Fiscal consolidations: announcements vs. reality

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What are the effects of fiscal consolidations?

Does composition (tax increases vs. spending cuts) matter?

- Among earlier contributions: Giavazzi and Pagano (1989), Alesina and Perotti (1995).
- Among recent contributions: Devries, Guajardo, Leigh, and Pescatori (2011), Alesina, Favero and Giavazzi (2019).

Ultimately this literature is about the relative **sizes** of the expenditure and tax **multipliers**: if they were the same, the composition of a consolidation would not matter.

Narrative dataset on fiscal consolidations: Devries et al. (2011), AFG (2019).

Panel of 16 countries, 1978-2014

Key variable: $u_{t,0}$: surprise narrative change to primary surplus

Key result of literature

- Consolidations where **announced** expenditure cuts exceed **announced** tax increases - labeled "E consolidations" - show virtually **no change** in GDP.
- Consolidations where **announced** tax increases exceed **announced** spending cuts - labeled "T consolidations" - show **large declines** in GDP.

$\rightarrow$ Taken at face value, "**Non-keynesian**" **results**: consistent with small or zero spending multiplier, and larger tax than spending multipliers.

But.... this takes as given that **actual** spending and taxes behave as announced and captured by **narrative** measures of spending and taxes

Our contribution: we show that this is not the case, and that the actual ordering of tax and spending multipliers is the opposite: **larger spending than tax multipliers.**

We use the same data and same specifications to study the response of **actual** expenditure and tax revenues in the two regimes in two experiments:

- A surprise **announced** consolidation associated with a change in regime (Experiment 1).
- A surprise **announced** consolidation within a regime (Experiment 2).

Two treatments in this framework: regime and shock to surplus.

Hospital analogy: hospitalization and medicine.

We present results from three specifications: Moving Averages, Local Projections, and VARs. Very similar.

- In both experiments, GDP fall more in the T regime - as in the previous literature. But.....
- In Experiment 1, **actual** expenditure falls by the same amount in the two regimes
- In Experiment 2, **actual** expenditure falls much more in the (nominally) T regime and taxes increase less $\rightarrow$ when **actual** spending falls more and **actual** taxes increase less, GDP falls more.

$\rightarrow$ **"Keynesian" results**: consistent with a high government spending multiplier

Define indices of two types of consolidations, **based on announcements**:

- I_t^T (Tax-based consolidation)
- I_t^E (Expenditure-based consolidation)

We use AFG's series on I_t^T and I_t^E

Our approach: estimate the dynamic effects **on GDP** of a 1 percentage point of GDP shock to the narrative surplus, allowing for different effects in the two regimes (exactly like Guajardo Leigh and Pescatori (2014) and AFG (2019)) .....

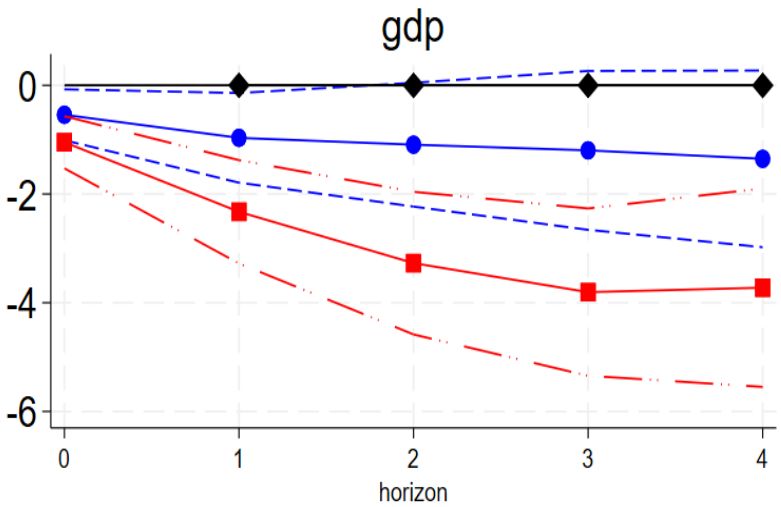
...but also the effects on **actual government spending and revenues**

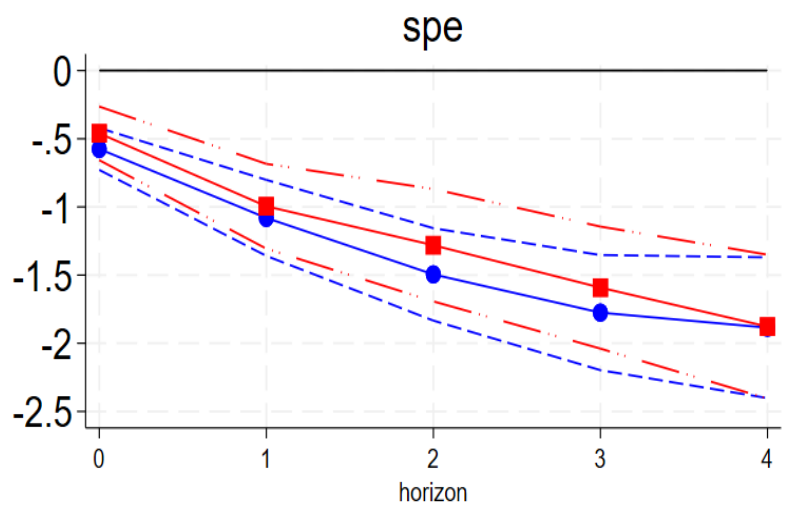
Dep. var. is $\Delta log\, g_t$ multiplied by country-specific average share of g/y.

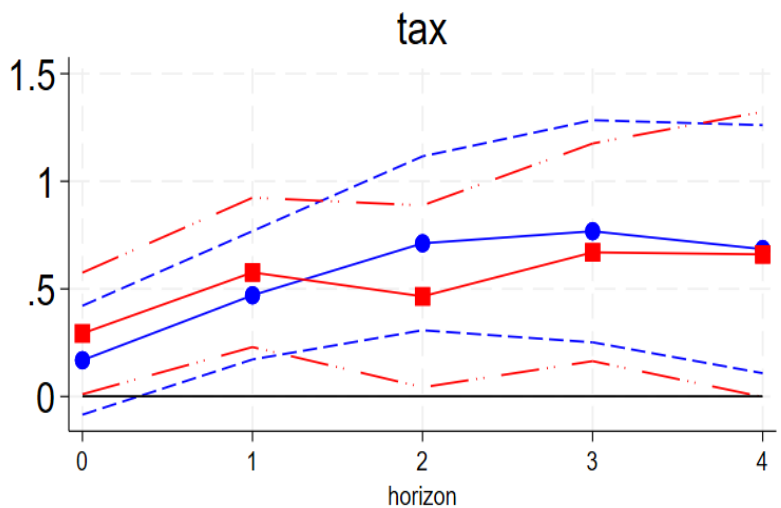
Hence, expressed as shares of GDP; also useful if large differences in average shares of g/y across countries.

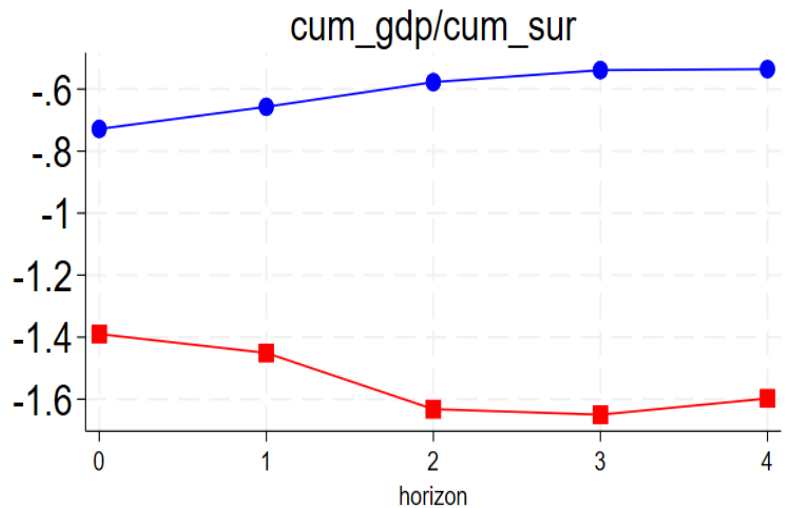
Evidence from Local Projections.

Experiment 1

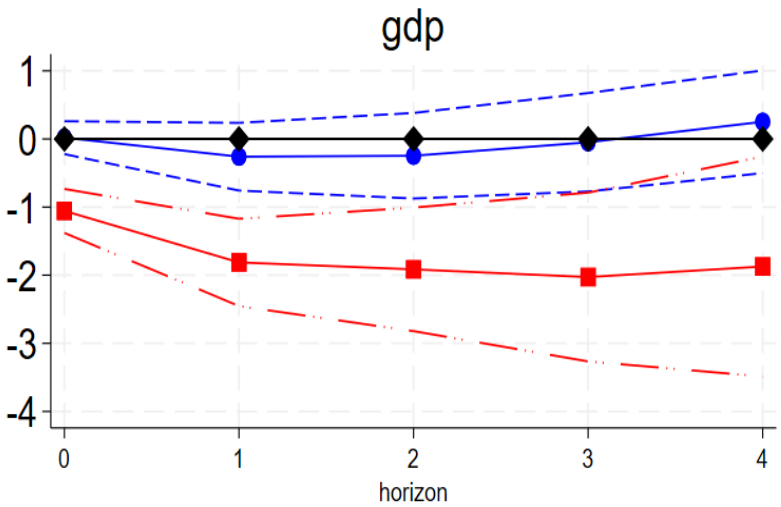


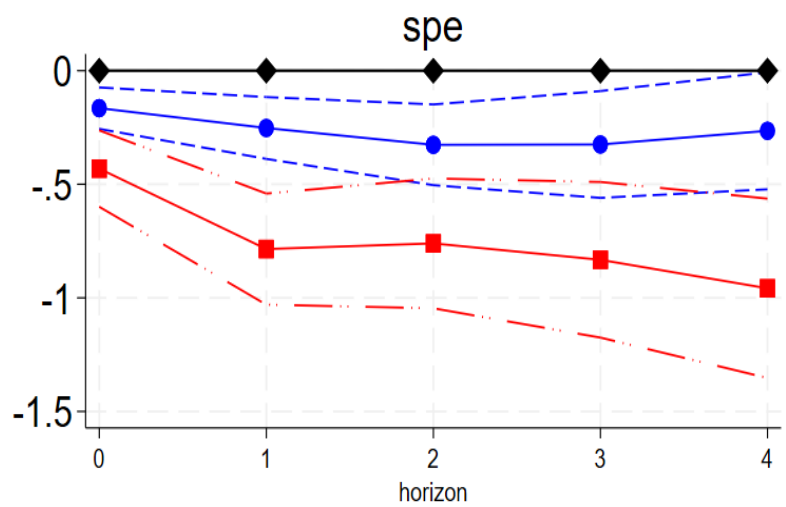


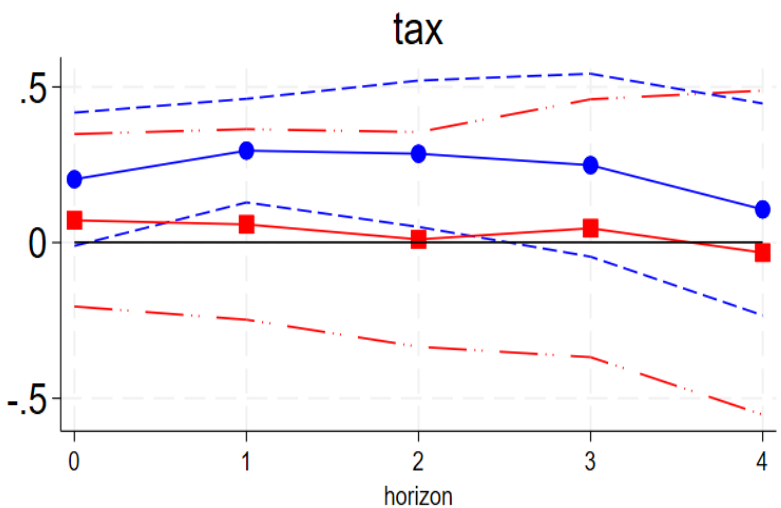




Experiment 2







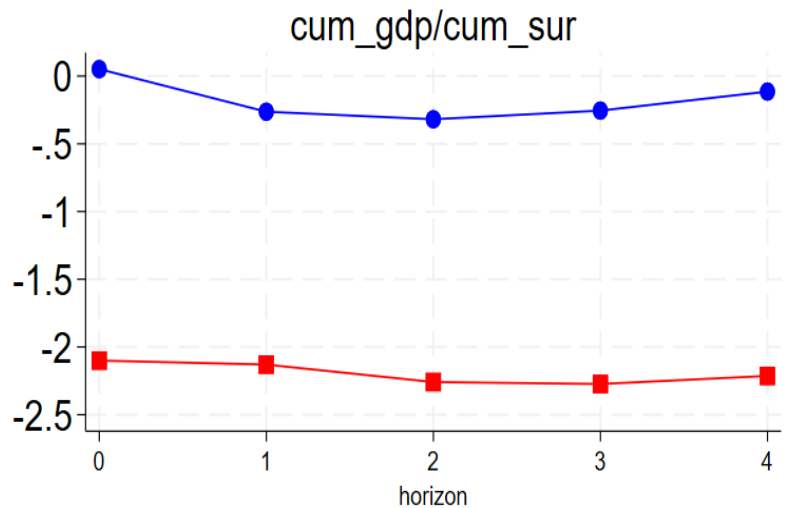


Table: Experiment 1

	E	T
Sacrifice ratio	-0.53	-1.60
Spending ratio	0.71	0.70

Because spending intensity is identical, very hard to argue that tax multiplier is higher

Table: Experiment 2

	E	T
Sacrifice ratio	-0.11	-2.21
Spending ratio	0.54	0.96

When spending intensity is higher (use more spending cuts), gdp falls more per unit of surplus $\rightarrow$ consistent with higher spending multiplier

Other contributions rarely look at response of actual government spending.

When they do (AFG, Beetsma et al.) the dependent variable is d(g/y), not log g.

This makes a difference because changes in g/y reflect changes in y.

Suppose g falls and y falls ("keynesian" result). If y falls enough, g/y increases $\rightarrow$ would conclude that when g "increases" y falls ("non-keynesian" result). But it would be wrong conclusion.

Let $d\left(\frac{g_t}{y_t}\right)$: response from the estimation in shares,

$avg\left(\frac{g}{y}\right)\frac{dg_t}{g_t}$: response from our specification in logs

$\frac{dy_t}{y_t}$: response of log of real GDP,

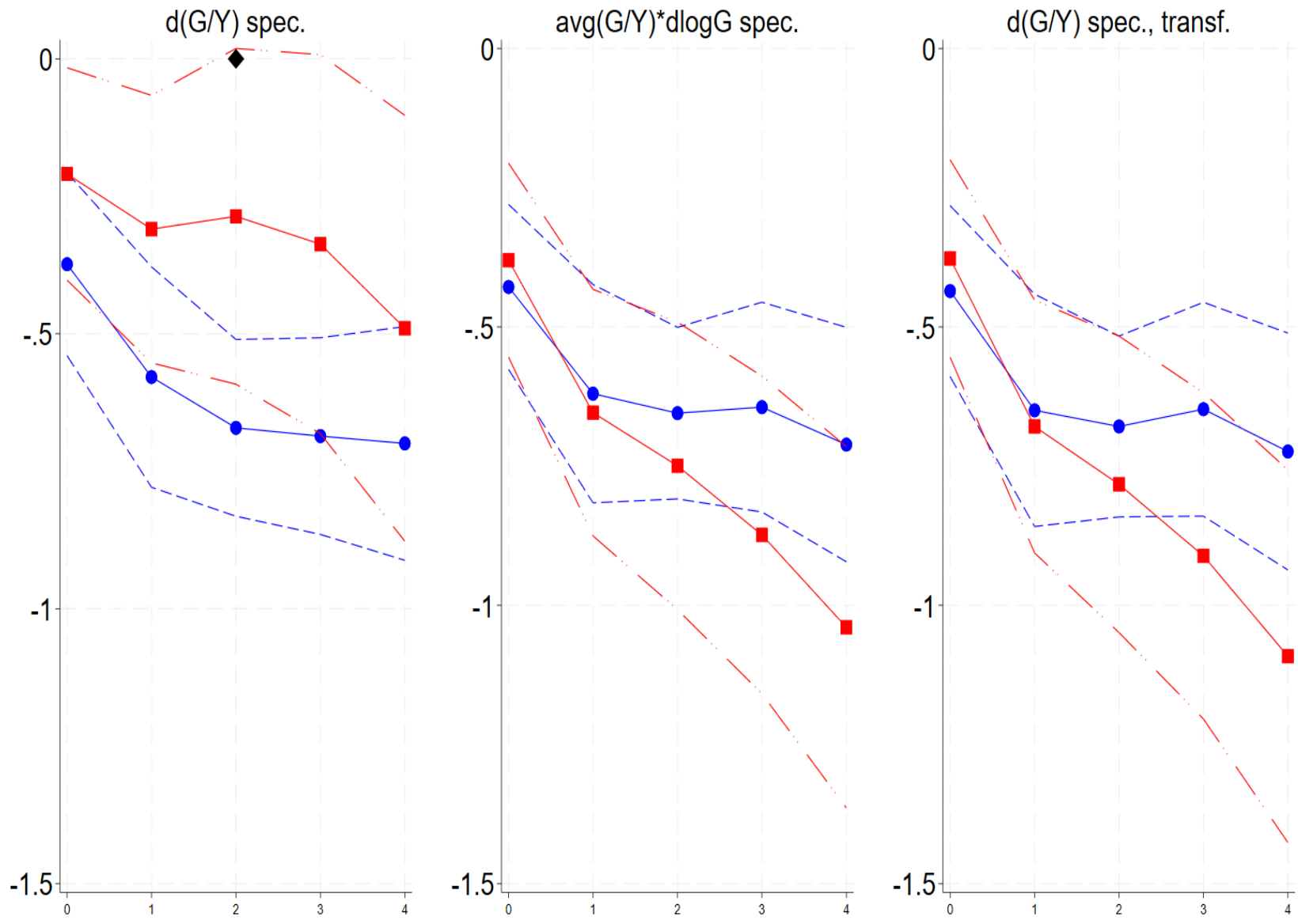
$\frac{g_t}{y_t}$ is proxied by the country-specific average ratio of g to y, $avg\left(\frac{g}{y}\right)$

$$d\left(\frac{g_t}{y_t}\right) = \frac{y_t dg_t - g_t dy_t}{y_t^2} \quad (1)$$

$$= \frac{g_t}{y_t}\left(\frac{dg_t}{g_t} - \frac{dy_t}{y_t}\right) \quad (2)$$

and using $avg(\frac{g}{y})$ for $\frac{g_t}{y_t}$

$$\underbrace{d\left(\frac{g_t}{y_t}\right)}_{\text{Impulse response from AFG}} = \underbrace{avg\left(\frac{g}{y}\right)\frac{dg_t}{g_t}}_{\text{Impulse response from PS}} - avg\left(\frac{g}{y}\right) \underbrace{\frac{dy_t}{y_t}}_{\text{Impulse response of log GDP}} \quad (3)$$


d(G/Y) spec.
avg(G/Y)*dlogG spec.
d(G/Y) spec., transf.
0
-.5
-1
-1.5
0
1
2
3
4