

GDP vs. GDI

Source Data Issues

Brent R. Moulton

BEA Advisory Committee
Washington, DC
May 7, 2010



GDP and GDI source data

- Both income and expenditures have measurement strengths and weaknesses.
 - BEA devotes substantial resources to updating and maintaining both measures.
 - Nevertheless, we think there are good reasons for us to feature a single measure GDP measure and for preferring the expenditure-side measure.
- In general, we feature the expenditure estimates because of the timeliness of the quarterly source data and the consistency of that data with BEA concepts and definitions and with the annual and benchmark data.



GDP source data: Timeliness

Quarterly estimates:

- Monthly source data for PCE goods, domestic equipment, federal spending available in first month.
- Monthly source data for structures, inventories, exports and imports available in second month.
- Quarterly source data for software investment, much of PCE services available in third month.
- Extrapolation for some services, state & local spending.

• Annual estimates:

- Annual source data for services, structures, exports, imports, and federal spending available in first July.
- Annual source data for PCE goods, structures, equipment, inventories, and state and local governments available in second July.
- Five-year economic census for benchmark input-output estimates available with about a 5-year lag.



GDI source data: Timeliness

Quarterly estimates:

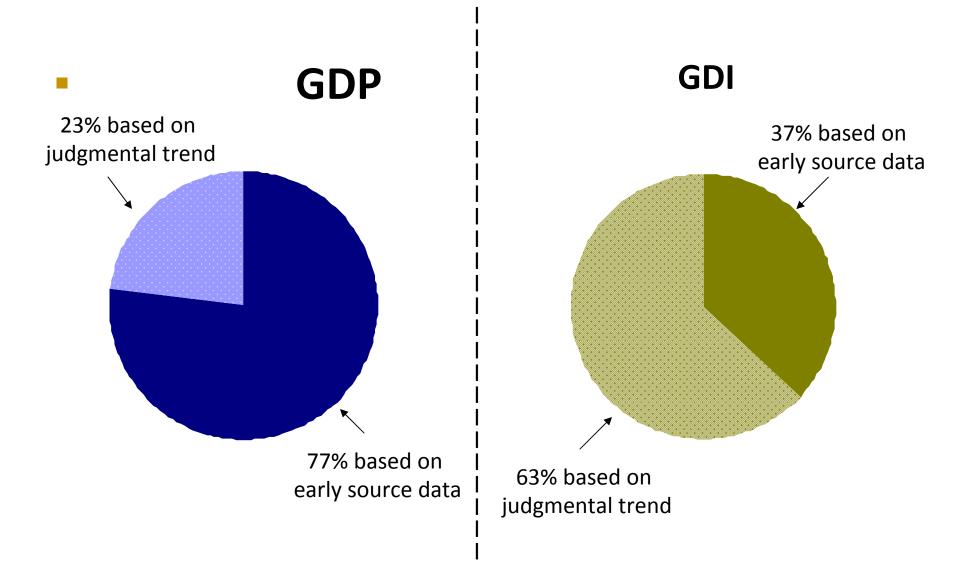
- Monthly CES data wages and salaries for production & nonsupervisory workers in first month. (Just expanded to cover all workers.) Comprehensive QCEW in fifth month.
- Quarterly data for corporate profits in second month (in third month for the fourth quarter).
- Extrapolation for supplements, net interest, proprietors' income, consumption of fixed capital.

• Annual estimates:

- Wages and salaries available in first July.
- IRS Statistics of Income tax data available in second July. (For corporate income, data are preliminary.)
- Conceptual and coverage gaps in source data filled by BEA adjustments.

GDP vs. GDI – Source data for the third estimate of the quarter







GDI source data

Table 1. GDI source data – estimates for 2007	Judgmental trend	Early source data	Description of early source data / estimation method
	(percent of GDI)		
Gross domestic income			
Compensation of employees			
Wages and salaries			
Nonsupervisory & production workers		17.1%	BLS Current Employment Statistics: payroll survey
Supervisory/nonproduction workers	20.6%	17.170	Judgmental extrapolation based on payroll survey
Government	20.076	7.7%	
	40.20/	1.1%	Payroll survey employment and ECI
Supplements	10.3%		Judgmental trend extrapolation
Taxes on production and imports, less subsidies	0.00/		I be a satellite order to satellite or
Property taxes	2.8%	4.40/	Judgmental trend extrapolation
Other	C 00/	4.1%	Federal Monthly Treasury data; Census data for sales taxes
Net interest and misc. payments	6.8%		FDIC data for commercial banks; judgmental trend extrapolation based on interest rates for most of the remainde
Business current transfer payments	0.7%		Judgmental trend extrapolation
Proprietors' income	7.8%		Judgmental trend extrapolation based on BLS payroll survey, Census data, and other indicators
Rental income of persons	1.0%		Mixture of actual source data and judgmental extrapolation
Corporate profits		8.5%	Census Quarterly Financial Report, FDIC, Compustat data
Current surplus of government enterprises	0.0%		Judgmental trend extrapolation
Consumption of fixed capital	12.5%		Judgmental extrapolation based on BEA capital stocks
Total	62.6%	37.4%	Tangarana Sanapalanan Sasaa ah Seri Sapilal Stoolio
Percent based on early source data that are			
conceptually consistent with annual/benchmark data		11.8%	

GDP and GDI source data: Consistency

- The source data for GDP are mainly survey data that Census Bureau collects using consistent definitions that reflect BEA's needs and that can be consistently benchmarked to the once-every-five years Economic Census.
- The source data for GDI are mainly administrative data that are collected for non-statistical purposes using multiple definitions across the sources and over time.
 - Adjustments are made for coverage and consistency with national accounts concepts.

Cyclical movement of statistical discrepancy

- Nalewaik shows that GDI is more cyclical than GDP.
- Is GDP signal attenuated by survey error or extrapolation?
- Or could GDI be "too" cyclical?
 - Employee stock options, though consistent between wages and profits in annual data are inconsistent in quarterly source data. Could cause spurious GDI movements with stock prices.
 - Other differences between tax and financial accounting—pensions, interest, partnerships, etc.



Next steps

- BEA will incorporate a better means of presenting data on GDI, without unduly confusing the general community of users.
- Incorporation of the new Census data on services and more experience with the new BLS payroll and QCEW data should produce significant improvements in GDP and GDI.
- Further research into balancing, now being conducted in the industry accounts.
- Analysis of IRS Schedule M-3 and research on capital gains in financial profits could help us understand the statistical discrepancy.