Main revisions and benchmarking – policy and practice: Perspectives from the U.S.

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Outline



- 1. Highlights from 2023 Comprehensive Update
- 2. Challenges posed by current approach
- 3. Alternatives to our current approach

2023 Comprehensive Update of the National Economic Accounts



Integration's final step

Benchmark Supply-Use Table
based on 2017
Economic Census

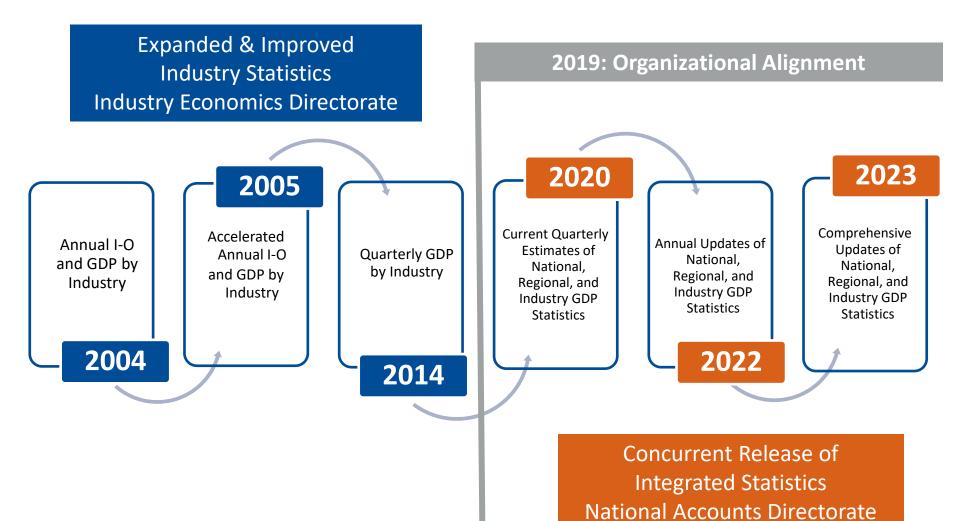
BEA's 16th
Comprehensive
Update

Improved methods, presentations

Reference year updated to 2017

Harmonizing BEA's Statistics

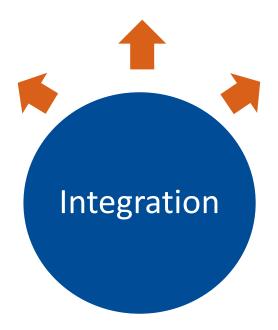




Benefits of Integration



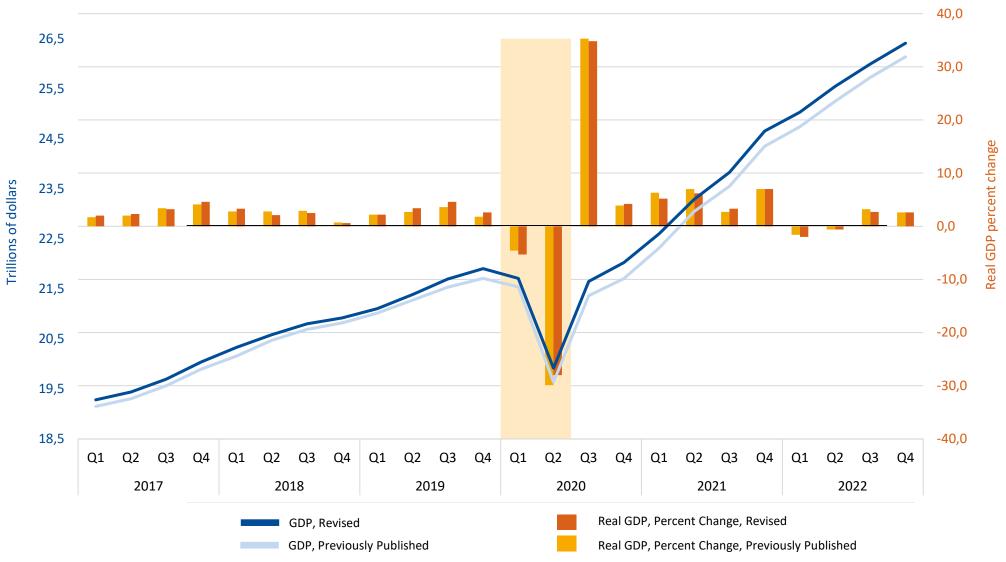
Balanced Supply-Use framework Three approaches to GDP inform each other



More information for users

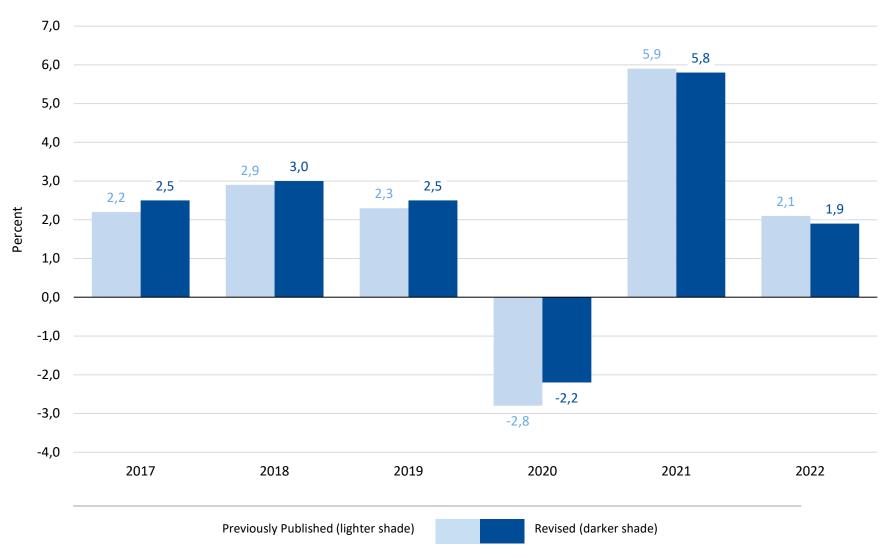
Gross Domestic Product





Change in real GDP





New and revised source data



- Quarterly Census of Employment and Wages
- Occupational Employment Statistics
- Producer Price Index
- Consumer Price Index



- American Community Survey
- Annual Capital Expenditures Survey
- Annual Retail Trade Survey
- Annual Survey of Manufactures
- Annual Survey of State and Local Government Finances
- Annual Wholesale Trade Survey
- Value of Construction Put in Place Survey
- Service Annual Survey
- Quarterly Services Survey



- Benchmark supply-use tables
- International transactions accounts

Other Agencies

- Office of Management and Budget: Federal budget
- Internal Revenue Service: Tax returns for corporations, sole proprietorships, and partnerships
- Federal Reserve Board: FAUS
- Department of Agriculture: Farm statistics

Improvements



- Improved treatment of regulated investment companies (RICs) and real estate investment trusts (REITs)
- Improved price measures
- Improved measures of industries' use of FISIM
- Improved measures of investment in own-account software
- Presentational improvements
 - More detailed presentation of household spending and prices

External communication



- See https://www.bea.gov/information-updates-national-economic-accounts
- Preview articles highlighting main features of the comprehensive update
- Table changes announced in advance
- Schedule for release of data announced in advance
- After the release
 - Briefing slides, article summarizing major changes and revisions, tables summarizing revisions
 - Updates as more data becomes available



Challenges

The 5-year economic census is the pillar of BEA's benchmark CU estimates



- The economic census (EC) provides our most detailed statistics on
 - intermediate inputs, expenses, and outputs for supply and use tables, revealing any major changes in production processes
 - product line sales by industry
- The EC provides the only opportunity for producing "true" production-based measures of GDP
 - For nonbenchmark years, final demand-based GDP estimates are extrapolated based on relationships established in the benchmark year.
- CUs provide an opportunity for major improvements (updated classifications, capitalizing new assets etc.)
- The rich detail of the EC enables BEA to produce a balanced SUT at a very detailed level (402 industries and commodities)
- Annual updates in other years are based on less detailed annual surveys
 - Typically measures of sales/receipts by industry
 - Limited/minimal data on intermediate inputs and outputs, product line and expense detail

Challenges posed by the current 5-year benchmarking



- Benchmark results are not timely
 - o 2023 CU, released September 29th, 2023, benchmarked to the 2017 Economic Census
 - At best, "brand new" results are benchmarked to values 5 years old!
 - At worst, estimates are benchmarked to values 10-11 years old! (GDP published August 2023 were benchmarked to the 2012 Economic Census.)
 - Detailed product-line compositions are dated and present compositional challenges (e.g., 2017 is pre-COVID and surely consumer preferences differed over the pandemic and continue to differ today)

- Independent production-based measures of GDP can only be produced in the benchmark year
 - Doing something only every 5-years is inherently challenging

Challenges posed by the current 5-year benchmarking



- The EC is extremely costly to produce and poses notable response burden
 - Doing something only every 5-years is inherently challenging
 - Large spikes in staff workload, challenges from staff turnover, IT systems issues

- Balancing detailed benchmark SUTs can be especially time consuming
- Maintain consistent time series all the way back to 1929



Alternatives

Committee on National Statistics (CNSTAT) Panel on Reengineering the Census Bureau's Annual Economic Surveys



- The panel recommended the development of an "Annual Business Survey System" to replace the current suite of largely separate annual economic surveys
 - o Currently, separate annual surveys cover retail trade, wholesale trade, manufacturing, services etc
- The new survey system should...
 - administer a core set of questions to all respondents, with appropriate industry customization, plus modules containing industry-specific and topical questions;
 - use a rotating panel sample drawn from a redesigned comprehensive Business Register;
 - o use standardized data collection, processing, and estimation methods for all industries in the sample;
 - develop a single application programming interface for access to data for single and multiple industries;
 - use administrative records to the maximum extent possible for greater efficiency and accuracy of data and reduced respondent burden; and
 - o incorporate small-area models to produce subnational geographic estimates with sufficient accuracy for users' needs
- In response, the Census Bureau is currently developing the Annual Integrated Economic Survey (AIES)
 - o a re-engineered survey designed to integrate and replace seven existing annual business surveys into a single survey.
 - o also exploring greater use of administrative data, private data, machine learning, other approaches
- The AIES could eventually provide some of the detailed data currently obtained from the 5-year EC



Census Bureau AIES

- National Academy of Sciences (NAS) recommended changes to our annual economic programs
- Main drivers of this effort include:



Meet data needs – timely, granular, standardized





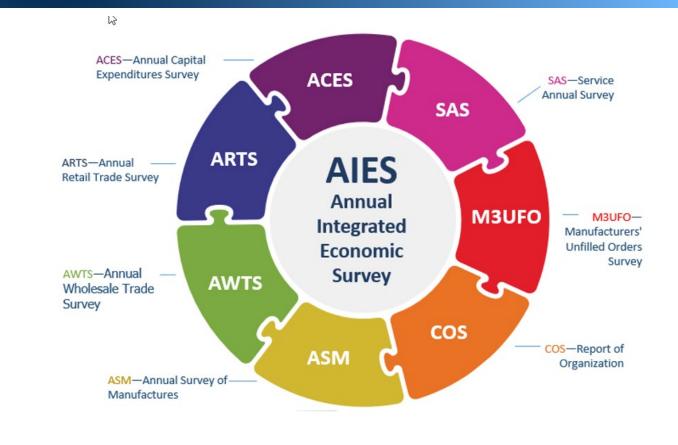
Improve efficiency – consistency across programs (content, processes, systems)



Declining response rates



Stay relevant





Alternative approaches



- Strive to harmonize process for non-benchmark and benchmark years
 - Harmonize non-benchmark and benchmark years level of detail (e.g. less detail for benchmark year, more detail for standard annual year)
 - Maintain practice of benchmarking to a full census but produce statistics at same level of detail
 - Produce "true" independent production-based measures of GDP

- Explore with data collection partners alternative ways to obtain up-to-date, detailed data on intermediate inputs, product line sales by industry, etc.
 - Embrace machine-learning / modeling techniques to fill in missing data
 - Make more use of administrative records data

Alternative approaches and questions



- Produce/balance benchmark SUTs at a less detailed level
 - Carefully analyze pros and cons. Impacts on:
 - Thematic accounts
 - Global value chains and TiVA

- Dispense with Economic Census?
- How important is it to maintain full time series (all the way back 1929 for the U.S.)