Preview of the 2017 Annual Update of the International Economic Accounts

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IN JUNE, the Bureau of Economic Analysis (BEA) will release the results of the 2017 annual updates of the U.S. international transactions accounts (ITAs) and the U.S. international investment position (IIP) accounts. As part of annual updates, statistics are revised to incorporate newly available and revised source data, changes in definitions and classifications, and changes in estimation methods. In addition, seasonally adjusted statistics are revised to reflect recalculated seasonal and trading day adjustments.

As with previous annual updates, this year's annual updates will incorporate newly available and revised source data for the preceding 3 years.[1] In addition, BEA will introduce the following:

- New data sources for estimating taxes withheld by the U.S. government and by foreign governments on receipts and payments in the ITAs, beginning with statistics for 1999
- A new method for estimating direct investment positions at current cost and the related current-cost adjustments to direct investment income, beginning with statistics for 1999

This article provides an overview of these changes.

Improved source data for withholding taxes

BEA will introduce improved estimates of withholding taxes on selected primary income and trade in services transactions by incorporating additional information from the Internal Revenue Service (IRS). Transactions in primary income and services are recorded gross of withholding taxes in the primary income and services accounts of the ITAs.[2] Withholding taxes associated with these transactions, which are considered payable by the recipients of the primary income or service revenues, are recorded as transfers in the secondary income accounts of the ITAs.[3] The withholding tax amounts are recorded in a manner that partly offset the underlying primary income and services transactions. This treatment reflects the fact that the amount of primary income or service revenue earned precedes the deduction of withholding taxes, but the income or revenue actually received is net (that is, after the deduction) of withholding taxes.

Estimates of withholding taxes contribute to two lines presented in "Table 5.1. U.S. International Transactions in Secondary Income" of the ITAs:

- Taxes withheld by the U.S. government on primary income payments to foreign residents and on imports of services contribute to U.S. government transfers receipts (line 2).
- Taxes withheld by foreign governments on primary income receipts from foreign residents and on exports of services contribute to other current transfers payments (line 10), a component of private transfers.

With the release of the annual update in June, BEA will update estimates of withholding taxes both on receipts and payments of direct investment interest income, portfolio investment interest income, and portfolio dividend income (transactions that are recorded in the primary income accounts) and on exports and imports associated with charges for the use of intellectual property (transactions that are recorded in the trade in services accounts). Estimates of withholding taxes on other international transactions—including direct investment dividend income, compensation of employees, and income associated with services transactions other than charges for the use of intellectual property—will not be affected because they are derived using other data sources.

1. For information on BEA's revision policy and on data sources and estimation methodologies, see *U.S. International Economic Accounts: Concepts and Methods* on BEA's Web site.

2. Primary income transactions include investment income and compensation of employees. Investment income is the return on holdings of financial assets and includes direct investment income, portfolio investment income, other investment income, and income on reserve assets. Compensation of employees is income for the contribution of labor inputs to the production process.

3. Secondary income consists of current transfers between residents and nonresidents. Unlike an exchange, a transfer is a transaction in which a good, service, or asset is provided without a corresponding return of economic value. Secondary income receipts and payments include U.S. government and private transfers, such as U.S. government grants and pensions, fines and penalties, withholding taxes, personal transfers (remittances), insurance-related transfers, and other current transfers.

For the withholding tax estimates that will be updated, BEA currently estimates effective withholding tax rates using source data from BEA, the IRS, and the Department of the Treasury. These source data provide limited information regarding country detail and variation in tax rates over time. With the release of the upcoming annual update, BEA will rely exclusively on IRS data to derive withholding tax rates for the affected series, beginning with statistics for 1999.[4]

- Annual data on income and taxes withheld by country and by type of income reported on IRS form 1118 "Foreign Tax Credit—Corporations" will be used to calculate the effective tax rates used in estimating taxes withheld by foreign governments on the selected primary income receipts and services exports transactions.
- Data at similar frequency and in similar detail on income and taxes withheld reported on IRS form 1042–S "Foreign Person's U.S. Source Income Subject to Withholding" will be used to calculate the effective tax rates used in estimating taxes withheld by the U.S. government on the selected primary income payments and services imports transactions.

Given the detail available from these data sources, the updated effective tax rates will capture variation over time and across countries.

The underlying income and services transactions to which the new effective tax rates will be applied will continue to be based on current data sources.[5] Revisions to withholding tax estimates for 1999 to 2013 will primarily reflect the change in the source data used to calculate effective tax rates. Revisions for 2014 to 2016 will reflect both the change in the source data used to calculate effective tax rates and newly available and revised source data for the underlying primary income and services transactions.

The updated withholding tax estimates will primarily affect secondary income, but they will also affect estimates of the direct investment interest component of primary income for 1999 to 2005. Before 2006, the survey data for direct investment interest income were reported net of withholding taxes, and BEA added an estimate of withholding taxes to present direct investment interest income gross of withholding taxes in the ITAs. The updated withholding tax estimates will, therefore, affect the direct investment interest income estimates before 2006. In contrast, the source data on portfolio investment interest and dividend income and on charges for the use of intellectual property were reported gross of taxes for 1999 to the present, so the new withholding tax estimates will not affect these primary income or services estimates over this period.

A new method for current-cost measures of direct investment

BEA will introduce a new, streamlined method for estimating (1) direct investment positions at current cost, which are included as alternative current-price measures of positions in the IIP accounts, and (2) related current-cost adjustments to direct investment income, which are included in the ITAs. 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—will not be affected by this change. The remainder of this section describes the current-cost measures and compares the existing method 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 by multinational enterprises on BEA surveys of direct investment and reflect their financial statements. Estimates of positions at current cost revalue historical-cost equity claims of U.S. parents on their foreign affiliates' tangible assets and of foreign parents on their U.S. affiliates' tangible assets to current-period prices.[6] 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.[7] Estimates of equity positions at current cost are net of accumulated economic depreciation on affiliates' tangible assets.

Current-cost adjustments to direct investment income substitute financial-accounting-based depreciation and depletion charges against equity income with economic depreciation charges. These adjustments put depreciation on a replacement-cost basis and more closely align income earned in a given period with

4. Part of the IRS data to be used in June is used in the current methodology. However, part of the IRS data to be used in June is not used currently.

5. Source data for these income and services estimates come from BEA and the Department of the Treasury.

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

7. 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 at market value and current cost both 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 the discussion starting with paragraph 11.5 in *U.S. International Economic Accounts: Concepts and Methods* on BEA's Web site.

charges against income in the same period, as required by economic accounting principles.[8]

Direct investment equity positions at current cost are included in IIP "Table 2.1. U.S. Direct Investment Positions at the End of the Period" (lines 36 and 41). Current-cost adjustments to direct investment income on equity are included in the current account of the ITAs and are shown in ITA "Table 4.2. U.S. International Transactions in Primary Income on Direct Investment" (lines 16 and 53). Direct investment income on equity with current-cost adjustments feed into other ITA tables, including table 1.1, table 1.2, and tables 4.1. In addition, the adjustments enter into the financial account of the ITAs and are shown in "Table 6.1. U.S. International Financial Transactions for Direct Investment" (lines 18 and 63) as a component of reinvestment of earnings. Reinvestment of earnings is a component of equity transactions in direct investment in ITA tables 1.1 and 1.2.[9]

Currently, the estimates of direct investment equity positions at current cost and the associated current-cost adjustments to direct investment income on equity are based primarily on calculations of a perpetual inventory model that revalues plant and equipment from historical cost to current prices.[10] The model is the same one used by BEA to produce estimates of total U.S. structures and equipment in BEA's fixed assets accounts, which are part of BEA's national economic accounts. The perpetual inventory model first revalues each year's plant and equipment investments from historical cost to constant cost using price indexes of capital goods. For inward investment, the model uses U.S. capital goods price indexes; for outward investment, the model uses a weighted average of foreign-country and U.S. capital goods price indexes. The model then estimates 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 is revalued to current cost using the appropriate price indexes for capital goods.

The resulting estimates of plant and equipment at current cost are added to separate estimates for the stocks of land and inventories at current cost. The sum of the current-cost estimates of plant and equipment, land, and inventories is then compared with the sum of historical-cost estimates of stocks of these assets; the difference between the two sums is used to "mark up" the direct investment equity position to current cost from historical cost.

With the release of the annual update in June, BEA will no longer directly use the perpetual inventory model to estimate equity positions at current cost, beginning with statistics for 1999. Instead, it will use 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.[11] BEA will revalue the historical-cost stocks of plant and equipment of direct investment affiliates by applying the ratios from the fixed assets accounts to these stocks.

The estimates of plant and equipment stocks at current cost will also be used along with economic depreciation rates implied by the fixed asset accounts to calculate the economic depreciation component of the current-cost adjustment to direct investment income on equity. This change in methodology will considerably streamline the production of estimates of the positions at current cost and the associated current-cost adjustments to direct investment income.

The new methodology will substitute one set of assumptions for another in revaluing direct investment plant and equipment. Currently, assumptions are 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 will be replaced with an assumption that asset mixes and asset ages of stocks for a given direct investment industry are similar enough to those in the corresponding U.S. industry. The new methodology

8. For more information on the current-cost adjustment to direct investment income on equity, see paragraph 10.154 in *U.S. International Economic Accounts* on BEA's Web site.

9. Note that the current-cost adjustments to direct investment income are not included in the measures of direct investment income in lines 20–31 and 57–66 of table 4.2 or for individual areas and countries in lines 25 and 54 of table 1.3. Neither are they incorporated into measures of reinvestment of earnings for all industries combined and for individual industry groups in lines 22–27, 34–39, 67–71, and 77–81 of table 6.1 or into equity transactions for individual areas and countries in lines 63 and 86 of table 1.3.

10. See J. Steven Landefeld and Ann M Lawson, "Valuation of the U.S. Net International Investment Position," SURVEY OF CURRENT BUSINESS 71 (May 1991): 40–49.

11. Because the fixed assets accounts statistics use the perpetual inventory model, the direct investment estimates will continue to indirectly rely on the perpetual inventory model. However, data reported on direct investment surveys will no longer be entered into the model itself; they will be 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 to be used in calculating these ratios; this section of the fixed assets accounts tables also presents current-cost depreciation that will be used in calculating depreciation rates for the current-cost adjustment to direct investment income.

also assumes that trends in asset prices abroad can be approximated by trends in asset prices in the United States.

Along with simplifying the calculation of the estimates of direct investment equity positions at current cost, the new methodology will use finer industry detail than the existing methodology.[12] This finer detail improves estimates of the revaluation of plant and equipment and inventory and of the current-cost adjustment to income.

The estimates delivered by the new method are conceptually the same as those delivered by the current method—with one exception. Currently, estimates of investment flows of plant and equipment used in the perpetual inventory model add reported expensed oil and gas exploration and development costs to plant and equipment investment reported on BEA direct investment surveys; the rationale is that many of these expensed costs are incurred to acquire structures (for example, oil wells). However, in large part, these goods and services are out of scope of the current-cost markup; 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 not revalued from historical cost in the direct investment equity position at current cost. With the release of the annual update in June, direct investment equity positions at current cost will no longer reflect a markup to goods and services acquired in the course of expensed oil and gas exploration and development.

The new treatment of expensed exploration and development costs in the direct investment positions at current cost will be paralleled by a new treatment of those costs in the current-cost adjustment to equity income. Equity income reported by multinational enterprises on BEA surveys of direct investments reflects accounting of these costs as expenses in the period in which they occur. The existing current-cost adjustment removes these costs from income in that period (increasing income) and includes depreciation of the implied asset stocks derived from expensed costs in earlier periods (decreasing income). The new treatment will leave these expensed costs in income in the period in which they are incurred and will not remove any implied depreciation charges associated with expenses in earlier periods.

12. The industry detail used in generating the current-cost estimates is not included in the published statistics; only an aggregate current-cost position and current-cost adjustment is included in the published direct investment 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.