



Looking Ahead: 2013 NIPA Comprehensive Revision

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2013 Comprehensive Revision: Overview

- NIPA comprehensive revision will be fully integrated with the 2007 Benchmark Input-Output Accounts, and their releases will be coordinated
- Conceptual revisions based on updated international guidelines: *System of National Accounts 2008 (SNA)*
- Conceptual changes planned for 2013:
 - Capitalizing research and development (R&D)
 - Capitalizing entertainment, literary, and artistic originals
 - Accrual measures for defined-benefit pension plans
 - Improved measures of financial services
 - New approach for measuring the costs of ownership transfer

Capitalizing R&D: Motivation

- Expenditures on R&D have the characteristics of fixed assets (ownership rights, long-lasting, used in production process) and should be treated as investment
- Including R&D is important for:
 - Improving accuracy and relevance of GDP estimates
 - Developing quantitative measures of innovation
 - Identifying sources of economic growth
- Intangible produced assets in the SNA:
 - Computer software; mineral exploration; entertainment, literary, and artistic originals; R&D expenditures; other intellectual property products



R&D as investment in GDP statistics

- R&D satellite accounts
 - 1994: R&D capital stocks
 - 2006: Impact of R&D capital on GDP statistics
 - 2007: Industry, regional, and international dimensions
 - 2010: Incorporate NIPA and industry comprehensive revisions, expanding industries to include finance, insurance, and real estate
- R&D in core accounts
 - 2013: R&D to be capitalized in national and industry accounts



Satellite account vs. implementation

- Overlap between own-account software and R&D
- Capital services for government and NPISH output
- Industry detail
- Frequency
- Time-series history

From R&D expenditures to GDP impacts

- New R&D investment
 - Sum R&D input costs, removing double-counting
 - Include depreciation of fixed assets
 - Assign investment to owning sector
 - Deflate nominal investment

- R&D stocks by owner
 - Create capital stocks with perpetual inventory method

- GDP impacts
 - Private business sector GDP increases by new investment
 - Government and private nonprofit sector GDP increases by consumption of fixed capital on the stock of R&D capital

Summary of impacts: 2007

GDP Impacts (billions of dollars)

Total GDP (as published in the NIPAs)	14,061.8
<i>Plus:</i> Business own-account and purchased R&D investment	269.6
<i>Less:</i> Overlap with own-account software	23.6
<i>Plus:</i> CFC on government and nonprofit R&D assets	103.1
Total GDP, with R&D as investment	14,410.9
Impact on GDP of capitalizing R&D	349.1

Depreciation

- Economic depreciation measures the value of the capital used up in production
- Satellite account currently uses average depreciation rates for R&D from economic literature
- Going forward, updated measures will be informed by:
 - Survey questions to performers about expected useful life
 - Financial data to estimate depreciation



Other implementation issues

- Prices of R&D output are unobserved
 - Several approaches are being considered for calculating price indexes
- Geographic dimensions of R&D:
 - R&D can be used simultaneously in multiple locations
 - Multi-unit firms can move R&D-created knowledge around without a transaction
 - Possible effects on international and regional accounts

Entertainment, literary, and artistic originals

- Original films, sound recordings, manuscripts, etc., that can be used for the production and sale of copies
- *SNA* recommends that they be capitalized
- Estimates for several types, including:
 - Motion pictures
 - Television programs
 - Music compositions and recordings
 - Books
- Impact on GDP for 2007 – about \$49.7 billion
- Forthcoming article in *Survey of Current Business* (Soloveichik)



Defined-benefit pension plans

- Current NIPA treatment:
 - Employer contributions are compensation
 - Interest and dividends received by pension funds are personal income
- Problems with current treatment:
 - Underfunded and unfunded pensions
 - Volatility of contributions
 - Disconnect with economic principles



New approach to pension plans

- *SNA* recommends accrual estimates based on actuarial estimates
- Article in August 2009 *Survey* (Reinsdorf & Lenze) shows how accrual approach can be applied
- For private plans – accrual approach results in less volatility in compensation
- Larger effects for government plans (because of underfunding):
 - Lower compensation
 - Higher interest



Measures of financial services

- For financial services furnished without payment, expected credit losses will be excluded from borrower services
- Avoid spurious volatility by splitting total financial services without payment between depositor and borrower services
- Extend the reference rate approach (currently used for commercial banks) to thrifts



Costs of ownership transfer

- Real estate brokers' commissions are currently classified as fixed investment
- The revised *SNA* clarifies the scope of ownership transfer costs
 - Provides a more consistent accounting of how these costs should be reflected in measures of capital stock
 - Depreciate costs of acquiring an asset over the period the asset is expected to be held by the purchaser (rather than over the whole life of the asset)

The top banner features a blue background with a bar chart on the left showing various state names and numerical values. On the right, the BEA logo is displayed, consisting of a stylized 'BEA' acronym above the text 'BUREAU OF ECONOMIC ANALYSIS' and 'U.S. DEPARTMENT OF COMMERCE'.

Before the release

- Additional information will be provided
 - “Preview” articles in *Survey* on the conceptual and methodological changes
 - Information posted on Web site
 - Meetings with data users
- We appreciate receiving your feedback