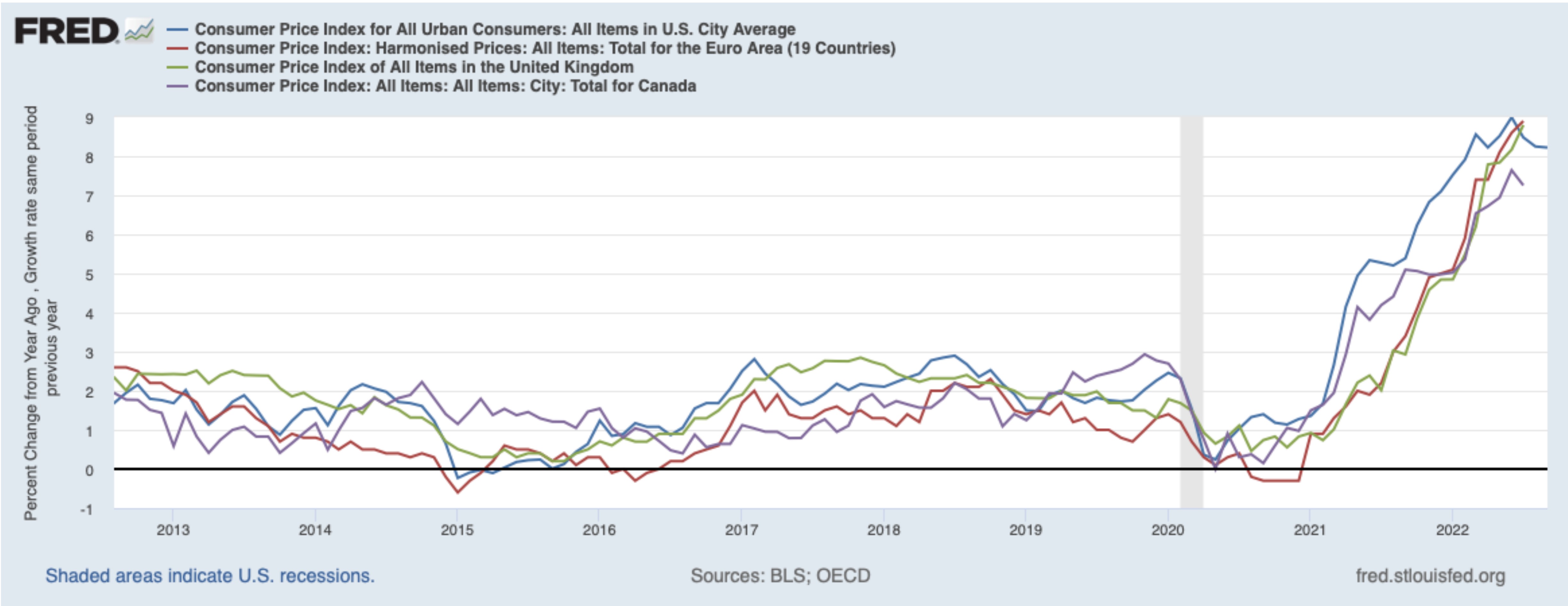


THE BURST OF HIGH INFLATION IN 2021-22: HOW AND WHY DID WE GET HERE?

Ricardo Reis
LSE

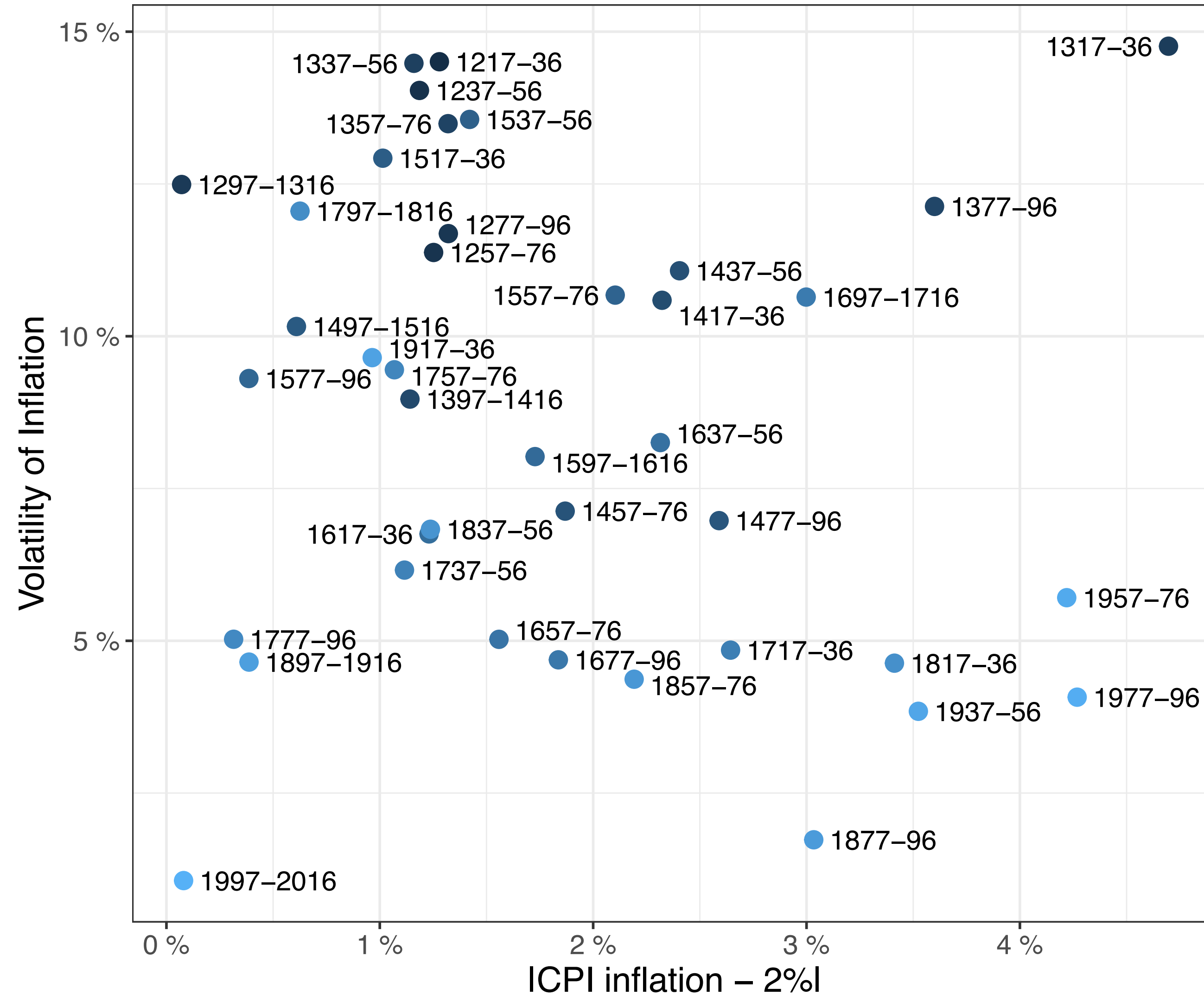
*9th of November, 2022
SUERF Annual Lecture
Online*

Why is inflation out of control?



“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



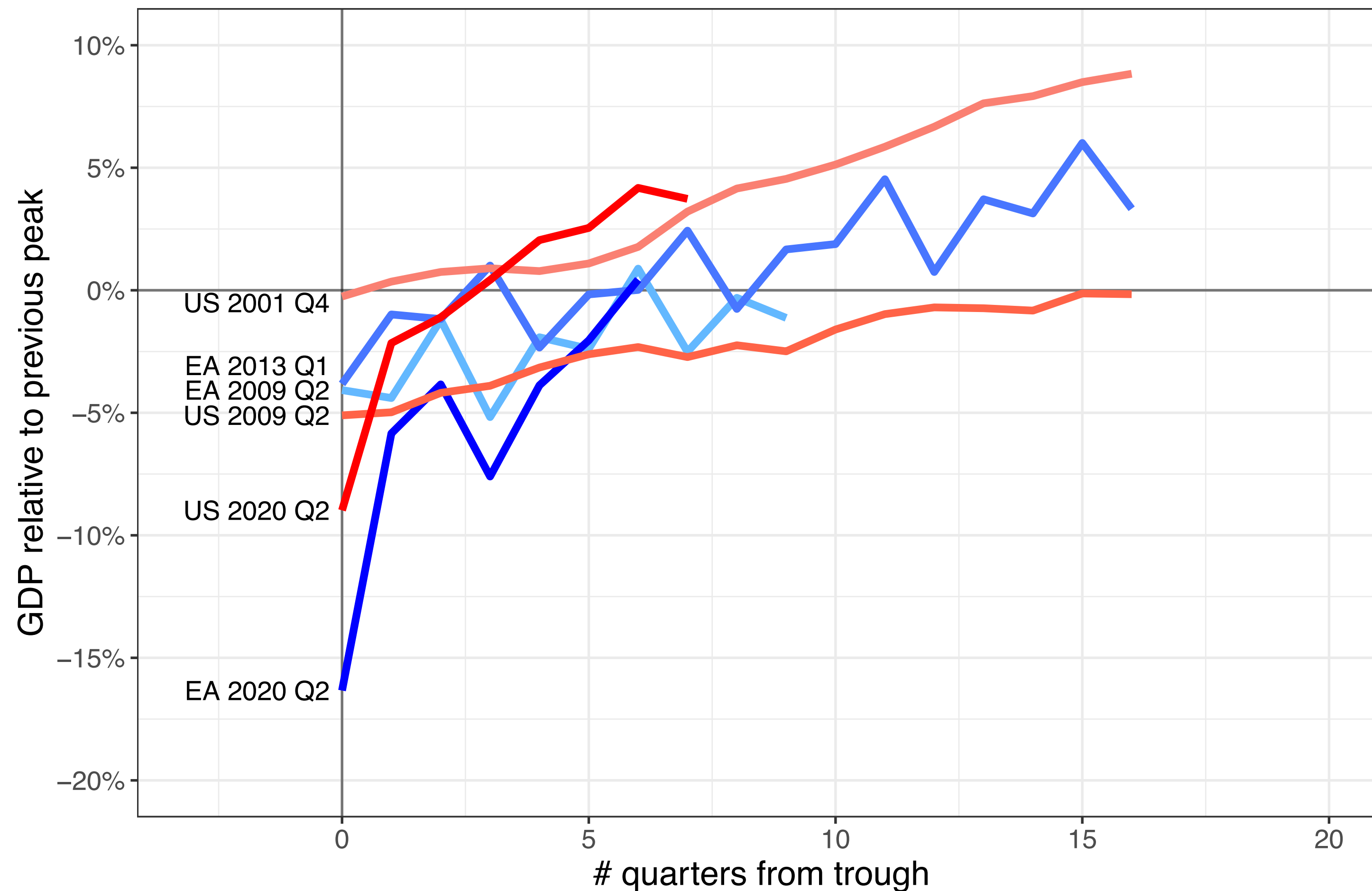
Three pillars of this success

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

What went wrong? Shocks and mis-diagnoses

A good problem: very fast recovery

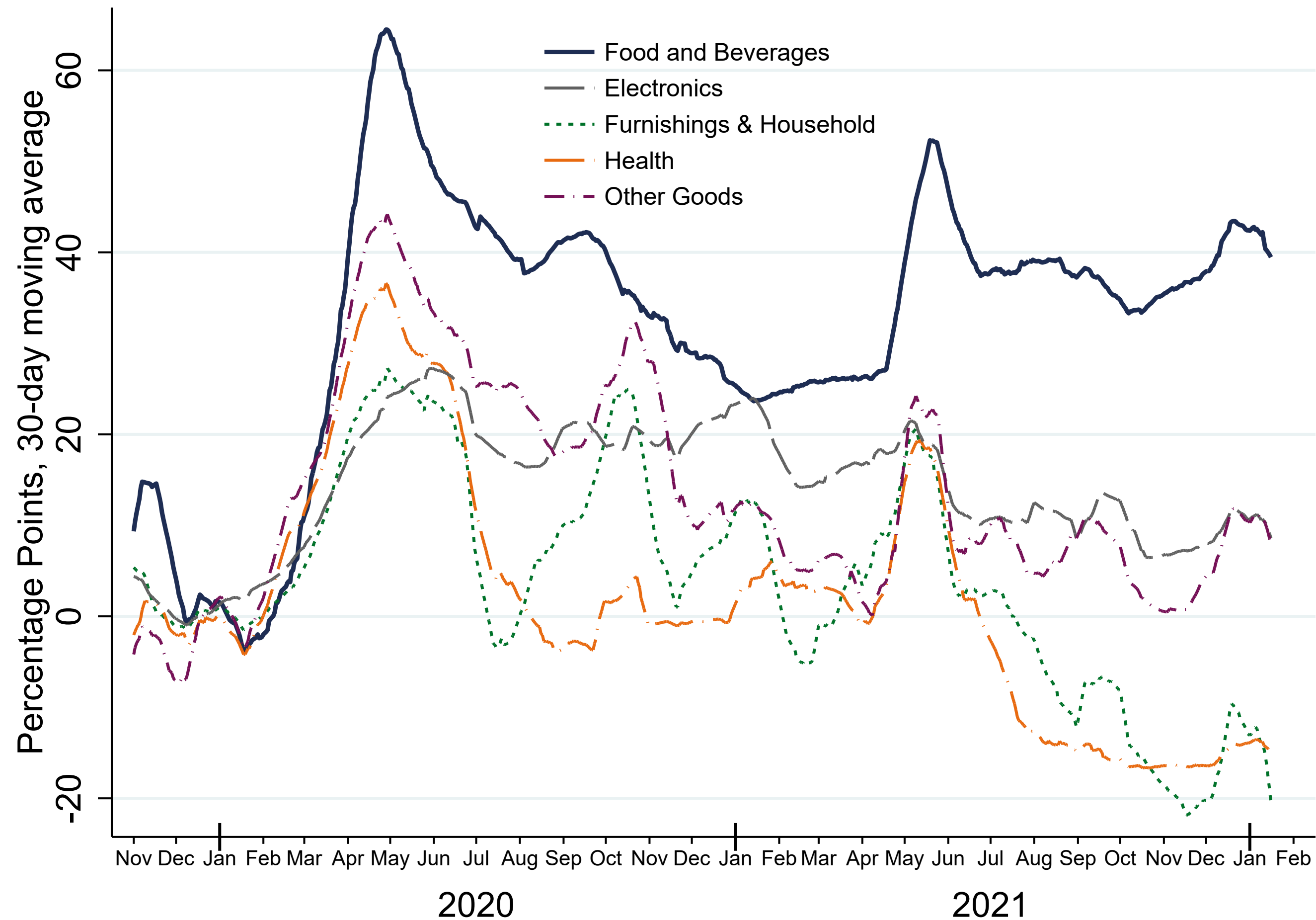
$$\pi = \pi^e + \beta(y - y^*) + \varepsilon$$



- Three drivers of inflation
- 2020 policies end up being excessive
- Benefit of hindsight
- But why did not revert course earlier?
Forward guidance?

United States ——— Euro Area ———

A tougher problem: supply bottlenecks



$$\pi = \pi^e + \beta(y - y^*) + \varepsilon$$

- Policy interpreted all of them as temporary markup shocks
- Ports, global supply chains, globalization: may be declines in the potential output.
- Allow deviations from target, or divine coincidence

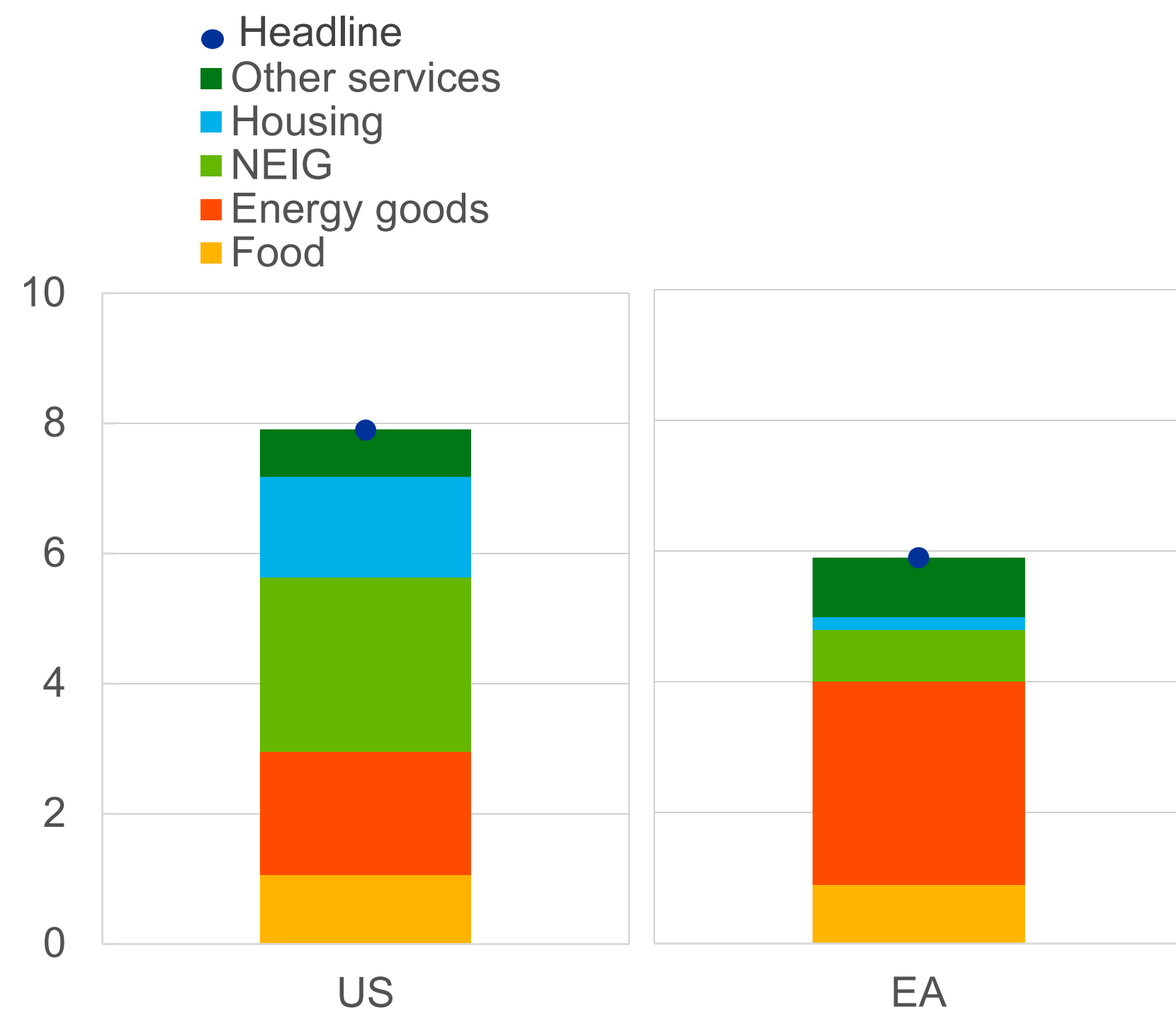
Figure 3: All Stockouts in U.S. Sectors

Next: energy and same reaction

$$\pi = \pi^e + \beta(y - y^*) + \varepsilon$$

Inflation drivers in February 2022

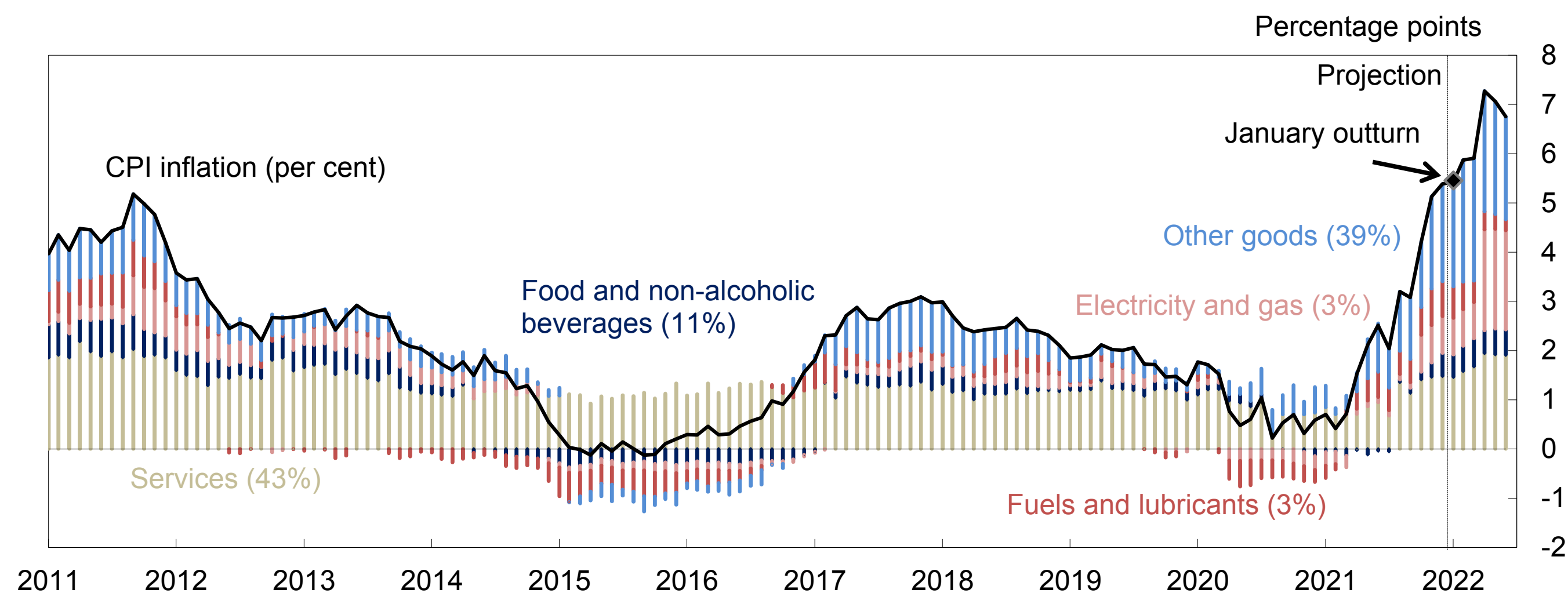
(annual percentage changes, percentage point contributions)



Source: Haver DLX and Eurostat.

- Same interpretation as markup shock
- See through valid only if expectations anchored

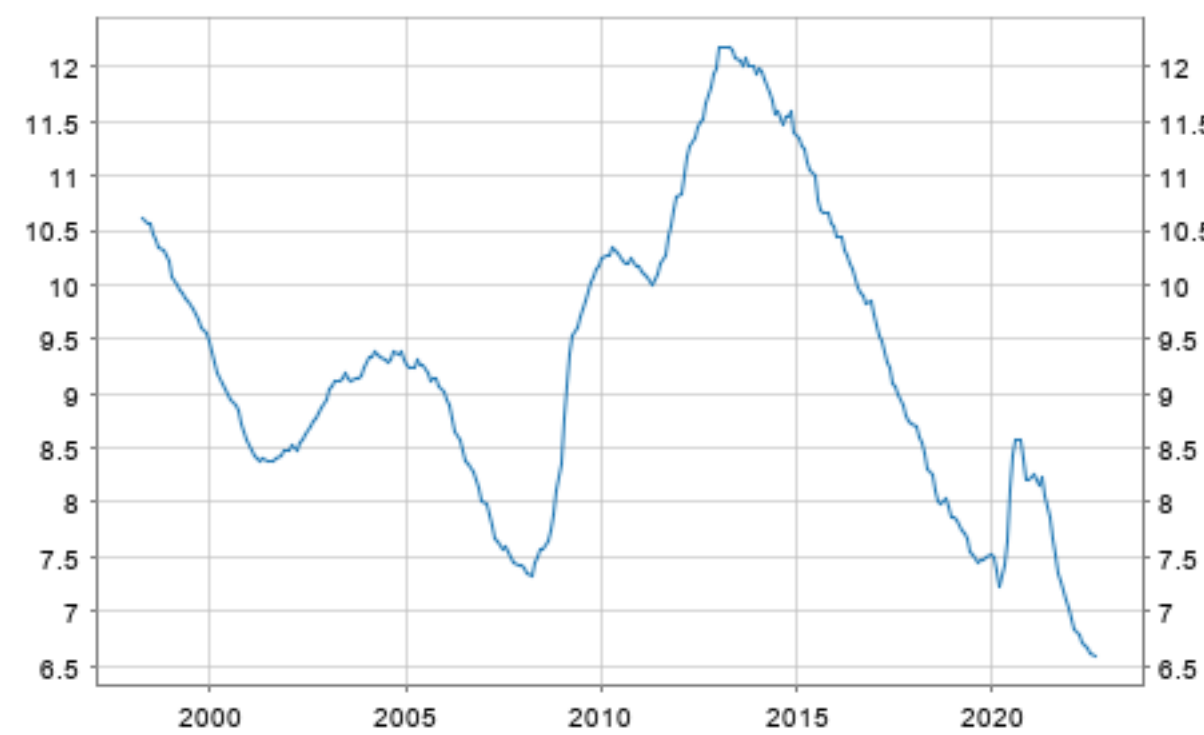
Chart 1 – Contributions to CPI inflation



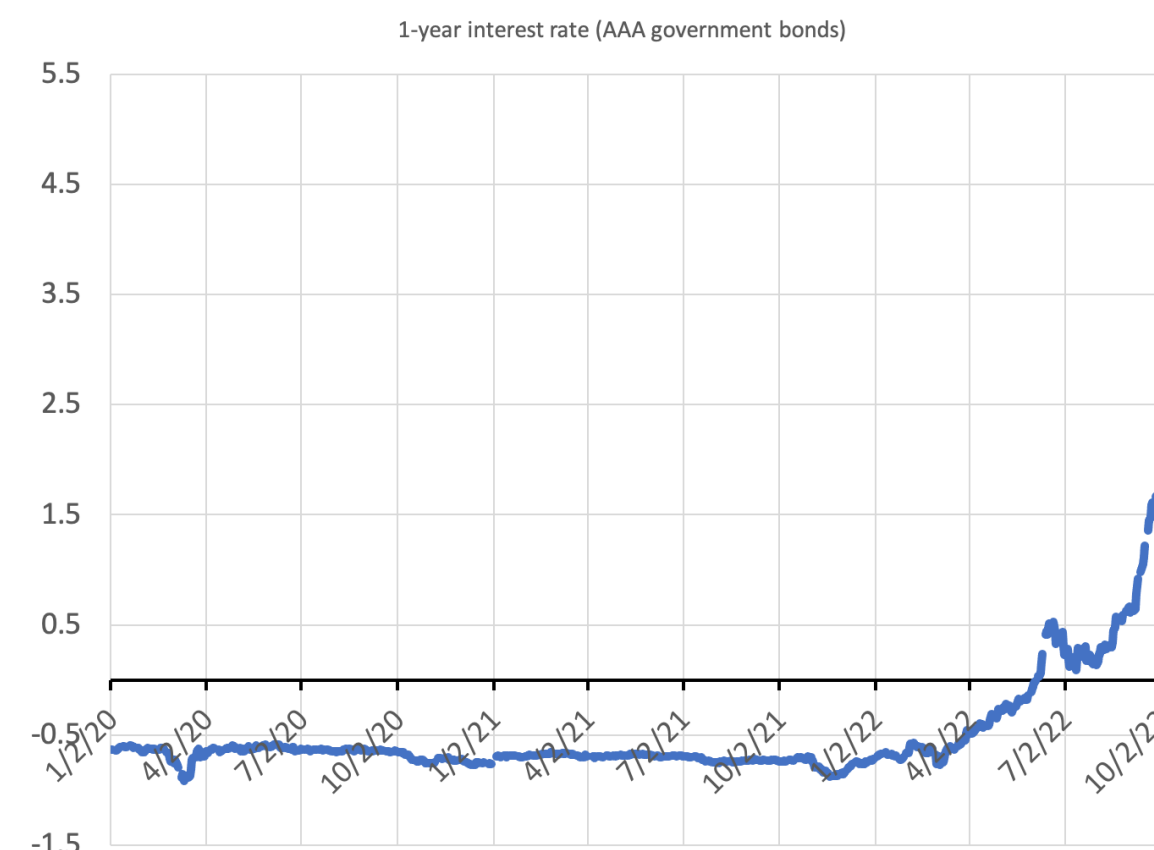
Sources: Bloomberg Finance L.P., Department for Business, Energy and Industrial Strategy, ONS and Bank calculations.
 Notes: See notes to Chart 2.19 in the February 2022 MPR. January 2022 outturn shown for aggregate CPI inflation only, all other data from January to June 2022 are Bank staff's projection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

ECB (or Fed, BoE) loose policy until recently

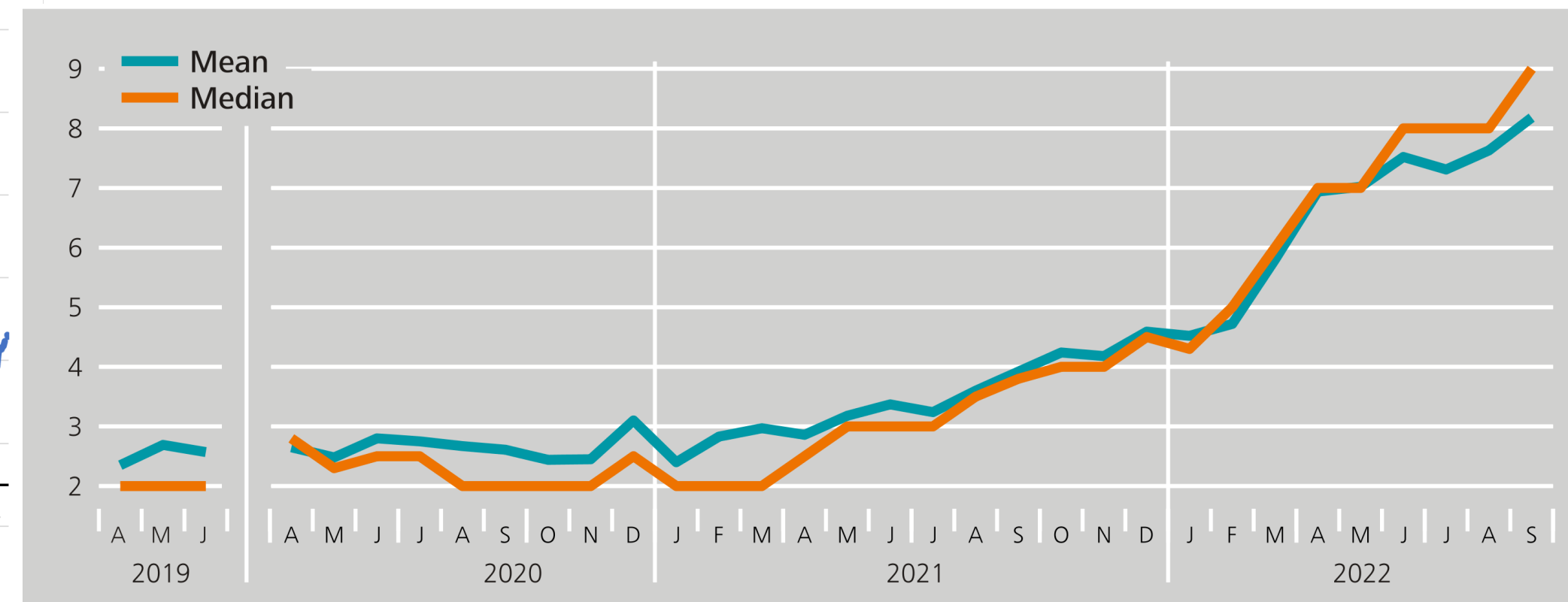
HICP inflation rate - Overall index
Euro area



Unemployment rate



1-year interest rate



1-year expected inflation

Source: Deutsche Bundesbank Online Panel Households (BOP-HH). * Question: What do you think the rate of inflation/deflation

**What about the framework:
the role of expectations**

Framework problem: expectations stuck low

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)

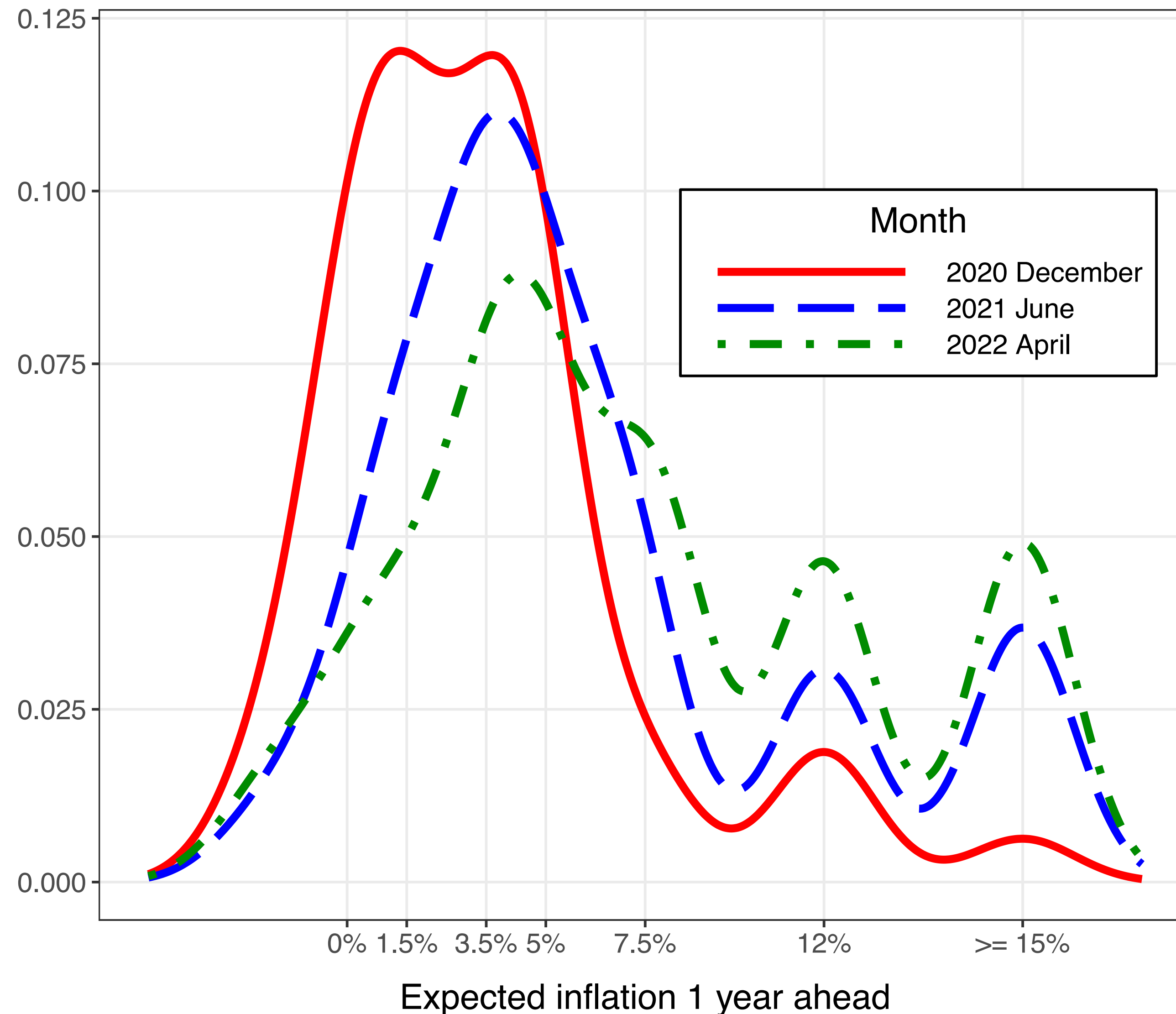
"Households, businesses, and market participants also believe that current high inflation readings are likely to prove transitory and that, in any case, the Fed will keep inflation close to our 2 percent objective over time."

"adverse cycle of ever-lower inflation and inflation expectations"

Consequences:

- Expectations constant, major factor driving inflation up removed
- Welcome a rise in expectations if fear is rather a deflation trap
- Temporary inflation shock will not become persistent.

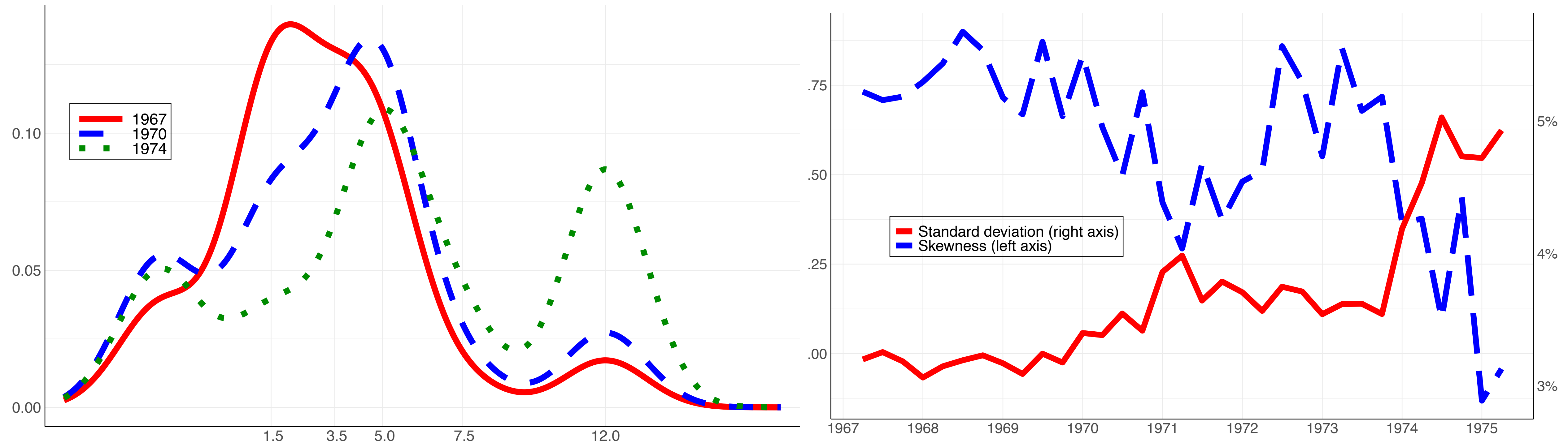
Expectations beyond means



How survey expectations tend to shift:

- First get skewness
- Then get variance
- Then both decline, and the mean has definitely shifted
- Temporary inflation shock becomes persistent.

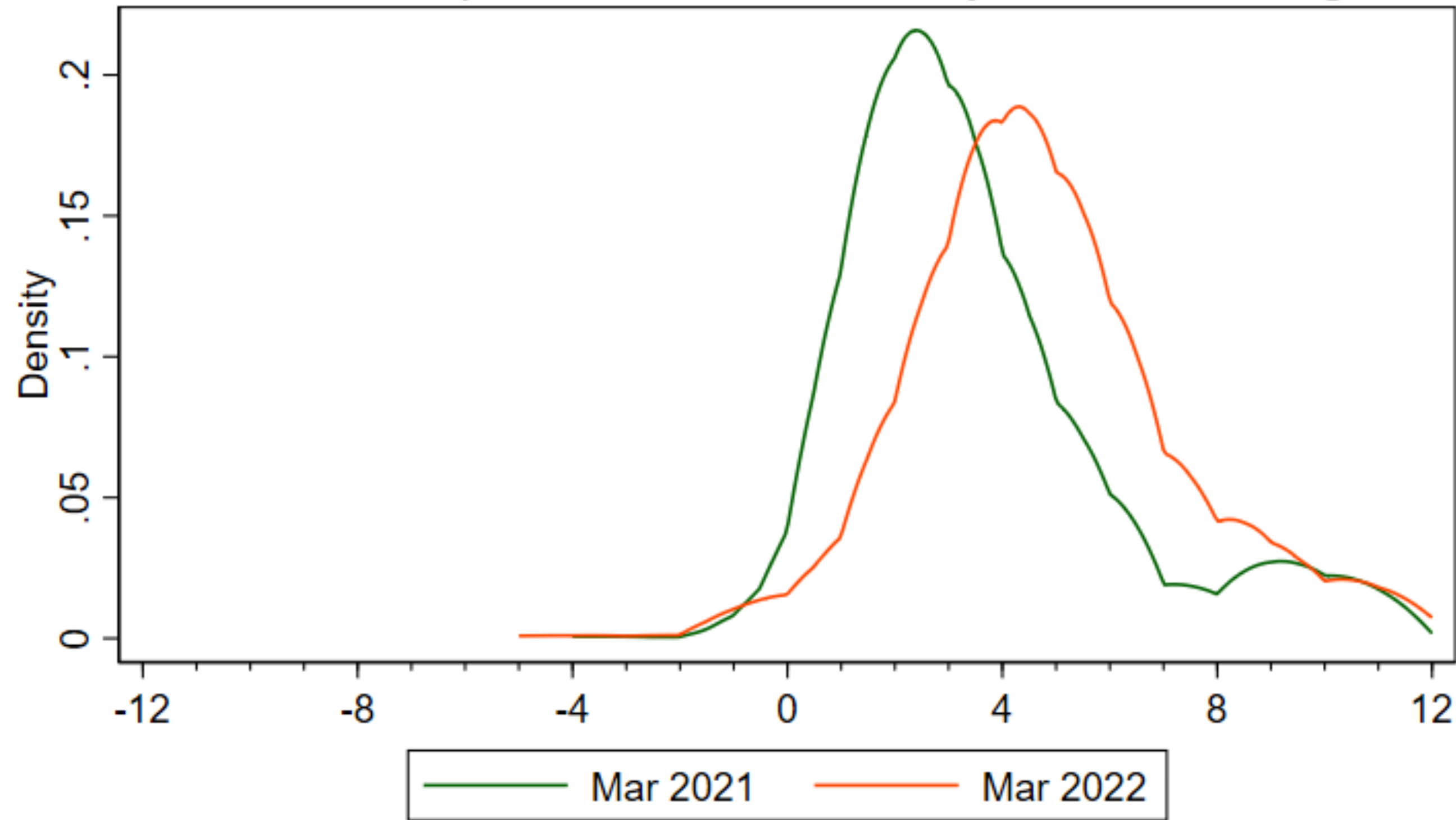
Remember the 1960s: the early unanchoring



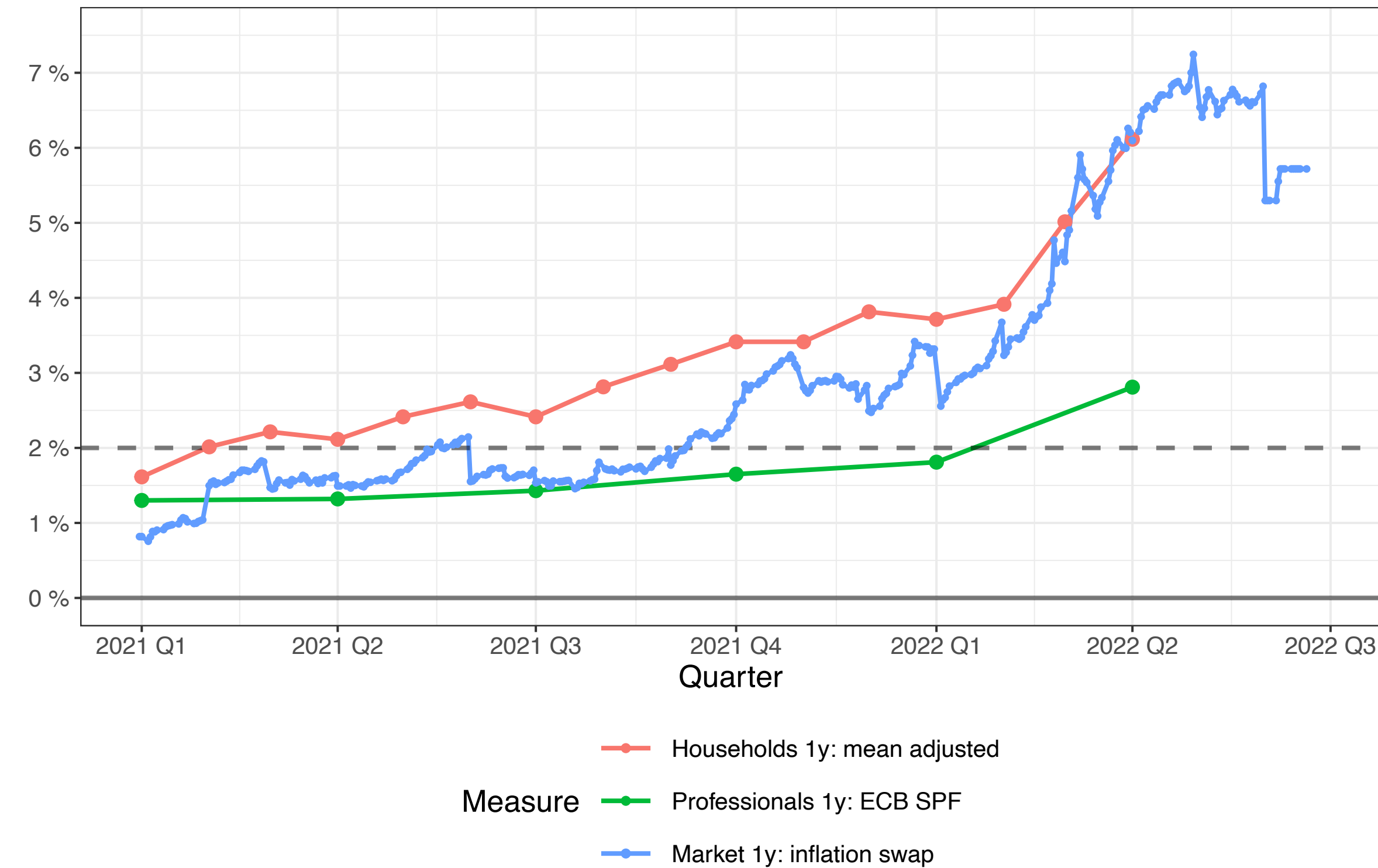
- Same pattern over a few years as in the last 12 months.
- Worse data, and at the time lacked understanding of how to measure these.

Euro area too

Inflation Expectations - next five years on average

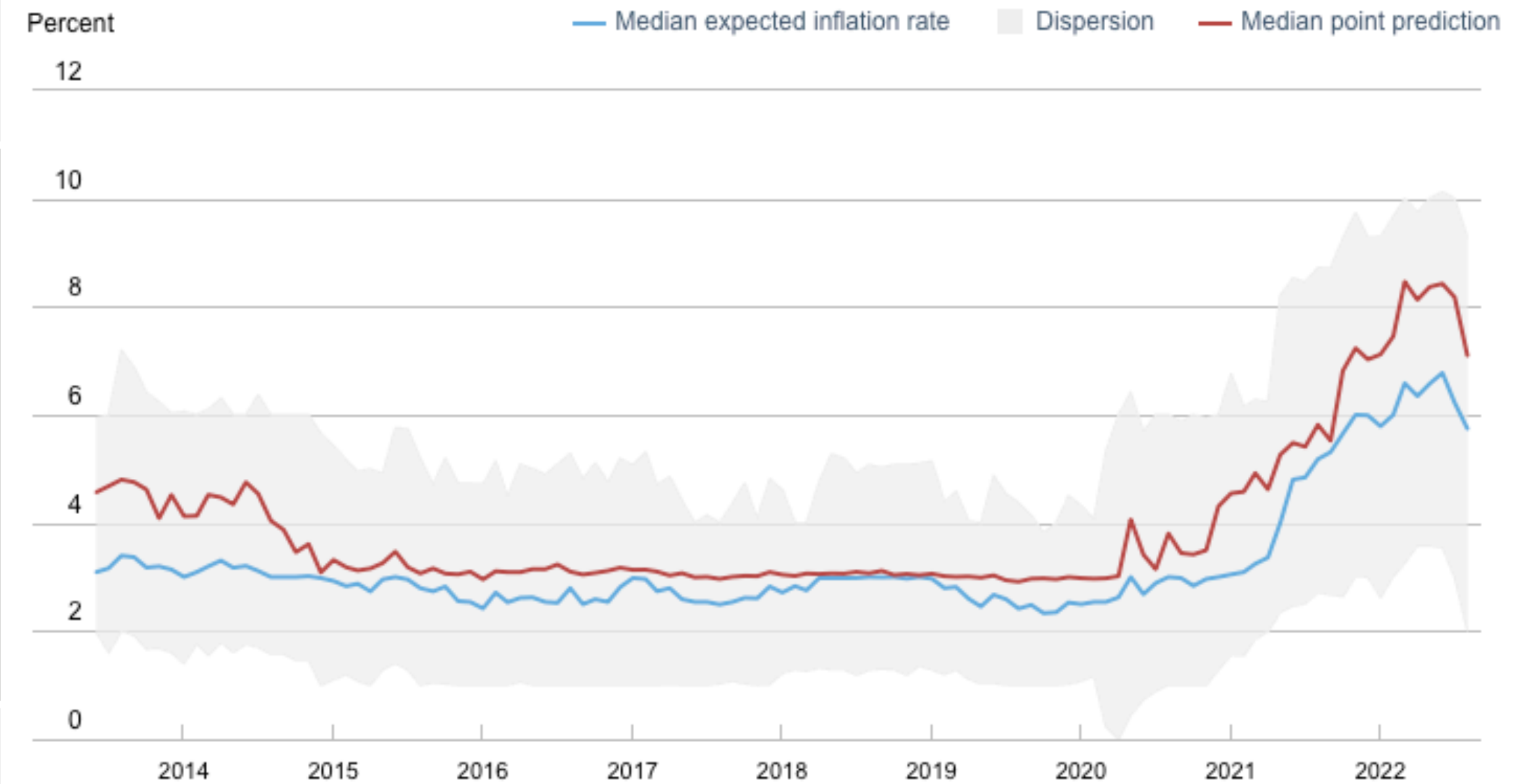
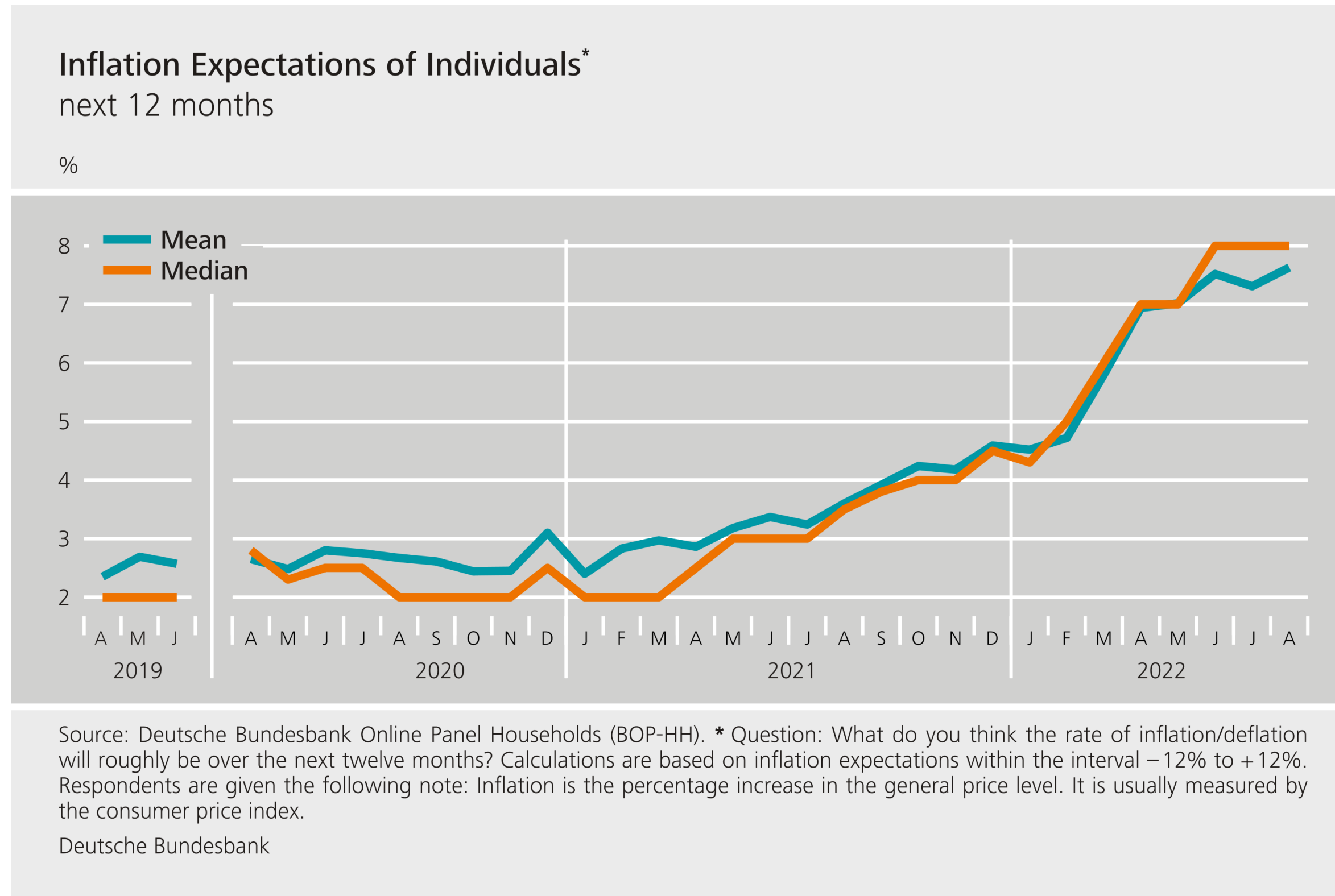


Source: Bundesbank-Online-Panel-Households (BOP-HH).
Questions: And what value do you think the rate of inflation or deflation will take on average over the next five years?
Notes: Inflation indicators truncated to values in the range [-12, +12], weighted data.



- Professionals very slow, but eventually catch up

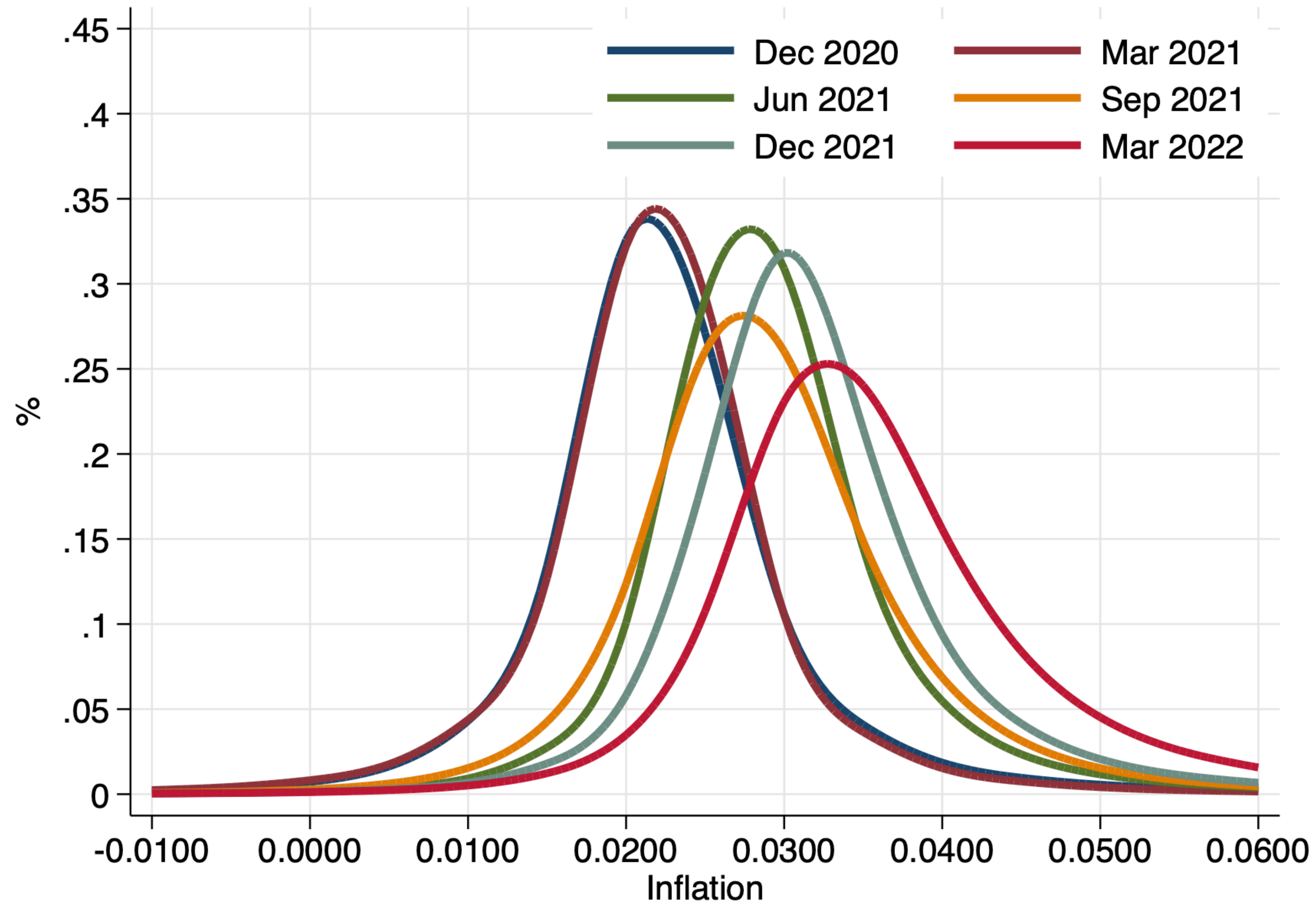
Validated in 2021: expectations out of control



Some improvement in US in last three months.

The third factor: credibility

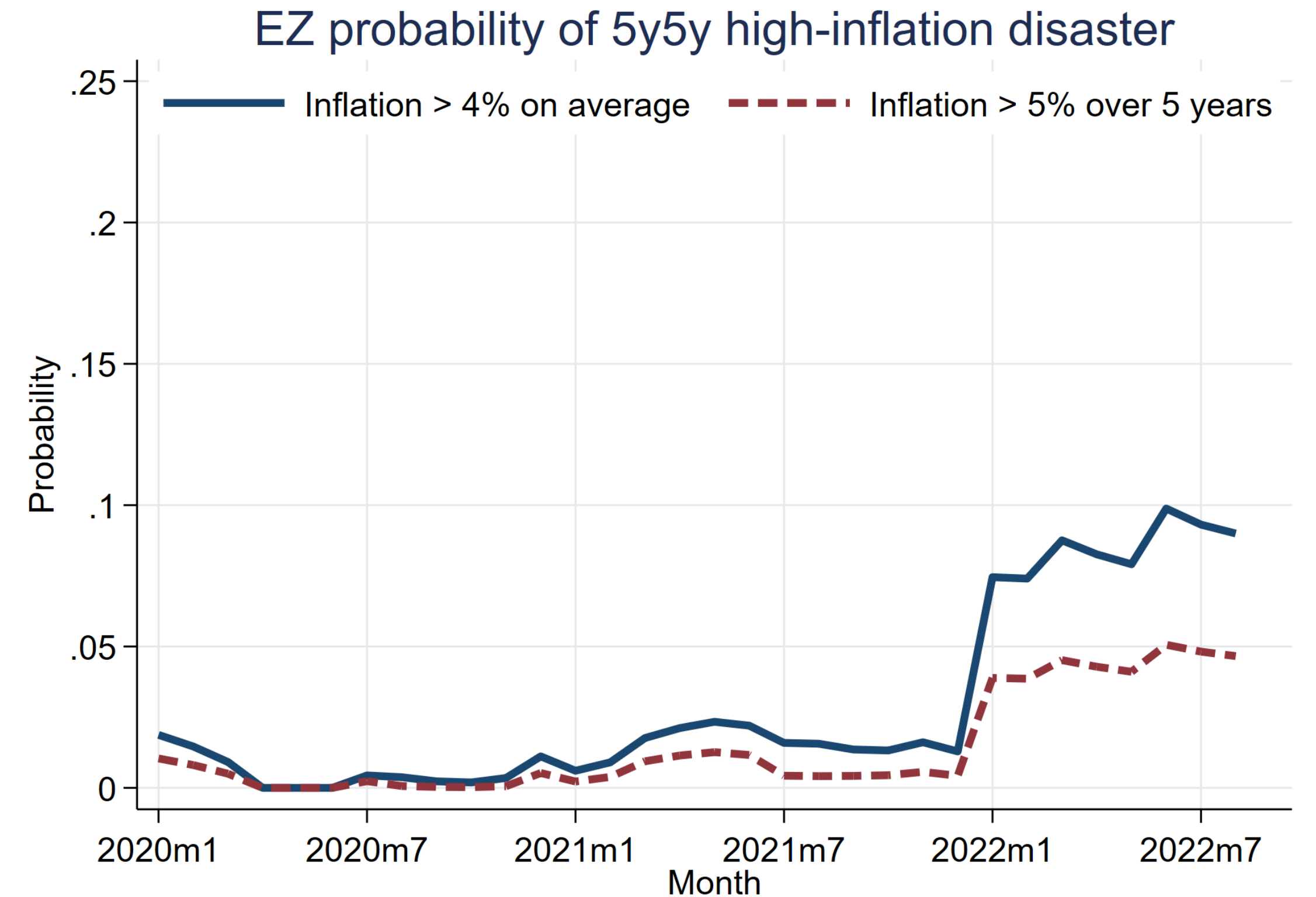
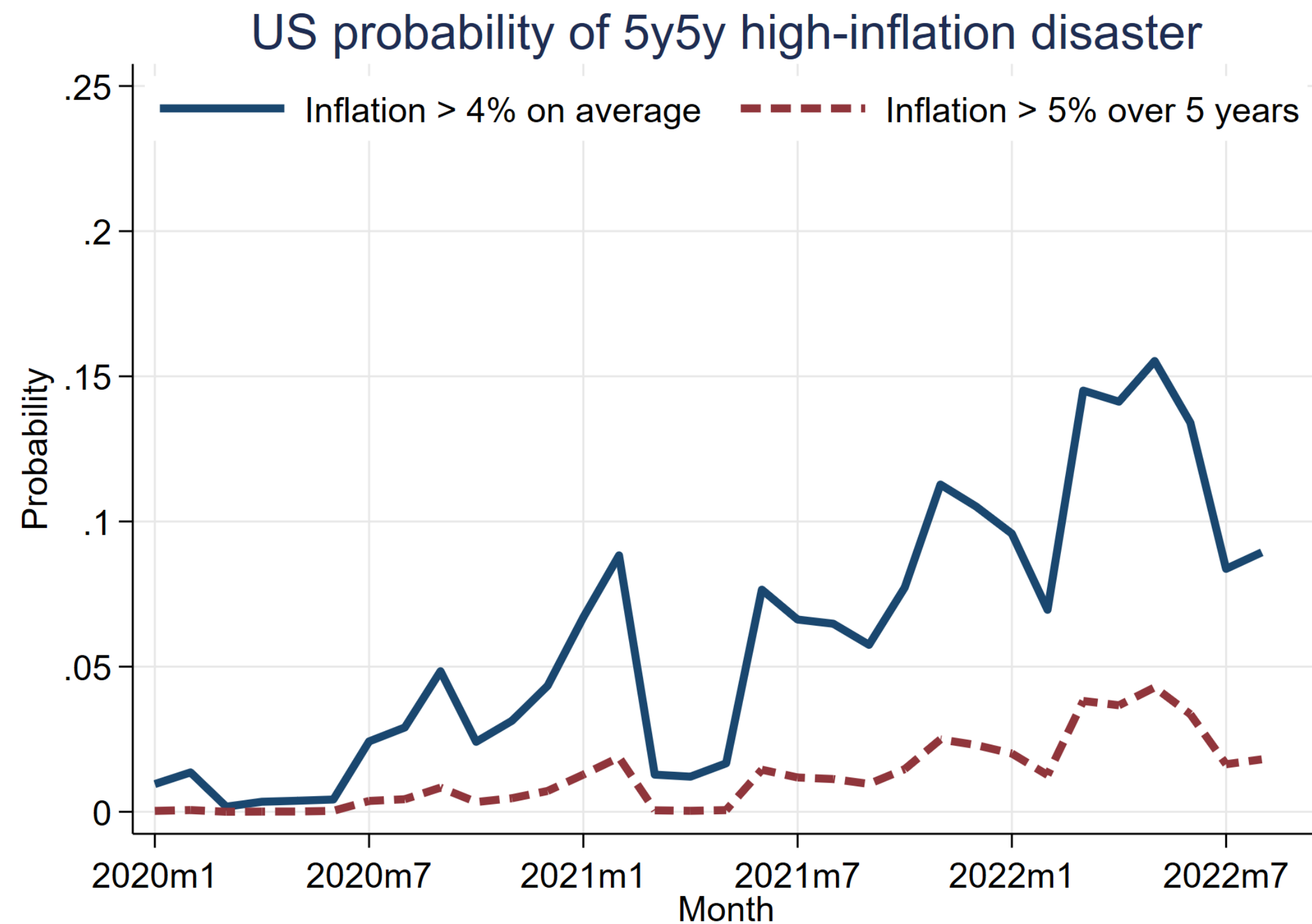
Credibility: look further ahead, 10 years



$$\pi = \pi^e + \beta(y - y^*) + \varepsilon$$

- Capital of inattention
- If stable, exploit trade-offs with real activity, flat curve doveish. Otherwise inflation
- From August on, the emergence of a thicker right tail

Back out from insurance prices (options)



The current market-perceived probability average inflation above 4% 2027-32?

Some lack of faith in monetary policy. Relying on credibility to offset shocks

The focus on r^*
and the tolerance of inflation

Framework problem: focus on r^*

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"...fall in the equilibrium real interest rate, or "r-star" ...". Powell (2020)

"structural developments have lowered the equilibrium real rate of interest" ECB (2021)

Focus on low r^* , natural or neutral real interest rate

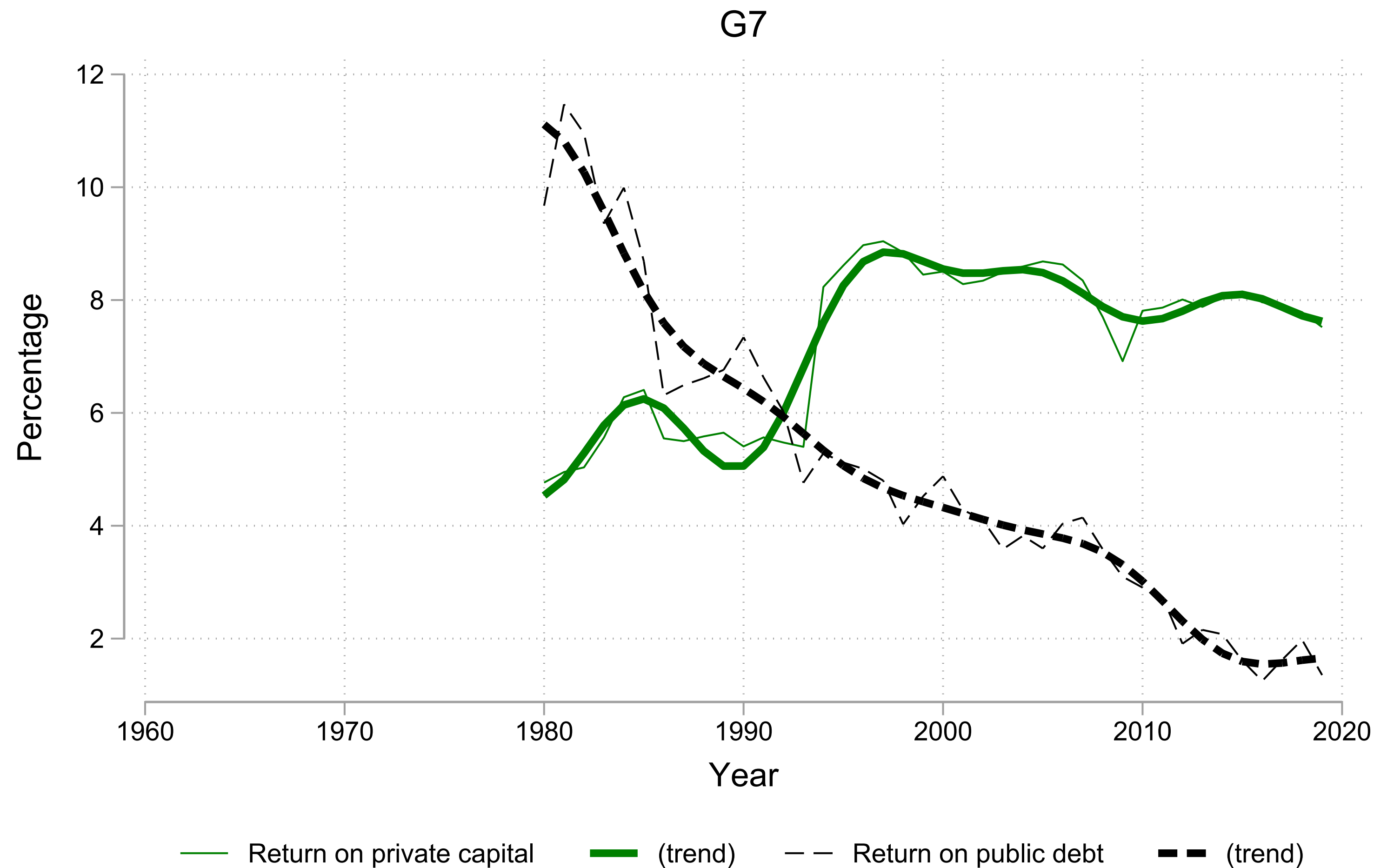
- investment=savings and output is at potential or long-run steady state

Why it matters?

- More likely policy is too tight once hit ZLB
- Deflation trap, insufficient demand, ZLB, commit to be irresponsible
- Focus on aggregate demand

Long literature shows robust decline

- All literature measured it using returns on government bonds
- But look instead at returns on capital investment
- Big increase in specialness of debt, in the wedge



Implication for monetary policy

- Which one matters for level of output?
 - For whether policy is constrained, it is the government bond r^*
 - For the transmission of monetary policy, it is private investment r^*
- What should monetary policy do?
 - Aggregate demand stimulus and how much it crowds in investment
 - Aggregate supply focus on capital allocation
 - Inflation can hurt debt sustainability

Conclusion

Conclusion and policy priorities

Presumption: central banks can always rein in inflation, deviations are a choice.

Last 12 months are a significant deviation from 25-year success. Why?

1. Misdiagnosed shocks, understandable but always in same direction, and slow to pivot and to react.
2. Steadfast belief that short-term expectations would stay anchored, some bad luck but also slow, this determines persistence.
3. Over-reliance on credibility, and on a favorable slope of the Phillips curve.
4. Estimates of falling r^* , tolerance of inflation.