



MONETARY POLICY AND STRUCTURAL TECTONIC SHIFTS

MONETARY POLICY AND PRODUCTIVITY: CHALLENGES AND TRADE-OFFS FOR CENTRAL BANKS

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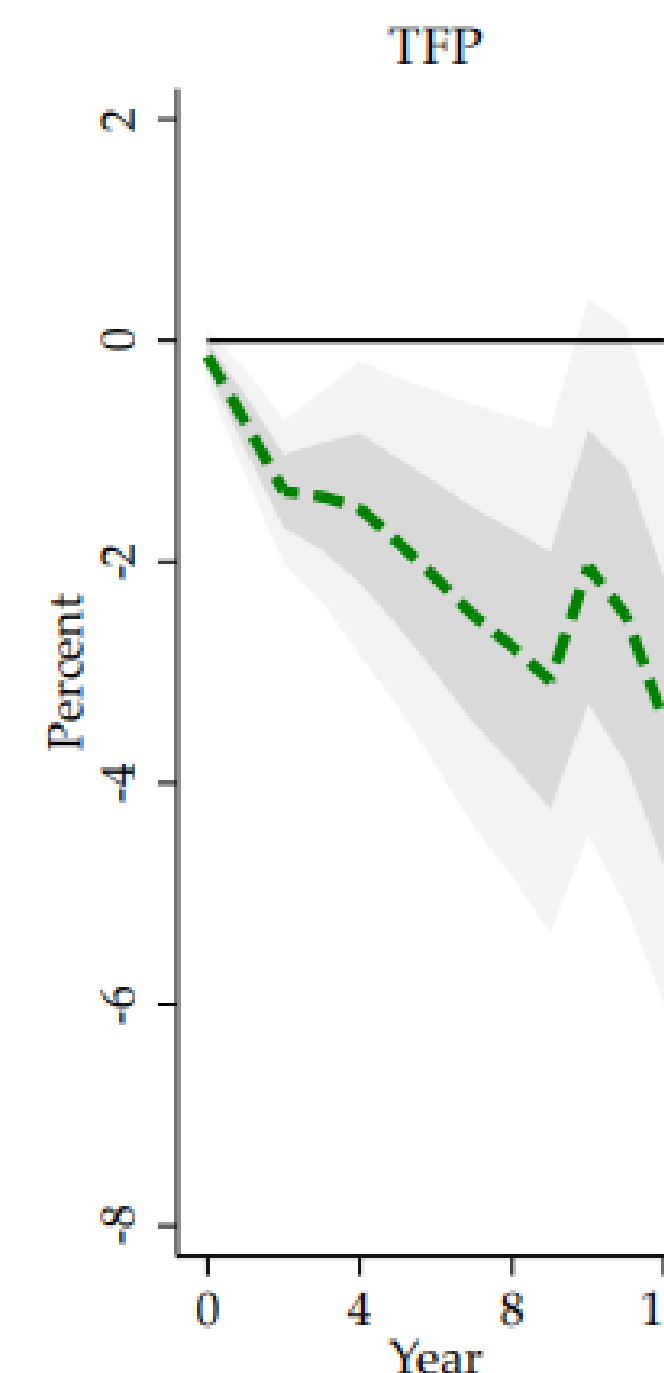
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*This presentation reflects my personal views and not necessarily those of
Banco de España or the Eurosystem*

AMPLE EMPIRICAL EVIDENCE SUPPORTING HOW CONTRACTIONARY MONETARY POLICY SHOCKS REDUCE TFP

- ❑ Ample literature showing that **contractionary monetary policy shocks reduce TFP**
 - Evans, 1992; Christiano et al., 2005; Garga and Singh, 2021; Jordà et al., 2020; Moran and Queralto, 2018; Meier and Reinelt, 2020; Baqaee et al., 2021).
- ❑ Different **theoretical mechanisms**:
 - R&D, markup heterogeneity, capital misallocation...
- ❑ **What does it imply for the design of monetary policy?**



Baseline response to 100 bps shock in Jordà et al. (2020)

TRADITIONAL MONETARY POLICY PRESCRIPTIONS

- ❑ **New Keynesian** framework (workhorse model in central banks). Central bank minimizes **an inflation-output gap objective**

$$\varphi(x_t)^2 + (\pi_t)^2$$

- x_t is output gap, π_t is inflation, and φ is a constant

- ❑ Optimal monetary policy
 - In response to **demand** shocks: **divine coincidence** (price stability)
 - In response to **supply** shocks: **lean against the wind**

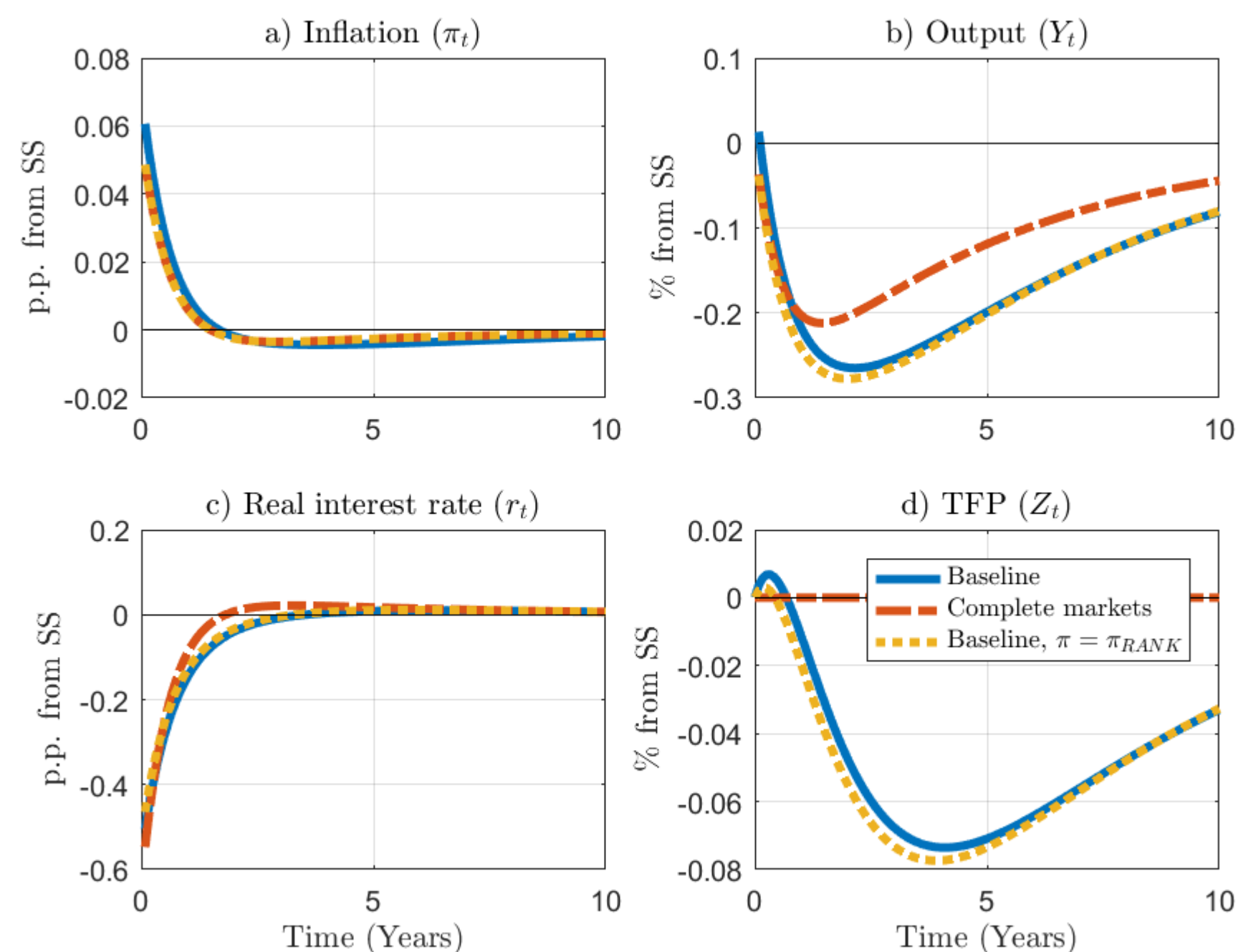
OPTIMAL MONETARY POLICY WITH ENDOGENOUS TFP

- ❑ New Keynesian framework (workhorse model in central banks). Central bank minimizes

$$\varphi(x_t)^2 + (\pi_t)^2 + \mu(z_t)^2 - z_t$$

- z_t is TFP and μ is a constant
- ❑ The new extra terms reflect
 - Aversion to **TFP volatility**
 - Desire to **increase TFP** (new dynamic inconsistency motive)

1. THE CENTRAL BANK SHOULD LOOK THROUGH SUPPLY SHOCKS EVEN MORE

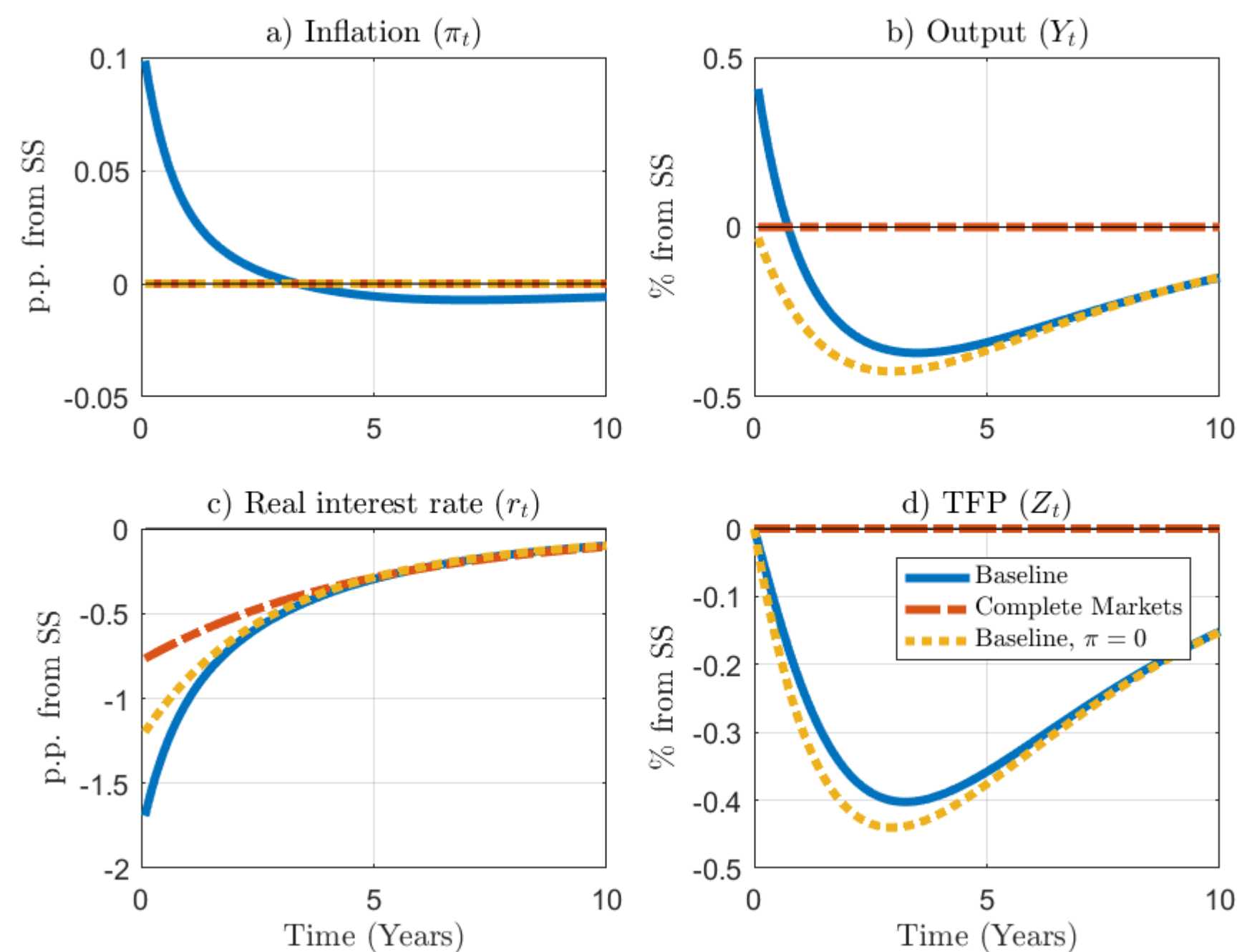


□ We consider a realistically-calibrated **heterogenous-firm** New Keynesian model in which TFP is endogenous due to **capital misallocation**

□ Optimal policy response to **cost-push shocks** features **higher inflation volatility** in exchange for **lower gap and TFP volatilities**

Gonzalez, Nuño, Thaler, Albrizio (2023)

2. DIVINE COINCIDENCE IS NOT OPTIMAL ANYMORE IN RESPONSE TO DEMAND SHOCKS



❑ Optimal policy response to **demand shocks** deviates from strict price stability

❑ It features **higher inflation and gap volatilities** in exchange for **lower TFP volatility**

Gonzalez, Nuño, Thaler, Albrizio (2023)

3. CHALLENGES FOR CENTRAL BANKS

- ❑ The real world is murkier than the New Keynesian model
 - **Difficulty to identify demand and supply shocks** (not only on real time but even a posteriori)
 - (Still) lack of knowledge about **different channels through which monetary policy affects TFP**, and how they interact with each other.
 - **Monetary policy transmission** (including lags) still subject to uncertainty

- ❑ **Looking-through supply shocks has limitations**
 - Unanchoring of inflation expectations, nonlinearity of Phillips curve
 - **Strike the iron while it's hot** (Karadi, Nakov, Nuño, Pasten and Thaler)

- ❑ **Monetary policy may indirectly influence the natural rate via productivity growth**

THANK YOU
