
New Strategies for Estimating Fiscal Multipliers

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Fiscal Multipliers Needed for “Great Recession” Policy Design

- Research that addressed measurement of multipliers was often dated
- Limited empirical evidence on relative efficacy of different stimulus programs: tax cuts vs. transfers vs. infrastructure spending vs. intergovernmental transfers

Research Response in Last Five Years: New Multiplier Estimates

- Clearer focus on identification strategies – “micro” identification on “macro” questions
- Re-examination of U.S. time series evidence
- Studies using cross-sectional differences in spending policies
- NBER Project (Alesina/Giavazzi) *Fiscal Policy After the Great Recession*

Time Series Estimates Based on U.S. Defense Spending

- Ramey QJE 2011
- Equates effect of defense spending in wartime with effect of fiscal stimulus in times of recession
- VAR including G , Y , C , I , tax rate, and employment
- Balanced budget multiplier: 0.6 to 1.2
- Open questions around identification

“Narrative Approach” to Studying Effects of Tax Changes

- Romer & Romer AER 2010
- Identify exogenous changes in federal tax rates by examining the narrative record
- Sample period 1947 – 2005

$$\Delta \ln Y_t = a + \sum_{i=0}^{12} b_i \Delta T_{t-i} + e_t$$

- Estimate of *tax multiplier*: -3.0 over 2.5 years

Cross Sectional Estimates Using Data on Military Spending

- Nakamura Steinsson 2011 NBER WP 17391
- Identification from state-specific differences in changes in military spending
- Data on military prime contracts over a panel of states, 1966 – 2006

$$\frac{Y_{it} - Y_{it-2}}{Y_{it-2}} = \alpha_i + \gamma_t + \beta \frac{G_{it} - G_{it-2}}{G_{it-2}} + \varepsilon_{it}$$

- Estimate of spending multiplier: 1.5

Cross Sectional Estimates Using Differences in Pension Funding

- Shoag 2010
- “Exogenous” differences in required state payments to fund defined benefit pension plans
- State government spending, 1988 - 2004
- Estimate of state spending multiplier: 2.1
- \$35,000 in spending generates one additional job

Cross Sectional Estimates Using 2009 Medicaid Spending

- Chodorow-Reich et al. AEJ: Econ Pol 2010
- Identification using differences in federal increments to state Medicaid spending
- Focus on Great Recession: December 2008 – June 2010
- \$29,000 in spending results in one additional job year
- Challenge: Are differences and levels linked?

Conceptual Advance: There are Multiple Multipliers

- Cross-sectional studies estimate the *open economy relative multiplier*
- Applying multiplier estimates to the aggregate economy and national fiscal policy depends critically on model and monetary policy
- With rigid prices and fixed monetary policy (e.g. ZLB) aggregate national multiplier may be similar to cross sectional estimates

Open Questions

- There is no single parameter “the multiplier”
- Reasonable estimates vary
- Multiplier is likely to depend on various factors: type of spending, monetary policy, recent macro history
- Existing literature is not yet well equipped to answer welfare questions about government spending