INFLATION ~~RISKS~~ REALITY: HOW AND WHY WE GOT HERE

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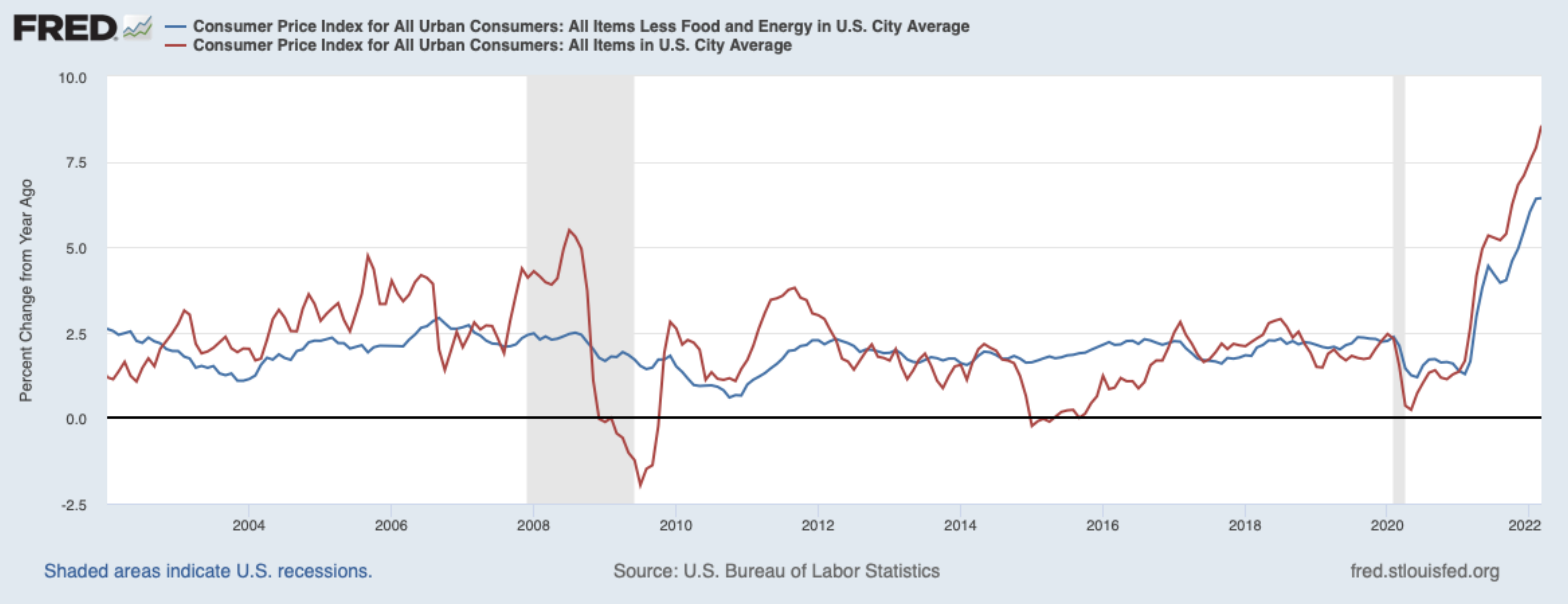
LSE

6th of May, 2022
"How Monetary Policy Got Behind the Curve and How to Get Back"
Hoover Institution / Stanford University

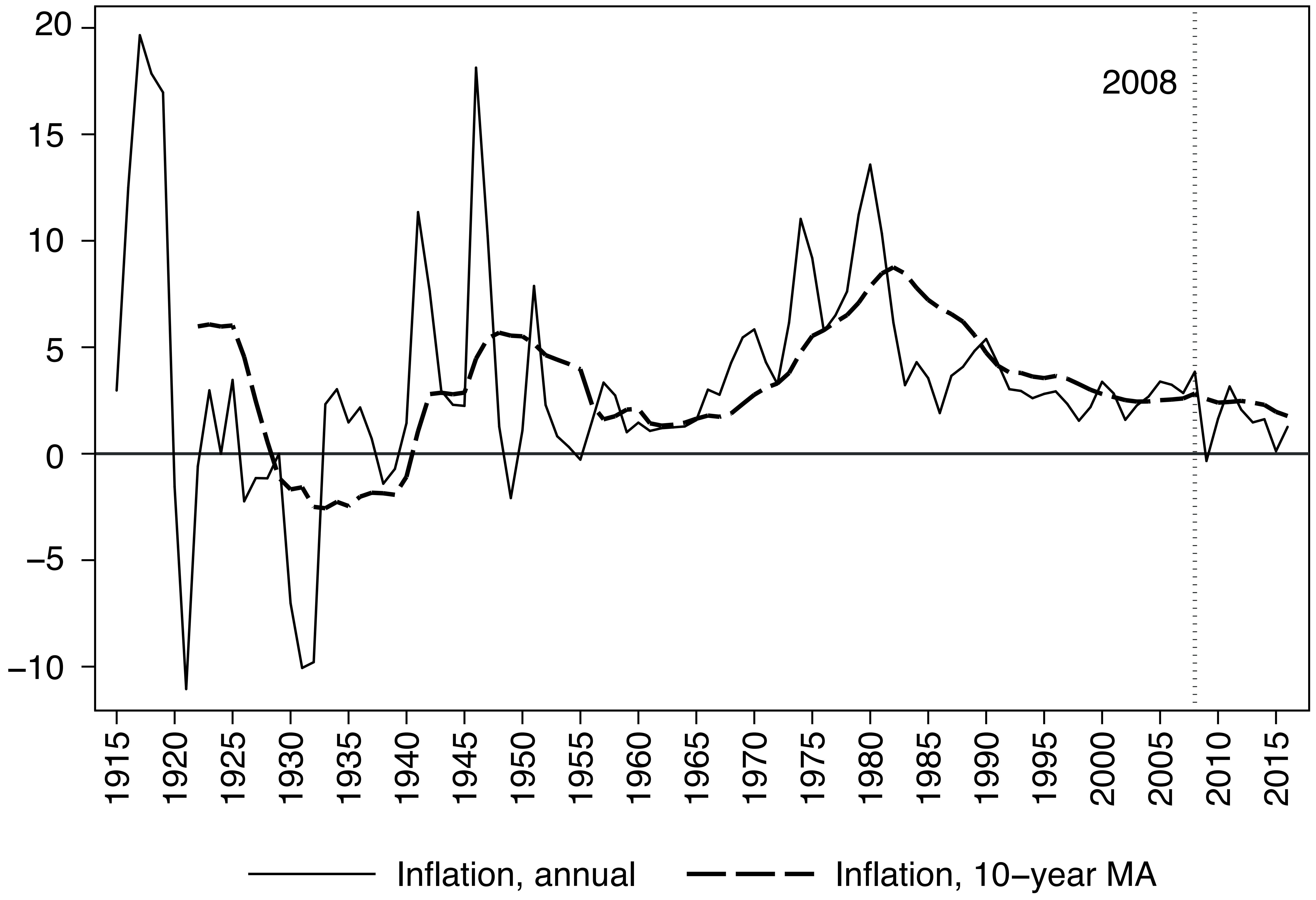
How did we get here?



"*Imagine that inflation was running at 5 percent against our inflation objective of 2 percent. Is there a doubt that any central banker worth their salt would be reacting strongly to fight this high inflation rate? No, there isn't any doubt. They would be acting as if their hair was on fire.*" Charlie Evans, January 2011

The context: 30+ years of price stability

B: United States, 1915-2016

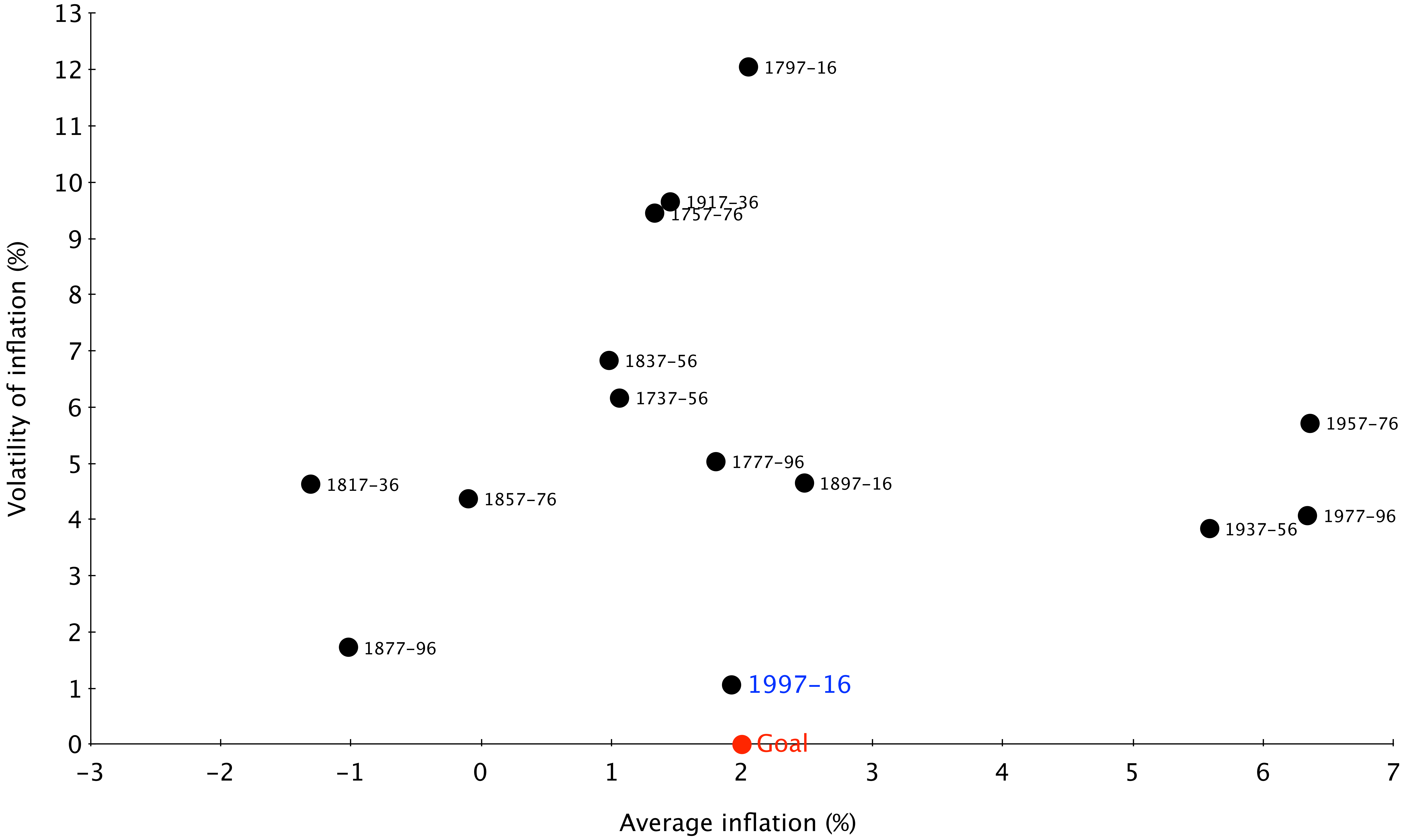


Three pillars of the success

- Central bank independence
- Inflation targeting
- Primacy of the short-term interest rate as the policy tool, set in transparent and predictable way

Source:: Miles, Panizza, Reis, Uribe (2016)

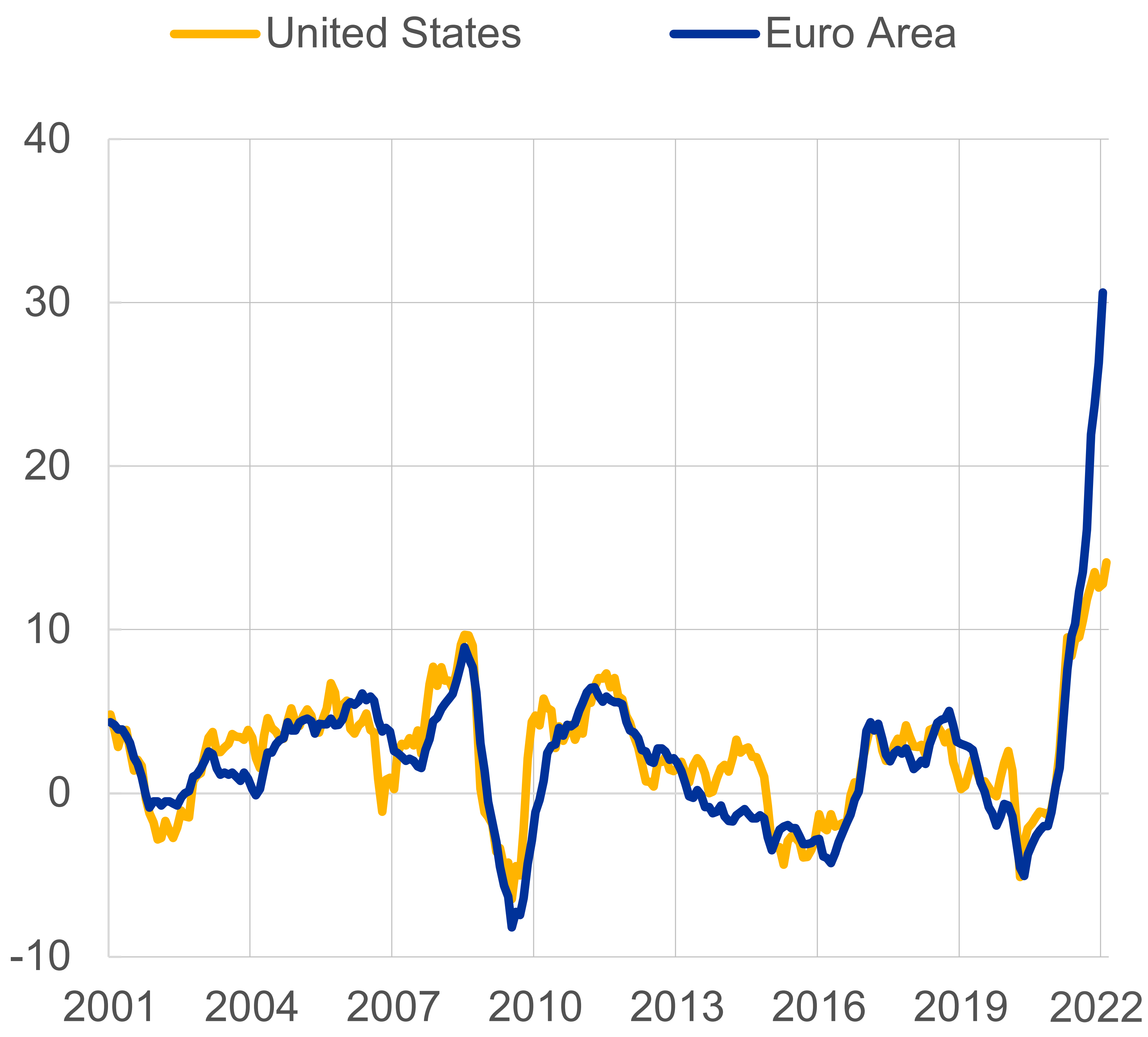
Internationally validated (UK below)



Source:: Reis (2017)

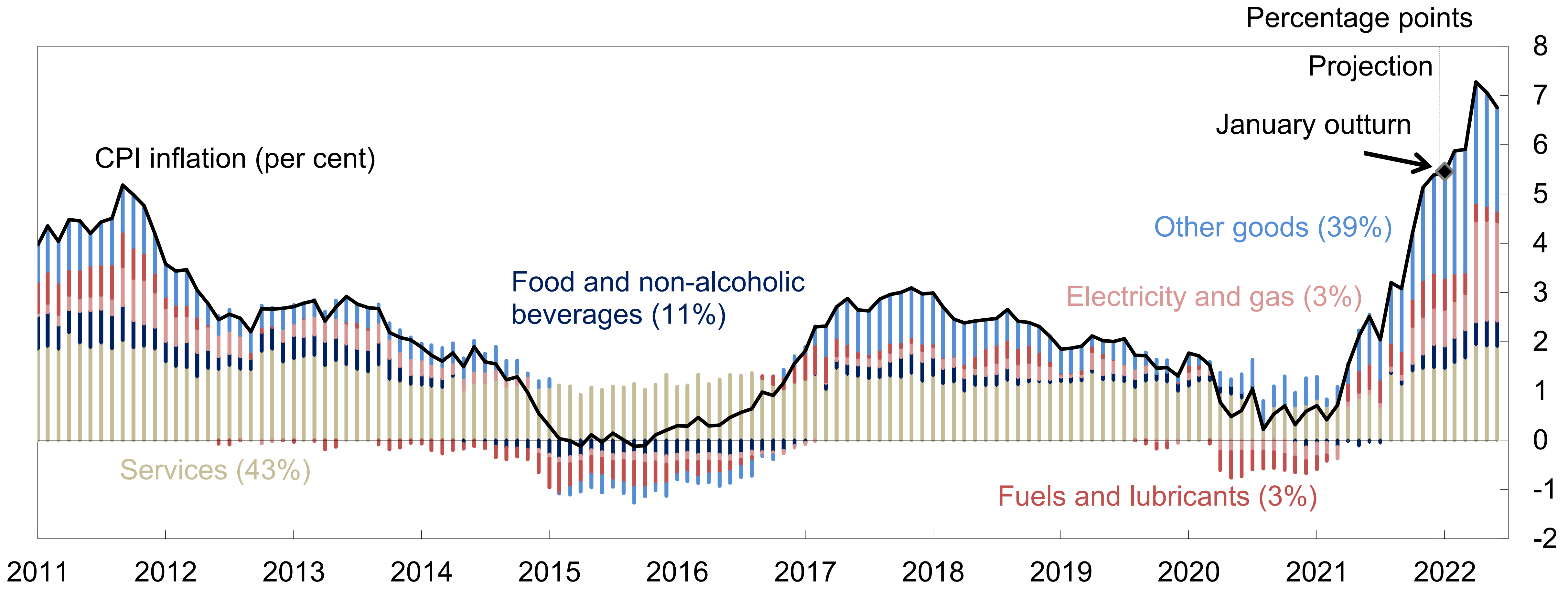
Not solely a US problem

Headline producer price inflation
(annual percentage changes)



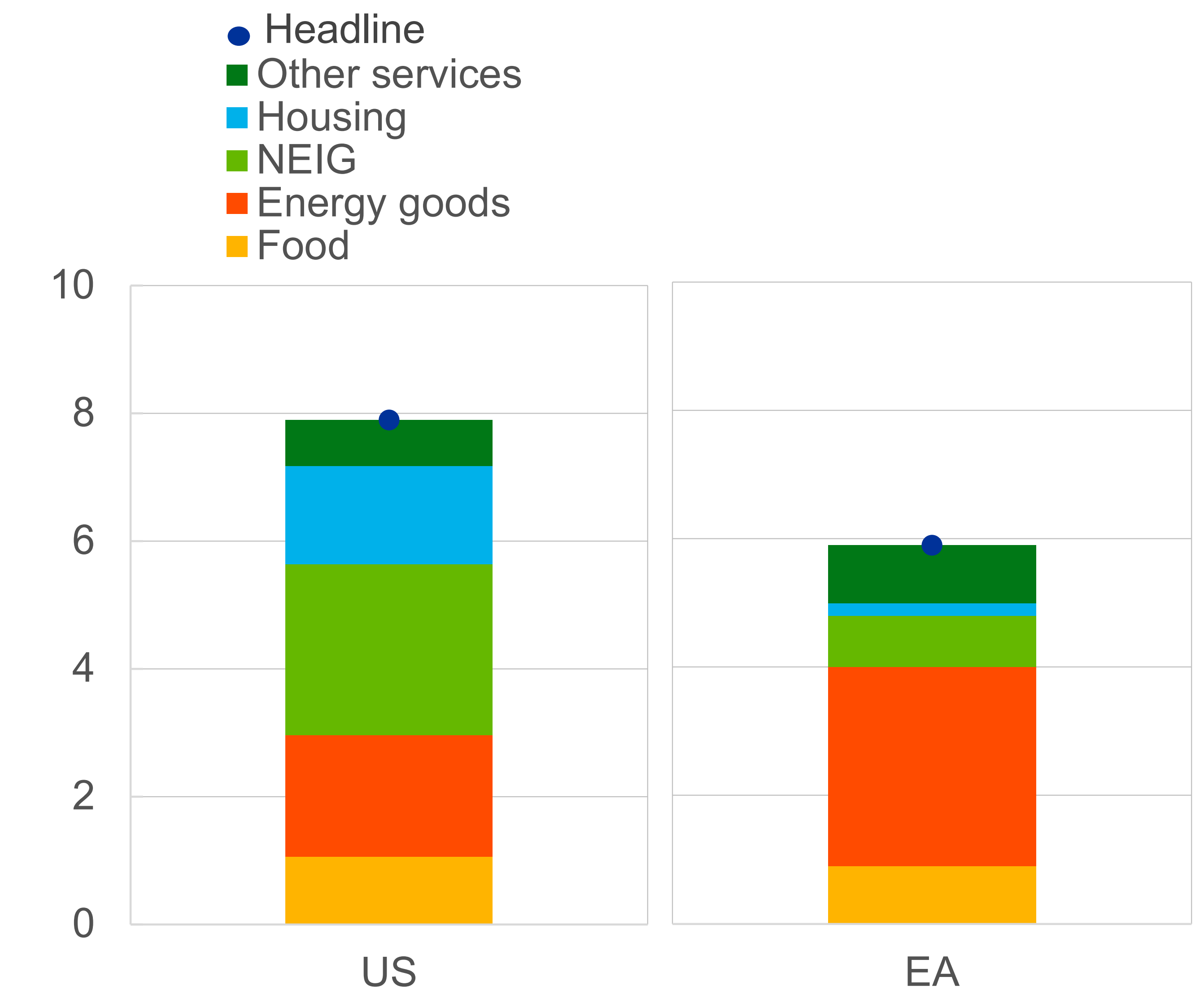
Source: Haver DLX and Eurostat.
Notes: Non-seasonally adjusted domestic PPI for industry excluding construction.
Last observation: January 2022 for the euro area, February 2022 for the US.

Chart 1 – Contributions to CPI inflation



Sources: Bloomberg Finance L.P., Department for Business, Energy and Industrial Strategy, ONS and Bank calculations.
Notes: See notes to Chart 2.19 in the February 2022 *MPR*. January 2022 outturn shown for aggregate CPI inflation only, all other data from January to June 2022 are Bank staff's projection at the time of the February *Report*.

Inflation drivers in February 2022
(annual percentage changes, percentage point contributions)



Source: Haver DLX and Eurostat.

- Also high in EZ, UK
- But bigger in US, and less about energy.

Sources: Schanbel (2022), Tenreyro (2022)

What went wrong in 2021H2 - 202…

- **Bad luck?**
  - Large fiscal stimulus package in early 2021 in US (and EZ in 2022). War in 2022
  - Transitory versus permanent debates in 2021
  - <u>With inflation reaching record-high levels for several months in a row, increasingly implausible</u>.

- **Temporary mis-diagnosis of the unusual shocks that hit the economy?**
  - Pandemic in 2020 was a different type of recession, more robust recovery
  - 2020 stimulus, elevated monetary aggregates and savings, boost in spending post lockdown
  - Supply disruptions and bottlenecks: shocks to potential or to cycle?
  - <u>Persistence of easy monetary policy for many months suggests something more systematic</u>

- **Mistaken view of how monetary policy works and what drives inflation?**
  - But central banks follow (and produce) state-of-the-art research on these topics
  - Their models are in line with professional consensus.

Explore an alternative: problems with framework

August 27, 2020

New Economic Challenges and the Fed's Monetary Policy Review

Chair Jerome H. Powell

At "Navigating the Decade Ahead: Implications for Monetary Policy," an economic policy symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming (via webcast)

Two challenges (of four):

- "fall in the equilibrium real interest rate, or "r-star."
- Very stable inflation expectations. If anything stuck too low.

Why these changes mattered

- **If r* is lower then:**
  - Move to focus increasingly on longer interest rates (forward guidance)
  - Fear safety trap, support Treasury market (quantitative easing, liquidity)
  - Deflation trap: "Adverse cycle of ever-lower inflation and inflation expectations" (Powell, 2020)
  - 2020 confirmed it: initial deflation, policy response enormous and sharp

- **If inflation and expectations so sticky then:**
  - Flat Phillips curve, revise downward u*
  - Shift weight to real activity (and financial stability), become more doveish.
  - 2020 confirmed it: inflation expectations did not budge, Fed focussed on supporting real activity and financial stability.

Expectations and the lost capital of inattention and credibility

The"no pasa nada" speech

August 27, 2021

Monetary Policy in the Time of COVID

Chair Jerome H. Powell

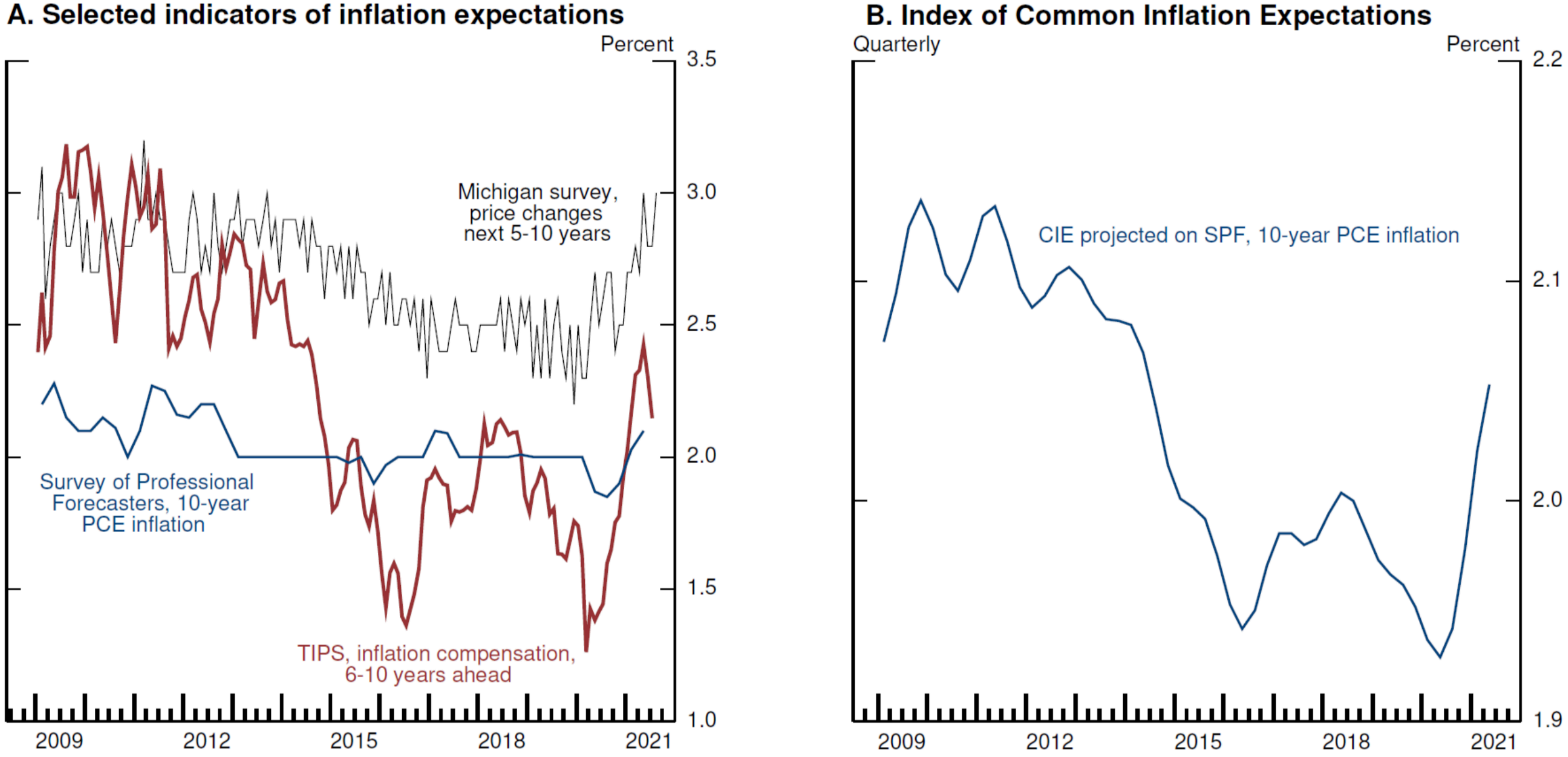
At the "Macroeconomic Policy in an Uneven Economy," economic policy symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming (via webcast)

- *Inflation at these levels is, of course, a cause for concern. But that concern is tempered by a number of factors that suggest that these elevated readings are likely to prove temporary.*

- *Little evidence of wage increases that might threaten excessive inflation*
- *Households, businesses, and market participants also believe that current high inflation readings are likely to prove transitory and that, in any case, the Fed will keep inflation close to our 2 percent objective over time.*
- *History also teaches, however, that central banks cannot take for granted that inflation due to transitory factors will fade. The 1970s saw two periods in which there were large increases in energy and food prices, raising headline inflation for a time. But when the direct effects on headline inflation eased, core inflation continued to run persistently higher than before. One likely contributing factor was that the public had come to generally expect higher inflation*
- *We have said that we will continue to hold the target range for the federal funds rate at its current level until the economy reaches conditions consistent with maximum employment, and inflation has reached 2 percent and is on track to moderately exceed 2 percent for some time.*

Powell: Nnothing to see in expectations data….

Figure 4. Longer-Term Inflation Expectations Have Largely Reversed Earlier Declines



Note: Treasury Inflation-Protected Securities (TIPS) data are monthly and extend through July 2021. The Michigan survey data are monthly and extend through August 2021; the August data are preliminary. Survey of Professional Forecasters data are quarterly and extend through 2021:Q2. PCE is personal consumption expenditures.

Source: Federal Reserve Bank of Philadelphia, Survey of Professional Forecasters; University of Michigan Surveys of Consumers; Federal Reserve Board staff calculations.

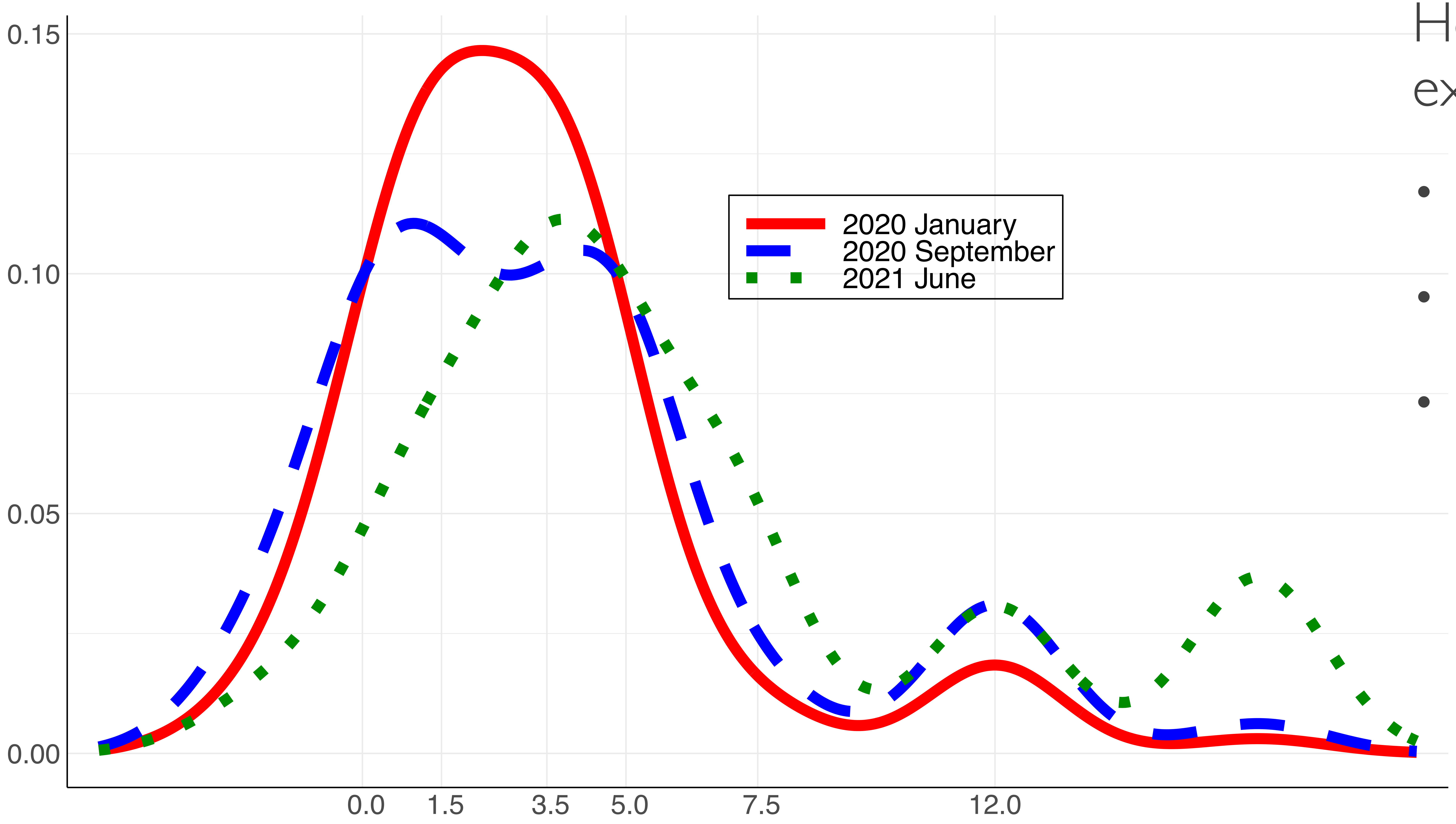
Note: The data extend through 2021:Q2. CIE is Index of Common Inflation Expectations, and SPF is Survey of Professional Forecasters.

Source: Federal Reserve Board staff calculations.

- If anything, mis was good news that they had risen!
- Higher expected inflation is what you want in a liquidity trap, where fear is deflation

Source:: Powell (2020)

But look beyond means, look at distributions

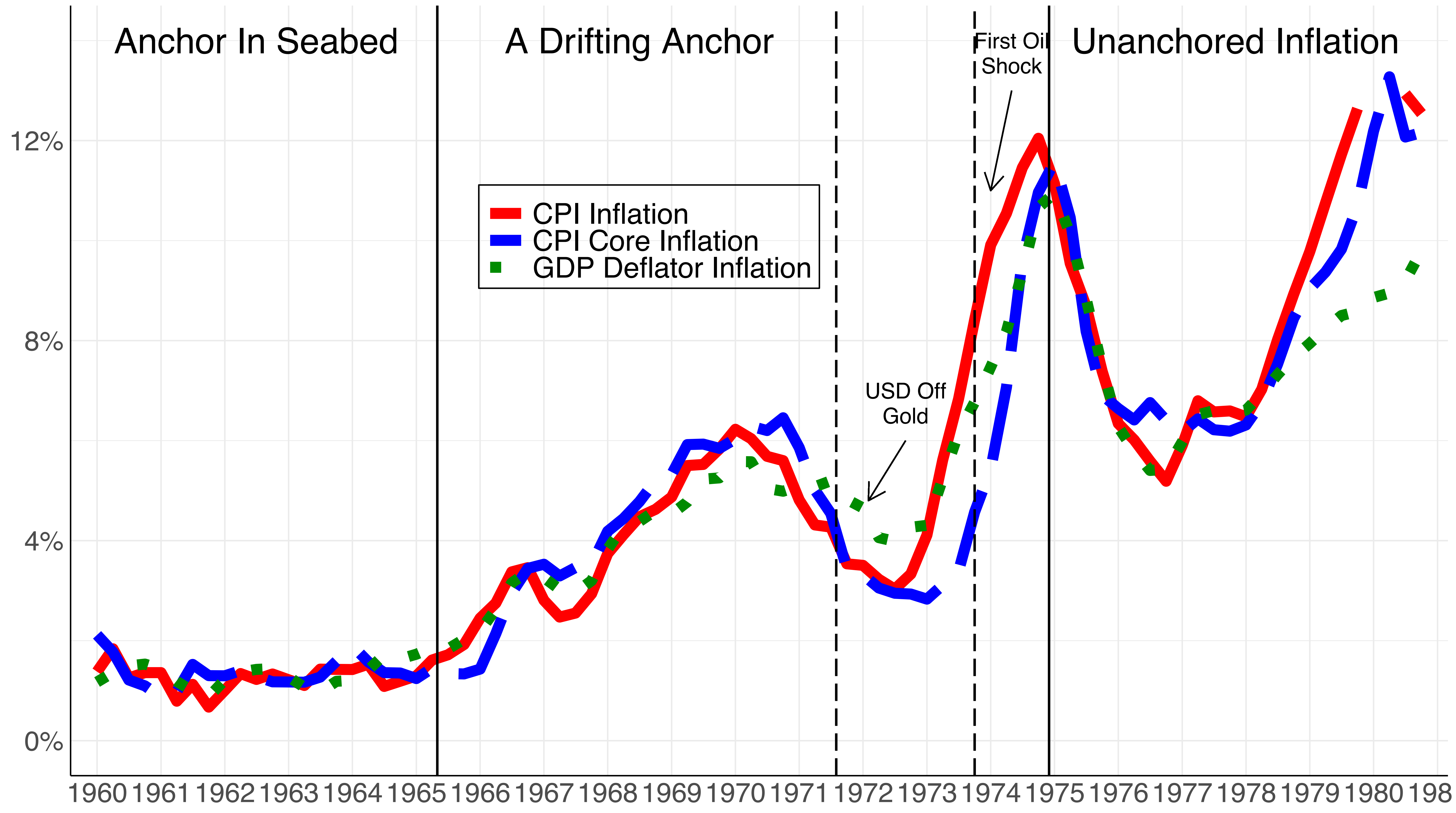


How survey expectations shift:

- First get skewness
- Then get variance
- Then both decline, and the mean has definitely shifted

Source:: Reis (2022a)

Remember the late 1960s



1968-71: anchor drifting

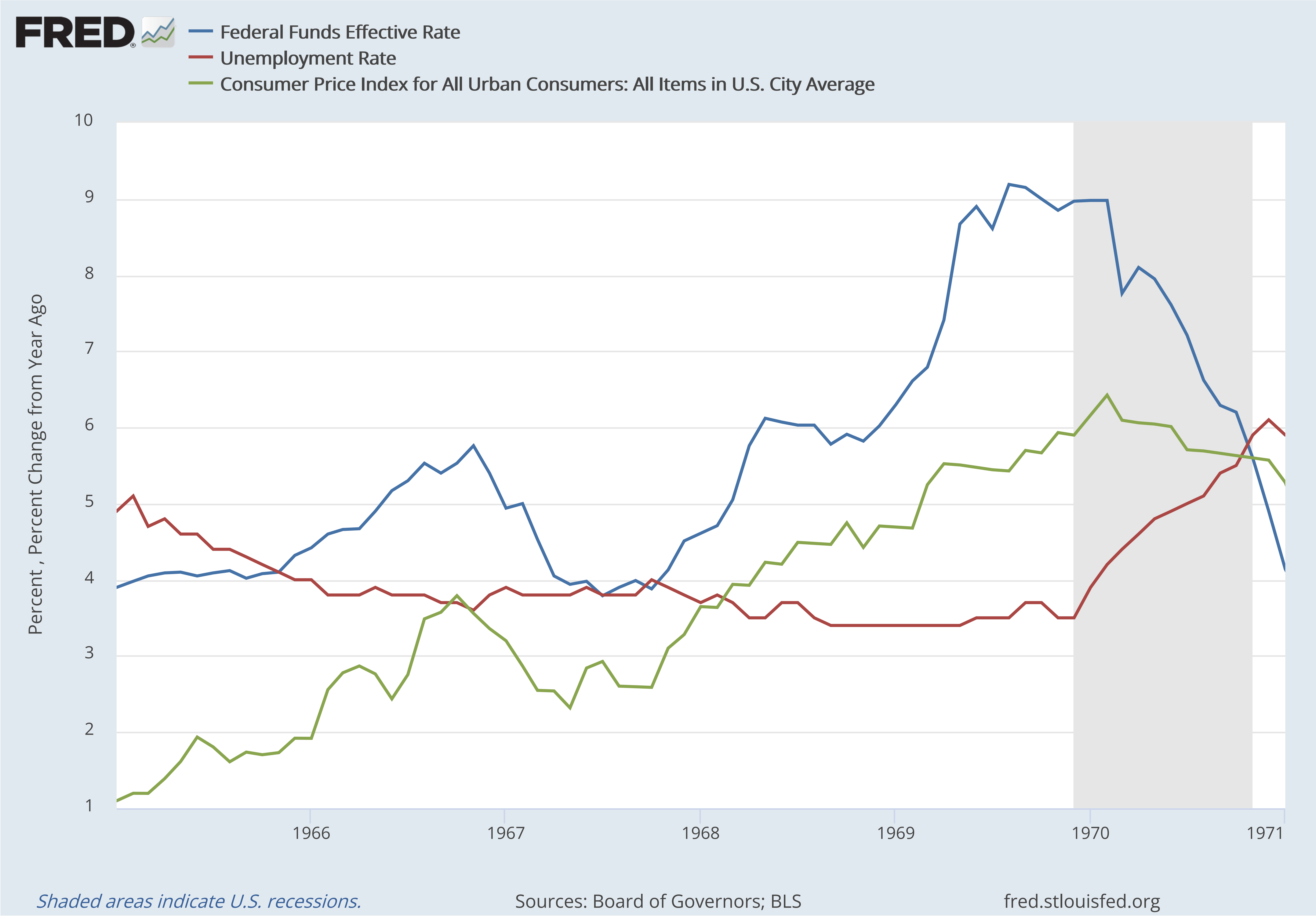
As inflation accelerated, Martin, July 1969, "*inflationary psychology remained the main economic problem*" Indexation spreads.

1971-74: anchor adrift

Burns on wage and price controls "*In this new psychological environment, our trade unions may not push quite so hard for a large increase in wage rates, since they would no longer be anticipating a higher inflation rate. And in this new psychological environment, our business people would not agree to large wage increases quite so quickly*"

Source:: Reis (2022a)

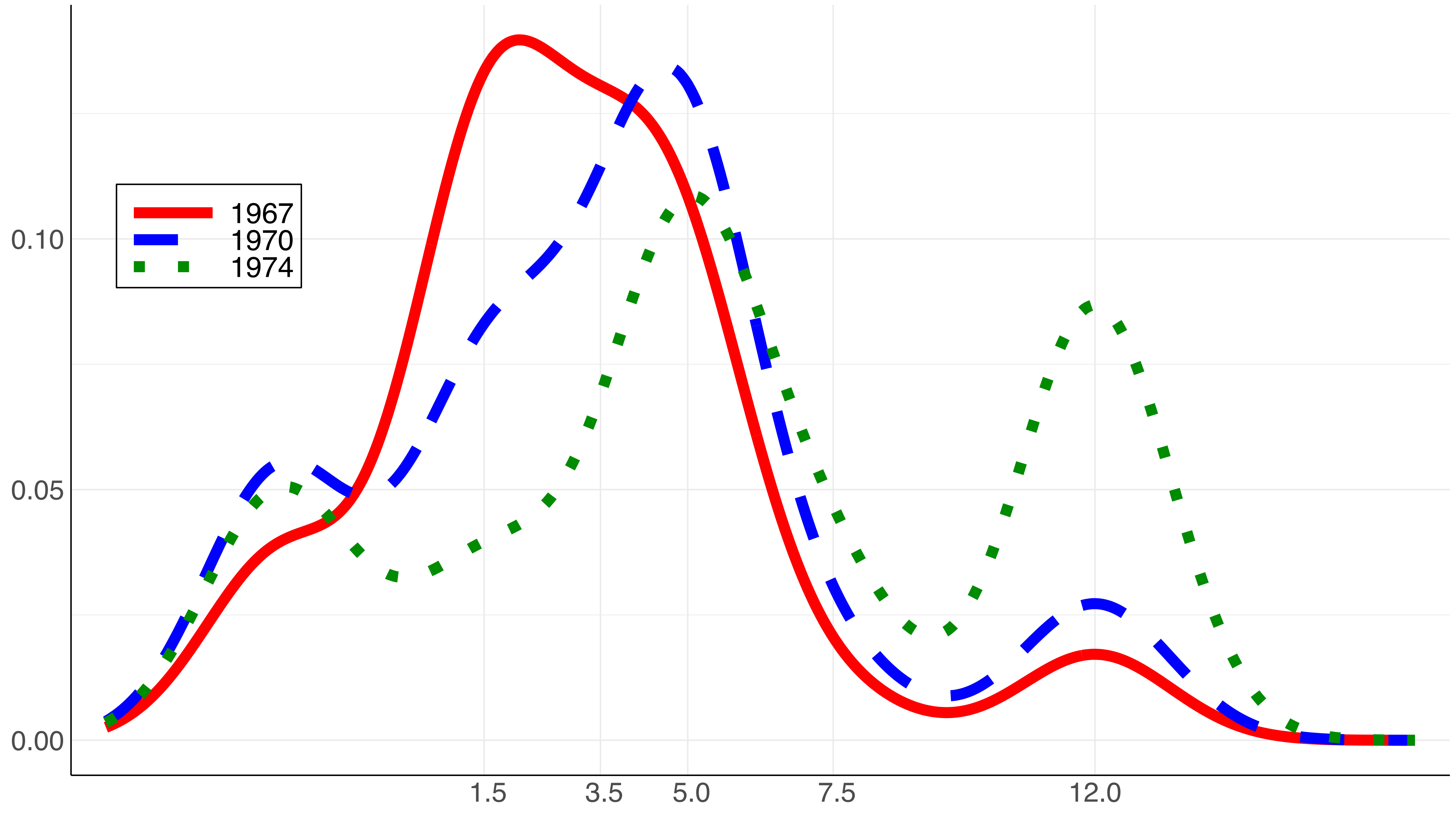
(Aside, not 70s, but 1969 to worry about)

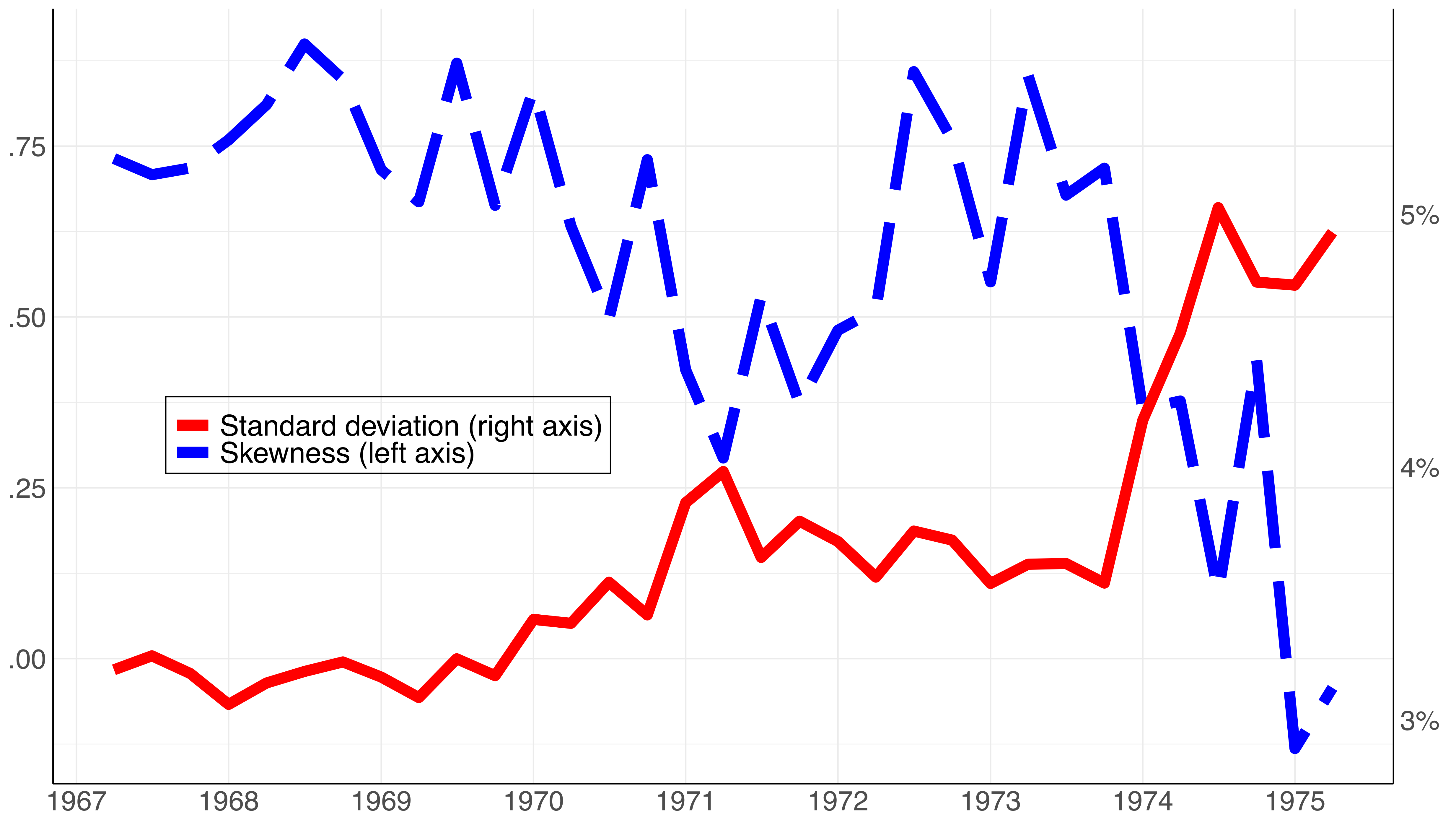


The mistake of 1965-68 and the 1969-70 recession

- One of the "exogenous" monetary policy shocks in Romer and Romer.
- Let expectations drift, hit brakes too late.
- Reis (2022) "Losing the Inflation Anchor" and Blinder discussion.

Remember the 1960s: the early unanchoring

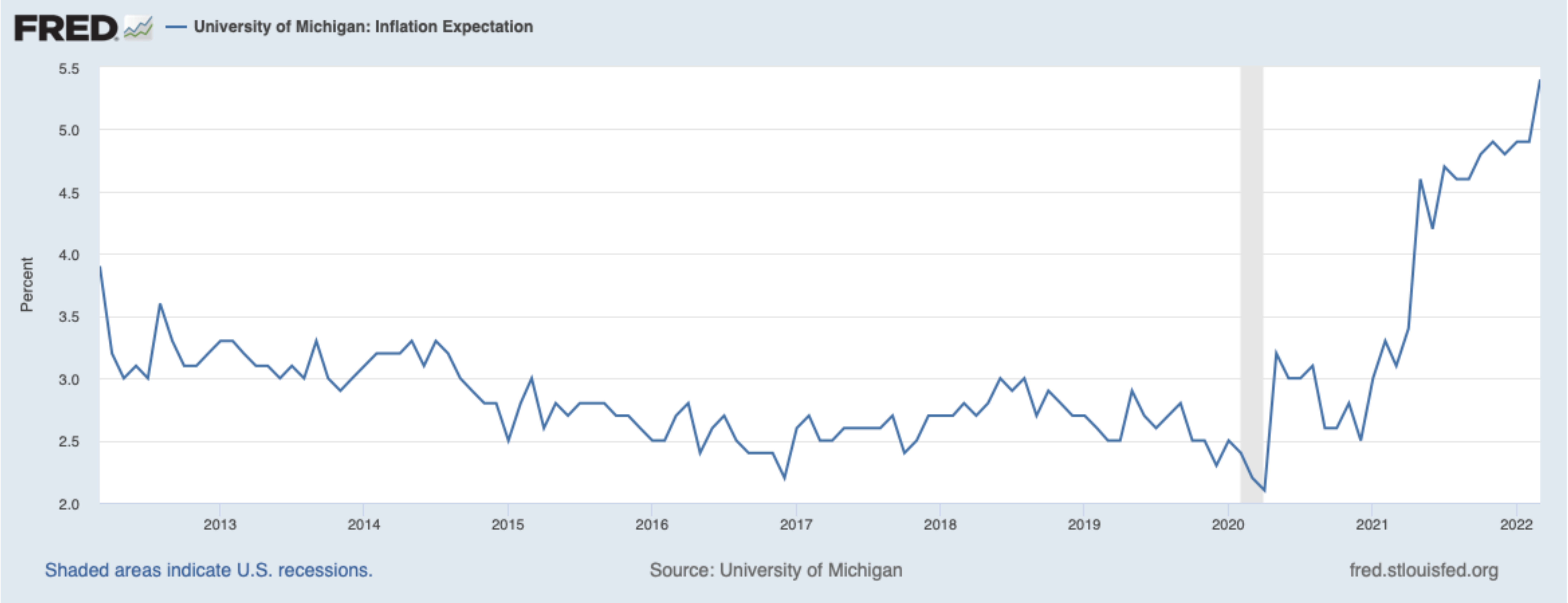




- Same pattern over a few years as in the last 12 months.
- Worse data, and at the time lacked understanding of how to measure these.

Source:: Reis (2022a)

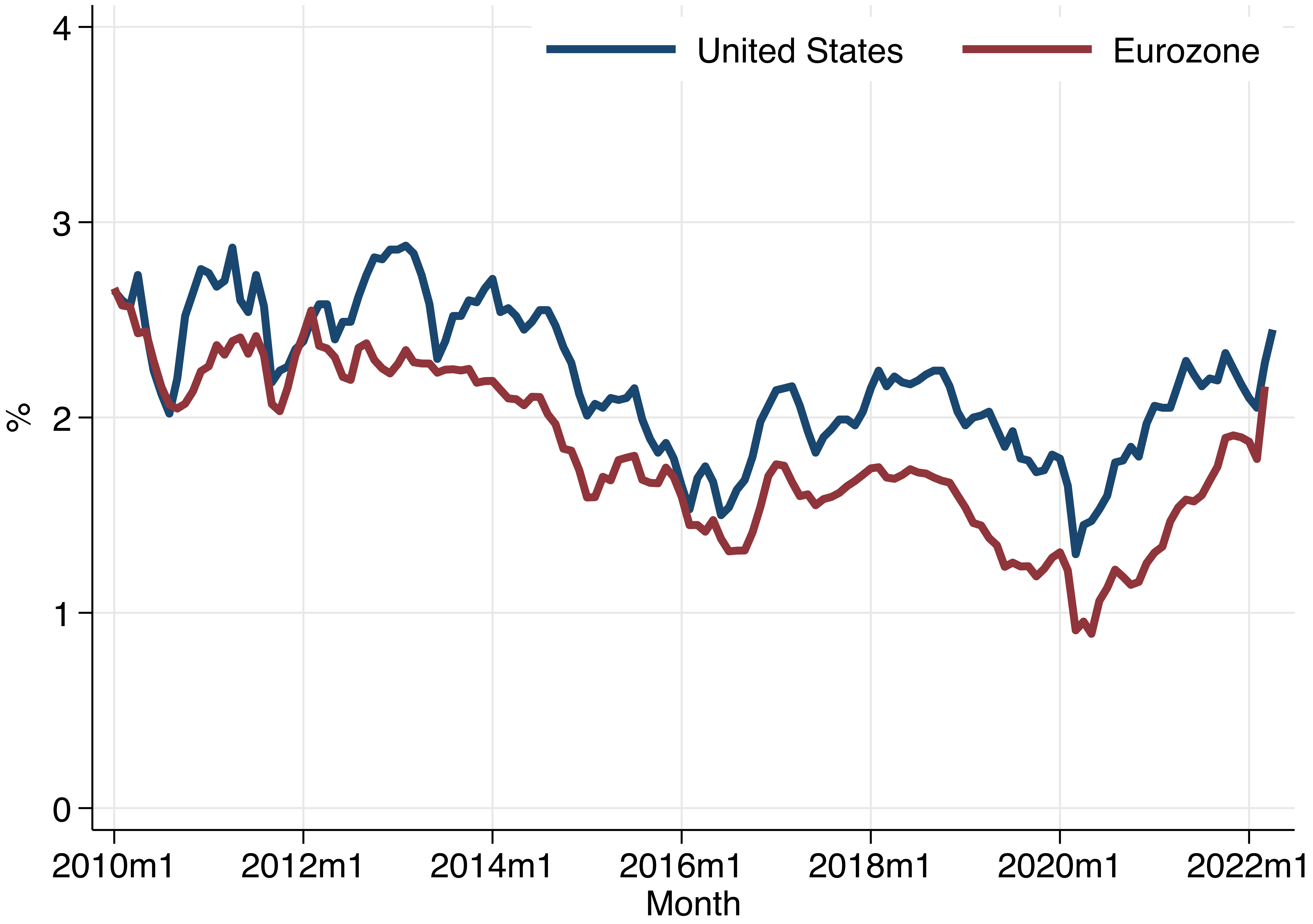
Same happened now…



The mean expectation followed…

No causal claim in this, and some bad luck. But early signs were there

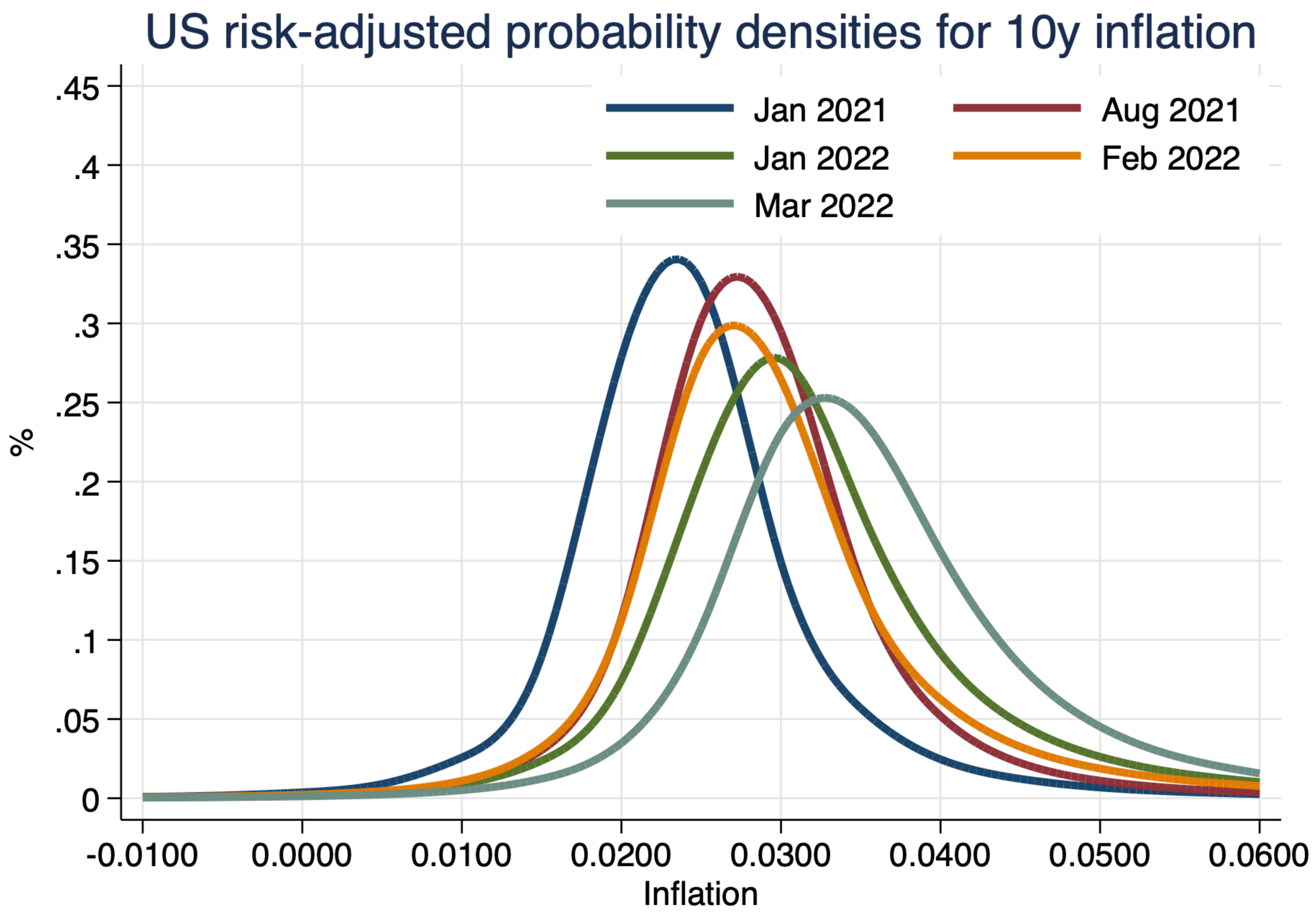
Credibility and anchoring: further ahead



- Again focus on mean: 5y5y expected inflation from bond prices
- Only in 2022 crossed 2%
- But again signs were earlier…

Source:: Hilscher, Raviv, Reis (2022)

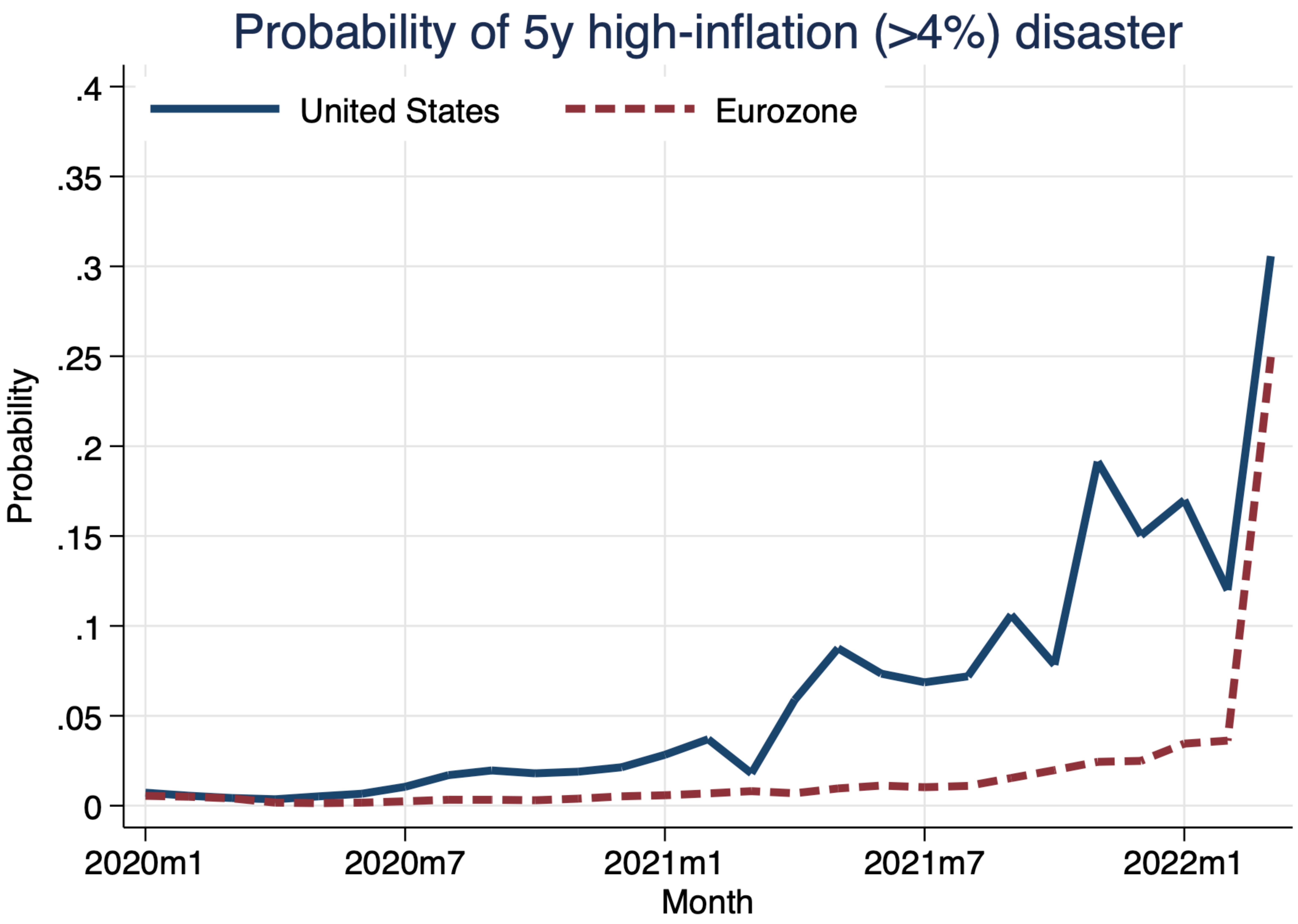
Market data: again look beyond means



- Very steady in 2020
- In 2020H1 see horizontal shift, could be welcome
- But from August on, the emergence of a thicker right tail
- Inflation disaster.

Source:: Hilscher, Raviv, Reis (2022)

Back out from insurance prices (options)



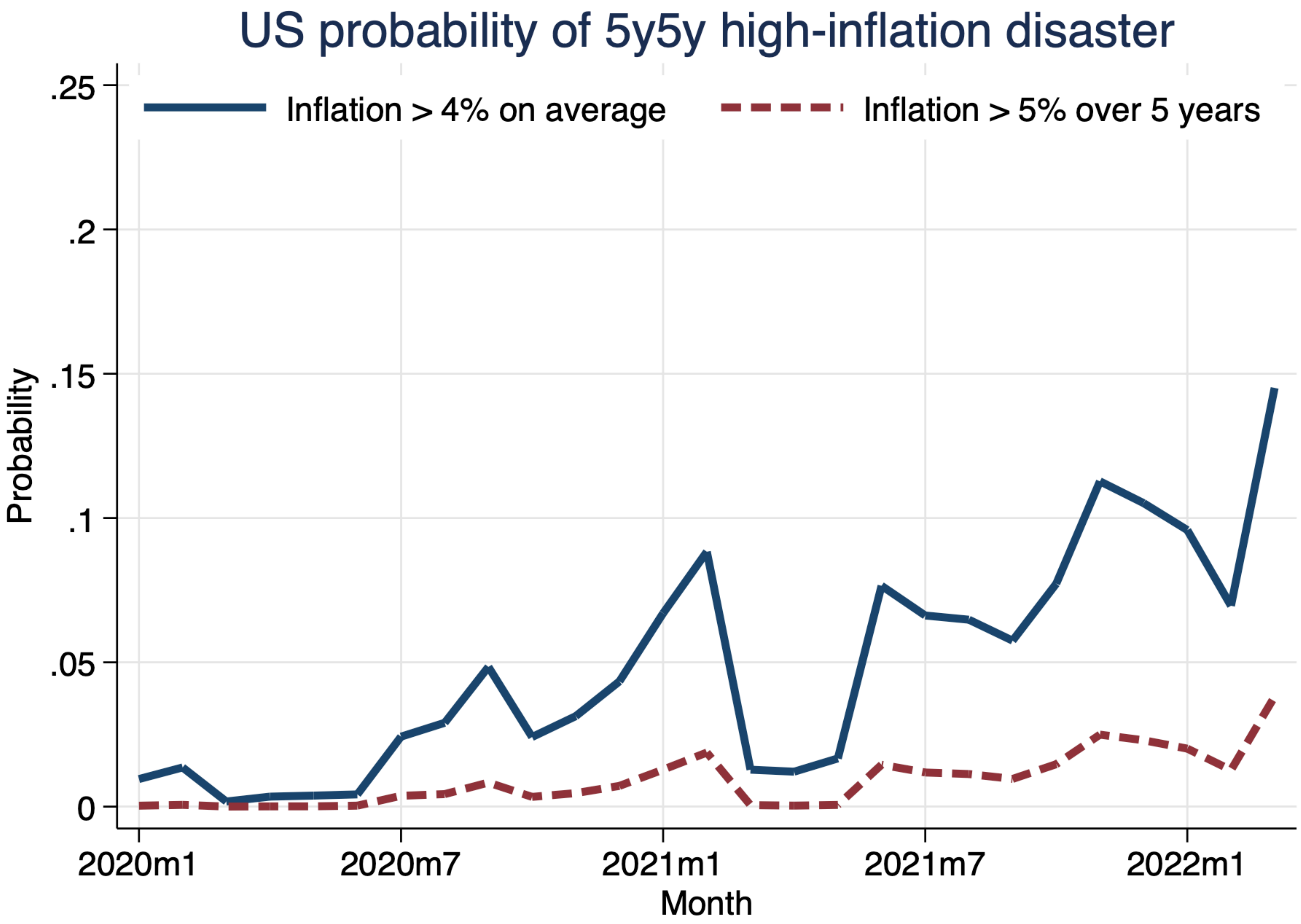
What is the current date market-perceived probability that average inflation will be above 4% over next 5 years?

Some work to extract this from option prices

Combines transitory and persistent.

Source:: Hilscher, Raviv, Reis (2022)

Current serious credibility problem



Horizon: 5y5y

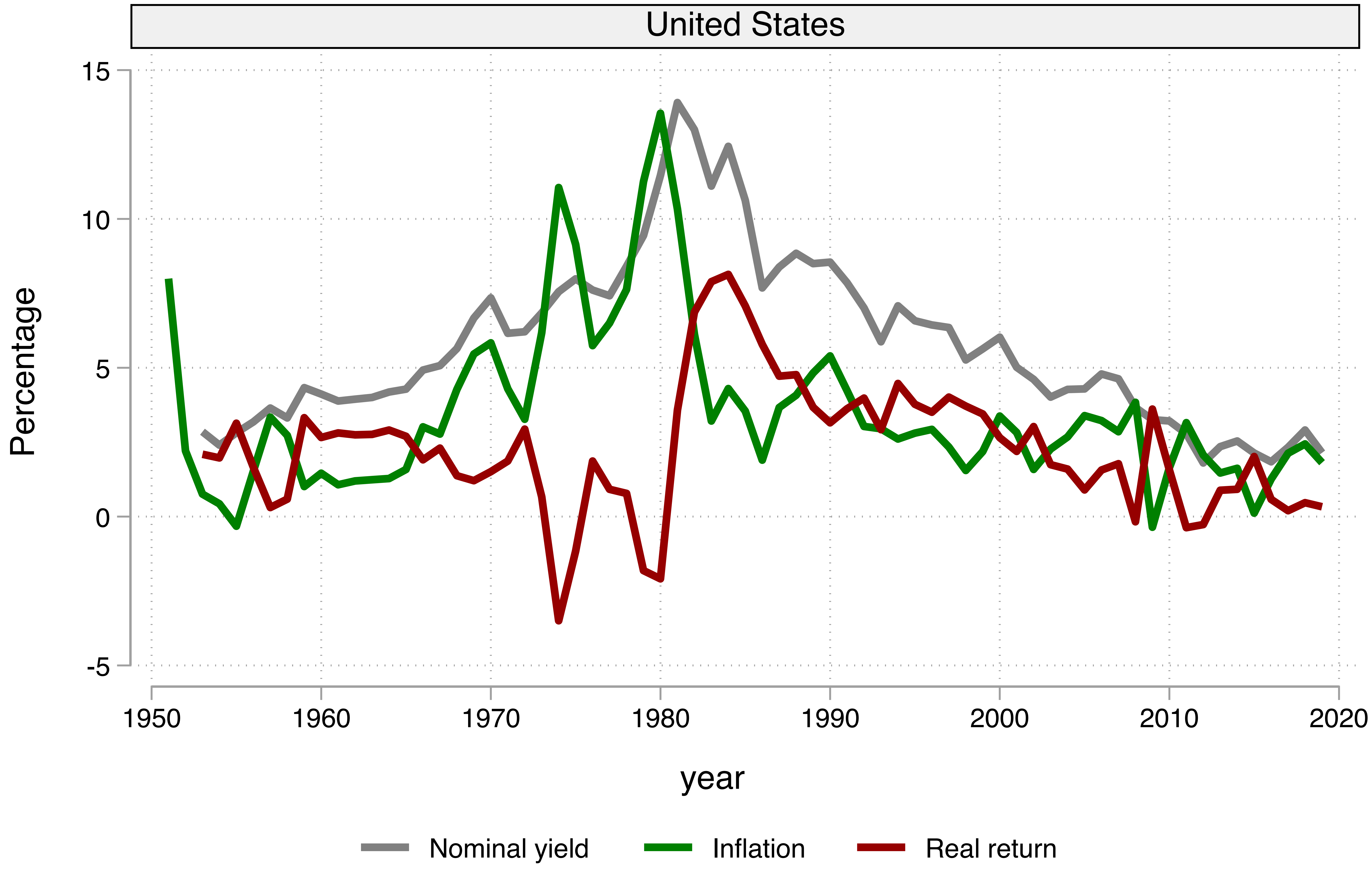
Steady increase since middle of 2021

A serious lack of faith in monetary policy, not seen before.

Source:: Hilscher, Raviv, Reis (2022)

The focus on r*
(trend rate at which savings = investment and economy is at potential)

It has fallen, but for Treasuries



A much-shown figure

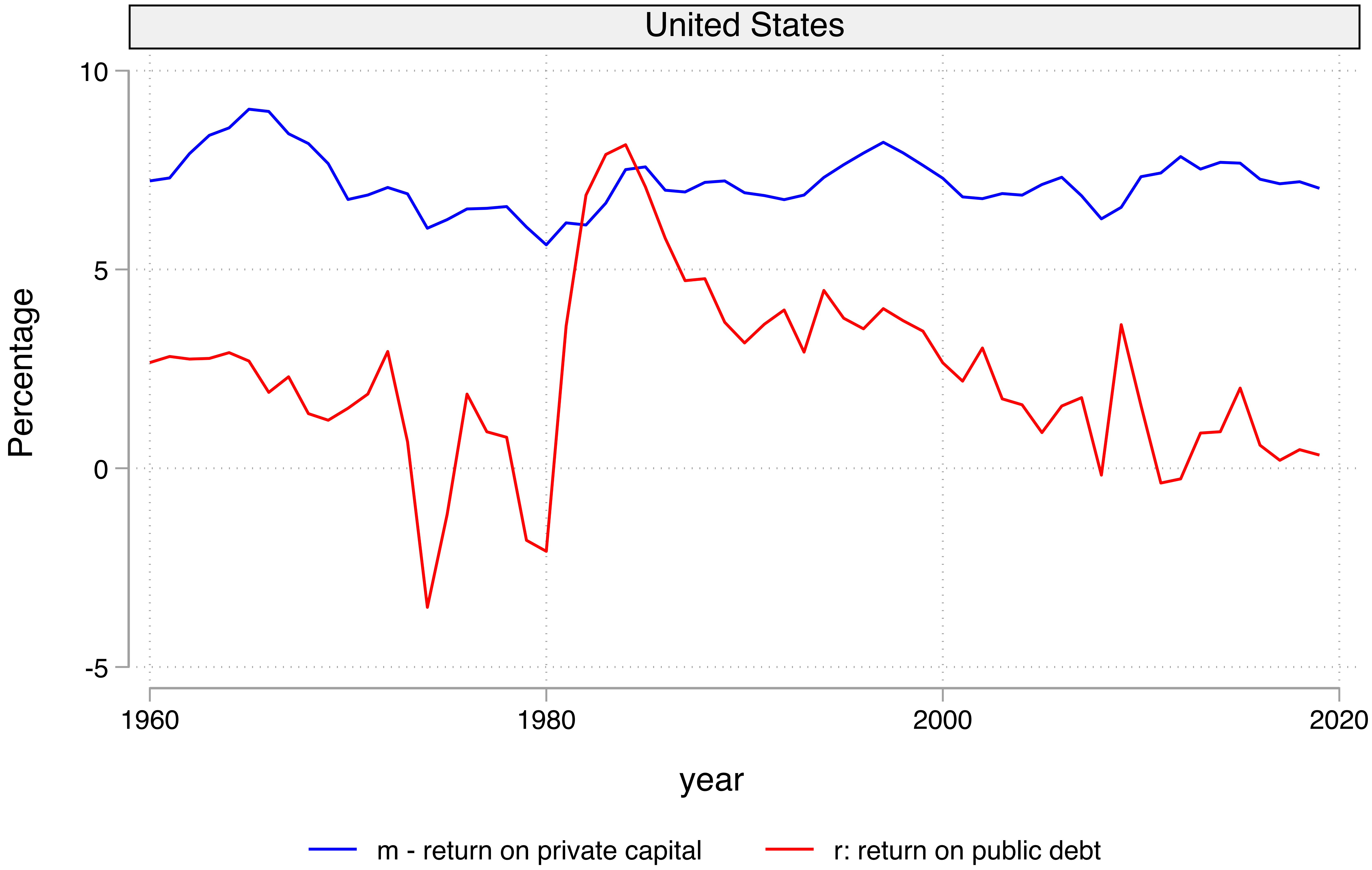
True for trend

True across G-7

Influence of Laubach and Williams

Source:: Reis (2022e)

Return on private capital



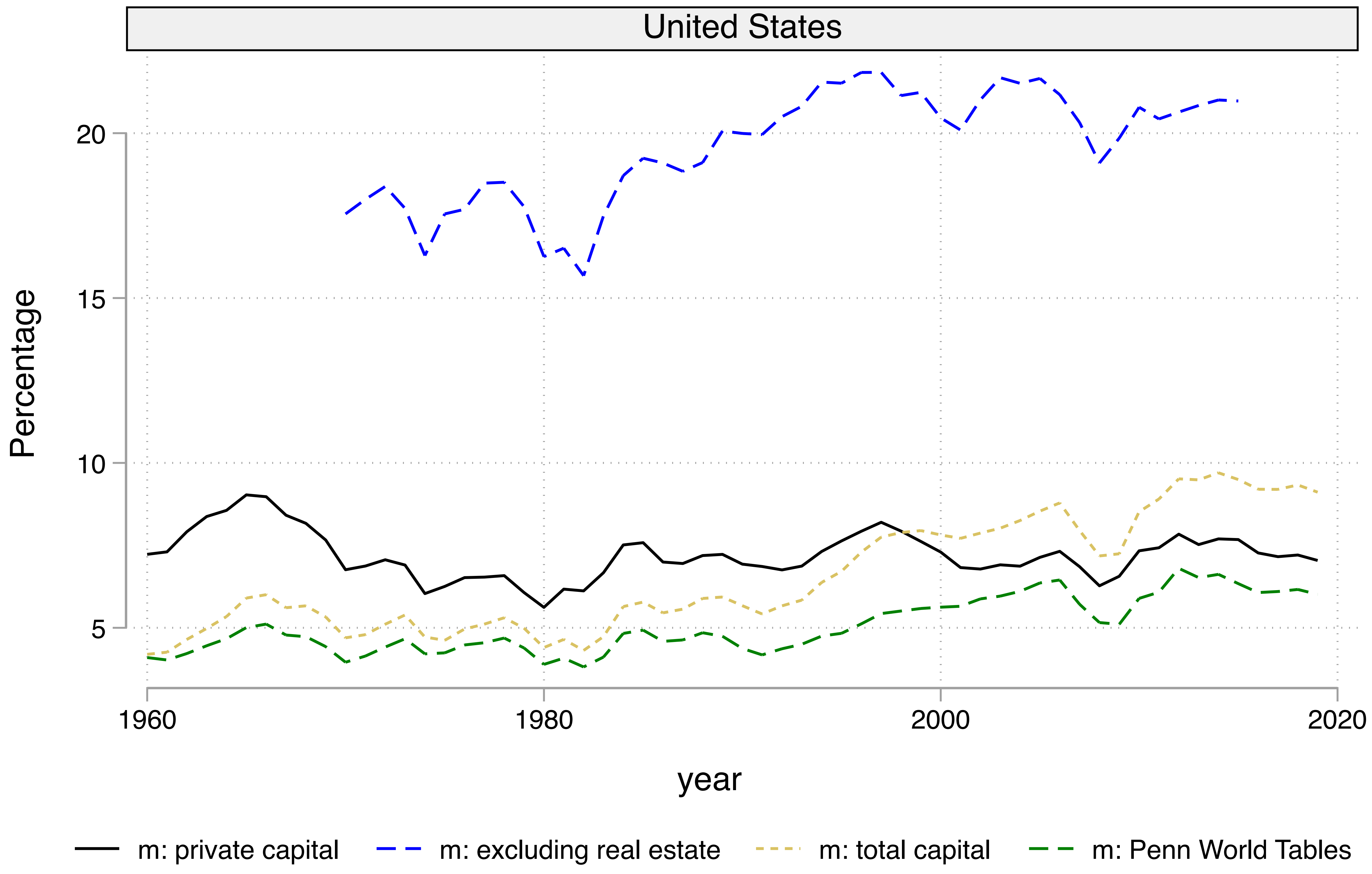
Demand for savings comes from firms given return on capital

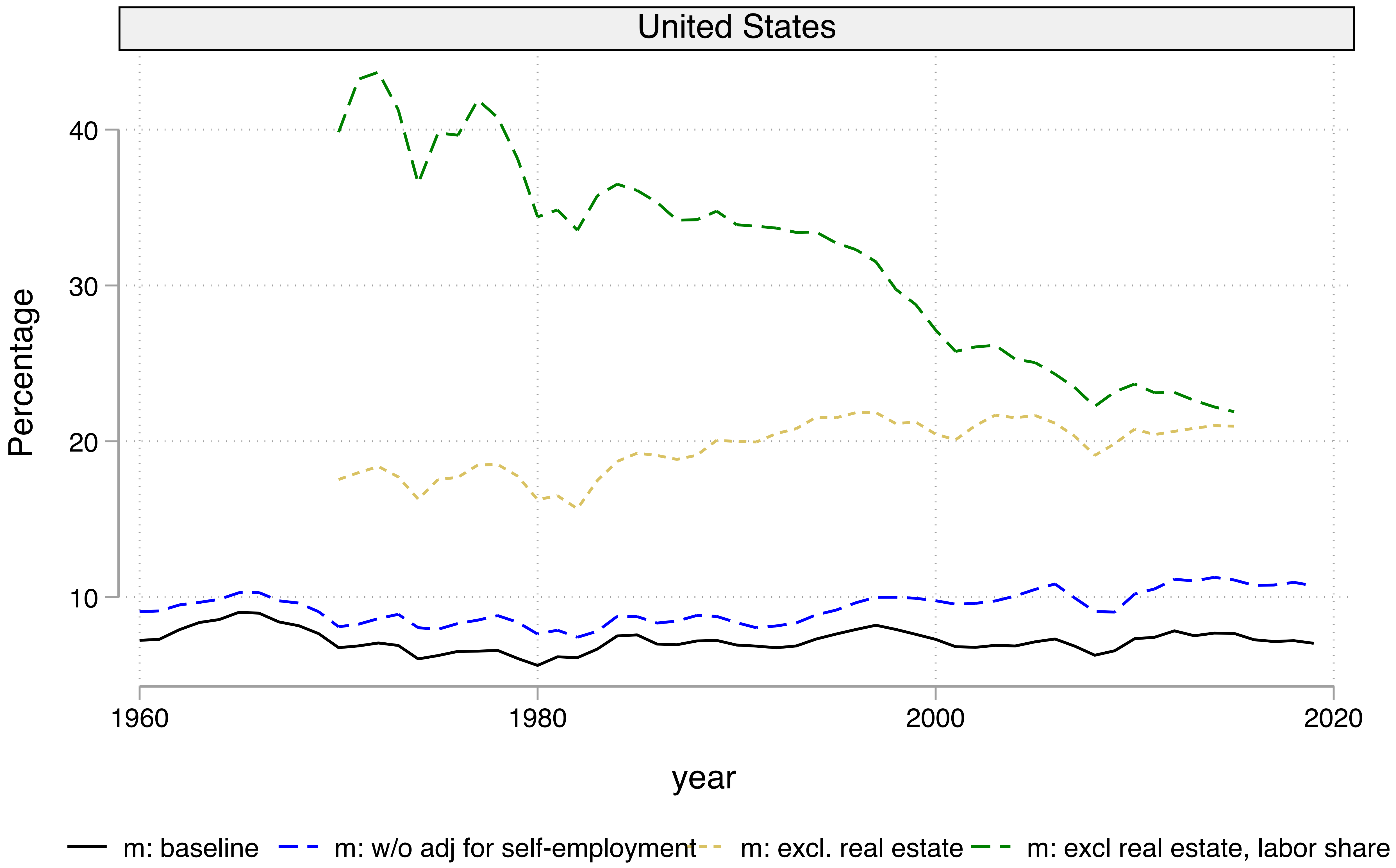
Looking at asset returns can be misleading: Modigliani-Miller

m: operating surplus, adjusted for self-employment, and for trend in relative price of capital goods.

Source:: Reis (2022e)

Alternative measures



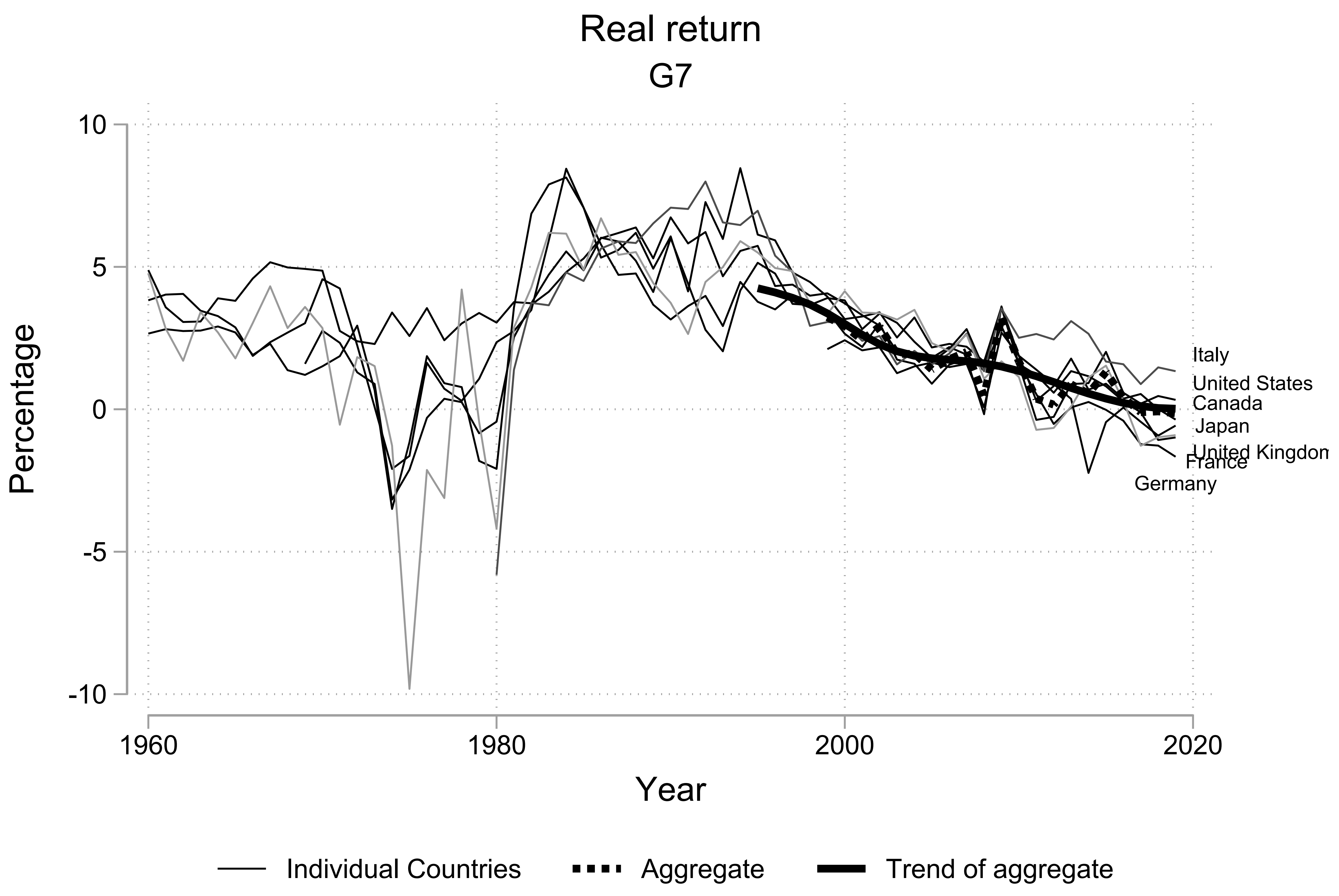


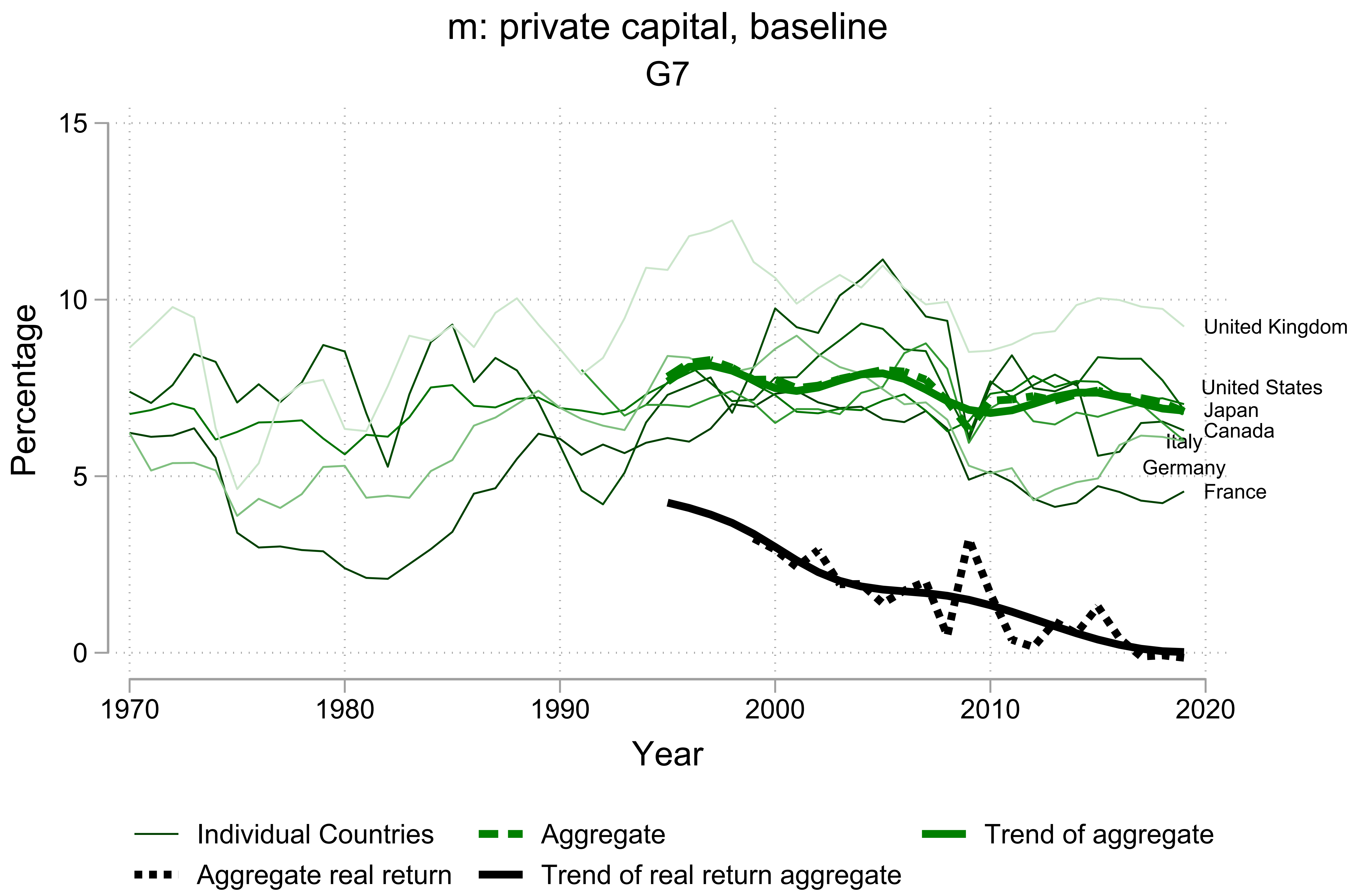
Reproducible capital stock: private or total, real estate or not.

Operating surplus or capital share of income.

Source:: Reis (2022e)

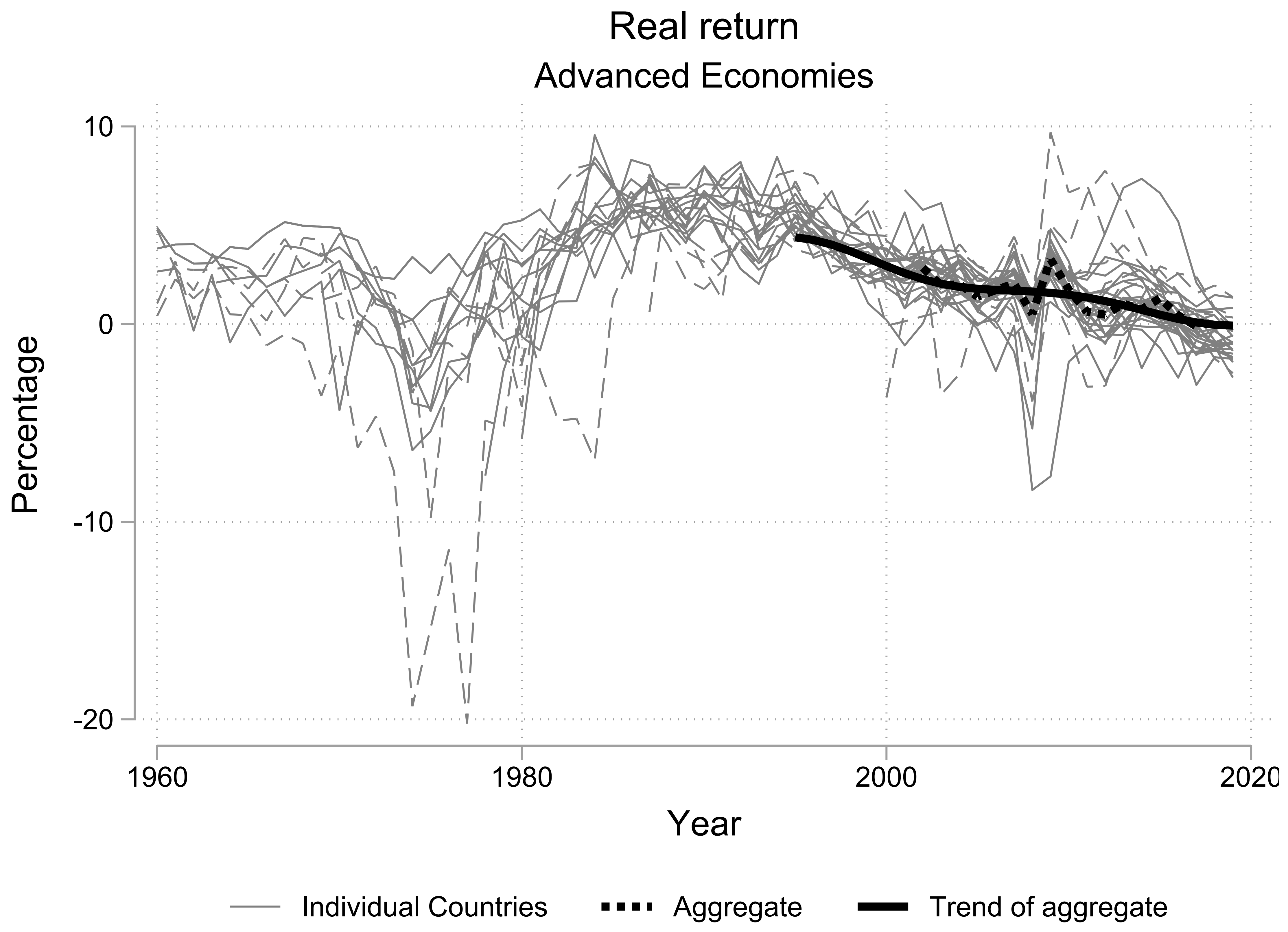
Also in G-7

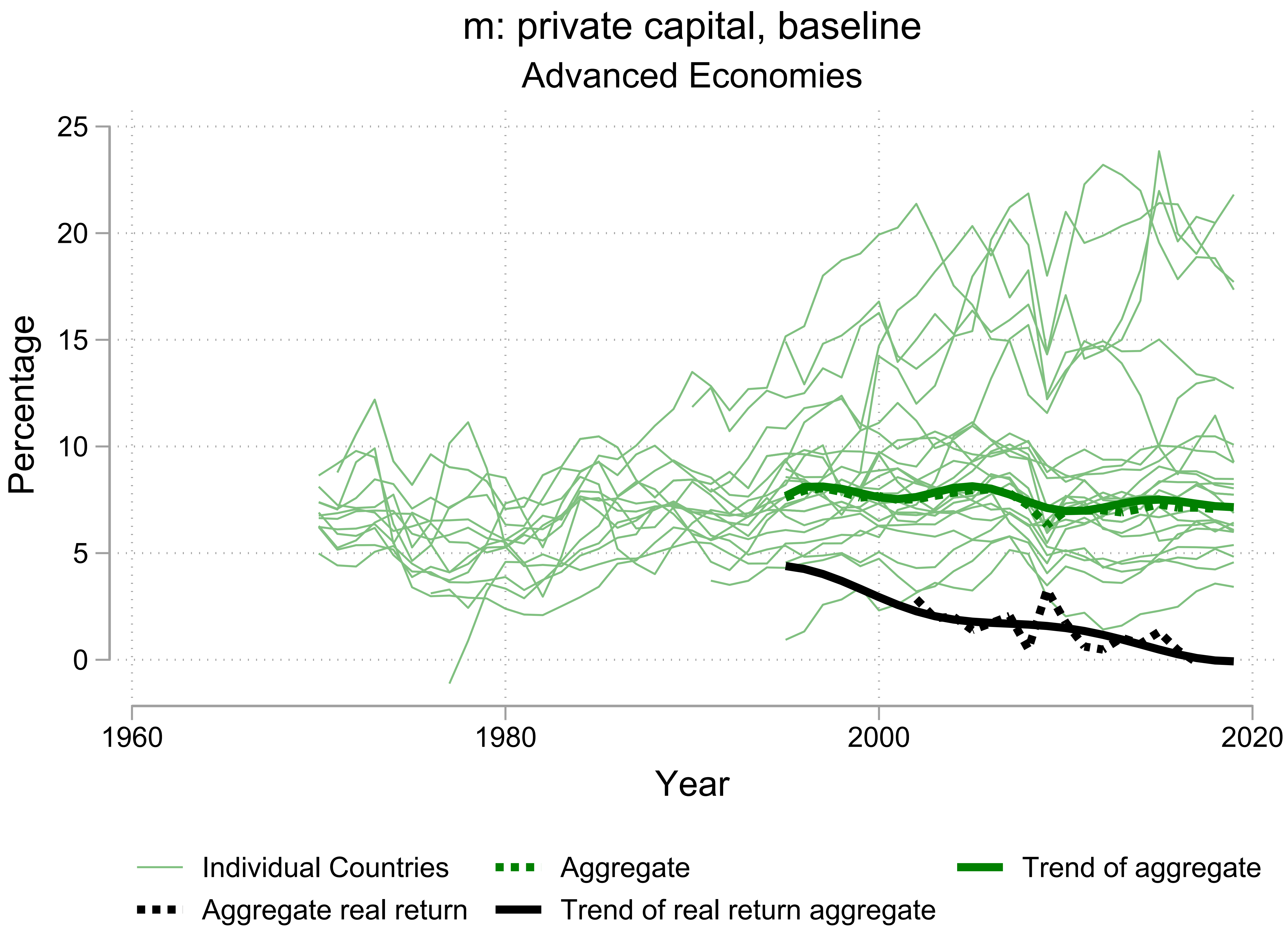




Source:: Reis (2022e)

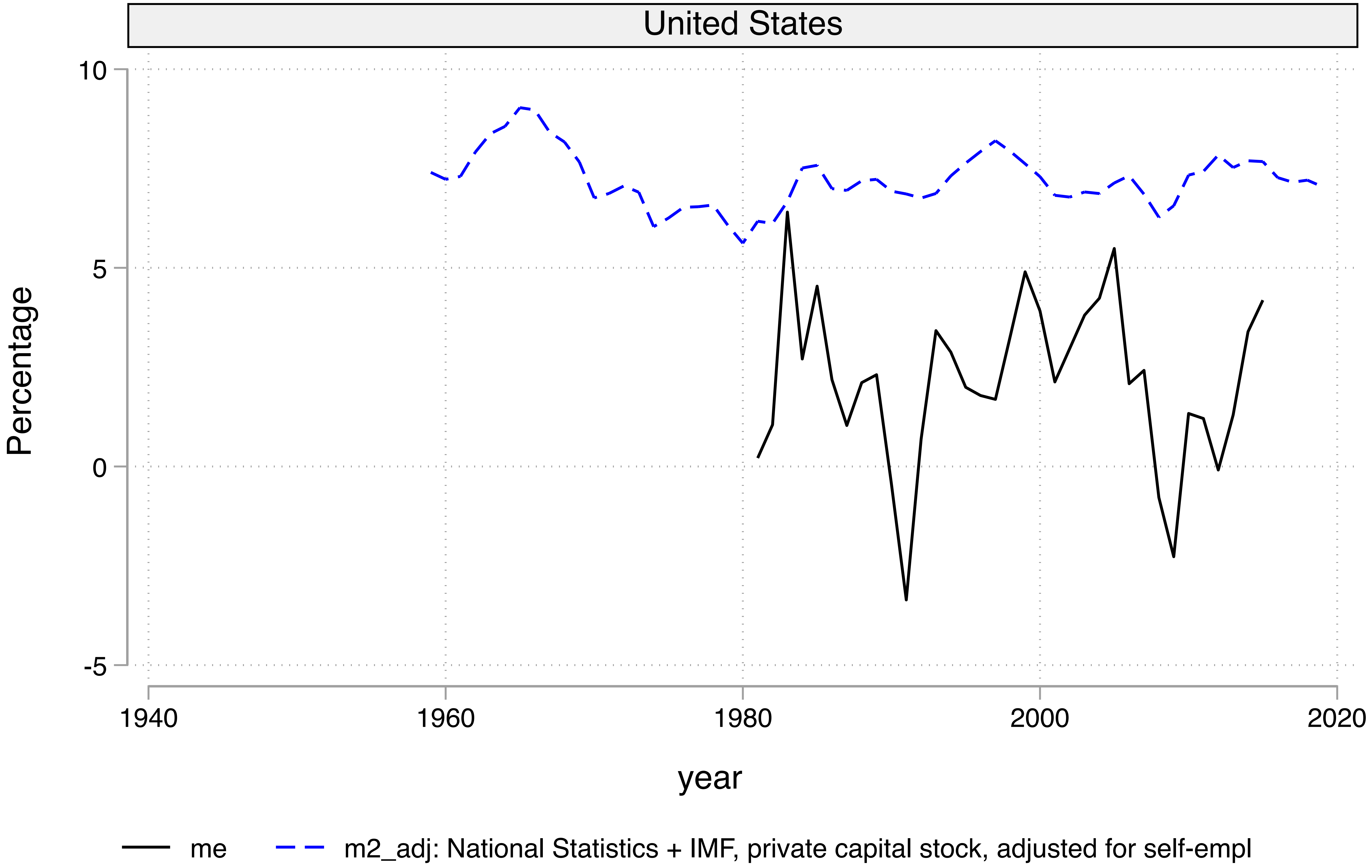
Or set of advanced economies





Source:: Reis (2022e)

Supply perspective



Supply of savings by households

Lower output growth signals lower returns

But (i) should be consumption, (ii) only for those who save.

Labor share and savings rate have fallen

Source:: Reis (2022e)

Implication for monetary policy

The ZLB is hit when r = -inflation. But if m>0 this merits different response

- Which one matters for level of output?

  Actually it is m, and its high level is the other side of the coin of too little capital*

- How to exit a secular stagnation?

  Financial development, reduce the m-r gap.

- Employment shortfall due to zero lower bound?

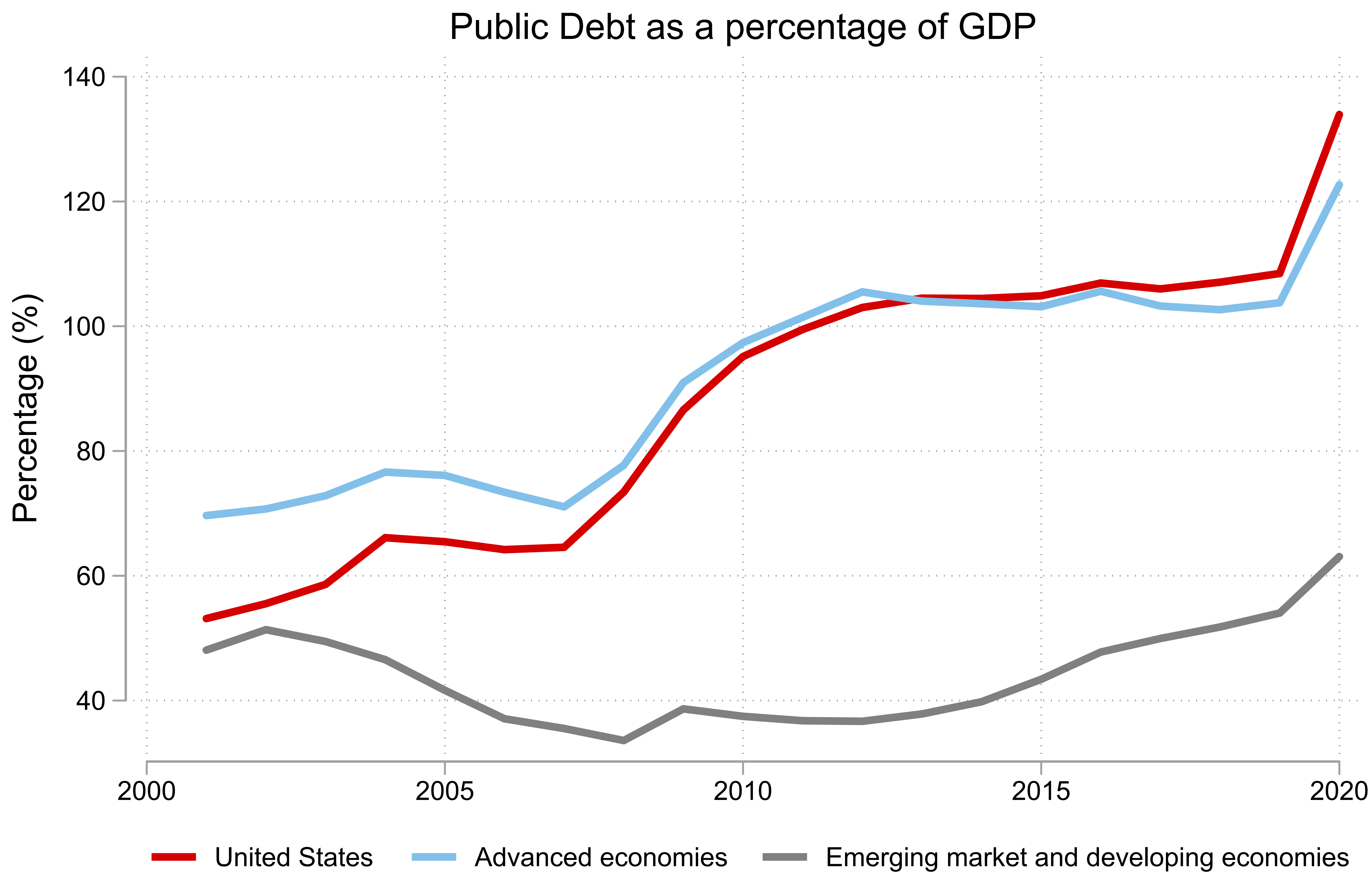
  Will be smaller, because m still has room to adjust downwards

- Power of raising future inflation through forward guidance or QE

  Significantly smaller. When weighted against costs of the inflation, less attractive

Source:: Reis (2022e)

Implication for fiscal policy



Debt arithmetics:

$Debt/GDP =$

$EPV_{m\text{-}g}(Surplus/GDP) +$

$EPV_{m\text{-}g}\,((m\text{-}r)Debt/GDP)$

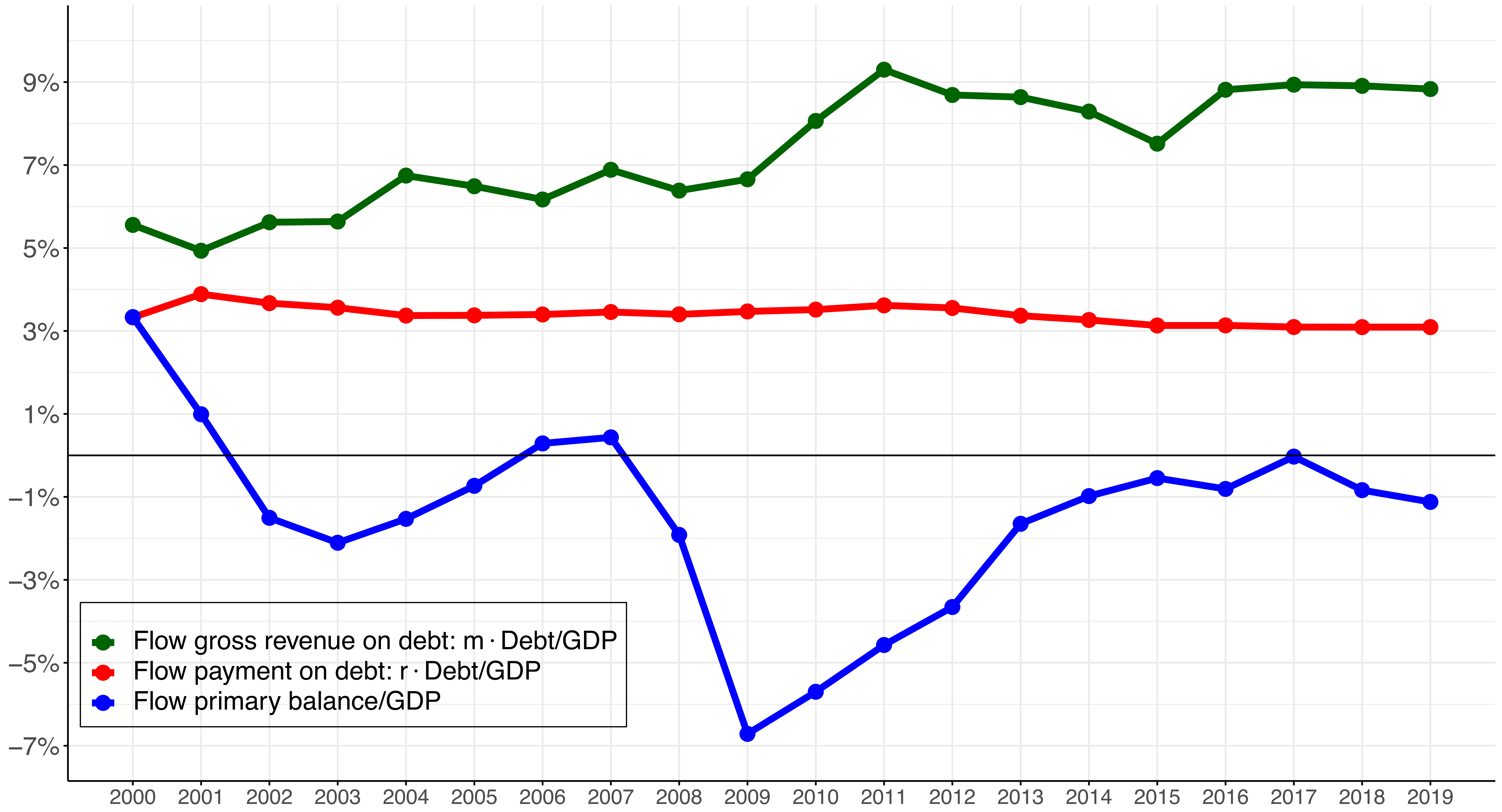
Debt revenue term: present value of supplying the service flow that makes public debt special.

Source:: Reis (2022c)

Debt revenues have been sustaining debt

$$Debt/GDP = EPV_{m\text{-}g}(PrimaryBalance/GDP) + EPV_{m\text{-}g}\,((m\text{-}r)Debt/GDP)$$

G7 countries



Source:: Reis (2022c)

The importance of price stability commitment

To keep the debt revenues large, Fed must deliver stable inflation

- Protect safety of public debt from inflation risk
  remove fear of debt monetization

- Anchor inflation expectations
  remove fear of higher interest rates over future debt

- Eliminate inflation risk premium
  both on bonds and over taxation

- Reaffirm focus on inflation for central bank policy
  macro prudential policy not steered towards financial repression

Source:: Reis (2022b), Reis (2022d)

Conclusion

Points made in this talk

1. Last 9 months are a significant deviation from 35-year success

2. Explore hypothesis that two problems with framework drove it

3. First an over-reliance on capital of inattention that was keeping inflation expectations stable. Expectations were moving, credibility was being lost, and deeper looks at surveys and financial prices showed it in 2021H2.

4. Second, an over-emphasis on the perils of low r* and of deflation. But since m* stayed high, the deflation trap was not such a danger, and rather price stability was even more important to prevent a public debt crisis

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