

Updating BEA's National Accounts: *Overview of Plans Including Seasonal Adjustment*



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1. Seasonally adjusting input series
2. Detecting and eliminating residual seasonality for the 2018 Comprehensive Update (CU)
3. Remaining free of residual seasonality beyond 2018
4. Update on NSA estimates



Seasonally Adjusting Input Series

- Ensure consistent approach within NEA
 - X-13ARIMA-SEATS
- Start with SA source data whenever possible
- Apply diagnostic tests and critical values to NIPA component series to detect seasonality
 - Diagnostics and critical values consistent with Census methods
 - If SA input series (or resultant quarterly NIPA series) show RS, then evaluate “breaking” from the SA source data
 - *Possible monthly-to-quarterly aggregation issues*



Residual Seasonality 2018 CU

- Test all series submitted to the NIPA processing system for residual seasonality (RS) at various levels of aggregation
 - Current dollars
 - Prices
 - Quantities
 - Flag problem series for follow-up
- Resolve remaining RS in NIPA component series
 - *Test with state-of-the-art criteria*
- Goal: Eliminate RS at NIPA 1.1.x (product-side) and 1.10 (income side)

Eliminating Residual Seasonality

Table 1.1.x. Gross Domestic Product

Line	
1	Gross domestic product
2	Personal consumption expenditures
3	Goods
4	Durable goods
5	Nondurable goods
6	Services
7	Gross private domestic investment
8	Fixed investment
9	Nonresidential
10	Structures
11	Equipment
12	Intellectual property products
13	Residential
14	Change in private inventories
15	Net exports of goods and services
16	Exports
17	Goods
18	Services
19	Imports
20	Goods
21	Services
22	Government consumption expenditures and gross investment
23	Federal
24	National defense
25	Nondefense
26	State and local

Table 1.10. Gross Domestic Income by Type of Income

Line	
1	Gross domestic income
2	Compensation of employees, paid
3	Wages and salaries
4	To persons
5	To the rest of the world
6	Supplements to wages and salaries
7	Taxes on production and imports
8	Less: Subsidies \1\
9	Net operating surplus
10	Private enterprises
11	Net interest and miscellaneous payments, domestic industries
12	Business current transfer payments (net)
13	Proprietors' income with inventory valuation and capital consumption adjustments
14	Rental income of persons with capital consumption adjustments
15	Corporate profits with inventory valuation and capital consumption adjustments
16	Taxes on corporate income
17	Profits after tax with inventory valuation and capital consumption adjustments
18	Net dividends
19	Undistributed corporate profits with inventory valuation and capital consumption adjustments
20	Current surplus of government enterprises \1\
21	Consumption of fixed capital
22	Private
23	Government

Carry Back Previous Improvements



- Earlier annual updates introduced several SA improvements
 - AU2015, for 2012 forward:
 - Federal defense services
 - Consumer spending for services
 - AU2016, for 2013 forward:
 - State and local investment in structures
- NEA will extend improvements for earlier periods as part of 2018 CU



- Follow proposed CU procedures for future annual updates
 - Test 15-year time spans
- Expand minimum revision period open for annual update – probably 5 years
- Continue to work with Census to expand their revision windows



Update on NSA estimates



- NSA estimates under development in parallel process with SA estimates
 - When available, will use NSA source data as input to estimates
 - We are not using the “old” NSA method
- Estimates available for current dollar GDP and GDI, real GDP, GDP prices
 - At time of current estimate release
 - Exact level of publication TBD—likely NIPA 1.1x (product side) and 1.10 (income side)
- Estimates back to 2002 released with CU
 - Current dollar GDP estimates prior to 2002 also being developed

Updates to NIPAs in 2017 and 2018

Kyle Brown, Pamela Kelly, and Bob Kornfeld



- Adjust PCE retail control method to remove gasoline sales at warehouse stores
- Incorporate new data to measure PCE for audio CDs, vinyl, and digital downloads
- Presentation changes
- Accelerate publication of underlying detail

2018 Comprehensive Update

- Benchmark I-O accounts
- Improve measurement of FISIM
- Improve measures of PCE with big data
- Update measures of state and local pensions
- Reclassify Federal Reserve payments to the federal government
- Improve measures of investment and capital services
- Eliminate residual seasonality in NIPAs
- Publish NSA estimates back to 2002



Presentation changes in Annual Update



- Update and accelerate Key Source Data tables
- Add the percent change in the price index for '*Final sales to domestic purchasers*' to the addenda of **Table 1.6.7**
(Percent Change From Preceding Period in Prices for Gross Domestic Purchases)
- Expand the level of detail for subsidies in the Government by Function tables.
 - Tables typically available in September or October.

- Fall 2017
- Release underlying detail at same time as current estimate
- Evaluate concept of “underlying detail” for 2018 CU

- Benchmark I-O accounts establish both levels and commodity composition of GDP final use categories
 - Provide critical information for estimating GDP (by extrapolation) for periods after benchmark years
 - Highly collaborative process with Industry directorate



Improving FISIM in the NIPAs

(Financial intermediation services indirectly measured)



- 2018 Comprehensive Update
 - Include imputed interest for nonbank depository institutions using the reference-rate approach.
 - Both borrowers' and depositors' services
- Bureau-wide FISIM working group forming recommendations to ensure consistency between account areas—e.g., International
- Research to expand FISIM to non-depository institutions