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Inspecting the Macroeconomic Effects of Fiscal Policies in the EU Using a New Dataset of Narrative Measures

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Discussion by Massimo Giuliodori
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Summary of the Paper

- Key question: What is the macroeconomic impact of tax and government spending in the European Union (EU)?
- Use of a unique *narrative* dataset compiled by fiscal experts of the European System of Central Banks (ESCB).
- Identification of *exogenous* (to the business cycle) fiscal shocks through traditional *narrative* (for the Big-4) and *ML* (for the rest) methods.
- Use of panel Local Projection (LP) methods to estimate *unconditional* and *conditional* fiscal multipliers.
- Results: Spending multipliers are large (around 2) and more precisely estimated than tax multipliers (around 0 in the medium term).

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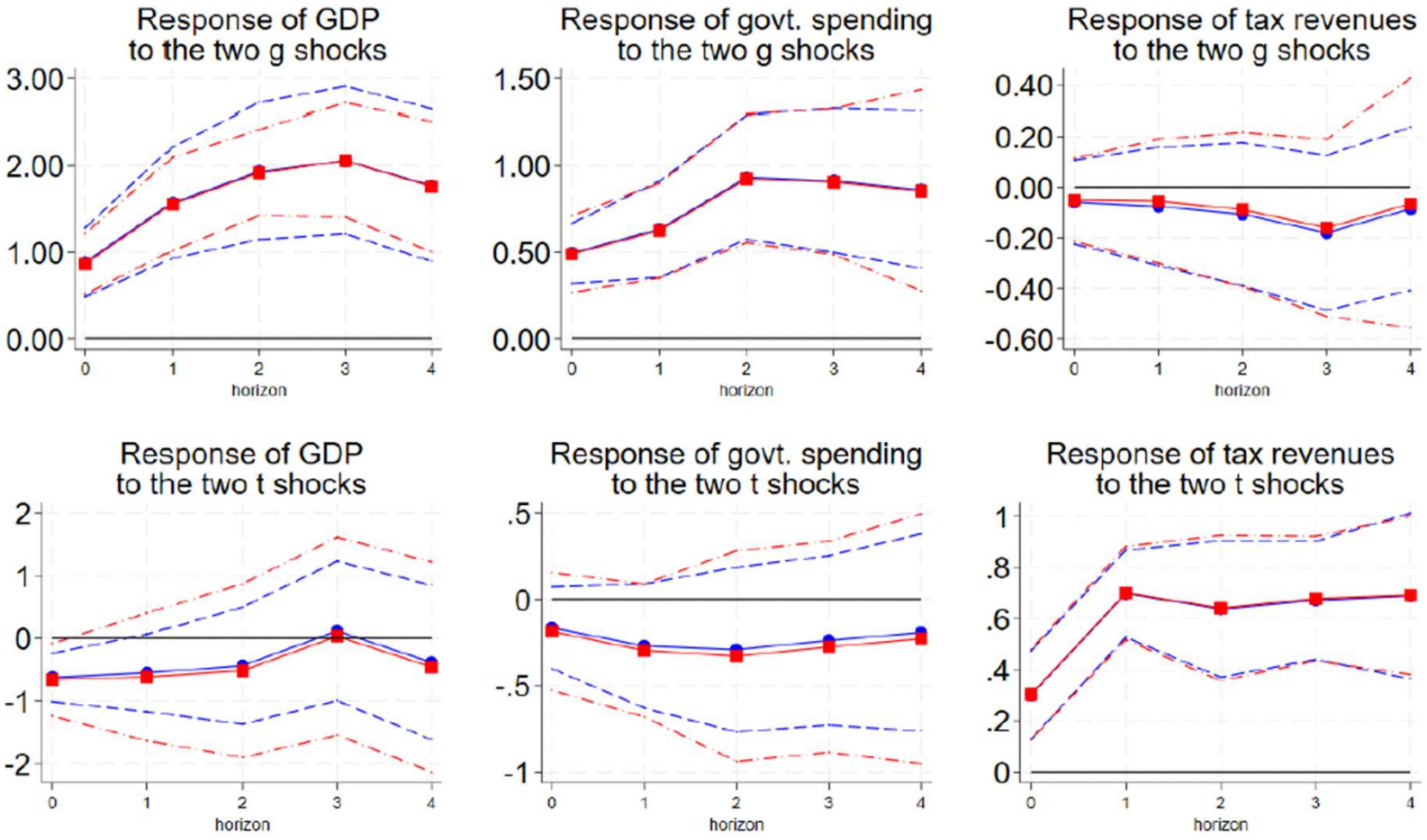
Impulse Responses to S and T Shocks



Unconditional Fiscal Multipliers

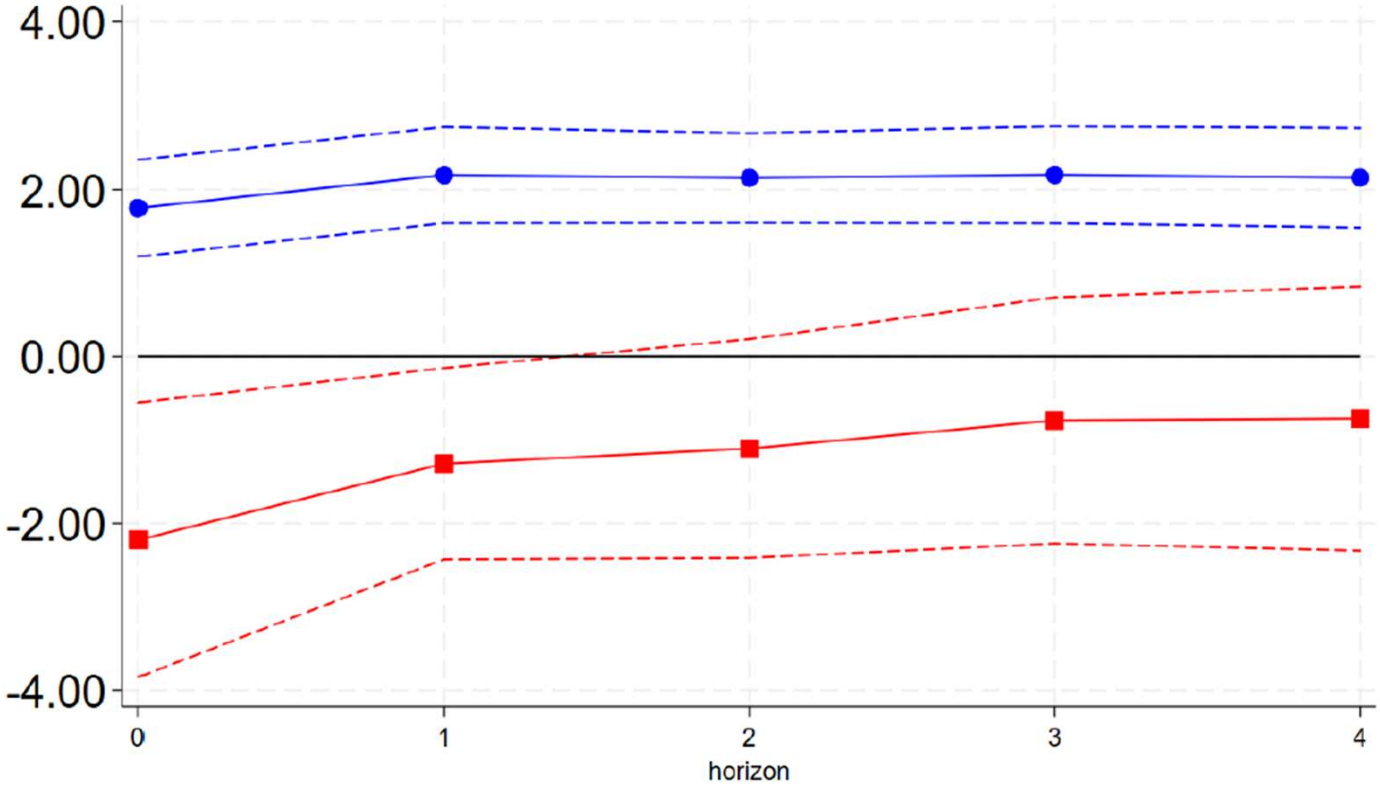


Figure 3: Unconditional spending (blue circles) and tax multipliers (red squares)

Conditional Fiscal Multipliers

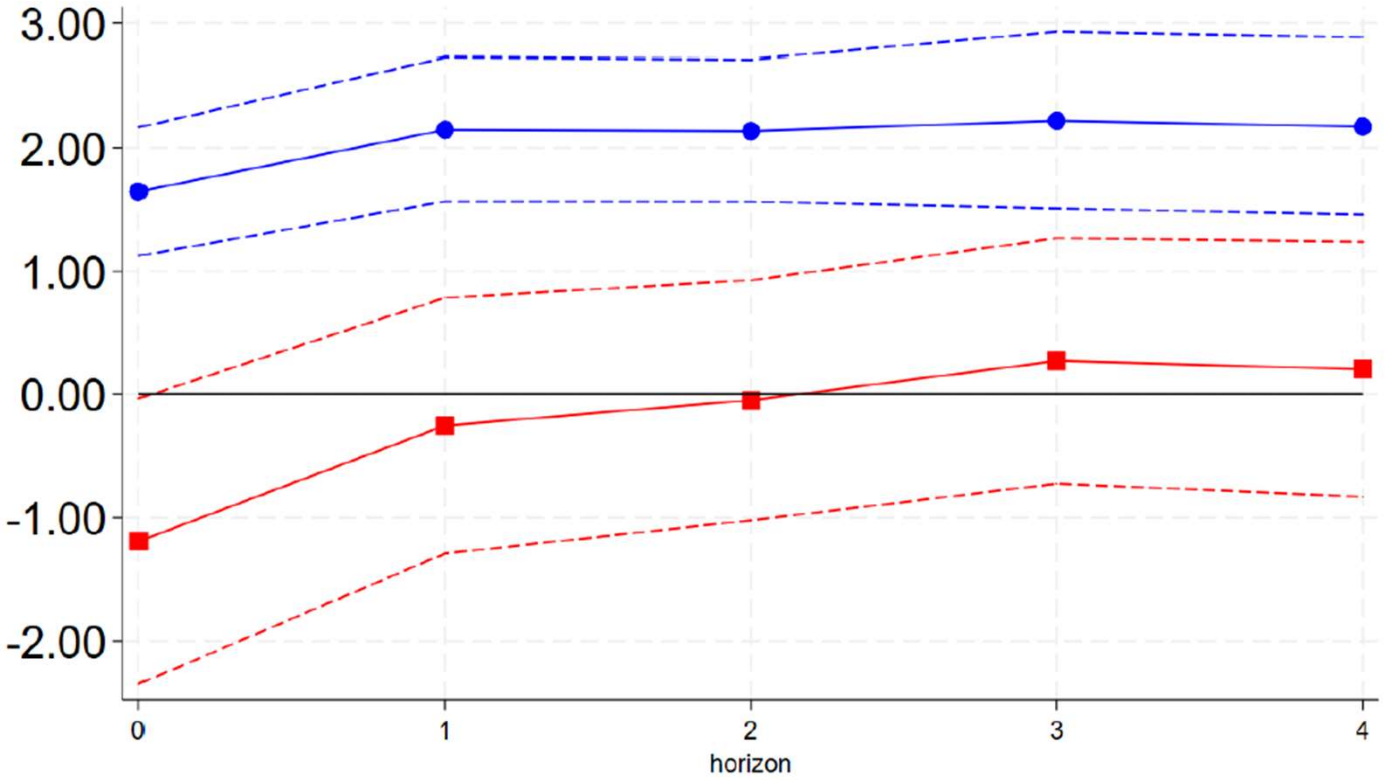


Figure 4: Conditional spending (blue circles) and tax multipliers (red squares)

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General Comments

- Impressive (confidential) dataset (14,000 individual measures, spread over 30 categories and 27 EU countries) over the post-2003 period.
- Huge amount of human work in classifying *exogenous* (to the business cycle) measures (for the Big-4) (Romer and Romer, 2010), and novel use of ML techniques to extend the analysis to a large set of EU countries.
- Important to distinguish between unconditional and conditional fiscal multipliers.
- Solid robustness section (e.g., country and period samples, tax elasticities, spending definition, *etc*.).
- Findings on the small (large) tax (spending) multipliers are somehow surprising and call for a deeper (data and empirical) analysis.

New Narrative Dataset

- Romer and Romer (2023) outline the requirements for *rigorous* narrative analysis:

  (1) reliable narrative source,

  (2) clear sense of what one is looking for,

  (3) dispassionate and consistent, and

  (4) careful *documentation*.

Romer and Romer (2023): Narrative Analysis

TABLE 1—REQUIREMENTS FOR RIGOROUS NARRATIVE ANALYSIS

1. A reliable narrative source
- Real time
- Consistent over time
- Detailed and accurate

2. A clear idea of what one is looking for in the source
- Specify criteria in detail

3. Approach the source dispassionately and consistently
- Resist the temptation to see what you want to see in the source
- Compare classifications with another reader
- Read from beginning to end
- Don't use previous knowledge to focus on certain periods

4. Document the narrative evidence carefully
- Force yourself to explain your reasoning
- Make it easy for others to check your work

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- Fiscal measures based on fiscal projections made in the last quarter (e.g., December) of year *t-1* for years *t*, *t+1*, *t+2* and *t+3*: Are these measures fully *unanticipated* despite political discussion and media coverage *before* approval (announcement) (Ramey, 2011; Beetsma, *et al.,* 2021)?

Empirical Strategy

- Estimation of *unconditional* fiscal multipliers with LP-IV methods (Ramey and Zubairy, 2018):

$$\sum_{h=0}^{H} y_{t+h} = m_g^H \sum_{h=0}^{H} g_{t+h} + \varepsilon_{g,t}^H \qquad \text{and} \qquad \sum_{h=0}^{H} y_{t+h} = m_\tau^H \sum_{h=0}^{H} \tau_{t+h} + \varepsilon_{\tau,t}^H$$

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- Estimation of *conditional* fiscal multipliers (to avoid omitted variable bias):

$$\sum_{h=0}^{H} y_{t+j} = \mu_g^H \sum_{h=0}^{H} g_{t+h} + \mu_\tau^H \sum_{h=0}^{H} \tau_{t+h} + \eta_t^H$$

Conditional Fiscal Multipliers

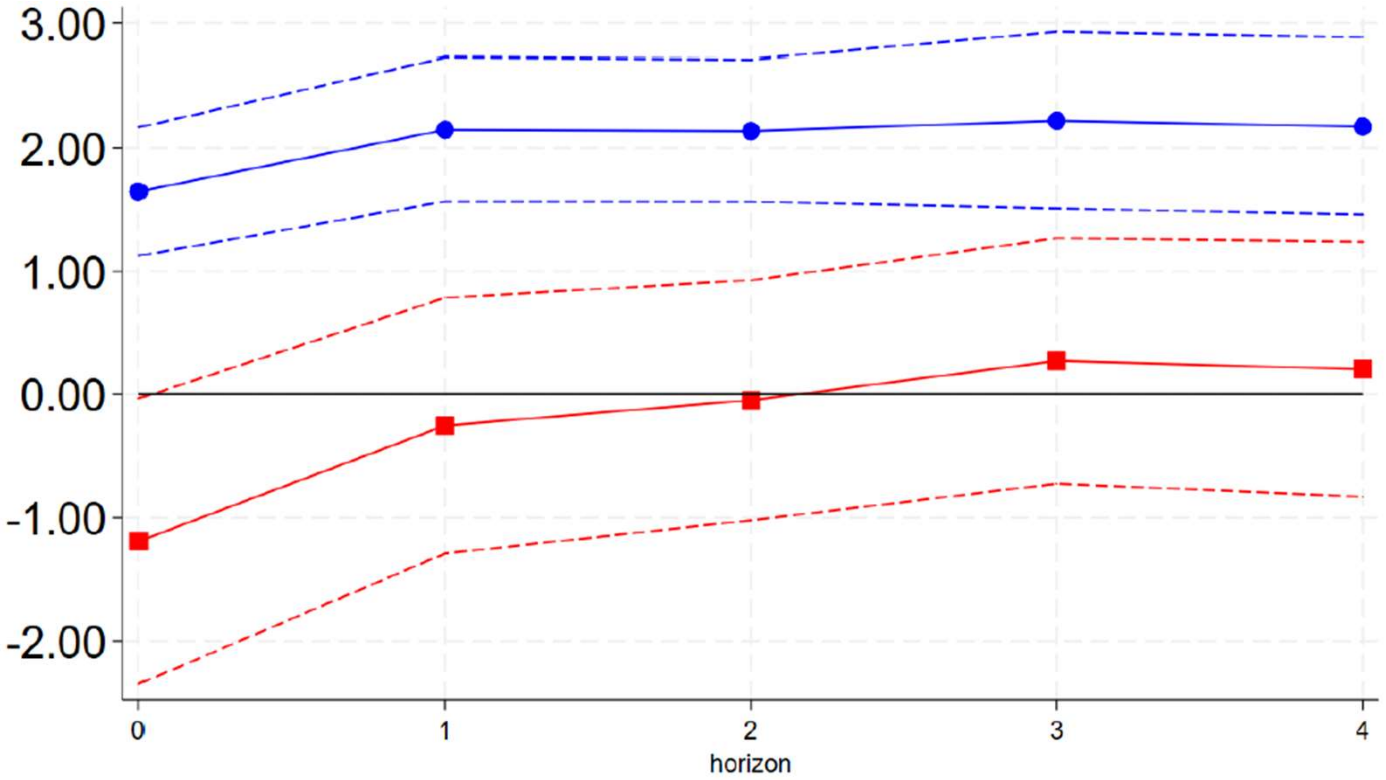

Figure 4: Conditional spending (blue circles) and tax multipliers (red squares)

Empirical Strategy (1)

- Opening the "black box":

  (1) components of GDP (e.g., private consumption and investment),

  (2) individual tax and spending categories,

  (3) transmission variables (e.g., wages, hours, interest rates, asset price, *etc.*),

  (4) symmetry: restrictive *vs.* expansionary fiscal shocks,

  (5) non-linearities (e.g., degree of government debt funding).

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- Narrative fiscal shocks are measured at "high frequency": Can (part of) the analysis be carried out with (at least) quarterly data? This could allow the estimation of country-specific models for the Big-4.

Empirical Strategy (2)

- If identified narrative fiscal shocks present some degree of *persistence*, maybe useful to add *leads* (within the horizon *H* of the LP specifications) of fiscal shocks (Alloza, *et al*., 2025).

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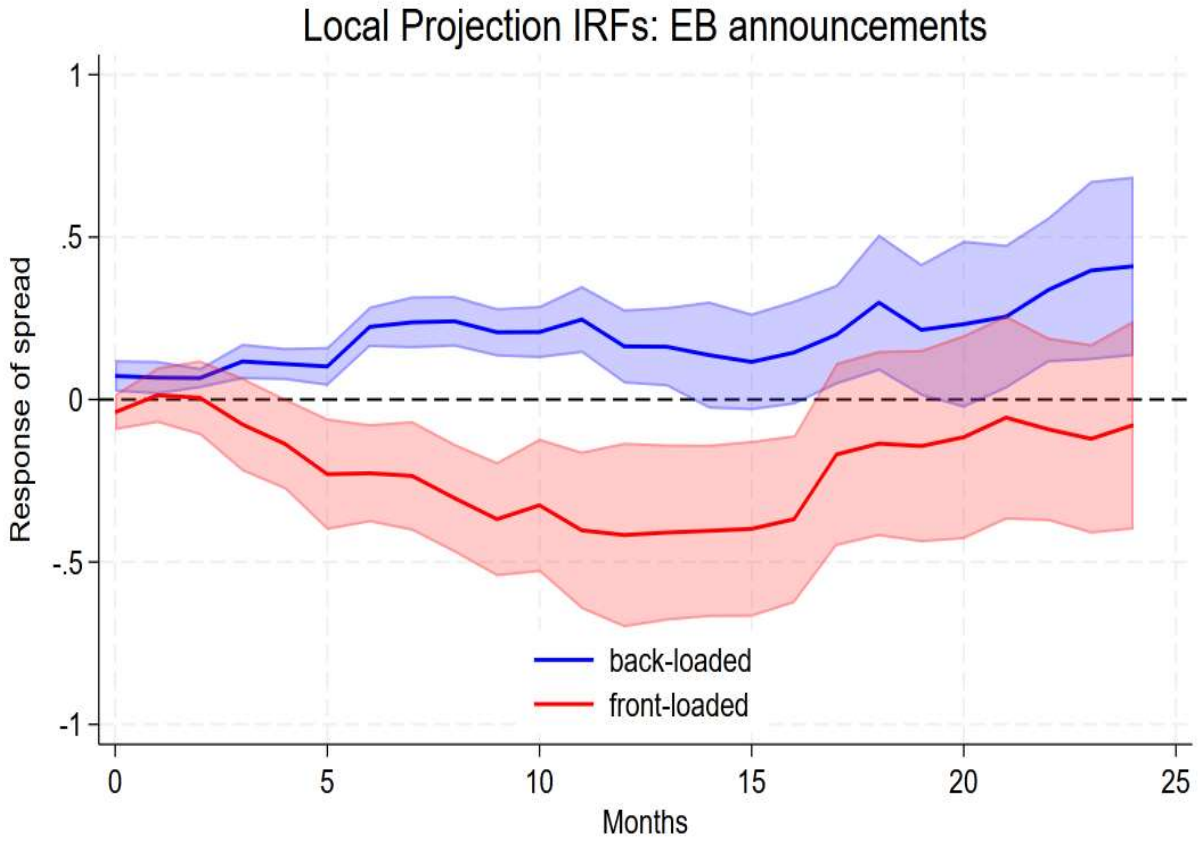
- Panel LP with Fixed-Effects (FE) models are dynamic: Nickell bias with small *T* (and increasing with persistent variables).

- Fiscal projections are multi-annual. Authors distinguish between "current" and "news" fiscal shocks. Step further: distinguish between *front*- and *back-loaded* fiscal measures to capture the *credibility* of announced multi-year measures.

Front- and Back-Loaded EB Fiscal Consolidations



Source: Giuliodori and Maramarco (2025)

Conclusions

- Great and ambitious paper on fiscal multipliers in Europe.
- Unique narrative dataset combining impressive manual work and novel ML methods to identify exogenous (to the business cycle) fiscal shocks.
- Very solid and carefully executed empirical analysis.
- Several potential directions to deepen and expand the current analysis.