Fiscal policy and inflation: accounting for non-linearities in government debt

Checherita-Westphal and Pesso

Mario Alloza
Banco de España

Fiscal Policy in an Era of Uncertainty
4 June 2026

Quick summary

Question

How does discretionary fiscal policy affect inflation? does the effect depend on the level of public debt?

Empirical approach

- EA-12 countries, 1999–2022.
- ESCB/WGPF dataset of discretionary fiscal measures + orthogonalising.
- Local projections with state dependence.

Main Result

- Expansionary fiscal shocks increase inflation.
- The effect is substantially larger when debt-to-GDP is high.
- Household inflation expectations increase only in high-debt countries.

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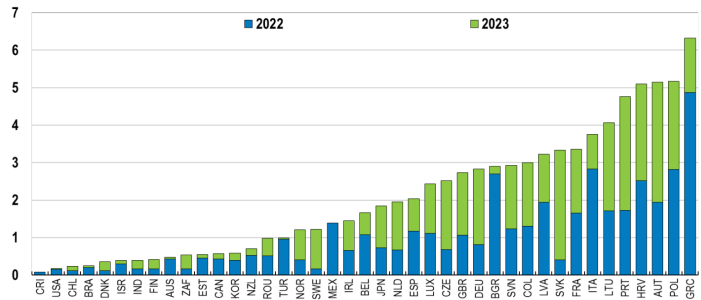
Figure 3. The fiscal response to the energy crisis has been substantial, especially in Europe

% of GDP



- **This paper:** Fiscal response should take into account level of indebtedness.

Positive aspect: fiscal measures data

- The Eurosystem and ECB staff conduct four **projection exercises**.
- Prominent role given to **fiscal projections**.
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$\Rightarrow$ A very **comprehensive coverage** of ~~all~~ most fiscal measures.

This paper constructs a **fiscal** shock based on the *tax side* of this measure

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  1. Larger **sample**
  2. **Dating**: legislation vs. impact.
  3. **Motivation**: exogenous vs. endogenous:
     - → [Romer and Romer (2010)] for large countries
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- Resulting dataset: more than **14,000 measures** from 27 countries!

Data: Revenue measures

Tax categories	Frequency	Percent
Direct taxes by households	2314	27.97
Direct taxes by corporations	1394	16.85
Other indirect taxes	1128	13.64
Other direct taxes	783	9.47
VAT	678	8.20
Net social contributions paid by employers	497	6.01
Energy taxes	406	4.91
Net social contributions paid by employees	377	4.56
Current transfers other than interest	168	2.03
Capital taxes	122	1.47
Sales	103	1.25
Other capital revenue	90	1.09
Local business taxes	87	1.05
Other social contributions	78	0.94
Other	47	0.57
TOTAL	8272	100

Data: Expenditure measures

Expenditure categories	Frequency	Percent
Subsidies	1010	16.61
Other social benefits other than in kind	995	16.37
Wages and salaries	690	11.35
Intermediate consumption	682	11.22
Capital transfers	593	9.75
Other current transfers	521	8.57
Government investment	478	7.86
Old age pensions	450	7.40
Social transfers in kind	320	5.26
Unemployment benefits	179	2.94
Employers' actual social contributions	65	1.07
Other net acquisitions of non-financial assets	42	0.69
Interest	13	0.21
Employers' imputed social contributions	6	0.10
TOTAL	6080	100

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- **This paper**: High debt level (90%) $\Rightarrow$ larger π response
- **But is it really the level?**:
  - Countries with similar debt ratios may differ in **fiscal credibility**.
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- Potential empirical implications:
  1. Revenue-neutral shocks (e.g. $\uparrow G + \downarrow T$) $\Rightarrow$ weaker π response?
  2. Replace levels with **expectation-based measures**: (credit outlook, $\mathbb{E}[debt_{t+h}|\mathcal{I}_{t-1}]$...)

Comment 2: Role of monetary policy

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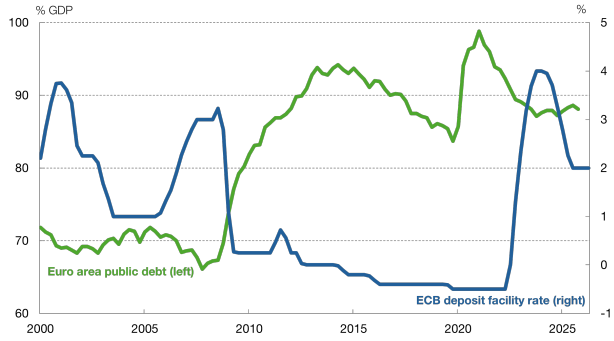

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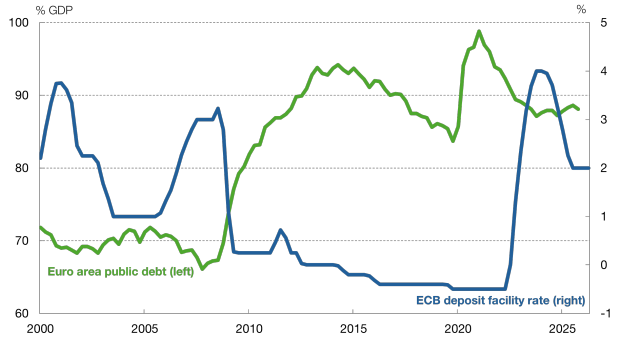
2. **Econometric specification**: currency union with time FE
   → close to [Nakamura and Steinsson (2014)]
   → not *full* GE responses?



Comment 3: Composition may matter more than debt

- The fiscal shock **aggregates many instruments**
- However, different instruments likely have very **different pass-through to inflation**:
  - VAT cuts $\rightarrow$ lower inflation on impact.
  - Transfers $\rightarrow$ stronger demand effects.

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- Becomes crucial if: **composition of fiscal measures correlated to level of debt**?.
- Composition might be particularly important in the context of **ELB**:
  - Fundamentals-driven ELB: [Cristiano et al. (2011)]: $\uparrow G$ is inflationary, $\downarrow T$ is not
  - Confidence-driven ELB: [Mertens and Ravn (2014)]:$\downarrow T$ is inflationary, $\uparrow G$ is not

Final Thoughts

- Timely, well-executed, and **policy-relevant contribution** to the literature on fiscal policy and inflation.
- Empirically challenging question, with substantial **scope for future research**.

Thank You!