Mountford and Uhlig (2009)

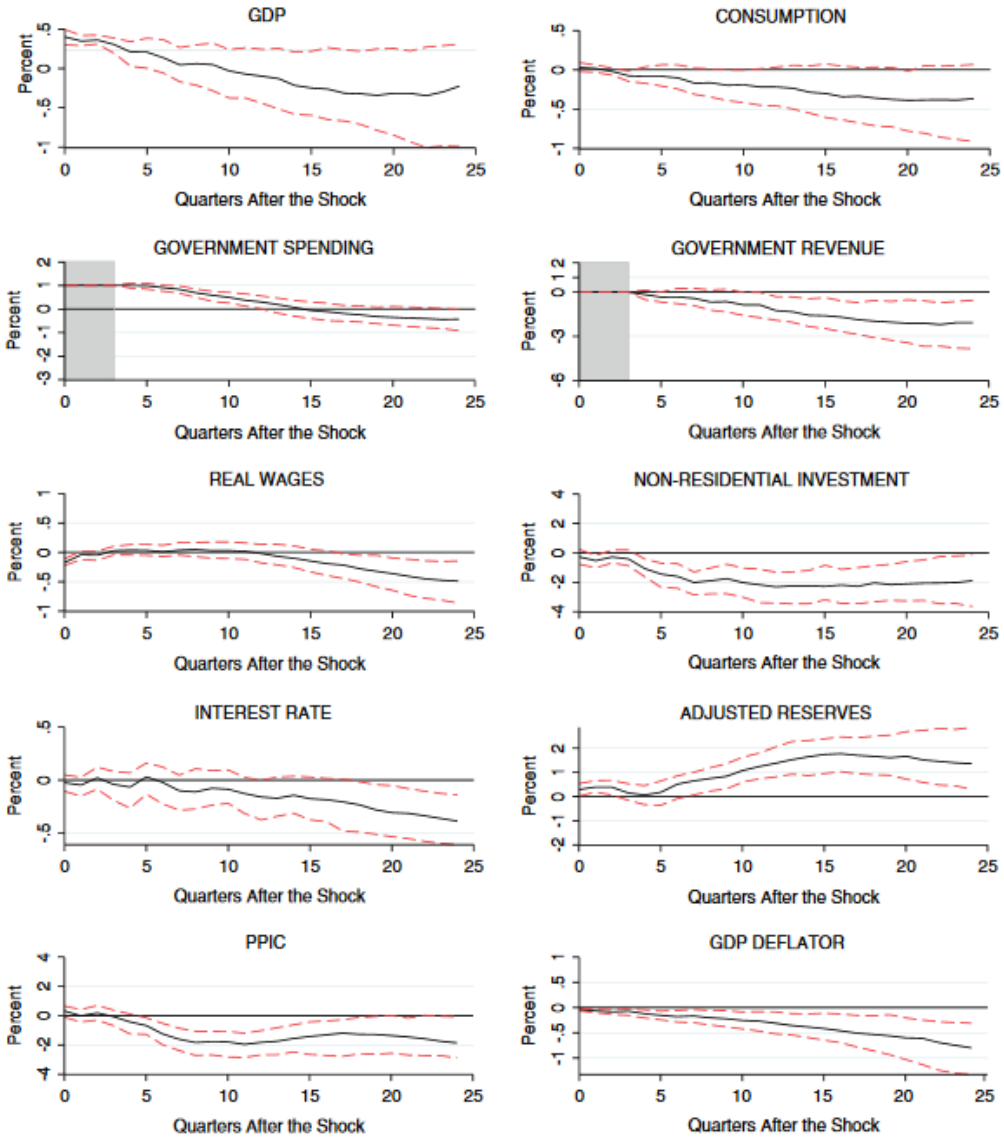


Figure 10. The deficit spending policy scenario where government spending is raised by 1% for four quarters with government revenues remaining unchanged. These impulses are linear combinations of a sequence of the basic shocks displayed in Figures 4 and 7. This figure is available in color online at

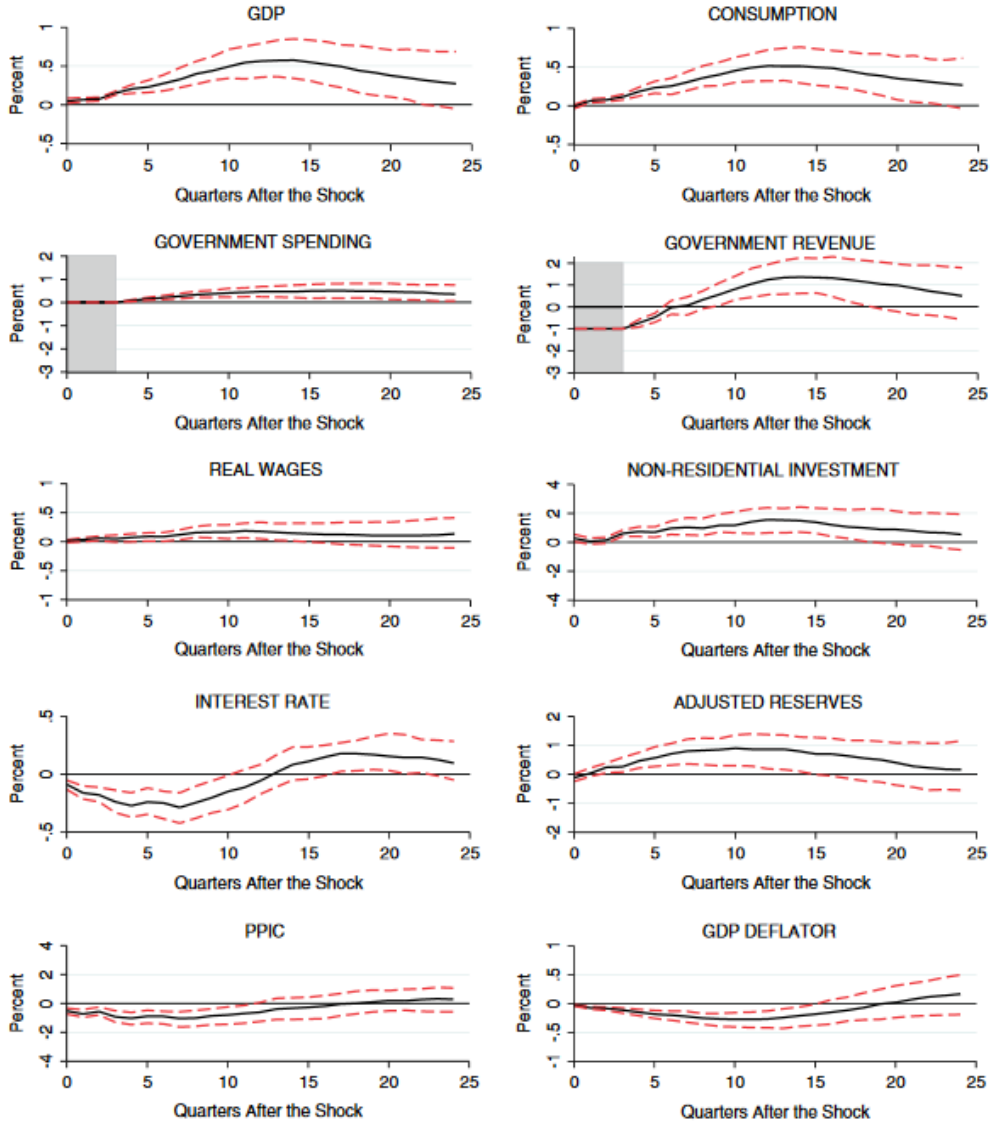


Figure 11. The deficit-financed tax cut policy scenario where government spending remains unchanged and government revenue is reduced by 1% for four quarters. These impulses are linear combinations of a sequence of the basic shocks displayed in Figures 4 and 7. This figure is available in color online at www.interscience.wiley.com/journal/jae

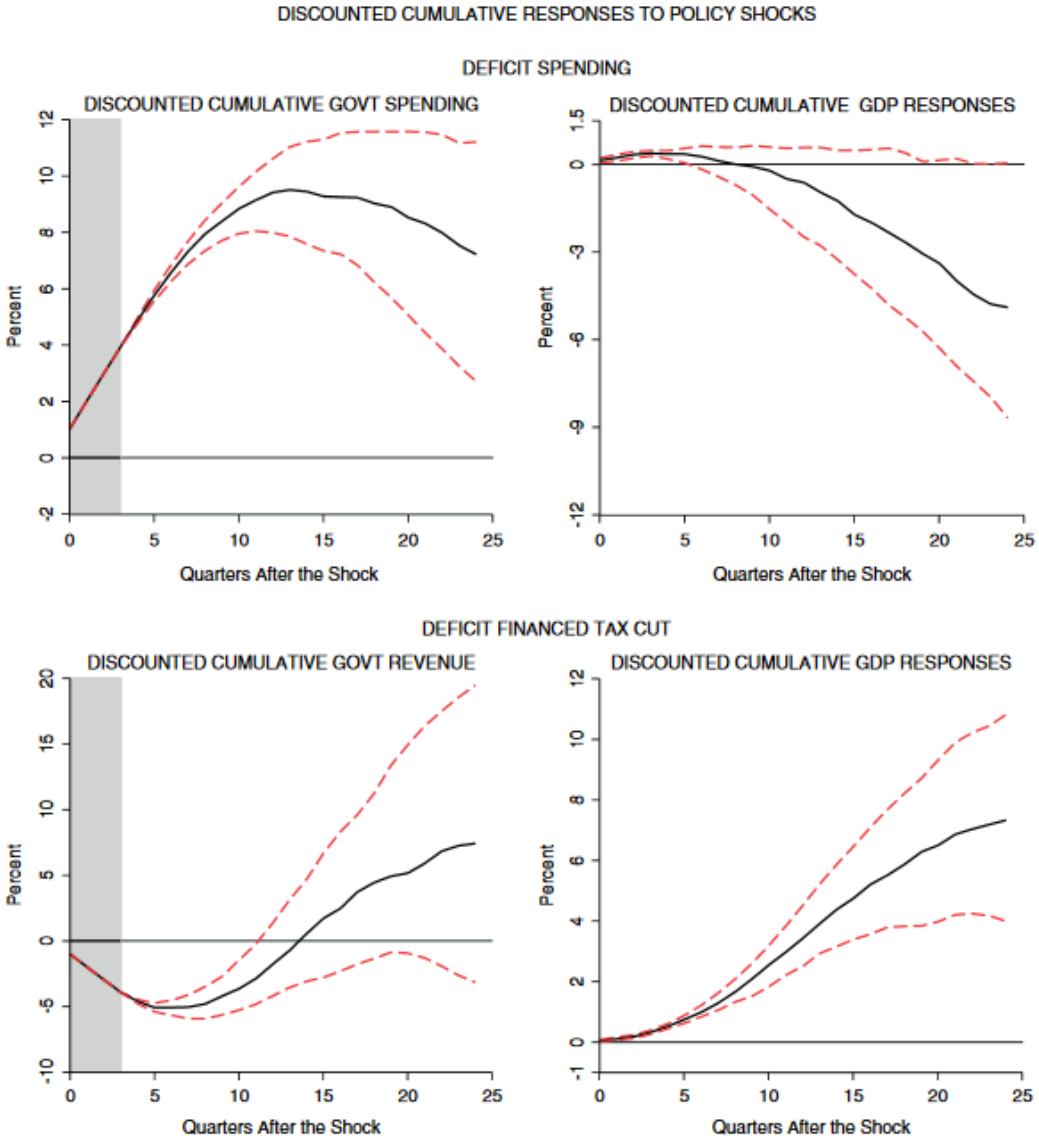


Figure 13. The present value of the impulses for GDP and the changing fiscal variable for the deficit-spending policy scenario and the deficit-financed tax cut policy scenario displayed in Figures 10 and 11. This figure is available in color online at www.interscience.wiley.com/journal/jae

Table IV. Impact multipliers of a deficit-spending policy scenario

	1 qrt	4 qrts	8 qrts	12 qrts	20 qrts	Maximum
Mountford and Uhlig						
GDP	0.65	0.27	−0.74	−1.19	−2.24	0.65 (qrt 1)
Gov. spending	1.00	1.00	0.90	0.37	−0.32	
Tax revenues	0.00	0.00	−0.33	−0.87	−2.04	
Blanchard and Perotti (2002)						
GDP	0.90	0.55	0.65	0.66	0.66	0.90 (qrt 1)
Gov. spending	1.00	1.30	1.56	1.61	1.62	
Tax revenues	0.10	0.18	0.33	0.36	0.37	

This table shows the impact multipliers for a deficit-spending fiscal scenario for various quarters after the initial shock and compares them to similar measures from Blanchard and Perotti (2002 Table IV). The multiplier represents the effect in dollars of a one-dollar increase in spending at the first quarter. For the Mountford and Uhlig results this is calculated with the formula: Multiplier for GDP $= \frac{\text{GDP response}}{\text{Initial fiscal shock}}$/(Average fiscal variable share of GDP), where the median responses are used in all cases. On the calculation of the Blanchard and Perotti (2002) multipliers see Blanchard and Perotti (2002 section V).

Table III. Impact multipliers of deficit-financed tax cut policy scenarios

	1 qrt	4 qrts	8 qrts	12 qrts	20 qrts	Maximum
Mountford and Uhlig						
GDP	0.28	0.93	2.05	3.41	2.59	3.57 (qrt 13)
Tax revenues	−1.00	−1.00	0.06	1.05	1.03	
Gov. spending	0.00	0.00	0.27	0.43	0.48	
Blanchard and Perotti (2002)						
GDP	0.70	1.07	1.32	1.30	1.29	1.33 (qrt 7)
Tax revenues	−0.74	−0.31	−0.17	−0.16	−0.16	
Gov. spending	0.06	0.10	0.17	0.20	0.20	

This table shows the impact multipliers for a deficit-financed tax cut fiscal scenario for various quarters after the initial shock and compares them to similar measures from Blanchard and Perotti (2002 Table III). The multiplier represents the effect in dollars of a one-dollar cut in taxes at the first quarter. For the Mountford and Uhlig results this is calculated with the formula: Multiplier for GDP $= \frac{\text{GDP response}}{\text{Initial fiscal shock}}$/(Average fiscal variable share of GDP), where the median responses are used in all cases. On the calculation of the Blanchard and Perotti (2002) multipliers see Blanchard and Perotti (2002 section V).

Romer & Romer (2016)

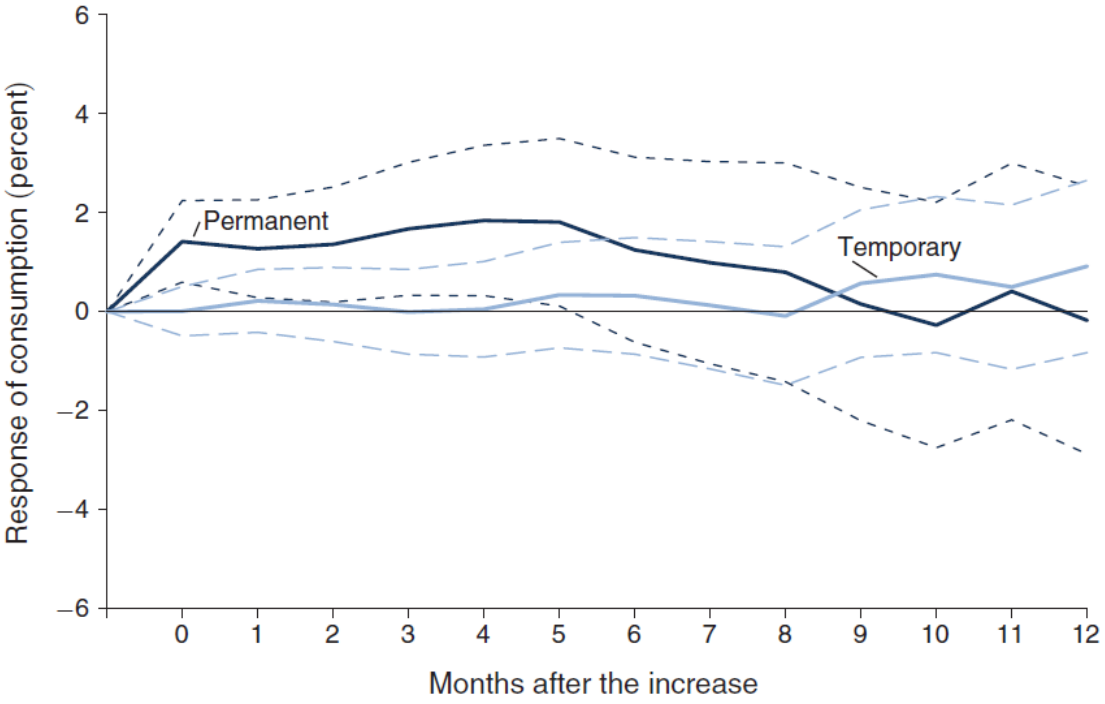


FIGURE 6. CONSUMPTION RESULTS FROM A FOUR-VARIABLE VAR
(*cumulative impact of a benefit increase of 1 percent of personal income on consumption*)

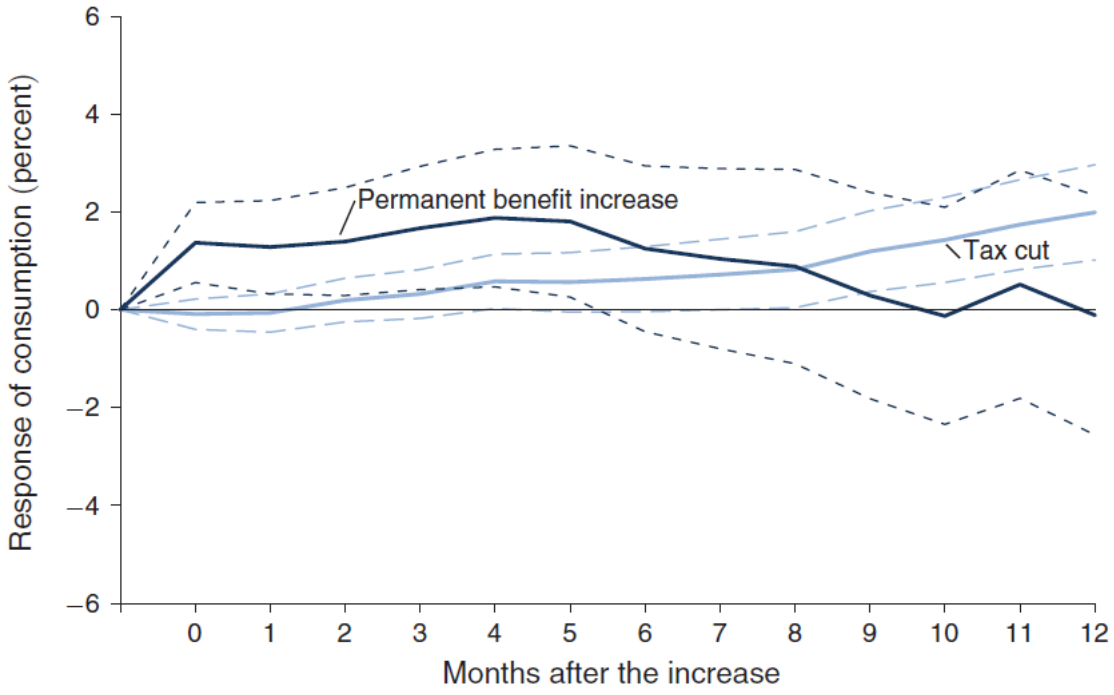


FIGURE 8. CONSUMPTION RESULTS FOR BENEFIT INCREASES AND TAX CUTS FROM A FIVE-VARIABLE VAR (*cumulative impact of a benefit increase and a tax cut of 1 percent of personal income on consumption*)

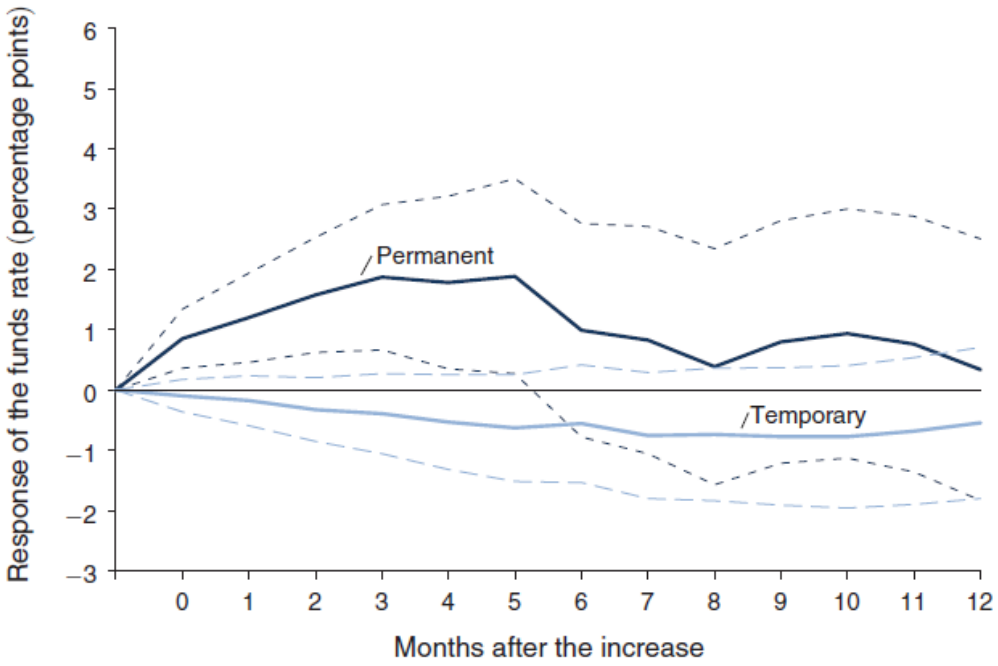


FIGURE 11. FEDERAL FUNDS RATE RESULTS FROM A FIVE-VARIABLE VAR
(*cumulative impact of a benefit increase of 1 percent of personal income on the funds rate*)

Notes: The figure shows the results from estimating a vector autoregression including five variables (permanent benefit increases, temporary benefit increases, the logarithm of prices, the logarithm of personal consumption expenditures, and the federal funds rate) over the sample period 1952:1–1979:9. The dashed lines show the two-standard error confidence bands.

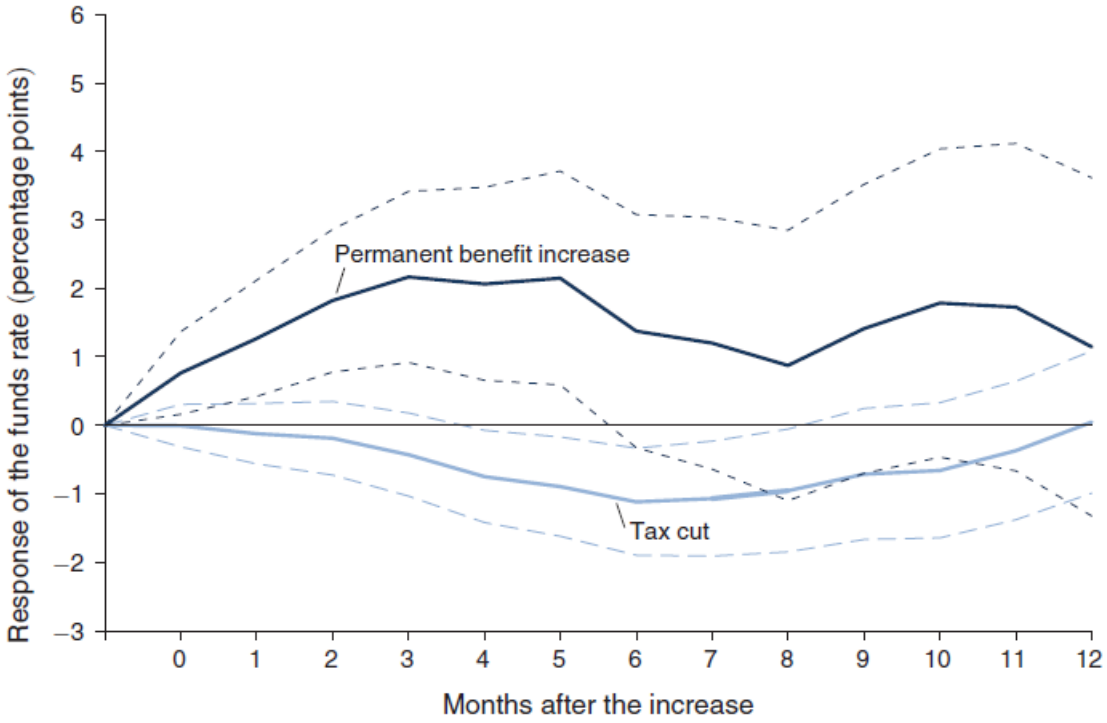


FIGURE 12. FEDERAL FUNDS RATES RESULTS FOR BENEFIT INCREASES AND TAX CUTS
(*cumulative impact of a benefit increase and a tax cut of 1 percent of personal income on the funds rate*)

Notes: The figure shows the results from estimating equation (3) including the contemporaneous value and 12 lags of both permanent and temporary benefit increases, and including the contemporaneous value and 24 lags of the tax variable as additional controls. The sample period is 1952:1–1979:9. The dashed lines show the two-standard error confidence bands.

Slemrod & Shapiro (2009)

Table 1. Responses to 2008 Rebate Survey

	Number of Responses	Percent
Mostly Spend	447	19.9%
Mostly Save	715	31.8%
Mostly Pay Off Debt	1,083	48.2%
Will Not Get Rebate	212	
Don't Know, Refused	61	
Total	2,518	100%

Source: Survey of Consumers, February 2008 through June 2008.

Table 2. Spending the 2008 Rebate, By Age

Age Group	Percent Mostly Spending
29 or less	11.7%
30-39	14.2%
40-49	16.9%
50-64	19.9%
Age 64 or less	17.0%
Age 65 or over	28.4%

Table 3. Spending the 2008 Rebate, By Income

Income Group	Percent Mostly Spending
$20,000 and under	17.8%
$20,001-$35,000	21.0%
$35,001-$50,000	16.6%
$50,001-$75,000	18.7%
$75,001 and over	21.4%
Refused to state income	23.9%
Total	19.9%

Ilzetski et al (2010)

Figure 6: Cumulative multiplier—high income and developing countries

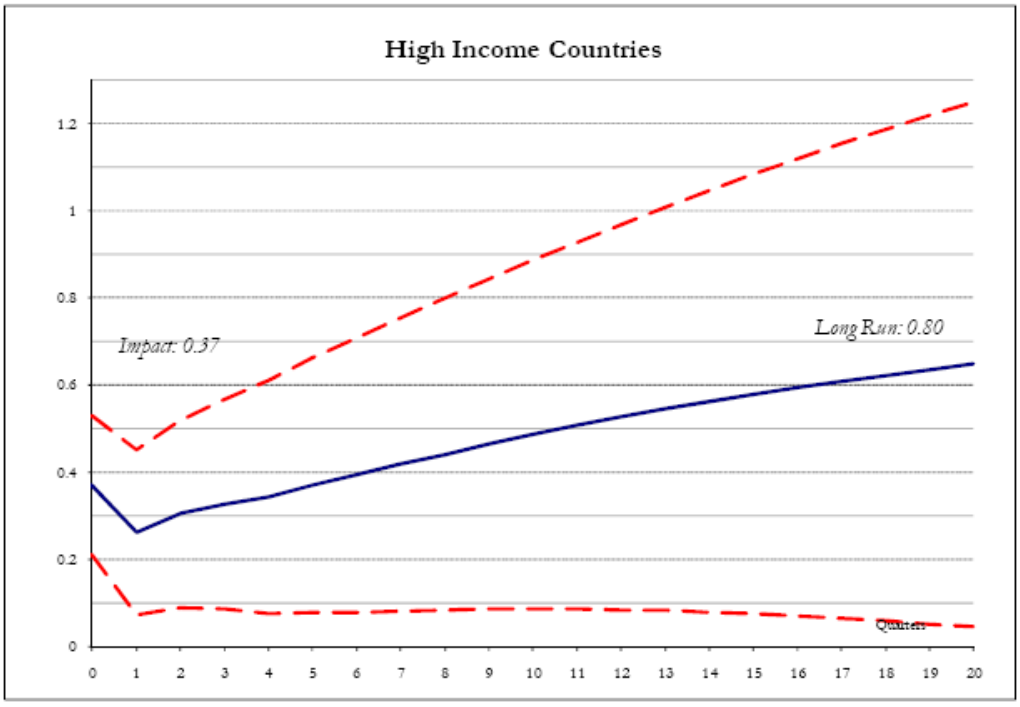


Figure 7: Cumulative multiplier—predetermined (fixed) and flexible (flex) exchange arrangements

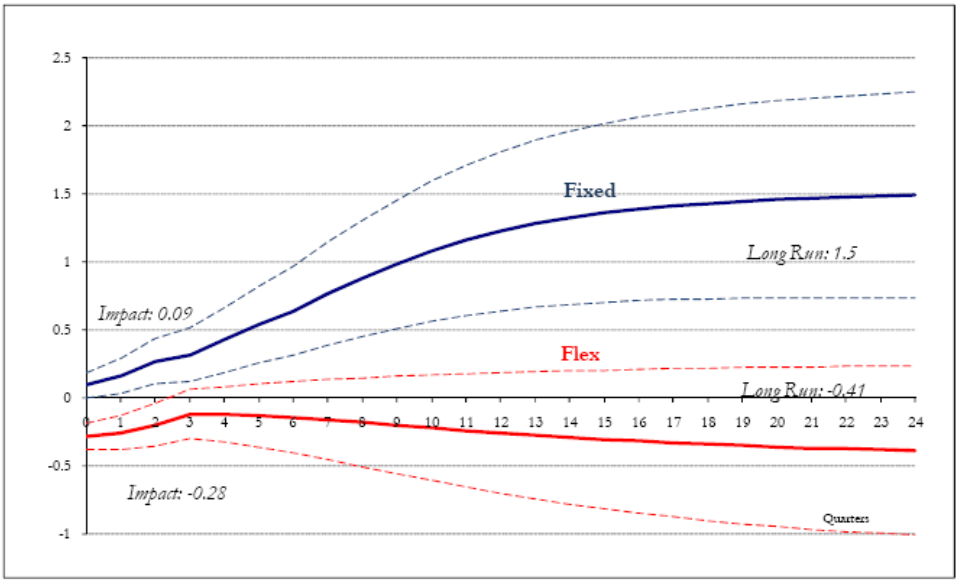
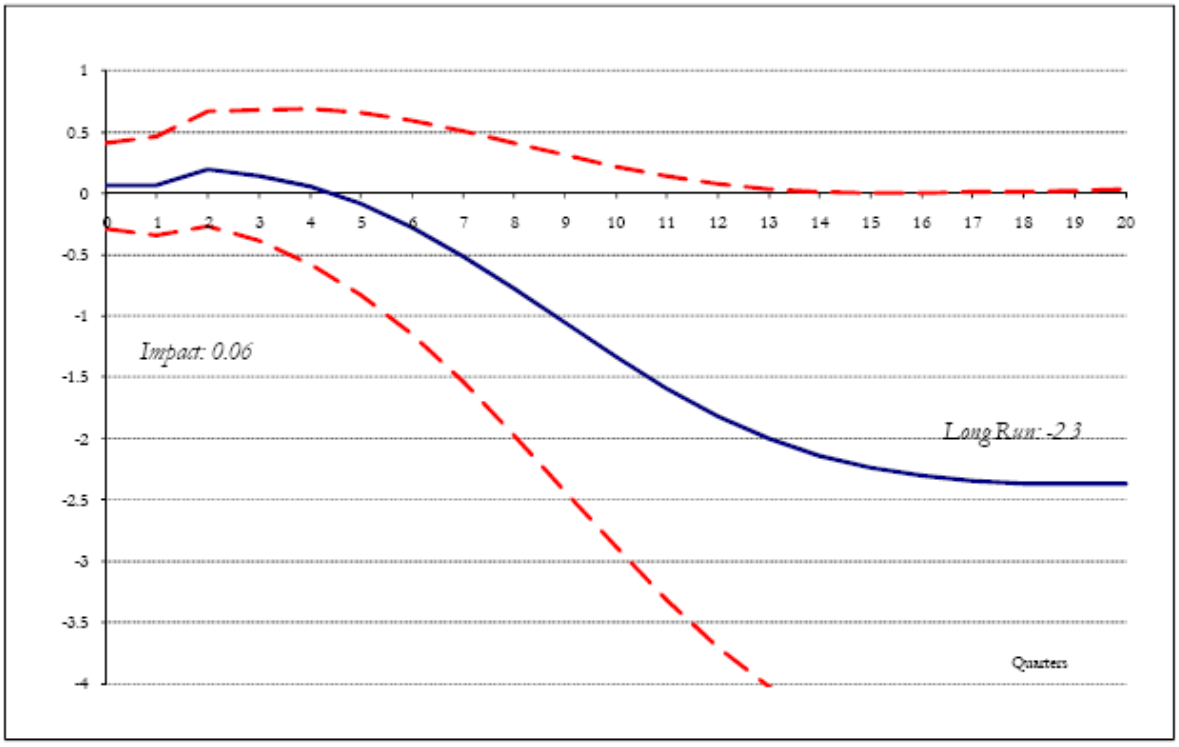
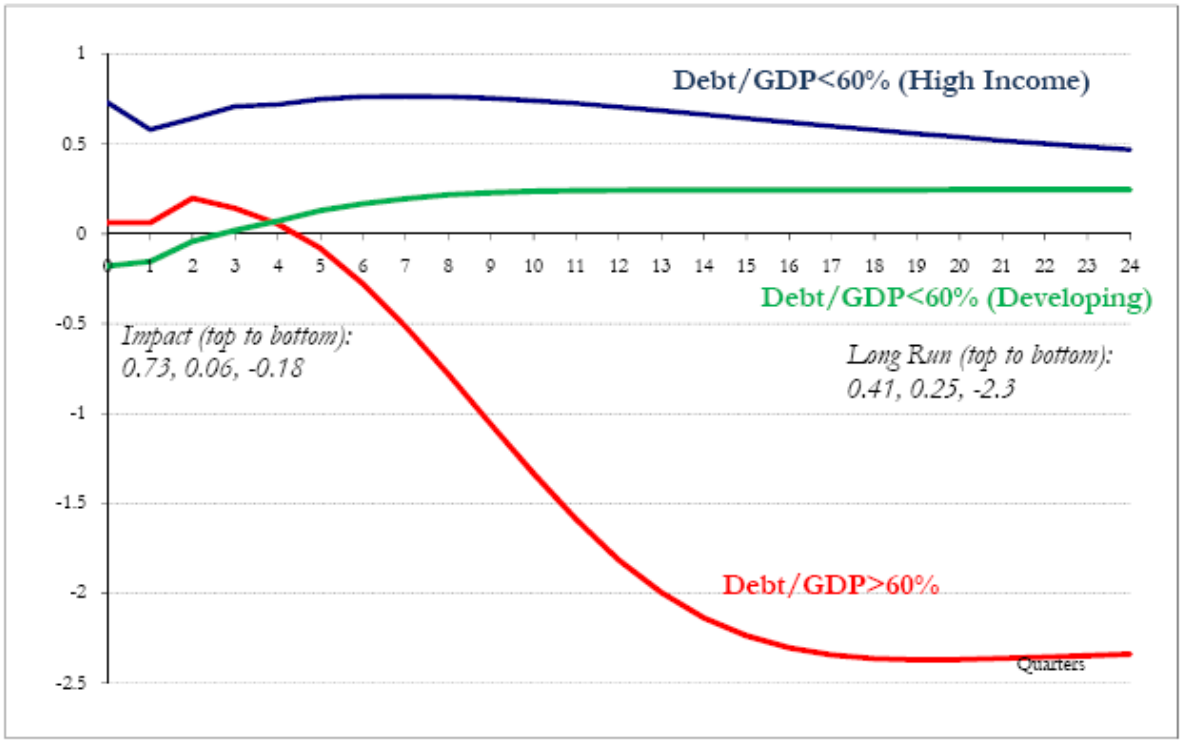


Figure 11: Cumulative multiplier: Highly indebted countries

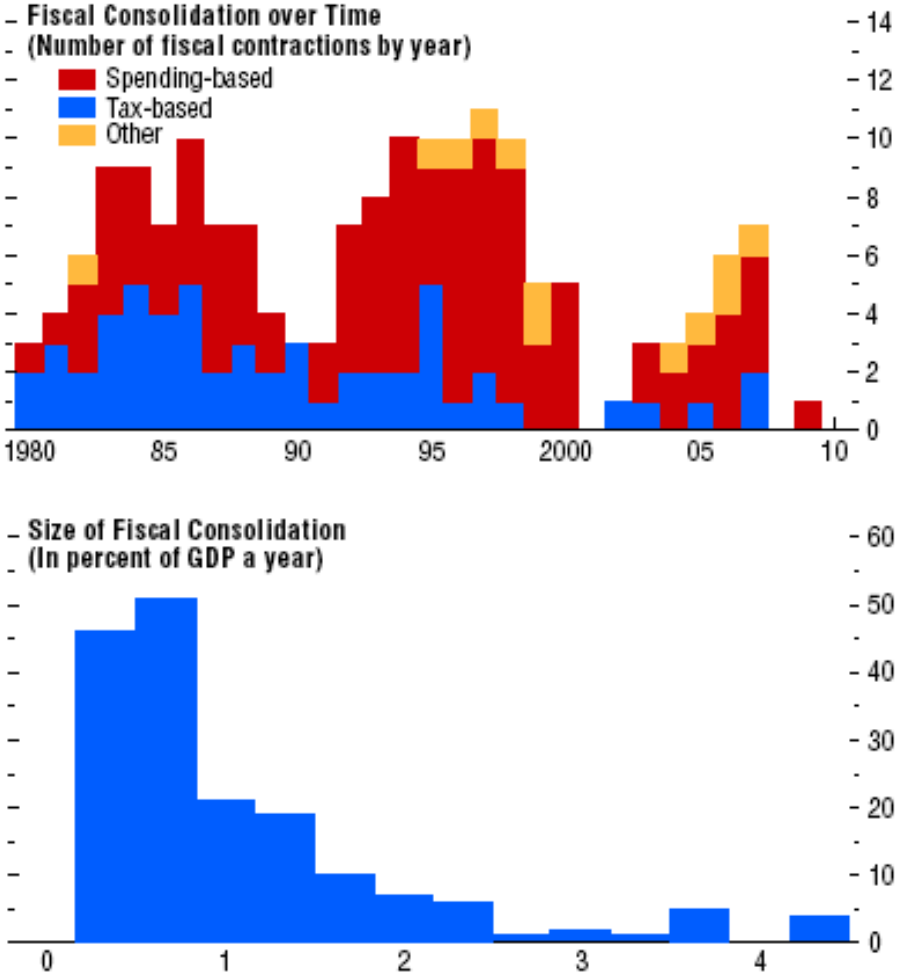




IMF (2010)

Figure 3.1. Action-Based Fiscal Consolidation

There were about 170 cases of action-based fiscal consolidation over the past 30 years in advanced economies. Consolidation has often relied primarily on spending cuts. On average, action-based fiscal consolidation amounted to 1 percent of GDP a year, but the range was wide.

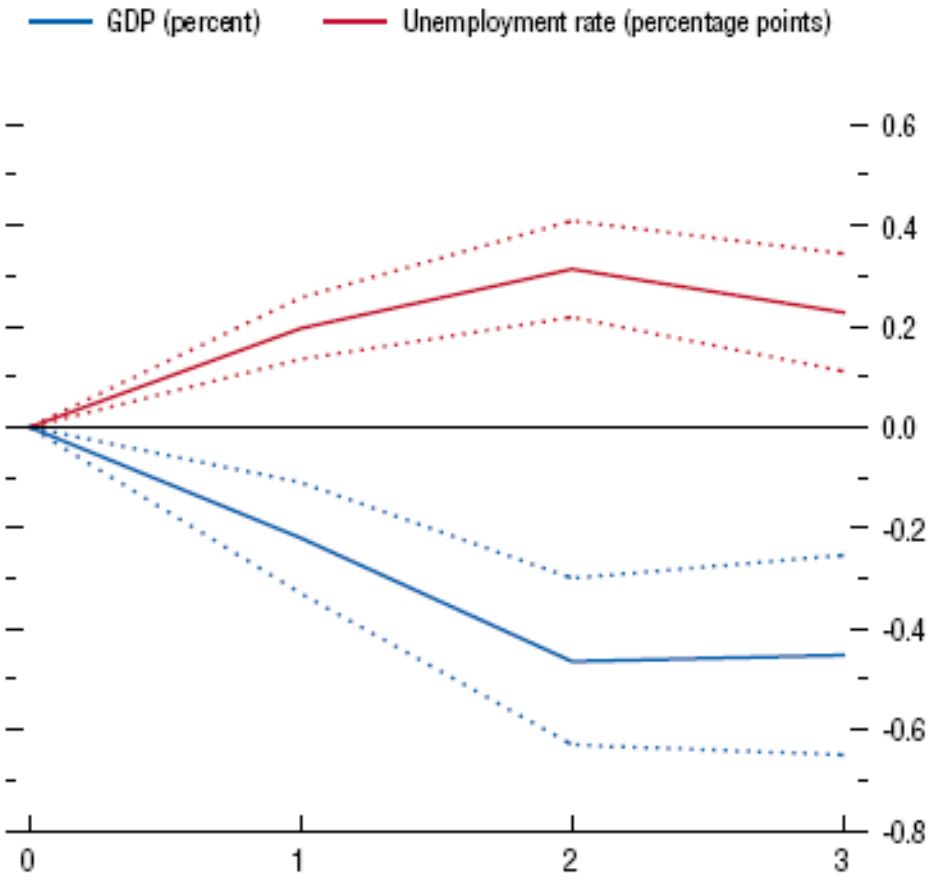


Source: IMF staff calculations.

Note: The 15 advanced economies in the sample are Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Portugal, Spain, Sweden, United Kingdom, and United States. "Spending-based" consolidation relied primarily on spending cuts. "Tax-based" consolidation relied primarily on tax hikes. The "other" category denotes contractions for which composition details were either not available or for which no category accounted for the majority of the adjustment.

Figure 3.2. Impact of a 1 Percent of GDP Fiscal Consolidation on GDP and Unemployment

Fiscal consolidation is normally contractionary. A fiscal consolidation equal to 1 percent of GDP typically reduces real GDP by about 0.5 percent and raises the unemployment rate by about 0.3 percentage point.

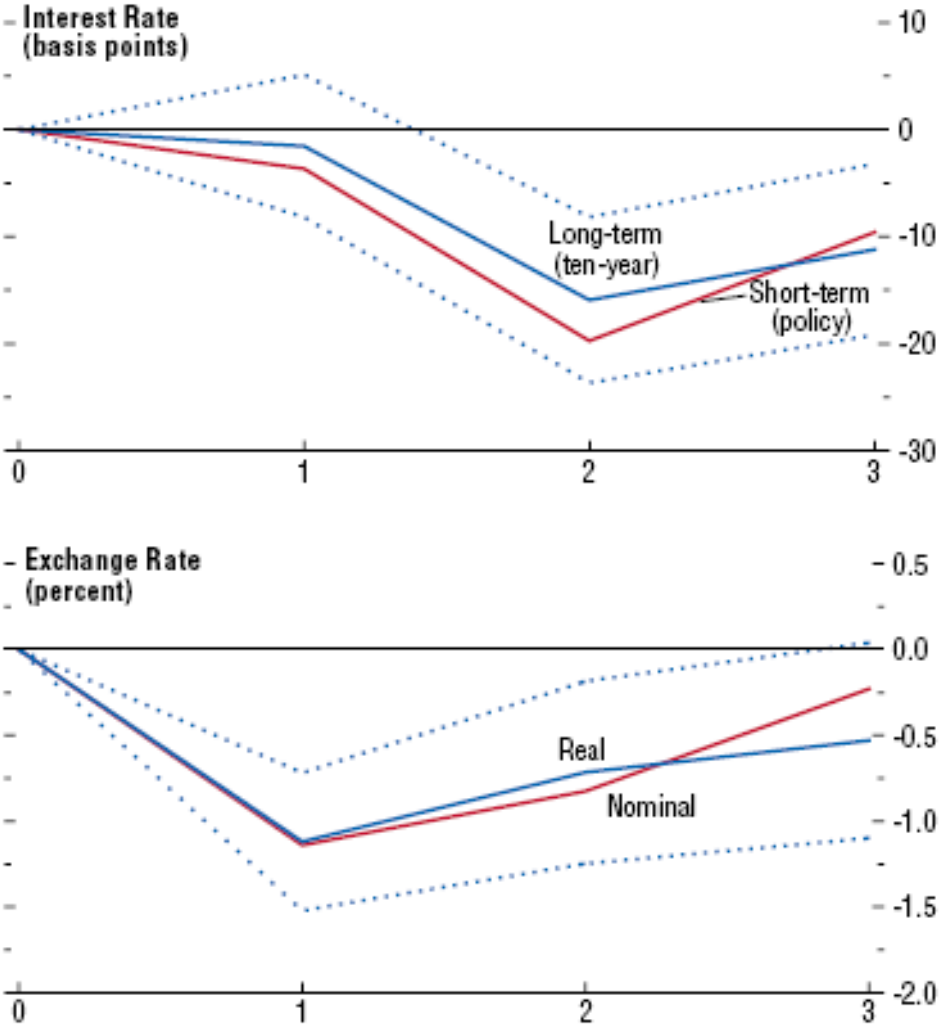


Source: IMF staff calculations.

Note: $t = 1$ denotes the year of consolidation. Dotted lines equal one standard error bands.

Figure 3.3. Response of Monetary Conditions to a 1 Percent of GDP Fiscal Consolidation

Interest rate cuts and a decline in the value of the domestic currency usually play a key supportive role during episodes of fiscal consolidation.

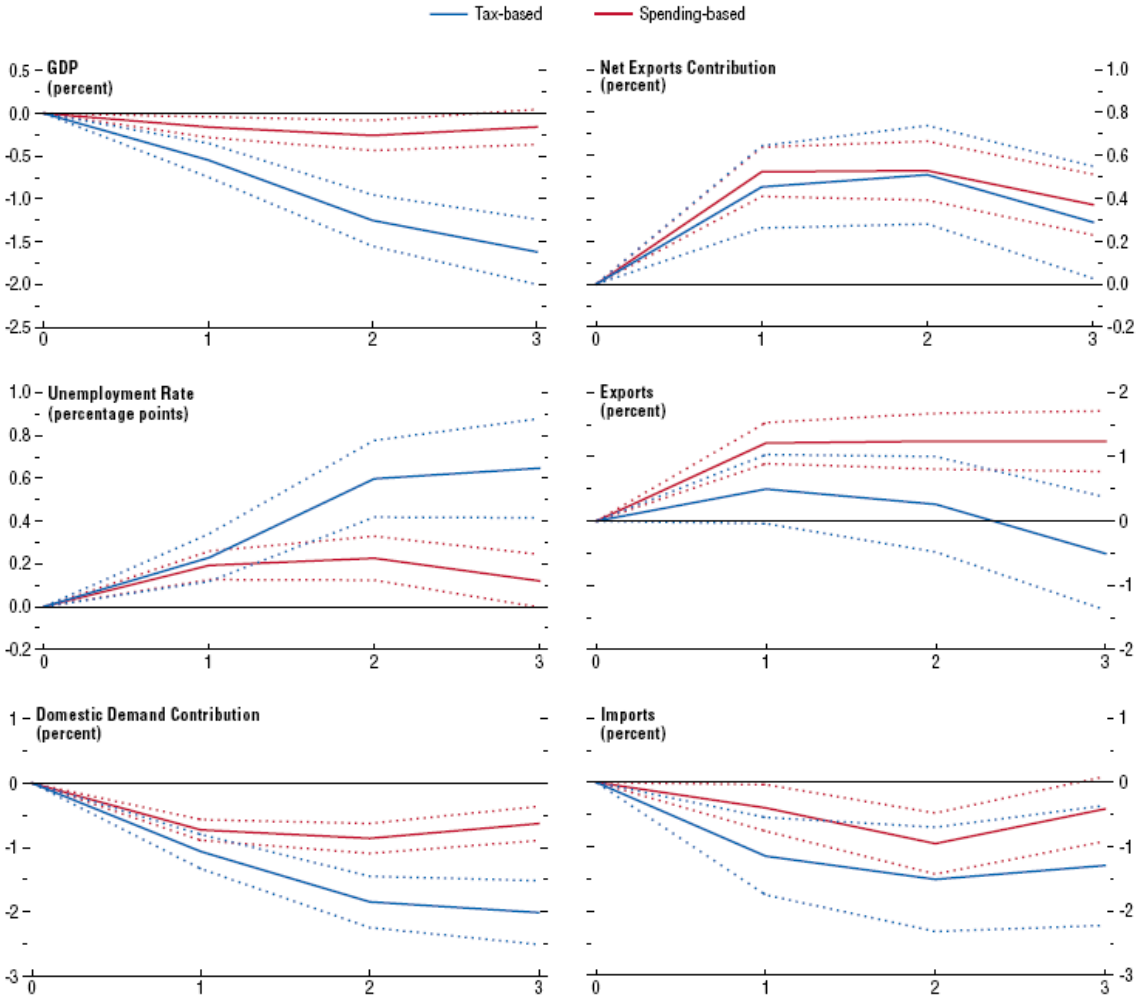


Source: IMF staff calculations.

Note: $t = 1$ denotes the year of consolidation. Dotted lines equal one standard error bands.

Figure 3.5. Impact of a 1 Percent of GDP Fiscal Consolidation: Taxes versus Spending

Spending-based consolidation is less contractionary than tax-based consolidation. GDP falls by less and unemployment increases less. Domestic demand contracts significantly as a result of both spending-based and tax-based consolidation, but the contraction is sharper after tax-based adjustments. A boom in net exports mitigates the contraction in both cases. A surge in exports drives the net export boom associated with spending-based consolidation. After tax-based consolidation, net exports rise mainly because imports fall.



Source: IMF staff calculations.
Note: $t = 1$ denotes the year of consolidation. Dotted lines equal one standard error bands.

Christiano, Eichenbaum, & Rebelo (2011)

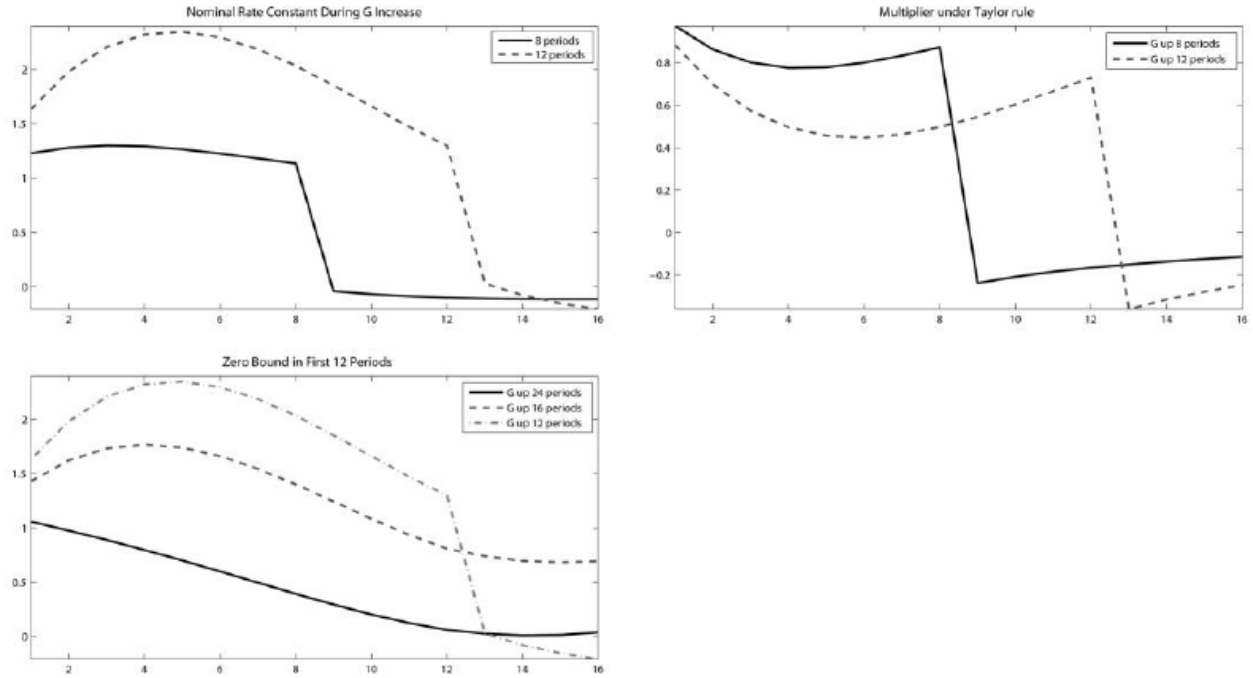
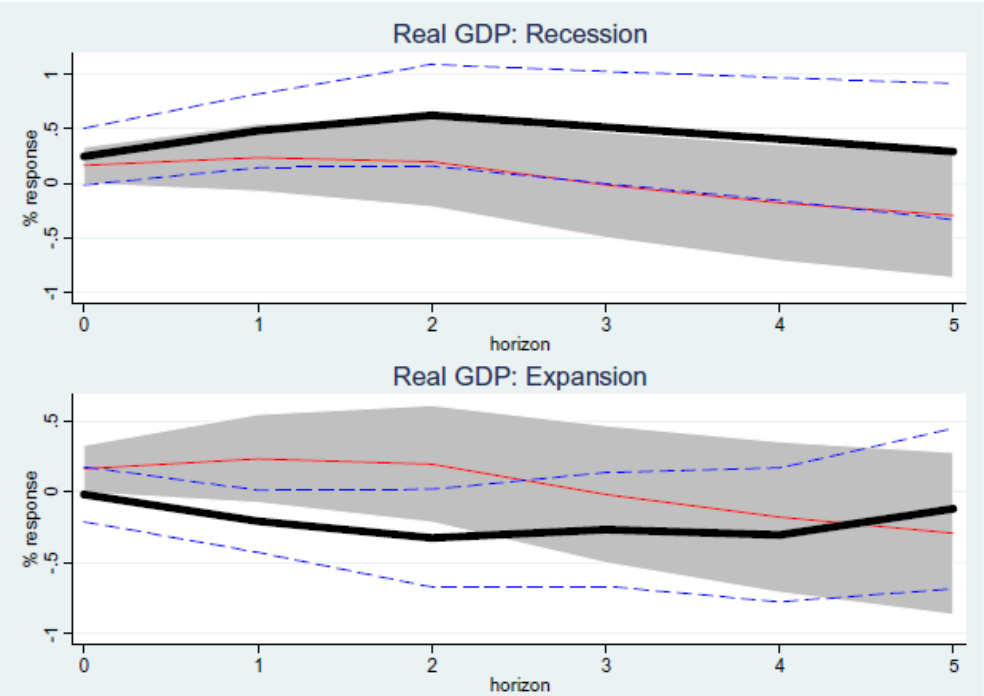


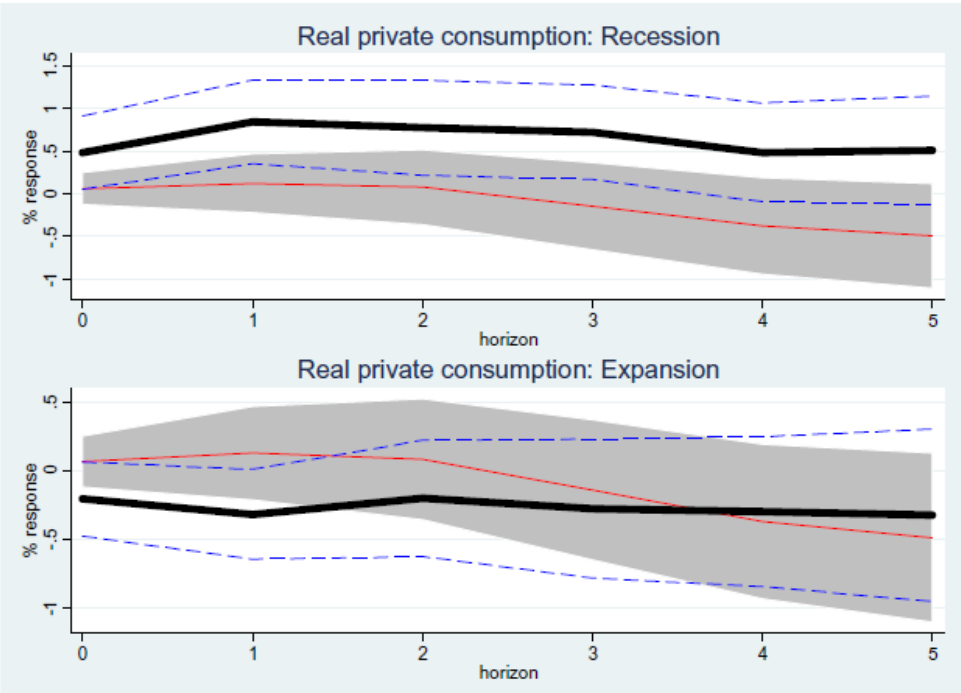
FIG. 5.—Government-spending multiplier in the Altig et al. model

Figure 4. State-dependent vs. Linear responses

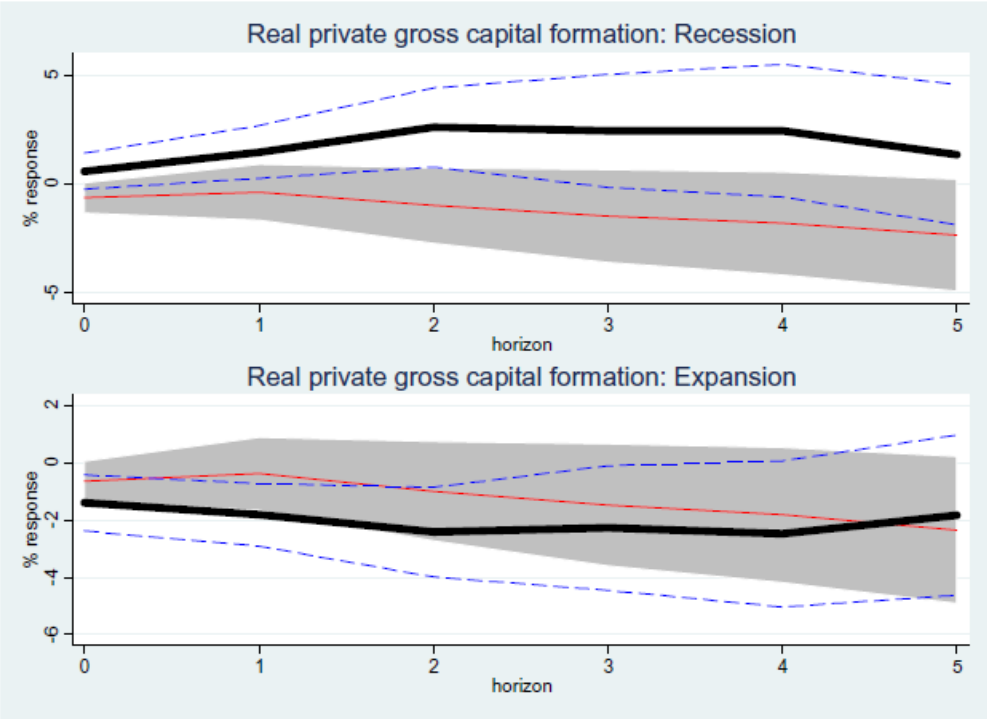
Panel A. Real GDP



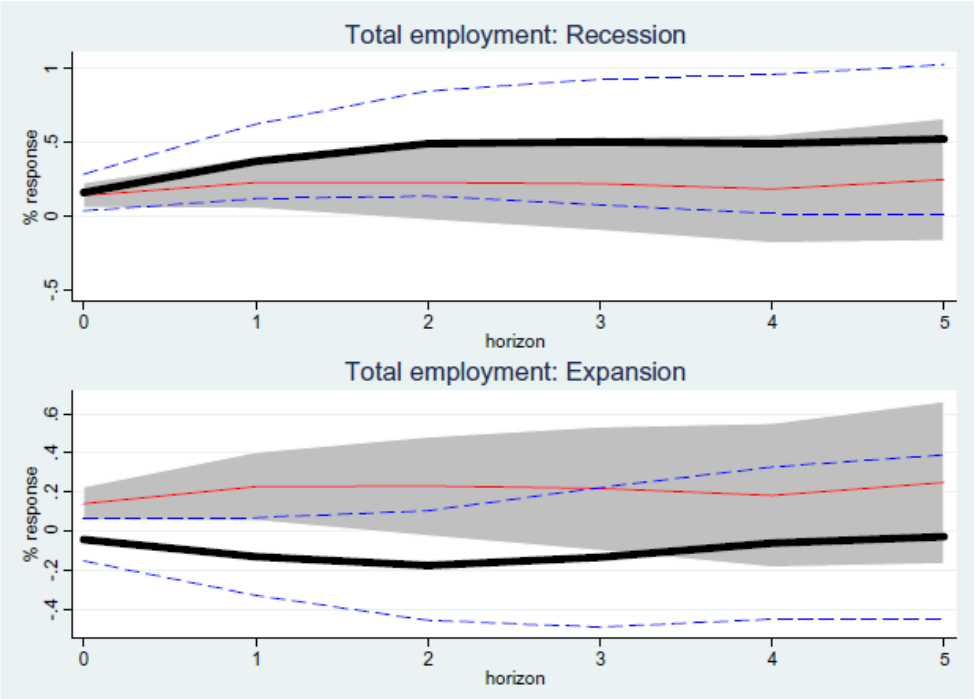
Panel B. Private consumption



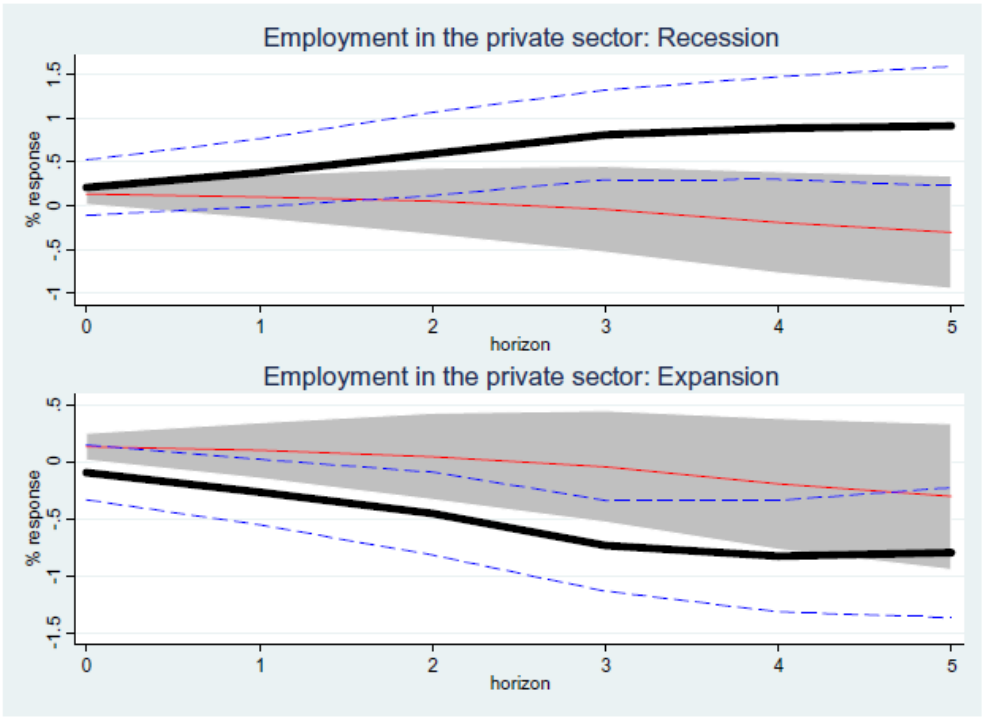
Panel C. Private investment



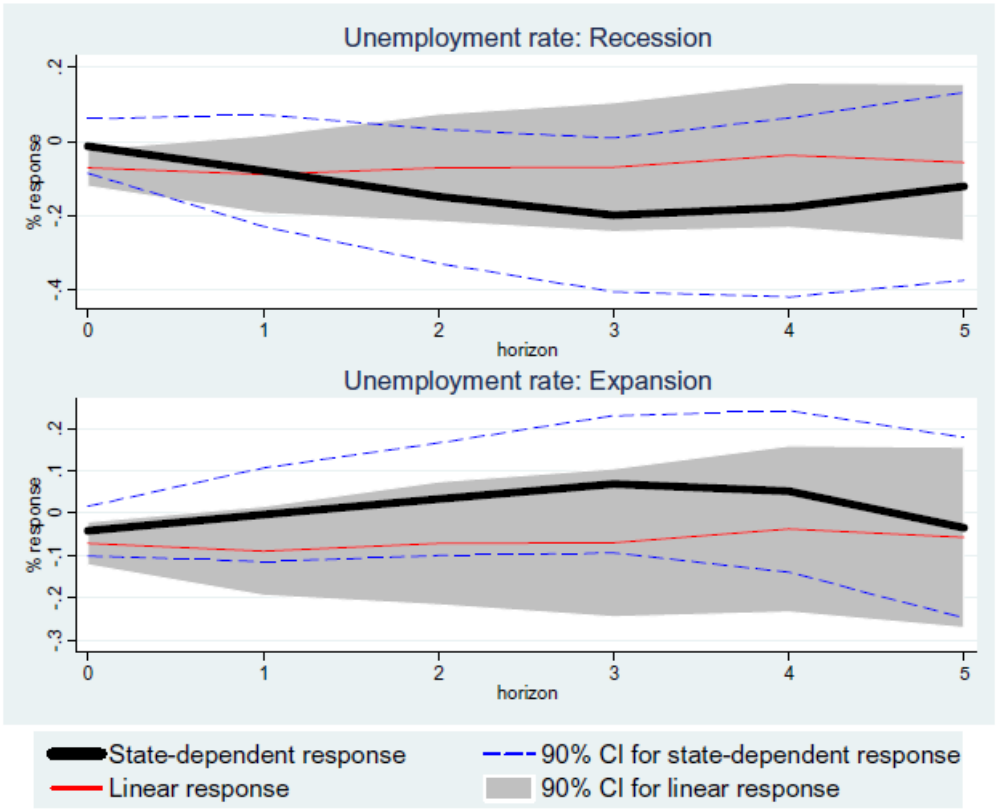
Panel D. Total employment



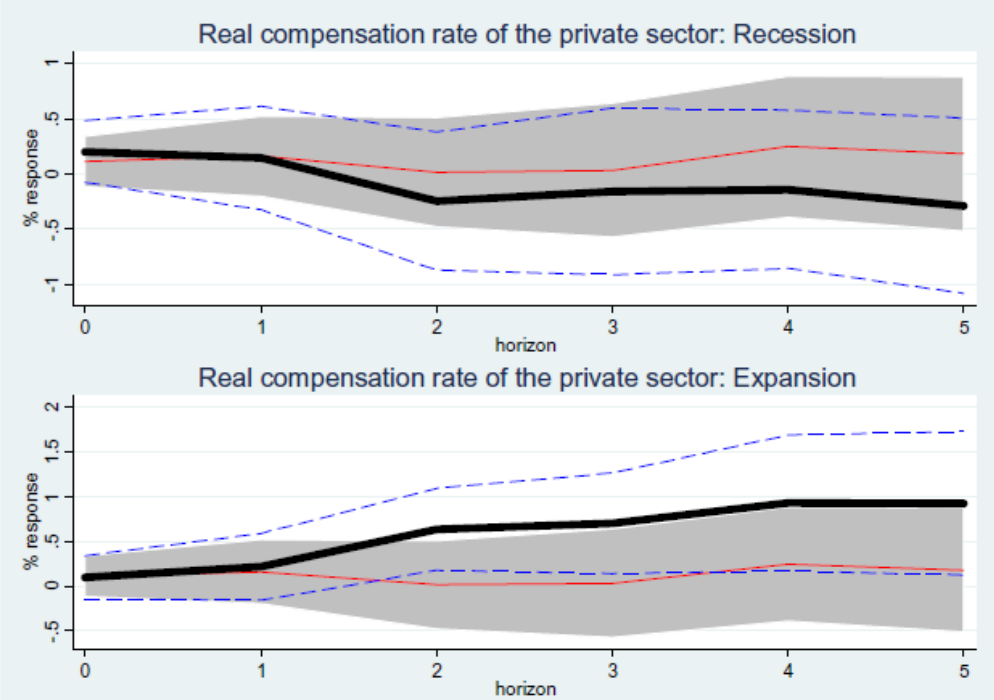
Panel E. Private sector employment



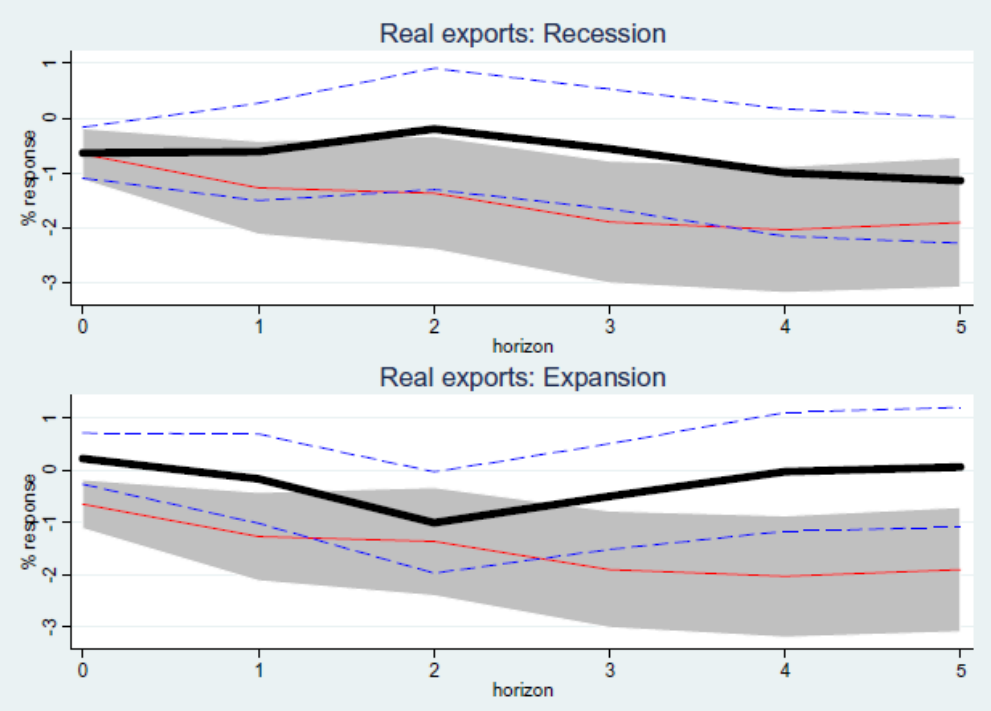
Panel F. Unemployment rate



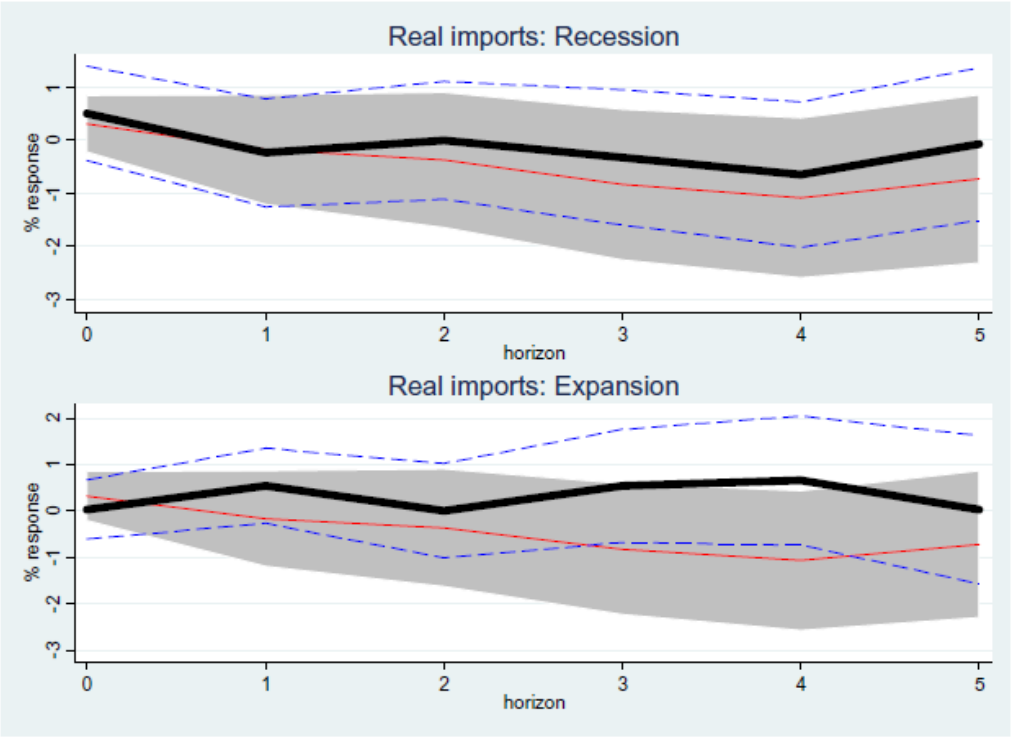
Panel G. Real compensation rate of the private sector



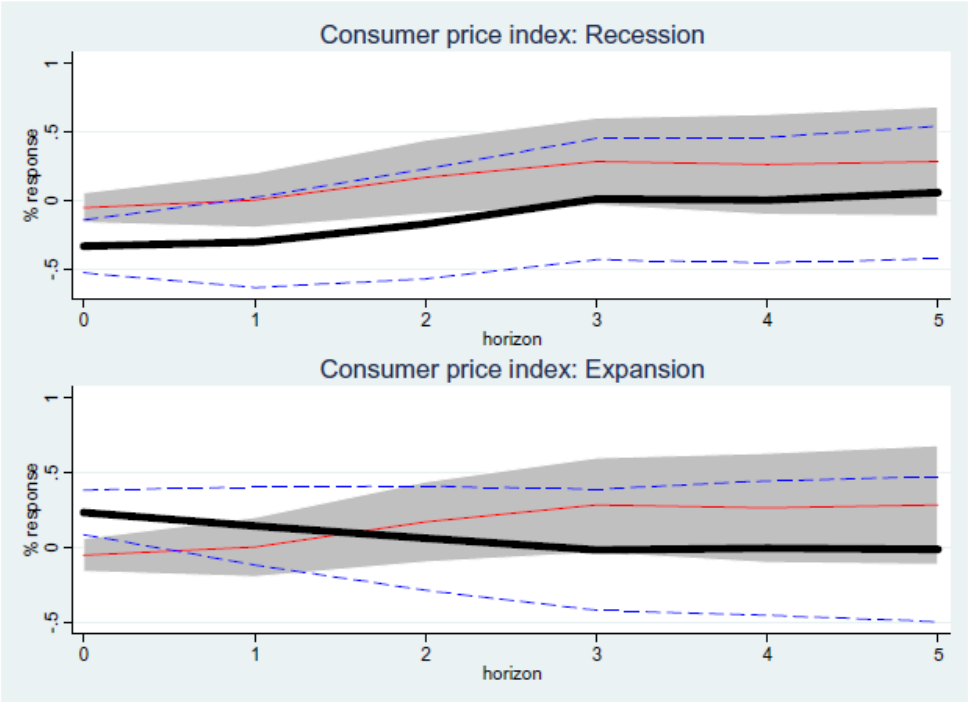
Panel H. Real exports

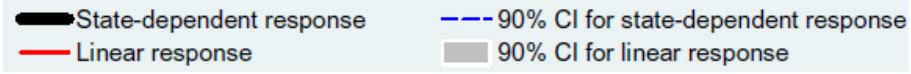


Panel I. Real imports

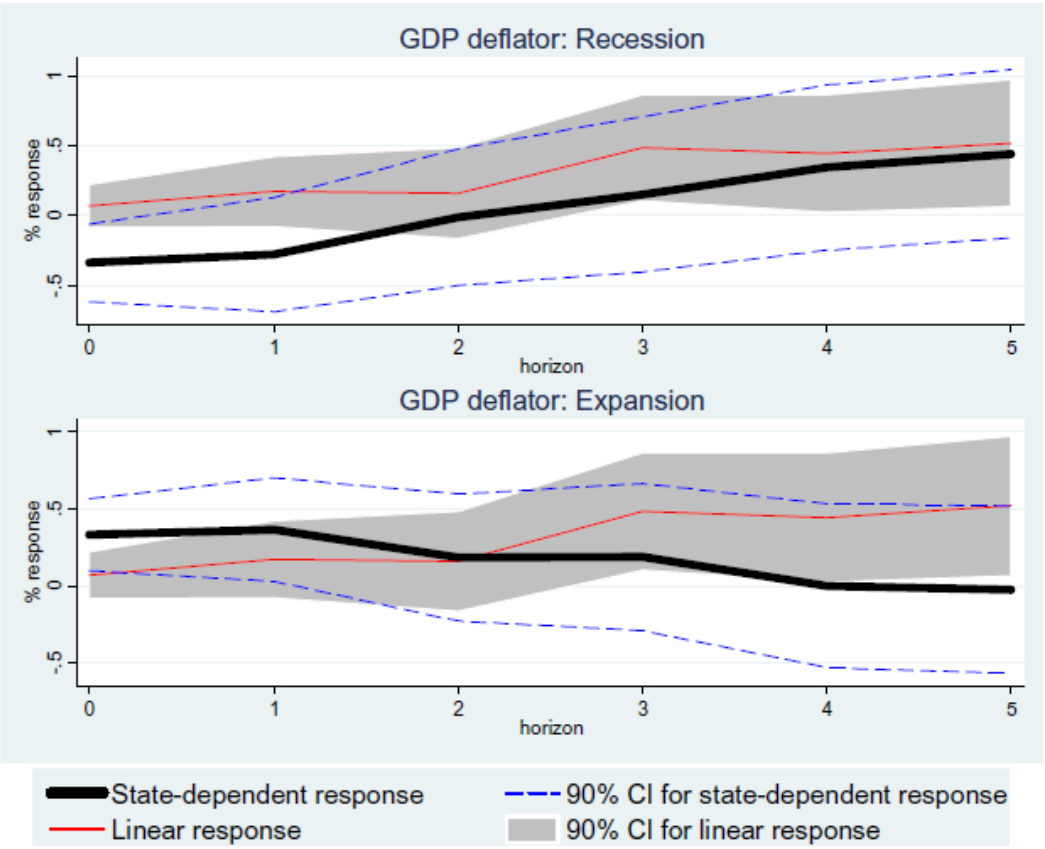


Panel J. Consumer price index





Panel K. GDP deflator



Romer & Romer (2014)

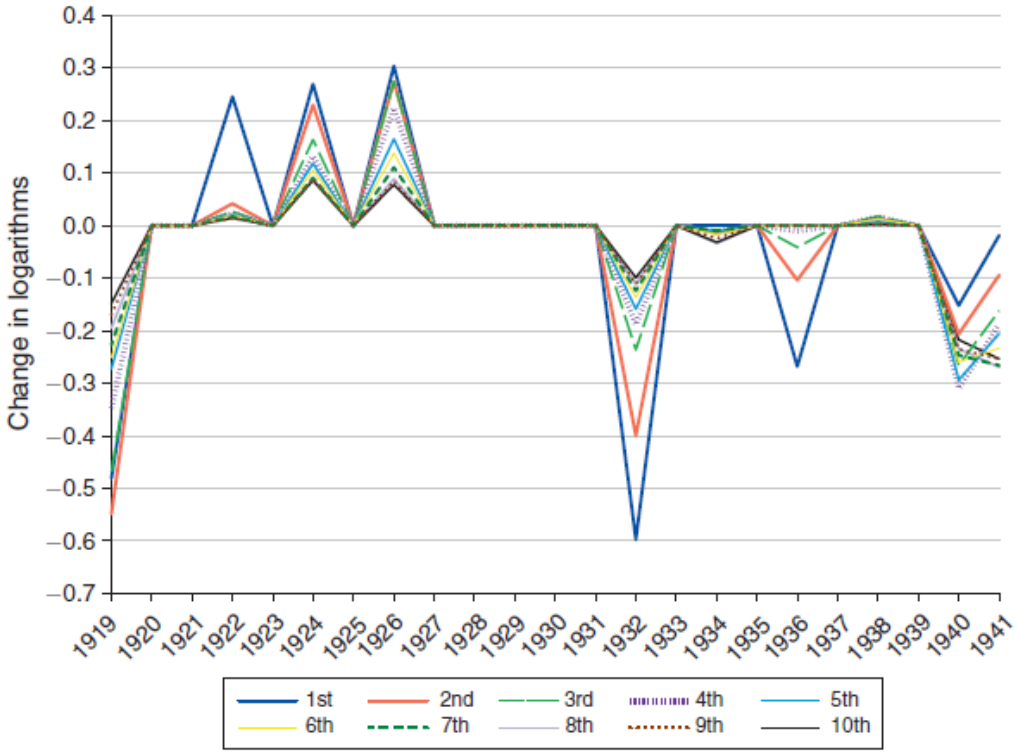


FIGURE 3. POLICY-INDUCED CHANGE IN THE LOG AFTER-TAX SHARE FOR DIFFERENT PERCENTILE GROUPS

Note: Each line represents the change for a given tenth of the top one-twentieth of 1 percent of the income distribution.

Our basic specification is

$$\Delta \ln Y_{it} = \alpha_i + \beta_t + \sum_{j=A}^{B} \gamma_j \Delta \ln(1-\tau)_{i,t-j}^{PI} + \varepsilon_{it}, \quad (1)$$

TABLE 2—BASIC TIME-SERIES/CROSS-SECTION RESULTS

	Estimation method	Lags included	Control variables	Elasticity of taxable income with respect to after-tax share	Observations
(1)	OLS	None	Year, group dummies	0.207 (0.031)	230
(2)	IV	None	Year, group dummies	0.208 (0.034)	230
(3)	OLS	1	Year, group dummies	0.316[a] (0.048)	220
(4)	OLS	2	Year, group dummies	0.270[a] (0.056)	210
(5)	OLS	None	Year dummies	0.209 (0.031)	230
(6)	OLS	None	Group dummies	0.093 (0.067)	230

Notes: The dependent variable is the change in the log of real taxable income. The table reports the estimated coefficient on the policy-induced change in the log after-tax share. As described in the text, the equations are estimated using the top 0.05 percent of the income distribution, subdivided into ten groups of equal size. In lines 1–2 and 5–6, the sample period is 1919 (that is, the changes in income from 1918 to 1919) to 1941. In lines 3 and 4, which include lags, the sample periods begin in 1920 and 1921, respectively. Standard errors are in parentheses.

[a]The coefficient estimate and standard error are for the sum of the coefficients.