Lessons from the Post-Pandemic Inflation and the Monetary Policy Response

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BCC 12th Annual Conference

Monetary Policy in a Changed Environment

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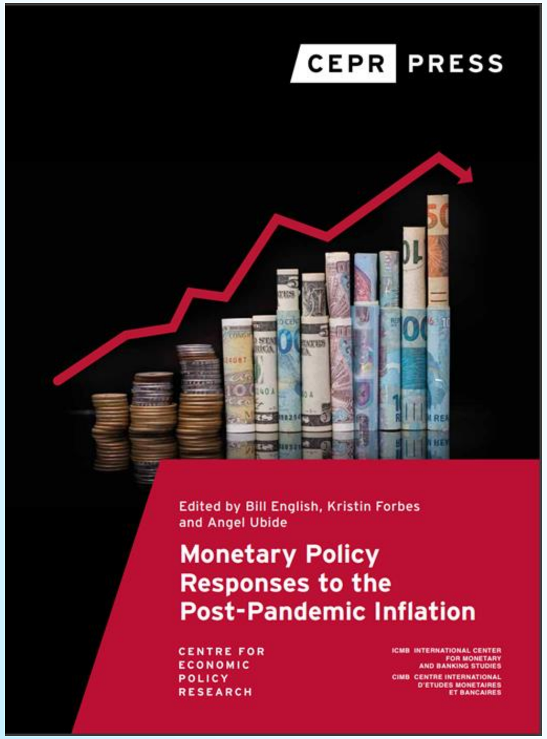
This talk is based on joint work with Kristin Forbes and Angel Ubide

- Following up on an earlier project



Outline

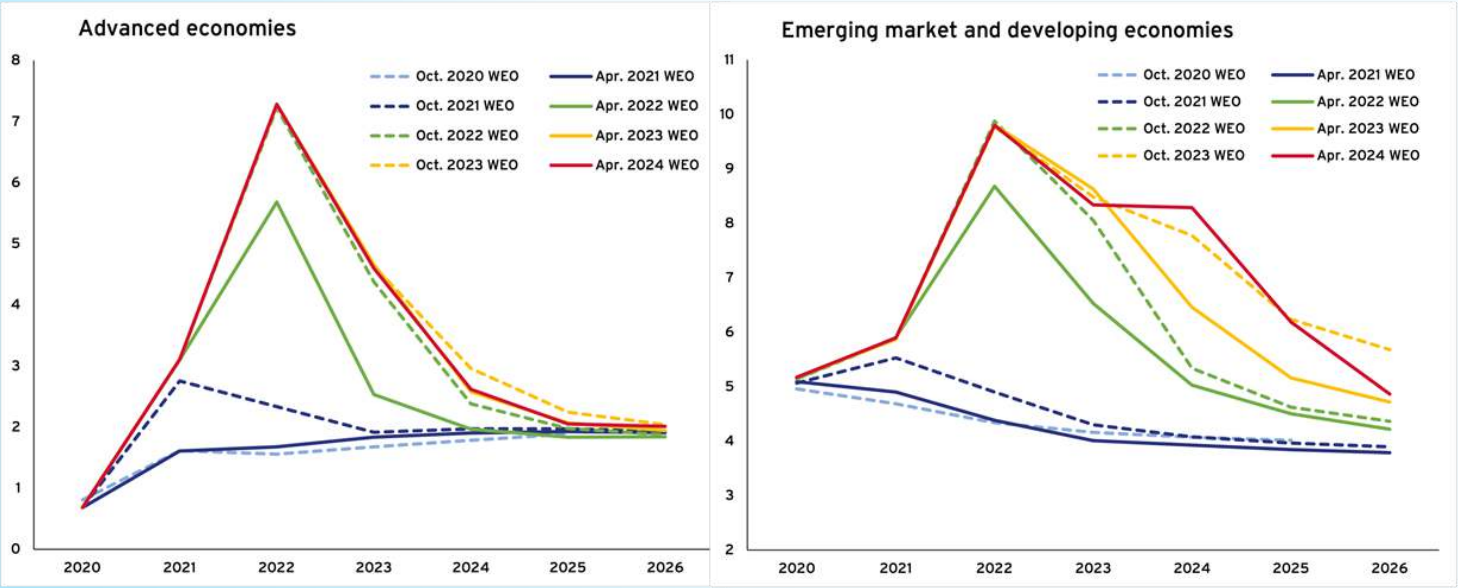
- What happened?
  - Why did inflation rise so far, so fast?
- How did central banks respond?
  - Timing of tightening
  - And easing…
- Some lessons

What Happened?

- In response to the pandemic, central banks took a range of extraordinary actions to support their economies
  - Cut rates to the ELB
  - Initiated huge asset purchase programs
  - And provided a great deal of credit to banks, nonfinancial firms, and businesses (in coordination with governments)
- And not just in advanced economies
  - Emerging economy central banks also took extraordinary steps
  - See English, Forbes, and Ubide (2021)

What Happened?

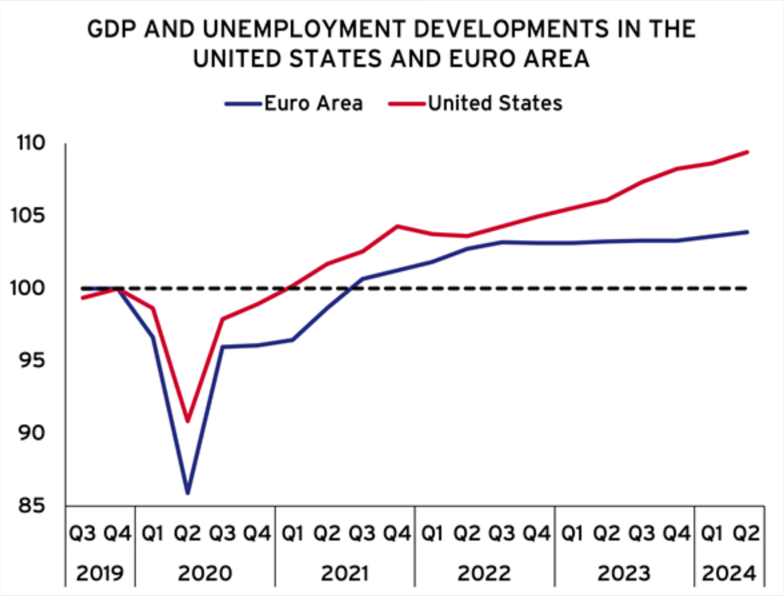
- Inflation was low and expected to remain low as a result of weak economic activity
- But, starting in 2021, inflation picked up rapidly and unexpectedly
- But has fallen back more recently, with fewer surprises (especially in AEs)

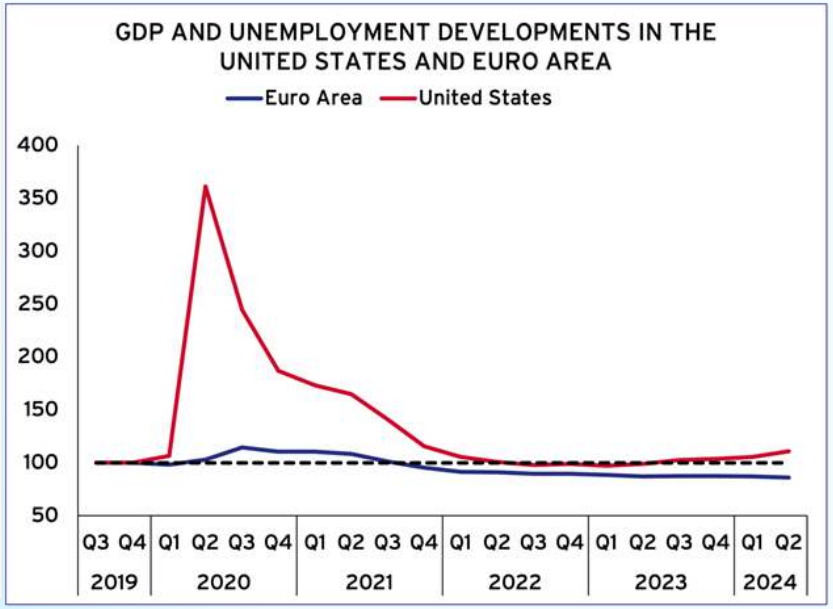


Source: English, Forbes, and Ubide (2024) [Updated]

What Happened?

- Economic activity recovered more rapidly than anticipated
  - Particularly in the U.S.
- And has remained surprisingly solid

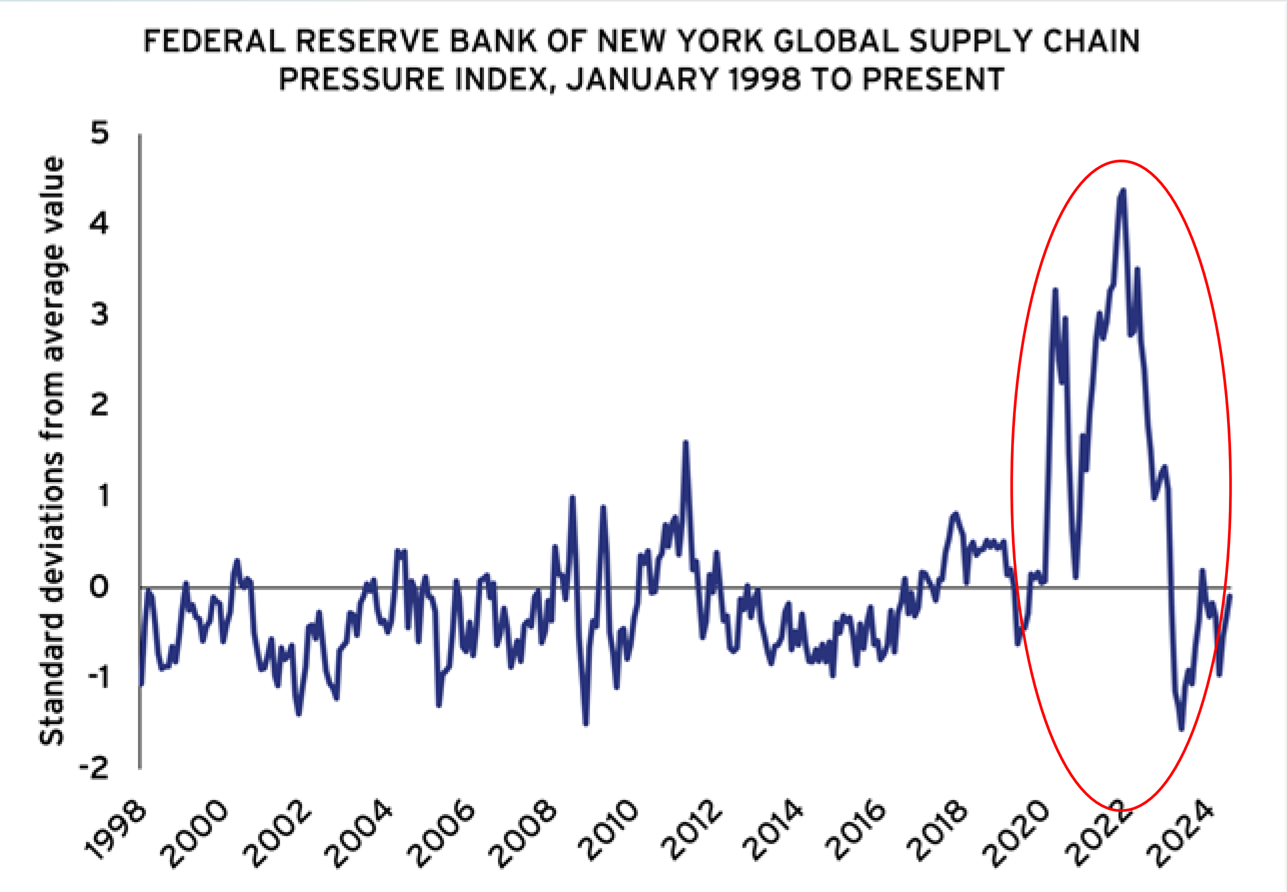




Source: Castle and Lmobardelli (2024) [Updated]

What Happened?

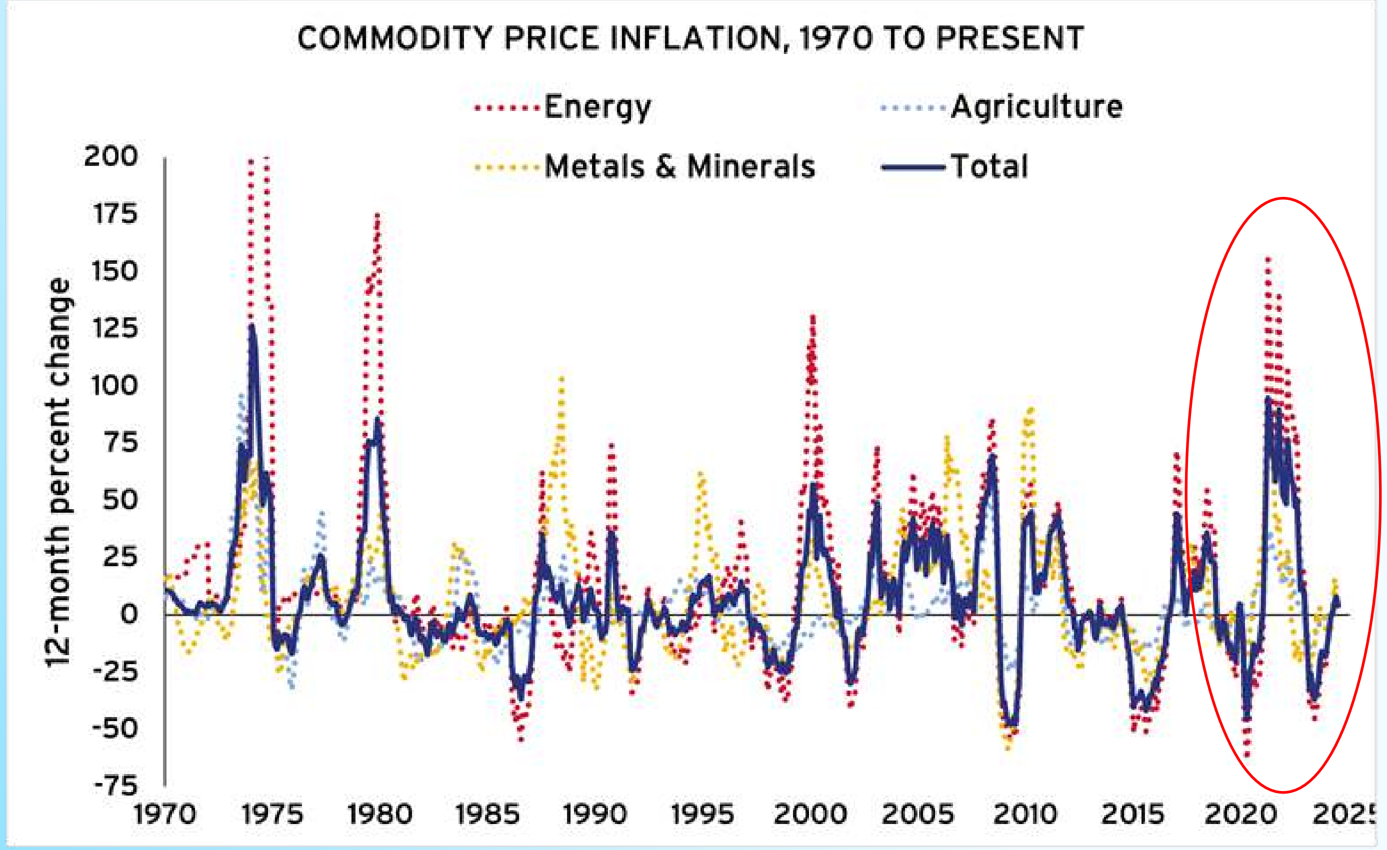
- The strong aggregate demand collided with pandemic-related disruptions to supply
  - E.g., autos
- But those effects have subsequently eased



Source: English, Forbes, and Ubide (2024) [Updated]

What Happened?

- The high inflation was reinforced by very large and persistent commodity price shocks
- Which have also eased since



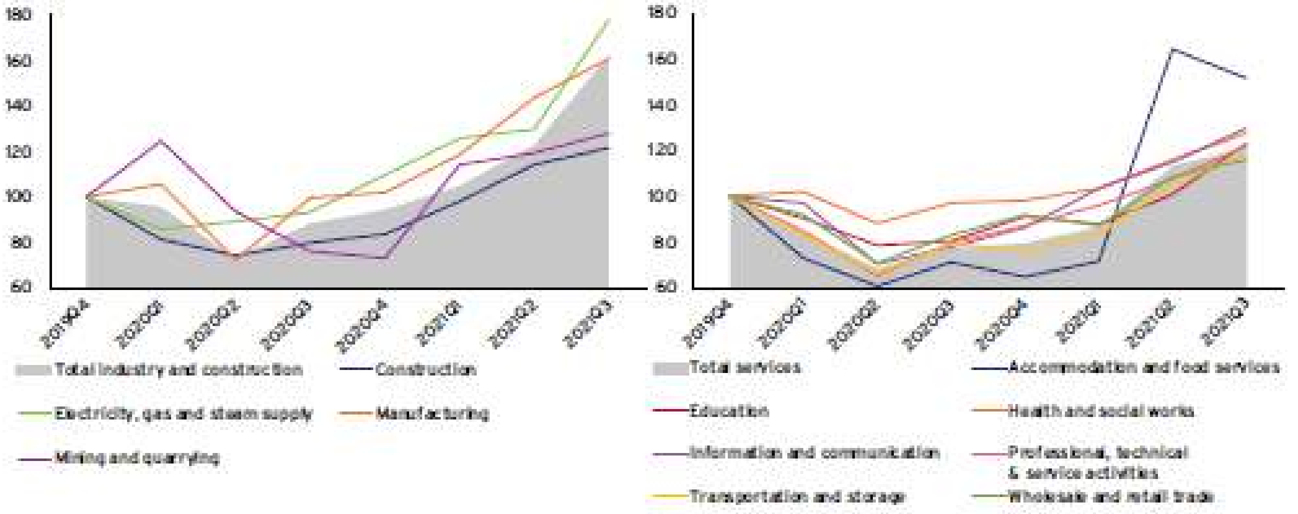
Source: English, Forbes, and Ubide (2024) [Updated]

What Happened?

- Labor market disruptions resulted in labor shortages in many economies for a time

FIGURE 7 THE RISE IN LABOUR SHORTAGES HAS BEEN BROAD-BASED ACROSS INDUSTRIES

Job vacancy rates across industries, 2019Q4 = 100, OECD average

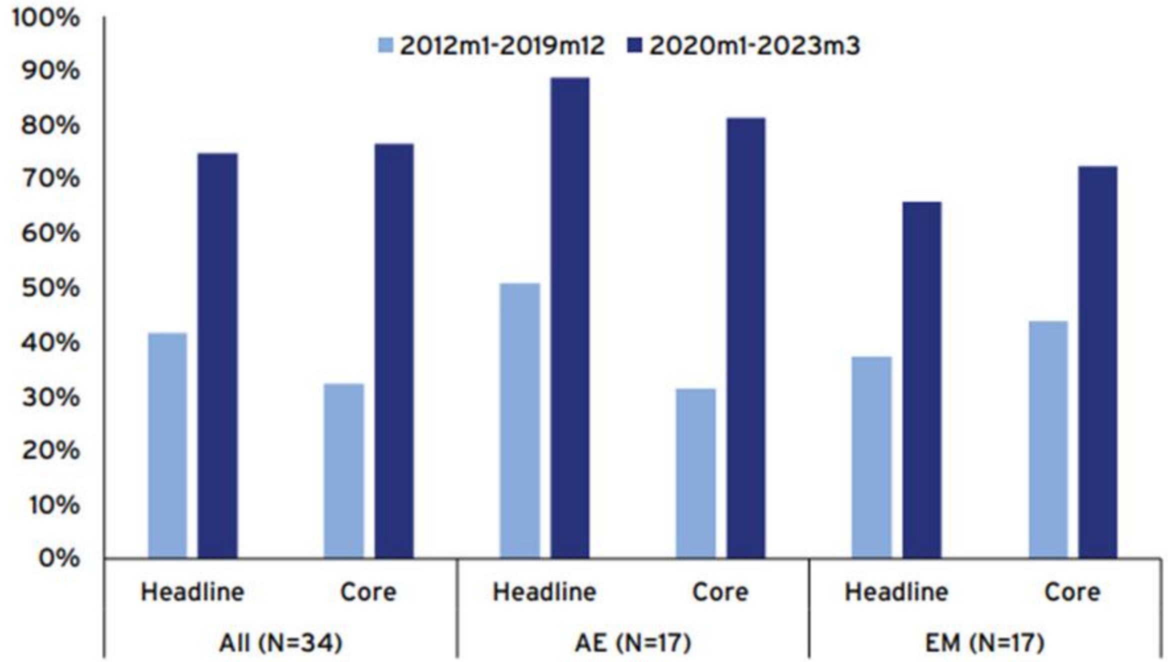


Source: Castle and Lmobardelli (2024)

What Happened?

- The resulting spike in inflation was very broad – not just in one or a few countries
- This was a global event

FIGURE 4 PERCENT VARIANCE OF 12-MONTH INFLATION EXPLAINED BY FIRST PRINCIPAL COMPONENT



Source: Calculations based on inflation data from the OECD, IMF, World Bank Global Inflation Database, national sources.

Note: Sample includes 34 economies; 17 advanced economies (CAN, CHE, CZE, DEU, DNK, ESP, FRA, GBR, HKG, HUN, ISR, ITA, JPN, KOR, NOR, SGP, SWE, USA) and 17 emerging markets (BRA, CHL, CHN, COL, IDN, IND, MEX, MYS, PER, PHL, POL, RUS, THA, TUR, TWN, ZAF).

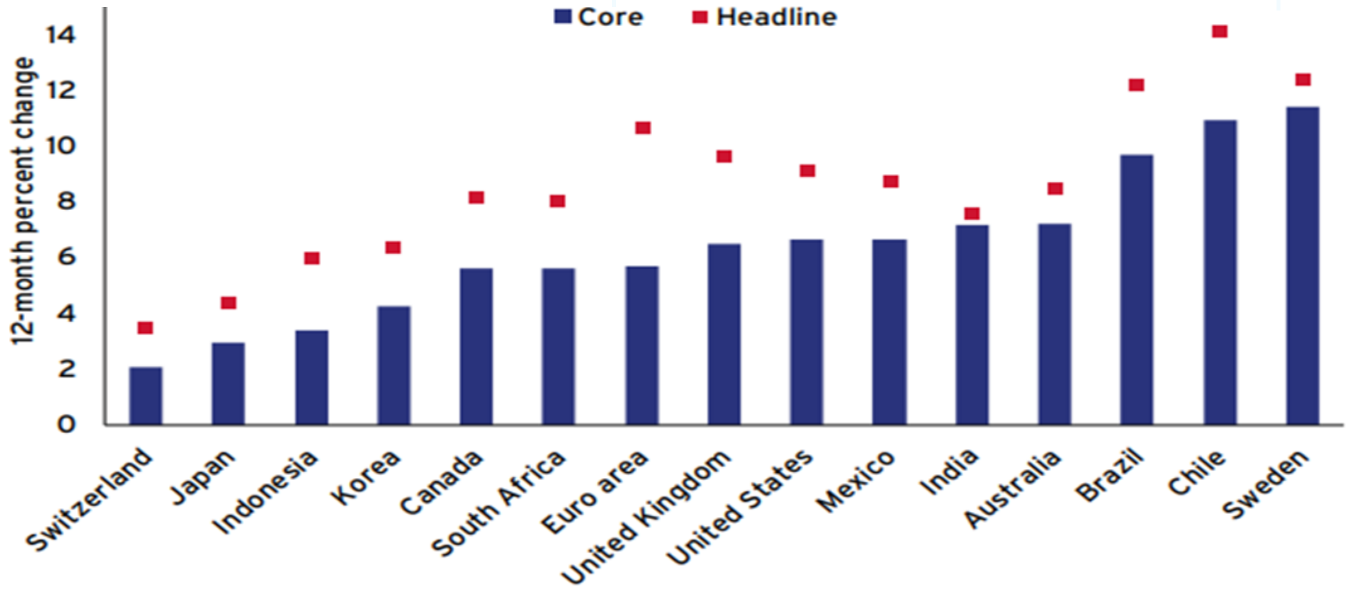
Source: English, Forbes, and Ubide (2024)

What Happened?

- However, there were significant differences in the size and timing of the inflation across countries

FIGURE 6 PEAK INFLATION RATES. JAN

Peak Inflation Rates, 2020-2023



Source: Based on data from the World Bank Global Inflation Database, OECDStat, National Sources.

Note: Economies ordered by peak core inflation rate. Türkiye excluded. Inflation rates are for the 12-month period ending in the month of the latest data release available at the time of liftoff. Core inflation for most economies is all items excluding food and energy. For Indonesia, core is all items excluding food. For Australia, data is the Monthly CPI Indicator, rather than the quarterly CPI, and core excludes volatile items and holiday travel.

Source: English, Forbes, and Ubide (2024)

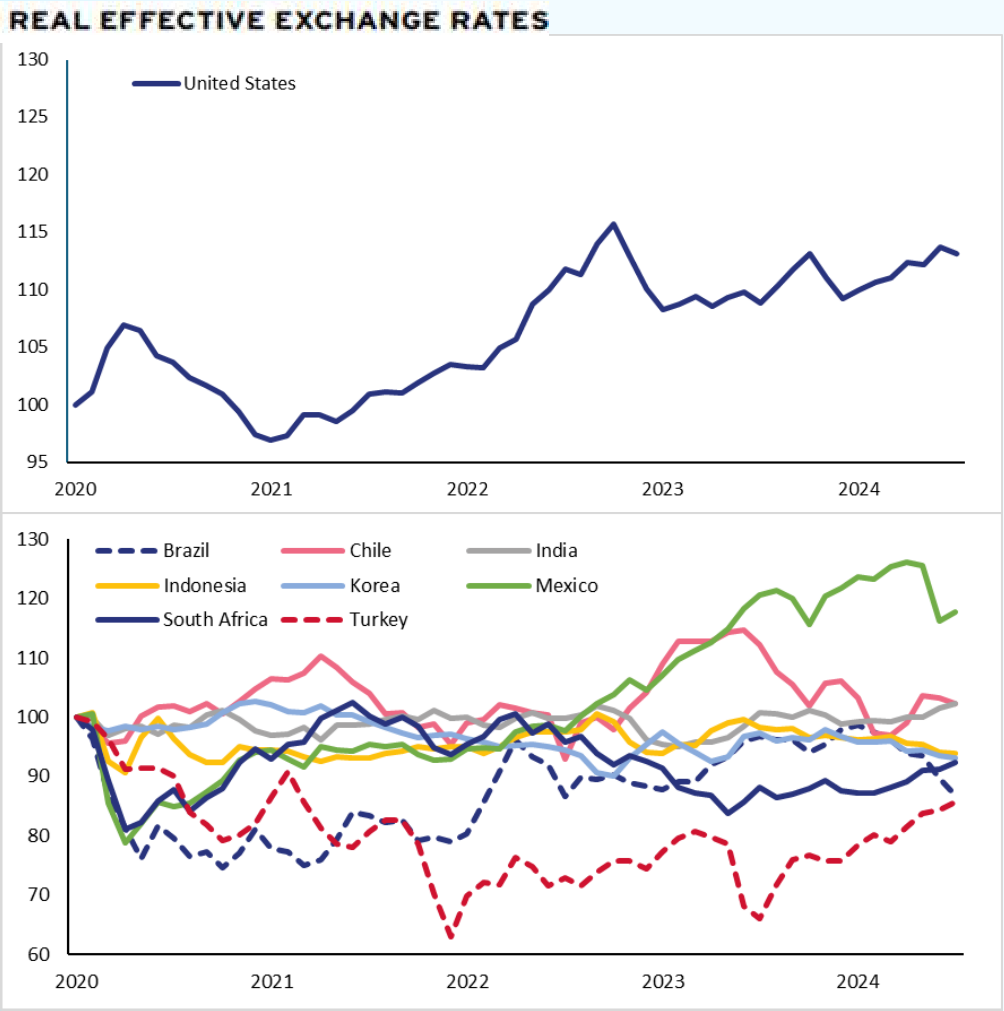
What Happened?

Why these differences?

- Different histories and expectations
  - Switzerland and Japan
- Different government responses to cushion the rise in energy prices (Dao et al, 2024)
  - Affected both the size of the runup in inflation and its timing
- Idiosyncratic differences as well
  - Wheat prices in Japan
  - Oil prices in India
  - Pork prices in China

What Happened?

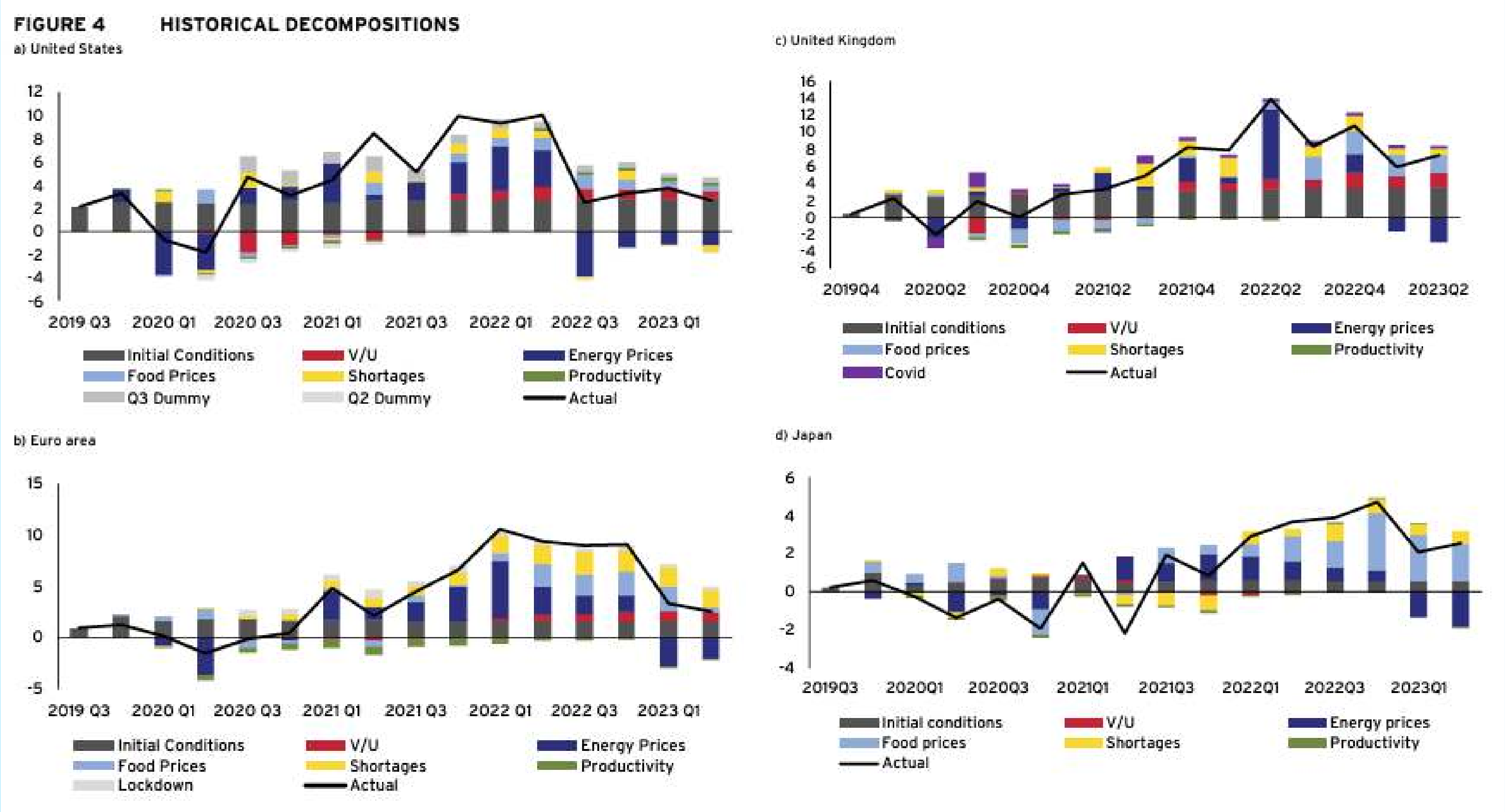
- Inflation was amplified in some cases by exchange rate moves



Source: English, Forbes, and Ubide (2024) [Updated]

What Happened?

- An empirical decomposition for AEs (Bernanke and Blanchard, 2024)
  - Inflation was initially driven mostly by supply shocks and commodity prices
  - But the impact of strong demand and tight labor markets gradually increased



Source: Bernanke and Blanchard (2024)

Outline

- What happened?
  - Why did inflation rise so far, so fast?

- **How did central banks respond?**
  - **Timing of tightening**
  - **And easing…**

- Some lessons

How Did Central Banks Respond?

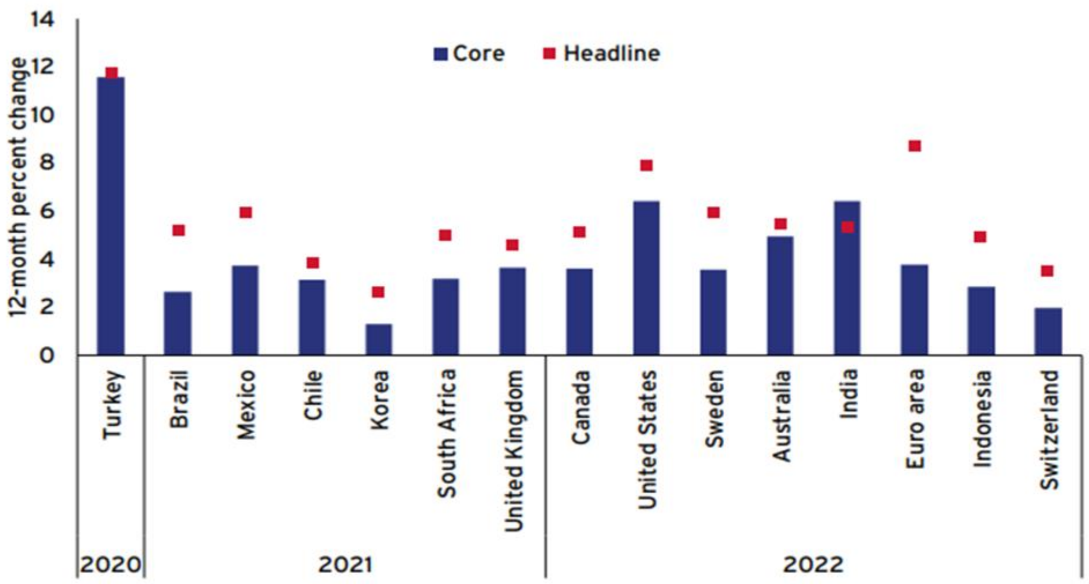
- Initial response, at least in the advanced economies, was to try to "look through" the inflation
  - It was expected to be "transitory" (Powell, 2022)
  - Inflation expectations seemed pretty well anchored
  - No clear need to adjust policy
- But the shocks proved larger and more persistent than expected, and the sustained period of high inflation could lead expectations to come unanchored

How Did Central Banks Respond?

So central bankers raised rates

- But the timing of rate increases varied widely
  - EMEs generally started earlier and with inflation lower
  - Advanced economies started later and with inflation higher

FIGURE 8 INFLATION RATES AT TIME OF LIFT-OFF



Source: World Bank Global Inflation Database, OECDStat, national sources.

Note: Economies ordered by date of lift-off. Japan excluded. Inflation rates are for the 12-month period ending in the month of the latest data release available at the time of lift-off. Core inflation for most economies is all items excluding food and energy. For Indonesia, core is all items excluding food. For Australia, data are the Monthly CPI Indicator, rather than the quarterly CPI, which was not produced until after lift-off in August 2022, and core excludes volatile items and holiday travel.

Source: English, Forbes, and Ubide (2024)

How Did Central Banks Respond?

- Why emerging market central banks generally moved earlier
  - Exchange rate effects
  - Less confident about the credibility of their inflation targets. Saw earlier and greater risk that the high inflation would get embedded in wage and price setting and be hard to combat.
  - Less constrained by the use of unconventional policies, like forward guidance and asset purchases

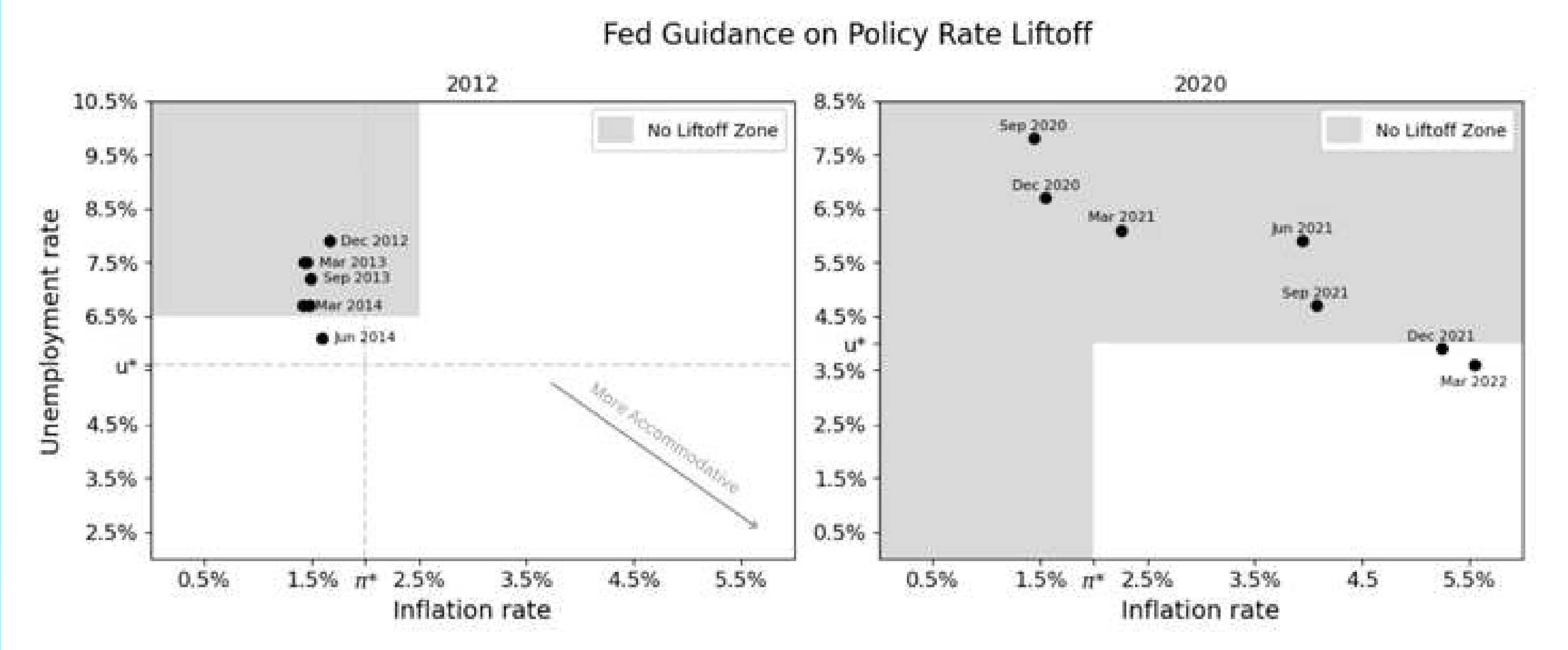
- Why advanced economy central banks generally moved later
  - More confident that inflation expectations would remain well anchored (or wanted them to move up at least some)
  - Tried to look through the supply shocks
  - Were constrained by the forward guidance and asset purchase programs they had put in place

How Did Central Banks Respond?

- Examples
  - The Committee…expects it will be appropriate to maintain this target range until labor market conditions have reached levels consistent with the Committee's assessments of maximum employment and inflation has risen to 2 percent and is on track to moderately exceed 2 percent for some time. (FOMC, September 2020)
  - In addition, the Federal Reserve will continue to increase its holdings of Treasury securities by at least $80 billion per month and of agency mortgage-backed securities by at least $40 billion per month until substantial further progress has been made toward the Committee's maximum employment and price stability goals. (FOMC, December 2020)

How Did Central Banks Respond?

- The cost of a word – *and* vs *or*



Source: English and Sack (2024)

How Did Central Banks Respond?

- Risk management also mattered
  - Advanced economy central banks had seen low inflation and weak growth for years after the financial crisis. They wanted to avoid that outcome again, so policy was more forceful.
  - Even as inflation picked up, they continued to lean in the direction of easier policy for a time
  - Only as inflation stayed high and began to pose a risk to longer-run inflation expectations did the risk calculation shift
  - Chair Powell, May 2022: "We can't allow a wage-price spiral to happen. And we can't allow inflation expectations to become unanchored. It's just something that we can't allow to happen."

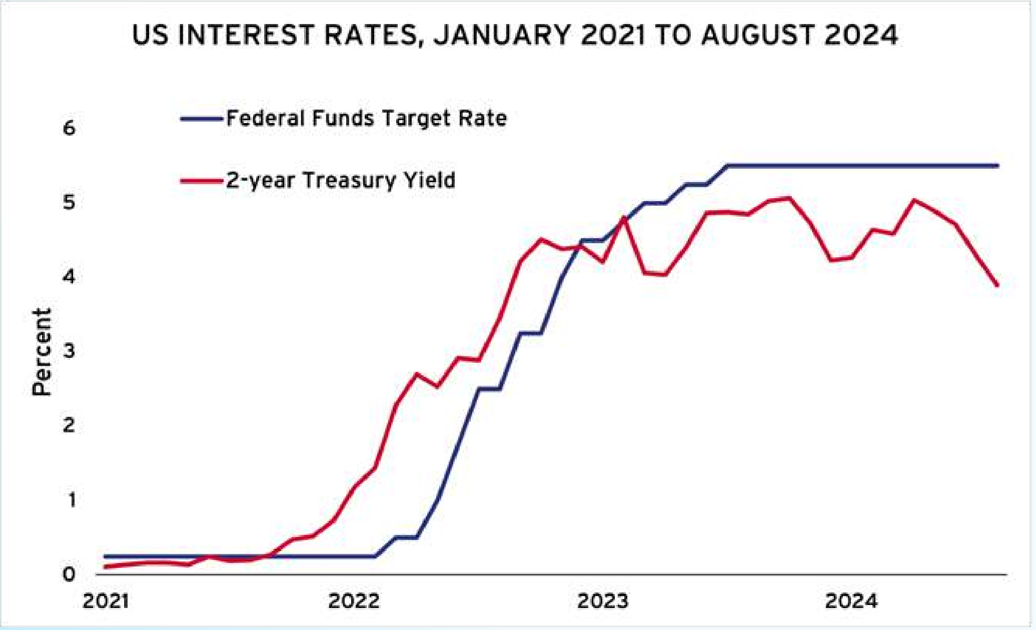
How Did Central Banks Respond?

Balance sheet policy

- For those central banks using asset purchases, there was also a rapid shift to end purchase programs and begin reducing asset holdings
    - “Quantitative tightening,” or QT
- As with interest rate policy, central banks moved more quickly than had been expected to unwind asset holdings. Seen as helping strengthen credibility for getting inflation back to targets.
- Mostly this was done with “passive” QT – allowing repayments of principal to run off the balance sheet
- But some central banks undertook sales as well, to move faster to normalize their balance sheets

How Did Central Banks Respond?

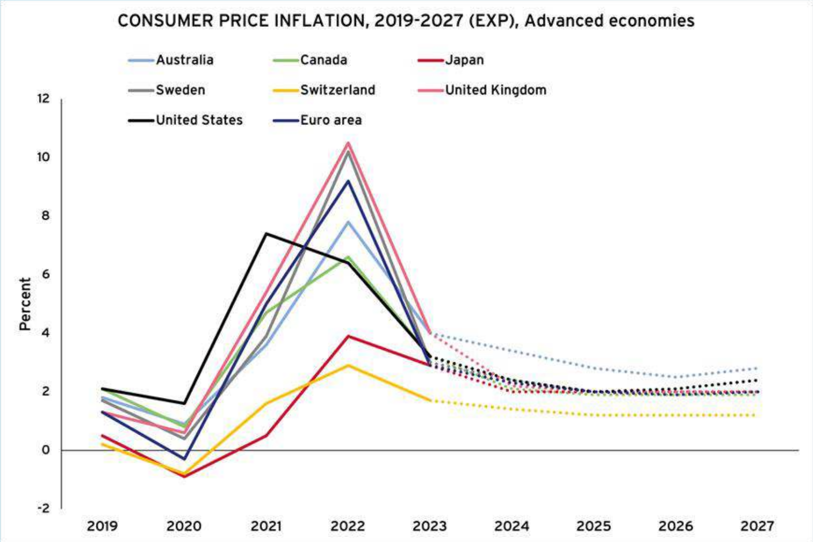
- Did delay matter?
  - Central banks that delayed subsequently moved fast and caught up
  - Financial conditions tightened before rates moved
  - How much earlier could they have moved?
  - Inflation expectations remained fairly well behaved
- So probably not that costly
  - But was this just luck?
    - Inflation expectations could have come unmoored
    - Financial stability risks of moving quickly

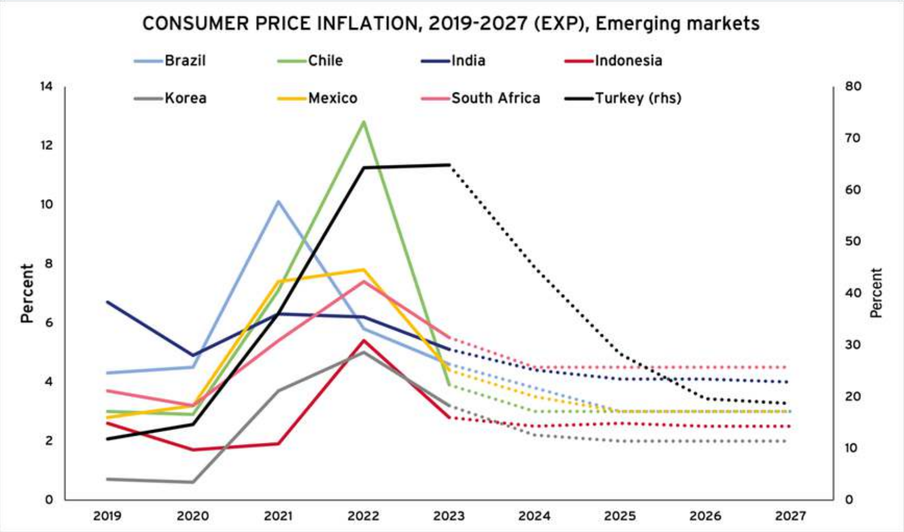


Source: English, Forbes, and Ubide (2024) [Updated]

How Did Central Banks Respond?

- Inflation has come down rapidly
  - But will it move back to target sustainably?

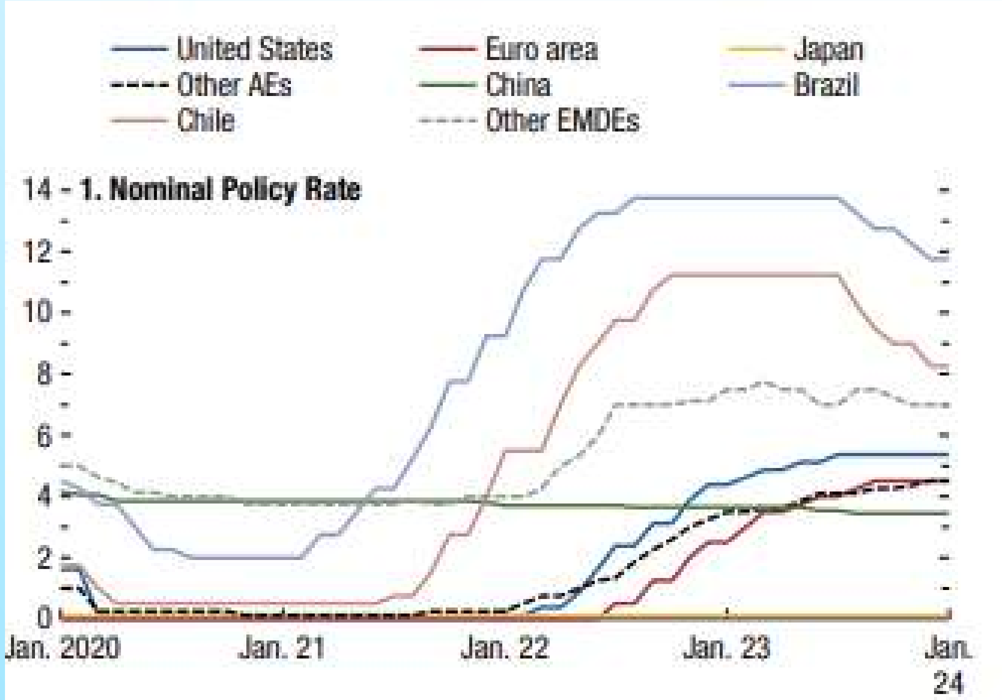




Source: English, Forbes, and Ubide (2024) [Updated]

How Did Central Banks Respond?

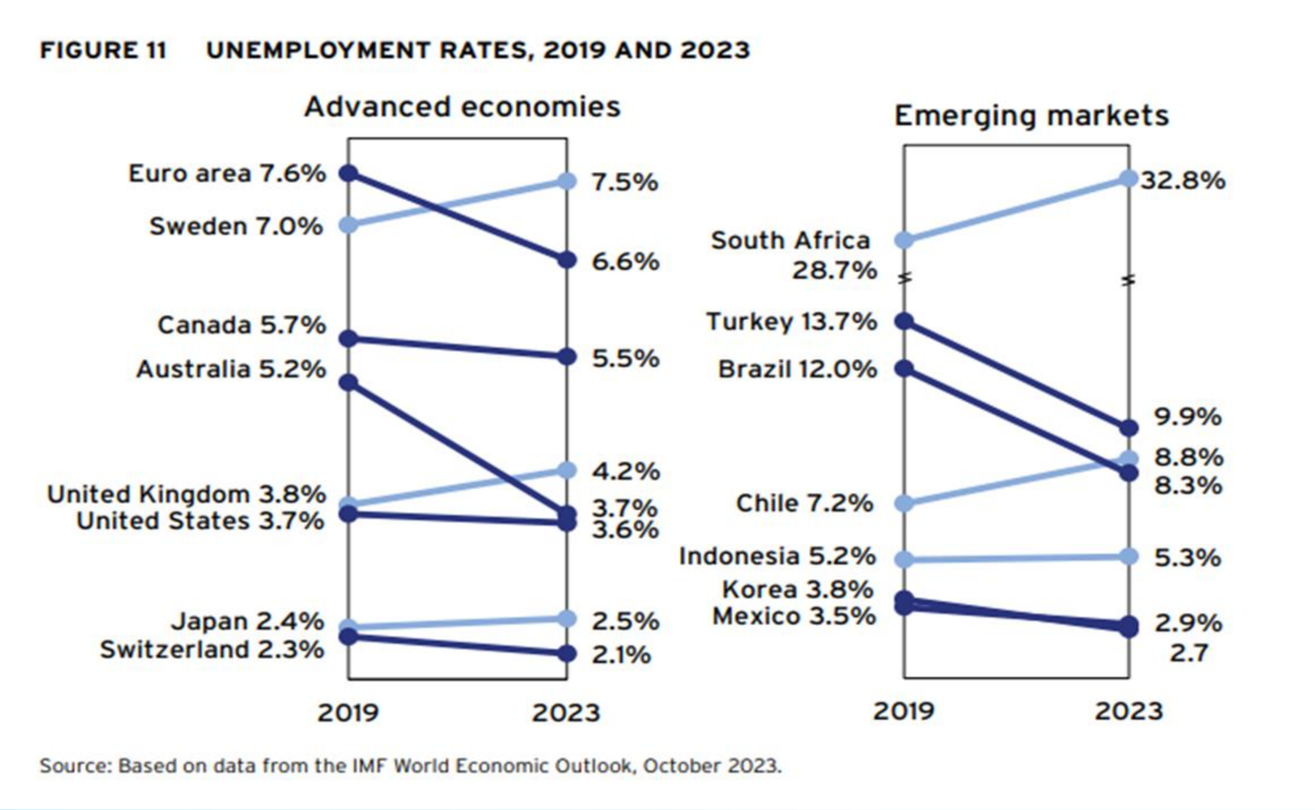
- EM central banks, which tightened earlier also cut earlier
- AE central banks, which were later to raise have been slower to cut
  - Fed only cut last month



Source: IMF World Economic Outlook (April 2024)

How Did Central Banks Respond?

- So far, surprisingly little damage to employment and output in most cases
- Shocks have passed, and so long as inflation expectations remained fairly well-anchored, inflation fell back without a lot of slack
- Consistent with theory, but maybe not expected



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Some Lessons

- *Inflation forecasting* needs more work
  - Models clearly failed, though that is not surprising. A huge shock of a sort that we had not seen before.
  - We learned something about nonlinearity of price responses
  - And about the interactions between supply shocks and slack
  - And the possible value of new types of data (e.g., on the frequency of price adjustments)

Some Lessons

- It's not always right to "*look through*" supply shocks
  - That can be a reasonable policy if you are confident that the inflation won't undermine confidence in the central bank's intension to return inflation to target
  - But a large enough and persistent enough set of shocks can call that into question, and so require tighter monetary policy.
  - Also need to consider whether the policy stance leaving the shocks aside needs to change. "Looking through" doesn't mean leaving rates unchanged. Still need to respond to rapid growth and excess demand.

Some Lessons

- Be careful about *forward guidance*
  - After the experience of the previous decade, AE central banks wanted to be forceful in their policy response to the pandemic
  - Making guidance about rates and asset purchases more powerful requires making them more of a commitment
  - But that greater power comes at a cost – it may be hard (and slow) to pull back from the guidance if conditions change
  - Need to take that into account when designing the guidance (English and Sack, 2024)

Some Lessons

- Particularly in times of great uncertainty, *scenario analysis* may be useful in communication with the public
  - Communication tends to focus on the baseline projections
  - But the situation could play out in different ways
  - There is always a lot of uncertainty, and it was very large post-pandemic
  - Internally, central banks use scenarios, but sharing those with the public could be a way of showing how the central bank's policies might adjust in different circumstances.
    - E.g., a scenario in 2020 showing what would happen if the recovery were unexpectedly rapid
  - But this demands a lot of the policymakers

Some Lessons

- Interactions between *monetary policy and fiscal policy* have become harder to ignore
  - Fiscal actions helped to contain inflation in a number of countries (Dao et al, 2024)
  - Fiscal support was required to back central bank actions in some countries
  - The turn to higher interest rates has put pressure on fiscal authorities in most countries. Those pressures are even greater because of the large debt accumulated in the response to the pandemic.
  - Central bank losses as a result of asset purchases are a political problem in some countries
- May be a challenge to central bank independence

Some Lessons

- *Monetary policy and financial stability* policy can be hard to separate
  - Most central banks try to follow a "separation principle" under which some tools are used to manage financial stability and others are used to implement monetary policy
  - But at times, the two have gotten intertwined recently
    - Korea tightened policy sooner that it might have otherwise because of concern about a housing boom
    - Banking strains in the US in March 2023 likely had implications for monetary policy
    - The BoE had to use asset purchases to address the problems in the UK liability-driven investment sector in October 2022, even as it was moving toward QT
  - It would be useful to plan in advance how to support financial stability in ways that minimize the impact on monetary policy, and also how to communicate in such situations

Final Questions

- Should central banks have responded less aggressively to the pandemic?
- What are the implications of this period for monetary policy and monetary policy frameworks?
  - Central banks may need to adjust frameworks to be more symmetrical (English and Sack, 2024)
  - Frameworks had adjusted in response to the low inflation/low interest rate environment of the previous decade
  - But inflation can be too high as well as too low

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