Comments on “Measuring the Rapidly Changing Economy”

BEA Advisory Committee Meeting
May 1st, 2009

Bart van Ark
Vice President and Chief Economist
Can we fit the current economy in one accounting system?

Source: Jeffrey Frankel, Harvard Kennedy School
U.S. forecast shows leveling off in decline of consumer spending but business conditions remain weak

<table>
<thead>
<tr>
<th></th>
<th>2008 Q4</th>
<th>2009 Q1</th>
<th>2009 Q2</th>
<th>2009 Q3</th>
<th>2009 Q4</th>
<th>2010 Q1</th>
<th>2010 Q2</th>
<th>2010 Q3</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP</td>
<td>-6.3</td>
<td>-6.1</td>
<td>-1.5</td>
<td>0.4</td>
<td>2.3</td>
<td>2.1</td>
<td>1.5</td>
<td>2.4</td>
<td>-2.7</td>
<td>1.6</td>
</tr>
<tr>
<td>CPI inflation</td>
<td>-8.3</td>
<td>-1.8</td>
<td>-0.3</td>
<td>0.9</td>
<td>1.3</td>
<td>1.8</td>
<td>1.9</td>
<td>2.0</td>
<td>-0.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Real consumer spending</td>
<td>-4.3</td>
<td>2.2</td>
<td>-0.3</td>
<td>1.6</td>
<td>1.5</td>
<td>1.4</td>
<td>2.4</td>
<td>2.6</td>
<td>-0.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Housing starts mil. units</td>
<td>0.66</td>
<td>0.53</td>
<td>0.52</td>
<td>0.53</td>
<td>0.59</td>
<td>0.64</td>
<td>0.66</td>
<td>0.76</td>
<td>0.54</td>
<td>0.73</td>
</tr>
<tr>
<td>Real capital spending</td>
<td>-21.7</td>
<td>-37.9</td>
<td>-19.8</td>
<td>-12.6</td>
<td>-6.6</td>
<td>3.0</td>
<td>1.0</td>
<td>7.5</td>
<td>-17.8</td>
<td>-2.2</td>
</tr>
<tr>
<td>Inventory change bil. '00$</td>
<td>-25.8</td>
<td>-103.7</td>
<td>-65.3</td>
<td>-56.1</td>
<td>-8.7</td>
<td>27.4</td>
<td>25.4</td>
<td>31.6</td>
<td>-57.6</td>
<td>29.6</td>
</tr>
<tr>
<td>Exports</td>
<td>-23.6</td>
<td>-30.0</td>
<td>-14.7</td>
<td>-11.3</td>
<td>-6.6</td>
<td>2.3</td>
<td>3.2</td>
<td>4.2</td>
<td>-12.7</td>
<td>-1.7</td>
</tr>
<tr>
<td>Pre-tax corporate profits bil. '00$</td>
<td>1265</td>
<td>1252</td>
<td>1199</td>
<td>1194</td>
<td>1191</td>
<td>1220</td>
<td>1273</td>
<td>1291</td>
<td>1209</td>
<td>1285</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>6.9</td>
<td>8.1</td>
<td>8.9</td>
<td>9.5</td>
<td>9.9</td>
<td>10.1</td>
<td>10.1</td>
<td>10.1</td>
<td>9.1</td>
<td>10.1</td>
</tr>
</tbody>
</table>

*Actual

Source: The Conference Board
The Conference Board’s indexes show no definitive signs of recovery yet, but intensity of decline levels off.
CEOs continue to keep a tight hold on their business investment spending reins

Index (50+ = positive)

CEO Business Confidence: current economic condition in own industry vs 6 months ago (lead -1)

Real private nonresidential investment: equipment and software (right scale)

Note: Shaded areas represent U.S. recessions
Sources: BEA, The Conference Board
Link between theory and practice in national accounting is key to its relevance

- As economic policy priorities change, (national) accounting needs to find a balance between a sound theoretical basis and flexibility in applications
- In other words: the house needs to be build so that it can serve many different dwellers
- The foundations of SNA (production, income and expenditure) are strong
- “Real” and “financial” sources of growth, as well as their relationship, need to be analyzed
- But integration and comprehensiveness is key:
  - Complete production and wealth accounts
  - Employment, human capital and the knowledge economy
How did we get here?
Where are we now?
Where are we heading?

A few issues

- **Savings**: why are savings shares rising (and are consumption shares falling)?
- **Business cycle indicators**: do we need more service activity, and does NIPA
- **Industry level measures**: trouble with services persists with finance industry in spotlight today
While savings shares rise, consumption shares remain volatile

Note: Shaded areas represent U.S. recessions
Sources: BEA, The Conference Board
But how rapidly do savings rise and why? NIPA vs. FOF
Difference between liabilities and savings determines “paying off credit”

Table F.10 (FOF) Savings (break up between paying off credit and “genuine savings”)

- **US TOTAL LIABILITIES: INDIVIDUALS (FOF, CHANGE, ANNL RATE)** CURA
- **Difference between saving and liabilities**
- **US PERSL SAVING (NIPA,FOF): INDIVIDUALS (FLOW OF FUNDS)** CURA
Downward trend on the Leading Economic Index continues

Note: Shaded areas represent recessions as determined by the NBER Business Cycle Dating Committee.
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Business cycle indicators consist of three components – Lagging and Coincident make more use of NIPA than Leading.

<table>
<thead>
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<th>Table 1.—Summary of U.S. Composite Economic Indexes</th>
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<tr>
<td><img src="image" alt="Table" /></td>
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</tbody>
</table>

Downturn in LEI level has not been faster than in previous recessions except for 1981-1982.

Sources: BEA, National Bureau of Economic Research, The Conference Board
Composition of The Conference Board Coincident Economic Index™ (CEI) for the U.S.

- Employees on Non-Agricultural Payrolls, BLS
- Index of Industrial Production, FED
- Personal Income less Transfer Payments, BEA, NIPA
- Manufacturing and Trade Sales, BEA, NIPA
Composition of The Conference Board Lagging Economic Index™ (LAG) for the U.S.

• Mfg & Trade Inventories to Sales Ratio, BEA
• Average Duration of Unemployment, BLS
• Consumer Installment Credit/Income Ratio, Federal Reserve, BEA
• Commercial and Industrial Loans Outstanding, Federal Reserve
• Average Prime Rate Charged by Banks, Federal Reserve
• Change in Labor Cost/Unit Output in Manufacturing, BEA, Federal Reserve
• Change in CPI for Services, BLS
Composition of The Conference Board Leading Economic Index™ (LEI) for the U.S.

- Yield Spread (10-Year minus Federal Funds), Federal Reserve
- Money Supply (M2), Federal Reserve and BEA (PCE deflator)
- Stock Prices (S & P 500), Standard & Poors
- Average Weekly Hours for Manufacturing, BLS
- Building Permits, Private Housing, Census
- Average Weekly Initial Claims for Unemployment Insurance, BLS
- Vendor Performance, (manufacturing) ISM
- Manufacturer’s New Orders for Non-Defense Capital Goods, deflated, Census, BLS
- Manufacturer’s New Orders for Consumer Goods and Materials, deflated, Census, BLS
- Index of Consumer Expectations, University of Michigan
A greater need for service measures in Business Cycle Indicators?

- Manufacturing dominance in business cycle indicators → two hypotheses:
  - Manufacturing provides better leads on business cycles
  - Lack of data makes BCI biased
- Demand for services often as cyclical as for goods (or sometimes even more)
- In addition to business sentiment indexes for services, we would like to move more solid index such as orders for services and non-manufacturing PMI
- Even in CEI and LAG more specific services may help
- Role of money supply in LEI under discussion
Reconsidering a miracle

In preparation for some recent teaching, I went back to something that was a hot topic not long ago, and will be again if and when the crisis ends: the apparent lag of European productivity since 1995. One recent, seemingly authoritative study is van Ark et al; and I noticed something that gave me pause.

In their paper, van Ark etc. identify the service sector as the main source of America’s pullaway — which is the standard argument. Within services, roughly half they attribute to distribution — roughly speaking, the Wal-Mart effect. OK.

But the other half is a surge in US productivity in financial and business services, not matched in Europe. And all I can say is, whoa!

First of all, how do we even measure output of financial services? If I read this BEA paper correctly, we more or less use “checks cashed” — or, more broadly, the number of transactions undertaken. This may be the best we can do, but it’s a pretty weak measure of actual work done by the financial system.

And given recent events, are we even sure that the expansion of the financial system was doing anything productive at all?

In short, how much of the apparent US productivity miracle, a miracle not shared by Europe, was a statistical illusion created by our bloated finance industry?

Dean Baker has argued for some time that, properly measured, the productivity gap between America and Europe never happened. I’m becoming more sympathetic to his point of view.
How much of the US productivity miracle post-1995 was a statistical illusion? Not as much as Krugman and others would like to believe, according to our research.

First, US productivity growth in the financial sector was not much faster than in Europe: the differences shown in the van Ark article are mostly due to business services. This means firms like IBM, not Citigroup. Measurement issues are tricky in business services as well, but US statistics in this area are no worse than those in Europe.

Second, it is more likely that European productivity growth in the financial sector was overstated compared to the US. In the US statistics, bank output is measured by looking at the number of loans and transactions (as well as explicit fees). If the European methodology had been used, bank output growth would have been twice as fast. Also, don’t forget that some European countries like Ireland and Spain had very bubbly property markets too.

The big question is of course how US and European productivity growth will evolve during and after the current recession, but the US performance post-1995 still looks pretty strong compared to Europe.
The use of activity counts provides a more reasonable view of U.S. real output growth in commercial banking

Response by Susanto Basu, Boston University

Over-measuring financial service output is not as big a problem as it seems if you just look at the industry data. The reason is that most financial services are provided to businesses, and are counted as a subtraction from the value added of the business that “buys” the service. Thus, if financial service output is measured too high, implicitly the output of lots of other industries is measured too low, and the net effect on GDP is small.

The reason I say “small” and not “zero” is that services provided to consumers *are* counted as part of GDP. But there, the transactions-based approach may not be so bad. (Of course, in recent years, lots of these services were sold to foreign businesses and thus counted as exports, which also contribute to GDP. So it’s a growing problem—or was one!)

I am very sympathetic to the basic point that we need a good measure of “what do banks (financial firms) do,” for a host of reasons, including system risk regulation. But measuring national productivity may not be the most pressing reason.
In virtually all service industries, output measures suffer from unclear output concept or bad prices

Share of Value Added in Market Services in Ten European Countries Deflated using A, B or C-Methods around the Year 2000 (per cent)

<table>
<thead>
<tr>
<th>ISIC rev. 3 code</th>
<th>Industry</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-52</td>
<td>Wholesale and retail trade</td>
<td>0</td>
<td>70</td>
<td>21</td>
</tr>
<tr>
<td>52</td>
<td>Retail trade</td>
<td>0</td>
<td>70</td>
<td>21</td>
</tr>
<tr>
<td>55</td>
<td>Hotels &amp; restaurants</td>
<td>67</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>60-63</td>
<td>Transport &amp; storage</td>
<td>9</td>
<td>67</td>
<td>24</td>
</tr>
<tr>
<td>64</td>
<td>Post &amp; telecommunications</td>
<td>9</td>
<td>80</td>
<td>11</td>
</tr>
<tr>
<td>65-67</td>
<td>Financial intermediation</td>
<td>0</td>
<td>57</td>
<td>43</td>
</tr>
<tr>
<td>65</td>
<td>Banking</td>
<td>0</td>
<td>68</td>
<td>32</td>
</tr>
<tr>
<td>71-74</td>
<td>Business services</td>
<td>8</td>
<td>44</td>
<td>48</td>
</tr>
<tr>
<td>90-93</td>
<td>Social &amp; personal services</td>
<td>15</td>
<td>44</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Market services</td>
<td>10</td>
<td>59</td>
<td>31</td>
</tr>
</tbody>
</table>

Notes: Classification into A, B and C-methods are by national statistical offices, based on Eurostat (2001). A-method is defined as most appropriate, B-method as acceptable and C-method as unacceptable. Average share is calculated based on information for Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Sweden and UK. For each country and each industry we use information on the share of value added deflated using A, B or C-methods, and for each industry (as well as the total average) these shares are averaged across countries.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output</strong> Primarily computers and other ICT goods. Solvable by using hedonic price indices, which is possible provided data availability</td>
<td>Primarily &quot;customised&quot; services and public services (education, health, etc.). Should be tackled by detailed analysis of multiple dimensions of output by industry. Difficult both in methodological terms as well in terms of data</td>
</tr>
<tr>
<td><strong>Input</strong> Primarily semiconductors. Can be solved with hedonic price indices, provided data availability and investment flow matrices.</td>
<td>Primarily ICT input. Can be solved by adjusting nominal input series with hedonic price indices. Feasible provided availability of investment flow matrices.</td>
</tr>
</tbody>
</table>
Continued integration of accounting systems and comprehensiveness are key to develop a credible “real time” accounting system

- Finding a balance between “real time” and accuracy is important
- Coverage of services, and especially prices of services, remains the Achilles heel of the national accounts
- Focus on institutional units may provide more “real time” info than industry approach
- New Architecture goes beyond integration of macro-, industry accounts and flow-of-funds:
  - Employment
  - Intangibles: R&D and beyond
- Official statistics need to be as precise as possible
- … but it is sometimes better to be “imprecisely right than precisely wrong” (Keynes)
- … requiring a balance between research and official statistics