

## Transactions in Long-Term Securities Other Than U.S. Treasury Securities

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### Coverage and definitions

Securities transactions between U.S. and unaffiliated foreign residents, other than foreign official agencies, are measured in the following accounts: (1) Foreign securities—net purchases by U.S. residents (line 52), and (2) U.S. securities other than U.S. Treasury securities—net purchases by foreign residents (line 66). Securities covered are long-term securities of foreign governments and their political subdivisions, of U.S. and foreign private corporations, of U.S. government federally sponsored agencies, of U.S. states and municipalities, and of international and regional financial institutions. Long-term securities are those with no contractual maturity, such as stocks, and those with an original maturity of more than 1 year. (Transactions in U.S. Treasury securities, other than those with foreign official agencies, are covered in line 65.)

The term “securities” is interpreted broadly to include all equity securities and debt securities. *Equity securities* include common stocks, preferred stocks, restricted stocks, depository receipts, investment fund shares in money market, equity, and bond mutual funds, REITs, index-linked equity unit investment trusts, and limited partnership interests. *Debt securities* include corporate bonds and notes both in registered and in bearer form, convertible debt, zero-coupon debt, index-linked debt securities, medium-term notes, note issuance facilities, floating rate notes, asset-backed securities, and sovereign debt of foreign governments and their political subdivisions. In the accounts, securities are grouped under the headings of *stocks*, *bonds*, and *federally sponsored agency bonds*.

The accounts cover both securities newly issued in the United States and abroad and trading in, and redemptions of, outstanding U.S. and foreign securities. Both publicly offered and privately placed securities are covered. Securities may be denominated in U.S. dollars or foreign currencies. Like other financial accounts, the securities accounts are presented on a net basis. Thus, foreign securities (line 52) should be interpreted as net purchases by U.S. residents (gross purchases less gross sales) of foreign securities and U.S. securities other than U.S. Treasury securities (line 66) should be interpreted as net purchases by foreign residents (gross purchases less gross sales) of U.S. securities other than U.S. Treasury securities.

These accounts exclude transactions between U.S. and foreign residents that establish a direct investment relationship through the acquisition of 10 percent or more ownership equity in a business enterprise in the United States or abroad. That is, if the whole of the transaction reaches or surpasses the threshold of 10 percent or more of voting power, the transaction is included under direct investment. Any transactions or positions prior to that point are not

classified as direct investment. For example, if a direct investor previously had 9 percent of voting power, then acquired 2 percent more, there would be a direct investment transaction involving 2 percent and reclassification entries for a reduction of portfolio investment involving the 9 percent holding and a corresponding increase in direct investment. Subsequent transactions up to and including a transaction that takes the voting power below 10 percent are classified as direct investment.

These accounts also exclude transactions in U.S. securities by foreign official agencies. However, transactions undertaken by private entities on behalf of foreign official agencies may be inadvertently included here if the transactions are not specifically identified as official in the reported data.

Net purchases of foreign securities by U.S. residents and net purchases of U.S. securities by foreign residents are estimated by BEA from data collected monthly on the Treasury International Capital (TIC) S forms, "Purchases and Sales of Long-term Securities by Foreign Residents," and from related annual and benchmark surveys.

Filing of S forms is required by banks and other depository institutions, bank holding and financial holding companies, U.S. branches and agencies of foreign banks, securities brokers and dealers, insurance companies, investment managers, industrial and commercial enterprises, and other investors or nonbanking enterprises who on their own behalf, or on the behalf of their customers, engage in transactions in long-term securities with foreigners. Reports are required if the total of purchases or sales amounts to \$50 million or more during a given month. If the level of transactions meets or exceeds the exemption level in any month, reporting is required for the remainder of the calendar year regardless of the level of transactions in subsequent months; reporting is also required for both purchases and sales even if only one meets or exceeds the exemption level. A report from a large institution generally contains a consolidation of all U.S. subsidiaries and other U.S.-resident transactors that deal through the reporting institution. Because of this consolidation and the concentration of activity in the securities industry, a relatively small number of re-

porters account for a large share of the reported total. In 2009, approximately 200 reporters filed regular monthly reports.

In order to avoid duplication of reported transactions in other surveys, survey respondents are instructed to omit from the S form (1) short-term securities with an original maturity of 1 year or less, (2) certificates of deposit and other types of deposit notes, and (3) securities taken or lent as collateral, securities involved in repurchase/resale agreements, and securities that are part of securities lending agreements (because these instruments are reported by various bank and nonbank entities on the TIC B forms and C forms). Transactions in derivatives are also excluded because they are reported on the TIC D form.

Data are reported on a transactions basis, that is, the total amount of money debited or credited as of the settlement date. The reported amounts represent the cost of purchases plus commissions and other charges or the proceeds of sales less commissions, taxes, and other charges incurred in the transactions.

Transactions denominated in foreign currencies are reported in terms of dollar equivalents; foreign currency values are converted at the spot exchange rate on the day of settlement.

In general, data are classified by the foreign country or geographical area in which the foreign transactor or intermediary is domiciled, as shown on the records of the U.S. reporting institutions. The geographic distribution of the reported data may not necessarily reflect the nationality of the ultimate foreign owner of U.S. securities or the country of issue of foreign securities traded. Thus, securities transactions between U.S. and foreign residents effected in countries that are international financial centers—such as the United Kingdom, the Channel Islands, the Cayman Islands, the Bahamas, the Netherlands, and Hong Kong—are recorded for those countries, irrespective of the country of issue of the foreign security or of the nationality of the ultimate foreign owners of U.S. securities. Moreover, estimates of net transactions between the United States and individual countries or areas may, in certain instances, represent transactions

between residents of different countries. For instance, such transactions can arise in the United States if both parties are foreign residents, but are domiciled in different countries; a gross sale would be recorded for one country and a gross purchase for the other. Thus, data on the geographic pattern of securities transactions between U.S. and foreign residents must be interpreted with caution.

The TIC S form is designed to minimize reporting by end-investors, by requiring that certain U.S.-resident financial intermediaries provide the majority of the reporting. To the extent that the reporting system works as designed, all transactions flowing through traditional financial intermediary channels should be captured in principle. To the extent that transactions take place with U.S. entities that are not financial intermediaries, reporting problems are likely to occur. Moreover, a reporting system based on financial intermediaries is inherently complex in today's financial environment, with reporting responsibilities spread across U.S.-resident dealers, brokers, and prime brokers; U.S.-resident underwriters; U.S.-resident end-investors; U.S.-resident paying agents; U.S.-resident custodians; U.S.-resident fund managers and investment managers; U.S.-resident issuers of securities; and electronic trading platforms.

### Estimation methods overview

Data reported on the S form are adjusted by BEA to account for systematic and known under- or overestimates of reported transactions. The adjustments are based largely on annual surveys, filed by *U.S.-resident custodians, central securities depositories, issuers, and large end-use investors* which provide security-by-security enumerations of positions in outstanding securities as of a given date by major types of U.S. securities held by foreigners and of foreign securities held by U.S. residents. These position totals are then compared with estimated positions based on cumulated transactions and valuation adjustments for the same types of securities derived from data provided by *transactors* who filed the S forms. The valuation adjustments are based on price changes obtained from market data. Because data filed by custodians are more comprehensive and accurate than data provided by transactors, persistent and large differences are spread proportionately by type of security across

the previously reported transactions data. The size of the adjustments is reviewed with the receipt of data from each annual survey and the previously reported transactions data are modified according to the new information. Estimates are usually revised for the four quarters since the last annual survey, but sometimes a larger number of quarters are revised. The adjustments are also projected forward to anticipate continued reporting problems in the transactions data and to correct for them. It is not always possible to explain fully the entire reason for the size of large under- or overestimates of transactions, but the annual surveys contain country and instrument detail by type of security, which when combined with market-based financial information, can provide a partial understanding as to the cause of the measurement problem. The sample panel for the annual surveys is in turn based on benchmark surveys which are conducted every five years. The annual sample surveys are designed to cover about 90 percent of the universe of positions.

### 1 Foreign Securities—Net Purchases by U.S. Residents (line 52)

This account measures net purchases of foreign securities by U.S. residents classified as foreign stocks and bonds (see [table 24](#)). Foreign securities consist of securities issued by foreign central governments and their political subdivisions, by foreign corporations and similar organizations chartered in foreign countries, and by international and regional organizations—whether located in the United States or abroad. The securities may be denominated in U.S. dollars or foreign currencies. Included are purchases of newly issued foreign securities and trading in, and redemptions of, outstanding foreign securities. Transactions are between U.S. residents and unaffiliated foreign residents.

#### 1.1 Foreign stocks

1.1.1 Foreign stocks includes common stocks, preferred stocks (participating and nonparticipating preference shares), restricted stocks, depository receipts, foreign-resident investment fund shares in money market, equity, and bond mutual funds (open-end and closed-end), REITs, index-linked unit investment trusts, and all other equity, including shares or units of

ownership in unincorporated business enterprises, such as limited partnerships.

The procedure for estimating net purchases of foreign stocks by U.S. residents is as follows:

1.1.2 (1) Data on gross sales and gross purchases of foreign stocks by U.S. residents in transactions with foreign residents are reported on the monthly S forms. The reporting is from the viewpoint of the foreign resident. Thus, gross sales by foreign residents reported on the S form are equal to gross purchases by U.S. residents and gross purchases by foreign residents reported on the S form are equal to gross sales by U.S. residents. The amounts reported on the S form reflect the gross amounts of funds transferred to execute the transactions.

1.1.3 Gross purchases by U.S. residents as reported on the S form include the gross value of the stocks and the commissions paid by U.S. residents to foreign brokers. BEA subtracts the commissions from the gross purchases by U.S. residents to obtain the gross

value of the stocks purchased. If a foreign stock is newly issued, a U.S. underwriter purchasing the new issue will receive an underwriting fee from the foreign issuer which is subtracted from the price the U.S. underwriter pays for the new issue. BEA adds the underwriting fee to gross purchases by U.S. residents to obtain the gross value of the stocks purchased. The gross purchases by U.S. residents, less brokerage commissions, plus underwriting fees for new issues, gives gross purchases adjusted for financial services flows.

1.1.4 Gross sales by U.S. residents as reported on the S form are reduced by commissions retained by foreign brokers when the stocks are sold. BEA adds the commissions to gross sales by U.S. residents to obtain the gross value of the stocks sold, which equals gross sales adjusted for financial services flows.

1.1.5 The basis for the commissions and underwriting fees is obtained from the BE-185 financial services reports, projected forward one quarter to the current quarter. The projections are replaced with actual data one quarter after the initial publication of

**Table 24. Transactions in Long-Term Securities  
Other Than U.S. Treasury Securities, 2009 (Line 52 and Line 66)**

[Millions of dollars; credits +, debits -]

<b>Foreign securities, net purchases (-) or net sales (+) by U.S. residents (line 52).....</b>	<b>-208,213</b>
Stocks, gross purchases by U.S. residents .....	3,234,736
Stocks, gross sales by U.S. residents.....	3,171,432
<b>Stocks, net purchases by U.S. residents.....</b>	<b>-63,304</b>
Bonds, gross purchases by U.S. residents .....	2,097,297
Bonds, gross sales by U.S. residents .....	1,952,388
<b>Bonds, net purchases by U.S. residents .....</b>	<b>-144,909</b>
<b>U.S. securities, excluding transactions in U.S. Treasury securities and transactions of foreign official agencies, net purchases (+) or net sales (-) by foreign residents (line 66)</b>	<b>59</b>
Stocks, gross purchases by foreign residents .....	6,624,225
Stocks, gross sales by foreign residents .....	6,487,870
<b>Stocks, net purchases by foreign residents .....</b>	<b>136,355</b>
Corporate bonds, gross purchases by foreign residents .....	1,167,224
Corporate bonds, gross sales by foreign residents .....	1,297,791
<b>Corporate bonds, net purchases by foreign residents .....</b>	<b>-130,567</b>
Federally sponsored agency bonds, gross purchases by foreign residents .....	894,798
Federally sponsored agency bonds, gross sales by foreign residents .....	900,527
<b>Federally sponsored agency bonds, net purchases by foreign residents.....</b>	<b>-5,729</b>

the securities estimates. Financial services flows excluded from transactions in foreign stocks are included in the current account.

1.1.6 (2) Gross purchases of foreign stocks by U.S. residents are also adjusted for transactions in foreign stocks associated with cross-border mergers and acquisitions not included in the S form. Frequently, U.S. residents receive shares in foreign companies when they are shareholders in a U.S. company that is purchased by a foreign company. These transactions between foreign companies and U.S. shareholders bypass the securities market and the S-form reporting. BEA estimates these transactions using information published in financial news reports and from data reported on BEA's surveys of direct investment. Foreign stock received by individual U.S. residents with 10-percent-or-more owners' equity in the foreign company after the merger is added to U.S. direct investment abroad (line 51) as owners' equity investment. Foreign stock received by individual U.S. residents with less than 10 percent owners' equity in the foreign company after the merger is added to the gross purchases of foreign stocks by U.S. residents in line 52, foreign securities.

1.1.7 (3) BEA also adjusts gross purchases of foreign stocks by U.S. residents for the expected underestimate or overestimate of net purchases in the S-form data based on comparisons of reported net purchases with net purchases derived from annual and benchmark surveys of holdings of foreign stocks by U.S. residents. Because the annual surveys are available only with a lag of about nine months, adjustments to current estimates have to be projected forward. Over several years through 2007, the S-form data repeatedly underestimated net purchases of foreign stocks by U.S. residents. Modest amounts were added to gross purchases and net purchases in 2009 and 2010 in anticipation of underestimates of net purchases of foreign stocks, largely reflecting missed net purchases of investment fund shares issued by entities in Caribbean financial centers. In 2008, the S form overestimated net purchases because it did not fully reflect net sales of those shares by Caribbean financial centers associated with the special circumstances of the financial crisis.

1.1.8 (4) Net purchases of foreign stocks by U.S. residents are equal to adjusted gross sales of foreign

stocks less adjusted gross purchases. When adjusted gross purchases exceed adjusted gross sales, net purchases of foreign stocks appear in the accounts as a negative value, indicating an outflow of funds. When adjusted gross purchases are less than adjusted gross sales, net sales of foreign stocks appear in the accounts as a positive value, indicating an inflow of funds.

## 1.2 Foreign bonds

1.2.1 Foreign bonds include securities issued by foreign governments and their political subdivisions, by foreign corporations, and by international and regional financial institutions. Types of bonds and notes, both in registered and in bearer form, include convertible debt, zero-coupon debt, index-linked debt securities, medium-term notes, note issuance facilities, floating rate notes, variable rate notes, structured rate notes, asset-backed securities, and all other long-term debt securities. Asset-backed securities include collateralized mortgage obligations (CMOs), collateralized bond obligations (CBOs), collateralized loan obligations (CLOs), collateralized debt obligations (CDOs), other securities backed by pools of mortgages, credit card receivables, automobile loans, consumer and personal loans, and commercial and industrial loans. Asset-backed securities are reportable if the issuer securitizing the assets is a foreign resident.

The procedure for estimating net purchases of foreign bonds by U.S. residents is as follows:

1.2.2 (1) Data on gross sales and gross purchases of foreign bonds by U.S. residents in transactions with foreign residents are reported on the monthly S forms. The reporting is from the viewpoint of the foreign resident. Gross sales by foreign residents reported on the S form are equal to gross purchases by U.S. residents and gross purchases by foreign residents reported on the S form are equal to gross sales by U.S. residents. The amounts reported on the S form reflect the gross amounts of funds transferred to execute the transactions.

1.2.3 Gross purchases by U.S. residents as reported on the S form include the gross value of the bonds and the implicit commission (the difference between the dealer's buying price and the selling price) paid by U.S. residents to foreign bond dealers. BEA subtracts

the implicit commissions from gross purchases by U.S. residents to obtain the gross value of the bonds purchased. If a foreign bond is newly issued, a U.S. underwriter purchasing the new issue will receive an underwriting fee from the foreign issuer which is subtracted from the price the U.S. underwriter pays for the new issue. BEA adds the underwriting fee to gross purchases by U.S. residents to obtain the gross value of the bonds purchased. The gross purchases by U.S. residents, less implicit commissions, plus underwriting fees for new issues, gives gross purchases adjusted for financial services flows.

1.2.4 Gross sales by U.S. residents as reported on the S form are reduced by implicit commissions retained by foreign brokers when the bonds are sold. BEA adds the implicit commissions to gross sales by U.S. residents to obtain the gross value of the bonds sold, which equals gross sales adjusted for financial services flows.

1.2.5 The basis for the underwriting fees is obtained from the BE-185 financial services reports, projected forward one quarter to the current quarter. The projections are replaced with actual data one quarter after the initial publication of the securities estimates. Implicit commissions estimated by BEA are based on the difference between the dealer's buying price and selling price obtained from industry sources. Financial services flows excluded from transactions in foreign bonds are included in the current account.

1.2.6 (2) BEA also adjusts gross purchases of foreign bonds by U.S. residents for the expected underestimate or overestimate of net purchases in the S-form data based on comparisons of reported net purchases with net purchases derived from annual and benchmark surveys of holdings of foreign bonds by U.S. residents. Because the annual surveys are available only with a lag of about nine months, adjustments to current estimates have to be projected forward. Over several years through 2007, the S-form data repeatedly underestimated net purchases of foreign bonds by U.S. residents by significant amounts. Adjustments were made in 2009 and 2010 in anticipation of underestimates of net purchases of foreign bonds, especially net purchases of asset-backed bonds issued by Caribbean financial centers. In 2008, the S form overestimated net purchases because it did not fully re-

flect net sales of these bonds issued by Caribbean financial centers associated with the special circumstances of the financial crisis.

1.2.7 (3) Net purchases of foreign bonds by U.S. residents are equal to adjusted gross sales of foreign bonds by U.S. residents less adjusted gross purchases. When adjusted gross purchases exceed adjusted gross sales, net purchases of foreign bonds appear in the accounts as a negative value, indicating an outflow of funds. When adjusted gross purchases are less than adjusted gross sales, net sales of foreign bonds appear in the accounts as a positive value, indicating an inflow of funds.

1.2.8 Although not separately identified, new bond issues are assumed to be included in gross U.S. purchases on the S form. Most new issues are denominated in U.S. dollars and are designed specifically for U.S. placement; that is, they are registered with the Securities and Exchange Commission and placed with U.S. underwriters. The U.S. agent reports the issue as a foreign sale on the S form, whether it is publicly offered or privately placed. If a new foreign issue in the United States is purchased by a foreigner, the foreign sale is offset by a reported foreign purchase on the S form. Accurate reporting of new issues is more difficult than secondary market trading and has been a cause of significant revisions.

1.2.9 Although not separately identified, bond redemptions are assumed to be included in the reported gross U.S. sales on the S form. Redemptions of foreign issues held by U.S. residents are reported by U.S. fiscal agents as purchases by foreigners when the security is called or matures. Redemptions handled abroad for the U.S. reporter's own account or the accounts of its domestic customers are also reported as purchases by foreigners. Accurate reporting of redemptions is more difficult than secondary market trading and has been a cause of significant revisions.

## **2 U.S. Securities Other Than U.S. Treasury Securities—Net Purchases by Foreign Residents (line 66)**

This account measures net purchases of U.S. securities, other than U.S. Treasury securities, by foreign residents classified as U.S. stocks, U.S. corporate and

other bonds, and U.S. federally sponsored agency bonds (see [table 24](#)). U.S. securities consist of U.S. corporate new issues of securities in foreign markets; trading in, and redemptions of, outstanding stocks and bonds issued by U.S. corporations and U.S. state and local governments; and trading in, and redemptions of debt obligations of U.S. federally sponsored agencies and corporations. The securities may be denominated in U.S. dollars or foreign currencies. Transactions are between foreign residents and unaffiliated U.S. residents. Excluded from this account are transactions in U.S. Treasury securities and transactions in U.S. securities with foreign official agencies.

## 2.1 U.S. stocks

2.1.1 U.S. stocks includes common stocks, preferred stocks (participating and nonparticipating preference shares), restricted stocks, U.S.-resident investment fund shares such as money market, equity, and bond mutual funds (open-end and closed-end), REITs, and index-linked unit investment trusts, and all other equity, including shares or units of ownership in unincorporated business enterprises, such as limited partnerships.

The procedure for estimating net purchases of U.S. stocks by foreign residents is as follows:

2.1.2 (1) Data on gross sales and gross purchases of U.S. stocks by foreign residents in transactions with U.S. residents are reported on the monthly S forms. The reporting is from the viewpoint of the foreign resident. Because this account excludes transactions of foreign official institutions, BEA adjusts the data reported on the S form by subtracting gross sales and gross purchases of U.S. stocks by foreign official institutions from the data reported for all foreign residents. The data for foreign official institutions are reported in a supplement to the S form. The amounts reported on the S form reflect the gross amounts of funds transferred to execute the transactions.

2.1.3 Gross purchases by foreign residents as reported on the S form include the gross value of the stocks and the commissions paid by foreign residents to U.S. brokers. BEA subtracts the commissions from the gross purchases by foreign residents to obtain the gross value of the stocks purchased. If a U.S. stock is

newly issued, a foreign underwriter purchasing the new issue will receive an underwriting fee from the U.S. issuer which is subtracted from the price the foreign underwriter pays for the new issue. BEA adds the underwriting fee to gross purchases by foreign residents to obtain the gross value of the stocks purchased. The gross purchases by foreign residents, less brokerage commissions, plus underwriting fees for new issues, gives the gross purchases adjusted for financial services flows.

2.1.4 Gross sales by foreign residents as reported on the S form are reduced by commissions retained by U.S. brokers when the stocks are sold. BEA adds the commissions to gross sales by foreign residents to obtain the gross value of the stocks sold, which equals gross sales adjusted for financial services flows.

2.1.5 The basis for the commissions and underwriting fees is obtained from the BE-185 financial services reports, projected forward one quarter to the current quarter. The projections are replaced with actual data one quarter after the initial publication of the securities estimates. Financial services flows excluded from transactions in U.S. stocks are included in the current account.

2.1.6 (2) Gross purchases of U.S. stocks by foreign residents are also adjusted for transactions in U.S. stocks associated with cross-border mergers and acquisitions not included in the S form. Frequently, foreign residents receive shares in U.S. companies when they are shareholders in a foreign company that is purchased by a U.S. company. These transactions between U.S. companies and foreign shareholders bypass the securities market and the S-form reporting. BEA estimates these transactions using information published in financial news reports and from data reported on BEA's surveys of direct investment. U.S. stock received by individual foreign residents with 10 percent or more owners' equity in the U.S. company after the merger is added to foreign direct investment in the United States (line 64) as owners' equity investment. U.S. stock received by individual foreign residents with less than 10 percent owners' equity in the U.S. company after the merger is added to the gross purchases of U.S. stocks by foreign residents in line 66, U.S. securities other than U.S. Treasury securities.

2.1.7 (3) BEA also adjusts estimates of gross and net purchases of U.S. stocks by foreign residents from the third quarter of 2007 to the second quarter of 2008 in revised historical estimates released in June 2009 for an observed underestimate of net purchases in the S-form data. Revisions released in June 2009 were based on comparisons of reported net purchases with net purchases derived from annual surveys of holdings of U.S. stocks by foreign residents. However, no adjustments have been necessary recently because the S-form data have generally provided satisfactory estimates.

2.1.8 (4) Net purchases of U.S. stocks by foreign residents are equal to adjusted gross purchases of U.S. stocks by foreign residents less adjusted gross sales. When adjusted gross purchases exceed adjusted gross sales, net purchases of U.S. stocks appear in the accounts as a positive value, indicating an inflow of funds. When adjusted gross purchases are less than adjusted gross sales, net sales of U.S. stocks appear in the accounts as a negative value, indicating an outflow of funds.

## 2.2 U.S. corporate bonds

2.2.1 U.S. corporate bonds includes corporate bonds and notes issued by U.S. corporations and U.S. state and local governments both in registered and in bearer form, convertible debt, zero-coupon debt, index-linked debt securities, medium-term notes, note issuance facilities, floating rate notes, variable rate notes, structured rate notes and asset-backed securities, and all other long-term debt securities. Asset-backed securities include collateralized mortgage obligations (CMOs), collateralized bond obligations (CBOs), collateralized loan obligations (CLOs), collateralized debt obligations (CDOs), other securities backed by pools of mortgages, credit card receivables, automobile loans, consumer and personal loans, commercial and industrial loans. Asset-backed securities are reportable if the issuer securitizing the assets is a U.S. resident.

The procedure for estimating net purchases of U.S. corporate bonds by foreign residents is as follows:

2.2.2 (1) Data on gross sales and gross purchases of U.S. corporate bonds by foreign residents in transac-

tions with U.S. residents are reported on the monthly S form reports. The reporting is from the viewpoint of the foreign resident. Because this account excludes transactions of foreign official institutions, BEA adjusts the data reported on the monthly S form by subtracting gross sales and gross purchases of U.S. corporate bonds by foreign official institutions from the data reported for all foreign residents. The data for foreign official institutions are reported in a supplement to the S form. The amounts reported on the S form reflect the gross amounts of funds transferred to execute the transactions.

2.2.3 Gross purchases by foreign residents as reported on the S form include the gross value of the U.S. corporate bonds and the implicit commission (the difference between the dealer's buying price and the selling price) paid by foreign residents to U.S. bond dealers. BEA subtracts the implicit commissions from gross purchases by foreign residents to obtain the gross value of the bonds purchased. If a U.S. corporate bond is newly issued, a foreign underwriter purchasing the new issue will receive an underwriting fee from the U.S. issuer which is subtracted from the price the foreign underwriter pays for the new issue. BEA adds the underwriting fee to gross purchases by foreign residents to obtain the gross value of the bonds purchased. The gross purchases by foreign residents, less implicit commissions, plus underwriting fees for new issues, gives gross purchases adjusted for financial services flows.

2.2.4 Gross sales by foreign residents as reported on the S form are reduced by implicit commissions retained by U.S. brokers when the bonds are sold. BEA adds the implicit commissions to gross sales by foreign residents to obtain the gross value of the bonds sold, which equals gross sales adjusted for financial services flows.

2.2.5 The basis for the underwriting fees is obtained from the BE-185 financial services reports, projected forward one quarter to the current quarter. The projections are replaced with actual data one quarter after the initial publication of the securities estimates. Implicit commissions estimated by BEA are based on the difference between the dealer's buying price and selling price obtained from industry sources. Financial services flows excluded from transactions in

U.S. corporate bonds are included in the current account.

2.2.6 (2) BEA also adjusts gross sales of U.S. corporate bonds by foreign residents for the expected underestimate or overestimate of net purchases in the S-form data based on comparisons of reported net purchases with net purchases derived from annual and benchmark surveys of holdings of U.S. corporate bonds by foreign residents. In these comparisons, the S-form data have repeatedly overestimated net purchases of U.S. corporate bonds by foreign residents because some prepayments and calls on U.S. corporate bonds (including asset-backed U.S. corporate bonds), which are like gross sales or redemptions, are not captured by the S form. To reduce revisions when annual surveys become available, BEA uses past annual survey results to estimate the missing prepayments and calls and makes an upward adjustment to gross sales to account for the missing prepayments and calls.

2.2.7 (3) Net purchases of U.S. corporate bonds are equal to adjusted gross purchases of U.S. corporate bonds by foreign residents less adjusted gross sales. When adjusted gross purchases exceed adjusted gross sales, net purchases of U.S. corporate bonds appear in the accounts as a positive value, indicating an inflow of funds. When adjusted gross purchases are less than adjusted gross sales, net sales of U.S. corporate bonds appear in the accounts as a negative value, indicating an outflow of funds.

2.2.8 Although not separately identified, new U.S. bond issues are assumed to be included in gross foreign purchases on the S form. New issues include corporate debt securities denominated in both U.S. dollars and foreign currencies placed directly in the Eurobond and other foreign markets by U.S. companies, often in bearer form rather than registered form. These transactions are combined with gross foreign purchases for transactions in outstanding issues. Reporting of bearer bonds is hard to confirm because of difficulty in identification of the residency of the owner.

2.2.9 Although not separately identified, bond redemptions are assumed to be included in the reported gross foreign sales on the S form. U.S.

securities presented for redemption directly by foreigners to U.S. fiscal agents or trustees, or sinking fund purchases abroad of these securities, are reported as sales by foreigners. Accurate reporting of redemptions is more difficult than secondary market trading and has been a cause of significant revisions.

### 2.3 U.S. federally sponsored agency bonds

2.3.1 U.S. federally sponsored agency bonds include transactions in obligations of U.S. government-sponsored agencies and corporations. Transactions include new issues, redemptions, and transactions in outstanding issues. Both guaranteed and nonguaranteed obligations are included. Obligations may take the form of straight debt, participation certificates, pass-through debt, and collateralized mortgage obligations. U.S. agency bonds exclude privately issued mortgage-backed securities even if the underlying collateral is government guaranteed.

The procedure for estimating net purchases of U.S. federally sponsored agency bonds by foreign residents is:

2.3.2 (1) Data on gross sales and gross purchases of U.S. agency bonds by foreign residents in transactions with U.S. residents are reported on the monthly S forms. Because this account excludes transactions of foreign official institutions, BEA adjusts the data reported on the S form by subtracting gross sales and gross purchases of U.S. agency bonds by foreign official institutions from the data reported for all foreign residents. The data for foreign official institutions are reported in a supplement to the S form. The amounts reported on the S form reflect the gross amounts of funds transferred to execute the transactions.

2.3.3 Gross purchases by foreign residents as reported on the S form include the gross value of the agency bonds and the implicit commission (the difference between the dealer's buying price and the selling price) paid by foreign residents to U.S. bond dealers. BEA subtracts the implicit commissions from the gross purchases by foreign residents to obtain the gross value of the bonds purchased. The gross purchases by foreign residents, less implicit commissions, gives gross purchases adjusted for financial services flows.

2.3.4 Gross sales by foreign residents as reported on the S form are reduced by implicit commissions retained by U.S. brokers when the bonds are sold. BEA adds the implicit commissions to gross sales by foreign residents to obtain the gross value of the bonds sold, which equals gross sales adjusted for financial services flows.

2.3.5 Implicit commissions estimated by BEA are based on the difference between the dealer's buying price and selling price obtained from industry sources. Financial services flows excluded from transactions in agency bonds are included in the current account.

2.3.6 (2) BEA also adjusts gross sales of agency bonds by foreign residents for the expected underestimate or overestimate of net purchases in the S-form data based on comparisons of reported net purchases with net purchases derived from annual and benchmark surveys of holdings of agency bonds by foreign residents. In these comparisons, the S-form data have repeatedly overestimated net purchases of agency bonds by foreign residents because some prepayments and calls on asset-backed agency bonds, which are like gross sales or redemptions, are not captured by the S form. To reduce revisions when annual surveys become available, BEA uses information from the annual surveys and from agency bond issuers to estimate the missing prepayments and calls and makes an upward adjustment to gross sales by foreigners to ac-

count for the missing prepayments and calls.

2.3.7 Comparisons between the S-form data and the net purchases derived from annual surveys of holdings of agency bonds also indicate that the S-form data tend to overestimate net purchases of agency bonds by private foreign residents and underestimate net purchases of agency bonds by foreign official institutions. This often happens when foreign official agencies conduct business through foreign private brokers and dealers rather than directly with U.S. brokers. The Federal Reserve Board is able to provide BEA with adjustments correcting transactions by foreign official institutions and private foreigners in the S-form data. BEA adjusts the gross sales of agency bonds by private foreigners upward to reduce overestimates of net purchases of agency bonds. Offsetting adjustments are made to increase net purchases of agency bonds by foreign official institutions (line 59).

2.3.8 (3) Net purchases of agency bonds by foreign residents are equal to adjusted gross purchases of agency bonds by foreign residents less adjusted gross sales. When adjusted gross purchases exceed adjusted gross sales, net purchases of agency bonds appear in the accounts as a positive value, indicating an inflow of funds. When adjusted gross purchases are less than adjusted gross sales, net sales of agency bonds appear in the accounts as a negative value, indicating an outflow of funds.