"Monetary Policy, Inflation, and Crises: Evidence from History and Administrative Data" (Jiménez, Kuvshinov, Peydró and Richter (2023))

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The views expressed here are our own and may not reflect those of the BIS

Key findings

Macro–data (annual data, JST macro-history database, 17 AEs, 1870-2020):

- Financial crises tend to be preceded by U–shape policy rate dynamics
- No such systematic patterns uncovered for inflation or real short term rates
- The U-shape pattern of policy rates makes a crisis more likely:
  - Low rates increase the probability that the economy enters the R–zone
  - Once in the R–zone, the abrupt hike further increases the probability of a crisis

Micro–data (quarterly data, Spanish credit registry before 2008 Spanish crisis):

- Loans provided after a "low for long period" more likely to default in the upcoming three years
- And even more so, if a rate hike occurs in that period

My two cents

- Great paper: very policy relevant, outlines a novel stylised fact, and will certainly remain a key reference in the empirical literature on monetary policy and financial stability;
- Its empirical findings can be rationalised, inter–alia, through the lens of the theoretical model with endogenous financial crises in Boissay, Collard, Galí and Manea (2023) (BCGM).

Roadmap

1. U-shape path of policy rates and the genesis of historical crises through the lens of BCGM
   a. Role of discretionary monetary policy
   b. Role of systematic monetary policy
   c. Lack of a U-shape pattern pattern for inflation and real rates

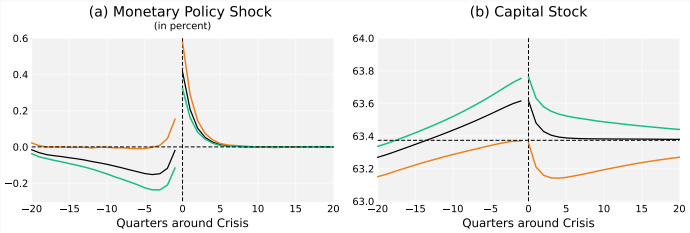
2. Normative implications through the lens of BCGM

3. Policy insights at the current juncture

U-shape path of policy rates and the genesis of historical crises through the lens of BCGM

a. Role of discretionary monetary policy

- Discretionary monetary expansion boosts aggregate demand, capital investment and credit, and can place the economy in a financially fragile region
- Steeply hiking rates in this region abruptly contracts demand crystallising vulnerabilities.

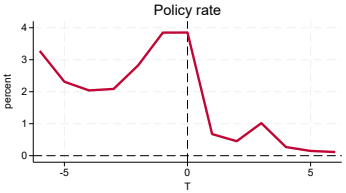


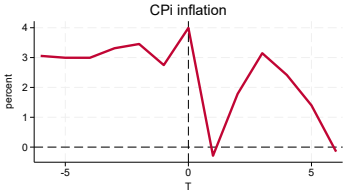
Source: Boissay, Collard, Gali and Manea (2023). Average discretionary deviations from the Taylor (1993) rule (panel (a)) and evolution of the capital stock (panel (b)) around the beginning of a crisis (quarter 0) in an economy with only monetary policy shocks.

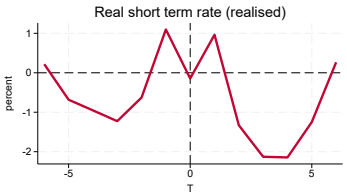
Spain 2008

- During the economic and credit boom that preceded the crisis, nominal and real short term rates were low, while inflation was above target

$\Rightarrow$ loose monetary policy: salient driver of the boom and associated financial vulnerabilities





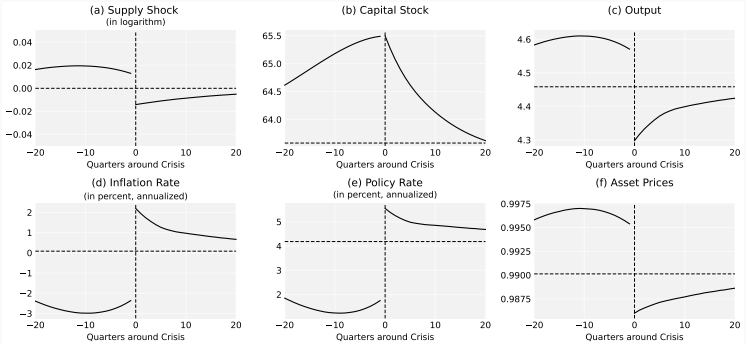


◂ US 2007

b. Role of supply factors and systematic monetary policy

- Booms before crises may be also driven by favorable supply developments (Gorton & Ordoñez (2020))

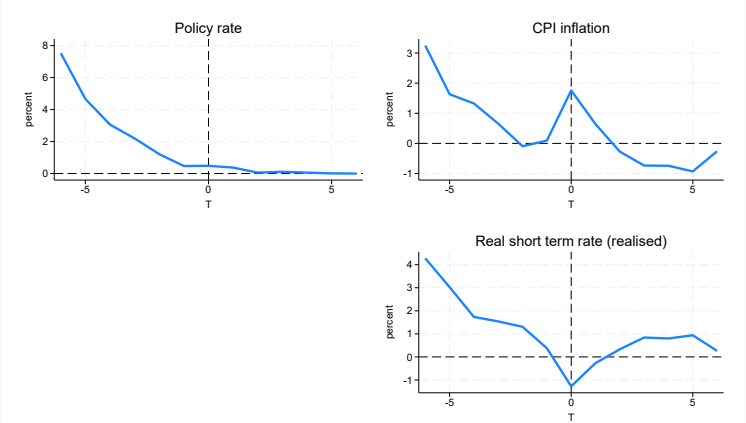
$\Rightarrow$ U-shape path of policy rate may also reflect a systematic response of monetary policy to disinflationary pressures, followed by a response to inflation once the supply boom recedes (BCGM (2023))



Source: Boissay, Collard, Galí, Manea (2023). Average dynamics around crises (quarter 0). Supply shocks only.

One example: Japanese lost decade in the nineties

- Cao and L'Huillier (2018) document that the prolonged crisis in Japan was preceded by a productivity boom due to the electronics revolution when Sony and JVC impose themselves as worldwide leaders
- Inflation and interest rates were low in the run-up to the crisis, consistent with low rates being a systematic response to favorable supply developments



c. Lack of U–shape pattern for inflation and real rates

- Crises tend to follow a long period of low policy rates that lead to a credit/asset boom
- Associated inflation and real short term rate dynamics depend on the nature of the boom
  - Monetary–driven booms characterised by high inflation and low short term real rates
  - Supply–driven booms characterised by low inflation and high short term real rates
- Each crisis is driven by a mix of factors

$\Rightarrow$ The U-shape in policy rates may be associated with low inflation (if mostly supply–driven), but also with high inflation (if mostly monetary–driven) depending on the sample composition

$\Rightarrow$ No systematic pattern for inflation before crises. Same applies to real short term rates

Normative implications through the lens of BCGM

Normative implications of "U-shape" patterns

- The paper argues in favor of preemptive action by central banks so as to tame the boom before the economy enters the "R–zone"

→ Similar conclusion wrt systematic monetary policy in the theoretical analysis of BCGM (2023):

  – an augmented Taylor rule with an index of financial fragility preemptively tames the boom and improves welfare relatively to a Taylor rule or SIT (see Section 6.1 and Table 2 in the paper Lk)

- Another (more direct) policy implication of the empirical results through the lens of BGCM:

  – discretionary policy actions such as keeping rates unexpectedly low for long, or hiking abruptly on the heels of booms may have unwarranted effects on financial stability

  ⇒ central banks may want to the extent possible to avoid such policy actions

Policy insights at the current juncture

Overheating of financial markets in the EA before the abrupt rate hike?

- The paper shows that the U-shape pattern of the policy rate makes a financial crisis more likely by
  - boosting credit and asset prices and pushing the economy into the R-zone
  - abruptly increasing credit default risks (especially if in the R-zone)

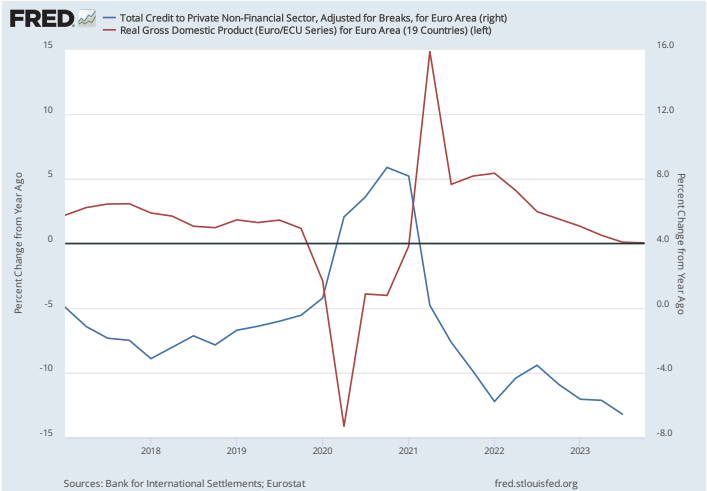
  $\Rightarrow$ The steep monetary tightening in the EA starting mid–2022 poses risks to financial stability
  $\Rightarrow$ These risks depend on the degree of overheating of financial markets before the abrupt hike

- Was the EA in/close to an "R-zone" when the monetary tightening cycle started?
- Were there any differences among EA members? (e.g. some in the "R-zone", others not)

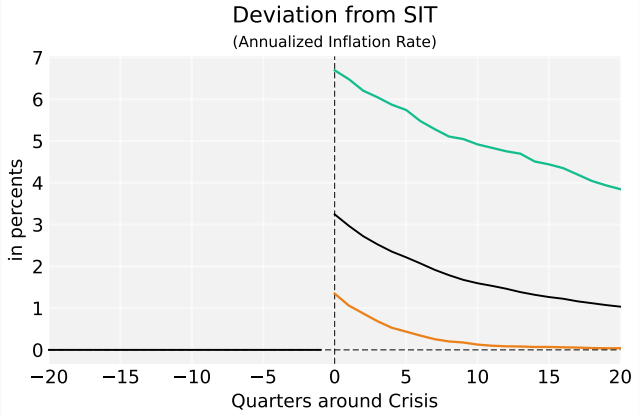
Note: The "low for long" path before the monetary tightening cycle in the EA was quite special:

- "low for long" at ZLB in the aftermath of the EA Debt crisis in 2012, followed by
- further loosening at ZLB to "backstop" financial fragility in the face of the Covid–19 shock

Food for thought: credit and output dynamics before the tightening cycle



Policy normalisation after a backstop (BCGM (2023))



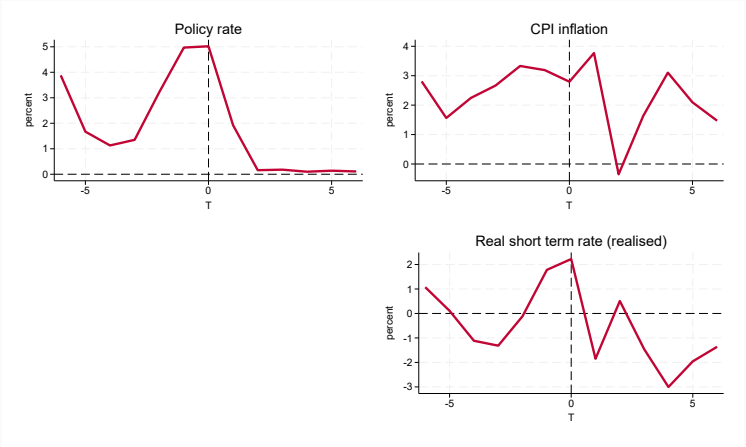
Further food for taught

What about individual EA members?

Thank you!

Backup slides

Policy rate, inflation and real rates in the run–up to GFC in the US



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Augmented Taylor rule tames the boom and fosters financial stability & welfare

	Rule parameters			Model with Financial Frictions				
	ϕ_π	ϕ_y	ϕ_r	Time in Crisis/Stress (in %)	Length (quarters)	Output Loss (in %)	Std(π_t) (in pp)	Welfare Loss (in %)
				Taylor (1993)– rule				
(1)	1.5	0.125	–	10	4.8	6.6	1.2	0.82
				SIT				
(6)	$+\infty$	–	–	9.4	5.1	8.1	0	0.23
				Augmented Taylor–type Rule				
(10)	10.0	0.125	75.0	6.3	4.6	6.4	0.09	0.16

- Augmented Taylor rule (see section 6.1 amnd Table 2 in BCGM (2023)):

$$1 + i_t = \frac{1}{\beta}(1 + \pi_t)^{\phi_\pi} \left(\frac{Y_t}{Y}\right)^{\phi_y} \left(\frac{1 + r_t^q}{1 + r^q}\right)^{\phi_r}$$

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