# Quarterly GDP by Industry Progress and Prospects

Robert E. Yuskavage BEA Advisory Committee Meeting November 2, 2007

Measuring the Nation's Economy.



### Overview

- Motivation
- Proposed methodology
- Preliminary results
- Release and revision
- Tentative time frame
- Questions



### Motivation

- More timely industry data for business cycle analysis and policy/research issues
- Industry price and quantity measures consistent with quarterly GDP for use in a NIPA framework
- Quarterly real output indicators for both the goods and services-producing sectors



# Proposed Methodology

- Combined features used for
  - Advance annual GDP by industry
  - Quarterly travel and tourism
- Compiled experimental estimates for testing and evaluation starting with 2003 Q1



# Proposed Methodology

- Nominal Value Added Estimates
  - NIPA estimates for farms and general government
  - For non-farm business, extrapolate industry compensation, taxes, and GOS separately
  - Insure that industry value added sums to GDP
- Real Value Added Estimates
  - Single deflation with industry gross output price
  - Price indexes are obtained from several sources
  - Aggregation over all industries for comparison with quarterly real GDP from the NIPAs



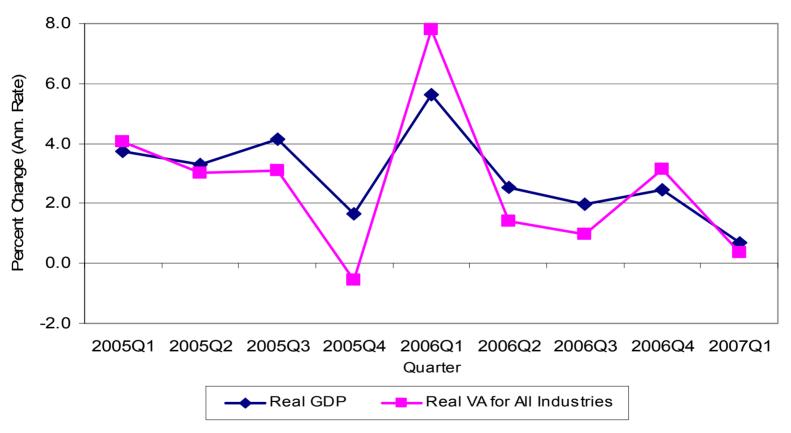
# **Preliminary Results**

- Aggregate (all industry) real value added roughly tracks real GDP in recent quarters
- As expected, quarterly nominal estimates are quite variable, especially for goods
- Real estimates for goods show declines in several quarters when real GDP increases
- Volatility of goods value added exceeds that of GDP goods in final expenditures



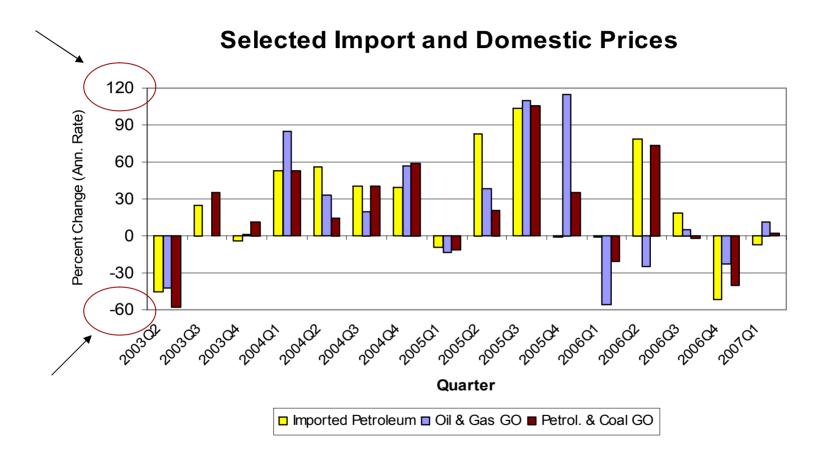
### Real GDP vs. All Industries

#### Real GDP and Real Value Added for All Industries





# **Energy Price Volatility**

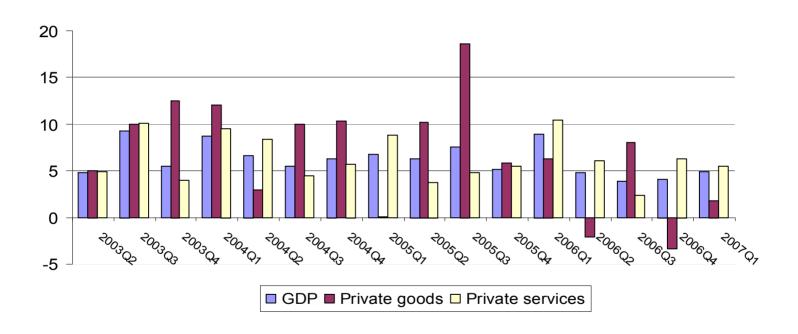




### Nominal Growth: Goods vs. Services

#### **Nominal Value Added**

**Percent Change at Annual Rate** 

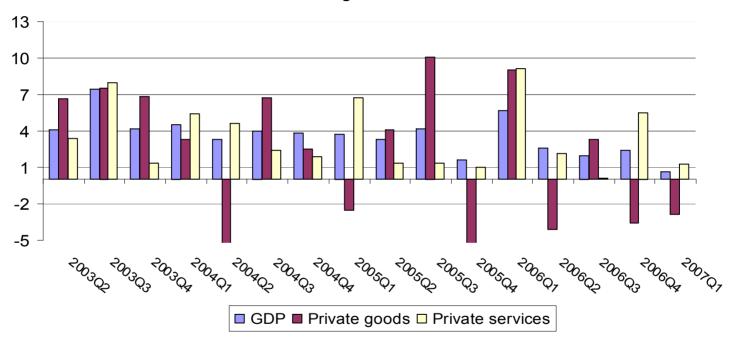




### Real Growth: Goods vs. Services

#### Real Value Added

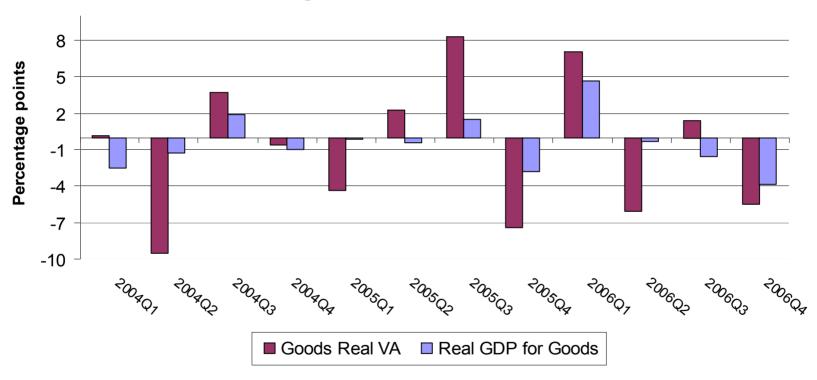
**Percent Change at Annual Rate** 





# Quarterly Volatility for Goods

### Deviations of Quarterly Real Growth Rates from Annual Average Real Growth Rates, 2004-2006





# Industry Detail: 2007 Q1

Percent Changes in Value Added by Industry Group, 2007 Q1 (seasonally adjusted at annual rates)

	<u>Nominal</u>	<u>Real</u>
Gross Domestic Product	4.9	0.7
Private industries	4.6	0.3
Agriculture, forestry, fishing, and hunting	30.1	-12.0
Mining	-24.5	-27.9
Utilities	0.3	-11.9
Construction	-13.2	-15.2
Manufacturing	10.1	7.3
Durable goods	6.8	5.7
Nondurable goods	14.5	9.2
Wholesale trade	11.6	5.6
Retail trade	1.5	-0.1
Transportation and warehousing	3.7	-1.4
Information	20.4	20.6
Finance, insurance, real estate, rental, and leasing	-4.4	-6.5
Professional and business services	14.1	6.6
Educational services, health care, and social assist.	4.5	-1.4
Arts, entertainment, recreation, accom., & food ser.	25.4	20.6
Other services, except government	5.6	2.1
Government	7.0	1.0
Addenda:		
Private goods-producing industries	1.8	-2.9
Private services-producing industries	5.4	1.2



### Release and Revision Scenario

- Based on final quarterly GDP data
- Released 15-30 days later, 3 to 4 months after the end of the quarter
- Annual revisions each Spring would insure for nominal value added that
  - Sum of quarters for an industry equals annual VA
  - Sum of industry VA for a quarter equals NIPA GDP



### **Tentative Time Frame**

- FY08: Complete testing and evaluation of methodology for quarterly estimates
- FY09: Complete systems development and testing of annual revision processes
- FY10: Release estimates for the first quarter of 2010 in July along with earlier quarters
- FY11: Release estimates for the rest of 2010 and revise estimates for earlier years



## Questions

- How would quarterly GDP by industry data be used for analysis and research?
- Are the 15 broad industry groups sufficient for such uses of quarterly estimates?
- Are you concerned about differences between real GDP and aggregate real VA?
- Should BEA also consider providing gross output by industry quarterly?

