Future Directions for the Industry Accounts

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BEA Advisory Committee
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Improvements to the accounts

- Further integration of the industry accounts
- Quarterly GDP by industry
- Improved consistency with the NIPAs
- Energy satellite account
- KLEMS statistics and industry-level production account
Improved consistency

Chart 1. Improving the Industry Accounts

- GDP by industry accounts
- Annual input-output accounts
- Benchmark input-output accounts
- NIPAs (GDP accounts)
- Improved consistency
- Time-series consistency
- Quarterly GDP by industry

U.S. Bureau of Economic Analysis

www.bea.gov
2004 integration of annual I-O accounts with GDP by industry accounts

- Combined best available source data using quality weighting
- Provided consistent measures of output, inputs, and value added by industry
- Accelerated availability of annual I-O accounts by 1 ½ years
Integration: next steps

Integration of benchmark I-O accounts

- Sets relationships for annual I-O accounts, NIPAs, RIMS, etc.
- Establishes consistency through improved timing
- Provides time-series benchmark I-O accounts
- Introduces revision schedule to ensure consistency with other BEA accounts and future benchmark I-O accounts
- Begins with 2007 benchmark I-O accounts
Quarterly GDP by industry

- Higher frequency industry data for business cycle and policy analysis
- New price and quantity measures in a NIPA framework provide an industry dimension to quarterly GDP growth
- Available approximately 15 days after the “final” GDP estimate
Overview of methods

- Benchmarked to the annual GDP by industry accounts
- Quarterly extrapolations of output and value added based on:
  - Receipts, shipments, and sales from Census
  - Income by industry data from the NIPAs
  - Wage and salary data from BLS
- Statistics prepared in a balanced I-O framework
## Balanced I-O framework

<table>
<thead>
<tr>
<th>Value added</th>
<th>Agriculture, Mining, Utilities &amp; Construction</th>
<th>Manufacturing Services</th>
<th>Government</th>
<th>Total intermediate uses</th>
<th>C</th>
<th>I</th>
<th>G</th>
<th>X-M</th>
<th>Final uses (GDP)</th>
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<tbody>
<tr>
<td>Compensation</td>
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<td>Total industry output</td>
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- **Quarterly GDP from NIPAs**
- **Industry Value added from GDI (SOI, Wages and Salaries, etc.)**
- **Industry Output (M3, QSS, FRB Industrial Production, etc)**
Tentative release schedule

- Methodology paper and prototype statistics scheduled for fall 2009.
- Initial release of statistics scheduled for 2011 (estimates for 2011: Q1)
- Time-series statistics back to 2003: Q2 released in 2011
Improved consistency with NIPAs

- Focused on improving measures of consumer spending

- Commodity-flow Method

Consumer purchases = shipments + imports - exports - intermediate purchases - government purchases - change in inventories - investment in equipment + margin + transportation costs
Improved consistency with NIPAs

- Annual I-O accounts: commodity flow method
- NIPAs: Retail control method based on retail sales data
- Requires evaluating data quality and timing of alternative methods
## PCE for Shoes
*(Billions of Dollars)*

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<thead>
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<td><strong>NIPA PCE</strong></td>
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<td>48</td>
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<td>All other stores</td>
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<td>8</td>
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<tr>
<td><strong>Annual I-O PCE</strong></td>
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<td><strong>Economic Census Data</strong></td>
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<tr>
<td>Superstores</td>
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*Source: Economic Census Data*
Energy impacts: consumer prices

Prices Paid by Consumers

![Graph showing energy goods and services prices over time.](source)

Source: BEA Price Indexes for Personal Consumption Expenditures by Major Type of Product, 2000-2008

www.bea.gov
Energy impacts: industry input prices

Prices Paid by Industries for Economy-wide Inputs to Production


www.bea.gov
Energy satellite account

- Joint effort with the Energy Information Administration (EIA)
- Based on I-O framework; supplemented with detailed EIA data
- Provides information on:
  - Energy supply and consumption dynamics
  - Energy-related prices
  - Impacts of energy-related products on GDP, consumer spending, industry performance, etc.
BEA’s KLEMS statistics

Data for 2007

Percent of Total Intermediate Inputs

K-capital, L-labor, E-energy, M-materials, S-purchased services
Industry production account

- Initial BEA/BLS work on aggregate production account complete
- Industry-level production account for 1997-forward requires BEA KLEMS statistics and reconciliation of BEA/BLS industry output measures
- Longer term: KLEMS statistics available prior to 1997; industry production account available for earlier years