



# **How do economic shocks affect fiscal outcomes?**

**13<sup>th</sup> meeting of the network of public finance economists in public administrations**

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**Ecfin-C1: Fiscal Policy and Surveillance**

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## This year's PFR = 3 analytical chapters

III. Conduct of fiscal policy in the face of economic shocks

IV. Fiscal outcomes in the EU in a rules-based framework – new evidence

V. Overview of public financial and non-financial assets in EU Member States

### I present:

- Part III.4: A panel VAR estimation of the effect of economic shocks on fiscal outcomes
- Joint work with Wouter van der Wielen (JRC-Seville)

For more:

[https://www.ec.europa.eu/info/publications/economy-finance/report-public-finances-emu-2018\\_en](https://www.ec.europa.eu/info/publications/economy-finance/report-public-finances-emu-2018_en)

# Motivation

- Large literature analyses the impact of fiscal policy on macro variables  
(Blanchard Perotti, 2002; Romer and Romer, 2009, 2010; Mertens and Ravn, 2010 ,2012...)
  - Hardly any evidence on the impact of macro on fiscal variables
- How sizeable is the impact of economic (supply, demand, financial) shocks on fiscal outcomes?

# Methodology

- *Panel of EU-28 MS*
- *Quarterly data since early 2000/mid nineties*
- *VAR model*  $X_t^c = [\Delta y_t^c, \Delta \pi_t^c, \Delta i_t^c, \Delta g_t^c, \Delta t_t^c]'$ 
  - **real GDP growth**
  - **inflation**
  - **effective interest rate on sovereign debt**
  - **public (primary) expenditure**
  - **public revenue**

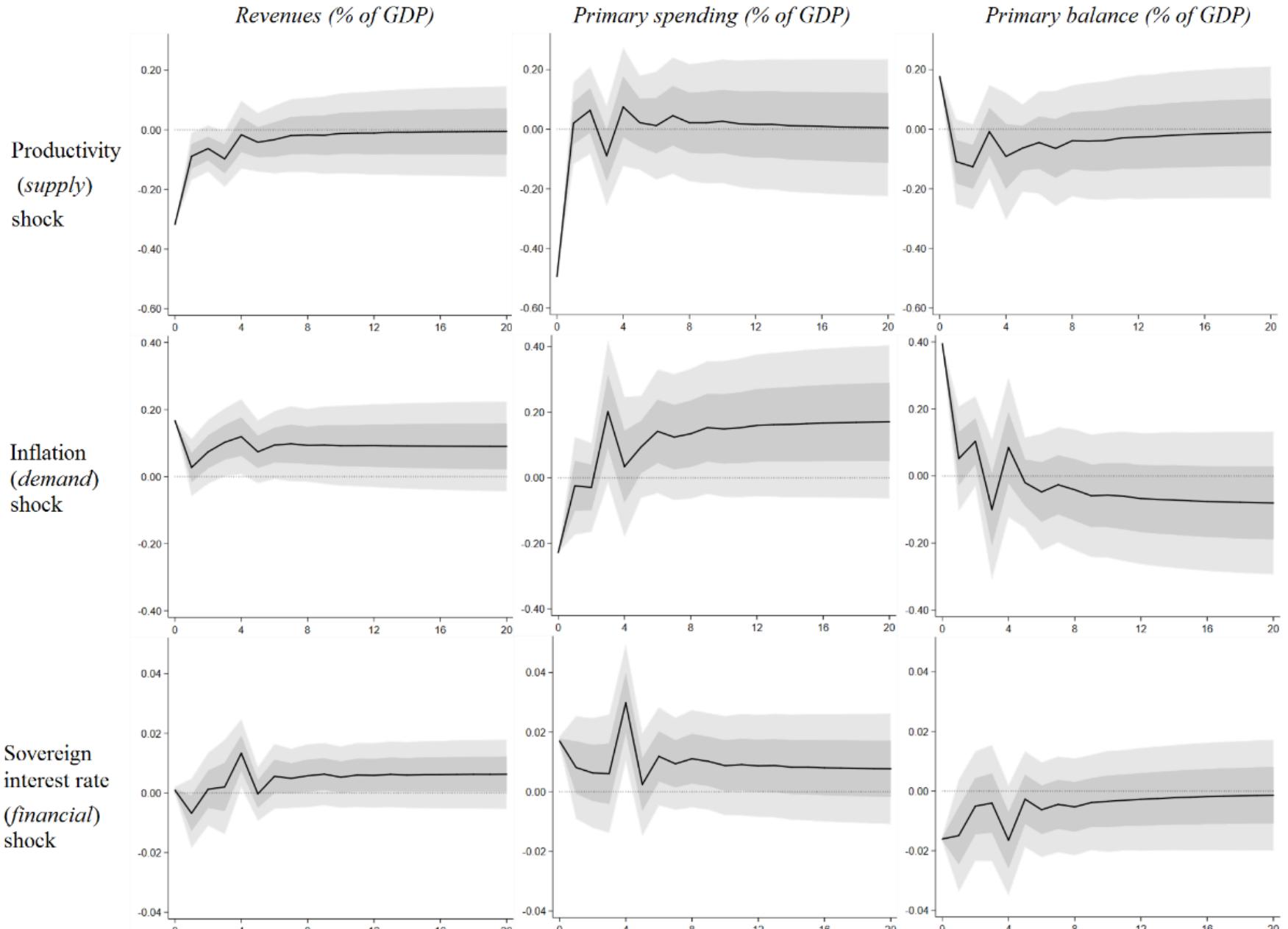
# Shock identification

Outcome Shock \n	GDP	Inflation	Effective interest rate	Primary exp.	Revenue
Productivity			No LT effect	Same LT effect as on GDP	Same LT effect as on GDP
Inflation	No LT effect		No LT effect	Calibrated ST elasticity	Calibrated ST elasticity
Effective interest rate				Calibrated ST elasticity	Calibrated ST elasticity
Primary expenditure					
Revenue				No effect within the same quarter	

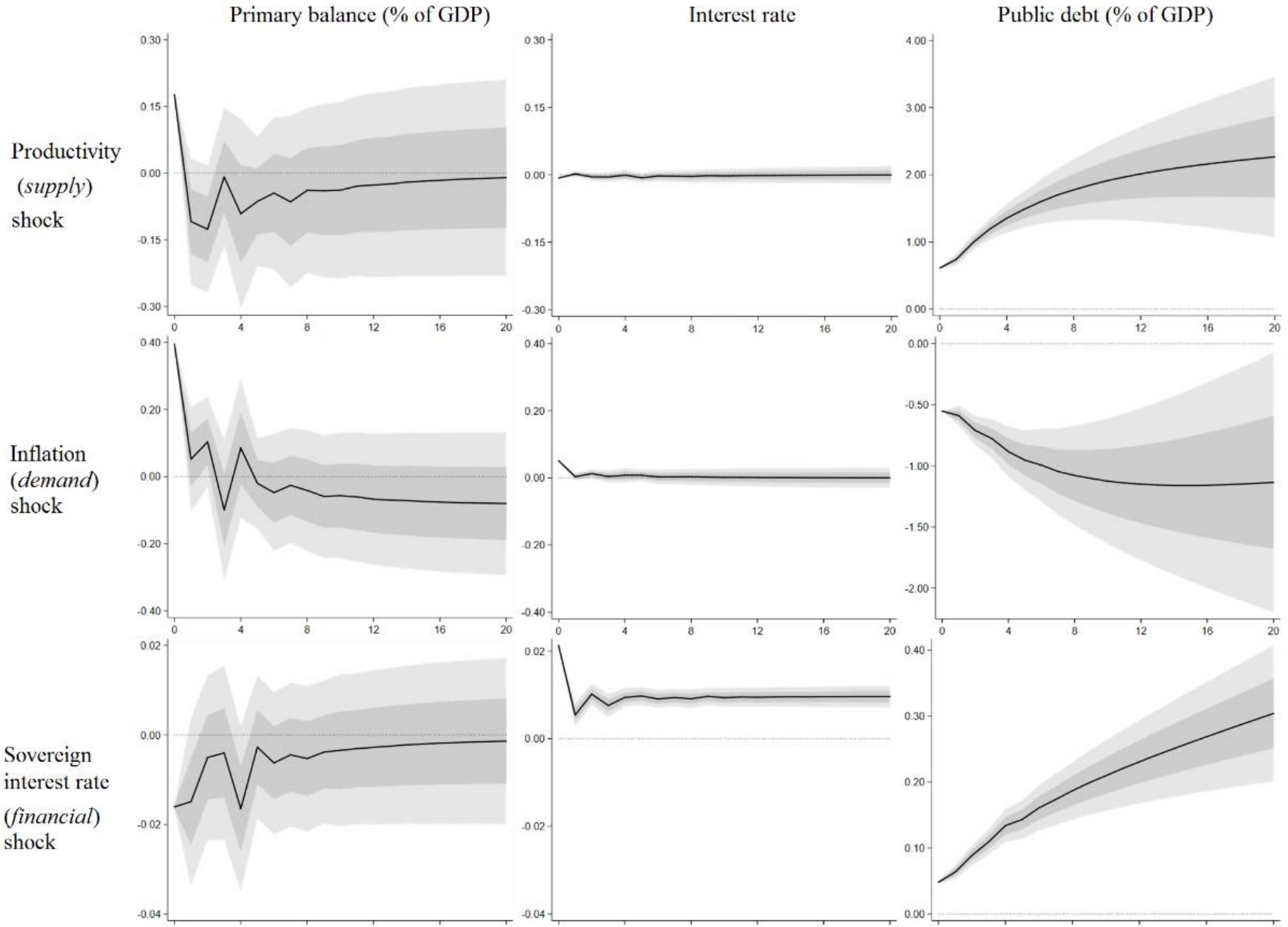
5 shocks

- productivity (supply)
- inflation (demand)
- sovereign interest rate shocks (financial)
- public revenue
- primary expenditure

# Effect on fiscal flows



# Effect on public debt stock





## Conclusion

- *Macroeconomic shocks can have a significant and lasting impact on fiscal positions in the EU*
- *particularly on the public debt-to-GDP ratios.*

# Thank you

**PFR available online on Commission homepage:**

[https://ec.europa.eu/info/publications/economy-finance/report-public-finances-emu-2018\\_en](https://ec.europa.eu/info/publications/economy-finance/report-public-finances-emu-2018_en)

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