Recent Inflation Surge

Lessons for Monetary Policy Conduct

Tomáš Holub

CNB Board Member

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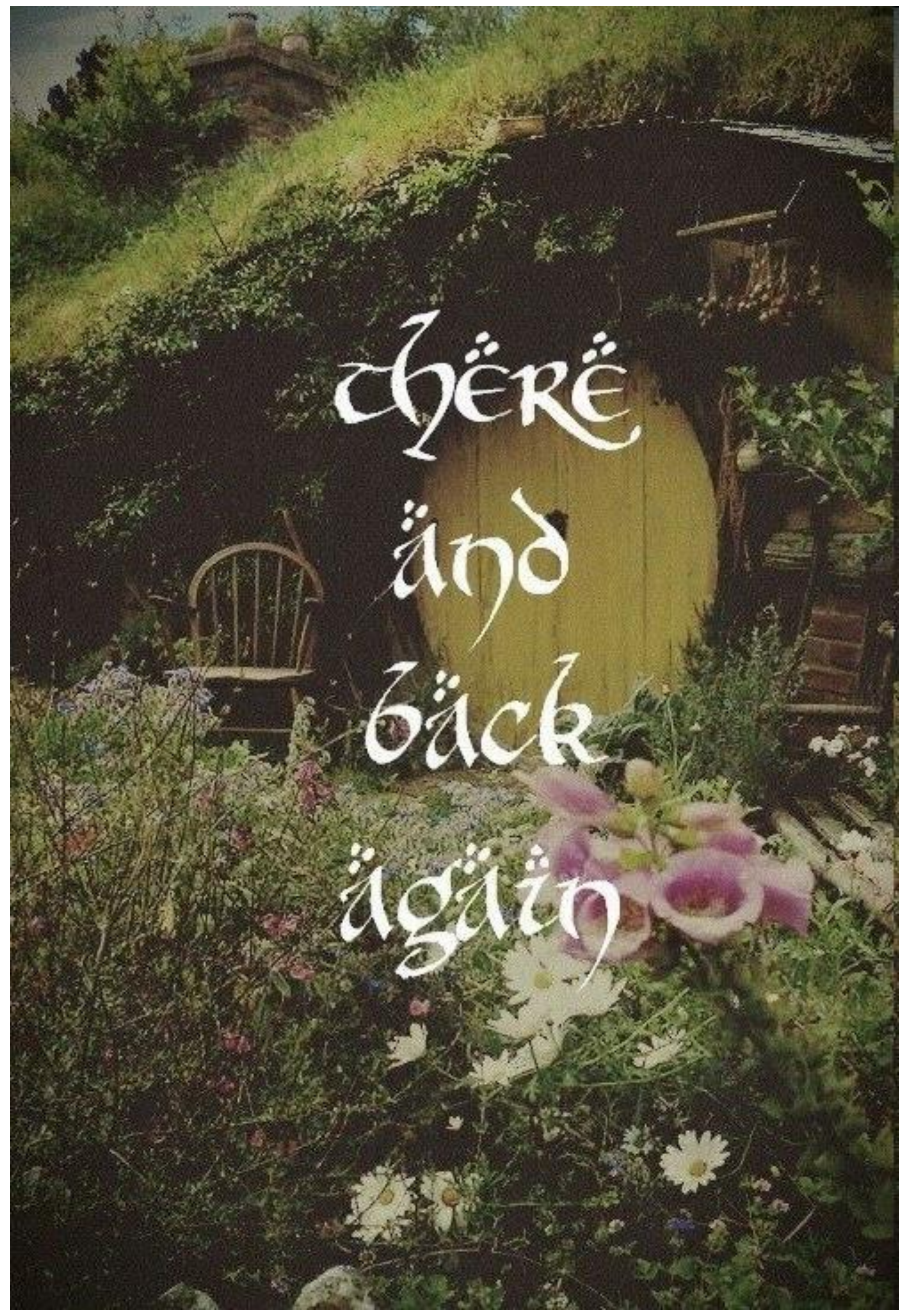

"Our monetary policy deliberations and decisions build on what we have learned about inflation dynamics both from the high and volatile inflation of the 1970s and 1980s, and from the low and stable inflation of the past quarter-century. …These lessons are guiding us as we use our tools to bring inflation down. . . . We will keep at it until we are confident the job is done."

Jerome Powell, 26 August 2022, Jackson Hole

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Outline

I. Stylised facts of the recent inflation surge

II. Did central bankers omit something? Should inflation targeting be revised?

III. Lessons for monetary policy conduct

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Stylised facts of the recent inflation surge

1. High inflation well above targets
2. Price increases have been widespread driven by both supply- and demand-side factors
3. Monetary policy responses fell behind the curve initially
4. De-anchoring of inflation expectations and risks of persistent inflation
5. Real economy stagnation rather than recession so far, with low unemployment
6. Elevated risks and uncertainty

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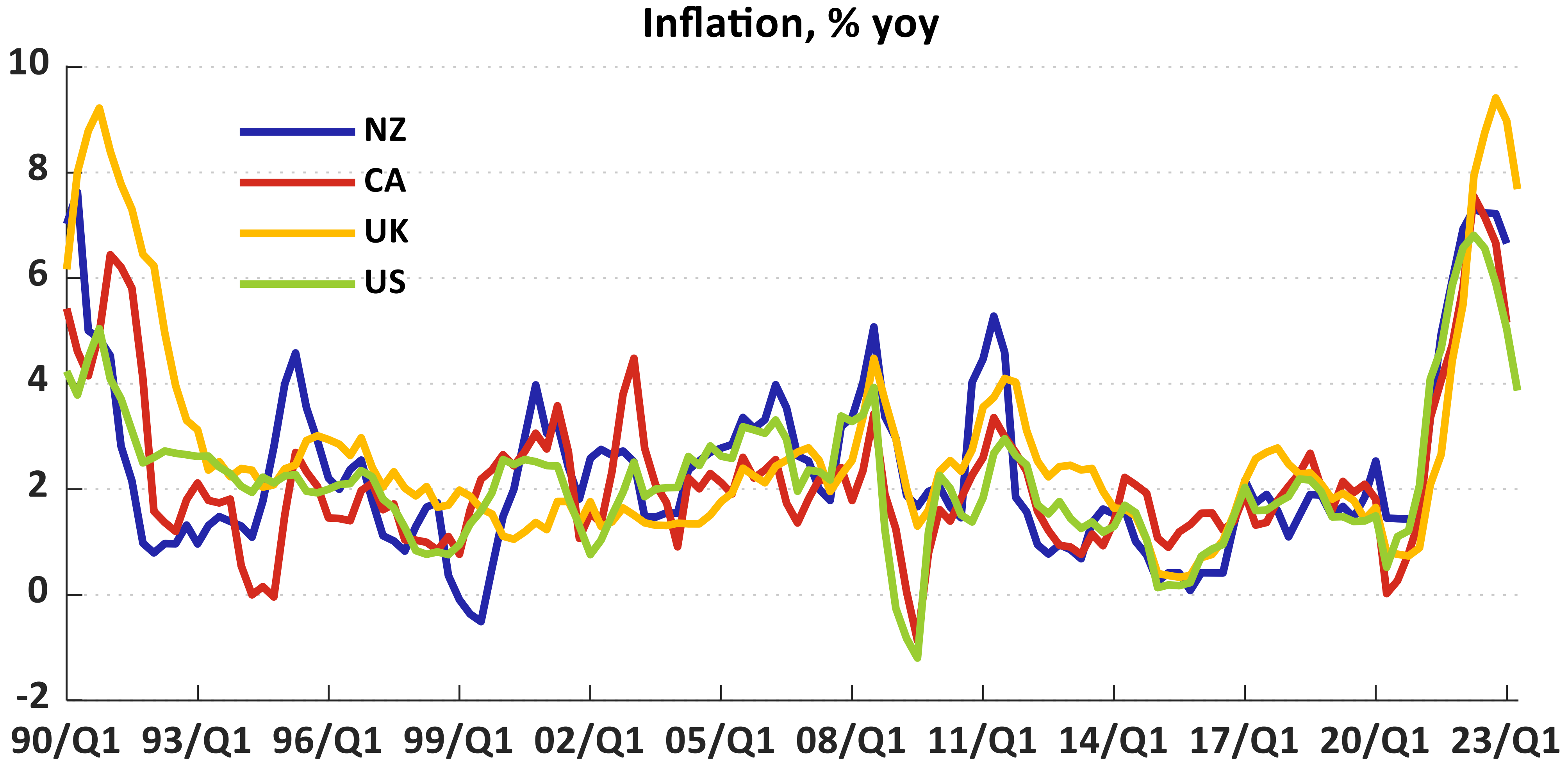
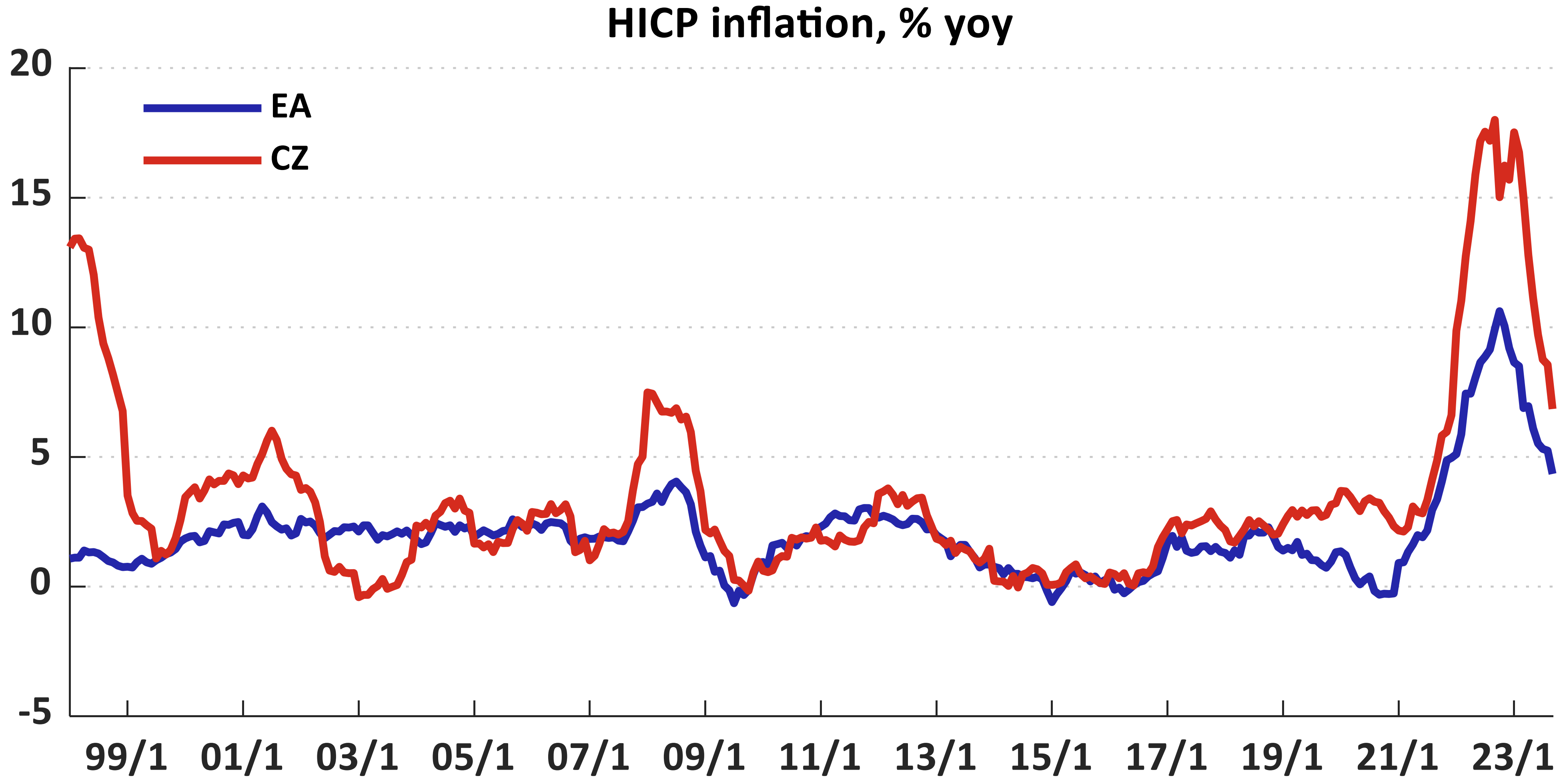
1. High inflation above targets





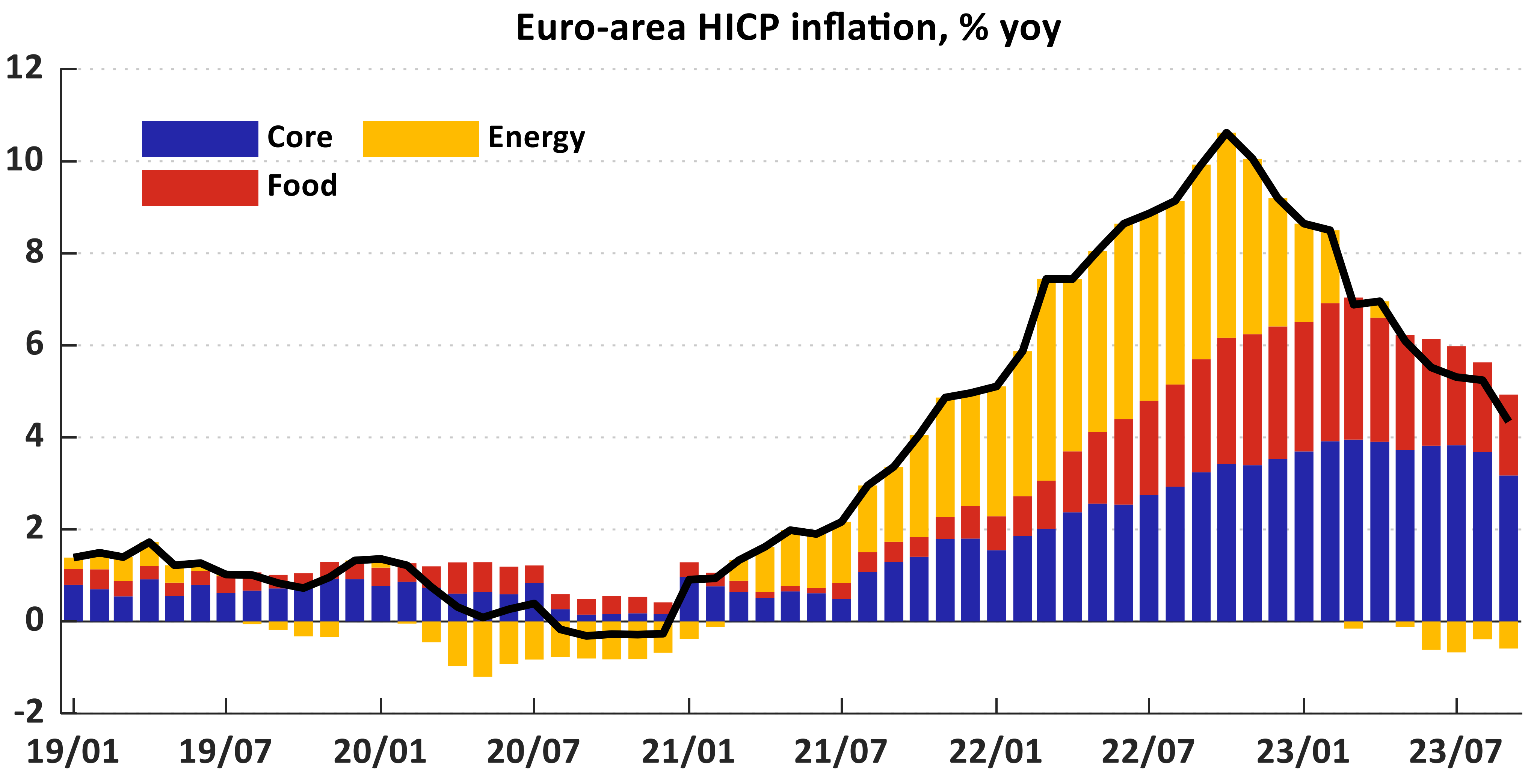
Source: BIS and Eurostat

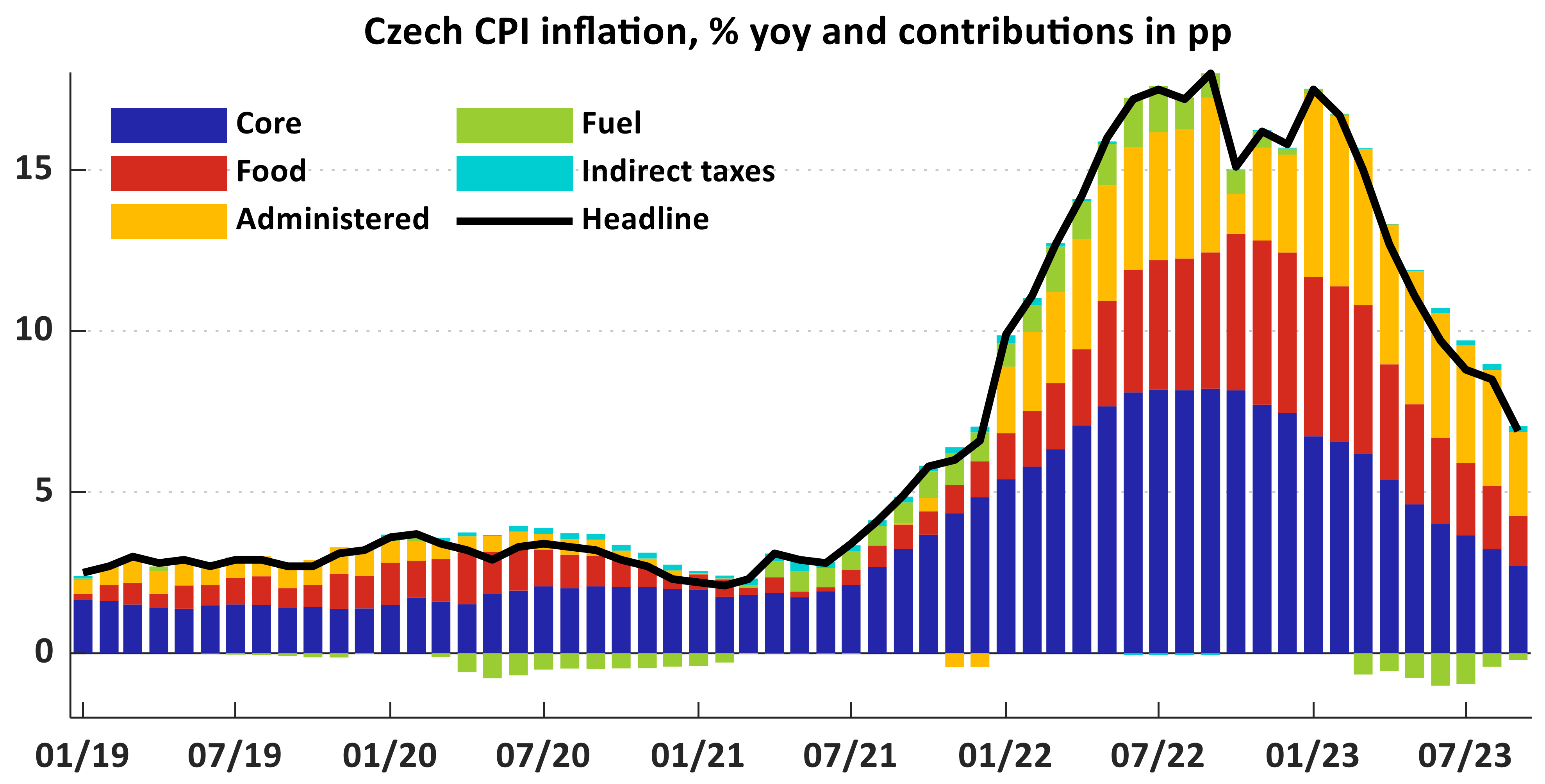
After the Covid shock, **real growth** and **unemployment** rates have returned close to pre-Covid levels; **inflation** has risen to heights not seen for decades. Inflation peaked at the end of last year, reaching levels last seen in the early 1990s.

High and persistent inflation in the 1990s led to a revolution in monetary policy strategy called **inflation targeting** (the RBNZ in 1990, the BoC in 1991, the BoE in 1992, etc.).

Inflationary pressures are currently easing, but risks of persistent inflation are still present.

2. Widespread price increase





Source: CSO and Eurostat

Soaring **energy prices** related to the war in Ukraine raised inflation last year along with rising **food prices**. However, **core inflation** has also risen.

Peaks in core inflation differ across countries, reflecting different pass-through, business cycle positions, and policies.

High core inflation can only be partly explained by **spill-over effects** from energy prices. Elevated profits also suggest **robust demand**.

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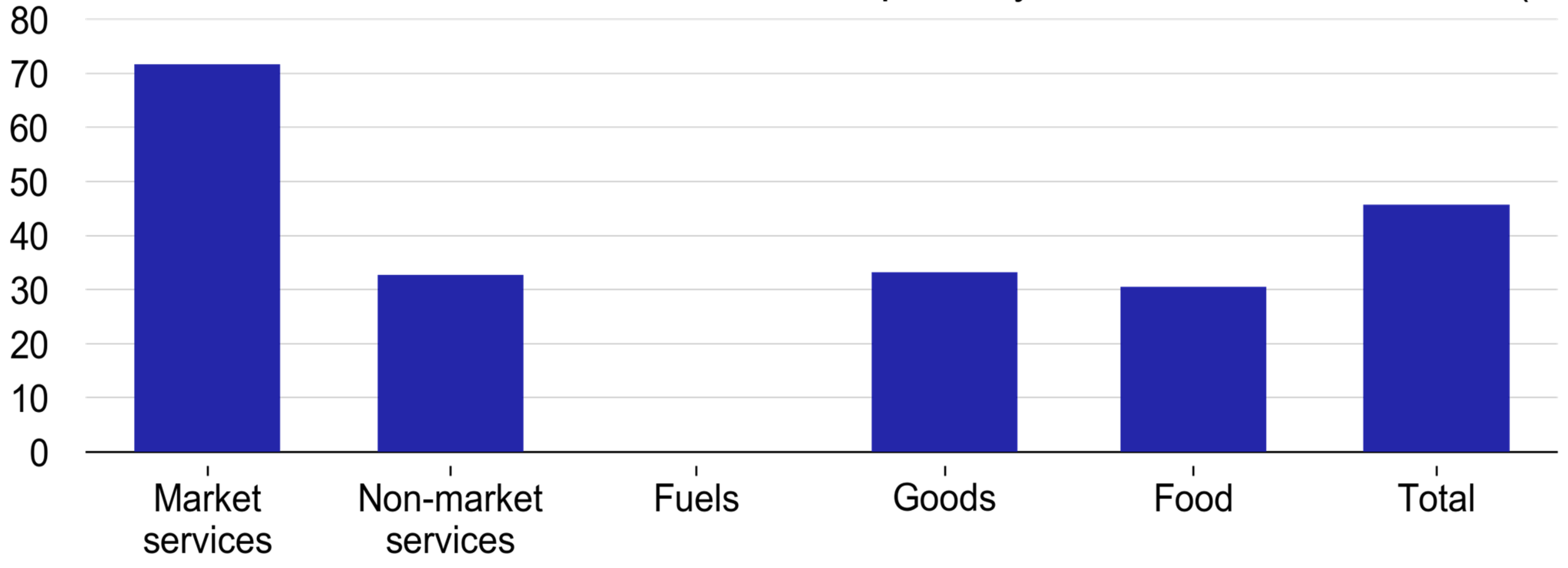
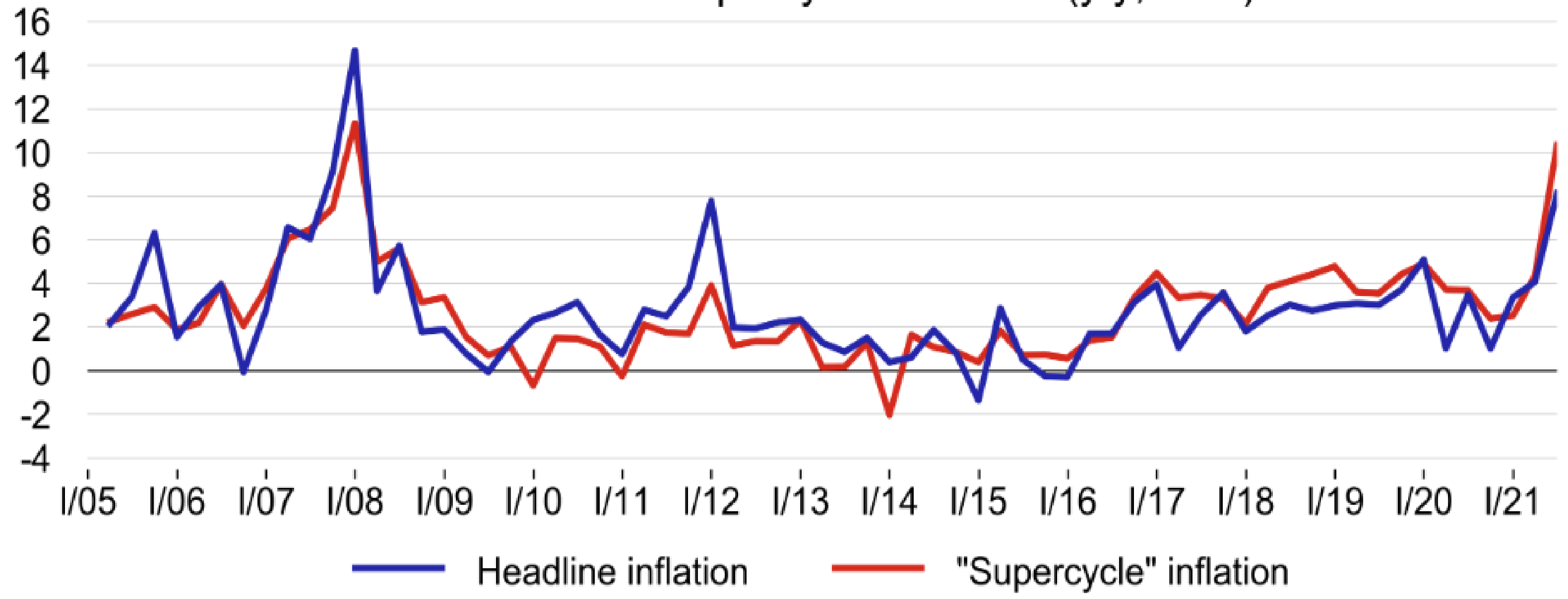
2. Widespread price increases – supply versus demand

Estimated share of demand environment on quarterly CPI inflation in 2021 Q3 (in %)

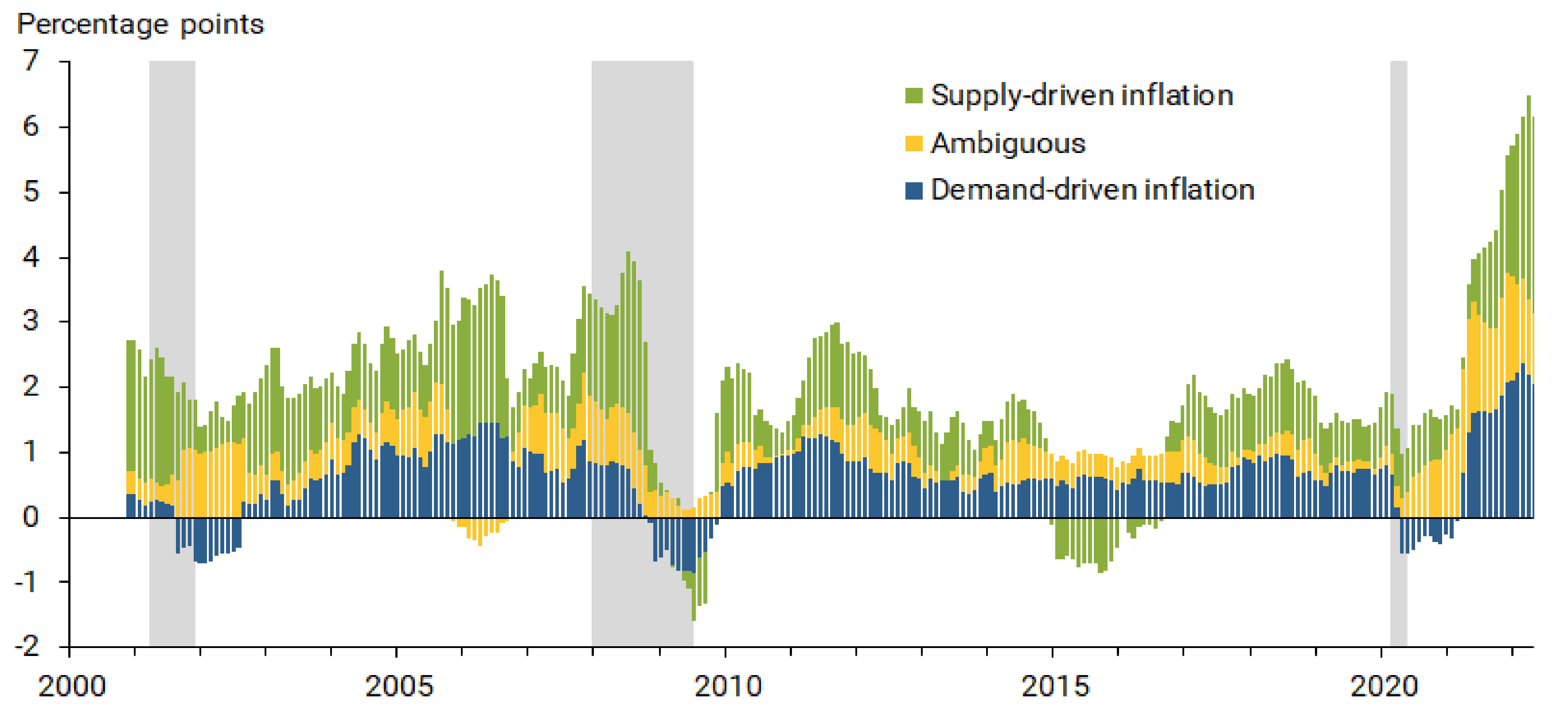


Headline and "supercycle" inflation (y/y, in %)



Source: CNB

Supply-driven and demand-driven contributions to year-over-year PCE inflation (US)



Note: Data available at Supply- and Demand-Driven PCE Inflation. Gray shading indicates NBER recession dates.

Source: Shapiro (2022)

Besides the cost effects from abroad, a strongly **inflationary domestic environment** pushed inflation up in the Czech Republic.

Shapiro (2022) claims that in the case of the USA, **supply factors** explain about half of the run-up in recent inflation levels. **Demand factors** are responsible for about one-third, with the remainder resulting from ambiguous factors.

Hence, inflation was driven by **supply** (supply disruptions and bottlenecks) and **demand** factors (strong recovery of demand after lockdowns and shifts in demand from services to goods), along with a **commodity price** increase due to rising global uncertainty.

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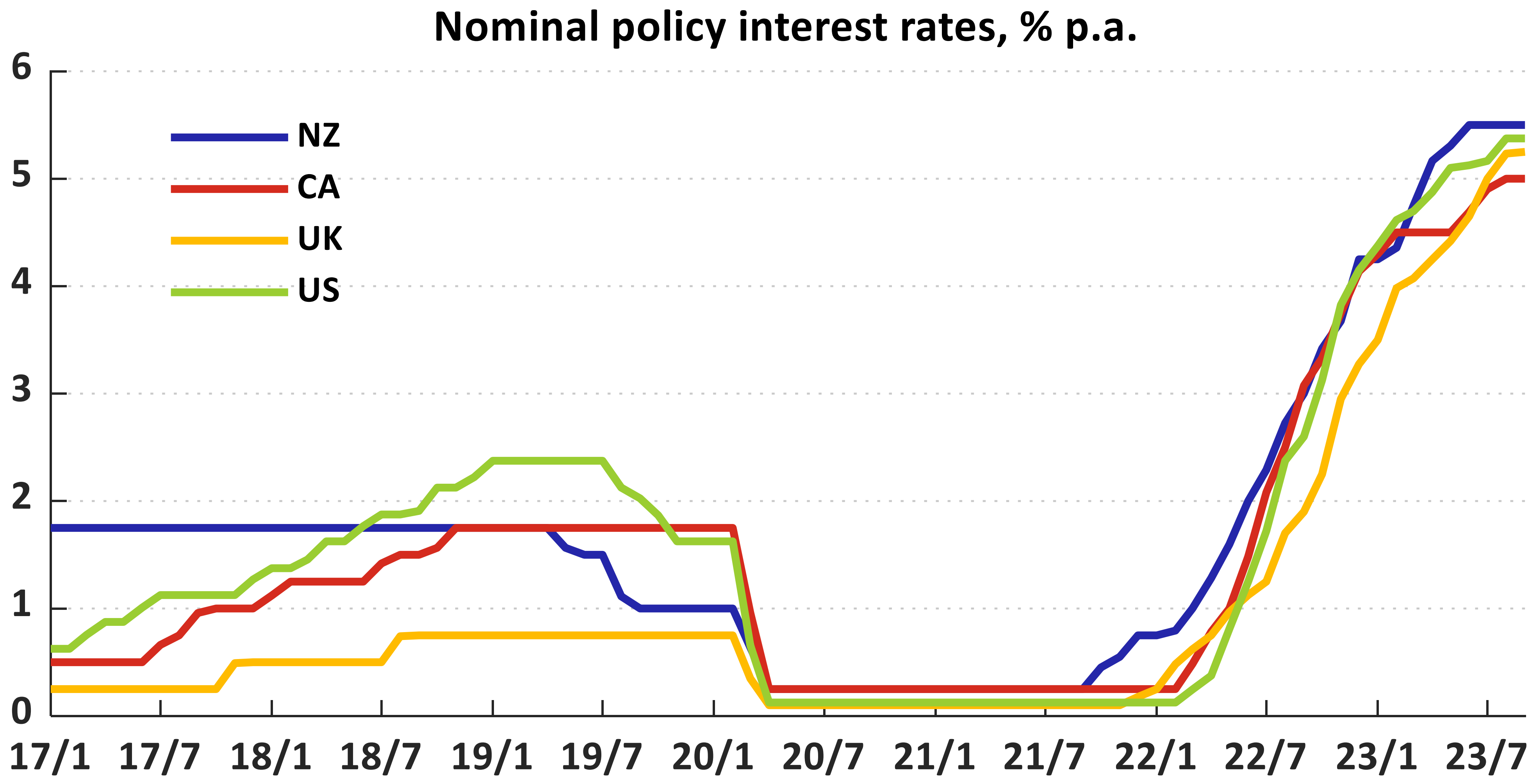
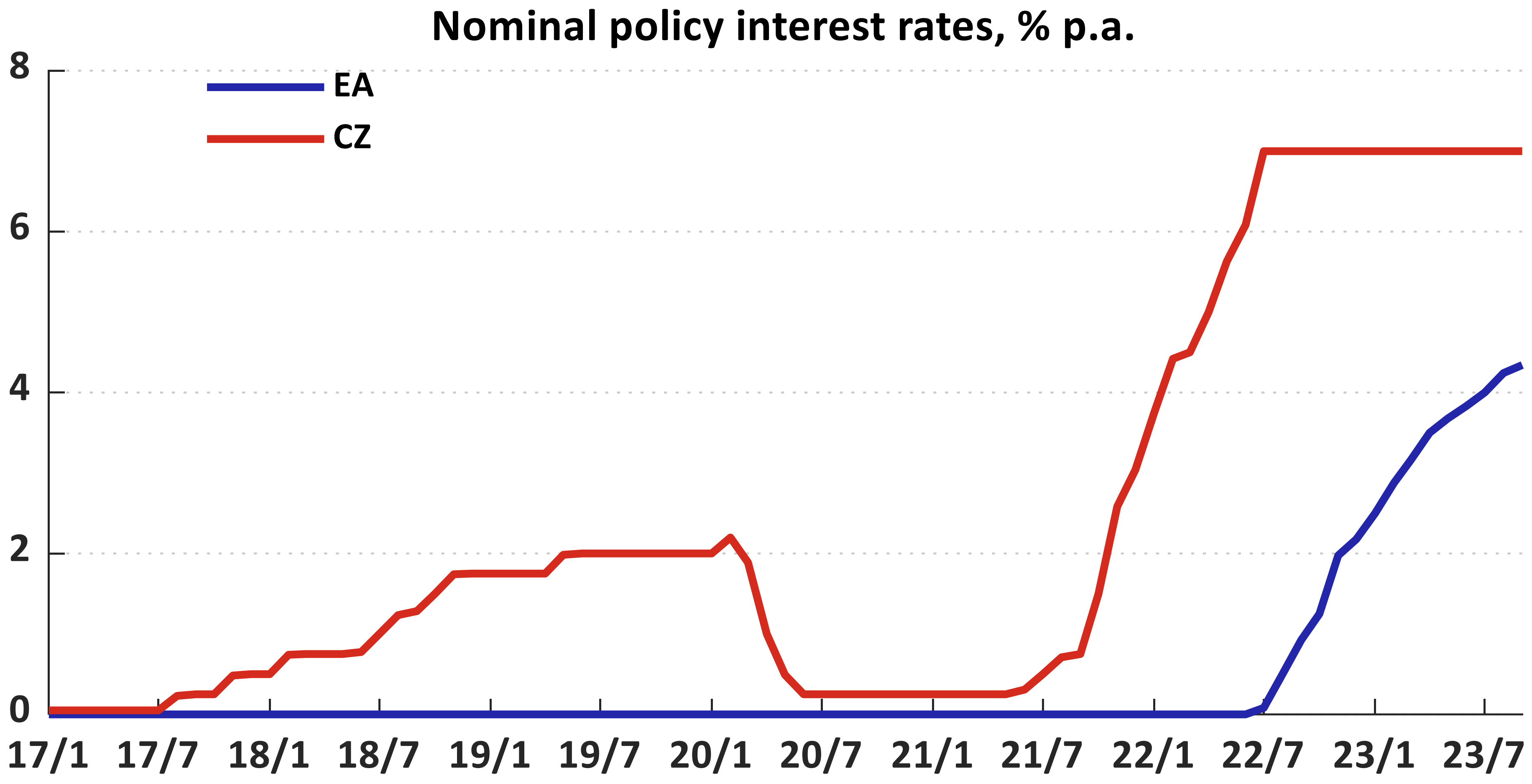
3. Monetary policy response





Source: Central banks

Prior to the inflation surge, even the “**keep it hot**” strategy, did not bring inflation up => studies on flattening of Phillips curves, risks of deflation, and fear of re-introduction of unconventional measures were present due to the Covid shock.

Given the past experience, **central banks** were hesitant to respond to rising inflation. The supply-side nature of bottlenecks and doubts about robustness of the real economic recovery mitigated the monetary policy response initially.

The CNB started to hike well ahead of the major central banks (but still too late from an ex-post perspective).

As inflation continues to decline and inflation pressures ease, **when should central banks start cutting rates?**

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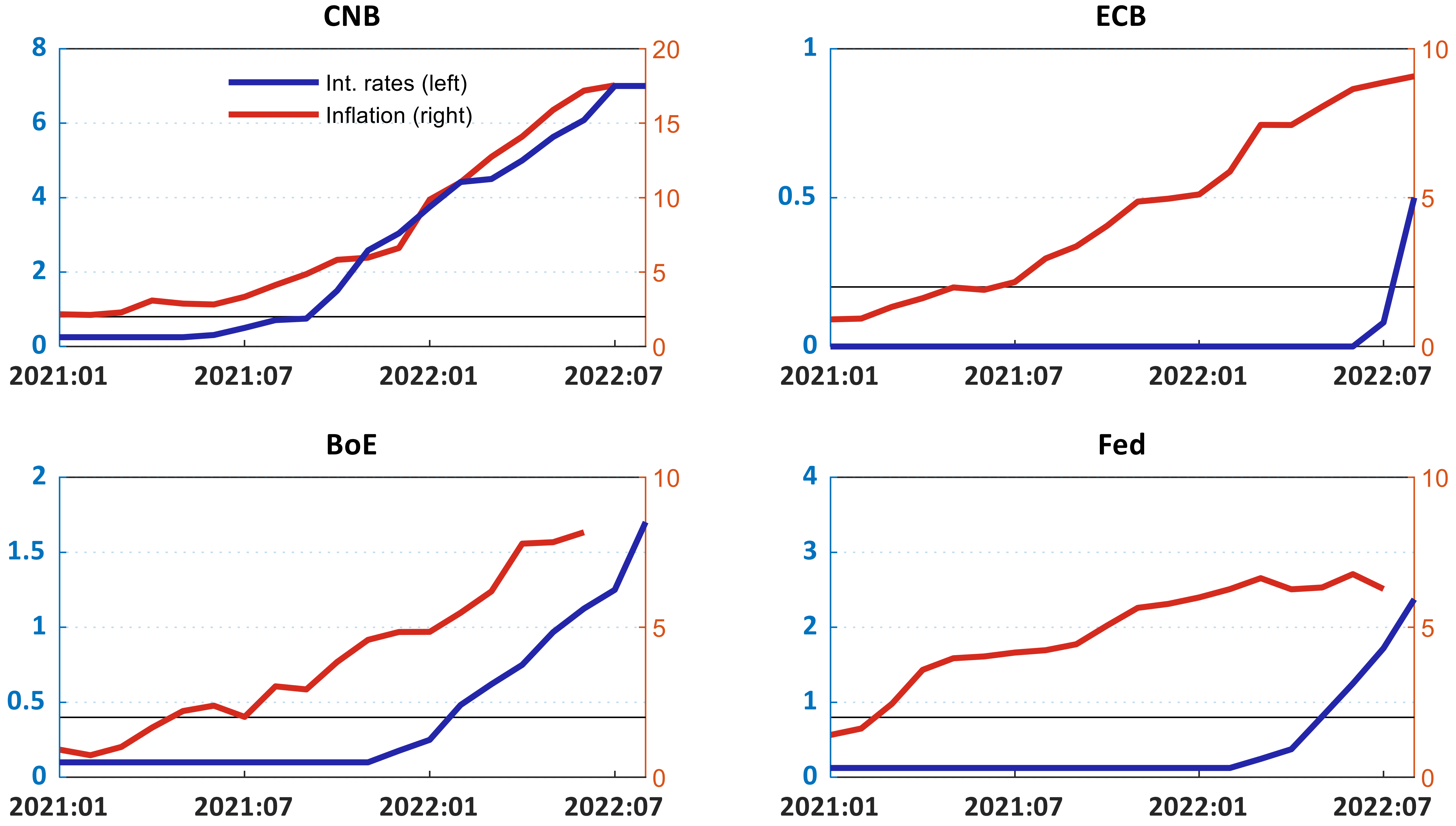
3. Monetary policy response (cont.)



Source: Central banks and statistical offices

Were central bank responses forward-looking or did they fall behind the curve?

Initially, **supply shocks were** considered as **short-lived**, raising inflation only temporarily.

"Running the economy hot", "looking through" shocks, or arguing that shocks are **"out of MP scope"** was considered as a **desirable and benign approach** with respect to inflation based on past experience.

No more "**whatever it takes**" statements as in the 1990s during the Great Moderation.

Using the ex-post view, **central banks fell behind the curve** initially, allowing a further decline in real interest rates.

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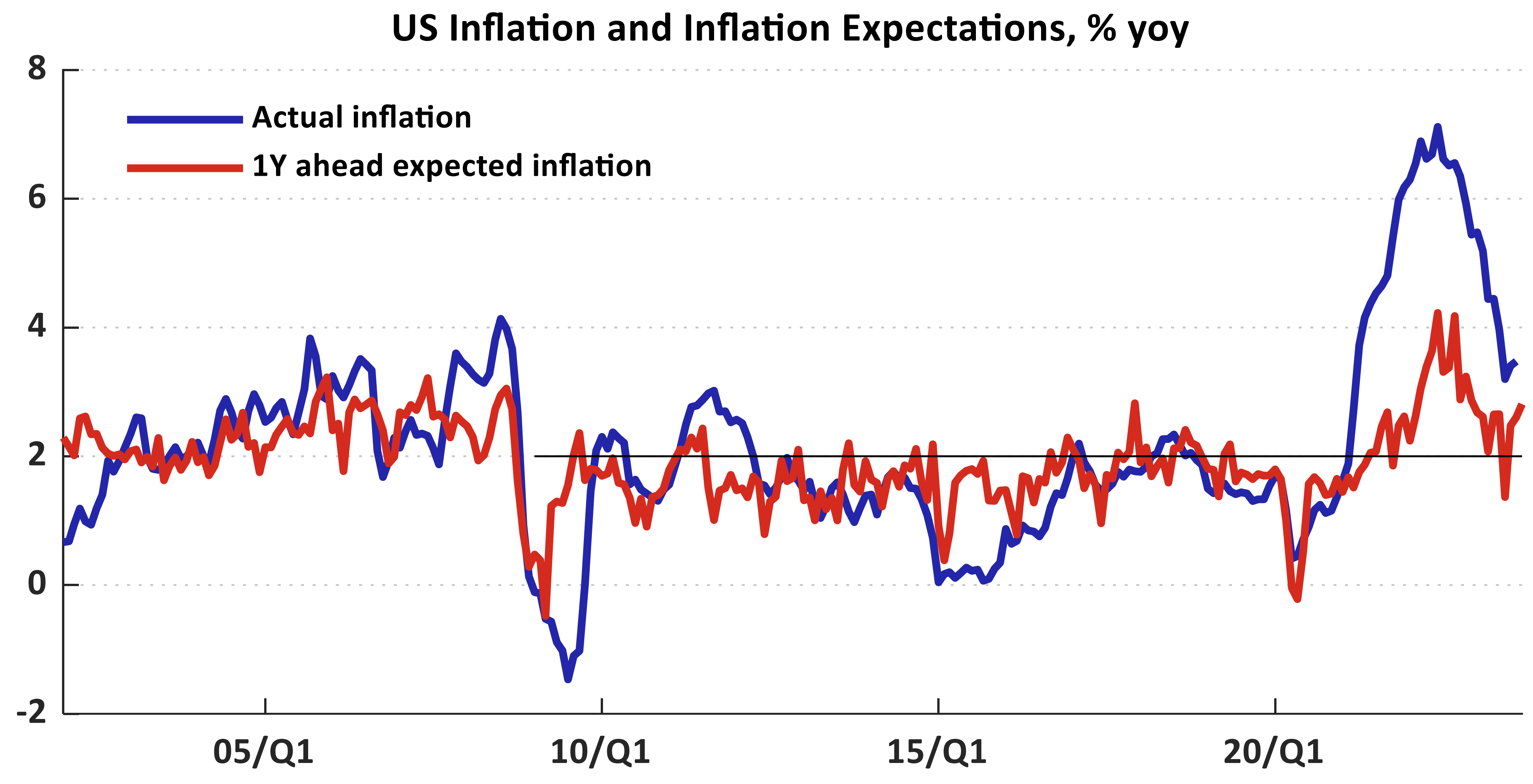
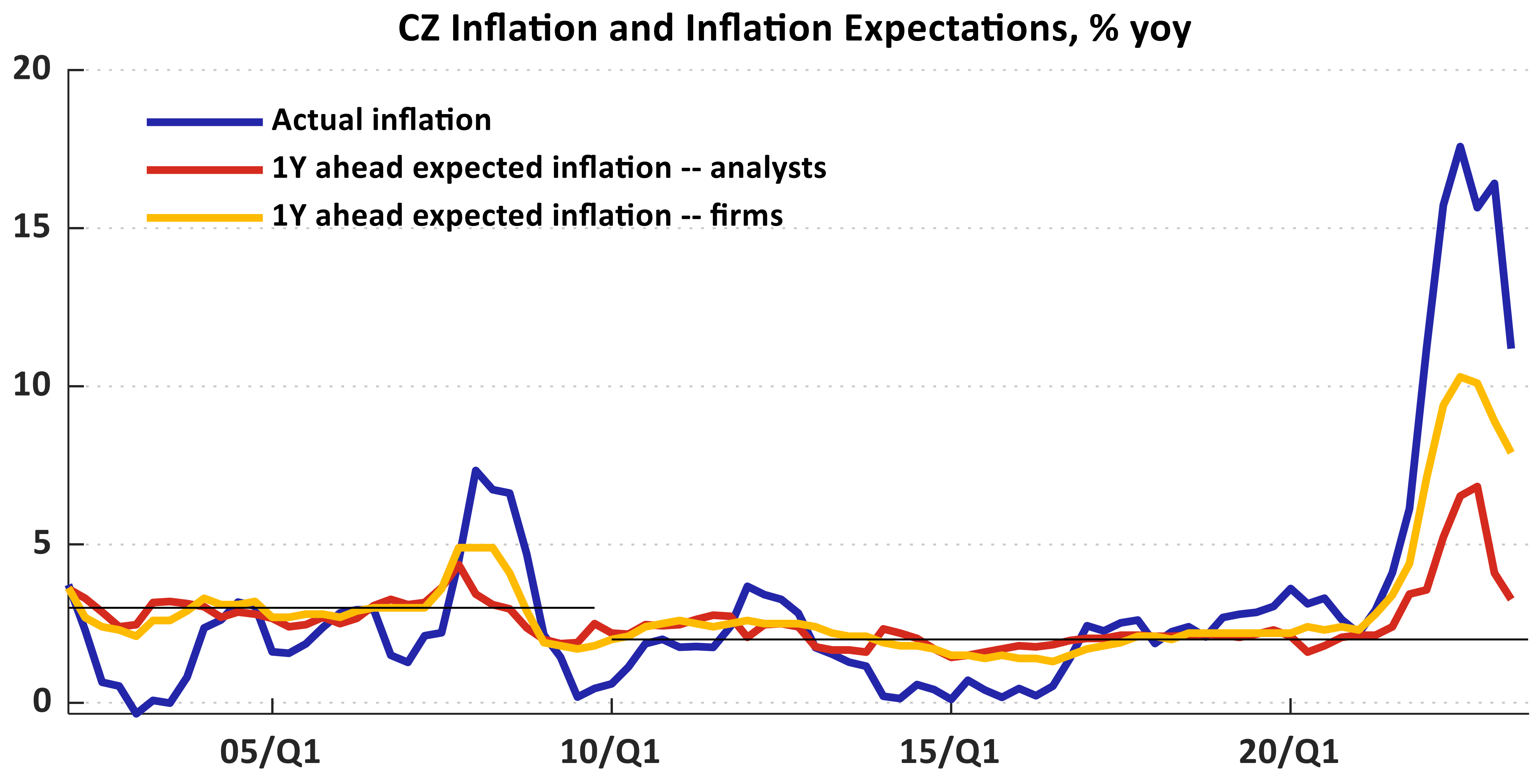
4. De-anchoring of inflation expectations





Source: FRED and CNB

Inflation expectations hovered around the target at the one-year horizon prior to the recent inflation surge. However, high inflation and consequently significant and relatively long-lasting deviations from the target have pushed expected inflation above its target.

High and persistent inflation expectations would raise the real costs of disinflation and call for tighter monetary policy in general.

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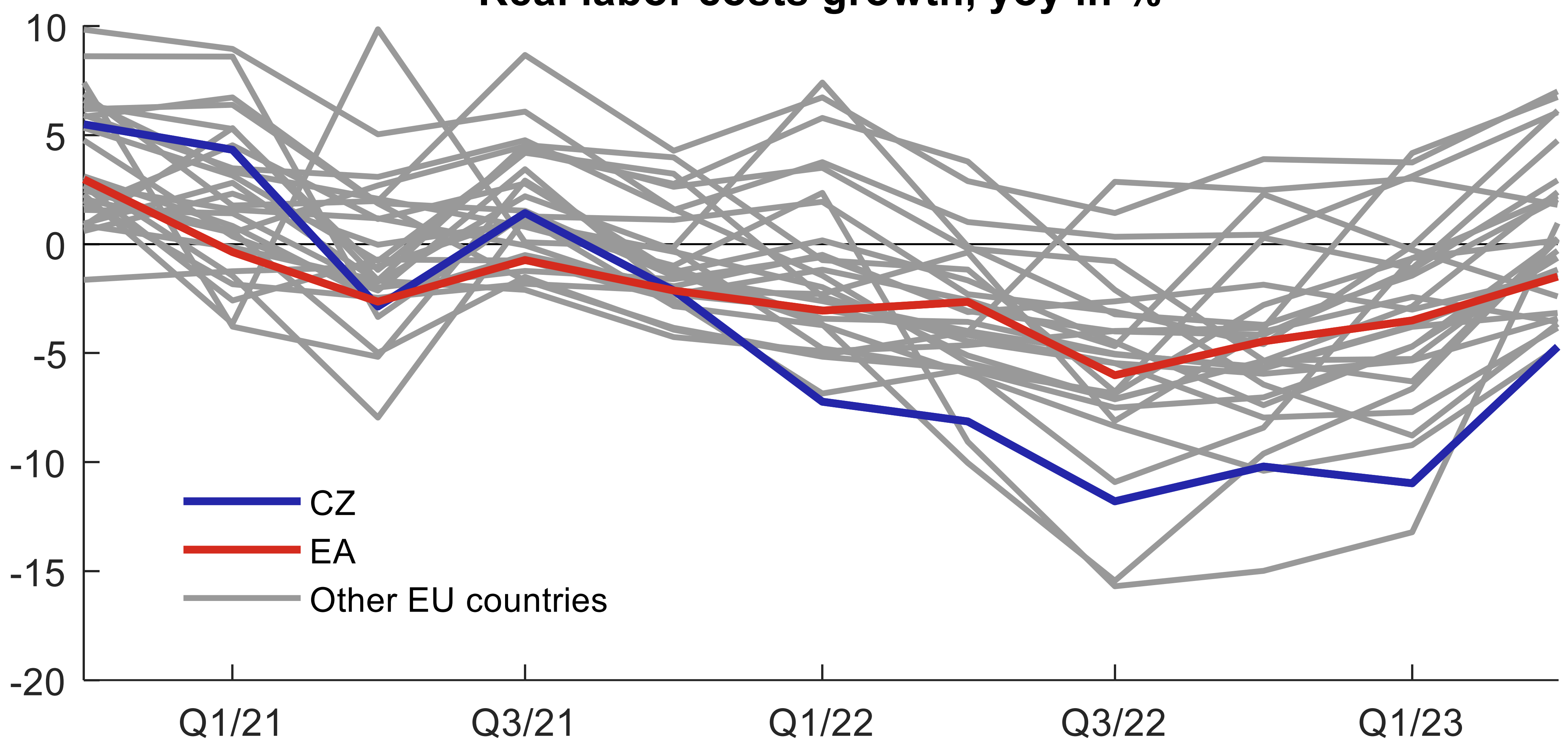
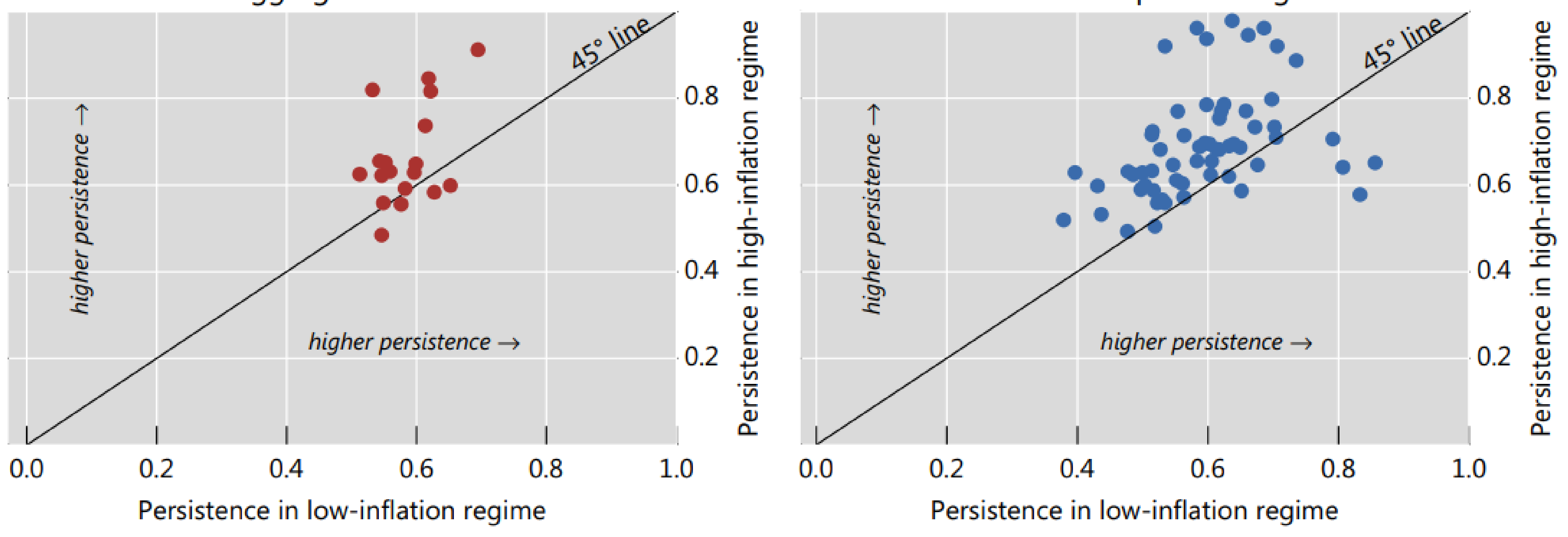
4. Risk of persistent inflation

Real labor costs growth, yoy in %



Low-inflation regimes: price changes are less persistent[1] Graph 8

A. Persistence of aggregate inflation | B. Persistence of sectoral price changes



[1] Persistence of one-month log price changes computed using sector-level data. Measure of persistence based on Días and Marques (2010). High-inflation regime samples: CA, Dec 1971–Dec 1990; JP, Dec 1970–Dec 1979; KR, Dec 1985–Dec 1997; MX, Jan 1983–Dec 2002; US, Jan 1965–Dec 1985. Low-inflation regime samples: CA, Jan 1991–Dec 2019; JP, Jan 1980–Dec 2019; KR, Jan 1998–Dec 2019; MX, Jan 2003–Dec 2019; and US, Jan 1986–Dec 2019.

Note: Each point represents one country, where the persistence of inflation in a low-inflation environment is on the x-axis and its persistence in a high-inflation environment is on the y-axis. Most of the points lie above the 45-degree line, i.e. inflation persistence is on average higher in a high-inflation environment than in a low-inflation environment.

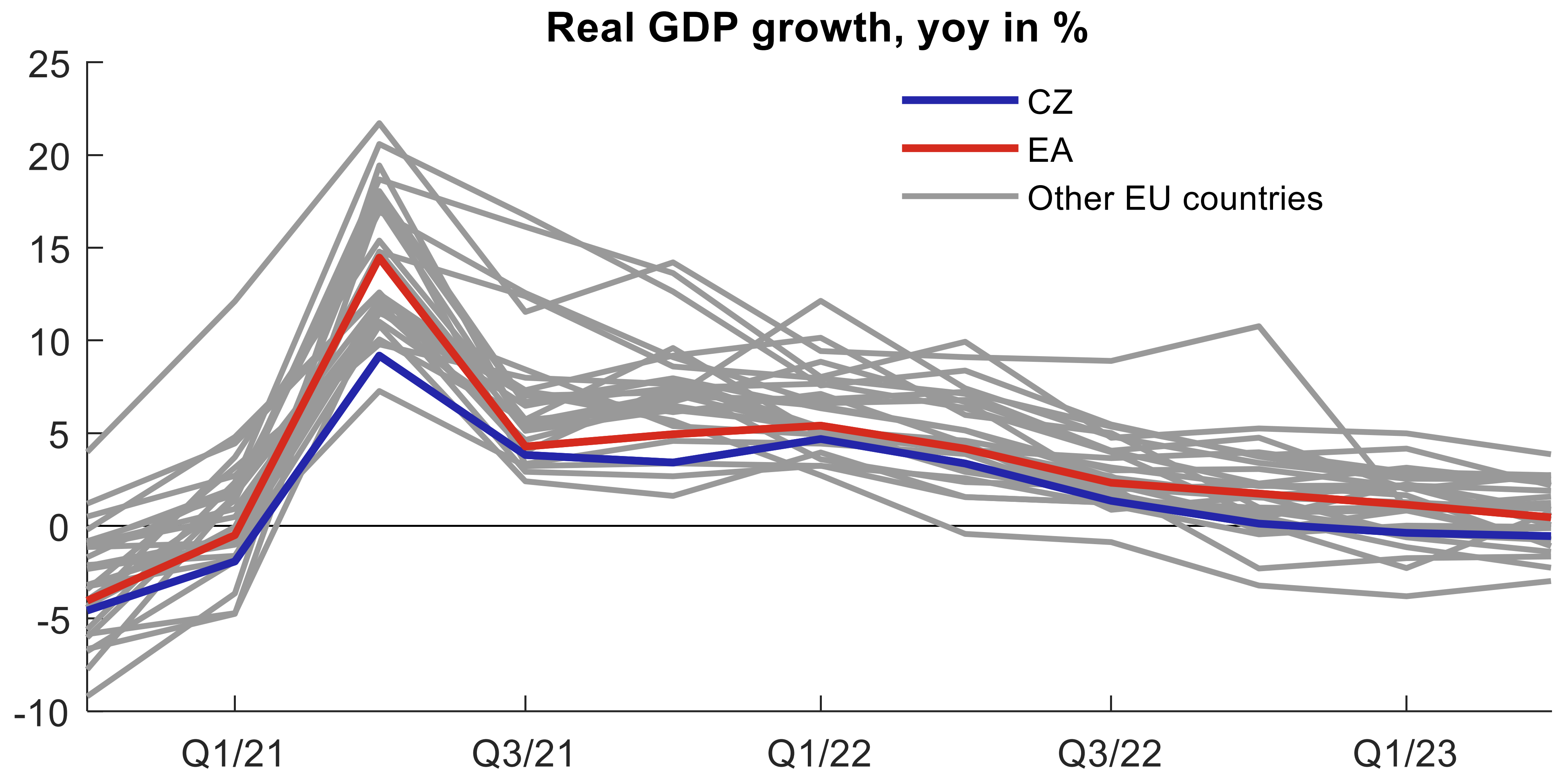
Source: Eurostat and Borio et al. (2022)

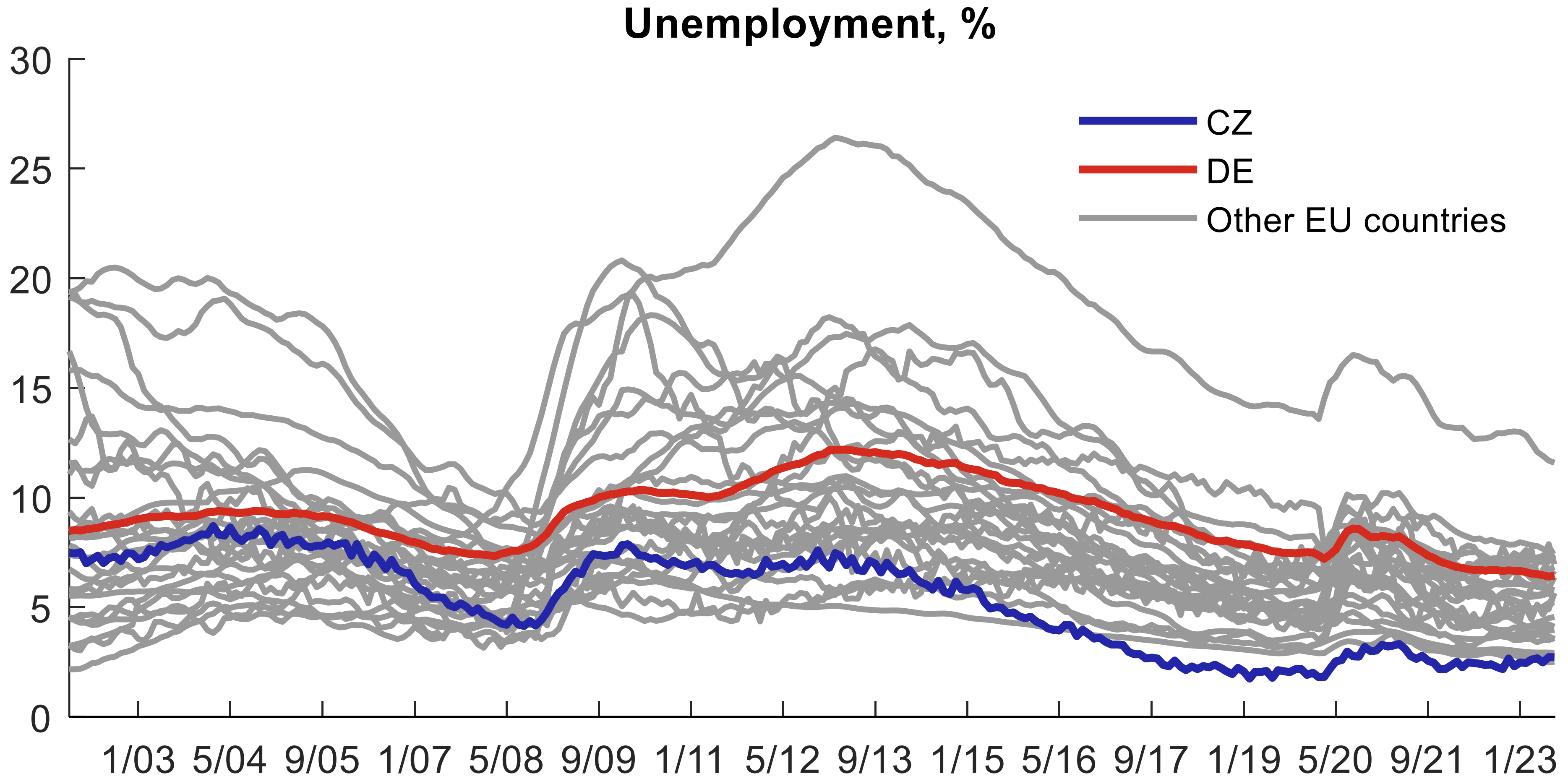
Inflation expectations above the target and a significant drop of real consumer wages might lead to **persistent inflation**.

The higher persistence of inflation in a high-inflation environment may also result from **price indexation** and elevated **inflation expectations**.

Borio et al. (2023) claim that **high-inflation periods** are characterised by a higher persistence of inflation compared to **low-inflation periods**.

5. Real economy





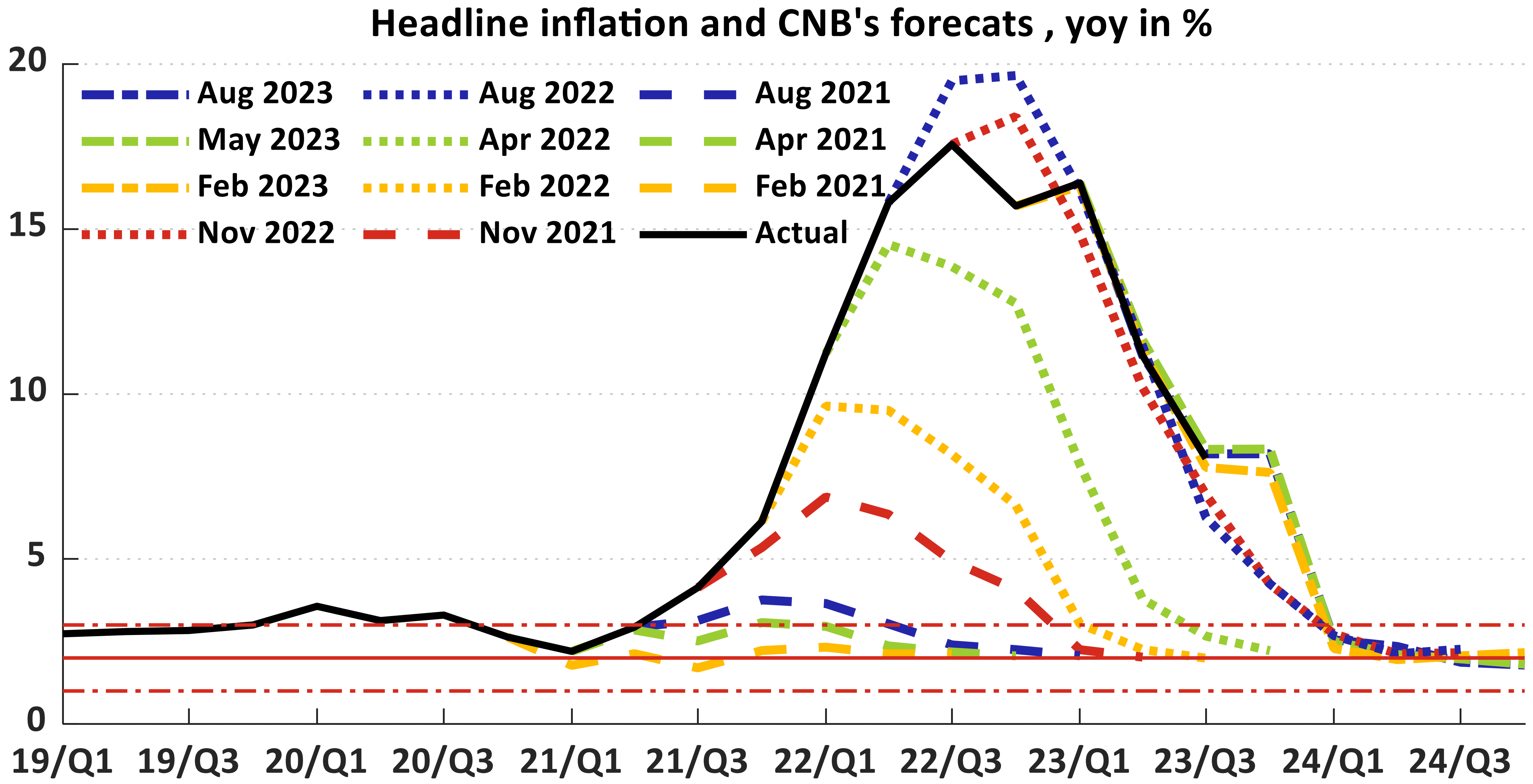
Source: Central banks and Eurostat

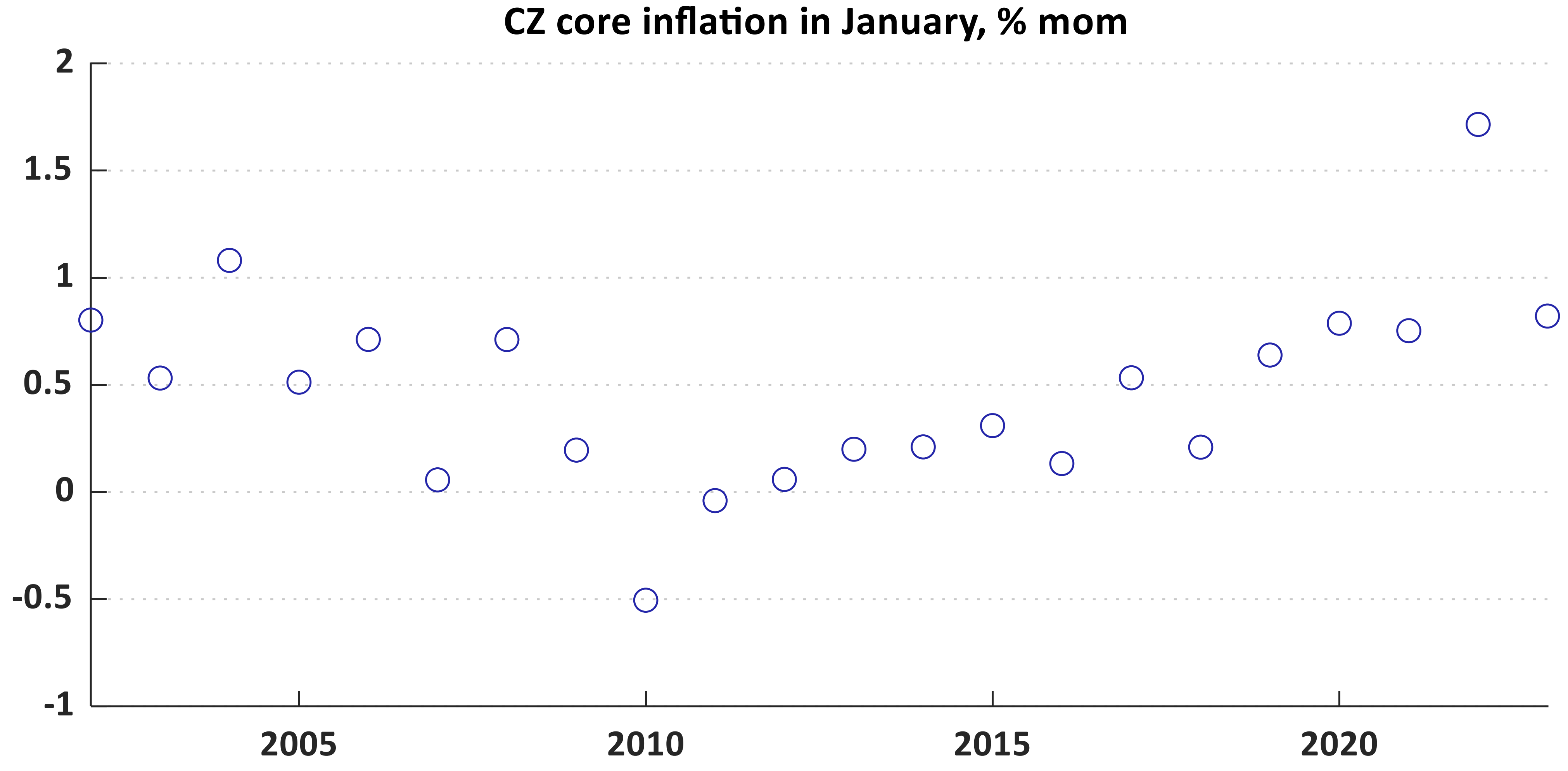
Can **disinflation** be benign with respect to real economic growth?

Tight monetary policy did not lead to significant real economic slack so far. Real GDP growth is declining, but only stagnation or a mild recession is expected. **Unemployment rates** have remained close to historically low levels.

High **firm profitability** recorded last year, supporting the story of past high demand.

6. Elevated risks and uncertainty





Source: CNB

High risks and uncertainty have brought challenges to forecasting at central banks. What level will inflation reach in January next year?

Monetary policy conduct based mainly on the **certainty equivalence** – responding to the mean of projections is optimal given additive uncertainty.

However, risks are high and probably non-additive – **prudential approach** to monetary policy might be better.

Did central bankers omit something?

1. Does money matter?
2. Does the size of the central bank’s balance sheet matter?
3. How strong is the synergy between MP and fiscal policy?

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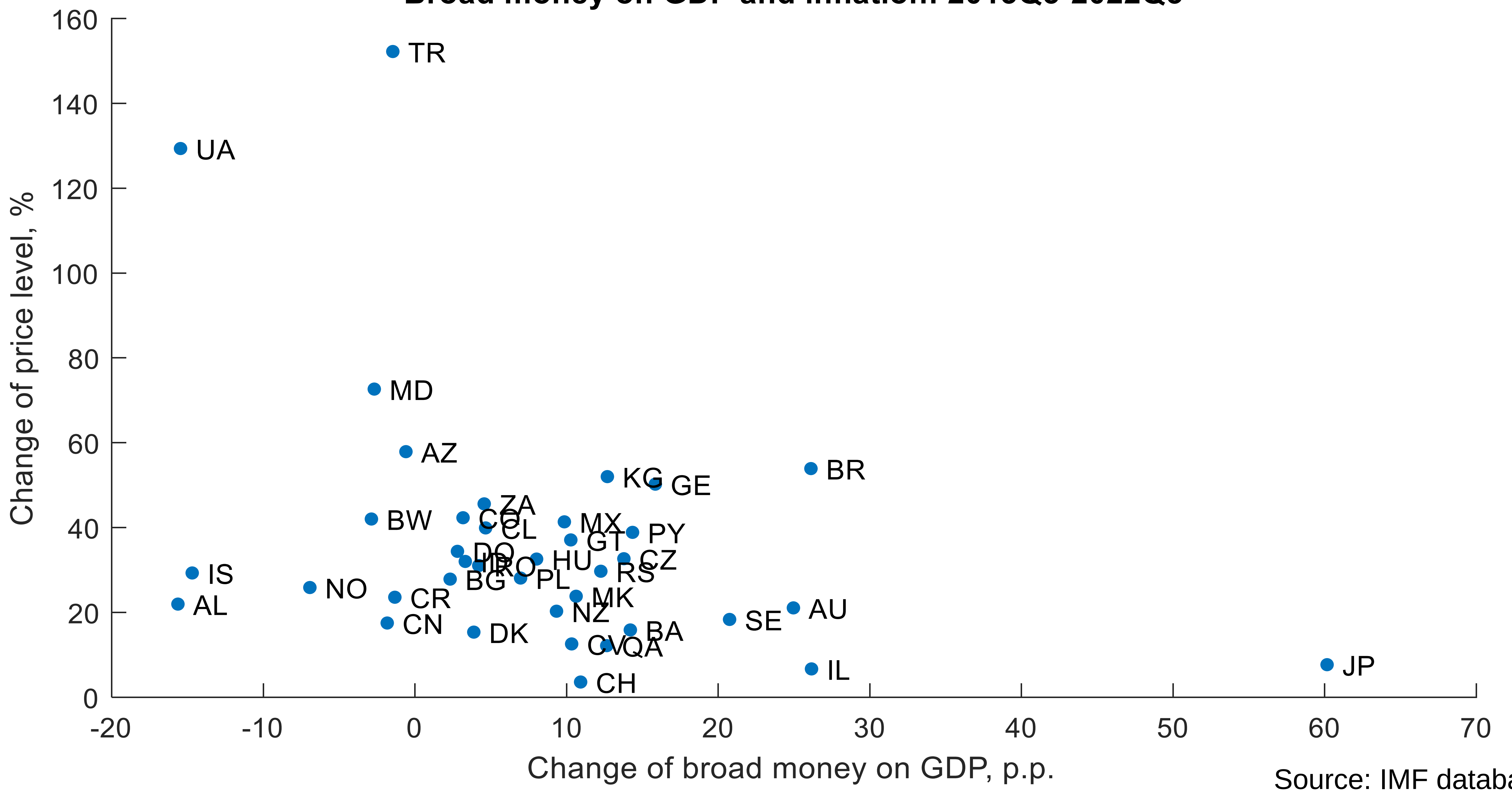
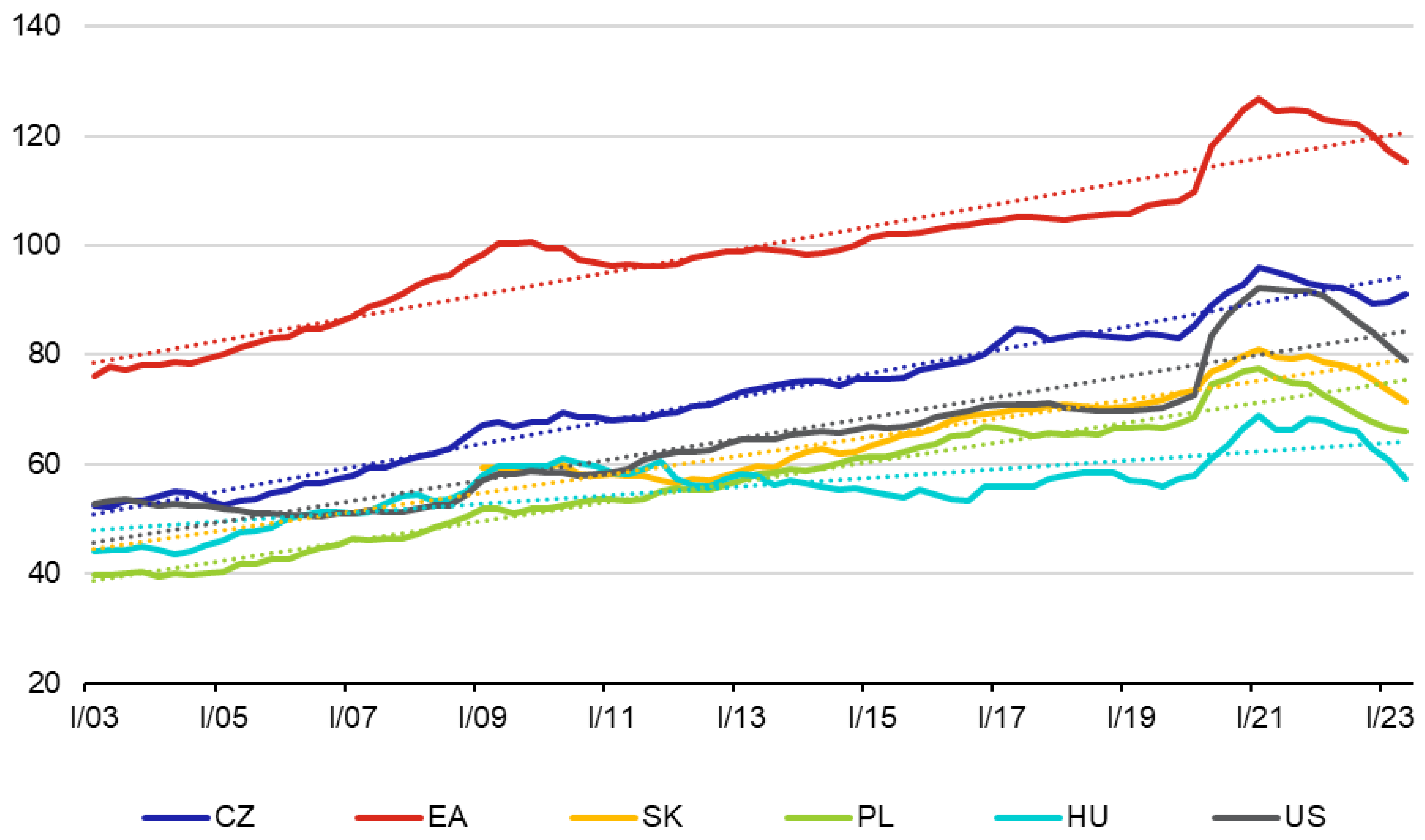
Does money matter?

Broad money on GDP and inflation: 2013Q3-2022Q3



Source: IMF database

M3 on nominal GDP, percent

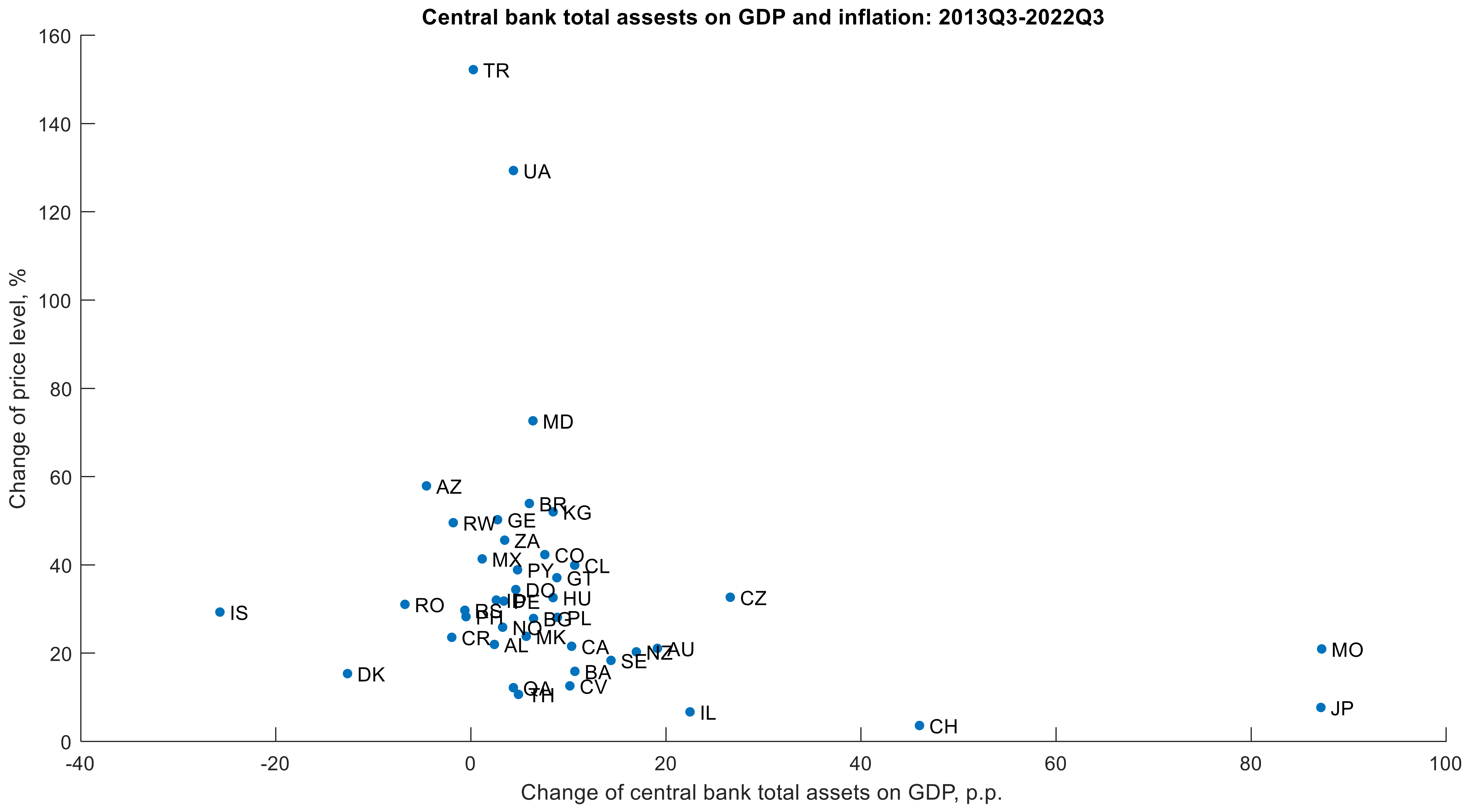


Source: Central banks and statistical offices

There is no clear empirical link between **broad money** growth and **inflation**.

Efforts to portray the previous unconventional monetary policy period as a “huge printing of money” that inevitably led to high inflation, with Covid and the war in Ukraine being just its triggers, have no backing in mainstream economic theory, nor in empirical observations.

Does the size of the central bank’s balance sheet matter?



Source: IMF database

Nor is there any clear link between **inflation and the balance sheet expansion of central banks**.

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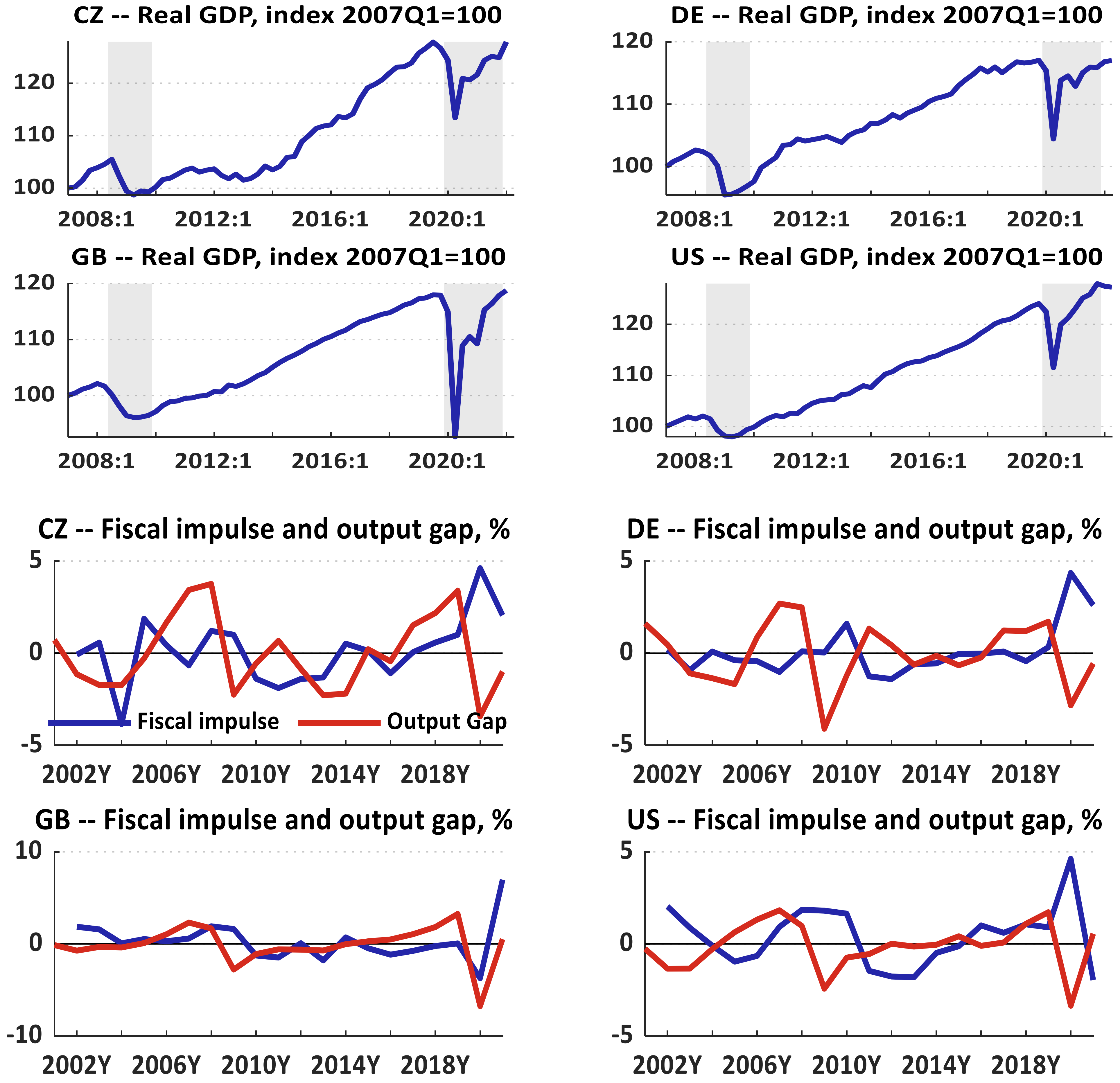
How strong is the synergy between MP and fiscal policy?



Source: Central banks, WEO, author's computations

Note: Fiscal impulse approximate by changes in structural deficits. Output gaps estimated using HP filter.

The GFC led to an **L-shaped recession**, while the Covid shock was characterised by a **V-shaped recession** with a rapid return of real GDP to the pre-pandemic levels.

Besides the different nature of the shocks, the different dynamics of GDP and inflation might also reflect a **quick and simultaneous easing of monetary and fiscal policy** (too much of a good thing).

Strong synergy of monetary and fiscal coordination.

Coherence of policies during a standard business cycle and in periods of policy normalisation as shocks subside – **is fiscal policy always countercyclical?**

The primary goal of **monetary policy** should be **ensuring price stability.**

Lessons for central bankers

There and back again? Lessons learned

Although the Covid shock and the war are sort of tail events, they have **tested our MP frameworks**.

Efforts to revive the monetarist narrative are not supported by the data. Any changes to the MP frameworks should **look into the future, not to the history of economic thought**.

The strategy of **“running the economy hot” should be revisited** based on the current experience of large and long-lasting deviations from targets, as its **costs might be higher than benefits**.

> Policy response was not timely enough, disinflation is expensive and costs are rising with de-anchoring of inflation expectations. Time-contingent forward guidance may prove to be time-inconsistent.

Back to basics and the past experience of the 1970s and 80s, i.e. central banks’ focus on **price stability**, should be preserved with **systematic and time-consistent policy actions**. The anchoring of inflation expectations is still the key task of monetary policy (but we might need to acknowledge that **expectations are not fully rational**).

“High for Long” strategy is not necessarily an optimal cure for the issues associated with the previous “Low for Long” period.

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Thank you for your attention

Tomáš Holub

CNB Board Member

tomas.holub@cnb.cz