The Role of Profits and Income in the Statistical Discrepancy

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Introduction

- Sources of Measurement Error in GDP and GDI
  - Timeliness
  - Completeness
  - Reliability
  - Conceptual inconsistencies

- BEA Recognizes Strengths and Weaknesses Underlying GDP and GDI

- BEA Records the SD with GDI
Related Work

- Research Estimating the SD

- Research Estimating True Output
  - Fixler and Nalewaik (2009), Nalewaik (2010), Greenaway-McGrevy (2011)

- Research Distributing the SD
  - Chen (2006, 2010)
Recent Behavior: Statistical Discrepancy, 2006-2010
Recent Behavior: Real GDP and Real GDI Levels, 2006-2010
Recent Behavior:
Real GDP and Real GDI Percent Changes, 2006-2010
Contributing Factors: Misreporting Adjustments

- Proprietors’ and Partnership Income
  - 2001 IRS NRP study
  - Annual Census exact-match studies

- Corporate Profits
  - Annual IRS corporate audit reports
  - Judgments regarding tax rates and universe of corporations

- Estimates Imprecise
  - Due to lack of timely, comprehensive source data

- Significant Amount of Profits and Income
Contributing Factors: Misreporting Adjustments

Graph showing the trend of PI Misreporting Adjustment / Reported Net Profits and PI Misreporting Adjustment / NIPA PI from 1970 to 2009.
Contributing Factors: Misreporting Adjustments

Corporate Misreporting Adjustment / Reported Receipts less Deductions

Corporate Misreporting Adjustment / NIPA PBT
Contributing Factors: Capital Gains/Losses

- Corporate Partners
  - Included in corporate and partnership tax data
  - Source data on corporate share include capital gains/losses
  - BEA approximates corporate share of capital gains/losses
  - Net capital gains attributable to partnerships as a proportion of net partnership income published by SOI

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Capital Gains Proportion</th>
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<tbody>
<tr>
<td>2008</td>
<td>1.6 %</td>
</tr>
<tr>
<td>2007</td>
<td>46.7</td>
</tr>
<tr>
<td>2006</td>
<td>39.3</td>
</tr>
<tr>
<td>2005</td>
<td>37.0</td>
</tr>
<tr>
<td>2004</td>
<td>34.9</td>
</tr>
<tr>
<td>2003</td>
<td>19.3</td>
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<tr>
<td>2002</td>
<td>1.6</td>
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<tr>
<td>2001</td>
<td>11.0</td>
</tr>
<tr>
<td>2000</td>
<td>37.4</td>
</tr>
<tr>
<td>1999</td>
<td>34.6</td>
</tr>
</tbody>
</table>
Contributing Factors: Capital Gains/Losses

- **Mark-to-Market Accounting**
  - Certain assets treated as sold at fair value
  - Generates holding gains/losses

- **Tax Accounting Rules**
  - Taxpayers elect
  - Characterization of income/losses
  - Hedging transactions
    - Include fees and may include mark-to-market income/losses
    - Reported as ordinary income/losses for ordinary business purposes
    - BEA does not currently adjust for hedging transactions
    - $95.1 billion in losses reported for 2008
Contributing Factors: Capital Gains/Losses

- Financial Accounting Rules
  - Apply to three classes of assets
    - Debt securities intended to be held to maturity
    - Debt and equity securities for short-term trading
    - Debt and equity securities available for sale
  - Trading securities
    - Include mortgage-backed securities
    - Characterization of income/losses
  - Financial-based source data
    - Quarterly Financial Reports (QFRs) from Census Bureau
    - Compustat
  - Finance industries
    - Mark-to-market rules under increasing scrutiny
Contributing Factors: Employee Stock Options

- Source Data for Profits
  - Financial-based data measure fair market value over vesting period on grant date
  - Tax-based data measure market price less strike price on exercise date

- Source Data for Wages and Salaries
  - CES excludes income from stock options
  - QCEW measured consistently with tax-based data

- Differences Affect Quarterly Estimates

- Moylan (2008)
Contributing Factors: Produced Intangibles

- Expensed Intangibles
  - Seller’s revenue offsets buyer’s expense

- Capitalized Intangibles
  - BEA assumes low capitalization rate for purchased software

- Acquisition Year
  - Profits and income overstated if capitalization rate is too low

- Depreciation Year
  - CCAdj absorbs difference between actual and assumed depreciation
Summary and Conclusions

- Profits and income play a significant role in the determination of GDI.

- Measurement error in profits and income affect BEA’s decision to record the SD on the income side of the accounts.

- BEA will continue to compile and report separate estimates of GDP and GDI, showing the SD with GDI.

- More attention should be given to describing GDI estimates in a manner that will inform the public about this alternative source of macroeconomic information.

- Additional research is warranted.