

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

By Tait Militana | July 15, 2024

Like most of the U.S. economic accounts produced by the U.S. 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

BEA financial-account statistics for assets and liabilities are based on holdings and transactions reported in the TIC system. Portfolio investment statistics are based on holdings and transactions 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). Other investment statistics are based on holdings reported in the monthly [TIC B forms](#) filed by financial institutions and the monthly [TIC C forms](#) filed by nonfinancial institutions. BEA imputes balance-of-payments transactions from the reported holdings by removing 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.

The Treasury Department had expanded the TIC SLT to collect transactions, in addition to positions, on long-term securities beginning with November 2022 data. BEA has incorporated these new data into the portfolio investment statistics beginning with the first quarter of 2023. Prior to this period, BEA imputed transactions from holdings reported in the TIC SLT. For 2023, there are no coverage differences between BEA's published transactions for portfolio investment assets and liabilities and transactions reported on the TIC SLT (table 1, lines 12, 23, and 34). For years 2021 and 2022, lines 12, 23, and 34 in table 1 show coverage differences between BEA's transactions statistics that were imputed from positions reported on the TIC SLT and transactions reported on the now discontinued [TIC S form](#). For more information on the expanded TIC SLT and transactions data used in BEA estimates beginning in the first quarter of 2023, see the "[Technical Note](#)" for the "[U.S. International Transactions, 2nd Quarter 2023](#)" news release.

Not all U.S. holdings of other investment are captured by the TIC reporting system. BEA closes gaps in the coverage of U.S. nonfinancial 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 (table 2, 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 (table 2, 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 (-)	2021	2022	2023
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	13,881,735	15,635,303	13,430,451
2	Total claims (foreign stocks and bonds held by U.S. residents) outstanding, end of year, TIC ¹	15,635,303	13,430,451	14,764,354
3	Change in claims, TIC (line 2–line 1)	1,753,568	-2,204,852	1,333,903
4	<i>Minus:</i> Changes in foreign stocks and bonds held as reserve assets	-1,961	-3,612	-1,039
5	<i>Minus:</i> Changes in value caused by price changes	1,655,634	-1,840,687	1,059,589
6	<i>Minus:</i> Changes in value caused by exchange-rate changes	-619,391	-782,355	262,300
7	<i>Minus:</i> Changes in value caused by changes in volume and value n.i.e. ²	86,327	6,404	-92,154
8	Equals: Net U.S. acquisition of foreign stocks and bonds, ITAs	632,959	415,398	105,207
9	<i>Plus:</i> Net U.S. acquisition of foreign short-term securities and negotiable certificates of deposit of any maturity, ITAs	78,581	-92,679	-23,645
10	Equals: Net U.S. acquisition of portfolio investment assets, ITA table 1.1, line 21	711,540	322,719	81,562
11	Net U.S. acquisition of foreign stocks and bonds, TIC ³	-300,599	-320,222	105,207
12	Coverage difference for net U.S. acquisition of foreign stocks and bonds, ITAs less TIC (line 8 less line 11)	933,558	735,620	0
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	23,353,833	27,800,850	23,534,616
14	Total liabilities (U.S. stocks and bonds held by foreign residents) outstanding, end of year, TIC ⁴	27,800,850	23,534,616	27,364,031
15	Change in liabilities, TIC (line 14–line 13)	4,447,017	-4,266,234	3,829,415
16	<i>Minus:</i> Changes in value caused by price changes	2,512,069	-4,918,021	2,736,878
17	<i>Minus:</i> Changes in value caused by exchange-rate changes	-44,200	-55,997	19,127
18	<i>Minus:</i> Changes in value caused by changes in volume and value n.i.e. ⁵	1,302,577	11,976	-25,712
19	Equals: Net U.S. incurrence of portfolio liabilities through U.S. stocks and bonds, ITAs	676,571	695,808	1,099,122
20	<i>Plus:</i> Net U.S. incurrence of portfolio liabilities through U.S. short-term securities and negotiable certificates of deposit of any maturity, ITAs	-62,468	64,576	131,955
21	Equals: Net U.S. incurrence of portfolio investment liabilities, ITA table 1.1, line 26	614,103	760,384	1,231,077
22	Net U.S. incurrence of portfolio liabilities through U.S. stocks and bonds, TIC ³	169,502	848,385	1,099,122
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)	507,069	-152,577	0
Net U.S. incurrence of portfolio investment liabilities through U.S. Treasury securities⁶				
24	Total liabilities (U.S. Treasury bonds held by foreign residents) outstanding, beginning of year, TIC ⁴	6,043,423	6,752,960	6,344,077
25	Total liabilities (U.S. Treasury bonds held by foreign residents) outstanding, end of year, TIC ⁴	6,752,960	6,344,077	6,863,849
26	Change in liabilities, TIC (line 25–line 24)	709,537	-408,883	519,772
27	<i>Minus:</i> Changes in value caused by price changes	-210,216	-842,233	99,859
28	<i>Minus:</i> Changes in value caused by exchange-rate changes
29	<i>Minus:</i> Changes in value caused by changes in volume and value n.i.e.	258,582	3,075	-70,900
30	Equals: Net U.S. incurrence of portfolio liabilities through U.S. Treasury bonds, ITAs	661,171	430,275	490,813
31	<i>Plus:</i> Net U.S. incurrence of portfolio liabilities through short-term U.S. Treasury securities, ITAs	-55,404	-37,422	120,472
32	Equals: Net U.S. incurrence of portfolio investment liabilities through U.S. Treasury securities, ITA table 1.1, part of line 26	605,767	392,853	611,285
33	Net U.S. incurrence of portfolio liabilities through U.S. Treasury bonds, TIC ³	82,190	754,026	490,813
34	Coverage difference for net U.S. incurrence of portfolio liabilities through U.S. Treasury bonds, ITAs less TIC (line 30 less line 33)	578,981	-323,751	0

n.i.e. Not included elsewhere

.... Not applicable

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. For 2021-2022, 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 (TIC S) with adjustments to add net acquisitions from stock swaps and to subtract estimated principal repayments of U.S. asset-backed securities, as appropriate. For 2023, TIC data for net U.S. acquisition of portfolio assets (line 11) and net U.S. incurrence of portfolio liabilities (lines 22 and 33) reflect gross purchases and gross sales data from the expanded monthly TIC SLT report, replacing transactions data previously available on TIC S, which is now discontinued.
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 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.

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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 (-)	2021	2022	2023
Net U.S. acquisition of other investment assets				
1	Total claims outstanding, beginning of year, TIC ¹	4,443,264	4,590,993	4,412,716
2	Total claims outstanding, end of year, TIC ¹	4,590,993	4,412,716	4,849,839
3	Change in claims, TIC (line 2–line 1)	147,729	-178,277	437,123
4	<i>Minus:</i> Direct investment	7,322	16,347	9,685
5	<i>Minus:</i> Net U.S. acquisition of foreign short-term securities and negotiable certificates of deposit of any maturity, ITAs	78,581	-92,679	-23,645
6	<i>Minus:</i> Changes in value caused by exchange-rate changes	-43,800	-55,153	8,656
7	<i>Minus:</i> Changes in value caused by changes in volume and value n.i.e.	72,750	-25,300	11,200
8	<i>Plus:</i> Supplemental source data ²	4,648	52,114	6,365
9	Equals: Net U.S. acquisition of other investment assets, excluding U.S. central bank and general government assets	37,524	30,623	437,593
10	<i>Plus:</i> Net U.S. acquisition of other investment assets by the U.S. central bank and general government	-13,983	-556	5,324
11	Equals: Net U.S. acquisition of other investment assets, ITA table 1.1, line 22	23,541	30,066	442,916
Net U.S. incurrence of other investment liabilities				
12	Total liabilities outstanding, beginning of year, TIC ¹	6,552,530	7,207,773	7,568,815
13	Total liabilities outstanding, end of year, TIC ¹	7,207,773	7,568,815	7,857,582
14	Change in liabilities, TIC (line 13–line 12)	655,243	361,042	288,767
15	<i>Minus:</i> Direct investment	22,326	18,678	245
16	<i>Minus:</i> Net U.S. incurrence of portfolio investment liabilities through U.S. short-term securities and negotiable certificates of deposit of any maturity, ITAs	-62,468	64,576	131,955
17	<i>Minus:</i> Changes in value caused by exchange-rate changes	-20,170	-25,061	5,455
18	<i>Minus:</i> Changes in value caused by changes in volume and value n.i.e.	60,700	-13,250	-61,400
19	<i>Plus:</i> Supplemental source data ²	57,218	-1,879	59,016
20	Equals: Net U.S. incurrence of other investment liabilities, excluding liabilities of general government and liabilities from U.S. currency held abroad	712,073	314,220	271,528
21	<i>Plus:</i> Net U.S. incurrence of other investment liabilities by general government and liabilities from U.S. currency held abroad	173,647	51,929	35,696
22	Equals: Net U.S. incurrence of other investment liabilities, ITA table 1.1, line 27	885,720	366,150	307,224

n.i.e. Not included elsewhere

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 (BIS), and the Federal Reserve Board.

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