WHAT CAN KEEP EURO AREA INFLATION HIGH?

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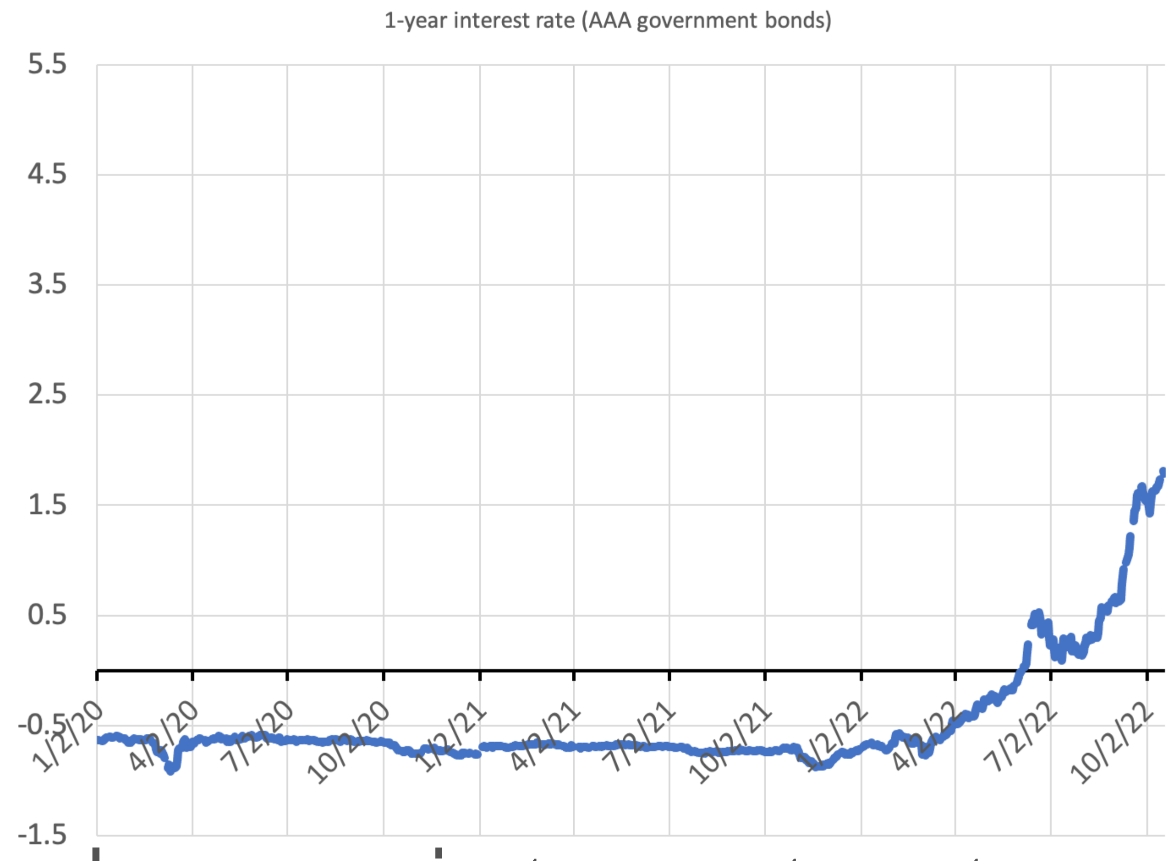
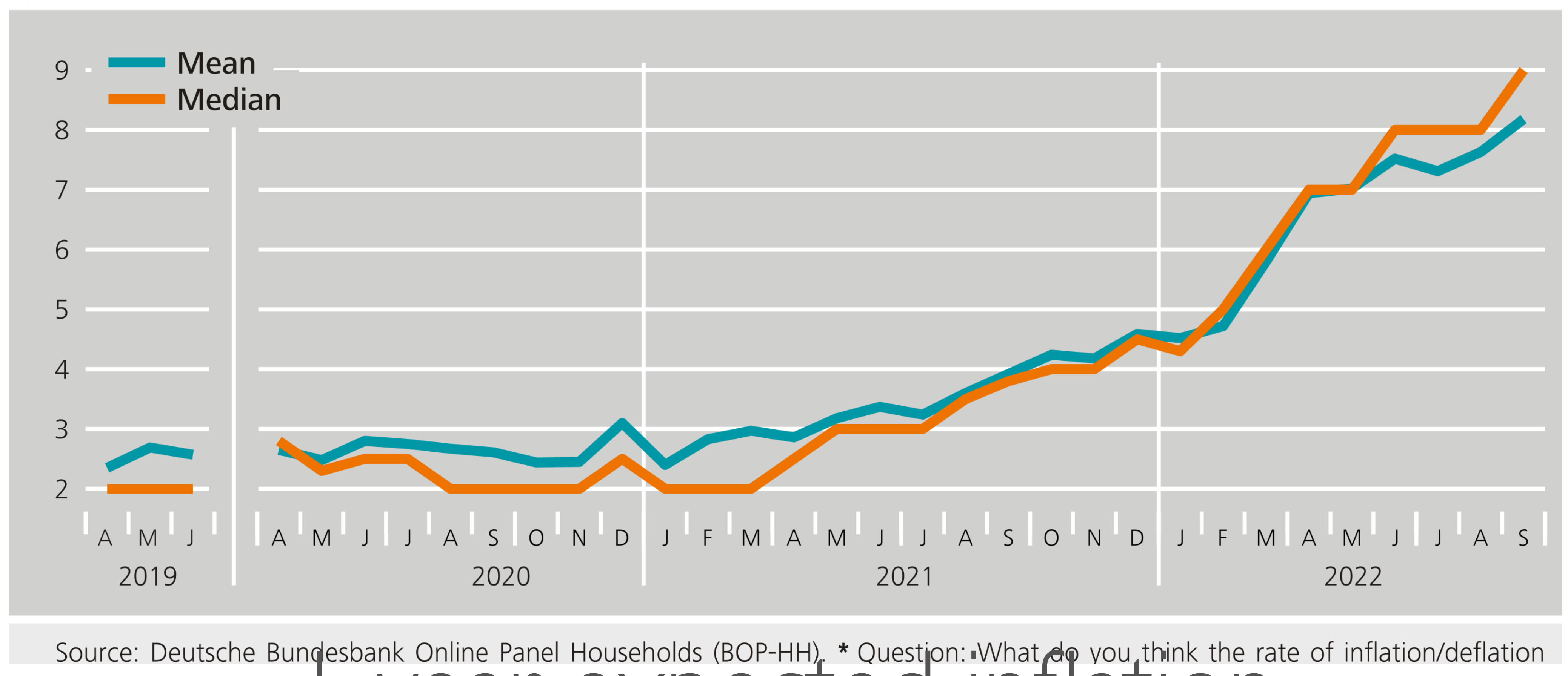
Context: dramatic increase in inflation

Unemployment rate



1-year interest rate



1-year expected inflation

The question

What could prevent ECB from reaching its 2% inflation target by the end of 2024?

- Can it do so? Sure, easy, hike policy rates, quickly, and persist until inflation starts coming down and expectations are solidly re-anchored.
- Should it do so? Maastricht Treaty is clear, deliver price stability
- Will it do so? Maybe not, if it gets *dominated*

Starting from high inflation, when would an interest-rate setting central bank fail to raise policy rates because it is dominated by other factors or agents, with an application to the challenges facing the ECB in 2023-24?

1. Misjudgment dominance

$$i = r + \pi^e \quad \text{and} \quad i = \bar{\pi} + \hat{r} + \phi(\pi - \bar{\pi})$$

$$\pi = \bar{\pi} + \frac{r - \hat{r}}{\phi} + \frac{\pi^e - \bar{\pi}}{\phi}$$

Underestimate the neutral rate. Have interest rates too low for too long

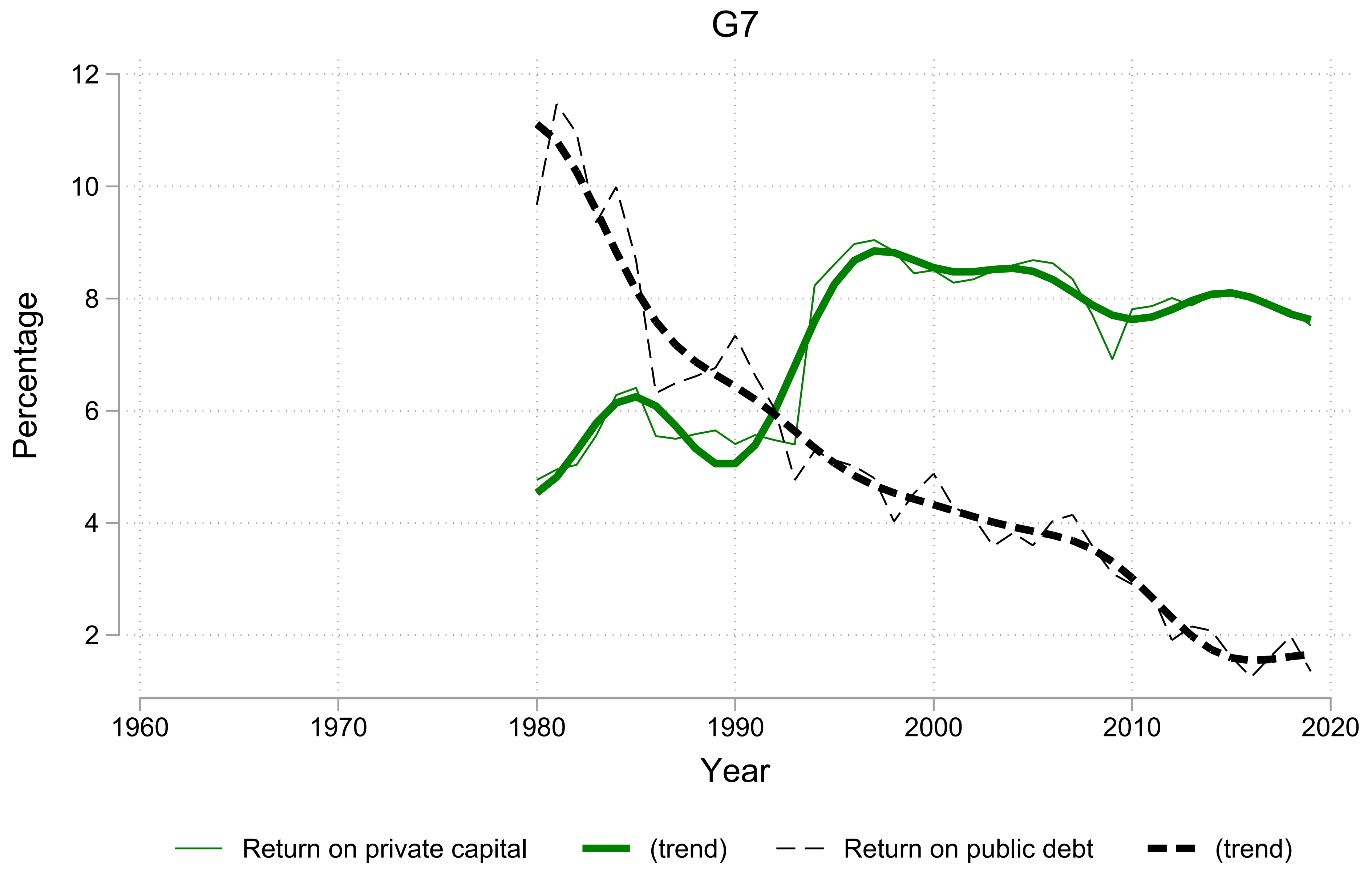
<u>Misjudgment dominance</u> happens when central banks cling to outdated theories or measurements of the economy, finding excuses for why inflation is rising that absolve monetary policy from responsibilities.

1. Misjudgment dominance: ECB today

1a) Persistent underestimate of how high will have to raise rates

- 1970s example: imperfect real-time data, energy shocks, transitory beliefs
- Simple calculations: $i > 2\% + 1\% = 3\%$

1b) Conceptual reliance on persistent low r-star for a long time



Two r-stars: private capital and government bonds

- Fuel of the 2020-21 mission review
- Estimates contaminated by "specialness" of government bonds

Sources: Reis (2022) "Which r-star, public bonds or private investment?"

2. Incredibility dominance

$$\pi^e = \lambda_i \bar{\pi} + \lambda_b \pi_0 + (1 - \lambda_i - \lambda_b)\pi$$

$$\pi = \bar{\pi} + \frac{\lambda_b(\pi_0 - \bar{\pi})}{\phi - 1 + \lambda_i + \lambda_b}$$

Legacy of 2021-22 inflation: λ_b rose. Two solutions:

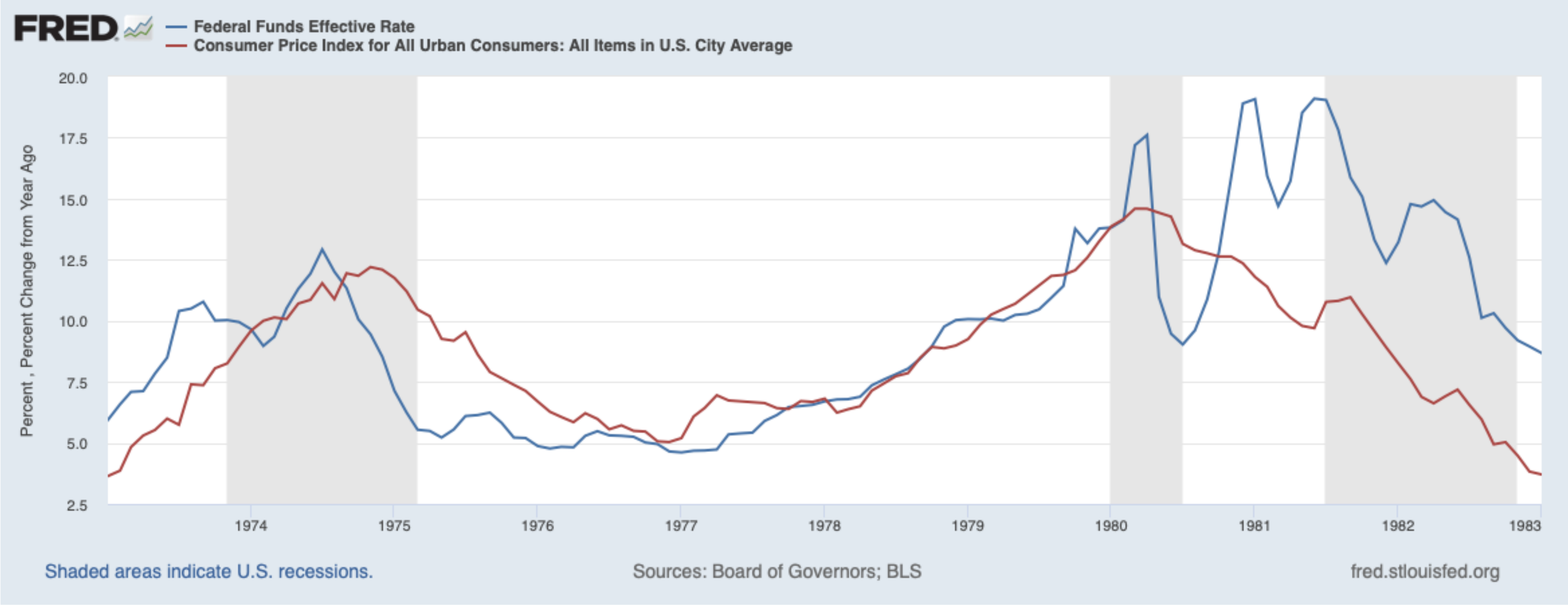
i) Act tough: higher ϕ, (ii) Talk tough: regain trust, raise λ_i

__Incredibility dominance__ happens when central banks fail to acknowledge potential lack of credibility on inflation control and, facing a recession, hesitate to reassert it

2. Incredibility dominance: ECB today

2a) Fear being unpopular by focussing on inflation over unemployment

2b) Converge to neutral rate from below.



The Burns-Volcker (Taylor) lesson: "over"shooting is right, gradualism is wrong

3. Fiscal dominance

$$\underbrace{\delta b}_{\text{repayment}} = \underbrace{f}_{\text{primary balance}} + \underbrace{\left(q - \frac{1}{1+r}\right) b'}_{\text{debt revenue}} + \left(\frac{1}{1+r}\right) b'$$

$$q = Q(i, b/v)$$

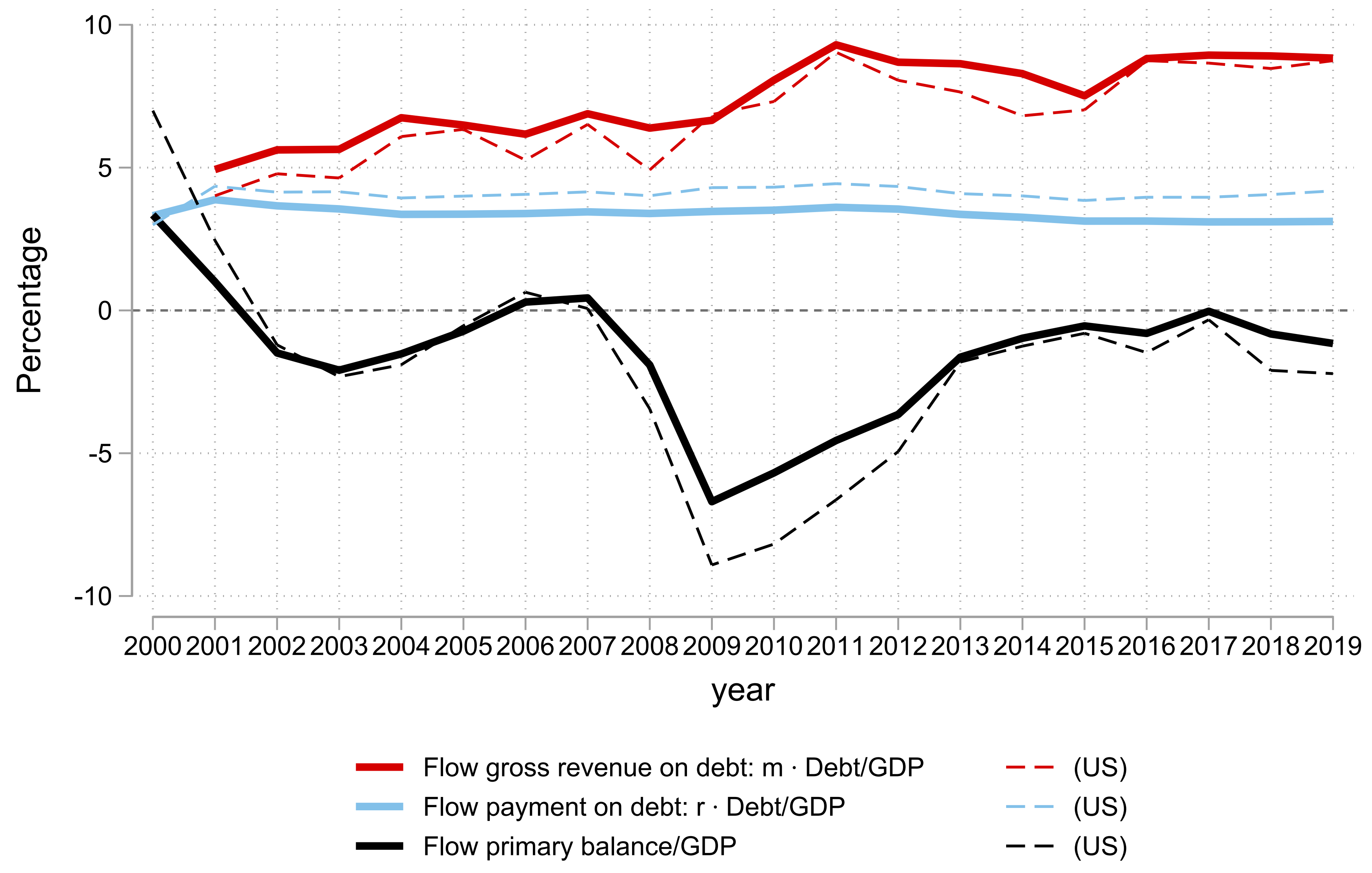
Fall in bond prices (q) lowers debt revenue, met by austerity (f) or default (δ)

Monetary policy lower i or increase v: keep bonds scarce, protect debt revenue

<u>Fiscal dominance</u> happens when the central bank does not bring inflation under control because of the impact this would have on the fiscal position of the government. Raising policy rates is feared to break the government's budget.

3. Fiscal dominance: ECB today

3a) Tempted by short-term fiscal benefit of inflation (recession, debase debt)



- Neglects long-term fall in debt revenue
- Inflation makes debt less safe less useful as collateral, and a less appealing store of value for foreigners. Less special.

3b) Balance-sheet policy leads to large losses

- Debt revenue is bondholder payment, ECB and lack of recapitalization

3c) Transfers across regions and legality of the euro

- ECB purchases prevent rollover crises, but thin line to transfers.

Sources: Reis (2022) "Debt Revenue and the Sustainability of Public Debt"

4. Financial dominance

$$i^c = i + \mu^c + \alpha_c \beta \quad \text{and} \quad i^d = i - \mu^d + \alpha_d v$$

$$i^c - i^d = \mu^l + \mu^d + \alpha_c \beta - \alpha_d v$$

Higher rates hurt borrowers and depositors.

Looser macroprudential lowers intermediation costs but debt revenue as well

More abundant reserves lowers the scarcity of deposits, may prevent fire sales

Financial dominance *happens when a central bank resists bringing inflation down because it fears causing a financial crisis.*

4. Financial dominance: ECB today

4a) Groups lobbying for respite from redistribution caused

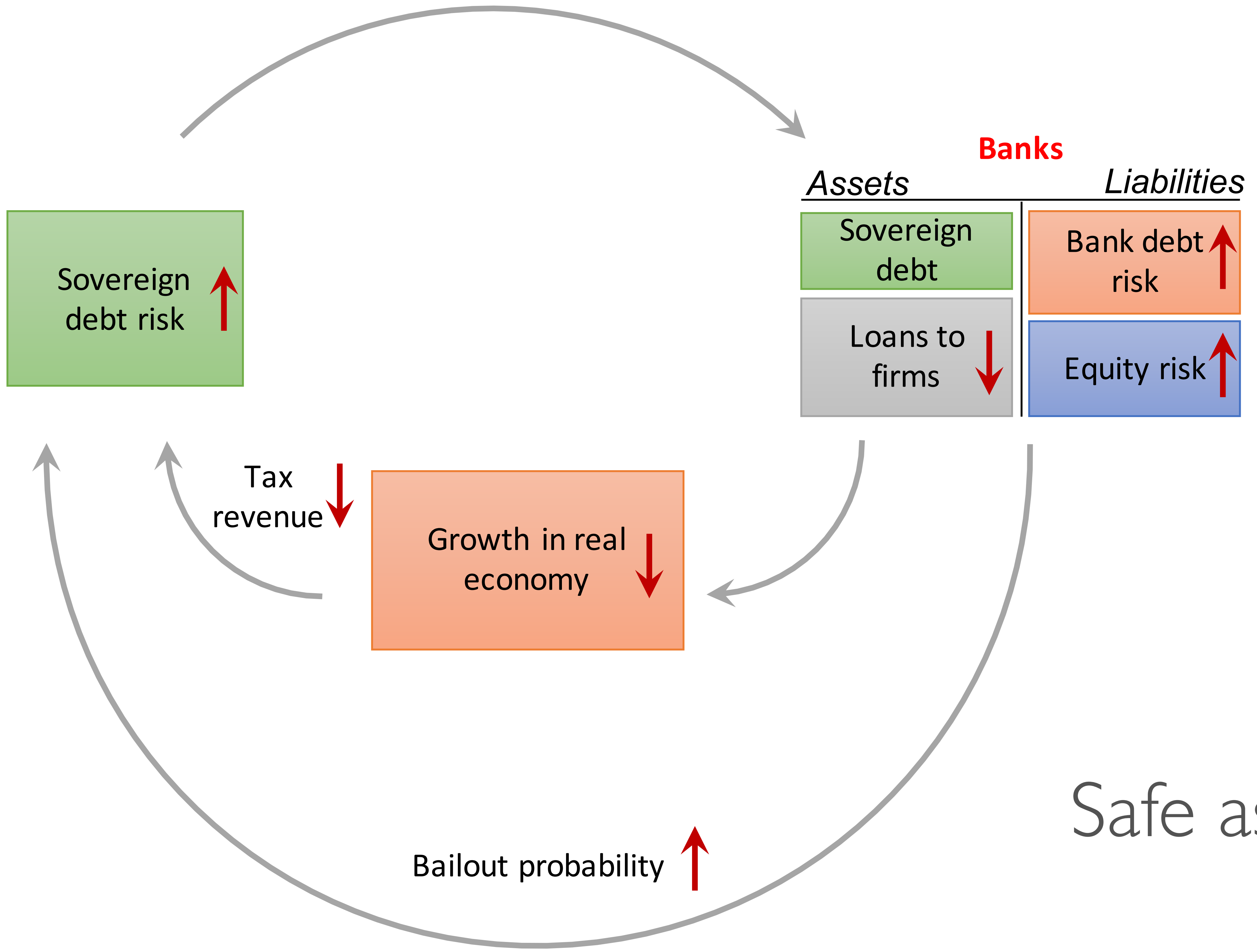
- Higher rates raise intermediation margins, redistribution in credit and housing
- Also makes misjudgment dominance more likely

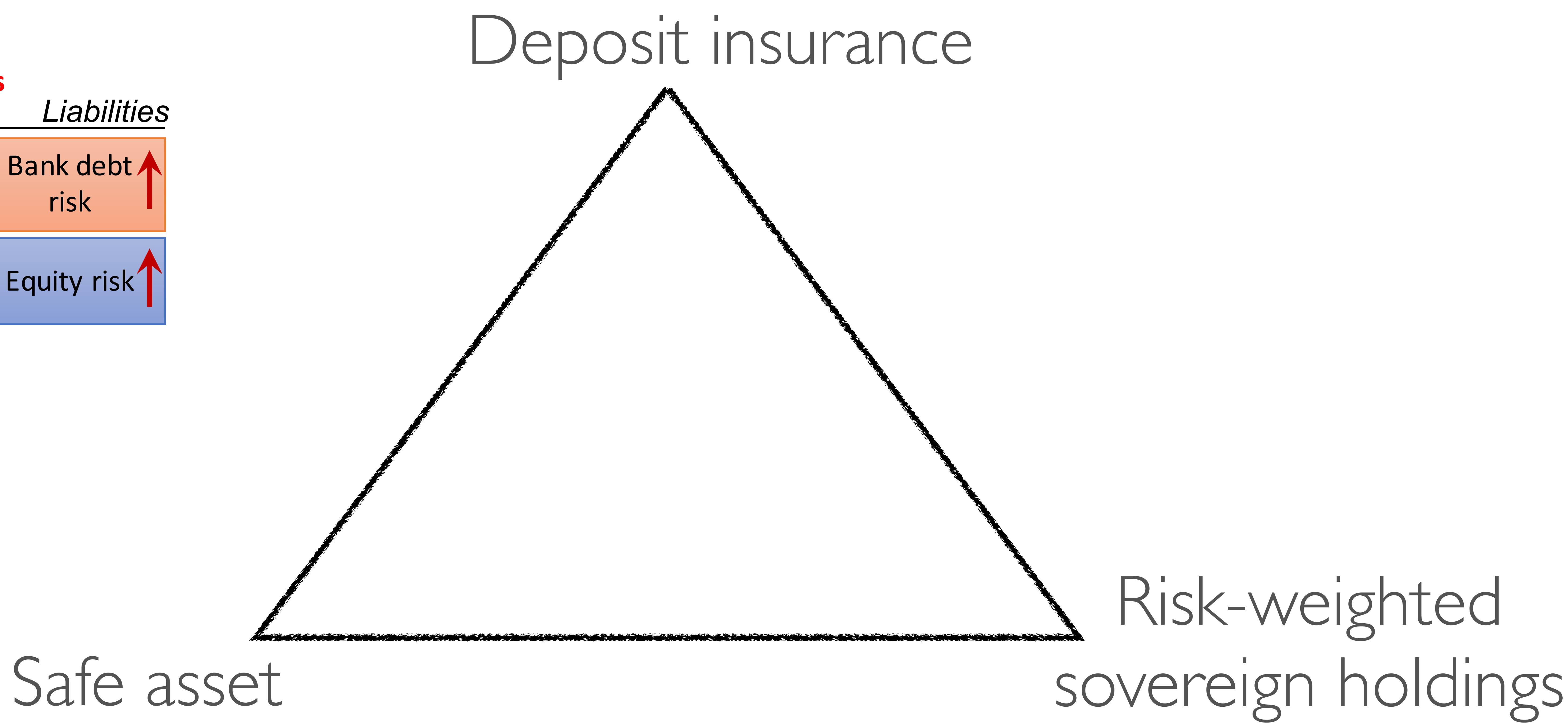
4b) Unwilling to use macropru and liquidity policies to handle financial stress

- Their goal is to prevent financial dominance of monetary policy
- But they can become vehicle for fiscal dominance

4. Financial dominance: ECB today

4c) Diabolic loop between banks and sovereigns, triggered by higher rates





Repeat of 2011, dramatic punishment for lack of reforms

Sources: Brunnermeier and Reis (2023) A Crash Course on Crises

5. Recession dominance

$$\pi = \pi^e + \kappa y + \varepsilon \quad \text{and} \quad y = -\omega(r - r^*)$$

$$\varepsilon = \mathscr{E}(shocks, f, \delta, i^c - i^d)$$

Shocks: energy markets, de-globalization, sectoral adjustments.

With a positive markup movement, bringing down inflation quickly comes with a negative output gap.

<u>Recession dominance</u> happens when the central bank is so worried about causing a recession by raising interest rates that it allow inflation to get out of control. The concern is now with breaking the real economy.

5. Recession dominance: ECB today

5a) Delay bringing inflation down and letting expectations entrench

- Too slow at bringing inflation down infuses persistence into inflation (λ_b)
- Requires even larger recession down the road

5b) Phillips curve gets steeper as inflation persists

- If record-high inflation persists for another 12 months or more, wages and prices will likely start adjusting
- $\varkappa$ rises and can become very high

5. Recession dominance: ECB today

5c) Over-estimate potential output

Not every shock affects ε, some will affect productive capacity of the economy

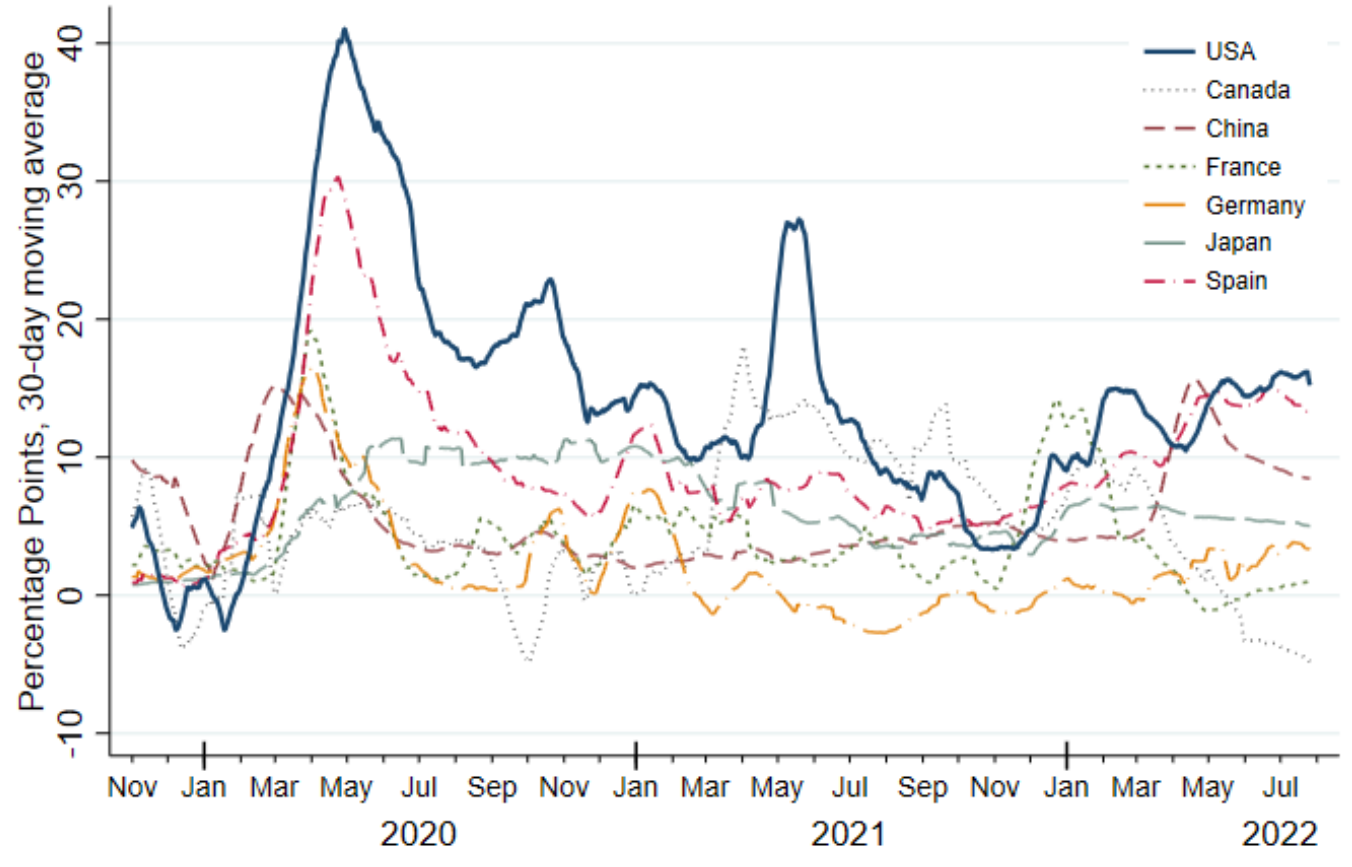
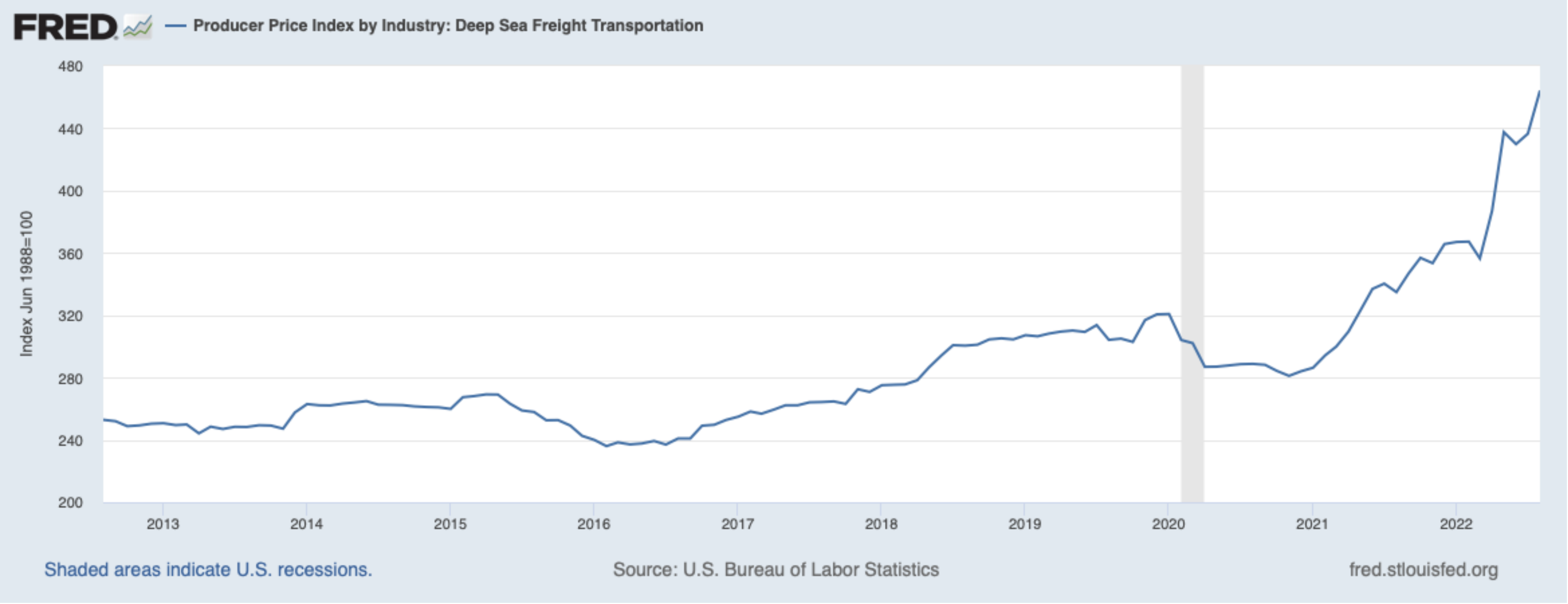


Figure 4: All Stockouts in 7 Countries

Notes: The initial level of $AOOS$ varies greatly by country, so in order to facilitate the comparison, here we plot the change relative to pre-pandemic levels, given by $AOOS_{t,c} - AOOS_{Jan2020,c}$.



Sources: Cavalo Kryvstov (2022) "What Can Stockouts Tell us About Inflation"

Conclusion

Economic policy always requires a balancing act.

Gloomy precautionary perspective of imagining scenarios under which it becomes dominated by the other factors.

Glass half full and half empty

Table 1: Signs of dominance preventing the central bank from lowering inflation

Type of dominance	Obstacle to raising policy rates
Misjudgment	- persistent underestimate of how high must rise - excessive reliance on a persistent low r-star
Incredibility	- desire to be popular - converge to neutral rate from below
Fiscal	- tempted by short-term fiscal benefit of higher inflation, neglecting long-term fall in debt revenue - overuse balance-sheet policy leading to large losses that require recapitalization - jeopardize legality of euro by engaging in large transfers across regions
Financial	- groups lobbying for respite from redistribution caused - unwilling to use macroprudential and liquidity policies to handle financial stress - diabolic loop between banks and sovereigns
Recession	- delay bringing inflation down and letting expectations entrench - over-rely on Phillips curve, which gets steeper as inflation persists - over-estimate potential output