SCB SURVEY OF CURRENT BUSINESS

The Journal of the U.S. Bureau of Economic Analysis

How BEA Aligns and Augments Source Data from the U.S. Treasury Department for Inclusion in the International Transactions Accounts

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Like most of the U.S. economic accounts produced by the Bureau of Economic Analysis (BEA), the statistics on financial-account transactions in the International Transactions Accounts (ITAs) are based largely on source data collected by other federal government agencies—in this case, by the Treasury International Capital (TIC) reporting system of the U.S. Department of the Treasury. BEA makes adjustments to align the data with balance-of-payments concepts and to close gaps in coverage in preparing statistics for the financial account. This report explains these adjustments to help data users reconcile BEA financial-account statistics with the TIC data available to the public on the Treasury Department's TIC website.

The relationships between the statistics in the ITAs and the data from the TIC reporting system are shown in tables 1 and 2, which identify the adjustments that BEA makes to the TIC source data. Table 1 presents statistics on transactions in portfolio investment assets and liabilities (equity and debt securities). Table 2 presents statistics on transactions in other investment assets and liabilities, including currency, deposits, loans, and trade credit and advances.

Aligning with balance-of-payments concepts

Holdings of U.S. assets and liabilities reported in the TIC system are the basis of BEA statistics on portfolio investment and other investment assets and liabilities. To impute balance-of-payments transactions from the reported holdings, BEA removes from the total quarterly change in holdings the quarterly changes in holdings that do not result from transactions. As explained in greater detail in *U.S. International Economic Accounts: Concepts and Methods*, BEA removes quarterly changes in holdings due to (1) changes in prices, (2) changes in exchange rates, and (3) changes in volume and value not included elsewhere (table 1, lines 5–7, 16–18, and 27–29, and table 2, lines 6, 7, 17, and 18).

BEA also aligns the TIC data with balance-of-payments concepts by removing changes in holdings that are already counted in other data sources for direct investment and reserve assets. For example, TIC balances that are reported by U.S. banks and securities brokers (table 2) also include claims on, and liabilities to, unincorporated branches by parent companies that are included in BEA direct investment surveys as direct investment equity. Changes in balances covered in BEA direct investment surveys are removed (table 2, lines 4 and 15). Foreign securities held as U.S. reserve assets are reported in TIC surveys of U.S. holdings of foreign securities with portfolio investment; changes in these reserve holdings are removed from portfolio investment (table 1, line 4).

In addition to removing changes in claims and liabilities that should be excluded from portfolio investment or other investment, BEA also separates transactions in short-term securities and negotiable certificates of deposit of any maturity from other investment and records them in portfolio investment (table 1, lines 9 and 20, and table 2, lines 5 and 16). The holdings of these types of portfolio investment are collected in the TIC system with other investment instruments, such as loans and deposits.

Closing gaps in coverage

BEA closes gaps in coverage in estimates of portfolio investment and other investment assets and liabilities transactions with data from the TIC reporting system and supplemental data.

Portfolio investment (table 1)

BEA produces quarterly and annual estimates of portfolio investment transactions based on data from the monthly TIC survey Aggregate Holdings, Purchases and Sales, and Fair Value Changes of Long-Term Securities by U.S. and Foreign Residents (TIC SLT), which are presented in table 1. BEA adopted this methodology in 2013 because it produces transactions estimates that are consistent with reported portfolio investment positions, significantly reducing unexplained changes in these positions and closing a gap in coverage that existed before the TIC SLT was introduced. BEA presents estimates of net U.S. acquisition of foreign stocks and bonds in line 8, net U.S. incurrence of portfolio liabilities through U.S. stocks and bonds in line 19, and net U.S. incurrence of portfolio liabilities through U.S. Treasury bonds in line 30. Prior to the introduction of the TIC SLT, BEA estimated portfolio investment transactions using the TIC survey Purchases and Sales of Long-Term Securities by Foreign-Residents (TIC S).

The TIC system releases monthly transactions statistics on the net purchases of foreign stocks and bonds by U.S. residents and the net purchases of U.S. stocks and bonds by foreign residents and adjustments to these transactions to account for acquisitions of stocks through stock swaps and principal repayments for U.S. asset-backed securities. The transactions statistics are based on the TIC S. To inform the public about the differences between BEA estimates and the estimates released by the TIC system, U.S. net acquisition of long-term assets or U.S. net incurrence of long-term liabilities based on the TIC S are shown in lines 11, 22, and 33 The estimates based on the TIC S include adjustments for stock swaps and principal repayments for U.S. asset-backed securities, as appropriate. The differences between the BEA statistics and the adjusted TIC S net transactions are shown in lines 12, 23, and 34.

Other investment (table 2)

Not all U.S. holdings of other investment are captured by the TIC reporting system. BEA closes gaps in the coverage of U.S. non-financial institutions' claims and liabilities by supplementing TIC data with estimates of these institutions' claims on, and liabilities to, foreign banks based on partner country counterparty data from foreign banking authorities (lines 8 and 19).

BEA also includes transactions in the other investment claims and liabilities of the U.S. central bank sector (the U.S. Federal Reserve System) and the U.S. general government that are not included in the TIC data, using data provided by the U.S. Federal Reserve System, the U.S. Department of Defense, and other U.S. government agencies (lines 10 and 21).

Tables

Table 1. Relation of Transactions in Portfolio Investment Assets and Liabilities in the U.S. International Transactions Accounts (ITAs) to Treasury International Capital (TIC) Reporting System Data

[Millions of dollars]

Line	Net increase in assets or liabilities (+); net decrease in assets or liabilities (–)	2020	2021	2022
	Net U.S. acquisition of portfolio investment assets			
1	Total claims (foreign stocks and bonds held by U.S. residents) outstanding, beginning of year, TIC[1]	12,579,562	13,881,735	15,635,303
2	Total claims (foreign stocks and bonds held by U.S. residents) outstanding, end of year, TIC[1]	13,881,735	15,635,303	13,479,409
3	**Change in claims, TIC (line 2–line 1)**	**1,302,173**	**1,753,568**	**–2,155,894**
4	*Minus:* Changes in foreign stocks and bonds held as reserve assets	2,209	–1,961	–3,612
5	*Minus:* Changes in value caused by price changes	193,567	1,655,634	–1,838,937
6	*Minus:* Changes in value caused by exchange-rate changes	618,951	–619,391	–784,046
7	*Minus:* Changes in value caused by changes in volume and value n.i.e.[2]	52,017	86,327	19,639
8	***Equals:* Net U.S. acquisition of foreign stocks and bonds, ITAs**	**435,429**	**632,959**	**451,062**
9	*Plus:* Net U.S. acquisition of foreign short-term securities and negotiable certificates of deposit of any maturity, ITAs	–29,061	78,552	–78,568
10	***Equals:* Net U.S. acquisition of portfolio investment assets, ITA table 1.1, line 21**	**406,368**	**711,511**	**372,494**
11	Net U.S. acquisition of foreign stocks and bonds, TIC[3]	–362,274	–300,599	–320,222
12	Coverage difference for net U.S. acquisition of foreign stocks and bonds, ITAs less TIC (line 8 less line 11)	797,703	933,558	771,284
	Net U.S. incurrence of portfolio investment liabilities			
13	Total liabilities (U.S. stocks and bonds held by foreign residents) outstanding, beginning of year, TIC[4]	20,500,284	23,353,833	27,800,850
14	Total liabilities (U.S. stocks and bonds held by foreign residents) outstanding, end of year, TIC[4]	23,353,833	27,800,850	23,583,452
15	**Change in liabilities, TIC (line 14–line 13)**	**2,853,549**	**4,447,017**	**–4,217,398**
16	*Minus:* Changes in value caused by price changes	2,337,534	2,512,069	–4,918,971
17	*Minus:* Changes in value caused by exchange-rate changes	49,999	–44,200	–55,997
18	*Minus:* Changes in value caused by changes in volume and value n.i.e.[5]	–208,289	1,302,577	11,985
19	***Equals:* Net U.S. incurrence of portfolio liabilities through U.S. stocks and bonds, ITAs**	**674,305**	**676,571**	**745,585**
20	*Plus:* Net U.S. incurrence of portfolio liabilities through U.S. short-term securities and negotiable certificates of deposit of any maturity, ITAs	272,255	–62,321	64,569
21	***Equals:* Net U.S. incurrence of portfolio investment liabilities, ITA table 1.1, line 26**	**946,560**	**614,250**	**810,154**
22	Net U.S. incurrence of portfolio liabilities through U.S. stocks and bonds, TIC[3]	–260,849	169,502	848,385
23	Coverage difference for net U.S. incurrence of portfolio liabilities through U.S. stocks and bonds, ITAs less TIC (line 19 less line 22)	935,154	507,069	–102,800
	Net U.S. incurrence of portfolio investment liabilities through U.S. Treasury securities[6]			
24	Total liabilities (U.S. Treasury bonds held by foreign residents) outstanding, beginning of year, TIC[4]	6,128,155	6,043,423	6,752,960
25	Total liabilities (U.S. Treasury bonds held by foreign residents) outstanding, end of year, TIC[4]	6,043,423	6,752,960	6,368,523
26	**Change in liabilities, TIC (line 25–line 24)**	**–84,732**	**709,537**	**–384,437**
27	*Minus:* Changes in value caused by price changes	305,157	–210,216	–842,534
28	*Minus:* Changes in value caused by exchange-rate changes	....	....	....
29	*Minus:* Changes in value caused by changes in volume and value n.i.e.	–145,678	258,582	3,075
30	***Equals:* Net U.S. incurrence of portfolio liabilities through U.S. Treasury bonds, ITAs**	**–244,211**	**661,171**	**455,022**
31	*Plus:* Net U.S. incurrence of portfolio liabilities through short-term U.S. Treasury securities, ITAs	311,257	–55,404	–37,422
32	***Equals:* Net U.S. incurrence of portfolio investment liabilities through U.S. Treasury securities, ITA table 1.1, part of line 26**	**67,046**	**605,767**	**417,600**
33	Net U.S. incurrence of portfolio liabilities through U.S. Treasury bonds, TIC[3]	–540,042	82,190	754,026
34	Coverage difference for net U.S. incurrence of portfolio liabilities through U.S. Treasury bonds, ITAs less TIC (line 30 less line 33)	295,831	578,981	–299,004

n.i.e. Not included elsewhere

.... Not applicable

Table Footnotes

1. Total claims are as reported in the monthly TIC survey Aggregate Holdings, Purchases and Sales, and Fair Value Changes of Long-Term Securities by U.S. and Foreign Residents (TIC SLT). BEA uses the TIC SLT and the TIC annual and benchmark survey of assets—Report of U.S. Ownership of Foreign Securities, including Selected Money Market Instruments (SHC(A))—to compile the ITAs and the U.S. International Investment Position (IIP) Accounts. Positions in this table differ from investment positions in the IIP Accounts because the TIC SLT is the only source of position estimates in this table. TIC data are often revised over time, so current reported values may differ from values in this table.
2. Includes changes caused by differences between SLT positions and SHC(A) positions and the other changes in volume and value reported in IIP table 1.3.
3. TIC data for net U.S. acquisition of portfolio assets (line 11) and net U.S. incurrence of portfolio liabilities (lines 22 and 33) are based on Purchases and Sales of Long-term Securities by Foreign-Residents with adjustments to add net acquisitions from stock swaps and to subtract estimated principle repayments of U.S. asset-backed securities, as appropriate.
4. Total liabilities are as reported in the monthly TIC SLT. BEA uses the TIC SLT and the TIC annual and benchmark survey of liabilities—Foreign-Residents' Holdings of U.S. Securities, including Selected Money Market Instruments (SHL(A))— and, for 2020–2021, adjustments related to a large SLT series break to compile the ITAs and the U.S. International Investment Position (IIP) Accounts. Positions in this table differ from investment positions in the IIP Accounts because the TIC SLT is the only source of position estimates in this table. TIC data are often revised over time, so current reported values may differ from values in this table.
5. Includes (1) changes caused by differences between SLT positions and SHL(A) positions, (2) deviations in BEA IIP positions from SLT positions because of series breaks in the SLT, and (3) the other changes in volume and value reported in IIP table 1.3.
6. The net U.S. incurrence of portfolio investment liabilities through U.S. Treasury securities is included in lines 13–23. The analysis for U.S. Treasury securities is provided separately in lines 24–34 because of the interest in this market by users of BEA data.

Table 2. Relation of Transactions in Other Investment Assets and Liabilities in the U.S. International Transactions Accounts (ITAs) to Treasury International Capital (TIC) Reporting System Data

[Millions of dollars]

Line	Net increase in assets or liabilities (+); net decrease in assets or liabilities (–)	2020	2021	2022
	Net U.S. acquisition of other investment assets			
1	Total claims outstanding, beginning of year, TIC[1]	4,323,158	4,443,264	4,592,209
2	Total claims outstanding, end of year, TIC[1]	4,443,264	4,592,209	4,438,684
3	**Change in claims, TIC (line 2–line 1)**	**120,106**	**148,945**	**−153,525**
4	*Minus:* Direct investment	6,945	7,367	12,897
5	*Minus:* Net U.S. acquisition of foreign short-term securities and negotiable certificates of deposit of any maturity, ITAs	−29,061	78,552	−78,568
6	*Minus:* Changes in value caused by exchange-rate changes	38,617	−43,639	−54,639
7	*Minus:* Changes in value caused by changes in volume and value n.i.e.	−39,300	73,950	−18,300
8	*Plus:* Supplemental source data[2]	98,651	4,648	52,114
9	***Equals:* Net U.S. acquisition of other investment assets, excluding U.S. central bank and general government assets**	**241,556**	**37,364**	**37,199**
10	*Plus:* Net U.S. acquisition of other investment assets by the U.S. central bank and general government	15,578	−13,983	−1,176
11	***Equals:* Net U.S. acquisition of other investment assets, ITA table 1.1, line 22**	**257,133**	**23,381**	**36,023**
	Net U.S. incurrence of other investment liabilities			
12	Total liabilities outstanding, beginning of year, TIC[1]	5,880,727	6,552,530	7,209,576
13	Total liabilities outstanding, end of year, TIC[1]	6,552,530	7,209,576	7,564,694
14	**Change in liabilities, TIC (line 13–line 12)**	**671,803**	**657,046**	**355,118**
15	*Minus:* Direct investment	5,888	11,210	2,103
16	*Minus:* Net U.S. incurrence of portfolio investment liabilities through U.S. short-term securities and negotiable certificates of deposit of any maturity, ITAs	272,255	−62,321	64,569
17	*Minus*: Changes in value caused by exchange-rate changes	18,089	−20,102	−24,848
18	*Minus:* Changes in value caused by changes in volume and value n.i.e.	21,550	73,700	−3,100
19	*Plus:* Supplemental source data[2]	49,352	57,218	−1,879
20	***Equals:* Net U.S. incurrence of other investment liabilities, excluding liabilities of general government and liabilities from U.S. currency held abroad**	**403,373**	**711,777**	**314,515**
21	*Plus:* Net U.S. incurrence of other investment liabilities by general government and liabilities from U.S. currency held abroad	134,665	173,647	51,929
22	***Equals:* Net U.S. incurrence of other investment liabilities, ITA table 1.1, line 27**	**538,038**	**885,424**	**366,445**

n.i.e. Not included elsewhere

Table Footnotes

1. TIC data are as reported in the TIC B and C forms. The TIC B forms (BC, BL–1, BL–2, BQ–1, and BQ–2) are reports by financial institutions of liabilities to, and claims on, foreign residents by U.S. residents. The TIC C forms (CQ–1 and CQ–2) are reports of liabilities to, and claims on, unaffiliated foreign residents by U.S. resident non-financial institutions.
2. Includes supplemental transactions from the Bank of England, the Deutsche Bundesbank, the Bank for International Settlements, and the Federal Reserve Board.