

### International Investment Position Accounts

11.1. This chapter presents the methodology for statistics published in the International Investment Position (IIP) Accounts. It includes major sections for the functional categories of direct investment, portfolio investment, financial derivatives other than reserves, other investment, and reserve assets. Each category and its published components are discussed in the order they are presented in [IIP table 1.2](#), U.S. Net International Investment Position at the End of the Period, Expanded Detail, shown below. Additional IIP account statistics are published in other tables that are referenced in this publication and that can also be found on the [BEA Web site](#).

**IIP Table 1.2. U.S. Net International Investment Position  
at the End of the Period, Expanded Detail—Continues**

Line	Type of investment
1	<b>U.S. net international investment position (line 4 less line 35)</b>
2	Net international investment position excluding financial derivatives (line 5 less line 36)
3	Financial derivatives other than reserves, net (line 6 less line 37)
4	<b>U.S. assets</b>
5	Assets excluding financial derivatives (sum of lines 7, 10, 21, and 26)
6	Financial derivatives other than reserves, gross positive fair value (line 15)
	<b>By functional category:</b>
7	Direct investment at market value
8	Equity
9	Debt instruments
10	Portfolio investment
11	Equity and investment fund shares
12	Debt securities
13	Short term
14	Long term
15	Financial derivatives other than reserves, gross positive fair value
16	Over-the-counter contracts
17	Single-currency interest rate contracts
18	Foreign exchange contracts
19	Other contracts
20	Exchange-traded contracts
21	Other investment
22	Currency and deposits
23	Loans
24	Insurance technical reserves

**IIP Table 1.2. U.S. Net International Investment Position  
at the End of the Period, Expanded Detail—Table Ends**

Line	Type of investment
25	Trade credit and advances
26	Reserve assets
27	Monetary gold
28	Special drawing rights
29	Reserve position in the International Monetary Fund
30	Other reserve assets
31	Currency and deposits
32	Securities
33	Financial derivatives
34	Other claims
35	<b>U.S. liabilities</b>
36	Liabilities excluding financial derivatives (sum of lines 38, 41, and 56)
37	Financial derivatives other than reserves, gross negative fair value (line 50)
	<b>By functional category:</b>
38	Direct investment at market value
39	Equity
40	Debt instruments
41	Portfolio investment
42	Equity and investment fund shares
43	Debt securities
44	Short term
45	Treasury bills and certificates
46	Other short-term securities
47	Long term
48	Treasury bonds and notes
49	Other long-term securities
50	Financial derivatives other than reserves, gross negative fair value
51	Over-the-counter contracts
52	Single-currency interest rate contracts
53	Foreign exchange contracts
54	Other contracts
55	Exchange-traded contracts
56	Other investment
57	Currency and deposits
58	Loans
59	Insurance technical reserves
60	Trade credit and advances
61	Special drawing rights allocations

11.2. IIP table 1.2 presents end-of-quarter positions for assets and liabilities by functional category and by type of financial instrument. IIP table 1.3 presents end-of-year positions classified the same way as in IIP table 1.2 but also disaggregates the change in position for the calendar year by financial-account transactions and by other changes in position. The latter is further disaggregated into

price changes, exchange-rate changes, and changes in volume and valuation n.i.e. IIP table 2.1 presents direct investment positions at market value on an asset/liability basis and converts these positions to a directional basis and, in turn, to positions at historical cost on a directional basis. IIP table 3.1 presents the IIP for U.S. liabilities to foreign official agencies.

11.3. The IIP accounts are classified and presented for each of the functional categories that are used for primary income in the current account of the International Transactions Accounts (ITAs) and for transactions in the financial account of the ITAs. Within the functional categories, the IIP account is further classified by type of financial instrument, similar to the detail for primary income and financial account transactions, with additional detail for financial derivatives other than reserves. In addition, the IIP includes the functional category financial derivatives other than reserves. The financial account of the ITAs and the IIP accounts are closely related: the position at the end of a period equals the value at the start of the period plus financial-account transactions for the current period plus valuation and volume changes that occur during the period.

11.4. Price changes apply to equity asset and liability positions for direct investment and portfolio investment, some debt instrument asset and liability positions for portfolio investment, and monetary gold and securities positions for reserve assets. Exchange-rate changes represent the gain or loss on foreign-currency denominated assets and liabilities due to their revaluation to U.S. dollars at end-of-period exchange rates. These changes apply to direct investment equity assets, portfolio investment assets and debt security liabilities, other investment assets and liabilities, and reserve assets. Changes in volume and valuation n.i.e. include changes in assets and liabilities that are not due to transactions or revaluations or that cannot be separately identified as transactions or revaluations.

## Direct Investment

### Concepts and coverage

11.5. **Direct investment** is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise resident in another economy. For both assets and liabilities, the major published components are equity and debt instruments. Generally, direct investment indicates a long-term relationship with the management of a foreign enterprise. Ownership or control of 10 percent or more of the nonresident entity's voting securities is the threshold for separating direct investment from other types of investment.

11.6. IIP table 2.1 presents direct investment positions first on the asset/liability basis recommended by *BPM6* for aggregate direct investment statistics and then on the directional basis—outward and inward depending on whether the direct investor is a U.S. resident or a foreign resident. Direct investment positions on the directional basis can be viewed as the equity and debt financing provided

by the parent company to their affiliates or as the parents' net financial claims on their affiliates.<sup>1</sup>

11.7. The direct investment statistics on an asset/liability basis are useful for macroeconomic analysis because these statistics are consistent with the statistics for the other functional categories as well as other macroeconomic statistics. The statistics on a directional basis are useful for analyzing the motivation for direct investment, such as identifying the foreign countries in which U.S. multinational enterprises (MNEs) are directly investing, or the U.S. industries in which foreign direct investors are directly investing. BEA reports statistics on direct investment positions at **historical cost**, at **market value**, and at **current cost**. IIP table 2.1 shows the conversion of direct investment positions from the asset/liability basis to the directional basis and the conversion from market-value positions to historical-cost positions. Current-cost positions are shown as alternative current-price positions.

11.8. The asset/liability direct investment positions at market value are featured in the IIP accounts because market valuation is used for other functional categories in these accounts. However, market values are often not available for direct investment because the equity for many direct investment enterprises is not listed on stock exchanges. Consequently, as described below, the market values of the direct investment positions are estimated using historical cost data collected on BEA's direct investment surveys and information from stock price indexes.

### **Departures from BPM6**

11.9. The coverage and presentation of direct investment in the IIP accounts closely follow *BPM6* recommendations with the exception of classifications for **reverse investment** and **fellow enterprises** due to limitations in BEA's source data. Although BEA's direct investment surveys capture reverse debt investment, they are not designed to fully capture reverse equity investment.<sup>2</sup> The surveys capture investments between majority-owned fellow enterprises but not with those fellow enterprises that are minority-owned, as called for in *BPM6* and *BD4*.

### **Key data sources**

11.10. *BEA Survey Data*. Statistics for the historical cost direct investment position are based largely on data collected on BEA's quarterly, annual, and benchmark direct investment surveys. The Quarterly Survey of U.S. Direct Investment Abroad (BE-577) and the Quarterly Survey of Foreign Direct Investment in the United States (BE-605) collect the information on financial transactions and positions between parents and their affiliates needed to construct the IIP accounts.

11.11. Each year, the data from the quarterly surveys are reconciled to the Annual Survey of U.S. Direct Investment Abroad (BE-11) and to the Annual Survey

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1. For inward investment, the direct investment position data measure the U.S. affiliate's positions with its foreign parent and other members of its **foreign parent group**.

2. BEA has included questions to gauge the magnitude of reverse equity investment on its direct investment benchmark surveys. Results from the 2009 benchmark survey of U.S. direct investment abroad indicate that reverse equity investment was immaterial, while data from the 2012 benchmark survey of foreign direct investment are under review.

of Foreign Direct Investment in the United States (BE–15). Once every five years, the data from the quarterly surveys are reconciled to the Benchmark Survey of U.S. Direct Investment Abroad (BE–10) and to the Benchmark Survey of Foreign Direct Investment in the United States (BE–12).<sup>3</sup>

11.12. *Morgan Stanley Capital International (MSCI)* foreign stock market indexes and *Standard and Poor's (S&P) 500* U.S. stock market indexes are used to revalue the equity portion of the historical cost outward and inward direct investment positions, respectively, to a market value basis.

11.13. *BEA Fixed Assets Perpetual Inventory Model* is used to revalue parents' share of their affiliates' investment in plant and equipment to current period prices for the current cost valuation. BEA and foreign indexes are used to revalue land and inventories.

### Estimation methods

11.14. This section begins with estimation methods for the direct investment position at historical cost and then describes the estimation methods for the market value and current cost measures of the position, which are derived from historical cost data. BEA's direct investment surveys collect direct investment position data valued at historical cost because that is the primary basis used for valuation in company accounting records in the United States. Therefore, it is the basis on which companies can most easily report data on BEA's direct investment surveys. The historical cost value largely reflects prices at the time of investment rather than prices of the current period. It is also the only basis for which detailed estimates of the position are available by country, by industry, and by component. Discussions below apply to both the *equity* and *debt instrument* components of direct investment asset and liability positions.

### Historical cost

11.15. The direct investment position in an affiliate equals the parent's equity in and debt with its affiliates. Parents' equity in incorporated affiliates can be broken down into parents' holdings of capital stock in, and other capital contributions to, their affiliates and parents' equity in the retained earnings of their affiliates. Capital stock consists of all the stock of the affiliates—both common and preferred and voting and nonvoting. Other capital contributions by parents, also referred to as the "parents' equity in additional paid-in capital," consist of the invested and contributed capital that is not included in capital stock, such as cash contributions, the amount paid for stock in excess of its par or stated value, and the capitalization of intercompany accounts (conversions of debt to equity) that do not result in the issuance of capital stock. Parents' equity in retained earnings is the parents' shares of the cumulative undistributed earnings of their incorporated affiliates.

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3. Reconciliation of the quarterly and benchmark survey data is described in the SURVEY OF CURRENT BUSINESS. Reconciliation of data on U.S. direct investment abroad is described in Marilyn Ibarra-Caton, "Direct Investment for 2009–2012: Detailed Historical-Cost Positions and Related Financial and Income Flows," SURVEY 93 (September 2013): 200–206. Reconciliation of data on foreign direct investment in the United States is described in Jeffrey H. Lowe, "Direct Investment for 2007–2010: Detailed Historical-Cost Positions and Related Financial and Income Flows," SURVEY 91 (September 2011): 50–56.

11.16. Parents' debt with their affiliates, also called intercompany debt, consists of trade accounts and trade notes payable, other current liabilities, and long-term debt owed. On the asset/liability basis, debt instrument positions that U.S. parents hold in their foreign affiliates and that U.S. affiliates hold in their foreign parent groups are recorded as U.S. assets. Likewise, debt instruments that U.S. parents issue to their foreign affiliates or that U.S. affiliates issue to their foreign parent groups are recorded as U.S. liabilities.

11.17. On the directional basis, the outward debt instrument position consists of the debt foreign affiliates owe to their U.S. parents net of the debt owed to foreign affiliates by their U.S. parents. The inward debt instrument position consists of the debt U.S. affiliates owe to their foreign parent groups net of the debt owed to U.S. affiliates by their foreign parent groups.

11.18. The table below provides an example of the conversion of the direct investment position on an asset/liability basis to a directional basis.

**Direct Investment Position on the  
Asset/Liability Basis and on the Directional Basis**

U.S. assets/outward investment	Millions of dollars
U.S. direct investment assets, asset/liability basis.....	1,120
Equity.....	1,000
Debt.....	120
U.S. parents' claims.....	80
U.S. affiliates' claims.....	40
<i>Less: Adjustments to convert to directional basis.....</i>	<i>65</i>
U.S. parents' liabilities.....	25
U.S. affiliates' claims.....	40
<i>Equals: Outward direct investment position, directional basis.....</i>	<i>1,055</i>
Equity.....	1,000
Debt.....	55
U.S. parents' claims.....	80
U.S. parents' liabilities.....	25
U.S. liabilities/inward investment	Millions of dollars
U.S. direct investment liabilities, asset/liability basis.....	920
Equity.....	800
Debt.....	120
U.S. affiliates' liabilities.....	95
U.S. parents' liabilities.....	25
<i>Less: Adjustments to convert to directional basis.....</i>	<i>65</i>
U.S. parents' liabilities.....	25
U.S. affiliates' claims.....	40
<i>Equals: Inward direct investment position, directional basis.....</i>	<i>855</i>
Equity.....	800
Debt.....	55
U.S. affiliates' liabilities.....	95
U.S. affiliates' claims.....	40

11.19. The direct investment position at the end of the period equals the position at the end of the previous period plus the change in the position during the period. The change during the period is the sum of direct investment financial transactions and other changes in position. Other changes in position are broadly defined to include all changes in the position other than financial transactions.<sup>4</sup>

11.20. For the historical cost position, other changes in position are derived from BEA's direct investment survey data and consist of translation adjustments, capital gains and losses, and "other" changes in volume and valuation. **Translation adjustments** result from changes in exchange rates used to translate the foreign-currency-denominated assets and liabilities of affiliates into U.S. dollars. **Capital gains and losses of affiliates** comprise changes in asset values that generate revenues or expenses that are not related to current production. **"Other" changes in volume and valuation** primarily reflect differences between transactions values, which are used to record direct investment financial transactions, and the book values on foreign affiliates' books, which are used to record the position. "Other" changes in volume and valuation also include changes in coverage and the reclassification of investment positions between direct investment and other investment as the 10-percent threshold criteria for direct investment is crossed.

11.21. Several issues related to definition and classification are important to resolve as part of developing the historical cost estimates of direct investment positions. These issues include financial intermediaries, capital and operating leases, direct investment and portfolio investment, and reverse investment and investment in fellow enterprises. Each issue is described separately below.

#### ***Financial intermediaries***

11.22. Complexities arise in the classification of intercompany debt positions involving parents and/or affiliates in financial industries. For example, if a U.S. manufacturer borrows funds from its affiliate or its parent in a financial industry, that debt position is generally included in the direct investment position. However, if a U.S. financial firm acquires funds from a financial affiliate, that debt position is generally classified as other investment assets and liabilities because the nature of the transaction is more closely related to the underlying activity of financial intermediation than to activity typical of a direct investment relationship. Debt positions between financial intermediaries are defined as being between firms in a direct investment relationship (that is, between U.S. parents and their foreign affiliates or between U.S. affiliates and their foreign parent groups), where both the U.S. and foreign firms are classified in a finance industry (excluding insurance) but the firms are not banks.

11.23. For U.S. direct investment abroad, intercompany debt positions between U.S. parents and the following three groups of nonbank foreign financial affiliates are reclassified to other investment from direct investment: (1) financial affiliates located in the Netherlands Antilles, (2) financial affiliates whose U.S.

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4. The level of detail presented for the components of other changes in position differs between the IIP accounts and the direct investment historical cost position that appears each year in the September SURVEY OF CURRENT BUSINESS. The differences partly reflect differences in the significance of the individual components for outward and inward direct investment.

parents are banks, and (3) financial affiliates whose U.S. parents are securities dealers. For foreign direct investment in the United States, intercompany debt positions between foreign parents (and foreign affiliates of foreign parents) are reclassified for U.S. nonbank financial affiliates whose foreign parent company is in a finance industry, including banking. If the foreign parent is a holding company, the data are reclassified if the ultimate beneficial owner is in a finance industry, including banking.

11.24. Debt positions between affiliated depository institutions—banks, bank holding companies, and financial holding companies—are also excluded from the direct investment position and combined with these institutions' positions with unaffiliated entities under *other investment*. The combination groups together transactions related to the underlying activity of financial intermediation, regardless of the affiliation of the enterprises. BEA began reclassifying permanent debt positions between affiliated banks, bank holding companies, and financial holding companies from direct investment to *other investment* with data for year 2007. For earlier years, permanent debt positions remain in direct investment, where permanent debt is debt that is deemed to represent a lasting interest in the institution receiving the funds, such as funding used for working capital or to finance plant and equipment.

#### ***Capital and operating leases***

11.25. Intercompany debt includes the value of capital leases and of operating leases of more than one year between affiliates and their parents. Under a capital lease, it is assumed that the title to the leased property will be transferred to the lessee at the termination of the lease, similar to an installment sale. When property is leased by a foreign affiliate from its U.S. parent or leased by a foreign parent from its U.S. affiliate, the value of the leased property is recorded as an asset of the U.S. parent or U.S. affiliate. The value of the leased property is calculated according to U.S. **generally accepted accounting principles (GAAP)**; the lessee records either the present value of the future lease payments or the fair market value, whichever is lower, and the lessor records the present value of future lease receipts. Similarly, when property is leased to a U.S. parent by its foreign affiliate or to a U.S. affiliate by its foreign parent, the value of the leased property is recorded as a liability of the U.S. parent or U.S. affiliate. For operating leases of more than one year, which are carried only on the balance sheet of the lessor, the value recorded is the original cost of the leased property less the accumulated depreciation.

#### ***Direct investment and portfolio investment***

11.26. Some transactions require a shift in classification between direct investment and portfolio investment. If a U.S. parent's equity interest in a foreign business enterprise, or a foreign parent's equity interest in a U.S. business enterprise, is originally less than 10 percent, and if additional purchases result in an equity interest of 10 percent or more, offsetting adjustments are made to the direct investment position and to the portfolio investment position to bring the original interest into the direct investment position. If a U.S. parent's equity interest in a foreign affiliate or a foreign parent's equity interest in a U.S. affiliate falls

below 10 percent, offsetting adjustments are made to the direct investment position and the portfolio investment position to extinguish the remaining direct investment interest.

### ***Reverse investment and investment in fellow enterprises***

11.27. A U.S. parent may have investment in a foreign affiliate that, in turn, has investment in the U.S. parent as a result of the affiliate's lending funds to, or acquiring voting securities or other equity interest in, the U.S. parent. Likewise, a foreign parent may have investment in a U.S. affiliate that, in turn, has investment in the foreign parent as a result of the affiliate's lending funds to, or acquiring voting securities or other equity interest in, the foreign parent. For cases in which affiliates have no voting power or less than 10 percent voting power in their parents, equity and debt investment by affiliates in their parent companies is known as "reverse investment." For cases in which affiliates have 10 percent or more voting power in their parent companies, investment by affiliates in parents is treated as separate direct investment in its own right.

11.28. International guidelines call for reverse equity investment to be separately identified in cases where it is significant. The results from the 2009 benchmark survey of U.S. direct investment abroad indicate that reverse investment is negligible for U.S. outward investment, so BEA has decided to not show this category in its accounts at this time.<sup>5</sup>

11.29. An affiliate may have debt investment in a fellow enterprise, another enterprise that is under the control or influence of the same immediate or indirect investor, but where neither enterprise controls or influences the other enterprise. International guidelines call for such investment to be separately identified in the IIP and labeled as "direct investment in fellow enterprises." Because of the high level of consolidation of data collected for U.S. parent companies, BEA is not able to separately identify positions between fellow enterprises for outward investment. For this reason, these positions are treated as direct positions between the U.S. parent company and its foreign affiliates on outward investment. For consistency, these positions are treated as direct positions between affiliates and their foreign parent group on inward investment as well. On an asset/liability basis, debt instruments that U.S. parents hold in their foreign affiliates and that U.S. affiliates hold in their foreign parent groups are recorded as assets, and debt instruments that U.S. parents issue to their foreign affiliates or that U.S. affiliates issue to their foreign parent groups are recorded as U.S. liabilities.

### **Market value**

11.30. The market value estimates of the direct investment position revalue parents' equity investment in their affiliates from historical cost to market value using stock market indexes. The market value estimates revalue only the equity portion of the direct investment position because it is assumed that the debt portion is already valued at current-period prices. The revaluation method excludes the portion of the movements in stock prices due to the retention of earnings.

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5. The results of the 2012 benchmark survey of foreign direct investment in the United States, which are currently under review, will address this question from the perspective of inward investment.

This avoids the double-counting of retained earnings that would result from the inclusion of reinvested earnings in direct investment financial transactions.

11.31. The outward investment position is revalued using a weighted average of stock market indexes from MSCI. If a stock market index is available for a country, that index is used. For countries where a stock market index is not available, the Morgan Stanley World Index is used. The stock market data are first converted into U.S. dollars so that exchange rate effects are reflected in the market indexes. For inward investment, the S&P 500 stock market index is used. The key assumption of this method is that using general stock market price indexes produces, on average, a reasonable estimate of the aggregate value of the equity in affiliates in a country.

11.32. The change in the market value position equals financial transactions including reinvestment of earnings with the current cost adjustment plus other changes in position. Other changes in position consist of price changes, exchange-rate changes, and changes in volume and valuation n.i.e. For the market value position, price changes represent changes in the local currency value of stock market indexes after removing the effects of reinvested earnings. Exchange-rate changes represent gains or losses on foreign-currency denominated assets and liabilities due to their revaluation at end-of-period exchange rates. Changes in volume and valuation n.i.e. include changes in coverage and other changes in value, such as the capital gains and losses of affiliates discussed above.

### **Current cost**

11.33. The current cost estimates of the direct investment position revalue parents' investment in their affiliates' tangible assets from historical cost to current cost. The current cost estimates revalue affiliates' tangible assets using a perpetual inventory model for plant and equipment, general price indexes for land, and estimates of current replacement cost to revalue inventory stocks.

11.34. The perpetual inventory model is the same one used by BEA to produce estimates of total U.S. fixed assets.<sup>6</sup> The perpetual inventory model first revalues each year's plant and equipment investments from historical cost to constant cost using U.S. capital goods price indexes for inward investment and a weighted average of country price indexes for outward investment. The constant-cost net capital stock of plant and equipment for a given year is then obtained by cumulating past investment in plant and equipment and deducting accumulated depreciation. Depreciation is defined as the decline in the value of the stock of assets due to wear and tear, obsolescence, accidental damage, and aging. Depreciation estimates are based on geometric depreciation patterns. The constant-cost net capital stock is then revalued to current cost using the appropriate price indexes for capital goods.

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6. For a description of the model, see "Methodology, Fixed Assets and Consumer Durables, 1925–1997," September 2003, available at [http://www.bea.gov/methodologies/index.htm#national\\_meth](http://www.bea.gov/methodologies/index.htm#national_meth).

11.35. The current-cost value of the net capital stock of plant and equipment derived by this method is added to the current-cost estimate of the parents' share of their affiliate's land and inventories. Land is revalued using U.S. and foreign gross domestic product price indexes. Inventories are revalued using ratios of current cost to historical cost values for U.S. inventory stocks. The sum of the revalued plant and equipment, land, and inventories produce a current-cost replacement value of tangible assets.

11.36. The change in the current-cost position equals financial transactions including reinvestment of earnings with the current-cost adjustment plus other changes in position. Other changes in position consist of price changes, exchange-rate changes, and changes in volume and valuation n.i.e. For the current-cost position, price changes reflect changes in the average price of the capital stock. Exchange-rate changes represent gains or losses on foreign-currency denominated assets and liabilities due to their revaluation at end-of-period exchange rates. Changes in volume and valuation n.i.e. include changes in coverage and other changes in value, such as the capital gains and losses of affiliates discussed above.

## Portfolio Investment

### Concepts and coverage

11.37. Portfolio investment consists of cross-border positions in debt or equity securities, excluding those included in direct investment or reserve assets. The major published components are **equity and investment fund shares** and **debt securities**. Debt securities are classified by **maturity** (short term vs. long term). Short-term debt security liabilities are further classified as U.S. Treasury bills and certificates and other securities, and long-term debt security liabilities are further classified as U.S. Treasury bonds and notes and other long-term securities. Other short- and long-term U.S. debt securities include securities issued by federally-sponsored agencies, corporations, and state and local governments.

### Departures from BPM6

11.38. The coverage and presentation of portfolio investment positions closely follows *BPM6* recommendations. BEA uses slightly different terminology in some cases.

### Key data sources

11.39. *U.S. Treasury Department*. U.S. residents' holdings of foreign-issued equity and long-term debt securities and foreign residents' holdings of U.S.-issued equity and long-term debt securities are based on data collected monthly on the Treasury International Capital (TIC) SLT form. The related annual and benchmark surveys cover equity, long-term debt, and short-term debt, including negotiable certificates of deposit (NCDs). These surveys are also used to supplement the other TIC data sources. The SHL(A) covers foreign holdings of U.S. securities and the SHC(A) covers U.S. holdings of foreign securities. Values on these surveys reflect the secondary market prices of the equity and long-term debt securities.

Cross-border holdings of short-term debt securities and NCDs are based on the TIC B and C forms: BC, BL-2, BQ-1, BQ-2, and CQ-1.

11.40. Details on the primary sources of portfolio investment positions for lines presented in IIP tables 1.2 and 3.1 are provided in the table below. Positions for some components are taken directly from the SLT while positions for other components are projected from the annual and benchmark surveys. In these cases, the projection methodology is indicated.

11.41. *Morgan Stanley Capital International (MSCI), Standard & Poor's (S&P), and Merrill Lynch Price Indexes.* For U.S. equity shares, BEA uses the S&P 500

### Portfolio Investment Source Data for the International Investment Position

IIP table	Line	Type of investment	Primary source of investment positions
<b>1.2</b>	<b>4</b>	<b>U.S. assets</b> .....	
1.2	10	Portfolio investment.....	
1.2	11	Equity and investment fund shares.....	SHC(A) plus SLT change
1.2	12	Debt securities.....	
1.2	13	Short term.....	BC, BQ-1, BQ-2, CQ-1, and DTCC
1.2	14	Long term.....	SHC(A) plus SLT change
<b>1.2</b>	<b>35</b>	<b>U.S. liabilities to all foreign residents ...</b>	
1.2	41	Portfolio investment.....	
1.2	42	Equity and investment fund shares.....	SHL(A) plus SLT change
1.2	43	Debt securities.....	
1.2	44	Short term.....	
1.2	45	Treasury bills and certificates.....	BL-2
1.2	46	Other short-term securities.....	BL-2, BQ-2 and CQ-1
1.2	47	Long term.....	
1.2	48	Treasury bonds and notes.....	SLT
1.2	49	Other long-term securities.....	SHL(A) plus SLT change
<b>3.1</b>	<b>1</b>	<b>U.S. liabilities to foreign official agencies</b> .....	
3.1	2	Portfolio investment.....	
3.1	3	Equity and investment fund shares.....	SLT
3.1	4	Debt securities.....	
3.1	5	Short term.....	
3.1	6	Treasury bills and certificates.....	BL-2
3.1	7	Other short-term securities.....	BL-2
3.1	8	Long term.....	
3.1	9	Treasury bonds and notes.....	SLT
3.1	10	Other long-term securities.....	SLT

stock index, which is a proxy for the composition of foreign holdings of U.S. equity shares. For U.S. corporate, federally-sponsored agency, and Treasury long-term debt securities, BEA uses various Merrill Lynch indexes matched to these market segments and to the maturity, investment quality, and currency of denomination of U.S. long-term debt securities held by foreign residents.

11.42. For foreign equity shares, BEA uses MSCI national and regional indexes for developed and emerging markets matched to the composition of the foreign stocks held by U.S. residents. For foreign bonds, BEA uses various Merrill Lynch indexes representing investment quality long-term debt securities issued abroad in the U.S. dollar, the euro, the Japanese yen, the Canadian dollar, and the British pound, as well as a global broad market index excluding U.S. dollar debt, to match the composition of foreign-issued long-term debt held by U.S. residents.

11.43. *Depository Trust and Clearing Corporation (DTCC)*. BEA receives reports of commercial paper issued in the United States from DTCC. The data provided by DTCC are combined with databases of company reports to determine whether commercial paper issuers are U.S. residents or foreign residents, providing estimates that supplement U.S. holdings of foreign commercial paper reported on TIC form BQ-1 and the SHC(A).

### Estimation methods

11.44. The presentation of portfolio investment positions for *equity and investment fund shares* and for *debt instruments* in the IIP accounts include statistics for positions at the end of the period and for changes in position between periods. Changes in position consist of financial-account transactions and other changes in position, which include changes due to price changes, exchange-rate changes, and changes in value and volume n.i.e. As described in chapter 10, portfolio investment transactions are generally derived as the difference between the total change in positions and position changes that are not due to transactions. IIP table 1.2 presents portfolio investment position levels at quarter end. IIP table 1.3 presents portfolio investment position levels at yearend and a decomposition of annual changes in position. The published statistics are derived using the methods described below.

### Short-term debt securities and NCDs of any maturity

11.45. **Positions.** U.S. holdings of short-term foreign debt securities equal positions reported on the TIC BC, BQ-1, BQ-2 and CQ-1 forms plus supplemental data for foreign commercial paper from the DTCC. U.S. holdings of foreign-issued NCDs reported on the TIC B and C forms are allocated between short- and long-term holdings based on data reported in the SHC(A).

11.46. Foreign holdings of short-term U.S. debt securities equal positions reported on the TIC BL-2, BQ-2 and CQ-1 forms. Foreign holdings of U.S.-issued NCDs reported on the TIC B and C forms are allocated between short- and long-term holdings based on data reported in the SHL(A).

11.47. **Total change in position.** Total change in position of U.S. residents' holdings of foreign short-term debt securities and NCDs of any maturity and in foreign residents' holdings of U.S. short-term debt securities and NCDs of any maturity equal the changes in quarterly holdings of these securities reported on the TIC B and C forms. U.S. residents' holdings of foreign commercial paper reported on the BQ-1 are supplemented by holdings estimated from DTCC data.

11.48. **Financial-account transactions.** As described in chapter 10, portfolio investment transactions are generally derived as the difference between the total change in position and position changes that are not due to transactions.

11.49. **Price changes.** Values on the TIC B and C forms are reported at their original contractual values (face value). Changes in prices in the secondary markets for short-term securities and for NCDs are assumed to have little or no impact on transactions estimated from the reported values. Price changes are not presented in IIP table 1.3 for short-term securities and NCDs.

11.50. **Exchange-rate changes.** Claims and liabilities of U.S. residents with foreign residents that are denominated in foreign currencies are reported on the BQ-2 and CQ-1, separately from dollar-denominated holdings. Claims and liabilities of U.S. financial companies and those of their customers with foreign residents that are denominated in foreign currencies are reported on the BQ-2. Claims and liabilities of U.S. nonfinancial companies with foreign residents that are denominated in foreign currencies are reported on the CQ-1.

11.51. Total holdings are reported in U.S. dollars with additional detail on the currency composition of the holdings. The exchange-rate change for each currency denomination is calculated by subtracting the exchange-rate-adjusted change in position from the total change in position. The exchange-rate-adjusted change is computed by converting the change in the amount of each foreign currency held into U.S. dollars using the each currency's average exchange rate for the period. The total change in position is calculated by converting the foreign-currency-denominated positions to U.S. dollars and computing the change from those dollar-equivalent positions. Exchange-rate changes are computed for each currency and summed to obtain the total exchange-rate change. Annual changes due to exchange-rate changes are presented in IIP table 1.3.

11.52. **Other changes in volume and valuation n.i.e.** Changes in TIC reporting caused by the addition of new reporters, corrected reporting, or other changes to the reporting panels are reported to BEA so that quarterly changes in positions that are not caused by transactions, price changes, and exchange-rate changes can be removed from total changes in positions when estimating transactions. Annual changes of this type are presented in IIP table 1.3.

### **Equity and long-term debt securities, excluding long-term NCDs**

11.53. **Positions.** Portfolio investment positions for equity and long-term debt securities are compiled from TIC surveys in one of two ways. Positions are either taken directly from the monthly SLT or they are projected by adding the quarterly

change in the SLT positions to the most recent TIC annual or benchmark survey positions. Investment positions from the SLT and from the annual and benchmark surveys are reported at market value. For corporate bonds and notes, position data from the annual or benchmark surveys must be adjusted to exclude NCDs for comparability with SLT positions. The portfolio investment positions derived from these surveys are presented at market value.

11.54. Positions are taken directly from the monthly SLT when holdings reported on the SLT tend to be in close alignment with holdings from the relevant annual or benchmark survey. This condition generally holds for foreign official holdings of U.S. equity and long-term debt securities, and for foreign holdings of long-term U.S. Treasury securities and U.S. federally-sponsored agency securities.

11.55. Positions are projected by adding quarterly changes in SLT positions to yearend positions in the SHC(A) for U.S. holdings of foreign equity and long-term debt securities. For foreign private holdings of U.S. corporate bonds and stocks, positions are projected by adding quarterly changes in SLT positions to positions in the SHL(A), reported as of June 30 each year. Positions are projected in this way because for these types of holdings, the annual and benchmark surveys, which are compiled from micro data reported for cross-border holdings of individual securities, are significantly more accurate than the aggregate data reported more frequently on the SLT. Although the annual and benchmark surveys provide the best available measure of positions at certain points in time, the change in the SLT positions is the best available information for projecting the positions quarter-by-quarter.

11.56. Annually, when annual or benchmark survey results are available that can be compared with the SLT results available earlier in the estimation cycle for the same period, the key assumption about the agreement between the annual or benchmark survey and the SLT can be tested. BEA's annual revision cycle provides the opportunity to revise positions that had been based on SLT positions if, in fact, the SLT and the most recent annual or benchmark survey do not agree as expected.

11.57. **Total change in position.** Total change in position for U.S. residents' holdings of foreign equity and long-term debt securities and for foreign residents' holdings of U.S. equity and long-term debt securities are equal to changes in quarterly holdings of these securities reported in the TIC SLT. This change is presented in the annual IIP table 1.3

11.58. **Financial-account transactions.** As described in chapter 10, portfolio investment transactions are generally derived as the difference between the total change in position and position changes that are not due to transactions.

11.59. **Price changes and exchange-rate changes.** Price indexes denominated in U.S. dollars are used to measure changes in prices and exchange rates. U.S. dollar-denominated securities have no exchange-rate change component as part of the total price change. Price changes for a given period are equal to the holdings

at the beginning of the period multiplied by the percent change over the period in the appropriate price index. For U.S. dollar-denominated securities, price changes computed by this method are presented in the annual IIP table 1.3.

11.60. For foreign currency-denominated equity and debt securities, changes in value caused by changes in exchange rates are included in the price change computed from the U.S. dollar-denominated price index. Exchange-rate changes for a given period are equal to the holdings of securities of a particular currency at the beginning of the period multiplied by the percent change in the relevant exchange rate over the period. These exchange-rate changes are subtracted from total price changes measured in U.S. dollars to obtain price changes exclusive of changes due to exchange rates.

11.61. **Other changes in volume and valuation n.i.e.** Changes in TIC SLT reporting caused by the addition of new reporters, corrected reporting, or other changes to the reporting panels are reported to BEA so that quarterly changes in positions that are not caused by transactions, price changes, or exchange-rate changes can be removed from total changes in positions when estimating transactions. Annual changes of this type are presented in IIP table 1.3.

## Financial Derivatives Other Than Reserves

### Concepts and coverage

11.62. **Financial derivatives other than reserves** consist of cross-border positions arising from financial contracts that are linked to underlying financial instruments, commodities, or indicators. Positions in financial derivatives consist of contracts with positive fair values that are assets of U.S. residents and contracts with negative fair values that are liabilities of U.S. residents. Statistics for both gross positive fair value and gross negative fair value are presented in IIP table 1.2. *Financial derivatives* are a type of financial instrument and *financial derivatives other than reserves* is a functional category. Positions in financial derivatives were introduced into the IIP accounts beginning with statistics for the end of the fourth quarter of 2005.

### Departures from BPM6

11.63. The coverage and presentation of positions in financial derivatives other than reserves closely follows *BPM6* recommendations. However, BEA does not include employee stock options with financial derivatives other than reserves because of a lack of source data. BEA provides some detail on risk categories of financial derivatives that is not required by *BPM6*, but is not able to provide other detail recommended by *BPM6* due to source data limitations.

### Key data sources

11.64. *U.S. Treasury Department*. Comprehensive data on financial derivatives are collected on Treasury International Capital (TIC) Form D, "Report of Holdings of, and Transactions in, Financial Derivatives Contracts." Data are collected quarterly from U.S. banks, bank holding companies, financial holding companies,

securities dealers, and all other firms with worldwide holdings of financial derivatives, for their own and their customers' accounts combined, in excess of \$400 billion in notional value. Trading in financial derivatives is highly concentrated among a small number of large firms. Classifications by risk category are also available from TIC Form D.

### Estimation methods

11.65. Estimation methods for quarterly and annual statistics, including the risk category classifications of *over-the-counter contracts* and *exchange-traded contracts*, are the same.

11.66. **Positions.** Positions equal the reported gross positive fair values from the TIC Form D for assets and the reported gross negative fair values from the TIC Form D for liabilities.

11.67. **Financial-account transactions.** As described in chapter 10, published statistics equal net settlements from the TIC Form D with the sign reversed. Because financial account transactions are not available separately for gross positive fair values and gross negative fair values, BEA does not present a decomposition for gross positive fair values and for gross negative fair values.

11.68. **Other changes.** Data are not available from the TIC Form D to provide separate estimates of price changes, exchange-rate changes, and other changes in volume and value n.i.e. Total other changes in position, which equals total change in position less financial-account transactions, is presented as other changes in volume and valuation n.i.e. for U.S. net holdings of derivatives.

## Other Investment

### Concepts and coverage

11.69. **Other investment** is a residual category that includes positions other than those included in direct investment, portfolio investment, financial derivatives, and reserve assets. Other investment consists of a wide variety of financial instruments that are usually, but not always, issued and held by financial institutions. The major published components are **currency and deposits, loans, insurance technical reserves**, and **trade credit and advances**. Other investment liabilities also include allocations of **special drawing rights (SDRs)** by the International Monetary Fund (IMF).

### Departures from BPM6

11.70. *BPM6* introduces a new class of financial instruments—"insurance, pension, and standardized guarantee schemes"—which includes insurance technical reserves (prepayments of premiums and reserves against outstanding insurance claims), pension entitlements (the claims of pensioners on their employers

or pension funds), and provisions for calls under standardized guarantees (prepayments of net fees and provisions to meet outstanding calls under standardized loan guarantees). BEA is working with the U.S. Treasury Department to improve the existing source data for cross-border transactions in insurance technical reserves. Currently, the insurance-related positions cannot be distinguished from other changes in claims and liabilities reported on Treasury International Capital (TIC) reporting system surveys.

11.71. While source data for positions related to pension entitlements and standardized guarantee schemes are not sufficient for preparing statistics, cross-border positions in pension entitlements and standardized guarantees are believed to be negligible. Also, in some cases BEA uses slightly different terminology and slightly different sector detail. For example, BEA uses the term “trade credit and advances” because it is the only item for which source data are available under the *BPM6* component “other accounts receivable/payable.”

11.72. Currently, BEA is unable to provide separate statistics for other equity, which is equity that is not in the form of securities. Other equity can include equity in institutions such as branches, trusts, limited liability and other partnerships, unincorporated funds, and notional units for ownership of real estate and other natural resources. The ownership of many international organizations is not in the form of shares and is thus classified as other equity. Other equity is commingled with equity reported in the TIC system and is included in *portfolio investment*. Other equity of the U.S. government in international organizations may also be included in U.S. government reports of U.S. claims on foreign residents. These claims are classified as loans in other investment.

### Key data sources

11.73. *U.S. Treasury Department*. Claims and liabilities for deposits, loans, and insurance technical reserves are reported by financial institutions on the TIC B forms. Deposits, loans, and trade credit and advances are reported by nonfinancial institutions on the TIC C forms beginning in December 2013. Prior to December 2013, U.S. banks, bank holding companies, financial holding companies, and securities brokers and dealers reported deposits and loans on the TIC B forms, and other types of financial intermediaries, nonfinancial institutions, and non-profit institutions reported deposits, loans, insurance technical reserves, and trade credit and advances on the TIC C forms.

11.74. Values on the TIC B and C forms are reported at their original contractual values (face value). Changes in prices in the secondary markets for assets and liabilities reported on the TIC B and C forms are assumed to have little or no impact on the reported positions.

11.75. *BEA Survey Data*. BEA makes two types of adjustments to the TIC source data based on surveys it conducts. One type of adjustment adds positions in loan claims and loan liabilities not covered in the TIC source data to estimates

from the TIC B and C forms. The second type of adjustment removes selected debt positions and positions in owner's equity between financial institutions and unincorporated branches, which are covered in *direct investment*, from positions in loan claims and loan liabilities computed from the TIC B forms. The loan positions removed are covered in the TIC B forms because positions in owner's equity in unincorporated branches cannot be separated from other intercompany positions in the TIC B reporting. These adjustments are based on data reported on BEA's quarterly direct investment surveys for U.S. direct investment abroad (BE-577) and foreign direct investment in the United States (BE-605).

11.76. *U.S. Department of Defense*. Advance payments for sales of military goods to foreign governments are reported to BEA. U.S. government liabilities to foreign governments for these advance payments are classified as trade credit and advances in the general government sector.

11.77. *U.S. government administrative data*. U.S. government agencies that engage in international transactions report these transactions quarterly to BEA. Quarterly statistics for transactions in U.S. government loan claims are based on transactions data submitted by U.S. government operating agencies under Office of Management and Budget (OMB) Statistical Directive No. 19. Positions are projected from the transactions.

11.78. *Federal Reserve Board (FRB)*. Net shipments of U.S. currency into and out of the United States are provided by the FRB to BEA to measure increases and decreases in foreign holdings of U.S. currency. The holdings projected from these transactions are not captured elsewhere in statistical reporting systems.

11.79. *Federal Reserve Bank of New York (FRBNY)*. "The Treasury and Federal Reserve Foreign Exchange Operations Report" from the FRBNY provides data for positions in central bank liquidity swaps. The report of foreign central bank account balances at the FRBNY provides key data for central bank sector positions.

11.80. *International Monetary Fund (IMF)*. The IMF issues press releases and posts information on its Web site when it implements significant decisions such as allocating new SDRs to members or increasing member quotas. Recommendations by the IMF Executive Board for such actions must be ratified by member countries before they can be implemented.

11.81. *Depository Trust and Clearing Corporation (DTCC)*. Claims of U.S. non-bank firms include claims associated with the issuance of asset-backed commercial paper (ABCP) that are not completely captured in other source data.

11.82. *Supplemental counterparty data*. Bilateral comparisons between U.S. statistics and comparable statistics from foreign banks for loans and deposits show that U.S. statistics, collected directly from U.S. nonbank firms, understate the external claims and liabilities of these firms vis-à-vis foreign banks. The foreign banking data are from the central banks of the United Kingdom and Germany, from the Bank for International Settlements for the Netherlands, and from FRB reports for banks in the Bahamas and the Cayman Islands.

## Estimation methods

11.83. The presentation of the IIP accounts includes statistics for positions at the end of the period and for changes in position. Changes in positions consist of financial-account transactions and changes due to price changes, exchange-rate changes, and changes in value and volume *n.i.e.* Estimation methods for financial-account transactions are described in chapter 10. IIP table 1.2 presents other investment position levels at quarter end. IIP table 1.3 presents other investment position levels at yearend and a decomposition of changes in position. Methods for each of the published components are described below. Unless otherwise noted, methods are the same for both U.S. asset positions and U.S. liability positions.

### Currency

11.84. **Positions.** Foreign holdings of U.S. currency abroad are projected based on an estimate of holdings in 1973 brought forward by adding quarterly net shipments, which are used to measure transactions. Foreign holdings of U.S. currency are not liabilities to foreign official agencies and are thus not included in IIP table 3.1.

11.85. **Financial-account transactions.** As described in chapter 10, transactions in U.S. currency liabilities are equal to net shipments of U.S. currency into and out of the United States.

11.86. **Price changes.** The U.S. dollar value of U.S. currency abroad is not affected by changes in prices.

11.87. **Exchange-rate changes.** The U.S. dollar value of U.S. currency held abroad is not affected by changes in exchange rates.

11.88. **Other changes in volume and valuation *n.i.e.*** Source data are not available for this category.

### Deposits

11.89. **Positions.** U.S. deposit claims and liabilities with foreign residents include (1) deposits reported by U.S. financial institutions and nonfinancial institutions for their own account and for their customers on the TIC B and C forms, (2) the deposit claims and liabilities of the FRB with foreign central banks reported in administrative data, and (3) additional deposits placed in foreign banks by U.S. nonbank firms based on counterparty data from foreign banks. Brokerage balances held by securities brokers for their customers that are very similar to deposits, and that are reported in the deposit category on the TIC B forms, are also classified as deposits. The deposit claims of the FRB include holdings of foreign currency obtained through central bank liquidity swaps.

11.90. Positions in deposit claims and liabilities in the IIP accounts equal the positions reported on the TIC B and C forms, the administrative data from the

FRB, and the supplemental balances computed from the counterparty data from foreign banks. U.S. deposit liabilities to foreign official agencies are estimated from reported deposit liabilities to foreign official agencies available separately on the TIC form BL-1.

11.91. **Financial-account transactions.** As described in chapter 10, transactions in deposit claims and liabilities of U.S. financial institutions and nonfinancial institutions are based on changes in quarterly holdings as reported on the TIC B and C forms. These estimates are supplemented by changes in quarterly holdings of deposits placed in foreign banks by U.S. nonbank firms based on counterparty data from foreign banks.

11.92. Transactions in deposits denominated in foreign currency equal the change in holdings, with the holdings converted to the original currency of denomination at the exchange rates in effect at the beginning and end of the period, less changes due to changes in reporting panels classified as other changes in volume and valuation n.i.e. The foreign-currency-denominated estimate of the transaction amount is converted to U.S. dollars using an average exchange rate for the period.

11.93. Transactions in deposits denominated in U.S. dollars equal the reported dollar-denominated change in holdings, less changes due to changes in reporting panels classified as other changes. Transactions in deposits abroad held by the FRB acquired through central bank liquidity swaps equal changes in quarterly swap balances reported by the FRB.

11.94. **Price changes.** The U.S. dollar value of U.S. deposit claims and liabilities with foreign residents is not affected by changes in prices.

11.95. **Exchange-rate changes.** The calculation of exchange-rate changes for foreign-currency denominated deposits, excluding those acquired by the FRB through central bank liquidity swaps, makes use of the exchange-rate-adjusted transactions described above. Exchange-rate changes equal the unadjusted total change in holdings of foreign-currency denominated deposits less the sum of transactions and changes in reporting panels that would be classified as other changes in volume and value n.i.e.

11.96. Deposits abroad held by the FRB acquired through central bank liquidity swaps are denominated in foreign currency; however, changes in exchange rates do not change the U.S. dollar-equivalent holdings reported to the public by the FRB. The swaps are reversed at prearranged exchange rates specified in the swap agreement and the same amounts of U.S. dollars are always returned as were originally swapped. The FRB carries these assets on its balance sheet at constant U.S. dollar-equivalent values. The FRB's holdings are not affected by changes in exchange rates.

11.97. **Other changes in volume and valuation n.i.e.** Changes in TIC reporting caused by the addition of new reporters, corrected reporting, or other changes to the reporting panels are reported to BEA so that the changes in quarterly balances not caused by transactions or exchange-rate changes can be removed from total changes in holdings when estimating transactions.

## Loans

11.98. **Positions.** U.S. loan claims and liabilities with foreign residents include (1) loans reported by U.S. financial institutions and nonfinancial institutions both for their own account and for their customers on the TIC B and C forms, (2) loan claims from DTCC data, (3) loan claims on foreign residents reported in administrative data by U.S. government agencies, and (4) additional loans to or from U.S. nonbank firms with foreign banks based on counterparty data from foreign banks.

11.99. Prior to the first quarter of 2014, loans also included intercompany debt of selected financial intermediaries reported on BEA surveys of direct investment. Beginning with positions reported as of the end of December 2013, all financial firms with reportable other investment claims and liabilities reported those positions on the TIC B forms. This eliminated the need to include the intercompany debt of the selected financial intermediaries reported on the BEA direct investment surveys.

11.100. Quarterly statistics for positions in U.S. government loan claims are projected based on an estimate of holdings in 1976 brought forward by adding transactions. Transactions are based on data submitted by U.S. government operating agencies under OMB Statistical Directive No. 19; data are summarized by country and by agency.

11.101. Other positions in loan claims and liabilities in the IIP accounts are equal to the positions reported on the TIC B and C forms supplemented by the balances computed from the counterparty data from foreign banks. U.S. loan liabilities to foreign official agencies are estimated from reported loan liabilities to foreign official agencies available separately on the TIC forms BL–1 and BL–2.

11.102. **Financial-account transactions.** As described in chapter 10, transactions in loans of U.S. financial institutions and nonfinancial institutions with foreign residents are based on changes in quarterly holdings as reported on the TIC B and C forms. These estimates are supplemented by loan claims data from DTCC and by loan claims and loan liabilities of U.S. nonbank firms with foreign banks based on supplementary counterparty data from foreign banks. The computed changes in holdings from the TIC data are adjusted to remove the impact of any changes in holdings not caused by transactions, such as changes in exchange rates or changes in TIC survey reporting panels.

11.103. Transactions in loans denominated in foreign currency equal the change in holdings, with the holdings converted to the original currency of denomination at the exchange rates in effect at the beginning and end of the period, less changes due to changes in reporting panels classified as other changes in volume and valuation n.i.e. The foreign-currency-denominated estimate of the transaction amount is converted to U.S. dollars using an average exchange rate for the period.

11.104. Transactions in loans denominated in U.S. dollars equal the reported dollar-denominated change in holdings, less changes due to changes in reporting panels classified as other changes in volume and valuation n.i.e. Quarterly statistics for transactions in U.S. government loan claims are based on transactions data submitted by U.S. government operating agencies under OMB Statistical Directive No. 19. All U.S. government loan claims are assumed to be denominated in U.S. dollars.

11.105. **Price changes.** The value of U.S. loan claims and liabilities with foreign residents is assumed to be unaffected by changes in prices in secondary markets.

11.106. **Exchange-rate changes.** The calculation of exchange-rate changes for foreign-currency denominated loans makes use of the exchange-rate adjusted transactions described above. Exchange-rate changes equal the unadjusted total change in holdings of foreign-currency denominated loans less the sum of transactions and any changes in reporting panels that would be classified as other changes in volume and value n.i.e.

11.107. **Other changes in volume and valuation n.i.e.** Changes in TIC reporting caused by the addition of new reporters, corrected reporting, or other changes to the reporting panels are reported to BEA so that the changes in quarterly balances not caused by transactions or exchange-rate changes can be removed from total changes in holdings when estimating transactions.

#### **Insurance technical reserves**

11.108. Positions for insurance technical reserves are based on quarterly holdings as reported on the TIC B forms. Collection of data for insurance technical reserves as a separate data item began in December 2013. Positions will be published pending evaluation of the new source data for reliability and confidentiality.

11.109. Insurance technical reserves are not liabilities to foreign official agencies and are therefore not included in IIP table 3.1.

#### **Trade credit and advances**

11.110. **Positions.** Holdings of claims and liabilities with foreign residents from trade credit and advances include (1) those reported by U.S. financial institutions and nonfinancial institutions on the TIC Form CQ-2 and (2) the liabilities of the U.S. government to foreign governments from funds advanced mainly for the purchase of military goods and services reported to BEA in U.S. government administrative data.

11.111. The trade credit and advances of other (non-deposit-taking) U.S. financial institutions and nonfinancial institutions equal the quarterly holdings as reported on the TIC Form CQ-2. The liabilities are not liabilities to foreign official agencies and are not included in IIP table 3.1.

11.112. U.S. government liabilities from advance payments for foreign purchases of goods and services that are mainly for military use are projected based on an estimate of holdings in 1976 brought forward by adding quarterly transactions to the latest position estimate. Transactions are based on U.S. government administrative data. These U.S. government liabilities to foreign governments are also included in trade credit and advances in IIP table 3.1.

11.113. **Financial-account transactions.** As described in chapter 10, transactions in trade credit and advances of U.S. financial institutions and nonfinancial institutions with foreign residents are based on changes in quarterly holdings of claims and liabilities as reported on the TIC Form CQ–2. The computed changes in holdings from the TIC data are adjusted to remove the impact of any changes in holdings not caused by transactions, such as changes in exchange rates or TIC survey reporting panels.

11.114. Transactions in trade credit and advances denominated in foreign currency equal the change in holdings, with the holdings converted to the original currency of denomination at the exchange rates in effect at the beginning and end of the period, less changes due to changes in reporting panels classified as other changes in volume and valuation n.i.e. The foreign-currency-denominated estimate for the transaction amount is converted to U.S. dollars using an average exchange rate for the period.

11.115. Transactions in trade credit and advances denominated in U.S. dollars equal the reported dollar-denominated change in holdings less changes due to changes in reporting panels classified as other changes in volume and valuation n.i.e.

11.116. U.S. government liabilities from advance payments for foreign purchases of goods and services are estimated directly from U.S. government administrative data for payments received, which increase liabilities, and for deliveries of goods and services, which reduce liabilities.

11.117. **Price changes.** The value of U.S. trade credit and advances with foreign residents is assumed to be unaffected by changes in prices in secondary markets.

11.118. **Exchange-rate changes.** The calculation of exchange rate changes for foreign-currency denominated trade credit and advances makes use of the exchange-rate adjusted transactions described above. Exchange rate changes are equal to the unadjusted total change in holdings of foreign-currency denominated trade credit and advances less the sum of transactions and any changes in reporting panels that would be classified as other change in volume and value n.i.e.

11.119. **Other changes in volume and valuation n.i.e.** Changes in TIC reporting caused by the addition of new reporters, corrected reporting, or other changes to the reporting panels are reported to BEA so that the changes in quarterly balances not caused by transactions or exchange-rate changes can be removed from total changes in holdings when estimating transactions.

### **Special drawing rights (SDR) allocations**

11.120. **Positions.** SDR allocations to the United States are available in an IMF public database with values denominated in SDRs. The position in the IIP accounts equals the amount reported by the IMF as of the end of the period converted from SDRs to U.S. dollars at the conversion rate in effect at the end of the period. SDR allocations are also included in IIP table 3.1.

11.121. **Financial-account transactions.** As described in chapter 10, changes in SDR allocations to the United States are available in IMF public releases and databases with values denominated in SDRs.

11.122. **Price changes.** The value of SDR allocations to the United States is not affected by changes in prices.

11.123. **Exchange-rate changes.** The exchange-rate change for a period when the SDR allocation is unchanged equals holdings in U.S. dollars at the end of the period less holdings in U.S. dollars at the beginning of the period, with the holdings converted to U.S. dollars from SDRs at the conversion rates in effect at the beginning and end of the period. If the SDR allocation changed during the period, exchange-rate changes for each level and duration of the allocation would be computed and summed to obtain the exchange-rate change for the period.

11.124. **Other changes in volume and valuation n.i.e.** Increases or decreases in SDR allocations to the United States are always transactions as defined in *BPM6*. As a result, other changes in volume and valuation do not apply to this component.

## **Reserve Assets**

### **Concepts and coverage**

11.125. Reserve assets are those external assets that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs, for intervention in exchange markets to affect the currency exchange rate, and for other related purposes such as maintaining confidence in the currency and the economy, and serving as a basis for foreign borrowing. The major published components are **monetary gold**, International Monetary Fund (IMF) **special drawing rights (SDRs)**, **reserve position in the IMF**, and **other reserve assets**.

11.126. Other reserve assets enable the United States to hold foreign currency balances that are highly liquid and that are available for intervention sales. U.S. foreign currency balances include deposits, debt securities, and repurchase agreements that are classified as “other claims.” The United States does not have financial derivatives in its reserve assets.

## Departures from BPM6

11.127. The coverage and presentation of reserve assets closely follow *BPM6* recommendations.

## Key data sources

11.128. *U.S. Treasury Department*. Data on U.S. reserve assets are published by the U.S. Treasury Department in terms of holdings (outstanding amounts). BEA also uses U.S. Treasury Department source data on the gold stock.

11.129. *Federal Reserve Bank of New York (FRBNY)*. “The Treasury and Federal Reserve Foreign Exchange Operations Report” from the FRBNY provides data for transactions in central bank liquidity swaps. Other data for interest earned on reserves and swaps and on claims and liabilities with foreign central banks are provided to BEA for estimates of reserve assets and central bank sector transactions.

11.130. *International Monetary Fund (IMF)*. The IMF provides month-end position data and daily increases and decreases during each month for the U.S. accounts at the IMF. The data include positions and transactions between the United States and the IMF for the SDR account and the General Resources (tranche) account and its subaccounts covering securities, valuation adjustments, and IMF borrowing from the United States.

## Estimation methods

11.131. The presentation of the IIP includes statistics for positions at period end and for changes in position. Changes in positions consist of financial-account transactions and changes due to price changes, exchange-rate changes, and changes in value and volume n.i.e. Estimation methods for financial-account transactions are described in chapter 10. IIP table 1.2 presents reserve assets position levels at quarter end. IIP table 1.3 presents reserve assets position levels at yearend and a decomposition of annual changes in position. Methods for each of the published components are described below.

## Monetary gold

11.132. **Positions.** Positions in monetary gold are equal to the amount of gold in ounces in the monthly U.S. Treasury Department report on the U.S. gold stock at the end of the quarter, multiplied by the price of gold from the afternoon price quoted in the London gold market (“the London gold afternoon fixing”) at the end of the quarter. If the London gold market is closed on the afternoon of the last day of the quarter, then the last fixing for the quarter is the price used.

11.133. Monetary gold is valued at the market price in London, following recommendations from *BPM6* that the investment position should be valued at market prices. The value of monetary gold in the IIP accounts is different from the valuation used by the U.S. Treasury Department in the official statement of the value of U.S. reserve assets. The price used to value gold in the U.S. Treasury Department report on the U.S. gold stock and in the official statement of the

value of U.S. reserve assets is fixed by U.S. law at \$42.2222 per ounce. Official valuations of U.S. gold are made pursuant to the Par Value Modification Act (Public Law 92–268) and its amendment (Public Law 93–110).

11.134. **Financial-account transactions.** As described in chapter 10, if transactions were to occur, BEA would obtain from the U.S. Treasury Department data for the quantity of gold transferred out or received from the counterparty, either in ounces or in dollars at a known price. If daily data were available, BEA would value the daily gold transactions using the afternoon (PM) fix in the London market for each day. If transactions were to occur over a period of time and daily data were not available, the transactions over the period would be valued at an average price of gold for that period. Transactions valued using the PM fix for the gold price in London would be aggregated and reported quarterly.

11.135. **Price changes.** Price changes for a given period equal the holdings in ounces at the beginning of the period multiplied by the change in the gold price. If the holdings of gold change during the period, price changes for each level and duration of holdings would be computed and summed to obtain the price change for the period. A significant change in gold holdings would be unusual; accurate price changes can usually be computed based on the holdings at the beginning of the period.

11.136. **Exchange-rate changes.** The value of the gold stock is not affected by changes in exchange rates.

11.137. **Other changes in volume and valuation n.i.e.** The value of changes in the gold stock caused by the monetization or demonetization of gold would be recorded in this category, based on the price on the date of the monetization or demonetization.

#### **Special drawing rights (SDRs)**

11.138. **Positions.** Positions in SDRs equal the amount in the U.S. SDR account reported by the IMF as of the end of the period, converted to U.S. dollars at the conversion rate in effect at the end of the period.

11.139. **Financial-account transactions.** As described in chapter 10, BEA converts daily increases or decreases caused by transactions in the U.S. SDR account from SDRs to U.S. dollars at the conversion rate in effect on that date. These daily transactions are aggregated into quarterly financial transactions for the ITAs.

11.140. **Price changes.** The value of U.S. holdings of SDRs is not affected by changes in prices.

11.141. **Exchange-rate changes.** Exchange rate changes equal the total change in U.S. SDR holdings, less financial account transactions computed from reported increases and decreases.

11.142. **Other changes in volume and valuation n.i.e.** Increases or decreases in the value of U.S. SDR holdings are completely accounted for by transactions and by exchange-rate changes. As a result, other changes in volume and valuation n.i.e do not apply to this component.

### **Reserve position in the IMF**

11.143. **Positions.** Positions in the U.S. reserve position in the IMF equal the amount in the U.S. general resources, or tranche, account plus any borrowing by the IMF from the United States through the General Arrangements to Borrow (GAB), the New Arrangements to Borrow (NAB), or other borrowing facilities, converted to U.S. dollars at the conversion rate in effect at the end of the period.

11.144. **Financial-account transactions.** As described in chapter 10, transactions from IMF borrowings or repayments are provided for each day of the reporting month to BEA by the IMF. The IMF reports these values in terms of SDRs. BEA converts daily increases or decreases from SDRs to U.S. dollars at the conversion rate in effect on that date. These daily transactions are aggregated into quarterly financial transactions for the ITAs.

11.145. Transactions in the general resources account are computed by deducting valuation changes from the total change in balance of the account, which is equal to U.S. holdings at the end of the current quarter converted to U.S. dollars, less U.S. holdings at the end of the previous quarter converted to U.S. dollars. The valuation changes are computed from the change in the SDR/U.S. dollar conversion rate and from valuation adjustments to IMF holdings of U.S. dollars recorded by the IMF in their accounting records. The SDR/U.S. dollar conversion rate and valuation adjustments to IMF holdings of U.S. dollars are provided to BEA by the IMF.

11.146. **Price changes.** The value of the U.S. reserve position in the IMF is not affected by changes in prices.

11.147. **Exchange-rate changes.** Exchange-rate changes equal the total change in the U.S. reserve position in the IMF, less financial account transactions.

11.148. **Other changes in volume and valuation n.i.e.** Increases or decreases in the value of the U.S. reserve position in the IMF are completely accounted for by transactions and exchange-rate changes. As a result, changes in volume and valuation n.i.e do not apply to this component.

### **Other reserve assets**

11.149. **Positions.** Positions in other reserve assets are equal to the U.S. dollar-equivalent positions reported by U.S. monetary authorities to BEA in administrative data as of the end of the quarter. These reports include holdings of foreign-currency denominated deposits, securities, and repurchase agreements, all converted to U.S. dollars at exchange rates in effect at the end of the quarter.

11.150. **Financial-account transactions.** As described in chapter 10, transactions are estimated from reports of interest collected from holdings of deposits, securities, and repurchase agreements, and from reports of any intervention purchases or sales of assets from the FRB.

11.151. **Price changes.** BEA estimates price changes for securities, but not for deposits and repurchase agreements, because the impact of secondary market prices for deposits and repurchase agreements is assumed to be minimal. Price

changes for securities equal total changes in securities holdings, less the sum of exchange-rate changes and other changes in volume and value *n.i.e.*

11.152. **Exchange-rate changes.** The exchange-rate change for each instrument in each period for each currency denomination (Japanese yen and euro) is calculated by subtracting the exchange-rate-adjusted change in position from the total change in position. The exchange-rate-adjusted change is computed by converting the change in the amount of Japanese yen or euros held into U.S. dollars using each currency's average exchange rate for the period. The total change in positions is calculated by converting the foreign-currency-denominated positions to U.S. dollars and computing the change from those dollar-equivalent positions. Exchange-rate changes are computed for each currency and summed to obtain the total exchange-rate change.

11.153. **Other changes in volume and valuation *n.i.e.*** These changes mainly include offsetting changes in holdings of deposits, securities and repurchase agreements by U.S. monetary authorities, representing changes in the mix of investments held. These offsetting changes are excluded from transactions because they are accomplished without any impact on the value of the U.S. dollar in exchange markets and they do not change the total reserve holdings of a particular foreign currency.

11.154. For deposits, other changes equal the total change less the sum of the financial transactions and the exchange-rate change. Price change does not apply to deposits. For other claims (repurchase agreements), other changes equal the total change less the sum of financial transactions and the exchange-rate change. Price changes do not apply to repurchase agreements. For securities, other changes equal the sum of other changes for deposits and repurchase agreements with the sign reversed, reflecting the assumption that other changes are offsetting and do not change the total reserve holdings of foreign currencies.