1.4	1.6
7. Port outlays of foreign merchant marine	9.8	8.2	7.7	6.6	8.3	7.8	8.9	7.3	7.7	8.8
8. Marine insurance income	1.3	1.3	1.1	1.1	0.9	1.0	1.1	0.9	1.1	1.2
9. Total shipping income	17.6	16.4	14.2	13.1	14.2	14.9	17.7	15.7	15.7	18.1
10. Ocean freight payments	29.4	26.2	24.6	20.9	26.3	24.7	28.2	22.9	24.1	27.6
11. Port outlays of U.S. merchant marine	1.9	1.8	1.4	1.4	1.3	1.7	2.1	2.0	1.8	2.2
12. Marine insurance payments	10.2	9.2	9.8	6.6	7.8	8.2	7.8	6.1	6.9	8.3
13. Total shipping payments	41.5	37.2	35.8	28.9	35.4	34.6	38.1	31.0	32.8	38.1
14. <i>Shipping balance</i>	-23.9	-20.8	-21.6	-15.8	-21.2	-19.7	-20.4	-15.3	-17.1	-20.0
15. Foreign tourist expenditures	12.5	13.5	25.8	20.2	14.2	14.8	14.8	16.1	17.4	19.4
16. Immigrants' funds	17.8	19.5	16.5	10.0	9.4	9.4	6.1	5.8	7.6	10.3
17. Port outlays of foreign passenger steamships	7.3	8.0	6.9	4.5	4.4	4.2	4.0	3.8	4.7	6.5
18. Total passenger receipts	37.6	41.0	49.2	34.7	28.0	28.4	34.9	25.7	29.7	36.2
19. U.S. tourist expenditures	68.9	68.9	62.4	45.3	75.1	70.6	68.5	75.9	77.2	97.8
20. Immigrants' remittances	44.0	48.5	43.6	33.2	32.6	32.0	27.1	29.8	31.4	38.4
21. Emigrants' funds	24.2	25.1	16.6	30.6	31.3	26.0	20.2	19.8	24.4	26.1
22. Total passenger payments	137.1	142.5	122.6	109.1	139.0	128.6	115.8	125.5	133.0	162.3
23. <i>Passenger balance</i>	-99.5	-101.5	-73.4	-74.4	-111.0	-100.2	-90.9	-99.8	-103.3	-126.1

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U. S. BALANCE OF PAYMENTS, 1861-1900

TABLE 27 concluded

	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
24. Net bankers' commissions	-4.8	-4.8	-4.8	-3.7	-4.2	-4.4	-4.4	-3.7	-4.1	-5.0
25. Net interest and dividends	-133.7	-142.9	-138.7	-113.0	-126.4	-122.0	-126.8	-132.6	-124.4	-114.3
26. <i>Financial balance</i>	-138.5	-147.7	-143.5	-116.7	-130.6	-126.4	-131.2	-136.3	-128.5	-119.3
27. <i>Balance of payments on current account</i>	-208.9	-54.3	-250.8	+24.3	-194.2	-150.5	+36.4	+359.3	+274.9	+271.2
28. Net gold movements	+69.8	+0.6	+87.9	+4.5	+30.1	+78.9	-44.7	-105.0	-51.4	+3.7
29. Net silver movements	+4.6	+12.9	+17.5	+37.2	+27.1	+31.8	+31.4	+24.2	+25.6	+21.5
30. Net international capital movements	+134.5	+40.8	+145.4	-66.0	+137.0	+39.8	-23.1	-278.5	-249.1	-296.4
31. <i>Net accumulating balance of indebtedness</i>	3,041.0	3,081.8	3,227.2	3,161.2	3,298.2	3,338.0	3,314.9	3,036.4	2,787.3	2,490.9

Line 1: From Table 3, col. 9.

Line 2: From material provided by Douglass North.

Line 3: From Table 4, col. 4.

Line 4: The sum of lines 1 and 2 less line 3.

Line 5: From Table 6, col. 6.

Line 6: From Table 6, col. 7.

Line 7: From Table 7, col. 5.

Line 8: From Table 11, col. 7.

Line 9: The sum of lines 5, 6, 7, and 8.

Line 10: From Table 7, col. 6.

Line 11: From Table 9, col. 5.

Line 12: From Table 10, col. 7.

Line 13: The sum of lines 10, 11, and 12.

Line 14: Line 9 less line 13.

Line 15: From Table 17, col. 14.

Line 16: From Table 19, col. 10.

Line 17: From Table 24, col. 3.

Line 18: The sum of lines 15, 16, and 17.

Line 19: From Table 16, col. 5.

Line 20: From Table 22, col. 9.

Line 21: From Table 23, col. 5.

Line 22: The sum of lines 19, 20, and 21.

Line 23: Line 18 less line 22.

Line 24: From Table 25, col. 5.

Line 25: Obtained by applying rates of return in col. 11 of Table 26 to North's figure of \$379 million for 1860 and successive figures derived on line 31.

Line 26: The sum of lines 24 and 25.

Line 27: The sum of lines 4, 14, 23, and 26.

Line 28: From Table 5, col. 5.

Line 29: From *Historical Statistics of the United States, 1789-1945*, p. 244.

Line 32: The sum of lines 27, 28, and 29.

Line 33: Obtained by adding line 30 each year to figure in line 31 existing at the beginning of that year with North's figure of \$379.2 million as a point of departure. This series on indebtedness includes common stock, the values of which would relate to original acquisition cost rather than contemporary market values.

U.S. assets held by foreigners (and similarly of U.S.-owned foreign assets) during the cyclical movements of the period. The effect of these oscillations on the nation's balance of international indebtedness in some portions of the period was of equal if not greater significance than the actual international migration of capital. In contrast, annual figures for the accumulating balance of indebtedness, derived through the residual method, only reflect these changes in so far as they affect the effective yield underlying the estimates of net interest and dividend payments.

A reasonable correspondence exists, however, between some of the contemporary estimates and the derived series of the accumulating balance of indebtedness. The ensuing analysis will focus on the early phase, 1863-73, and the final stage, 1895-99, of the period covered.

A close relationship exists between the derived figure of \$495,200,000 as of June 30, 1863 and the \$500 million estimate of the Secretary of the Treasury for that year.¹²⁸ Similarly the figure of \$987 million of June 30, 1868 is close to the estimate of the *Merchant's Magazine* of October 1868 of \$938 million for the total U.S. securities in the portfolios of foreign investors.¹²⁹ Finally, the derived figure of \$1,592 million for June 30, 1872, is approximately 6 per cent away from the *Commercial and Financial Chronicle's* figure in the spring of 1872 of \$1,500 million.¹³⁰

On the other hand, serious discrepancies exist between the derived series on the accumulating balance of indebtedness and the 1869 estimate of Wells and Bullock's attempted reconciliation of this figure with the *Commercial and Financial Chronicle* estimate of 1872. Wells's figure is \$1,465 million for the total U.S. claims held by foreigners as of November, 1869. This estimate is associated with "a clean national ledger" in 1863.¹³¹ The latter statistic diverges drastically from my estimate of about \$500 million, supported by the Secretary of the Treasury. Wells's data imply an average annual capital inflow between 1863 and 1869 of \$245 million. With the higher figures for 1863, they would imply an annual inflow of \$160 million. Although sizable quantities of government bonds were sold at a discount in European markets, my estimates suggest that the Wells's 1869 estimate is clearly extravagant.¹³²

Bullock, accepting Wells's figure, estimated the amount of U.S. assets held abroad on the eve of the panic of 1873 as \$1,500 million.¹³³ But if the Wells estimate of \$1,465 million was correct in 1869, then with

¹²⁸ U.S. Foreign Commerce and Navigation of the United States, 1863, p. 42.

¹²⁹ *Merchant's Magazine*, Vol. LIX, October 1868, pp. 241-248.

¹³⁰ *Commercial and Financial Chronicle*, Vol. XIV, March 12, 1872, p. 282; May 18, 1872, p. 653. Given the massive character of capital flow in the peak year 1871-1872, the discrepancy of \$92 million narrowed considerably between March and July 1872.

¹³¹ Wells, pp. xxvi-xxix.

¹³² See the more reasonable estimate of \$1,200 million for 1869 in the *Commercial and Financial Chronicle*, Vol. X, March 5, 1870, p. 294.

¹³³ Bullock et al., pp. 223 and 225.

the vast influx of capital between 1869 and 1872 the *Commercial and Financial Chronicle's* estimate of \$1,500 million for 1872 was wrong in the latter year. Moreover, if the latter was correct in the spring of 1872, then given the continued capital inflow (\$100 million in the first months of 1873, according to Bullock), it could not be valid at the time of the panic of September, 1873.

For the last five years of the century, three significant estimates were made of the nation's net capital indebtedness. In mid-1895 the *Journal of Commerce's* figure ranged between \$1,500 and \$2,500 million.¹³⁴ Bullock accepted the \$2,500 million.¹³⁵ Cleona Lewis's estimate for the end of 1897 was \$3,395 million foreign-held U.S. assets and \$685 million U.S.-held foreign assets, a net indebtedness of \$2,710 million.¹³⁶ Finally, Nathaniel Bacon's survey of the U.S. international financial position for January 1, 1899 yielded \$3,300 million foreign-owned U.S. claims and \$500 million of U.S.-owned foreign claims or a net indebtedness of \$2,830 million.¹³⁷ Although substantial fluctuations occurred in the market values of these assets between 1895 and 1899, they cannot entirely account for the discrepancies. The figures are basically incompatible, since the vast flow of agricultural and manufacturing exports produced a massive outflow of capital during those years. That the nation's indebtedness was substantially reduced is shown clearly in Table 27. For June 30, 1899, I estimated it at \$2,750 million.

The small discrepancy between this statistic and Bacon's figure for the beginning of that year is readily explained by the ensuing outflow of capital in the six-month interval. Bacon's data were accepted by Bullock and his colleagues as the best available for the period.¹³⁸ The close correspondence between Bacon's figure and the stock estimate derived through the residual method casts doubt on the validity of both the *Journal of Commerce's* 1895 and Cleona Lewis's 1897 estimates. At the same time, along with the direct estimates for the earlier period, it supports my methods and results.¹³⁹

BULLOCK'S ESTIMATES

I now examine the major invisible and visible items for which Bullock and his colleagues developed independent period estimates.

¹³⁴ *Commercial Yearbook*, 1896, Vol. 1, p. 226.

¹³⁵ Bullock et al., p. 226.

¹³⁶ Cleona Lewis, *American Stake in International Investments*, publication no. 75 of the Institute of Economics of the Brookings Institution, 1938, Washington, D.C., p. 442.

¹³⁷ Nathaniel Bacon, "American International Indebtedness," *Yale Review*, Vol. ix, November 1900, p. 276.

¹³⁸ Bullock et al., p. 230.

¹³⁹ If the midpoint is taken between the 1898 value for the accumulating balance of indebtedness of \$3,012 million and the corresponding 1899 value of \$2,759 million, when capital exports approximately totaled more than \$249 million, a figure approximately \$50 million apart from Bacon's estimate is obtained for January 1, 1899.

Merchandise

Bullock accepted the official merchandise export and import statistics without revision. No attempt was made to alter the export series for incomplete reporting of overland shipments or the import series for illegal undervaluation and smuggling and the legal underestimation of imports prevailing under the 1883 tariff law.

Freight

Bullock's freight estimates deal entirely with ocean transportation. No provision is made for the income earned by the U.S. merchant marine in carrying goods between foreign ports. He assumed that the ratio of freight charges to merchandise fluctuated between 12 and 5 per cent and averaged approximately 8 per cent for 1874-95. Bullock acknowledges that some estimates of port expenses were as high as one-third of freight income, but he employs a figure of one-fifth. Two major defects affect the quality of Bullock's freight estimates. Although ocean freight rates declined, he neglects to consider that the prices of both exports and imports decreased simultaneously and partially offset the former factor. The most serious limitation of Bullock's approach is his failure to differentiate between the character of the cargo imported in foreign vessels and that exported in U.S. vessels. Although he refers to the *Journal of Commerce* survey on imports for 1891-92 with its 3.6 per cent estimate, he disregards this clue and assumes that the freight ratio is 8 per cent for both exports and imports. Otherwise, he would be forced to conclude that the freight ratio declined from 12 per cent to 3.6 per cent, a 70 per cent fall, 1873-92, clearly an exaggeration.

Tourist Expenditures

The treatment of tourist expenditures contains several limitations. For 1850-73, Bullock uses Kettell's figure of \$15 million in the early 1850's and Wells's estimate of \$39 million in the late 1860's to arrive at an annual average of \$24 million. This figure is multiplied by twenty-four to obtain a total of \$576 million. For 1874-95, a net annual expenditure of \$35 million is multiplied by twenty-two to derive a figure of \$770 million. For the next nineteen years, a net annual average of \$170 million, based paradoxically on Paish's 1908 estimate of a per capita outlay of \$1,000 with approximately 170,000 tourists, and Bradstreet's \$500 figure in 1914 with almost 300,000 tourists, is used to derive a total of \$3,230 million.

No attempt is made to account for these tremendous shifts in annual expenditures. Little reference is made to the expenditures of alien travelers in the United States. The overland tourist trade to and from Canada and Mexico is completely ignored. It must be inferred that the

per capita outlays of foreign travelers in the United States coincided with the per capita outlays of U.S. tourists overseas.

If Kettell's figure of \$15 million is employed for the early 1850's when approximately 30,000 tourists were overseas, it would imply a per capita outlay of about \$500. Since Bullock accepts Wells's \$1,000 assumption for 1869, he leaves unexplained the virtual doubling of per capita expenditure in less than two decades.¹⁴⁰ Although Bullock neglects alien tourists for 1850-73, I have assembled the official statistics on U.S. citizens returning abroad and alien non-immigrants to compute the per capita outlay of U.S. tourists implicit in Bullock's estimates for three periods.¹⁴¹

Period	Tourists			Tourist Expenditures		
	U.S.	Foreign	Total	Bullock's U.S. Net	U.S. Total, Estimated	U.S. per Capita
	(thousands)			(millions)		
1850-73	718	150	868	\$ 576	\$ 696	\$ 970
1874-95	1,573	565	2,138	770	1,046	665
1896-1914	3,412	1,044	4,456	3,230	4,218	1,236

Total U.S. tourist expenditures were calculated by applying the ratio of all tourists to U.S. tourists to Bullock's figures. The per capita figure of \$970 for 1850-73 gibes with Wells's estimate but not with Kettell's. More serious is the implication that per capita tourist outlays declined almost 30 per cent, 1874-95, and rose by more than 85 per cent 1896-1914. Since he provides only estimates of total tourist expenditures without serious treatment of the factors causing these sharp fluctuations in per capita outlays, we may doubt the accuracy of his figures.

Emigrant and Immigrant Funds

Bullock ignores the funds taken from the United States by the departing emigrants. His figures on immigrants' funds for 1874-95 are not included in his balance sheet summary. For 1850-73, he assumes that 6 million immigrants brought an average of \$50, or a total of \$330 million. In the ensuing twenty-two years, approximately 9 million arrivals brought \$20 apiece, or a total of \$180 million. No explanation is given for the apparent decline of 60 per cent for per capita funds brought in by immigrants in the two periods. The shift in the composition of the immigrants from the "old" northern and western European category, with relatively high per capita amounts to the newer category from southern and eastern Europe, was not accomplished until the

¹⁴⁰ In fact, the rise in per capita outlays had to take place between 1865 and 1868, since "This increase, however, could not have occurred prior to or during the War." *ibid.*, p. 223.

¹⁴¹ This method, of course, makes no provision for the composition of the alien non-immigrant group, as in my calculations of tourist expenditures.

1890's. Bullock thus underestimates the total amount of immigrants' funds for 1874-95.

Immigrant Remittances

Although immigrant remittances are lumped together with miscellaneous items for a total of \$440 million for 1874-95—an annual debit of \$20 million—Bullock estimated that approximately one-third of this amount represented funds sent abroad by foreign-born residents. The volume of international money orders is cited as “rough guide” to the limited scale of immigrant remittances.¹⁴² He made no reference to the series of the British Board of Trade on the remittances of residents of Canada and the United States to Great Britain and Ireland for 1848-87. In some years, 1874-95, the amount reported in this incomplete series alone exceeds \$6 to \$7 million. Also, beginning in 1880, there were significant increases in the arrival of Italians and other national groups of the “new” immigration, reflected in a substantial increase in remittances in the decade 1885-95 (see Table 21). It thus appears that the \$6 to \$7 million estimate for the average annual immigrant remittances for 1874-95 is inadequate.

Final Evaluation of Bullock's Work

Bullock pioneered investigation of the nation's foreign transactions. The defects in these series nevertheless aggravate the limitations of his fragmentary approach. For 1874-95, as opposed to his catch-all category of “immigrants remittances and miscellaneous,” I have developed independent estimates of emigrant funds, immigrant remittances, carrying freight income, marine insurance receipts and payments, net bankers commissions, and port outlays of foreign passenger steamships. The effect is to increase the size of the deficit in the balance of payments on current account and to raise the values for the accumulating balance of indebtedness. This, rather than my average rates of return (which correspond fairly closely with Bullock's), accounts for the fact that my estimates of net interest and dividend payments are more than \$350 million larger. The total disparity between Bullock's estimates and mine is about \$500 million for 1874-95.¹⁴³ According to my calculations a net capital inflow of approximately \$1,500 million occurred in that period; Bullock estimated \$1,000 million. Accepting Bacon's figure of 1899 and the fact that the United States exported large amounts of capital from 1896 to 1899, one must conclude that Bullock seriously underestimated the size of net capital imports between 1874 and 1895.¹⁴⁴

¹⁴² Bullock et al., p. 227.

¹⁴³ *ibid.*, pp. 224-227 and my Table 27.

¹⁴⁴ In part, this position is due to his uncritical acceptance of the views of the *Commercial and Financial Chronicle* that capital was exported in 1882-85 and 1890-96 without interruption and in substantial amounts.

Conclusion

This study has shown the massiveness of the influx of capital into the United States during the period of rapid economic growth and intense cyclical fluctuations of the late nineteenth century. Contrary to the opinions of contemporaries, which have been perpetuated in textbooks, no sustained outflow of capital occurred during the Civil War, or during the recession of 1882-85 and the depression of 1890-96. Rather, the tremendous agricultural and manufacturing export surpluses in the late 1870's and 1890's sparked U.S. economic revival and were related to the ensuing waves of capital exports. However, these proved to be brief interruptions of the almost continuous movement of capital into the United States before 1914.

The annual balance of payment statistics presented here provide the basis for this interpretation. Along with further statistical and historical research and economic analysis, they serve to clarify the complex character of the international economic transactions of the United States in the late nineteenth century and their relationship to the processes of economic growth and cyclical fluctuations.

C O M M E N T

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Standard balance of payments figures for the United States in the nineteenth century have gone unrevised since the estimates by Bullock, Williams, and Tucker in 1919. The studies by North and Simon are thus an invaluable contribution to economic history and should be incorporated, with only minor amendment, in the next editions of the textbooks.

North's claim that new evidence and improved methods of accounting have made this revision necessary seems justified. Each of the major components of the balance is calculated separately, and annual figures of net international capital movement are derived through the residual method.

On the matter of new evidence, however, there seems less cause for celebration. For the period before 1860 North fails to indicate exactly what the new sources are; they look very much like the old ones—the *Report of the Secretary of the Treasury*, compiled in 1835 on the basis of Pitkin, Seybert, and manuscript notes in the department, and of course the *American State Papers: Commerce and Navigation*. Some secondary sources could certainly have been used: the handling of the Louisiana Purchase in the miscellaneous and capital account might be improved after reference to W. B. Smith, *Economic Aspects of the Second Bank of the United States* (1953) and R. W. Hidy, *The House of Baring* (1949), a volume which is cited only once and in a different

context. The capital account for 1818–21 was undoubtedly affected by the retirement of the Louisiana Debt. Even Simon has found little new material for his period, if we except the important Canadian sources identified in the notes to his Table 1, and a few secondary items, mostly British. The quality of the new figures resides in the more careful scrutiny of existing sources and in the manipulation of other fugitive data to construct activity and freight indexes for shipping. All these qualifications, however, must be understood in the light of Edgeworth's dictum that in statistical work beggars cannot be choosers.

Hence the new merchandise trade figures before 1820, especially import values, are still tenuous. Data problems have also complicated the task of estimating the invisible items, much the most important of which are shipping earnings. Though North has obtained improved annual estimates for both imports and exports for 1790–1819, he chooses to rely on five-year moving averages for the half-dozen items which appear in his final calculation. Even these have technical shortcomings, since a moving average can be ambiguous and its interpretation most complex when the ideally simple cyclical conditions of constant prices and amplitude do not obtain.

By how much do the new results, 1790–1819, differ from standard figures given in *Historical Statistics*? Except for four or five years, exports are unchanged (Table 1): 1796 is raised by more than \$8 million owing to an unexplained difference between the 1835 compilation and the original Treasury source. Presumably, something like this also explains an increase of well over \$4 million in 1797, while minor adjustments in other years are merely corrections of copying errors. Import values (Table 1) are all substantially raised over existing figures, except that for 1815, which is sharply reduced. The original estimates had failed to allow for duty-free goods in the total import values and North has improved on the rather mechanical Treasury adjustment for this discrepancy. Upward adjustment also stems from North's treatment of the valuation problem. Port of entry values, of course, often include transport costs, the bulk of which were paid to U.S. flag vessels and should properly be included in freight earnings. North's solution is conservative: he puts the value of specific duty goods between the overvalued port of entry figure and the undervalued point of origin figure. The same procedure is applied on much surer ground to the approximately equal quantities of ad valorem imports (Table 3). Final import values down to about 1804 are moderately increased over existing figures and the same applies to 1808–12, but the years 1805–1807 are raised from \$5 to \$7 million. After 1816 they are raised again from \$2 to \$6 million by 1820. North agrees with George Taylor that the 1815 figure should be reduced by about \$27 million since Pitkin's figure for 1815 should have reported the fiscal year rather than the

calendar year, the last quarter of which was affected by the upsurge in postwar trade.

We are specially indebted to North for his careful consideration of shipping earnings in face of many data problems. The significance of the carrying trade before 1820 is comparable to that of cotton exports during the second quarter of the century: ship earnings made possible the high level of imports and thereby contributed to national economic growth. Thanks to the long French wars, U.S. shipping became the largest earner of foreign exchange and shipbuilding provided a major impetus to domestic manufactures, trade, and insurance during the first quarter of the century. After 1815, earnings from the carrier trade fell sharply, not so much because of renewed competition, North argues, as the decline in freight rates. Surely these two were not independent of each other? It was competition from other flags which affected rates adversely since, although U.S. shipbuilding declined, there was no immediate shrinking in the size of the fleet. After 1815, again capital imports assumed unprecedented magnitude and as a consequence interest and dividend payments to foreigners formed the largest single debit item after imports. Taking the period 1790-1820 as a whole, the adverse trade balance was the decisive factor in the balance of payments. Passive in every year but 1811 and 1813, it was, considering the size of the economy, proportionately larger than at any other period; the figure of minus \$70 million in 1816 was not exceeded before the mid-century.

After 1820 the quality of both data and results is improved. Fairly complete figures for merchandise trade are available until about 1846 when, with the shift to ad valorem duties under the Walker Tariff, the problem of import undervaluation again becomes acute. Similarly, the variety and magnitude of invisible items increase considerably after 1850, owing to the size and character of immigration, and, therewith, the possibility of larger error. Until 1831 the North figures for imports and exports do not differ from standard sources, but an adjustment of import values is necessary thereafter. Despite the active balance on shipping account, the passive trade balance dominates the payments ledger down to the Civil War, though specie exports are a mitigating factor after the discovery of gold in California. There is likewise a small balance of funds brought by immigrants over remittances to the homeland due to the volume of non-Irish immigration, chiefly from west and south German states. Perhaps North's outstanding contribution to the revised balance of payments is his painstaking calculation of shipping earnings. However, in spite of the close relation between freight and passenger rates at this time, should not immigrant outlays for the voyage be entered on a separate passenger account? This would provide a more detailed breakdown of shipping activity comparable to Simon's handling of the post-war period.

On the debit side, interest and dividend payments to foreigners still loom largest after imports. They mostly originate in foreign purchases of state and private securities and stock in the United States Bank but, after 1850, investment in railway bonds increases rapidly. In view of the size of the economy in the prewar decade, however, this item exercises a slighter influence on the overall balance than in former times.

In twenty-one of the years 1820-60 the net balance of payments is passive and the course of aggregate indebtedness abroad is, apart from the 1840's, mostly upward, reaching \$377 million by 1859. North's indebtedness figure is usually somewhat lower than that of Cleona Lewis. Foreign investments in the United States follow movements in the balance of payments fairly closely. Peaks and troughs in the investment cycle correspond with domestic land sales, business incorporations, and transport developments and, to a lesser extent, with building and immigration. Short-run movements in the balance and its major components, as North shows, bear a close relation to periods of expansion and contraction in the U.S. economy generally; trade and payments positions deteriorate in periods of expansion and vice versa. But do not these movements also correspond with fluctuations in the European economy? Phases of U.S. efflorescence coincide nicely with increases in European activity (e.g. 1825-37 and 1849-57). Herein lies striking evidence for the larger theme of a developing "Atlantic economy." These changes in the arithmetic of the balance do not necessitate much revision in the interpretation of international developments during the first half of the century.

Simon's figures also represent a real advance over the work of Frank Graham, Bullock, et al., especially the latter's cavalier treatment of the invisible account. Among visible items, too, we now have an improved picture of trade and ship sales, although specie movements are apparently unchanged. For invisibles, there is a more detailed breakdown of the entire freight and passenger account; also a slightly modified financial account.

On the export side, Simon's principal adjustment has been the upward revision of exports to Canada and Mexico (the overland trade) which received no special consideration in the period before 1860. Here the new Canadian sources have been helpful. One wonders, though, whether Canadian totals of imports from the United States exclude re-exports to the United Kingdom which may have become large with the growth of the consignment trade in primary produce after 1870. For example, quantities of dairy produce were shipped via Canada in 1880's and 1890's to take advantage of Canada's reputation which was reflected in higher export prices. U.S. import values are more complicated, owing to the incidence of both illegal and legal undervaluation. Legal undervaluation becomes most critical in the eighties after the Tariff Act of

1883, while illegal undervaluation and outright smuggling were probably greatest immediately after the Civil War tariff, which put a premium on evasion. Simon's solution, very reasonably if somewhat arbitrarily, is to scale down the amount of undervaluation as the century progresses—from 3 per cent, 1861-75; to 2 per cent, 1876-90, to 1 per cent, 1891-1900. Tables 2 and 3 show both the standard and revised series for merchandise and we note that both import and export series show upward adjustments ranging from \$10 to \$20 million per year, except that import adjustments do not stop in 1894 but continue to 1900. Other visible items are not much changed, though additions are made to ship sales and some careful estimates are made for emigrant withdrawals, hitherto neglected. Thus over-all trends in the net balance of indebtedness arising on visible account are not much affected.

Simon's most ingenious contributions affect the invisible account. His shipping series are not only more accurate but more comprehensive in regard to freight rates, port outlays, marine insurance and, most interestingly, the passenger account. These last figures outline a delightful new chapter in American social history: where the great and small bourgeois traveled, how long they stayed, their outlays, and even something about the loot they brought back as earnest of their newly acquired status.

Finally, there is the financial account which has special significance for a debtor economy—slightly more of a debtor economy in the light of Simon's researches. Bankers' commissions amount to 0.5 per cent of the full value of imported goods, which is not an excessive levy for the privilege of luxuriating so long without a proper foreign exchange market. Interest and dividend payments abroad on government bonds, railroad bonds, and shares, are a large debit item and represent, as British sources indicate, a major contribution to the Atlantic economy, although from the standpoint of an increasingly "self-sufficient" United States they are less important than during the first half of the century. Taking the balance of payments as a whole after 1861, the pattern of movement falls into four familiar phases: 1861-76, the balance fluctuates but always passively; 1877-81, it is uncertainly active, so that the net balance of accumulated indebtedness declines for the first time since the late 1840's; 1882-96, it is markedly passive once more, with the net balance of indebtedness reaching a peak for the century in the mid-nineties; after 1896 it is sharply active and the balance of indebtedness is reduced by almost a quarter over the last four years of the century. Thus we conclude that if the pattern of movements is not much changed by Simon's adjustments, the accumulated balance of indebtedness is greater than the received series indicate. The historian can only regret that both these excellent studies are, in their present versions, so long on the arithmetic and so short on the analysis.

