U.S. Net International Investment Position

First Quarter of 2017, Year 2016, and Annual Update

THIS ARTICLE presents the U.S. international investment position (IIP) statistics for the first quarter of 2017 and detailed annual statistics for 2016, including changes in position resulting from financial transactions and other changes in position such as price changes, exchange-rate changes, and changes in volume and valuation not included elsewhere (n.i.e.). This article also presents information on the annual update of the IIP accounts. With this year's annual update, both quarterly and annual position statistics for 2014–2016 were revised to reflect newly available and revised source data. Supplementary statistics for alternative current-price measures of direct investment positions for 1999–2016 were revised to implement a new, streamlined method for estimating direct investment positions at current cost.

The U.S. international investment position is a statistical balance sheet that presents the dollar value of U.S. external financial assets and liabilities at a specific point in time. The U.S. net international investment position is defined as the value of U.S. assets less the value of U.S. liabilities. The negative net investment position represents a U.S. net liability to the rest of the world.

Highlights for the first quarter of 2017

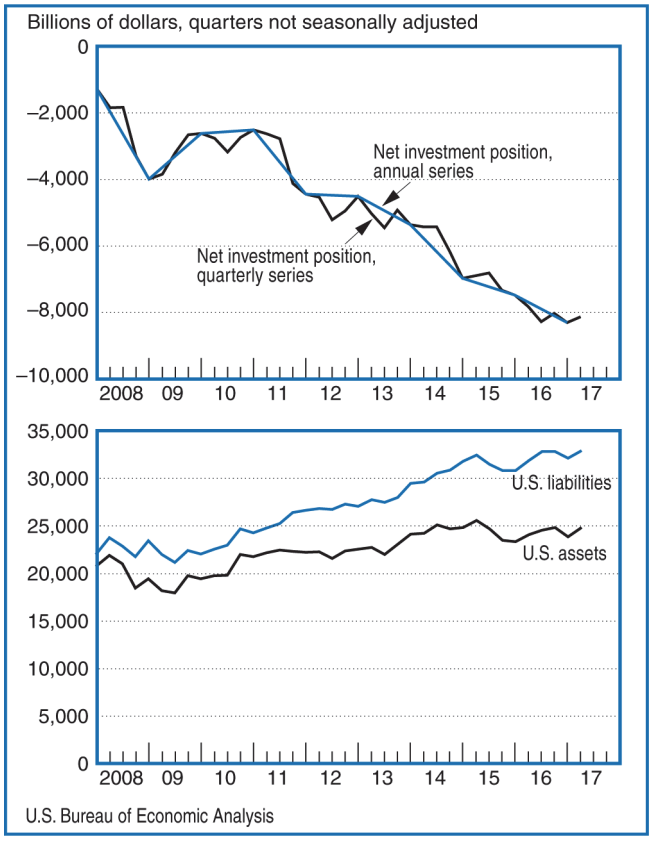
- The U.S. net international investment position increased to –$8,141.2 billion at the end of the first quarter of 2017 from –$8,318.4 billion at the end of the fourth quarter of 2016 (chart 1). The $177.2 billion increase reflected a $983.8 billion increase in U.S. assets and an $806.6 billion increase in U.S. liabilities (see table A on page 2 and table B on page 3).
- The $177.2 billion increase reflected net financial transactions of –$102.0 billion and net other changes in position, such as price and exchange-rate changes, of $279.2 billion.
- The net investment position increased 2.1 percent in the first quarter, compared with a decrease of 3.5 percent in the fourth quarter and an average quarterly decrease of 5.7 percent from the first quarter of 2011 through the third quarter of 2016.

Elena L. Nguyen and Douglas B. Weinberg prepared this article.

Highlights for the year 2016

- The U.S. net international investment position decreased to –$8,318.4 billion at the end of 2016 from –$7,493.5 billion at the end of 2015. The $824.9 billion decrease reflected a $497.1 billion increase in U.S. assets and a $1,322.0 billion increase in U.S. liabilities (see table C on page 4 and table D on page 5).
- The $824.9 billion decrease was driven by net exchange-rate changes of –$473.0 billion and net financial transactions of –$377.7 billion.
- The net investment position decreased 11.0 percent in 2016, compared with a decrease of 7.4 percent in 2015.

Chart 1. U.S. Net International Investment Position



First Quarter of 2017—U.S. Assets

U.S. assets increased $983.8 billion to $24,833.2 billion at the end of the first quarter (table A).

- Assets excluding financial derivatives increased $1,246.1 billion to $22,886.5 billion, mostly reflecting increases in portfolio investment and direct investment assets (chart 2). The $1,246.1 billion increase resulted from other changes in position of $951.9 billion and financial transactions of $294.1 billion. Other changes in position mostly reflected price increases in portfolio investment and direct investment equity assets and the appreciation of major foreign currencies against the U.S. dollar that raised the value of assets in dollar terms.
- Financial derivatives decreased $262.3 billion to $1,946.7 billion, reflecting decreases in single-currency interest rate contracts and foreign exchange contracts.

Chart 2. U.S. Assets

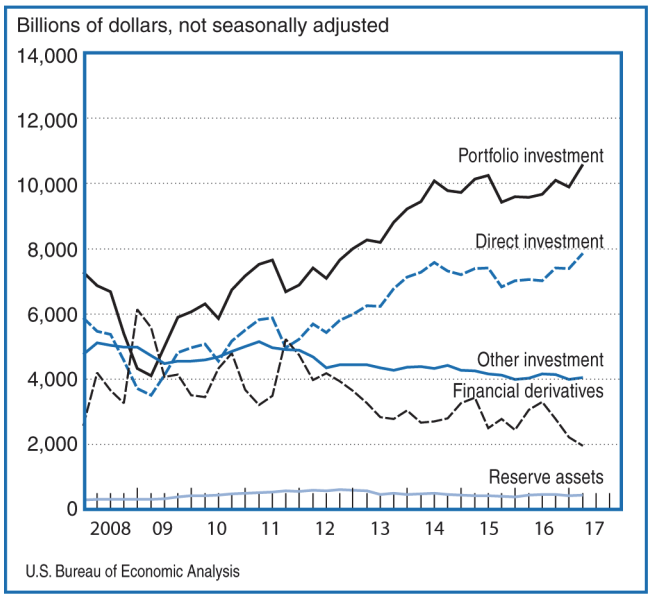


Table A. Quarterly Change in the U.S. Net International Investment Position and in U.S. Assets

[Billions of dollars, not seasonally adjusted]

Type of investment	Position, 2016:IV	Change in position in 2017:I			Position, 2017:I
		Total	Attributable to:		
			Financial transactions	Other changes in position[1]	
U.S. net international investment position	**–8,318.4**	**177.2**	**–102.0**	**279.2**	**–8,141.2**
Net international investment position excluding financial derivatives	–8,379.7	196.8	–99.0	295.9	–8,182.9
Financial derivatives other than reserves, net[2]	61.3	–19.7	–3.0	–16.7	41.6
U.S. assets	**23,849.4**	**983.8**	**([2])**	**([2])**	**24,833.2**
Assets excluding financial derivatives	21,640.5	1,246.1	294.1	951.9	22,886.5
Financial derivatives other than reserves	2,209.0	–262.3	([2])	([2])	1,946.7
By functional category:					
Direct investment at market value	7,375.0	468.6	123.1	345.5	7,843.6
Equity	6,172.3	432.0	101.9	330.1	6,604.3
Debt instruments	1,202.7	36.6	21.2	15.4	1,239.3
Portfolio investment	9,879.2	690.9	120.3	570.7	10,570.2
Equity and investment fund shares	6,997.0	561.0	26.1	534.9	7,558.0
Debt securities	2,882.2	130.0	94.2	35.8	3,012.2
Financial derivatives other than reserves	2,209.0	–262.3	([2])	([2])	1,946.7
Over-the-counter contracts	2,166.9	–255.7	([2])	([2])	1,911.3
Single-currency interest rate contracts	1,622.2	–143.8	([2])	([2])	1,478.4
Foreign exchange contracts	386.7	–114.2	([2])	([2])	272.4
Other contracts	158.0	2.4	([2])	([2])	160.4
Exchange-traded contracts	42.1	–6.6	([2])	([2])	35.4
Other investment	3,978.9	60.6	50.9	9.7	4,039.6
Currency and deposits	1,559.8	34.5	31.0	3.4	1,594.3
Loans	2,373.7	22.2	16.1	6.2	2,396.0
Insurance technical reserves	n.a.	n.a.	n.a.	n.a.	n.a.
Trade credit and advances	45.4	3.9	3.8	0.1	49.3
Reserve assets	407.2	25.9	–0.2	26.1	433.1
Monetary gold	301.1	24.4	0.0	24.4	325.5
Special drawing rights	48.9	0.5	(*)	0.5	49.3
Reserve position in the International Monetary Fund	18.4	–0.1	–0.3	0.2	18.3
Other reserve assets	38.9	1.1	(*)	1.0	39.9

n.a. Not available (*) Value between zero and +/– $50 million

1. Disaggregation of other changes in position into price changes, exchange-rate changes, and other changes in volume and valuation is only presented for annual statistics (see table C).

2. Financial transactions and other changes in financial derivatives positions are available only on a net basis; they are not separately available for U.S. assets and U.S. liabilities.

NOTE. The statistics on positions are presented in table 1.2 of the international investment position (IIP) accounts on BEA's Web site. The statistics on financial transactions are not seasonally adjusted and are presented in table 1.2 of the international transactions accounts (ITAs) on BEA's Web site.

First Quarter of 2017—U.S. Liabilities

U.S. liabilities increased $806.6 billion to $32,974.5 billion at the end of the first quarter (table B).

- Liabilities excluding financial derivatives increased $1,049.2 billion to $31,069.4 billion, mostly reflecting increases in portfolio investment and direct investment liabilities (chart 3). The $1,049.2 billion increase resulted from other changes in position of $656.1 billion and financial transactions of $393.2 billion. Other changes in position were driven by price increases in portfolio investment and direct investment equity liabilities.
- Financial derivatives decreased $242.6 billion to $1,905.1 billion, reflecting decreases in single-currency interest rate contracts and foreign exchange contracts.

Updates

The IIP statistics for 2014–2016 have been updated to incorporate newly available and revised source data. For more information, see the "Annual Update" section.

Preliminary and Revised Fourth-Quarter 2016 Statistics

[Billions of dollars, not seasonally adjusted]

	Preliminary estimate	Revised estimate
U.S. net international investment position	**–8,109.7**	**–8,318.4**
U.S. assets	**23,916.7**	**23,849.4**
Direct investment at market value	7,411.8	7,375.0
Portfolio investment	9,922.3	9,879.2
Financial derivatives other than reserves	2,209.0	2,209.0
Other investment	3,966.3	3,978.9
Reserve assets	407.2	407.2
U.S. liabilities	**32,026.3**	**32,167.8**
Direct investment at market value	7,419.3	7,569.3
Portfolio investment	17,352.9	17,352.3
Financial derivatives other than reserves	2,147.7	2,147.7
Other investment	5,106.4	5,098.6

Chart 3. U.S. Liabilities

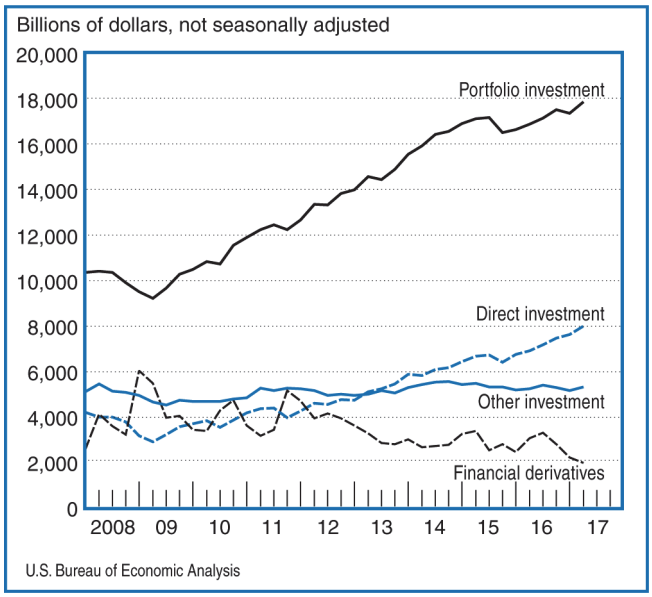


Table B. Quarterly Change in U.S. Liabilities

[Billions of dollars, not seasonally adjusted]

Type of investment	Position, 2016:IV	Change in position in 2017:I			Position, 2017:I
		Total	Attributable to:		
			Financial transactions	Other changes in position[1]	
U.S. liabilities	**32,167.8**	**806.6**	**(2)**	**(2)**	**32,974.5**
Liabilities excluding financial derivatives	30,020.1	1,049.2	393.2	656.1	31,069.4
Financial derivatives other than reserves	2,147.7	–242.6	(2)	(2)	1,905.1
By functional category:					
Direct investment at market value	7,569.3	383.1	88.2	294.9	7,952.4
Equity	5,783.5	365.6	82.9	282.7	6,149.1
Debt securities	1,785.8	17.5	5.4	12.2	1,803.3
Portfolio investment	17,352.3	507.5	155.3	352.2	17,859.8
Equity and investment fund shares	6,564.0	394.1	60.7	333.4	6,958.1
Debt securities	10,788.4	113.4	94.6	18.7	10,901.7
Financial derivatives other than reserves	2,147.7	–242.6	(2)	(2)	1,905.1
Over-the-counter contracts	2,104.6	–236.7	(2)	(2)	1,867.9
Single-currency interest rate contracts	1,568.1	–149.6	(2)	(2)	1,418.5
Foreign exchange contracts	366.8	–86.4	(2)	(2)	280.4
Other contracts	169.6	–0.6	(2)	(2)	169.0
Exchange-traded contracts	43.1	–5.9	(2)	(2)	37.2
Other investment	5,098.6	158.6	149.6	9.0	5,257.2
Currency and deposits	2,949.8	69.9	61.2	8.7	3,019.8
Loans	1,925.8	79.5	79.8	–0.3	2,005.3
Insurance technical reserves	n.a.	n.a.	n.a.	n.a.	n.a.
Trade credit and advances	175.5	8.7	8.7	0.1	184.2
Special drawing rights allocations	47.5	0.4	0.0	0.4	47.9

n.a. Not available

1. Disaggregation of other changes in position into price changes, exchange-rate changes, and other changes in volume and valuation is only presented for annual statistics (see table D).

2. Financial transactions and other changes in financial derivatives positions are available only on a net basis; they are not separately available for U.S. assets and U.S. liabilities.

NOTE. The statistics on positions are presented in IIP table 1.2 on BEA's Web site, and the statistics on financial transactions are not seasonally adjusted and are presented in ITA table 1.2.

Year 2016—U.S. Assets

U.S. assets increased $497.1 billion to $23,849.4 billion at the end of 2016, reflecting a $716.3 billion increase in assets excluding financial derivatives that was partly offset by a $219.3 billion decrease in financial derivatives (table C). The increase in assets excluding financial derivatives reflected price changes of $833.7 billion, financial transactions of $347.9 billion, and changes in volume and valuation n.i.e. of $32.7 billion that were partly offset by exchange-rate changes of –$497.9 billion.

All major asset categories increased except financial derivatives.

- Direct investment assets at market value increased $376.1 billion to $7,375.0 billion, reflecting increases due to financial transactions, mostly from reinvestment of earnings in equity investment, and to equity price increases. These increases were partly offset by a decrease from exchange-rate changes (see **market valuation** for more information on direct investment).
- Portfolio investment assets increased $309.1 billion to $9,879.2 billion, mostly reflecting an increase from price changes that was partly offset by a decrease from exchange-rate changes.
- Reserve assets increased $23.6 billion to $407.2 billion, driven by price increases in monetary gold.
- Other investment assets (currency and deposits, loans, insurance technical reserves, and trade credit and advances) increased $7.6 billion to $3,978.9 billion.
- Financial derivatives decreased $219.3 billion to $2,209.0 billion, mostly reflecting a decrease in single-currency interest rate contracts (see **these tables** for detailed statistics on financial derivatives).

Table C. Annual Change in the U.S. Net International Investment Position and in U.S. Assets

[Billions of dollars]

Type of investment	Yearend position, 2015	Change in position in 2016						Yearend position, 2016
		Total	Attributable to:					
			Financial transactions	Other changes in position				
				Total	Price changes	Exchange-rate changes [1]	Changes in volume and valuation n.i.e [2]	
U.S. net international investment position	**–7,493.5**	**–824.9**	**–377.7**	**–447.2**	**(4)**	**(4)**	**(4)**	**–8,318.4**
Net international investment position excluding financial derivatives	–7,549.8	–829.9	–393.5	–436.4	37.3	–473.0	–0.7	–8,379.7
Financial derivatives other than reserves, net [3]	56.3	5.0	15.8	–10.8	(4)	(4)	(4)	61.3
U.S. assets	**23,352.4**	**497.1**	**(3)**	**(3)**	**(3)**	**(3)**	**(3)**	**23,849.4**
Assets excluding financial derivatives	20,924.1	716.3	347.9	368.4	833.7	–497.9	32.7	21,640.5
Financial derivatives other than reserves	2,428.2	–219.3	(3)	(3)	(3)	(3)	(3)	2,209.0
By functional category:								
Direct investment at market value	6,998.9	376.1	311.6	64.5	243.5	–179.9	1.0	7,375.0
Equity	5,787.9	384.4	329.7	54.7	243.5	–179.9	–8.9	6,172.3
Debt instruments	1,211.0	–8.3	–18.2	9.8	.....	.....	9.8	1,202.7
Portfolio investment	9,570.2	309.1	40.6	268.4	566.3	–291.6	–6.3	9,879.2
Equity and investment fund shares	6,756.2	240.8	14.4	226.4	507.4	–280.9	–0.1	6,997.0
Debt securities	2,814.0	68.2	26.2	42.0	58.9	–10.7	–6.2	2,882.2
Short term	488.0	–25.7	–21.1	–4.6	.....	–4.6	0.0	462.3
Long term	2,326.0	93.9	47.3	46.6	58.9	–6.1	–6.2	2,419.9
Financial derivatives other than reserves	2,428.2	–219.3	(3)	(3)	(3)	(3)	(3)	2,209.0
Over-the-counter contracts	2,384.9	–218.0	(3)	(3)	(3)	(3)	(3)	2,166.9
Single-currency interest rate contracts	1,842.9	–220.7	(3)	(3)	(3)	(3)	(3)	1,622.2
Foreign exchange contracts	344.9	41.7	(3)	(3)	(3)	(3)	(3)	386.7
Other contracts	197.1	–39.0	(3)	(3)	(3)	(3)	(3)	158.0
Exchange-traded contracts	43.4	–1.3	(3)	(3)	(3)	(3)	(3)	42.1
Other investment	3,971.4	7.6	–6.4	14.0	.....	–24.1	38.0	3,978.9
Currency and deposits	1,627.5	–67.7	–89.7	22.0	.....	–15.3	37.2	1,559.8
Loans	2,299.1	74.6	82.3	–7.7	.....	–8.5	0.8	2,373.7
Insurance technical reserves	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trade credit and advances	44.8	0.6	0.9	–0.3	.....	–0.3	0.0	45.4
Reserve assets	383.6	23.6	2.1	21.5	23.9	–2.4	0.0	407.2
Monetary gold	277.2	23.9	0.0	23.9	23.9	.....	0.0	301.1
Special drawing rights	49.7	–0.8	0.7	–1.5	.....	–1.5	0.0	48.9
Reserve position in the International Monetary Fund	17.6	0.8	1.3	–0.6	.....	–0.6	0.0	18.4
Other reserve assets	39.1	–0.3	0.1	–0.3	0.0	–0.3	0.0	38.9

n.a. Not available ..... Not applicable

1. Represents gains or losses on foreign-currency-denominated assets and liabilities due to their revaluation at current exchange rates.

2. Includes changes due to year-to-year shifts in the composition of reporting panels and to the incorporation of more comprehensive survey results. Also includes capital gains and losses of direct investment affiliates and changes in positions that cannot be allocated to financial transactions, price changes, or exchange-rate changes.

3. Financial transactions and other changes in financial derivatives positions are available only on a net basis; they are not separately available for U.S. assets and U.S. liabilities.

4. Data are not separately available for price changes, exchange-rate changes, and changes in volume and valuation not included elsewhere.

NOTE. The statistics are presented in **IIP table 1.3** on BEA's Web site.

Year 2016—U.S. Liabilities

U.S. liabilities increased $1,322.0 billion to $32,167.8 billion at the end of 2016, reflecting a $1,546.2 billion increase in liabilities excluding financial derivatives that was partly offset by a $224.3 billion decrease in financial derivatives (table D). The increase in liabilities excluding financial derivatives reflected price changes of $796.4 billion, financial transactions of $741.4 billion, and changes in volume and valuation n.i.e. of $33.3 billion that were partly offset by exchange-rate changes of –$24.9 billion.

Increases in direct investment and portfolio investment liabilities were partly offset by decreases in financial derivatives and other investment liabilities.

- Direct investment liabilities at market value increased $868.4 billion to $7,569.3 billion, reflecting increases due to financial transactions and to equity price increases.
- Portfolio investment liabilities increased $706.5 billion to $17,352.3 billion, mostly due to equity price increases and net foreign purchases of U.S. debt securities.
- Financial derivatives decreased $224.3 billion to $2,147.7 billion, mostly reflecting a decrease in single-currency interest rate contracts.
- Other investment liabilities (currency and deposits, loans, insurance technical reserves, trade credit and advances, and special drawing rights allocations) decreased $28.7 billion to $5,098.6 billion.

Data Availability and Methodology

Detailed statistics for the U.S. international investment position accounts accompany this article in tables 1.1–3.1. The statistics and a description of the estimation methods used to compile them are also available on BEA's Web site.

The links in the tables of this article are to the latest available statistics in the interactive tables.

For the statistics, see "International Data." For the methods, see *U.S. International Economic Accounts: Concepts and Methods.*

Table D. Annual Change in U.S. Liabilities

[Billions of dollars]

Type of investment	Yearend position, 2015	Change in position in 2016						Yearend position, 2016
		Total	Attributable to:					
			Financial transactions	Other changes in position				
				Total	Price changes	Exchange-rate changes[1]	Changes in volume and valuation n.i.e.[2]	
U.S. liabilities	**30,845.9**	**1,322.0**	**([3])**	**([3])**	**([3])**	**([3])**	**([3])**	**32,167.8**
Liabilities excluding financial derivatives	28,473.9	1,546.2	741.4	804.8	796.4	–24.9	33.3	30,020.1
Financial derivatives other than reserves	2,371.9	–224.3	([3])	([3])	([3])	([3])	([3])	2,147.7
By functional category:								
Direct investment at market value	6,700.8	868.4	479.4	389.0	386.2	.....	2.8	7,569.3
Equity	5,076.4	707.1	351.8	355.3	386.2	.....	–30.9	5,783.5
Debt instruments	1,624.4	161.3	127.6	33.7	.....	.....	33.7	1,785.8
Portfolio investment	16,645.8	706.5	237.4	469.1	410.2	–8.8	67.8	17,352.3
Equity and investment fund shares	6,209.1	354.9	–141.1	495.9	471.5	.....	24.5	6,564.0
Debt securities	10,436.8	351.6	378.4	–26.8	–61.3	–8.8	43.3	10,788.4
Short term	955.3	–9.4	–8.6	–0.8	.....	–0.8	0.0	945.9
Treasury bills and certificates	724.7	–52.4	–52.4	0.0	.....	.....	0.0	672.4
Other short-term securities	230.5	43.0	43.8	–0.8	.....	–0.8	0.0	273.5
Long term	9,481.5	361.0	387.0	–26.0	–61.3	–8.0	43.3	9,842.5
Treasury bonds and notes	5,421.5	–87.6	–47.0	–40.6	–43.1	.....	2.5	5,333.9
Other long-term securities	4,060.0	448.6	434.0	14.6	–18.2	–8.0	40.8	4,508.6
Financial derivatives other than reserves	2,371.9	–224.3	([3])	([3])	([3])	([3])	([3])	2,147.7
Over-the-counter contracts	2,328.9	–224.4	([3])	([3])	([3])	([3])	([3])	2,104.6
Single-currency interest rate contracts	1,790.9	–222.8	([3])	([3])	([3])	([3])	([3])	1,568.1
Foreign exchange contracts	346.3	20.5	([3])	([3])	([3])	([3])	([3])	366.8
Other contracts	191.7	–22.1	([3])	([3])	([3])	([3])	([3])	169.6
Exchange-traded contracts	43.0	0.1	([3])	([3])	([3])	([3])	([3])	43.1
Other investment	5,127.2	–28.7	24.6	–53.3	.....	–16.1	–37.2	5,098.6
Currency and deposits	2,947.0	2.8	19.7	–16.9	.....	–3.8	–13.1	2,949.8
Loans	1,962.8	–37.0	–2.3	–34.7	.....	–10.6	–24.1	1,925.8
Insurance technical reserves	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Trade credit and advances	168.4	7.0	7.3	–0.2	.....	–0.2	0.0	175.5
Special drawing rights allocations	48.9	–1.5	0.0	–1.5	.....	–1.5	0.0	47.5

n.a. Not available ..... Not applicable

1. Represents gains or losses on foreign-currency-denominated assets and liabilities due to their revaluation at current exchange rates.

2. Includes changes due to year-to-year shifts in the composition of reporting panels and to the incorporation of more comprehensive survey results. Also includes capital gains and losses of direct investment affiliates and changes in positions that cannot be allocated to financial transactions, price changes, or exchange-rate changes.

3. Financial transactions and other changes in financial derivatives positions are available only on a net basis; they are not separately available for U.S. assets and U.S. liabilities.

NOTE. The statistics are presented in **IIP table 1.3** on BEA's Web site.

Annual Update

The U.S. net international investment position statistics were revised for 2014–2016 to reflect newly available and revised source data including (1) BEA's quarterly and annual direct investment surveys, (2) the Treasury International Capital (TIC) monthly reports and annual surveys, and (3) other U.S. government administrative data.

For yearend 2016, the net investment position was revised downward $208.7 billion to –$8,318.4 billion from –$8,109.7 billion. U.S. assets were revised downward $67.2 billion, and U.S. liabilities were revised upward $141.5 billion (table E).

Financial transactions and changes in volume and valuation n.i.e. were revised by offsetting amounts for 2003–2013 in IIP **"Table 1.3. Change in the Yearend U.S. Net International Investment Position."** Position statistics for 2003–2013 in the table were unrevised.

Supplementary statistics for alternative current-price measures of direct investment positions were revised for 1999–2016 to implement a new, streamlined method for estimating direct investment positions at current cost. The new current-cost estimates are presented in IIP **"Table 2.1. U.S. Direct Investment Positions at the End of the Period"** (line 35 through line 44).

A detailed discussion of the new method is available in the section **"New Method for Estimating Direct Investment Positions at Current Cost."** The new method does not affect BEA's two other measures of direct investment positions—the market-value measure (BEA's featured measure of direct investment positions in the IIP accounts) and the historical-cost measure.

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Reserve assets: Dena A. Holland

Computer systems and operations for direct investment: Barbara Hubbard, Paula Brown, Karen Poffel, and Kevin Smith.

Statistical production and data dissemination: Benjamin P. Kavanaugh, Gentian Cala, Danielle N. Clavon, Steve Holliday, Walter Kampas, Paul Kilday, Anna Libkhen, Marina Melnik, Kenneth Pond, Mitchell Shabani, Douglas Weinberg, and Shirley Zhou.

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Table E. Revisions to the U.S. Net International Investment Position at Yearend, 2014–2016

[Billions of dollars]

Type of investment	2014			2015			2016		
	Previously published	Revised	Amount of revision	Previously published	Revised	Amount of revision	Previously published	Revised	Amount of revision
U.S. net international investment position	**–7,046.1**	**–6,980.2**	**65.9**	**–7,280.6**	**–7,493.5**	**–212.8**	**–8,109.7**	**–8,318.4**	**–208.7**
Net international investment position excluding financial derivatives	–7,131.7	–7,065.8	65.9	–7,337.9	–7,549.8	–211.9	–8,171.0	–8,379.7	–208.7
Financial derivatives other than reserves, net	85.5	85.5	0.0	57.2	56.3	–0.9	61.3	61.3	0.0
U.S. assets	**24,717.5**	**24,832.6**	**115.0**	**23,340.8**	**23,352.4**	**11.6**	**23,916.7**	**23,849.4**	**–67.2**
Direct investment at market value	7,133.1	7,189.4	56.3	6,978.3	6,998.9	20.6	7,411.8	7,375.0	–36.7
Portfolio investment	9,704.3	9,704.2	0.0	9,606.2	9,570.2	–36.0	9,922.3	9,879.2	–43.1
Financial derivatives other than reserves	3,214.1	3,252.3	38.2	2,395.4	2,428.2	32.9	2,209.0	2,209.0	0.0
Other investment	4,231.8	4,252.4	20.6	3,977.3	3,971.4	–5.9	3,966.3	3,978.9	12.6
Reserve assets	434.3	434.3	0.0	383.6	383.6	0.0	407.2	407.2	0.0
U.S. liabilities	**31,763.7**	**31,812.8**	**49.1**	**30,621.4**	**30,845.9**	**224.4**	**32,026.3**	**32,167.8**	**141.5**
Direct investment at market value	6,350.1	6,369.5	19.5	6,543.8	6,700.8	157.0	7,419.3	7,569.3	149.9
Portfolio investment	16,919.8	16,921.4	1.6	16,677.0	16,645.8	–31.1	17,352.9	17,352.3	–0.6
Financial derivatives other than reserves	3,128.6	3,166.8	38.2	2,338.1	2,371.9	33.8	2,147.7	2,147.7	0.0
Other investment	5,365.2	5,355.1	–10.1	5,062.5	5,127.2	64.8	5,106.4	5,098.6	–7.8

New Method for Estimating Direct Investment Positions at Current Cost

BEA has introduced a new, streamlined method for estimating direct investment positions at current cost, which are included as alternative current-price measures of direct investment positions. The new method for estimating current-cost positions is related to a new method for estimating current-cost adjustments to direct investment equity income. These adjustments affect primary income receipts and payments and transactions in direct investment assets and liabilities in BEA's international transactions accounts (ITAs).[1] The new method for estimating positions at current cost does not affect BEA's two other measures of direct investment positions—the market-value measure (BEA's featured measure of direct investment in the IIP accounts) and the historical-cost measure. Direct investment equity positions at current cost are presented in IIP **"Table 2.1. U.S. Direct Investment Positions at the End of the Period"** (lines 36 and 41). The remainder of this section describes the current-cost positions and compares the previous method used in their estimation with the new method.

The starting points for estimating direct investment positions at current cost are the direct investment positions at historical cost, which are based on data reported on BEA's quarterly surveys of direct investment. Estimates of positions at current cost revalue the historical-cost equity claims of U.S. parents on their foreign affiliates' tangible assets and the historical-cost equity claims of foreign parents on their U.S. affiliates' tangible assets to current-period prices.[2] In revaluing equity claims on only tangible assets, the revaluation to current cost is less comprehensive than the (featured) revaluation to market value, which revalues equity claims in affiliates' total assets to current prices.[3] Estimates of equity positions at current cost are net of accumulated economic depreciation on affiliates' tangible assets.

Under the previous method, estimates of direct investment equity positions at current cost and the associated current-cost adjustments to direct investment income on equity were based primarily on calculations of a perpetual inventory model. The model revalued from historical cost to current prices the plant and equipment reported for affiliates on BEA's benchmark and annual direct investment surveys, which reflect the financial statements of multinational enterprises.[4] This model is the same one that is used by BEA to prepare estimates of total U.S. structures and equipment in BEA's **fixed assets accounts**, which are part of the national economic accounts. The perpetual inventory model first revalued each year's plant and equipment investments from historical cost to constant cost using price indexes of capital goods. For inward investment, the model used U.S. capital goods price indexes; for outward investment, it used a weighted average of foreign-country and U.S. capital goods price indexes. The model then estimated the constant-cost net capital stock of plant and equipment for a given year by cumulating past investment in plant and equipment and deducting the cumulative value of economic depreciation through the end of that year. Finally, the constant-cost net capital stock was revalued to current cost using the appropriate price indexes for capital goods.

With the new method, BEA no longer directly uses the perpetual inventory model to estimate equity positions at current cost, beginning with statistics for 1999. Instead, it primarily uses industry-level ratios of current-cost domestic stocks of structures and equipment to historical-cost domestic stocks of structures and equipment derived from BEA's fixed assets accounts.[5] BEA now revalues the historical-cost stocks of plant and equipment of direct investment affiliates by applying the ratios from the fixed assets accounts to these stocks. This change in method considerably streamlines the preparation of estimates of the positions at current cost, as well as related estimates of current-cost adjustments to direct investment equity income that are included in the ITAs.

1. Revisions to the ITAs, including revisions to current-cost adjustments of direct investment income, are discussed in Eric Bryda, C. Omar Kebbeh, and Daniel H. Meier, **"Annual Update of the U.S. International Transactions Accounts"** in this issue of the SURVEY OF CURRENT BUSINESS.

2. Tangible assets revalued by the current-cost method include plant and equipment, land, and inventories. This method does not revalue mineral or other natural resource rights held by direct investment affiliates.

3. In direct investment positions at market value, total equity claims are revalued to current-period prices using stock market indexes. Although direct investment revaluations to current cost are less comprehensive than revaluations to market value, the valuation of intangible assets is inherently imprecise; therefore, the positions at current cost usefully provide reliable lower bounds (except in unusual economic circumstances) on positions at current prices. In addition, positions at current cost are less prone to volatility than positions at market value.

Estimates of positions both at market value and at current cost 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.

For more information on direct investment positions at historical cost, current cost, and market value, see **paragraphs 11.5–11.36** in *U.S. International Economic Accounts: Concepts and Methods* on BEA's Web site (updates pending).

4. See J. Steven Landefeld and Ann M. Lawson, **"Valuation of the U.S. Net International Investment Position,"** SURVEY 71 (May 1991): 40-49.

5. Because the fixed assets accounts statistics use the perpetual inventory model, the direct investment estimates still indirectly rely on the perpetual inventory model. However, data reported on direct investment surveys are no longer entered into the model itself; they are adjusted by an output of the model applied to domestic data. See section 3 of the fixed assets accounts tables on BEA's Web site for the data on domestic stocks at current cost and at historical cost that are used in calculating these ratios.

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The new method substitutes one set of assumptions for another in revaluing direct investment plant and equipment. Previously, assumptions were made, by industry, about the mix of asset types in plant and equipment investment and in stocks of affiliates entering and exiting the direct investment universe through acquisitions and disposals. These assumptions have been replaced with an assumption that asset mixes and asset ages of stocks for a given direct investment industry are similar to those in the corresponding U.S. industry. The new method also assumes that trends in asset prices abroad can be approximated by trends in asset prices in the United States.

The new method partly decouples the calculation of current-cost position estimates and the estimates of current-cost adjustments to income. With the perpetual inventory model, economic depreciation estimates that were used for one period's current-cost adjustment to income also fed into calculations of end-of-period plant and equipment stocks at current cost. The stock estimates, in turn, affected the next period's estimates of economic depreciation. With the new method, estimates of plant and equipment stocks at current cost no longer rely on depreciation estimates from prior periods. Depreciation estimates, though, still depend on estimates of current-cost stocks.

The previous method used distinct approaches to revalue tangible assets other than plant and equipment—namely land and inventories. Similar to the revaluation of plant and equipment, land was revalued with the perpetual inventory model, but it was not subject to economic depreciation. Inventories were revalued to current cost using a fixed, all-industry percentage markup from historical cost. The fixed percentage was based on historical data from BEA's national economic accounts.

Using the new method, the revaluation of land has been slightly simplified but is conceptually the same as that used by the old method. The revaluation of inventories has been improved by applying time-specific and industry-specific current-price to historical-cost ratios from BEA's national economic accounts to stocks of inventories of affiliates in manufacturing.

The new method of estimating current-cost direct investment equity positions is less direct than the previous method, because it relies on ratios from accounts covering the entire U.S. economy rather than calculating specifically for direct investment. Although the more direct previous method was conceptually superior, it required richer input data than were actually available. Consequently, estimates prepared using the previous method relied heavily on strong assumptions and required complex adjustments in processing the data. The new method eliminates most of these adjustments. Along with simplifying the calculation of the estimates of direct investment equity positions at current cost, the new method uses finer industry detail than the previous method.[6] The previous method involved calculations for each of 27 industries based on the Standard Industrial Classification (SIC); the new method involves calculations for each of 62 industries based on the North American Industry Classification System (NAICS).[7] This finer detail improves the estimates of revalued plant and equipment and inventories.

The estimates prepared using the new method are conceptually the same as those prepared using the previous method—with one exception. Previously, estimates of investment flows of plant and equipment used in the perpetual inventory model added reported expensed oil and gas exploration and development costs to plant and equipment investment reported on BEA's direct investment surveys; the rationale was that many of these expensed costs are incurred to acquire structures (for example, oil wells). However, the goods and services purchased with these expensed funds are largely out of scope for the tangible asset stocks that are revalued for current-cost positions; they consist of either dry wells, which will not be used in production on an ongoing basis and have little prospect for resale, or intangible assets, which are

6. The industry detail used in generating the current-cost estimates is not included in the published statistics; only an aggregate current-cost adjustment is included in the published statistics. Nonetheless, the use of industry detail in the estimation process improves the accuracy of the aggregate estimate, because asset price inflation, asset mix, and depreciation rates can vary widely across industries.

7. The use of SIC-based industries was primarily an historical artifact that began long before NAICS was introduced. Because each period's model is built on the results of the prior period's model, SIC-based industries were maintained after direct investment surveys began to collect data for NAICS-based industries, and the new NAICS-based data were converted back into SIC-based industries.

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not revalued from historical cost. Using the new method, estimates of direct investment equity positions at current cost no longer reflect a markup to goods and services acquired in the course of expensed oil and gas exploration and development.

Revised and previously published estimates of the two direct investment equity positions at current cost are shown in chart 4. For 1999 to 2013, differences between the revised and previously published series reflect the new method; for 2014 to 2016, differences also reflect newly available and revised source data from BEA's direct investment surveys. For all years, the revisions to direct investment equity positions were upward. On average, equity asset positions were revised upward 3.4 percent, with the largest revisions in 2004 to 2008. Equity liability positions were revised upward an average of 7.0 percent, with the largest revisions in the later years.

Generally, the upward revisions were due to higher current-cost-to-historical-cost ratios for structures and equipment in the fixed assets accounts than the rations that were generated by the perpetual inventory model for direct investment plant and equipment; the new ratios used for inventories, which mostly tended towards higher current-cost positions, and the elimination of expensed exploration and development costs, which tended towards lower positions, were less consequential.

Because of differences in industry categories and in the implicit mixes of structures and equipment within categories, it is difficult to pinpoint precisely how the revised estimates differ from the previously published estimates at the level of (unpublished) detailed components. Nonetheless, some general patterns can be identified. Ratios obtained from the fixed assets accounts and applied to both assets and liabilities are less smooth than ratios obtained implicitly from the perpetual inventory model under the old method. For example, the relatively large upward revisions to equity assets for 2005 and 2006 are partly a result of rapid increases in current-cost-to-historical-cost ratios in the oil and gas exploration industry in the fixed assets accounts. For equity liabilities, higher ratios using the new method implicitly reflect estimates of older stocks of structures and equipment in the fixed assets accounts than the stocks obtained using the perpetual inventory model for direct investment plant and equipment.

Estimates from the new current-cost method were phased in over a period of 4 years to avoid a break-in-series in 1999. During this period, the new published estimates for "markups" from historical cost (that is, differences between current-cost positions and historical-cost positions) are a weighted average of markups from the previously published estimates and markups from the estimates obtained using the new method. The weight given to the estimates using the new method rises over the each of the 4 phase-in years.

Chart 4. Direct Investment Equity Positions at Current Cost at Yearend, 1999–2016