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Preview of the 2023 Comprehensive Update of the National Economic Accounts

Changes in Methods, Definitions, and Presentations

By Stephanie H. McCulla, Dorian L. Turner, and Lisa Mataloni | June 23, 2023

On September 28, the U.S. Bureau of Economic Analysis (BEA) will release the results of the comprehensive, or benchmark, update of the National Economic Accounts (NEAs), which include the National Income and Product Accounts (NIPAs) and the Industry Economic Accounts (IEAs); the comprehensive update of the Regional Economic Accounts (REAs) will be released on September 29. New detailed supply and use tables (SUTs) for 2017 will provide benchmark measures for the concurrent release of updated and consistent annual and quarterly NIPA and IEA measures, including gross domestic product (GDP), GDP by industry, and annual SUTs. This marks the first concurrent release of NIPA and IEA comprehensive updates, and it reflects the culmination of a years-long effort to fully integrate the accounts (see "Bringing Together National, Industry, and Regional").¹

Current-dollar measures of GDP and related components will be revised from the first quarter of 2013 through the first quarter of 2023. Current-dollar GDP by industry statistics will be revised from the first quarter of 2005 through the first quarter of 2023, although revisions prior to the first quarter of 2013 will be offsetting across industries within each period. Gross domestic income (GDI) and select income components will be revised from the first quarter of 1979 through the first quarter of 2023.

Output and price measures will use 2017 as the reference year; currently, the reference year is 2012. Quantity and price indexes will be expressed as 2017 equal to 100. Updating the reference year will not affect the percent changes in the price or quantity indexes (or in the chained-dollar estimates), because these changes are measured from chain-type indexes.² Revisions to the percent changes in NIPA aggregates will reflect the incorporation of newly available and revised source data and changes in methodologies.

Additionally, the classification of NEA measures will be updated to follow the 2017 North American Industry Classification System (NAICS). Overall, changes stemming from use of the 2017 NAICS will be small; no reclassifications of summary- or sector-level industries will be necessary. One notable change BEA will make to follow NAICS is the reclassification of equity real estate investment trusts from the financial industry to the real estate industry; this change will result in fully offsetting revisions for nonfinancial and financial business measures of profits, net dividends paid, and net monetary interest paid.³

Bringing Together National, Industry, and Regional

A key feature of this comprehensive update is the concurrent release of the benchmark SUTs and the comprehensive updates of the NIPAs, IEAs, and REAs. This marks the final step of a multiyear effort to harmonize the NIPAs and the IEAs and synchronize the release of all three accounts. Many incremental and important improvements were prerequisites to the harmonization, including the acceleration of the annual Input-Output (I-O) Accounts, the expansion and acceleration of the GDP by Industry Accounts, and the integration of the annual I-O Accounts and the GDP by Industry Accounts.⁴ Underlying these steps was close collaboration with the U.S. Census Bureau to provide additional source data and improve the quality and timeliness of existing data. The first milestone of the integration was the simultaneous release of quarterly statistics for national, industry, and state GDP in September 2020. It was followed by the acceleration of the annual updates of the industry and state GDP statistics (September 2021) and the simultaneous release of the annual updates of the national, industry, and state GDP statistics (September 2022). With this year's simultaneous release of the comprehensive updates, users will be provided benchmark estimates that are consistently based on the best available source data and methods across the accounts.

Comprehensive updates are usually conducted at 5-year intervals that correspond with the integration of updated statistics from BEA's quinquennial benchmark I-O Accounts.⁵ Comprehensive and annual updates provide an opportunity to improve the NEAs through (1) statistical changes to introduce new and improved methodologies and to incorporate newly available and revised source data; (2) changes in definitions and classifications to more accurately portray the evolving U.S. economy and to provide consistent comparisons with data for other national economies; and (3) changes in presentations to reflect the definitional and statistical changes, where necessary, or to provide additional data or perspectives for users. These improvements ensure the accounts continue to accurately measure the structure of the U.S. economy.

This article describes the major changes that will be introduced in the NEAs as part of the upcoming comprehensive update. A later article will describe the results of the update and the effects of these changes on the NEA estimates. Major changes include the following:

- New and revised source data, including the 2017 Economic Census, which provides the most thorough and detailed information on the structure of the U.S. economy
- Changes in methodologies and classifications that address data gaps or implement other improvements, including the following:
 - Improved classification and measures of real estate investment trusts
 - Improved measures of regulated investment companies
 - New measures of monetary interest paid by Federal Reserve Banks
 - Improved measures of the use by industries of financial intermediation services furnished without payment
 - Improved measures of housing services
 - Improved measures of intermediate expenses for meals and entertainment
 - Improved measures of National Flood Insurance Program services
 - Improved measures of investment in own-account software
 - Improved measures of brokers' commissions
 - Improved price measures

- Changes in presentation, including the following:
 - Expanded presentation of foreign trade
 - Expanded presentation of personal and government expenditures for motor vehicles
 - Newly recorded Federal Reserve Board (FRB) payments of interest
 - Improved presentation of used goods in the benchmark SUTs
 - Expanded presentation of underlying detail for electric power structures in private fixed investment
 - Expanded industry detail in the Fixed Assets Accounts

Newly Available and Revised Source Data

As part of the upcoming comprehensive update, estimates will incorporate newly available and revised source data, including data from the Census Bureau's 2017 Economic Census, the benchmark SUTs, and annual source data that were not available in time for incorporation during previous annual NEA updates.

Quinquennial Economic Census

The Census Bureau's quinquennial Economic Census is the primary data source for the benchmark SUTs because it provides the most comprehensive data available in terms of industry and product coverage and captures activity in the relevant economic units for those industries. The Economic Census collects data at the level of the smallest operating unit, the "establishment," and provides most of the essential data required for the SUTs, including inventories; receipts and expenses of business establishments and of government, including receipts by class of customer for selected industries; sales data for detailed industry and product lines; final industry and product shipments data; input costs by general category; and trade margins.

The 2017 benchmark Input-Output Accounts

The benchmark SUTs are, in turn, the most important data source for comprehensive updates of the NIPAs and the IEAs. They provide benchmark levels for gross output, the portion of that output that is purchased by final users (i.e., GDP), and value added.⁶ With the simultaneous release of the benchmark I-O Accounts and the NIPAs, users can move from one set of accounts to another to better understand the sources of growth in the economy. For example, a user interested in a component of consumer spending in the NIPAs will be able to access more detailed and more consistent information on the component in the benchmark I-O Accounts.

Specifically, the 2017 benchmark use table provides the 2017 benchmark levels for the NIPA measures of GDP and its components as well as several components of income. The table also provides essential information for estimating GDP in other periods, including the commodity weights for the estimates of change in private inventories and for the product-level detail of state and local government consumption expenditures and gross investment. The incorporation of the information from the benchmark tables will result in revisions to NIPA estimates of selected components beginning with 2013.

Annual source data for 2018–2022

For 2018–2022, the revised NEA estimates will also reflect the incorporation of newly available and revised source data that are regularly incorporated in annual NEA updates and that became available after the last annual NEA update in September 2022. These data include the following Census Bureau surveys: Annual Survey of State and Local Government Finances, Annual Survey of Manufactures, Annual Survey of Wholesale

Trade, Annual Survey of Retail Trade, Services Annual Survey, and the Value of Construction Put in Place Survey. The data also include Office of Management and Budget federal government budget data; BEA data from the International Transactions Accounts; U.S. Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages data; Internal Revenue Service (IRS) tabulations of corporate tax returns; IRS tabulations of sole proprietorship and partnership tax returns; and U.S. Department of Agriculture farm statistics.

Changes in Methodology

Regulated investment companies and real estate investment trusts

BEA will implement several improvements to its treatment of real estate investment trusts (REITs) and regulated investment companies (RICs).⁷ REITs allow investors to buy shares in commercial real estate portfolios. Equity REITs buy, sell, and manage income-producing real estate, and mortgage REITs are financial intermediaries that lend money to real estate owners and operators through mortgages or other loans or through the acquisition of mortgage-backed securities. RICs are financial intermediaries that include mutual funds, money market mutual funds, exchange-traded funds, and closed-end funds. Investors purchase shares in these funds for the purpose of investment in a variety of financial assets, and they receive returns from current interest and dividends, distributions of realized capital gains, and an accumulation of unrealized capital gains.

REITs and RICs are, in effect, pass-through institutions: they receive property or other income, pass most of this income back to shareholders, and have minimal profits or saving of their own. Additionally, they typically do not charge explicit fees for managing their shareholders' funds, and with the exception of equity REITs, which have staff for managing their properties, they have few, if any, employees.

BEA will align the treatment of REITs and RICs in the NIPAs and industry accounts with other pass-through entities, such as defined contribution pension plans.⁸ The improved treatment is more consistent with how these entities are recorded in the FRB's Financial Accounts of the United States and follows the international guidelines for national accounts as outlined in the recommendations of the *System of National Accounts 2008* (*SNA 2008*).⁹

REITs. Beginning with 2002, dividends paid to shareholders by REITs will be adjusted to exclude capital gains, based on IRS Statistics of Income (SOI) data, in keeping with *SNA 2008* recommendations and the treatment of capital gains elsewhere in the NIPAs.¹⁰ Currently, the NIPAs follow the IRS treatment of REIT payments to shareholders by classifying them all—including income from capital gains—as dividend payments. This treatment results in consistently negative measures of profits and net saving, as capital gains are removed from NIPA measures of corporate profits of REITs but not from their dividend payments.

Additionally, equity REITs will be reclassified from the funds, trusts, and other financial vehicles industry to the real estate industry, while mortgage REITs will remain classified as funds, trusts, and other financial vehicles. This is in accordance with the latest NAICS classifications, which recognize the different production processes of these different types of REITS.

RICs. Because RICs do not explicitly charge for their services, their gross output is equal to the sum of their intermediate expenses, which consist primarily of purchases of fund management services; as a result, the measure of value added is zero, which is consistent with the treatment of a pass-through institution. In keeping with the NEA treatment of the implicit services provided by depository institutions, RIC output—that is, the financial services provided by RICs—is treated in the NIPAs as imputed interest paid to its

shareholders; this value is consistently positive, as the value of implicit services received by RICs, recorded as imputed interest received, is minimal. However, measures of net dividends paid and net monetary interest paid for RICs are consistently negative because the NIPAs reduce the returns paid to shareholders by the amount of their intermediate expenses, which consist primarily of purchases for fund management services. The measure of total net interest paid (monetary and imputed) is positive because the positive value of net imputed interest paid offsets the negative net monetary interest paid. With no value added and positive net interest paid, the NIPA measures of profits and undistributed profits, or saving, are consistently negative.

Beginning with 1979, BEA's measures of RIC receipts and payments of monetary interest and dividends will be based on SOI data without adjusting these measures to deduct RIC expenses, which is more consistent with the NIPA treatment of defined contribution pension plans. Output will not be recorded as imputed interest paid; instead, the NIPAs will record it as an imputed charge to shareholders. As a result, imputed interest paid will equal imputed interest received, and the net measure will be zero. Likewise, monetary interest and monetary dividends will be equal to receipts, and the net measure will be zero.

Effects on the accounts. Each of these improvements will result in revisions to several NIPA measures but will not impact GDP, GDI, or the statistical discrepancy.

- As a result of the improved treatment of RICs, net interest paid will be revised down, reflecting downward revisions to imputed interest paid that will more than offset upward revisions to monetary interest paid. The downward revision to net interest will be offset by an upward revision to corporate profits, reflecting upward revisions to both dividends paid and undistributed profits. There are no impacts on GDP, gross domestic income (GDI), or the statistical discrepancy.
- The improved treatment and reclassification of REITs will result in downward revisions to net dividends paid; undistributed profits will increase by the same amount, and personal income and savings will decrease by the same amount, so there will be no impact on GDI or national income.
- The reclassification of REITs will lead to downward revisions to profits, net dividends paid, net monetary interest paid, and the capital consumption adjustment for the funds, trusts, and other financial vehicles industry, which is included in NIPA measures of financial industries; these revisions will be offset by upward revisions to the same measures (and a downward revision to undistributed profits) for the real estate industry, which is classified as a nonfinancial industry.

Federal Reserve Board interest payments

Measures of the FRB's payments of monetary interest will be recorded in the NIPAs beginning with 2008, the year it began paying interest on reserves and term deposits. The measure will be based on data on interest expenses from the FRB's combined financial statements, and it will be recorded in a new line in NIPA table 7.17 (see the section "Changes in Presentations").

Additionally, beginning with 2016, BEA will improve its measures of the intermediation services provided by Federal Reserve Banks, for which there is no explicit charge, by using an input cost approach. Specifically, the output of Federal Reserve Banks will be measured as the sum of its total operating expenses, also based on data from the FRB's combined financial statements. During and after the 2008–2009 financial crisis, the measure was based on FRB net expenses less dividends paid.¹¹ However, FRB net expenses vary with its income, which in turn varies with interest rates and with the level of reserves held by commercial banks. As a result of this methodology, the measure grew substantially beginning in 2016 as the FRB began raising the federal funds rate, and it has grown volatile through the COVID–19 pandemic and the FRB's recent increases in the federal funds rate. The improved approach recognizes that the provision of implicit services is not significantly impacted by market conditions, monetary policy, or decisions by commercial banks about their level of reserve deposits.

Effects on the accounts. Recording the FRB's monetary interest payments will result in upward revisions to net interest paid by financial corporations, which will increase GDI and national income; it will also impact the statistical discrepancy. Additionally, net operating surplus and value added will be revised up for financial corporate business.

Industry use of financial intermediation services provided without payment

BEA will also improve its allocation of industries' intermediate use of implicit financial intermediation services beginning with 1997 and including the 2017 benchmark SUTs, using data from the Census Bureau Quarterly Financial Report (QFR) and the IRS SOI. This change will further harmonize the IEAs with the NIPAs, which already use QFR data for by-industry measures of these services. Currently, the IEAs allocate the use of these implicit services to industries based on the industry distribution of "other" expenses. As a result, there are discrepancies between the NIPA and industry measures of these services.

Effects on the accounts. There will be offsetting revisions to individual industry measures of intermediate inputs and gross operating surplus.

Improved measures of housing services

As part of the 2021 annual updates of the NEAs and the REAs, BEA introduced the use of microdata on housing units from the American Community Survey (ACS) to derive estimates of housing services.¹² This year, BEA will further improve the measures by using detailed ACS data to distinguish between rental value and utility costs more precisely. Currently, for each Public Use Microdata Area and housing characteristic, ACS data for units with separate charges for rent and utilities are used to derive estimates of utility costs as a share of the total cost. The share is then applied to the total housing costs that include utilities to derive rental charges excluding utilities. The shares are not adjusted to reflect the specific utilities that are actually included in the total for individual units.

Beginning with 2013, by-unit ACS data on utility costs will be used to derive estimates of rent excluding utilities for rental housing that includes utilities and for owner-occupied housing units; these estimates form the basis of the estimates of personal consumption expenditures for housing. The new approach will exclude only the utilities that are actually used for any given unit.

Effects on the accounts. The improved measures will have impacts on measures of housing output, rental income of persons, personal consumption expenditures, GDP, GDI, and national income.

Business intermediate expenses

Beginning with 2012, BEA will improve its measures of industries' intermediate expenses for meals and entertainment. The NIPA and IEA measures are based on IRS SOI tax return data, which reflect tax laws that typically allow only a portion of these expenses to be deducted. Therefore, BEA adjusts the data to record 100 percent of these expenses as intermediate inputs.

The 2017 Tax Cuts and Jobs Act and the 2021 Consolidated Appropriations Act each implemented changes to the tax regulations for these deductions; consequently, BEA will update its adjustment to accurately measure these expenses. At the same time, BEA will recognize additional entertainment expenses, such as performing arts, as intermediate expenses; currently, only spectator sports are recorded in the NIPAs as intermediate inputs.

Effects on the accounts. The updated adjustment will have downward impacts on measures of corporate profits, nonfarm proprietors' income, personal income, GDI, and national income. Gross operating surplus will also be impacted.

National Flood Insurance Program

Beginning with 2004, BEA will modify the method for measuring the services of the National Flood Insurance Program so that expected losses include only losses that are covered directly by premium collections. Usually, the value of property and casualty insurance services is measured as premiums less expected losses plus expected investment income and less dividends paid to policyholders.¹³ This method assumes that insurance providers set premiums at a level that will cover expected losses and production costs. However, that is not the case for the National Flood Insurance Program, which is classified in the NIPAs and the IEAs as a government enterprise. BEA's measure of the services provided by the program have been persistently negative since 2005, as insured losses have increased by more than premiums as a result of significant disasters. Additionally, as a large proportion of benefit payments have been financed through U.S. Treasury Department loans to the program, expected investment income is effectively zero.

Effects on the accounts. The output, net operating surplus, and value added of government enterprises will be revised up in the NIPAs and IEAs. Net insurance settlements—the difference between actual and estimated insurance benefit payments—will be revised up; as these are recorded as transfers from government to business, measures of business current transfer payments (net) will be revised down. GDI and national income will be unrevised, as the downward revisions to business current transfer payment enterprises. Similarly, government net saving will be unrevised because the upward revision to the current surplus of government enterprises will be offset by downward revisions to transfer receipts from business (net).

Own-account software

Investment in own-account software refers to an establishment's in-house development or improvement of software for its own use. BEA measures investment in own-account software as the sum of production costs, based mainly on BLS data on occupational employment and wages for computer systems analysts, computer programmers, and software developers and software quality assurance analysts and testers.

In response to the changing landscape of software-related employment across industries, beginning with 2013, BEA will expand these occupations to include web developers and digital interface designers, database administrators and architects, network and computer systems administrators, computer network architects, and computer and information research scientists. For each occupation, BEA assumes only a certain percentage of work is performed developing own-account software. Recent research on measuring the U.S. data economy using online job postings provides information to estimate new occupation-based time-use factors for own-account software development.¹⁴

Effects on the accounts. The improved methodology will result in revisions to current-dollar and real measures of own-account software investment beginning with the first quarter of 2013. Estimates of private fixed investment in intellectual property products and GDP will be mostly revised up as a result.

Residential and nonresidential brokers' commissions

Beginning with 2013, BEA will improve its estimates of residential and nonresidential brokers' commissions by using Economic Census data on total commissions and fees from real estate agents and brokers to allocate the total domestic supply of dealers' commissions to residential and nonresidential private fixed investment categories. The current methodology is based on a judgmental estimate of this split and does not align with the historical data from the Economic Census over time.

Additionally, BEA will improve its estimates of brokers' commissions on the sale of existing homes by bringing the assumed commission rate in line with industry standards and allowing the rate to vary as real estate market conditions change. BEA currently measures brokers' commissions using an assumed rate of 6 percent. Data from the Economic Census and from trade associations, as well as anecdotal information, suggest that the actual commission rate varies from year to year. Additionally, BEA will monitor other indicators such as housing prices, inventory, and real estate agent employment to maintain an accurate commission rate for each year.

Effects on the accounts. The improved methodology will result in revisions to current-dollar and real residential and nonresidential brokers' commissions beginning with the first quarter of 2013. Estimates of private fixed investment in structures and GDP will be revised as a result.

Improved prices for cloud computing services

The IEAs record cloud computing services as part of the data processing, hosting, and related services industry, which constitutes nearly half of the output of the data processing, internet publishing, and other information services industry. BEA currently derives real, or inflation-adjusted, measures of cloud computing services by using BLS Producer Price Indexes (PPIs) for data processing, hosting, and related services to deflate current-dollar estimates. These indexes have largely increased since 2016, while research based on hedonic price indexes for cloud computing services indicate that they have declined over the period.¹⁵ To measure cloud computing services more accurately, BEA will introduce new composite price indexes to deflate cloud computing output beginning with the first quarter of 2016. The new composite price indicators will equally weight BLS price data for NAICS industry 5182—data processing, hosting, and related services—and quality-adjusted cloud computing price data from 451 Research (a division of S&P Global Market Intelligence).

Effects on the accounts. The improved methodology will result in revisions to prices and real estimates of GDP by industry (value added), intermediate inputs (for industries consuming NAICS 5182 items), and gross output from 2016 forward; these impacts will also be reflected in the consumption expenditures of federal and state and local governments and nonprofit institutions serving households (NPISH), and, therefore, in GDP.¹⁶

Improved prices for private fixed investment in wind and solar power structures within electric power structures

Beginning with 2010, BEA will introduce a new price index to deflate wind and solar power structures within its estimates of real private fixed investment in electric power structures. Additionally, measures of wind and solar power structures will be presented separately in NIPA underlying table group 5.4.xU. Currently, traditional and alternative power structures are measured and presented as a single series; they are deflated using the same price index, which is based on a composite of Handy Whitman's electric power and building construction cost indexes. However, Handy Whitman's cost indexes do not cover construction cost data for alternative electric power structures; as a result, the indexes do not reflect the significant price decreases in

wind and solar structures over recent years. As part of this year's update, wind and solar power structures will be deflated using a new composite price index based on a weighted composite of the Energy Information Administration's average annual costs of construction for wind and solar generators (measured in dollars per kilowatt of installed nameplate, or maximum, capacity).

Effects on the accounts. The new composite price will more accurately capture price changes in the construction costs of wind and solar generators. As a result, there will be revisions to the price indexes and real measures of electric power structures beginning with the first quarter of 2010. Estimates of real private fixed investment in structures and GDP will be revised as a result.

Changes in Presentations

Several changes in presentations will be implemented, and templates of the updated NIPA tables will be presented on BEA's website before the September release of the comprehensive update.

Additional foreign trade detail

BEA will consolidate NIPA table group 4.2 ("Exports and Imports of Goods and Services by Type of Product"); the data that were previously included in the underlying tables will be shown in NIPA tables 4.2.x, along with additional series. The additional detail will include the following categories: telecommunications, computer, and information services; household and kitchen appliances; other capital goods, except automotive (imports only); scientific, hospital, and medical equipment and parts; and laboratory testing and control instruments. Additionally, "capital goods, except automotive" will be renamed "capital goods and related parts, except automotive," and additional detail will be provided in the addenda to differentiate "capital goods" and "parts for capital goods."

Additional motor vehicle data

• **Personal consumption expenditures (PCE) for new light trucks.** BEA will expand the PCE underlying detail tables—2.4.3U, 2.4.4U, 2.4.5U, and 2.4.6U—to show separate estimates of new domestic and new foreign light trucks. This change will align the PCE detail with the detail provided in the motor vehicle output tables—7.2.4U, 7.2.5U, and 7.2.6U (table 1).

PCE tables 2.4.xU		Motor vehicle output tables 7.2.xU
Current presentation	New presentation	Current presentation (for reference)
New motor vehicles	New motor vehicles	New motor vehicles
New autos	New autos	Autos
New domestic autos	New domestic autos	Domestic
New foreign autos	New foreign autos	Foreign
New light trucks	New light trucks	Light trucks (including utility vehicles)
	New domestic light trucks	Domestic
	New foreign light trucks	Foreign

Table 1. Changes in Presentation for New Light Trucks

PCE Personal consumption expenditures

• **Government purchases of new and used vehicles.** BEA will expand its presentation of motor vehicle output to provide separate estimates for new and used vehicles purchased by federal and by state and local governments in underlying detail tables 7.2.4U, 7.2.5U, and 7.2.6U (table 2).

Motor vehicle output tables 7.2.xU		
Current presentation	New presentation	
Gross government investment	Gross government investment	
Autos	Autos	
New autos	New autos	
Net transactions in used autos	Federal	
Employee reimbursement	State and local	
Trucks	Net transactions in used autos	
New trucks (including utility vehicles)	Federal	
Light trucks	State and local	
Other trucks, buses, and truck trailers	Employee reimbursement	
Net transactions in used light trucks	Trucks	
	New trucks (including utility vehicles)	
	Light trucks	
	Federal	
	State and local	
	Other trucks, buses, and trucks trailers	
	Net transactions in used light trucks	
	Federal	
	State and local	

Table 2. Changes in Presentation for Government Purchases of New and Used Vehicles

Interest paid by Federal Reserve Banks

As noted above, a new line will be added to NIPA table 7.17 to reflect the payments of monetary interest by the Federal Reserve Banks. Federal Reserve Board receipts of monetary interest are already recorded in the table. The new measure will be included beginning with 2008.

Used goods in the industry accounts

BEA will consolidate its presentation of new and used goods in the industry accounts, rather than presenting them separately. Specifically, the line for scrap, used and secondhand goods will be eliminated. Instead, the commodities that are currently captured in this line will be consolidated with the corresponding "new" measures of those commodities. For instance, consumer purchases of used motor vehicles are currently reflected in the PCE value of the commodity scrap, used and secondhand goods. As part of this update, the value of consumer purchases of used motor vehicles will be shifted to the PCE value of the commodity motor vehicles, bodies and trailers, and parts in the summary-level use table and to manufacturing in the sector-level use table.

Additional private fixed investment detail

BEA will expand the underlying detail tables for private fixed investment in electric power structures—tables 5.4.4U, 5.4.5U, and 5.4.6U—to show additional detail for alternative electric (i.e., wind and solar) power structures.

Additional industry detail in the private Fixed Assets Accounts

BEA will add 18 new detailed industries to the private fixed assets by industry data tables (table 3). The additional industries provide more information on the utilities, manufacturing, wholesale trade, retail trade, and finance and insurance sectors.

Tables 3.1x of the Fixed Assets Accounts		
Current presentation	New presentation	
Utilities	Utilities	
	Electric power	
	Natural gas distribution	
	Water, sewage, and other systems	
Miscellaneous manufacturing	Miscellaneous manufacturing	
	Medical equipment and supplies	
	Other manufacturing	
Food and beverage and tobacco	Food and beverage and tobacco	
	Food manufacturing	
	Beverage and tobacco products	
Wholesale trade	Wholesale trade	
	Durable goods	
	Nondurable goods	
Retail trade	Retail trade	
	Motor vehicle and parts dealers	
	Food and beverage stores	
	General merchandise stores	
	Other retail	
Credit intermediation and related	Credit intermediation and related	
	Depository credit intermediation	
	Other intermediation	
	Nondepository credit intermediation	
Insurance carriers and related	Insurance carriers and related	
	Insurance carriers	
	Insurance agencies and brokers	

Table 3. Changes in Presentation to Private Fixed Assets Accounts

Footnotes

- 1. Annual updates of the NIPAs and IEAs were released concurrently in 2022; see "The 2022 Annual Update of the National Economic Accounts," *Survey of Current Business* 102 (November 2022)."
- 2. See J. Steven Landefeld and Robert P. Parker, "Preview of the Comprehensive Revision of the National Income and Product Accounts: BEA's New Featured Measures of Output and Prices," *Survey* 75 (July 1995).
- 3. See Robert J. Kornfeld, "Improved Measures of Regulated Investment Companies and Real Estate Investment Trusts for the U.S. National Economic Accounts," *Survey* (May 12, 2023).
- 4. BEA resumed its release of annual I-O Accounts in January 2000, with the release of accounts for 1996; it then worked to accelerate their release, and since 2005, annual I-O Accounts for each year have been released by the end of the following year. In 2014, BEA began regularly releasing current quarterly GDP by industry estimates; until September 2020, the estimates were released a month after BEA's third release of GDP for a given quarter. The annual I-O Accounts were integrated with the GDP by Industry Accounts as part of the 2004 comprehensive update of the IEAs; for more information, see Brian C. Moyer, Mark A. Planting, Mahnaz Fahim-Nader, and Sherlene K.S. Lum, "Preview of the Comprehensive Revision of the Annual Industry Accounts: Integrating the Annual Input-Output Accounts and Gross-Domestic-Product-by-Industry Accounts," *Survey* 84 (March 2004).
- 5. The last comprehensive updates of the NIPAs, IEAs, and REAs were released in July, October, and November 2018, respectively.
- 6. Gross output is a measure of what is produced in the domestic economy. It reflects the value of intermediate inputs (energy, materials, and purchased services) and the value added created by an industry's labor and capital. It includes the value of what is produced and then used by others in the production processes as well as the value of what is produced and sold to final users; as a result, it reflects double-counting and is therefore much higher than GDP.
- 7. For more detail on the improved treatment of REITs and RICs, see Robert J. Kornfeld, "Improved Measures of Regulated Investment Companies and Real Estate Investment Trusts for the U.S. National Economic Accounts," *Survey* (May 12, 2023).
- 8. For more information on the treatment of defined contribution pension plans, see "Chapter 10: Compensation of Employees," in the *NIPA Handbook*.
- 9. European Commission, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, and World Bank; *System of National Accounts 2008*.
- 10. The *SNA 2008* and the NIPAs exclude capital gains and losses from measures of income associated with current production because the gains or losses result from the revaluation of existing assets rather than from current production. See the section "Income and saving" in "Chapter 2: Fundamental Concepts" of the *NIPA Handbook*.
- 11. This previous method was introduced as part of the 2009 comprehensive update of the NIPAs to replace the reference-rate approach, which itself became problematic when reserve balances sharply increased, and the FRB began paying interest on those reserves in response to the 2008 financial crisis.
- 12. See Dylan G. Rassier, Bettina H. Aten, Eric B. Figueroa, Solomon Kublashvili, Brian J. Smith, and Jack York, "Improved Measures of Housing Services the U.S. Economic Accounts," *Survey* 101 (May 2021).
- 13. For more information, see Baoline Chen and Dennis J. Fixler, "Measuring the Services of Property-Casualty Insurance in the NIPAs," *Survey* 83 (October 2003).
- 14. "For more information, see José Bayoán Santiago Calderón and Dylan G. Rassier, "Valuing the U.S. Data Economy Using Machine Learning and Online Job Postings," working paper WP2022–13 (Washington, DC: BEA, October 2022).
- 15. David Byrne, Carol Corrado, and Daniel Sichel, "The Rise of Cloud Computing: Minding Your Ps, Qs and Ks," in *Measuring and Accounting for Innovation in the Twenty–First Century* (Chicago: University of Chicago Press, for the National Bureau of Economic Research), 2021: 519–551. Daniel Sichel, *Using 451 Research Cloud Price Indexes for U.S. National Economic Accounts*, paper prepared for BEA (2019).
- 16. The value of government and NPISH output and consumption is measured by the cost of inputs—that is, as the sum of employee compensation, of consumption of fixed capital, and of intermediate goods and services purchased.



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