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Foreign Investment Aspects of  
Measuring National Wealth

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PROBLEMS IN MEASURING NATIONAL WEALTH created by the international ownership of assets and claims on assets could be solved by adopting any one of several concepts of what constitutes 'national' wealth. The definitions that have sufficient merit to justify consideration are:

- 1) All the real and intangible assets within the geographic frontiers of the country.
- 2) All the assets owned by persons ordinarily resident in the country. This could be varied by including the assets of citizens residing abroad. It excludes, of course, assets within the country but owned by nonresidents.
- 3) All assets in the country, plus assets abroad owned by residents (or, alternatively, by residents plus nonresident nationals).<sup>1</sup>

Offhand, the first definition might seem the most reasonable. Probably the most understandable to an average layman, it has the additional merit of simplicity coupled with the technically desirable quality that it would permit a complete cross-classification between types of asset and types of owner.<sup>2</sup> Foreigners would become merely one of the various classes of owners of the national wealth. For some purposes this concept is superior. Moreover, in times of national emergency, such as war, obviously the whole productive system is, generally speaking, available for use, even if part is owned by foreigners. In judging the total economic impact of a nation, therefore, either in an absolute sense or, even more, in relation to other countries, the total resources within that country, at least, ought to be considered.

It might be argued, in accordance with definition 3, that foreign assets owned domestically ought also to be added in. This would be comparable to what one student of national income has termed "net taxable income".<sup>3</sup> After all, the gov-

<sup>1</sup> The converse of definition 3, viz., all assets physically in the country minus claims of nonresidents against such assets, seems to have little merit.

<sup>2</sup> Aside from the general problems created by the existence of debt, equities, and other indirect forms of claims on wealth.

<sup>3</sup> Phyllis Deane, 'Measuring National Income in Colonial Territories', *Studies in Income and Wealth, Volume Eight* (NBER, 1946), p. 152.

ernment of a country has the legal power to tax property, and income therefrom, situated within its borders, as well as the property and income of its residents wherever situated or derived.

As indicated above, this concept could be broadened to include the income and property of nationals residing abroad. In the United States, at least, such income, except earned income, is subject to federal income tax. Even earnings are taxable if received from a federal agency.

In this paper the second concept, excluding the property of nonresident citizens, has been adopted, primarily because it is consistent with the definitions of national income and product employed in the official statistics prepared by the Department of Commerce. With respect to property income, but not with respect to wages and salaries,<sup>4</sup> those statistics cover income received by residents from abroad and exclude income paid by residents to nonresidents, including nonresident citizens. It seems logical, therefore, to include in national wealth only assets the income from which would, by the accepted definition, be included in national income. For the sake of consistency, nonincome-producing assets have been treated similarly.

#### A GEOGRAPHIC COVERAGE

The United States, for purposes of this paper, includes territories and possessions, except the Philippine Islands, as well as the continental United States. With certain exceptions, notably the Virgin Islands and the Panama Canal Zone, the area covered is coterminous with the customs area of the country. For obvious reasons, this is the only acceptable definition for balance of payments purposes, and all data on the interna-

<sup>4</sup> Income from personal services is included in the United States national income if two of the three following factors are domestic: place where the work is performed; location of the employer; usual residence of the employee.

Canadian residents, for instance, working in the United States are included in the national income as far as their wages and salaries are concerned. Their property income, however, is not included, and they are considered foreign residents for purposes of this study.

tional investments of the United States have been collected in connection with or closely related to balance-of-payments statistics and analysis.

Except for 1946, to treat the territories as 'foreign' would probably not give figures greatly different from those presented here, although it would probably add a few hundred million dollars to United States assets abroad. By the end of the war, however, government installations alone in Alaska, Hawaii, Puerto Rico, and the Canal Zone must have had a cost value of at least two or three billion dollars, while the assets of residents of these areas in the United States were relatively small. The market value of government, especially military, installations is a relatively meaningless concept. Surplus property overseas has been sold at an average of about 20 percent of cost; on the other hand, if offered for sale, the Panama Canal would undoubtedly fetch several times what it cost to build.

## B ASSETS vs. CLAIMS

Only a small fraction of the foreign investments of and in the United States consists of physical assets located in one country but owned by residents of another. The totals of both foreign investments in the United States and United States investments abroad are made up chiefly of claims of various kinds: holdings of corporate stocks; bonds and other corporate debt; bonds, mortgages, notes and other noncorporate private debt; obligations of governments—federal, provincial, and municipal; bank deposits and other essentially banking claims, such as acceptances; and miscellaneous items—interests in trusts and estates, insurance policies and annuities, and other minor items (Table 1).

A word concerning the treatment of direct branches of corporations is in order; i.e., the extension of corporate enterprise into a country other than one under the laws of which the company is incorporated. Direct branches are of two kinds. A United States corporation, for instance, may conduct most of its business domestically but have a foreign branch or

Table 1  
United States Assets Abroad and Foreign Assets in the United States, 1929, 1939, 1946  
(millions of dollars)

	U.S. Assets Abroad		Foreign Assets in U.S.		Net U.S. Assets Abroad (+) or Foreign Assets in U.S. (-)	
	1929	1946	1929	1946	1929	1946
Total	20,970	24,840	9,235	16,680	+11,735	+8,160
Currency & bullion		275	220	620	-220	-345
Deposits	210	450	1,710	5,130	-1,500	-4,680
Other short term claims	1,565	980	1,365	2,555	+200	-1,575
Long term claims, total	8,110	8,580	1,325	2,330	+6,785	+6,250
Bonds payable in U.S. \$	6,465	1,535	575	840	+5,890	+695
Other bonds	910	1,395			+910	+1,395
Other long term claims	735	5,650	750	1,490	-15	+4,160
Stocks, total	10,050	10,770	4,400	5,570	+5,650	+5,200
Direct investments, subsidiaries	5,530	6,050	1,100	2,060	+4,430	+3,990
Direct investments, branches	2,320	1,990	300	500	+2,020	+1,720
Portfolio investments	2,200	2,500	3,000	3,010	-800	-510
Assets directly owned, total	1,035	3,785	435	475	+600	+3,310
Realty	750	2,550	85	125	+665	+2,425
Movable goods	285	1,235	350	350	-65	+885

For basis of valuation, see text.

branches. More commonly, however, a corporation may be organized in the United States for the sole purpose of engaging in business abroad; frequently the name of the company is in the language of the country in which it operates, though the company may be incorporated, say, in Delaware. Legally, the gross assets of a foreign branch are the property of the home office and the liabilities of the branch are liabilities of the company as a whole and not merely of the branch. Therefore, the gross assets of such branches could be treated as United States investments abroad, and their liabilities as foreign investments in (i.e., claims on) the United States. But as a practical matter, it is more convenient, as well as more logical from an economic point of view, to consider the branch as if it were a separate corporate entity, i.e., a foreign subsidiary of the home office. Such a procedure was followed in this paper; the net equity in the branch is treated in the same manner as the ownership of the stock of a foreign subsidiary corporation.

### C PROBLEMS OF VALUATION

Cost values are not available for most foreign investments in or of the United States, and market values are, at best, only approximately correct. The latter were computed only for publicly held securities: bonds and preferred and common stocks. For most other assets with a fixed face value, such as bank deposits, mortgages, and notes, the stated value (probably also usually the cost) was used. The value of interests in trusts or estates was obtained by discounting estimated future earnings, using a rate of 4 percent and, if necessary, actuarial tables.<sup>5</sup>

Government installations are usually at original cost minus an arbitrary allowance of 20 percent for depreciation; market value, as previously indicated, would mean little. Had depreciated replacement value been used, an estimate of price increases from the time the assets were procured to the end of

<sup>5</sup> *Census of Foreign-Owned Assets in the United States* (Treasury Department, 1945), pp. 57-8.

1946 would be added to the estimated depreciated original cost.

Direct investments, i.e., controlled enterprises, were entered only at book value, defined to include equity in common stock plus surplus (or minus deficit), the face value of preferred stock, bonds, or other securities, and the face amount of inter-company debt. Except for markups, writeoffs, and operating losses, this probably closely approximates cost. Since most of these direct investments are 100 percent owned by parent companies, there is no market for their securities, and it was impracticable to compute a market value.

Interests in controlled enterprises are shown net, that is, any amounts due a subsidiary by its parent company are not treated as a separate claim on the country of the parent, but are deducted from the equity of the parent in the subsidiary. In another respect, however, the figures are gross; the Canadian subsidiary of a foreign-controlled United States company is considered an American investment in Canada, while the foreign equity in the consolidated assets of the United States company (including its Canadian assets) is counted as a foreign investment in the United States.

### 1 *Cost vs. Market Value*

With the qualified exception of direct investments, it was practicable to estimate cost value only for investments in foreign dollar bonds and certain government assets left over from the recent war. The values computed by various methods of appraisal of foreign dollar bonds are shown in Table 2.

Table 2  
United States Holdings of Foreign Dollar Bonds, 1929, 1939, 1946  
(millions of dollars)

<i>Method of valuation</i>	<i>1929</i>	<i>1939</i>	<i>1946</i>
Market value	6,465	1,685	1,535
Value in 1939 prices	4,510	1,685	1,235
Cost	6,475	2,430	1,805
Par value	6,770	2,525	1,885

The difference between cost and market in 1939 or 1946 should not be taken as a measure of the total losses to American



purchasers of foreign dollar bonds. After the wave of defaults that began in 1931, many of these bonds were repatriated at a fraction of their original cost, or the principal was reduced by agreements with the bondholders.

Realty and movable goods owned by the government and remaining in foreign countries at the end of 1946 were valued at cost: \$2,125 million and \$4,450 million respectively. To obtain an approximate market value, realty was arbitrarily depreciated to \$1,700 million, and movable goods were entered at one-fifth of their cost, or \$900 million, the value indicated by the rate of recovery on goods disposed of by 1946.

## 2 *Fluctuations in Market Value*

As already indicated, market values could be estimated only for publicly held stocks and bonds, i.e., portfolio holdings. Foreign holdings of United States securities were based on Standard and Poor's corporation indices of security prices for corporate stocks for all three years and for corporate bonds in 1929 and 1939, and the ratio of market price to par of corporate bonds on the New York Stock Exchange in 1939 and 1946. The market values of foreign dollar bonds were estimated, on an issue by issue basis, for 1939 and 1946, and on a large number of issues for 1929. Since the items on which 1939 market prices could be calculated for 1929 and 1946 were few, the relevant data are presented separately in Table 3 and notes to Appendix Tables 1-6; Table 1 and the complete divisions in Appendix Tables 1-6 are in current values only.

Table 3  
Holdings of Marketable Securities, Current and 1939 Prices,  
1929 and 1946  
(millions of dollars)

	Current Prices		1939 Prices	
	1929	1946	1929	1946
U.S. holdings of				
Foreign dollar bonds	6,465	1,535	4,510	1,285
Other foreign bonds	910	1,395	865	1,195
Foreign stocks	2,200	2,500	1,700	1,890
Foreign holdings of				
U.S. bonds	575	840	530	730
U.S. stocks	3,000	3,010	1,800	2,300

## D ANALYTICAL NOTES

The figures presented here do not alter significantly the net creditor position of the United States as depicted in Department of Commerce studies. The net creditor position was largest in 1929, at the end of the post-World War I lending era, with net assets of \$11,735 million. The figure was probably somewhat higher at the end of 1930. At the end of the 1930's the assets on the two sides of the account were about equal because of defaults and repatriation of United States holdings of foreign dollar bonds throughout the decade and the large scale influx of European capital in the latter part. Despite the continued growth of foreign short-term balances in the United States, a new creditor position emerged in 1946 from the post-war program of government loans to foreign countries, the net purchase of about \$480 million of Canadian securities during the war, and an increase in the value of United States direct investments abroad, chiefly because of reinvested earnings.

The main differences between the figures based on the Treasury censuses and the various estimates of the Commerce Department are two: the compulsory nature of the Treasury censuses uncovered assets on both sides of the account not included in Commerce estimates; and the concept of 'assets' is broader than that of 'investments', including holdings of non-profit institutions, real property held for personal use, and movable goods. In addition, the Commerce Department has never considered property held abroad by the government for its own use an investment.

1 *Comparison with Balance-of-Payments Data*

For comparative purposes, the net changes in foreign investments in and of the United States are shown in Table 4 with the corresponding net capital movements recorded in the official balance-of-payments statistics. No attempt was made to reconcile the differences, which are due chiefly to the following factors:

- a) Changes in the value of investments not recorded in the balance of payments, such as those arising from undistributed earnings of direct-investment enterprises, changes in market value, and changes in exchange rates.
- b) Errors and omissions in balance-of-payments data.
- c) Differences in concept mentioned above, especially concerning government property and holdings of nonprofit institutions. Expenditures for the acquisition of such property are reflected in the current account in the balance of payments.
- d) Changes due to international migration, i.e., change in the residence of the owners of the assets.
- e) Changes due to improvements in methods of estimating, particularly the wider coverage of the Treasury censuses.

**Table 4**  
**Net Changes in International Investments and**  
**Net Capital Movements, 1930-39 and 1940-46**  
 (millions of dollars; increase +, decrease —)

	Net change in investment	Net capital movement	Net difference
		1 9 3 0 - 1 9 3 9	
U.S. investments abroad			
Short term	-725	-1,557	+832
Long term, direct	-1,100	+435	-1,535
Other long term	-5,195	-1,309	-3,886
Foreign investments in U.S.			
Short term	+940	+357	+583
Long term, direct	+1,390		+1,390
Other long term	+1,490	+1,392	+98
		1 9 4 0 - 1 9 4 6	
U.S. investments abroad			
Short term	+655	+526	+129
Long term, direct	+1,520	-40	+1,560
Other long term	+8,565	+5,187	+3,378
Foreign investments in U.S.			
Short term	+4,290	+4,354	-64
Long term, direct	-230	-228	-2
Other long term	-435	-611	+176

## 2 *Geographic Distribution*

No attempt was made to distribute the figures used in this paper by foreign country of location or ownership of assets.

The general picture of the distribution can be obtained, however, from the reports of the Treasury censuses and the various studies by the Department of Commerce listed in the Bibliography.

### 3 *Industrial Distribution*

The industrial distribution of the 'debtors' with respect to foreign assets in the United States is fairly well established, and the figures in the accompanying tables are believed reasonably reliable. Not so with respect to American assets abroad, where little is known about the industrial classification of corporate holders of foreign wealth, except holders of direct investments. Although this information could have been obtained from the Treasury Census on form TFR-500, it was not tabulated except for investments in controlled enterprises. Probably, however, most corporate holdings of foreign portfolio securities are held by credit institutions, chiefly banks and insurance companies, while most 'other short term claims' are probably held by manufacturing and trade groups. Direct corporate holdings of real assets, except for branches, are relatively small.

## APPENDIX

### SOURCES

The basic data for the estimates in this paper were taken from the Treasury Department *Census of Foreign-Owned Assets in the United States* (1945) and the *Census of American-Owned Assets in Foreign Countries*. The Treasury figures were adjusted to 1929, 1939, and 1946 on the basis of the various studies by the Department of Commerce (see the Bibliography), material in Department of Commerce files, and the capital movement statistics collected regularly by the Treasury Department and published in its monthly *Bulletin*.

For data on the United States balance of international transactions the following Department of Commerce sources were used: 1930-39, *The United States in the World Economy*

(1943); 1940-44, *International Transactions of the United States During the War, 1940-45* (1947); 1945 and 1946, estimates since published in the *Survey of Current Business*, June 1948, and to be published in the *Balance of International Payments of the United States, 1946-48*.

*United States Assets Abroad*

- 1 Foreign currency and bullion
  - 1929 and 1939: no data
  - 1946: reported holdings of federal agencies
- 2 Deposits
  - 1929: based on Department of Commerce questionnaire to banks
  - 1939: based on bank deposits (p. 39) and brokerage balances (p. 35) as reported in *Treasury Bulletin*, March 1940, raised on the basis of Treasury Census, TFR-500
  - 1946: based on items noted above, *Treasury Bulletin*, May 1947, pp. 97 and 99, adjusted as for 1939
- 3 Other short term claims
  - 1929: based on Commerce Department questionnaire to banks
  - 1939: based on *Treasury Bulletin*, March 1940, p. 39, raised on the basis of Treasury Census, TFR-500
  - 1946: based on *Treasury Bulletin*, May 1947, p. 99, adjusted as for 1939
- 4 Dollar bonds
  - 1929: Department of Commerce estimates
  - 1939 and 1946: Department of Commerce estimates, adjusted on the basis of Treasury Census, TFR-500
- 5 Other foreign bonds
  - 1929: based on Treasury Census, TFR-500, adjusted back to 1929 for changes in market price and for estimated changes due to immigration
  - 1939 and 1946: based on Treasury Census, TFR-500, adjusted to 1939 and 1946
- 6 Other assets
  - 1929, 1939, and 1946: based on Treasury Census, TFR-500, adjusted for estimated changes due to immigration and omissions
- 7 Direct investment subsidiaries and branches
  - 1929: based on Commerce Department estimates for 1929, adjusted for omissions and for the division between subsidiaries and branches as indicated by the Treasury Census, TFR-500
  - 1939: based on Treasury Census, TFR-500, for 1943, adjusted to 1939 (a) for new investments and liquidations, reinvested earnings, intercompany accounts, and (b) to eliminate holdings of persons immigrating after 1939
  - 1946: based on Treasury Census, TFR-500, for 1943, adjusted to 1946 as for 1939, except that an allowance was made for emigration during 1946

## 8 Portfolio investments in corporate stocks

1929: based on Treasury Census, TFR-500, for 1943, adjusted to 1929 for estimated holdings of immigrants and changes in security prices

1939 and 1946: based on Treasury data, adjusted for security transactions, price changes, and immigrant holdings

## 9 Realty

1929: based on Treasury Census, TFR-500, adjusted for immigrant holdings

1939: based on Treasury Census, TFR-500, unadjusted

1946: based on Treasury Census, TFR-500, unadjusted, and reports of governmental agencies with installations abroad

## 10 Movable goods

1929: based on Treasury Census, TFR-500, adjusted for immigrant holdings

1939: based on Treasury Census, TFR-500, unadjusted

1946: based on Treasury Census, TFR-500, unadjusted, and the Report to Congress on Foreign Surplus Disposal, Office of the Foreign Liquidation Commission, July 1947

*Foreign Investments in the United States*

## 1 United States currency

1929: not estimated separately

1939 and 1946: Department of Commerce estimates

## 2 Deposits

1929: based on Commerce Department questionnaire to banks

1939: based on bank deposits (p. 38) and brokerage balances (p. 35) as reported in *Treasury Bulletin*, March 1940, raised on the basis of Treasury Census, TFR-300

1946: based on items noted above from *Treasury Bulletin*, May 1947, pp. 98 and 100, adjusted as for 1939

## 3 Other short term claims

1929: based on Commerce Department questionnaire to banks

1939: based on *Treasury Bulletin*, March 1940, p. 38, raised on the basis of Treasury Census, TFR-300

1946: based on *Treasury Bulletin*, May 1947, p. 100, adjusted as for 1939

## 4 Bonds

1929: based on Cleona Lewis, *America's Stake in International Investments*

1939 and 1946: Department of Commerce estimates, adjusted on the basis of Treasury Census, TFR-300

## 5 Other claims

1929: based on Cleona Lewis, *op. cit.*

1939 and 1946: based on Treasury Census, TFR-300, adjusted for immigrant holdings

## 6 Direct investment branches and subsidiaries

1929: based on Cleona Lewis, *op. cit.*; branches and subsidiaries were not estimated separately

1939 and 1946: based on Treasury Census, TFR-300, for 1941, adjusted to 1939 and 1946 for new investments and liquidations, reinvested earnings, and immigrant holdings

- 7 Portfolio investments in corporate stocks  
 1929: based on Cleona Lewis, op. cit.  
 1939 and 1946: based on Treasury Census, TFR-300, for 1941, adjusted to 1939 and 1946 for changes in security prices, transactions, and immigrant holdings
- 8 Real estate  
 1929, 1939, and 1946: based on Treasury Census, TFR-300
- 9 Inventory  
 1929, 1939, and 1946: based on Treasury Census, TFR-300

#### DETAIL TABLES

The six detail tables contain data for Exhibits I and II. Line 6 of Exhibit I and lines I 7, II 7, and III 6 of Exhibit II are made up of the data in Tables 1, 2, and 3. Column 8 of Exhibits I and II is made up of the data in Tables 4, 5, and 6.

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- United States Treasury Department:  
*Census of Foreign-Owned Assets in the United States* (1945)  
*Census of American-Owned Assets in Foreign Countries* (1947)
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*America's Stake in International Investments* (Brookings Institution, 1938)  
*Debtor and Creditor Countries: 1938, 1944* (Brookings Institution, 1945)

**Appendix Table 1**  
**United States Assets Abroad, Market Value, 1929, 1939, 1946**  
 (millions of dollars)

	TOTAL	CREDIT INSTITUTIONS		TYPE OF HOLDER					COLLECTIVES		HOUSE- HOLDS *
		Private	Fed.	PUBLIC UTIL.	MFG., TRADE, ETC.	OTHER BUSINESS			Private nonprofit	Fed.	
						MINES	FARMS	FED.			
					1	2	9				
1 Total	20,970	3,535	..	1,090	5,380	460	1,370	390	685	..	8,060
2 Foreign currency & bullion	..	..	..	..	..	..	..	..	..	..	..
3 Deposits	210	85	..	..	..	..	..	..	..	..	125
Other short term claims	..	..	..	..	..	..	..	..	..	..	..
4 On foreign governments	..	..	..	..	..	..	..	..	..	..	..
5 On other foreigners	1,565	..	..	..	800	..	300	..	25	..	440
Long term claims	..	..	..	..	..	..	..	..	..	..	..
6 Dollar bonds	6,465	2,275	..	..	..	..	570	..	390	..	3,280
7 Other foreign bonds	910	355	..	..	..	..	90	..	65	..	400
8 Other liabilities b	785	25	..	..	150	..	75	..	..	..	485
Stocks	..	..	..	..	..	..	..	..	..	..	..
9 Direct investment, subsidiaries c	5,530	..	..	..	..	..	..	..	..	..	..
10 Direct investment, branches	2,320	660	..	1,090	4,130	460	170	390	160	..	790
11 Portfolio investments	2,200	135	..	..	275	..	140	..	40	..	1,610
Direct foreign assets	..	..	..	..	..	..	..	..	..	..	..
12 Real estate	750	..	..	..	25	..	25	..	5	..	695
13 Movable goods	285	..	..	..	..	..	..	..	..	..	285
Only items 6, 7, and 11 can be estimated in 1939 prices, and only item 6 at cost, as follows:											
In 1939 prices											
6 Dollar bonds	4,510	1,590	..	..	..	..	395	..	270	..	2,255
7 Other bonds	865	340	..	..	..	..	85	..	60	..	380
11 Stocks	1,700	105	..	..	215	..	105	..	35	..	1,240
Total	18,470	2,805	..	1,090	5,320	460	1,155	390	555	..	6,695
At cost											
6 Dollar bonds	6,475	2,280	..	..	..	..	570	..	390	..	3,285
Total	20,980	3,540	..	1,090	5,380	460	1,370	390	685	..	8,065



Appendix Table 1 (concl.)

	TOTAL	CREDIT INSTITUTIONS		PUBLIC UTIL.	TYPE OF HOLDER					FARMS	COLLECTIVES		HOUSE-HOLDS <sup>a</sup>	
		Private	Fed.		MFG., TRADE, ETC.	MINES	OTHER BUSINESS	Private nonprofit	Fed.		FARMS	Private nonprofit		Fed.
1 Total	14,100	1,802	40	984	4,248	394	743	384	352	..	..	5,253		
2 Foreign currency & bullion	..	..	..	..	..	..	..	..	..	..	..	..		
3 Deposits	400	150	..	..	..	..	..	..	..	..	..	250		
Other short term claims	..	..	..	..	..	..	..	..	..	..	..	..		
4 On foreign governments	..	..	..	..	..	..	..	..	..	..	..	..		
5 On other foreigners	650	..	..	..	310	..	150	..	5	..	..	185		
Long term claims	..	..	..	..	..	..	..	..	..	..	..	..		
6 Dollar bonds	1,685	590	..	..	..	..	150	..	100	..	..	845		
7 Other foreign bonds	915	360	..	..	..	..	90	..	65	..	..	400		
8 Other liabilities <sup>b</sup>	815	30	40	..	160	..	80	..	..	..	..	505		
Stocks	..	..	..	..	..	..	..	..	..	..	..	..		
9 Direct investment, subsidiaries <sup>c</sup>	4,760	..	..	994	3,548	394	148	334	142	..	..	678		
10 Direct investment, branches	1,990	572	..	..	..	..	..	..	..	..	..	..		
11 Portfolio investments	1,700	100	..	..	205	..	100	..	35	..	..	1,260		
Direct foreign assets	..	..	..	..	..	..	..	..	..	..	..	..		
12 Real estate	850	..	..	..	25	..	25	..	5	..	..	795		
13 Movable goods	335	..	..	..	..	..	..	..	..	..	..	335		
Only item 6 can be estimated at cost, as follows:	..	..	..	..	..	..	..	..	..	..	..	..		
6 Dollar bonds	2,430	855	..	..	..	..	215	..	145	..	..	1,215		
Total	14,845	2,067	40	984	4,248	394	808	384	397	..	..	5,623		

							1	9	4	6		
1 Total	24,840	2,174	1,480	925	5,398	535	865	355	413	6,375	6,320	
2 Foreign currency & bullion	275	..	..	..	..	..	..	..	..	275	..	
3 Deposits	450	175	..	..	..	..	..	..	..	..	275	
Other short term claims												
4 On foreign governments	205	..	195	..	..	..	..	..	..	10	..	
5 On other foreigners	775	..	..	..	410	..	150	..	..	..	215	
Long term claims												
6 Dollar bonds	1,535	550	..	..	..	..	135	..	90	..	760	
7 Other foreign bonds	1,395	540	..	..	..	..	145	..	100	..	610	
8 Other liabilities <sup>b</sup>	5,650	35	1,285	..	175	..	85	..	..	3,490	580	
Stocks												
9 Direct investment, subsidiaries <sup>c</sup>	6,050			925	4,488	535	175	355	168	..	900	
10 Direct investment, branches	2,220	724	..	..	..	..	..	..	..	..	1,850	
11 Portfolio investments	2,500	150	..	..	300	..	150	..	50	..		
Direct foreign assets												
12 Real estate	2,550	..	..	..	25	..	25	..	5	1,700	795	
13 Movable goods	1,235	..	..	..	..	..	..	..	..	900	335	
Only items 6, 7, and 11 can be estimated in 1939 prices, and items 6, 12, and 13 at cost, as follows:												
In 1939 prices												
6 Dollar bonds	1,235	445	..	..	..	..	110	..	70	..	610	
7 Other bonds	1,195	465	..	..	..	..	130	..	80	..	520	
11 Stocks	1,890	115	..	..	230	..	110	..	35	..	1,400	
Total	23,730	1,959	1,480	925	5,328	535	785	355	358	6,375	5,630	
At cost												
6 Dollar bonds	1,805	645	..	..	..	..	160	..	105	..	895	
12 Real estate	2,900	..	..	..	25	..	25	..	5	2,125	720	
13 Movable goods	4,735	..	..	..	..	..	..	..	..	4,450	285	
Total	28,960	2,269	1,480	925	5,398	535	890	355	428	10,350	6,330	

<sup>a</sup> Including estates and trusts.

<sup>b</sup> Including trusts and estates, real estate mortgages, insurance policies.

<sup>c</sup> Including nonprofit organizations and partnerships; including loan capital.

**Appendix Table 2**  
**Foreign Assets in the United States, Market Value, 1929, 1939, 1946**  
(millions of dollars)

	TOTAL	TYPE OF DEBTOR										COLLECTIVES Private nonprofit	HOUSE- HOLDS *	
		CREDIT INSTITUTIONS		PUBLIC UTIL.	MFG., TRADE, ETC.			MINES		OTHER BUSINESS	FARMS			Fed.
		Private	Fed.		1	9	2	9						
1 Total	9,285	3,585	..	1,130	3,045	315	400	10	125	190	..	125	190	
2 U.S. currency & bullion	..	..	..	..	..	..	..	..	..	..	..	..	..	
3 Deposits	1,710	1,710	..	..	..	..	..	..	..	..	..	..	..	
4 Other short term claims	1,365	1,190	..	..	175	..	..	..	..	..	..	..	..	
Long term claims														
5 Bonds	575	..	..	405	45	..	..	..	..	..	..	125	..	
6 Other claims *	750	375	..	..	115	..	70	..	..	..	..	..	190	
Stocks														
7 Direct investment, subsidiaries	1,100	..	..	275	700	15	90	10	..	..	..	..	..	
8 Direct investment, branches	300	310	..	..	..	..	..	..	..	..	..	..	..	
9 Portfolio investments	3,000	..	..	450	2,010	300	240	..	..	..	..	..	..	
Reproducible assets <sup>b</sup>														
10 Real estate	85	..	..	..	..	..	..	..	..	..	..	..	..	
11 Inventory	350	..	..	..	..	..	..	..	..	..	..	..	..	
Only items 5 and 9 can be estimated in 1939 prices, as follows:														
5 Bonds	530	..	..	365	40	..	..	..	..	..	..	125	..	
9 Stocks	1,800	..	..	270	1,205	180	145	..	..	..	..	..	..	
Total	7,990	3,585	..	910	2,235	195	305	10	..	..	..	125	190	
1 Total	13,055	5,060	..	1,328	4,099	348	623	17	..	..	..	645	500	
2 U.S. currency & bullion	220	..	..	..	..	..	..	..	..	..	..	220	..	
3 Deposits	3,430	3,265	..	..	..	..	..	..	..	..	..	165	..	

4 Other short term claims	365	180	..	..	175	..	..	..	10	..
Long term claims										
5 Bonds	700	..	..	405	45	..	..	..	250	..
6 Other claims <sup>a</sup>	2,015	1,010	..	..	300	..	205	..	..	500
Stocks										
7 Direct investment, subsidiaries	2,245		..	458	1,504	38	168	17	..	..
8 Direct investment, branches	545		..	..	..	..	..	..	..	..
9 Portfolio investments	3,100	..	..	465	2,075	310	250	..	..	..
Reproducible assets <sup>b</sup>										
10 Real estate	85	..	..	..	..	..	..	..	..	..
11 Inventory	350	..	..	..	..	..	..	..	..	..
						1	9	4	6	
1 Total	16,680	6,380	..	1,380	3,735	335	540	20	..	3,485
2 U.S. currency & bullion	620	..	..	..	..	..	..	..	..	620
3 Deposits	5,190	4,805	..	..	..	..	..	..	..	325
4 Other short term claims	2,555	165	..	..	165	..	..	..	..	2,225
Long term claims										
5 Bonds	840	..	..	465	60	..	..	..	..	315
6 Other claims <sup>a</sup>	1,490	810	..	..	220	..	130	..	..	330
Stocks										
7 Direct investment, subsidiaries	2,060		..	470	1,260	40	170	20	..	..
8 Direct investment, branches	500		..	..	..	..	..	..	..	..
9 Portfolio investments	3,010	..	..	445	2,030	295	240	..	..	..
Reproducible assets <sup>b</sup>										
10 Real estate	125	..	..	..	..	..	..	..	..	..
11 Inventory	350	..	..	..	..	..	..	..	..	..
Only items 5 and 9 can be estimated in 1939 prices, as follows:										
5 Bonds	780	..	..	370	45	..	..	..	..	315
9 Stocks	2,300	..	..	340	1,550	225	185	..	..	..
Total	15,860	6,380	..	1,180	3,240	265	485	20	..	3,485

<sup>a</sup> Including trusts and estates, annuities, debts and claims, real estate mortgages.

<sup>b</sup> Excluding branches; segregation by type of debtor not applicable.

## Comment

*Solomon Fabricant*

Current estimates of the increase in 'real' national wealth focus attention on durable movable goods and on 'improvements' of real estate. This practice ignores changes in real wealth due, for example, to certain changes in the educational level of the population, intangible assets of business concerns, and land values. I would like to throw into the discussion a question on the last, that is, the changes in real wealth reflected by certain changes in the value of land, particularly farm land.

Noteworthy elements of change in the real wealth resident in farm land include: (a) gross capital formed by clearing land and breaking prairies; (b) capital consumed by soil depletion. It is pretty clear that these represent real investment or disinvestment. In addition, there is an element that is closer to the borderline; (c) gross capital formed by a farmer 'sweating out' a period of low current income (as ordinarily measured), while the value of his land rises with the development of transport facilities, migration, and the natural increase in population. Does this act of patience on the part of settlers—their willingness to produce at low current rates of return in the expectation that land values will rise—mean real investment? That is, is it analogous in important respects to the investment in time by distillers in the business of aging whiskey or by cutters and storers of natural ice? May this type of investment in land be measured, at least in theory, by the difference between the rate of return that might normally be expected by settlers had they stayed at home and the current rate of return they might normally expect to receive on the new farms?

Of course, no account books are kept of the changes in wealth represented by (a), (b), or (c). Indeed, the significant question is not how to go about actually measuring them in any formal way, but simply whether they may be considered important enough to require serious qualification of the usual measures of net capital formation. And particularly, are qualifications of estimates of net capital formation more necessary for some

periods (e.g., the 19th century) than for others (e.g., the 20th); or for some countries than for others? Anyone seriously interested in the theory of economic development must come to grips with these questions.

*E. W. Morehouse*

I disagree with Mr. Kosh on the three basic conclusions reached in his 'Tangible Assets of Public Utilities'. As I understand his views, these conclusions are:

- 1) Because utilities are subject to widespread regulation, their value for 'national wealth' estimates at a given date is or should be 'regulatory value' for rate-making purposes;
- 2) Depreciation reserves or reserve requirements on a straight line basis reflect actual accrued depreciation ('capital consumption');
- 3) 'Original cost' (to original owner) minus depreciation reserves is "the most meaningful available estimate of public utility wealth".

In other words, the value of utility assets is what Mr. Kosh thinks is or should be the rate-base used by the most 'advanced' commissions.

I, on the contrary, am of the opinion that:

- 1) 'Original cost', whatever one may think of it for rate-base valuation purposes, is not predominant and is not the most feasible standard of value that should be used for estimating national wealth in utility assets at a given time.
- 2) Except by chance, straight line depreciation reserves or reserve requirements do not measure actual accrued depreciation, using 'depreciation' in the economist's sense—loss of value.
- 3) To estimate national wealth in a given year utility assets, like other forms of wealth, should be valued on the basis of the income actually earned, not on the basis of a much agitated for rate-base theory.

## ORIGINAL COST

The core of my objection to Mr. Kosh's use of 'original cost' is that, in practice, it does not represent the generally accepted regulatory concept of rate-base value he asserts it to be. Even if it did, it would not by itself fairly represent either the economic or the regulatory value of the tangible assets of electric and manufactured gas utility companies.

Careful check will show, I believe, that very few state commissions, in actual practice, give exclusive or even predominant weight to 'original cost' in their rate-base findings. Such state commissions as do consistently use this basis have jurisdiction over only a small minority of the assets of the industry. Mr. Kosh seems to have interpreted a change in accounting principle and the agitation for 'original cost' as a rate-base by the Federal Power Commission and a few state commission representatives as a basic shift in regulatory principle. Many state commissions still do not accept this thinking, whether from conviction, because of the governing statutes and court decisions under which they operate, or for other reasons. In the rate-base they adopt, they give weight to various adjustments of 'original cost'—a cost of reproduction estimate, a statement of investment by the present owner, or some adjustment to current price levels by indexing 'original costs', or other allowances. Mr. Kosh recognizes the possibility of using indexes of original cost but it is not very clear how much, if any, weight he would give such indexed costs; I gathered he would not give them any material weight.

Even commissions that may give predominant weight to 'original cost' in a rate-base will not use the same rates of returns. After all, rate-bases and rates of return, indeed the whole concept of rate-making value itself, are merely tools for the regulatory bodies to use in reaching their prime objective: to determine prices that will allow a utility company to earn no more than reasonable earnings. Mr. Kosh seems to recognize this in the early part of his paper but loses sight of it when he attaches such importance to rate-bases as evidences of value.

It must be remembered that the regulatory concept of value for rate-making purposes is operative only at intervals and as a limit as of a given time. Such value represents a ceiling that limits earnings, with some lag in application because it is based on the past although it is presumed to operate in the future. There is no guarantee of earnings. In his text, Mr. Kosh recognizes the problem of valuing tangible assets of utilities operating in a dwindling market, but it is not clear how he carried this thinking into his estimates.

In objecting to the use of 'original cost' (which on examination will be found to be a Joseph's coat of many colors) as the measuring stick for electric and manufactured gas utility assets, I do not thereby subscribe to 'cost of reproduction' as the yardstick. I would agree that some indexing of 'original cost' is necessary to reflect the generally prevailing regulatory concept of value upon which Mr. Kosh lays such stress. But such indexing is very difficult statistically in view of the unknown but varying dates of installation of plant at 'original costs'. It does not appeal to me as a feasible method of adjustment in a valuation embracing such a large aggregate of assets, whatever its merits in valuing the property of an individual company.

#### DEPRECIATION

My essential objection to Mr. Kosh's use of straight line depreciation reserve or reserve requirement in his value estimate is that it confuses accounting and value concepts. Accrued depreciation for the purpose of estimating national wealth should be, I assume, 'loss of value'. Experts on depreciation and valuation will generally agree, I think, that only by chance would a straight line depreciation reserve or reserve requirement represent actual depreciation, in the sense of loss of value, at a given date. Straight line depreciation is an accounting convention whereby costs are amortized over more than one accounting period. The reserve at a given date shows only the net amount set aside to amortize plant costs. It is a matter of accounting convenience and practicality, but it does not, except by chance, reflect actual loss of value in a single account-



ing year or succession of them. Such a reserve is only accrued amortization.

A direct estimate of accrued depreciation of utility property on a comprehensive and comparable basis with other kinds of property is indeed beset with difficulties. It really requires a study of each company's property, which is clearly impracticable in a valuation as large and comprehensive as this. Also the comparability and significance of depreciation reservations in price-regulated and unregulated industries are open to debate. It is questionable whether the same significance should be attached to the depreciation reserves in the two types of industry. I know of no easy way to reconcile these differences or difficulties and therefore think it would be preferable to try other methods of valuation.

#### CAPITALIZATION OF INCOME

It seems more justifiable, under all the circumstances, to base the value estimate of tangible utility property upon a capitalization of income method.

The problem, as I see it, is not to determine a value for the purpose of determining prices (a theme running through Mr. Kosh's paper); the problem is to estimate national wealth in terms of utility assets. I submit that such a valuation can best be founded on the income received from those assets, whether that income be called reasonable or unreasonable, excessive or confiscatory, just or unjust, legitimate or illegitimate, or merely 'windfall'.

As Mr. Kosh himself comments, the statements of income of public utilities are probably more reliable than balance sheet figures. The reported income is at least the result of the application, faulty and imperfect as it may be, of regulatory concepts of value and income. Though regulation is imperfect and some of the income reported may be in excess of what might be deemed reasonable after a full rate case investigation, the income was received and therefore becomes a subject of valuation. I think the estimate of value should not be based upon the estimator's view of what would be the results if our regu-

latory institutions operated more satisfactorily according to his views. It seems more realistic to take the results as we find them.

Mr. Kosh rejects the capitalization of income method, in part at least, because he thinks it involves circular reasoning as applied to public utilities. He would be on solid ground if that method were being used to fix prices and control earnings. That is not the present purpose. The reported income already reflects whatever price-fixing and earnings limitations have been imposed by regulatory authorities. Hence it already reflects the avoidance of circular reasoning to whatever extent regulatory action does so. The present task, as I understand it, is to estimate or 'discover' the value of that income in the years chosen for study, on a basis that is reasonably comparable with the valuations of incomes from other types of asset or industry. Capitalization of income is a conventional method of such valuation which should yield comparable results when the incomes are stated on a consistent basis and the capitalization rates are appropriate, comparing the risks and probabilities of one industry with another. Use of this method does not involve circular reasoning, in my opinion, unless the resultant value is used to fix prices and control earnings, neither purpose being part of this project. Parenthetically it may be noted that public utility securities compete with the securities of other industries for the investor's dollar; this seems another reason for using a common method of valuation.

To develop an appropriate capitalization rate to apply to an aggregate of utility income seems better and more feasible than to essay the difficulties of determining original cost, accrued depreciation, and related elements of value by direct appraisal of the assets. A considerable portion of the common stocks issued by electric power and manufactured gas companies are owned by holding companies, it is true, and these shares do not have any direct market value. This was particularly true in 1929 and 1939; it was less true in 1946 because of the divestment of holding company assets pursuant to the integration program prescribed by the SEC under the Public Utility Hold-

ing Company Act. Even so, there is probably a sufficient sample of publicly held public utility common stocks, as there certainly is a sufficient sample of bonds and preferred stocks of public utilities, to afford a basis for a statistical investigation of appropriate capitalization rates. Adjustments would have to be made for certain capital costs that may not be adequately reflected by such a statistically determined capitalization rate and for the probabilities of regulatory actions affecting earnings or dividends. Such a capitalization rate once determined, however, can be readily compared with the capitalization rates appropriate for incomes derived from other types of assets and other industries, and in this way serve as a check on comparability.

The main issue between Mr. Kosh and myself, as I view it, is simply this. I believe valuation for national wealth estimates is a matter of informed judgment concerning the incomes received. Mr. Kosh would value utility assets on the basis of a rate-making value theory which he thinks is or should be increasingly used by commissions in fixing utility rates. In my opinion, utility assets in a national wealth estimate should be valued on the basis of the income they actually produce in the valuation year, regardless of the goodness or the badness of the rate-making theories of commissions. The income I would capitalize is not an expected or synthetic or 'reasonable' income or series of incomes; it is the actual income reported in the year of valuation, in this case, 1946.

Mr. Kosh's valuation theories lead to some curious results. He values the tangible assets of Class I railroads in 1946 at \$19.8 billion and privately owned electric utilities at \$11.6 billion. The latter figure happens to coincide with the net book cost of plant of Class A and B electric utilities (including some gas and other utility plant, however) as summarized by the Federal Power Commission for 1946. The same FPC summary reports operating income of \$830 million from these assets in 1946. Mr. Kosh notes that "fair rates of return" have decreased to 5-5.5 percent. These rates of return, applied to \$11.6 billion, yield \$580-638 million. Is the balance, \$250-192 million, a

'windfall' due to imperfect regulation or 'regulatory lag' or 'unjust enrichment' soon to be wiped out, which should be ignored in valuing utility assets? I think such income should not be ignored. Incidentally, railway operating income in 1946 was reported to be \$619 million, about 3.1 percent of Kosh's 'value', \$19.8 million. The relationships between these figures for the two industries make one wonder whether the value estimates are on a realistically comparable basis.

#### GENERAL COMMENTS

Of necessity, this comprehensive valuation project relies heavily on accounting statements. A caution needs to be uttered lest the eagerness to find some data lead to an uncritical use of accounting statements as though each were of equal worth and met identical standards. Although accounting principles and statements were greatly improved between 1929 and 1946, they are only man-made conventions. Careful scrutiny will show, I think, that accounting statements vary from company to company, from industry to industry, and from year to year. The comparability of statements of income needs to be watched. For example, the statements of income usually issued by privately and publicly owned utilities differ, sometimes materially, so that what is called net income in one case may not be fully comparable with net income in another. Similar and sometimes wider variations are found in balance sheet statements.

#### *Reply by Mr. Kosh*

The criticism Mr. Morehouse levies at my paper arises in large part from my poor exposition. For that I can do no more than apologize, and attempt to rephrase my thoughts.

But first, I wish to make clear one general misconception that seems to be a recurring theme in the criticism. For example, my thesis is said to be: "the value of utility assets is what Mr. Kosh thinks is or should be the rate-base used by the most advanced commissions".

I wish to state emphatically that for purposes of this paper I have neither expressed nor implied what I think should be a

proper method of determining regulatory value or rate-base, nor have I tried or desired to characterize commissions as "advanced" or retarded. The paper is an attempt to reflect what commissions do, not what they should do.

As Mr. Morehouse so clearly points out, the main issue between us is that he believes "utility assets in a national wealth estimate should be valued on the basis of the income they actually produce in the valuation year", whereas I think that the value of utility assets for national wealth purposes tends to approach regulatory value.

Now, were Mr. Morehouse to insist that capitalization of income is a preferable or the only appropriate measure, an answer would be considerably more difficult. In any event I feel I have met that contention in my paper. But his claim is entirely different: he would capitalize "the income they actually produce in the valuation year", "not an expected or synthetic or 'reasonable' income or series of incomes".

Capitalization of income is a general and perfectly valid theory of valuation, but it is always capitalization of expected incomes, never past incomes. Capitalization of past or a given year's actual income does not, in principle, yield an estimate of value. One never buys an economic good because of the income it did in fact yield to its past owner; one buys it for the expected income. I can do no better than quote Mr. Kuznets again:

"If the theoretically defined value of wealth items is to be attained directly by a valuation procedure, the services yielded by the wealth item may be assumed to be represented by the net income it produces. On this assumption, the current value of any wealth item is determined by three variables: (1) the magnitude of future income streams; (2) the temporal distribution of these expected incomes in the future; (3) the rate of interest to be used for discounting. Lack of knowledge about any of the three variables makes it impossible to apply this method of valuation satisfactorily. And a brief consideration of each of the three variables will show that, by their very nature, *direct* information on them is not likely to be available for any but minor groups of wealth items.

The determination of the first variable requires data on incomes

expected from the various items of wealth, the latter classified into the various categories it is important to distinguish. Since the requirement is for *expected* incomes, the relevant information is in the nature of a forecast rather than of a record of past or present economic events; and it is this characteristic that makes the information necessarily conjectural." ('On the Measurement of National Wealth', pp. 20-1)

Mr. Morehouse's insistence on the capitalization of actual income in the valuation year puzzles me for another reason. Utility operating income for Class A and B electric utilities, as reported by the Federal Power Commission, was \$833 million in 1945, \$829 million in 1946, and \$815 million in 1947. Mr. Morehouse would not, I am sure, suggest that the value of the assets of the electric utility business declined between 1945 and 1947; in fact I rather suspect he would agree it increased. But if a steadily *decreasing* income is to be capitalized to obtain a steadily *increasing* value, the capitalization rate must have been decreasing even faster than income. Would Mr. Morehouse agree that the uncertainty of investing in the electric utility business has been *decreasing* since 1945, as would be intimated by a decreasing capitalization rate; and that, by the same token, the fair rate of return too should have been progressively reduced?

As concerns Mr. Morehouse's contention that original or book cost is not the predominant method of determining the rate-base, I can do no more than refer to cases currently being decided and to the brief statistical analysis described in my paper.

One more point—depreciation. I did not claim that a straight line depreciation reserve is equivalent to total accrued depreciation in the economic sense. What I did say was that such reserves are widely used by regulatory bodies as a measure of accrued depreciation in determining regulatory value. Since I believe utility value for national wealth estimating purposes approaches regulatory value, these book reserves are pertinent in estimating the value of utility assets for national wealth purposes.

And at the risk of becoming boring, I repeat that it does not follow from the above that I subscribe to book cost minus depreciation reserve as a proper method of ascertaining utility regulatory value.