

direct investment fell to around a quarter by the end of the 1990s, with foreign security holdings and deposits in overseas branches of U.S. banks rising sharply. Foreign-owned investments in the United States also altered in character, acquiring relatively less direct investments and private U.S. securities and more U.S. government obligations, currency, and bank deposits.

In the first decades of the post-World War II era, U.S. direct investment abroad focused on petroleum and manufacturing facilities, amounting to almost 70 percent of U.S. total direct investments abroad (Table Ee72–131) (see also Lipsey 1988). Thereafter, both declined so that by 1998 these two sectors represented around 50 percent of U.S. direct investments abroad while finance and banking accounted for 39 percent. Foreign direct investment in the United States shifted in similar directions, in the period up to 1970 toward petroleum and manufacturing and afterward away from these sectors and toward finance and insurance (Table Ee132–165) (see also Lipsey 1993).

Throughout the 1950s and 1960s, Canada remained a target for around 30 percent of U.S. direct investment, while Europe rose from around 15 percent in 1950 to 34 percent in 1970. In the same years, Latin America dropped from 39 percent to 17 percent, while the Middle East rose from 6 percent to 12 percent. Since 1970, Canada has become a much smaller recipient of U.S. direct investment, falling to 11 percent of the total in 1998. Europe is now the host of 50 percent of U.S. direct investment. With shifts in the ownership of petroleum resources in the 1970s, the Middle East and Africa have dropped to 3 percent, their place taken by a significant increase to 17 percent in the share of Asia and the Pacific.

The countries dominating direct investment in the United States in the 1950s and 1960s were the United Kingdom, Canada, Switzerland, and the Netherlands, making up 80–85 percent of all foreign direct investment in the United States. In the decades since 1970, however, these countries' combined share fell to 46 percent in 1998. The major new direct investors in the United States in 1998 were Germany (12 percent) and Japan (16 percent).

For most of the nineteenth century, the value of the U.S. dollar was fixed in terms of gold, as were the currencies of its major trading and investing partners (Tables Ee612–620). The terms of trade of goods and services, of course, fluctuated owing to changes in productivity, factor prices, tariffs, and the like (Table Ee431–445). Only in the “greenback era” (1862–1879) did the U.S. dollar float freely against the currencies of its major trading and investment partners. From 1879 to 1971, the U.S. dollar operated under a gold standard in some form (except for the paper standards, yielding floating exchange rates, during 1917–1922 and 1933–1934), the only change in its gold value occurring in 1934. Still, the currency disruptions for many countries stemming from World War I and its aftermath, the Great Depression of the 1930s, and World War II meant that bilateral exchange rates with major and minor trading and investment partners were subject to substantial fluctuations and shifts (Table Ee621–636). In separate steps in 1971 and 1973, the United States moved to a floating exchange regime with major consequences for its bilateral exchange values (Tables Ee621–678) and its overall average trading values (Table Ee679–683). Broad indexes of the foreign exchange value of the dollar show a fairly steady appreciation trend since the beginning of the floating exchange era in 1973.

The switch from fixed to floating exchange rates in the early 1970s meant that the overall balance on current account conveys different kinds of information about the state of the nation's international transactions. Under the fixed exchange rate regime that

widely prevailed before the early 1970s, changes in the international economy were reflected in the overall balance on current account and its subcomponents, that is, in the dollar balances. With the move to flexible exchange rates in the early 1970s, changes in the international economy became reflected in shifts in exchange rates as well as shifts in the dollar balances of the international accounts. For example, under fixed exchange rates, the extent of an overall surplus or deficit balance of payments can signal whether the currency is “undervalued” or “overvalued.” Under a relatively unmanaged floating exchange rate regime, a deficit may not communicate anything about competitiveness of U.S. trade and the like, particularly because the dollar has been highly valued as a world currency since the late twentieth century. When a currency becomes more rigidly managed by a government or monetary authority (that is, floats less freely), the definition and interpretation of the overall balance of payments becomes more difficult (Eichengreen 2000). What is clear is that study of the patterns of international economic problems and the pressures under the current flexible exchange rate regime should combine examination and analysis of the patterns of both international transactions and exchange rates.

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INTERNATIONAL TRADE IN GOODS AND SERVICES

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Statistics on U.S. international trade in goods and services are presented in Tables Ee362–611. Separate tables show the value of U.S. trade (exports and imports) in goods and services, the value of that trade in relation to gross domestic product, different breakdowns of that trade in terms of class of good being exchanged, price and quantity indicators of trade, and the primary trading partners of the United States.

The character of U.S. international trade has changed considerably over the course of the nation's history. For most of the nineteenth century, America's exports consisted largely of

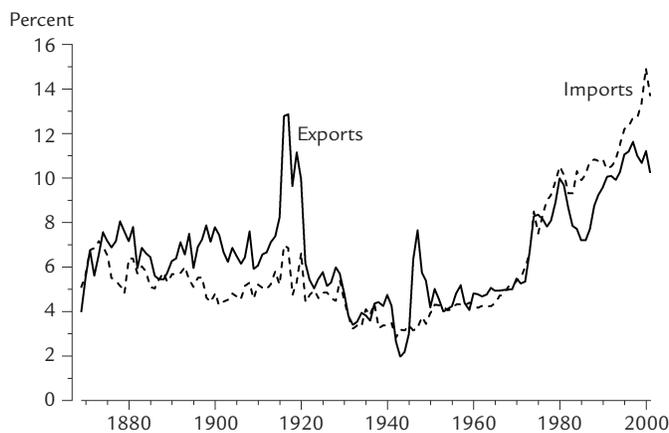


FIGURE Ee-C Trade in goods and services as a percentage of gross domestic product: 1869–2001

Sources

Series Ca10, Ee416–418, and Ee421.

Documentation

Through 1928, the data cover goods only; thereafter, goods and services are included.

agricultural-based commodities, particularly cotton, tobacco, and, later in the century, wheat. Cotton was the country's dominant export for most of the century. U.S. imports consisted of a widely diverse bundle of goods, however, ranging from manufactured goods (such as textiles and iron goods) to consumer items (such as coffee, tea, fruits, wine, and spirits). Around 1900 exports of manufactured goods began to rise rapidly, and by World War I manufactured goods accounted for a majority of U.S. exports. Many of these exports were natural-resource- or mineral-based manufactured goods, such as iron and steel products (using iron ore and coal resources), copper goods, and petroleum products. By World War II, the United States had an advantage in exporting technological and skill-intensive products and services. Exports of shipping services had been an important source of export earnings after independence, but they were relatively unimportant until the post-World War II rise in trade in services.

Throughout most of U.S. history, merchandise trade has fluctuated between 5 and 10 percent of GDP. However, there have been some exceptional periods. During World Wars I and II, exports surged as the United States supplied food and manufactured goods to Western Europe. During the Great Depression of the 1930s, by contrast, the ratio of trade to gross domestic product (GDP) fell to about 2 percent, a historic low. By the year 2000, the value of trade as a share of GDP reached the highest levels seen in a century (see Tables Ee416–423 and Figure Ee-C).

Data Collection

International trade data are subject to a variety of special statistical problems relating to compilation, publication, coverage, valuation, and classification.¹ The first Congress of the United States provided for the compilation of statistics on foreign trade, and the U.S. Treasury Department, through its customhouses, began keeping a record of foreign trade beginning August 1, 1789. Compared with currently compiled statistics, these earliest records left a great

¹ This section is taken largely from *Historical Statistics of the United States* (1975).

deal to be desired. J. Edward Ely, writing on the historical development of foreign trade statistics, observes that:

The United States may be said to have had an adequate set of import and export statistics only since about 1821. Prior to that time no information was compiled on the amount of imports of articles which were free of duty upon importation into the United States. No value figures were compiled on imports subject to specific rates of duty and the dollar value for imports subject to ad valorem rates of duty, although apparently accurate, was compiled only as a total with no information on how much of each commodity was imported. Existing figures on the total dollar value of imports during the years 1795 to 1801 were apparently estimated at the time by the Secretary of the Treasury, and the figures for 1790–1794 and from 1802–1820 were apparently estimated many years later. (Ely 1953, p. 269)

Douglass North observes that the 1789–1820 figures were “officially overhauled and published in the Report of the Secretary of the Treasury on Finances for 1835” (North 1960). In employing the early records, North found a number of deficiencies, and users of figures for 1790–1820 should note his revised figures and consider the criticisms in the appendix to his paper. The adequacy of the early records, of course, depends on the use made of them. Some of the earliest records were not published officially, and scholars have had to depend on information from contemporary sources, such as Tench Coxe, *A View of the United States of America* (1794); Samuel Blodget Jr., *Economica: A Statistical Manual for the United States of America* (1806); Timothy Pitkin, *A Statistical View of Commerce of the United States of America* (1816), which presents many tables obtained directly from the Treasury books; and Adam Seybert, *Statistical Annals* (1818), covering the period 1789–1818, and giving statistics of population, commerce, public land, and the like. Such data as were published annually for 1790–1820 were brought together later in *American State Papers*, Class 4, “Commerce and Navigation” (U.S. Congress 1832, 1834).

In 1820, Congress passed a law to provide for obtaining accurate statements of the foreign commerce of the United States and, at the same time, established the Division of Commerce and Navigation in the office of the Register of the Treasury. It required collectors of customs to compile and transmit annual reports to that office showing the detailed trade with foreign countries and the navigation employed therein. Beginning with 1821, these reports were consolidated and published annually in *Commerce and Navigation of United States*. Foreign trade statistics published by the federal government after 1820 are regarded as superior to those for the earlier period but are still subject to some deficiencies, notably with respect to valuation imports. Their coverage of overland exports also suffered (see North 1960, Appendix II; and Ely 1953, pp. 270–1).

The Civil War introduced two special difficulties. For the last three quarters of fiscal year ending June 30, 1861, certain ports of the Southern states failed to make reports, and it was necessary for the Treasury Department to introduce estimates of the exports of cotton by the Southern states during the war based on records of the main recipient countries in Europe (see U.S. Treasury Department 1864, p. 39).

The second difficulty was introduced in 1862 when the United States abandoned the specie backing for its money. The dollar fluctuated against foreign currencies and gold with each reverse or success of the Northern forces. Imports and reexports continued to be valued in specie (dollars of a fixed parity to gold) because these goods were initially expressed in foreign currencies, but domestic exports were recorded in “mixed values” – partly gold dollars and

partly dollars of a fluctuating value – from 1862 until the resumption of specie payment in 1879. These deficiencies were recognized at the time both officially by the Director of the Bureau of Statistics (established in the Treasury Department in 1866) and by private observers.² Treasury statisticians sought to adjust mixed currency values to specie values of total imports and exports and some other broad aggregates. The adjustments, however, were not carried through completely to country and commodity detail, and only a limited number of domestic export series are available for 1862–1879 in terms of “specie values,” while the domestic export figures for countries and individual commodities are available only in mixed currency values.

When Congress established the Bureau of Statistics in 1866, it also specified that the kinds, quantities, and values of all articles exported and imported should be distinctly set forth in the statistical accounts, by countries of destination or of shipment, and that the exports of articles produced or manufactured in the United States should be shown separately from the reexports of foreign articles imported into the United States. Prior to 1866, only annual statistics of the foreign commerce of the United States were published; since then, monthly statistics have also been published. Since the first appearance of the *Statistical Abstract of the United States* in 1878, official time series on foreign trade have been presented in that publication; therefore, it is cited here as a primary source for certain of the foreign trade data shown.

The first report of the Director of the Bureau of Statistics in 1867 contains several pointed criticisms of the previous statistics, and the subsequent annual reports of *Foreign Commerce and Navigation* emphasized the shortcomings of the figures presented, especially the difficulty, which became important in the post–Civil War period, of reporting on trade with Canada in the absence of any mandatory reporting requirement of the railroads.³ An Act of March 3, 1893, provided for obtaining information on exports by rail and apparently eliminated this deficiency in the subsequent figures, but prior to that time trade totals and figures on trade with Canada suffer from lack of coverage in varying degrees.⁴

In 1923, the function of compiling foreign trade statistics was transferred to the Department of Commerce; the release and publication of the annual figures had been done by that department since 1903. In 1941, the compilation function was transferred from the Bureau of Foreign and Domestic Commerce to the Bureau of the Census.

A problem affecting comparability of value statistics arose between January 31, 1934, and March 10, 1953, when the foreign exchange value of the dollar was permitted to depreciate as a result of the restriction placed on gold shipments to foreign countries. For this period, unless otherwise noted, values stated are in U.S. dollars without reference to changes in the gold parity value of the dollar.

Import data compiled by the Department of Commerce are from import entries (various Customs forms) that importers are required to file with Customs officials for each shipment arriving. Import

values are, in general, based on market or selling price and are free on board (f.o.b.) the exporting country. Values do not include import duties. The country of origin is defined as the country in which the merchandise was grown, mined, or manufactured. If the importer cannot obtain the information as to the country of origin, the merchandise is credited (for statistical purposes) to the country of shipment.

Imports are classified as either general imports or imports for consumption. General imports represent total arrivals of imported goods (except for in-transit shipments), that is, merchandise released from Customs custody immediately upon arrival plus merchandise entered into a Customs-bonded storage, manufacturing, or refining warehouse immediately upon arrival. Imports for consumption comprise merchandise entered into the U.S. consumption channels, that is, merchandise released from Customs custody immediately upon arrival, merchandise entered into a Customs-bonded manufacturing warehouse (other than smelting or refining warehouse), merchandise withdrawn from a Customs-bonded storage warehouse for release into domestic consumption channels, and imported ores and crude metals that have been processed in a Customs-bonded smelting warehouse and then withdrawn for consumption and export. During past periods, data for some low-valued imports have been fully compiled while data for others have been estimated.⁵

Export data are from shippers' export declarations, which exporters are required to file with Customs officials for each shipment leaving the United States. Export data include shipments made after World War II under the Department of the Army Civilian Supply Program only for 1948 and subsequent years. In addition, export data include U.S. exports under the Lend-Lease, United Nations Relief and Rehabilitation Administration, Economic Cooperation Administration, Mutual Defense Assistance, and other mutual security programs. Shipments to U.S. armed forces for their own use are not included in export statistics for any period.

Export value figures are based on the selling price (or on the cost, if not sold) of the commodity shipped and include inland freight, insurance, and other charges to the U.S. place of export. Transportation and other costs beyond the U.S. port of exportation are excluded. The country of destination is defined as the country of ultimate destination or country where the merchandise is to be consumed, further processed, or manufactured. In the event the exporter does not have definite information as to the country of ultimate destination for a shipment, it is credited (for statistical purposes) to the country to which it is consigned.

Certain export commodity classifications were grouped for security reasons into special categories beginning with May 1949, with periodic amendments to include additional commodities. With the adoption of new security regulations, effective July 1950, the publication of the country of destination and customs district detail for the special category commodities and groups was discontinued. Effective January 1965, some changes were made in the security

² See, for example, Louis Blodgett (1864) for criticism and evaluation of U.S. foreign trade statistics in the early 1860s.

³ See, for example, U.S. Bureau of Statistics (1878), pp. xii–xiii, table showing “the imports into Ontario, Quebec, and Manitoba, from the United States in excess of the domestic exports from the United States to Canada, as returned to the Bureau of Statistics by U.S. collectors of customs during the fiscal year ended June 30, 1877.”

⁴ For additional analysis of foreign trade data for 1861–1900, see U.S. Treasury Department (1893), Simon (1960).

⁵ Some indication of the undercounting in the detailed commodity statistics for imports is presented in the appendixes to the annual issues, from 1954 to 1965, of U.S. Bureau of the Census, Report FT 110, *United States Imports of Merchandise for Consumption*, and beginning in 1967, U.S. Bureau of the Census, Report FT 135, *Imports, Commodity by Country*. Explanations of the sampling procedures are given in Report FT 110 for 1956; monthly issues of Report FT 135, *Foreign Commerce and Navigation of the United States, 1965*; and annual issues of *Guide to Foreign Trade Statistics*, all by the U.S. Bureau of the Census.

restrictions primarily because of revisions in export commodity classifications. Permission was granted to release data on exports of some commodities, which were previously classified as special category commodities with the result that security restrictions were applied to considerably fewer commodities than before. In addition, permission was granted to release some commodity data for 1964 and prior years, which was withheld when statistics for those years were initially released. Data for special category commodities are included, however, in all total export statistics and in the category of finished manufactures (except automobiles and parts, from which machinery and vehicles manufactured to military specifications have been excluded beginning in July 1949).⁶

The geographic area covered by these statistics, except as noted, is the U.S. customs area, which includes Alaska, Hawai'i, and Puerto Rico, and, for 1935–1939, the Virgin Islands.

Recent Changes in the Compilation of Trade Statistics

A thorough overview of the compilation of U.S. trade statistics (as of 1985) is Victor Bailey and Sara Bowden's *Understanding United States Foreign Trade Data* (1985). In 1989, however, the implementation of the Harmonized System (HS) radically changed the U.S. international trade classification system. The HS is an internationally standardized method of reporting international trade transactions with all signatory countries adopting the same definitions and assumptions. Most if not all pre-HS trade series stopped in 1987 or 1988, and the new HS series began in 1988 or 1989. Pre-HS commodity data may not be accurately linked with the replacement data. For such a link that uses a concordance of the pre- and post-HS systems, however, see Feenstra (1996, 1997).

The Omnibus Trade and Competitiveness Act of 1988 required the United States to implement the HS of commodity classification as of January 1, 1989. The change to HS sharply increased the number of commodity classifications at the most detailed level from 10,500 to 14,000 for imports, and from 4,500 to 8,000 for exports. The United States now collects data on the basis of the HS and reports it in the Standard International Trade Classification Revision 3 format (SITC Rev. 3). The world trade community moved toward standardized presentation of international trade data in the 1950s when the United Nations developed the Standard International Trade Classification (SITC) system.

Before the implementation of the HS, there were six major international trade data classifications unique to the United States: Tariff Schedule of the United States, Annotated (TSUSA); Schedule B; Schedule A; Schedule E; End-Use; and Standard Industrial Classification-based (SIC-based). Prior to the HS, TSUSA and Schedule B were the detailed classification systems in which U.S. import and export data, respectively, were originally recorded. All other U.S. import and export data classification systems were transformations of TSUSA and Schedule B. Schedules A and E were rearrangements of the TSUSA import data and the Schedule B export data in a form closely resembling the SITC format.

⁶ Shipments individually valued, prior to October 1969, at less than \$100 and, thereafter, at \$250 and less, are not classified by commodity but are reported in a single separate category. Details concerning sampling error and procedures are given in U.S. Bureau of the Census, *Quarterly Summary of Foreign Commerce of the United States*, January–December 1956; *Foreign Commerce and Navigation of the United States, 1965*; monthly issues of Report FT 410, *Exports, Schedule B Commodity by Country*; and annual issues of *Guide to Foreign Trade Statistics*.

The implementation of the HS reduced the number of schedules to five: HTSUSA; HS-based Schedule B; SITC Rev. 3; End-Use; and SIC-based. The U.S. Bureau of Economic Analysis (BEA) reclassifies data from the original census categories based on the characteristics of the goods themselves into categories associated with the principal users of the goods to create the End-Use data. The SIC data facilitate the linkage of foreign and domestic commerce and are a data system unique to the United States.⁷ The 1987 SIC revision, however, made SIC more closely fit the HS-based trade data classifications.

Appendix: Terminology

C.i.f. import value. The c.i.f. (cost, insurance, and freight) value represents the value at the first port of arrival. It is import charges plus customs value and, therefore, excludes U.S. import duties.

Calculated duties. The calculated duty represents the estimated import duties collected. Estimated duties are calculated based on the applicable rate(s) as shown in the Harmonized Tariff Schedule.

Customs value. The customs value is the value of imports as appraised by the Customs Service. This value is defined as the price actually paid for merchandise, excluding U.S. import duties, freight, insurance, and other charges.

Domestic exports. Domestic exports include commodities that are grown, produced, or manufactured in the United States and commodities of foreign origin that have been changed in the United States (including U.S. Foreign Trade Zones) or have been enhanced in value.

Dutiable customs value. The dutiable value represents, in general, the customs value of foreign merchandise imported into the United States that is subject to duty.

F.a.s. export value. The f.a.s. (free alongside ship) value is the value of exports at the U.S. port, based on the transaction price, including inland freight, insurance, and other charges. The value excludes the cost of loading the merchandise and also excludes further cost.

Foreign exports. Foreign exports (reexports) are commodities of foreign origin that have entered the United States for consumption or that are in Customs-bonded warehouses or U.S. Foreign Trade Zones, and that are in substantially the same condition as when they were imported.

General c.i.f. value. The general c.i.f. (cost, insurance, and freight) value represents the landed value of the merchandise. It is computed by adding import charges to the customs value and excludes U.S. import duties.

General customs value. The general customs value is the value of general imports as appraised by the U.S. Customs Service. This is the price actually paid or payable for merchandise, excluding U.S. import duties, freight, insurance, and other charges.

General imports. General imports are the total merchandise physically arriving from foreign countries, whether such merchandise enters consumption channels immediately or

⁷ The SIC system has been replaced by the new North American Industrial Classification System (NAICS). See the Introduction to Part D for a discussion of industrial classification and the SIC and NAICS systems.

is entered into bonded warehouses or Foreign Trade Zones under Customs custody.

Imports for consumption. Imports for consumption are the merchandise that has physically cleared Customs either entering consumption channels immediately or entering after withdrawal from bonded warehouses under Customs custody or from Foreign Trade Zones.

Total exports. Total exports are domestic exports plus foreign exports.

Total f.a.s. export value. The total f.a.s. value is the value of exports at the U.S. port, based on the transaction price, including inland freight, insurance, and other charges. This excludes the cost of loading the merchandise or further costs.

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EXCHANGE RATES

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Definition of Exchange Rate

An exchange rate is the price of one currency in terms of another, that is, the number of units of the second currency per unit of the

first currency. The currency roles can be reversed. Thus the price of the dollar in terms of a foreign currency (for example, the number of yen per dollar) is the inverse of the price of the foreign currency in terms of the dollar (the number of dollars per yen). If 200 is the price of the dollar in terms of the yen (200 yen per dollar, the exchange value of the dollar), then $\frac{1}{200} = 0.005$ is the price of the yen in terms of the dollar (0.005 dollar per yen, the exchange value of the yen). The exchange rate can also be written as an equation: 200 yen = \$1, or \$0.005 = 1 yen.

Almost all the series in Tables Ee612–683 follow the standard convention in expressing the exchange rate as the number of units of foreign currency per dollar, that is, they show the exchange value of the dollar. Expressing the exchange rate in this way, as the exchange rate increases (decreases), the dollar appreciates (depreciates) in the foreign-exchange market. In other words, the dollar becomes "stronger" ("weaker") – is worth more (less) compared to the foreign currency.

There are three exceptions to the rule that exchange rates be the exchange value of the dollar. These exceptions involve the U.K. pound, the Irish pound, and special drawing rights (SDR). The exchange rate involving the U.K. pound is expressed as the number of dollars per pound (rather than the number of pounds per dollar) both in the tables and in the data source. The proximate explanation for this definition of the exchange rate is tradition. The ultimate explanation is threefold. First, in the nineteenth century, among currencies traded against the dollar in the United States, the British pound was the only unit "larger than the dollar" (worth more than one dollar). Thus, to avoid an exchange rate below unity, the number of dollars per pound rather than its inverse was the exchange-rate expression.¹ Second, the pound sterling (British pound) was of overwhelming importance in the U.S. foreign-exchange market. Third, the pound was the dominant currency in world trade and payments.

Because of its close connection to the U.K. pound, the Irish pound is also expressed as the number of dollars per pound, both in the tables and in the data source. The final exception is the SDR. Because of its role in the international monetary system, this basket of currencies is of special interest. Therefore the pertinent exchange rate is the number of dollars per SDR rather than the inverse, even though the data source presents both the direct and the inverse exchange rate.

When the exchange rate is defined as for the exceptions (number of dollars per unit of foreign currency), a higher (lower) exchange rate now means a weaker (stronger) dollar: the dollar depreciates (appreciates); it is worth less (more) in terms of foreign currency.

Use of Exchange Rate

The primary importance of exchange rates lies in conversion of a price or value from one currency to another. The product of a dollar price or value and the foreign-currency–dollar exchange rate yields the equivalent foreign-currency price or value. The division of a foreign-currency price or value by the foreign-currency–dollar exchange rate yields the equivalent dollar price or value. Such computations are essential to international trade and payments.

The implication of a higher exchange value of the dollar (higher foreign-currency–dollar exchange rate) is that foreign

¹ This is the explanation offered in Myers (1931), p. 347.