

Mid-Term Visualization Report: Inflation Trends (2000–2024)

USA • UK • Germany



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Project Overview



SCOPE

We analyze inflation trends from 2000 to 2024 in three major economies: USA, UK, and Germany.



GOAL

Use data visualization to uncover meaningful patterns and communicate a clear story.



TOOLS

Tools used: Tableau, Excel.



AUDIENCE

Government Policy Makers, Business Leaders affected by inflation policies, new businesses entering a new market.

Dataset Overview



YEARS COVERED

2000–2024



COUNTRIES INCLUDED

USA, UK, Germany



SOURCE

OECD Consumer Price Index (CPI) – Inflation Data

<https://data.oecd.org/price/inflation-cpi.htm>



VARIABLES

- Year
- Country
- Inflation rate (%)

Story We Aim to Tell



24-Year Evolution

How inflation evolved over 24 years



2021–2022 Record Spikes

How the 2021–2022 period caused record inflation spikes



Country Differences

Differences between countries



Pre- & Post-2020 Comparison

How inflation before 2020 compares to after 2020

Design Rationale (Line Chart)



Line chart chosen to show trend over time.



Color-coded lines help differentiate countries.



Data labels added for clarity.



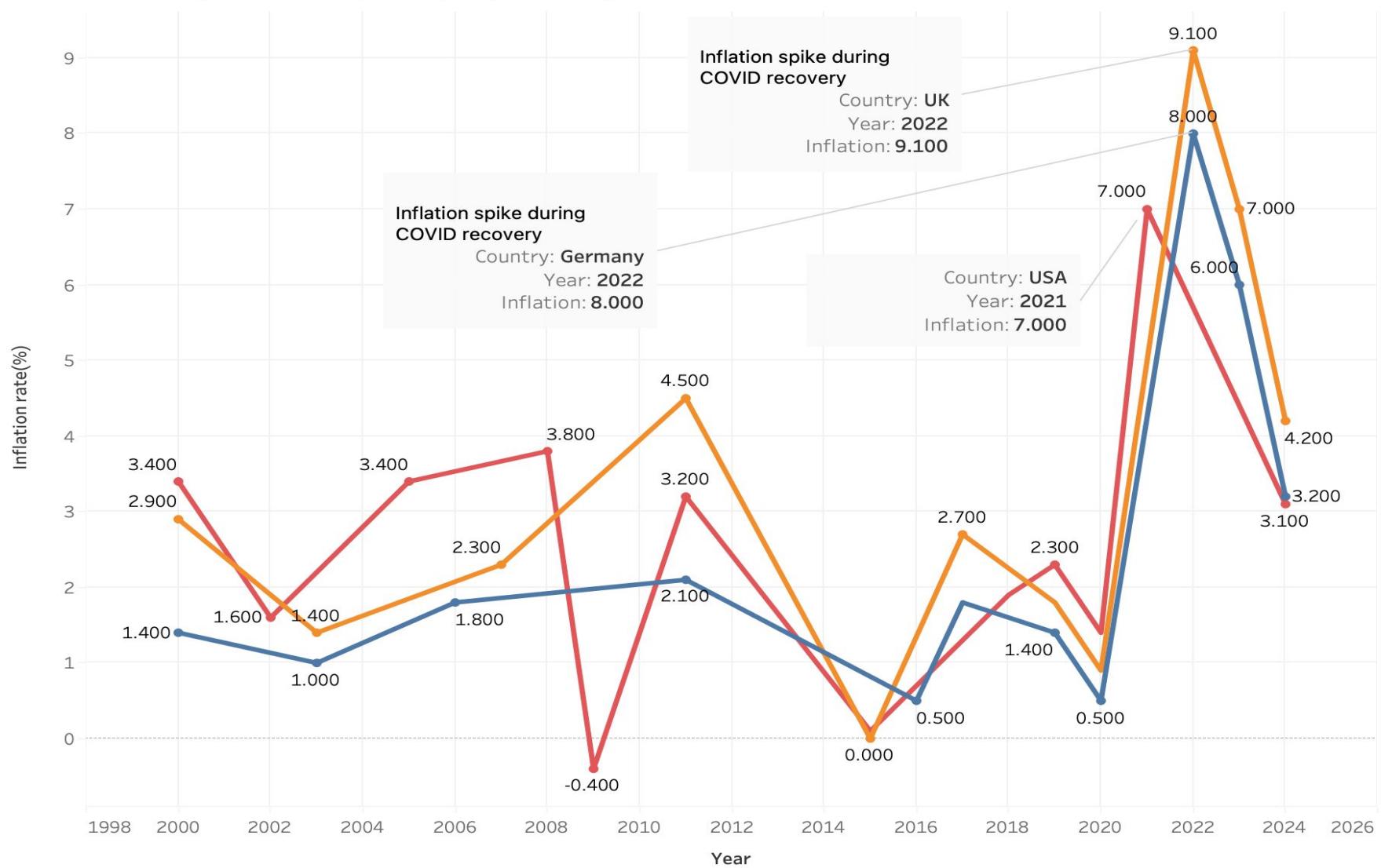
Annotations highlight 2022 inflation spike, the main insight.



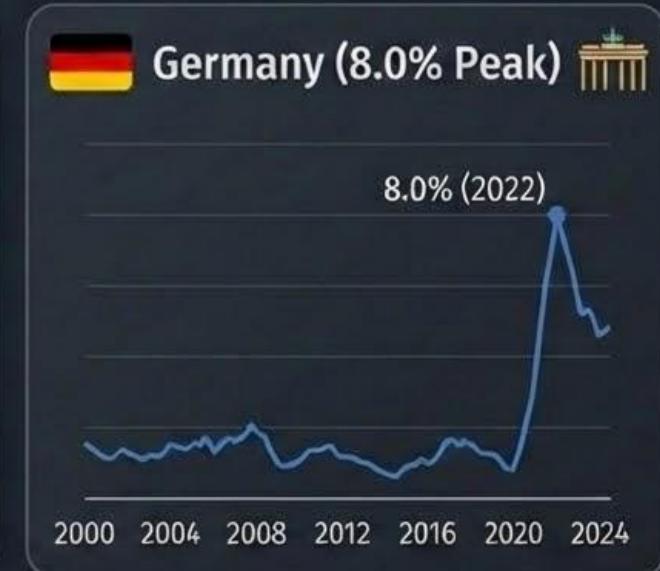
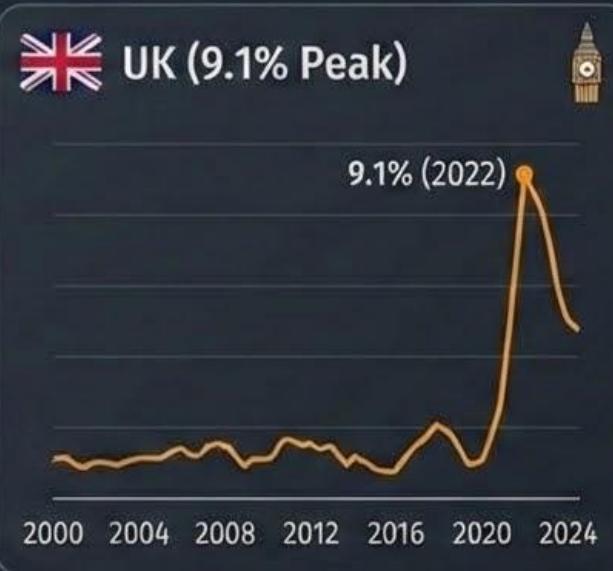
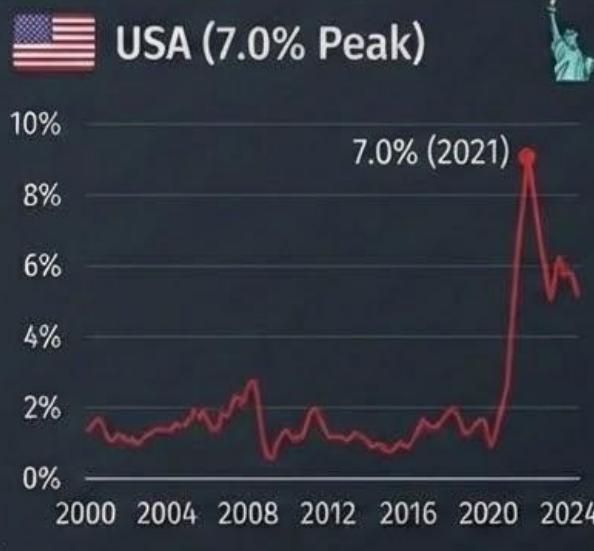
Clean layout improves comparability.

Inflation Trends (2000–2024): USA, UK, Germany

Country
 Germany
 UK
 USA



Inflation Trends (2000–2024): USA, UK, & Germany



Timeline & Key Events

STABLE ERA (~2000-2020)



Inflation was stable for ~20 years.

2020

GLOBAL SPIKE & RECOVERY (2021-2024)



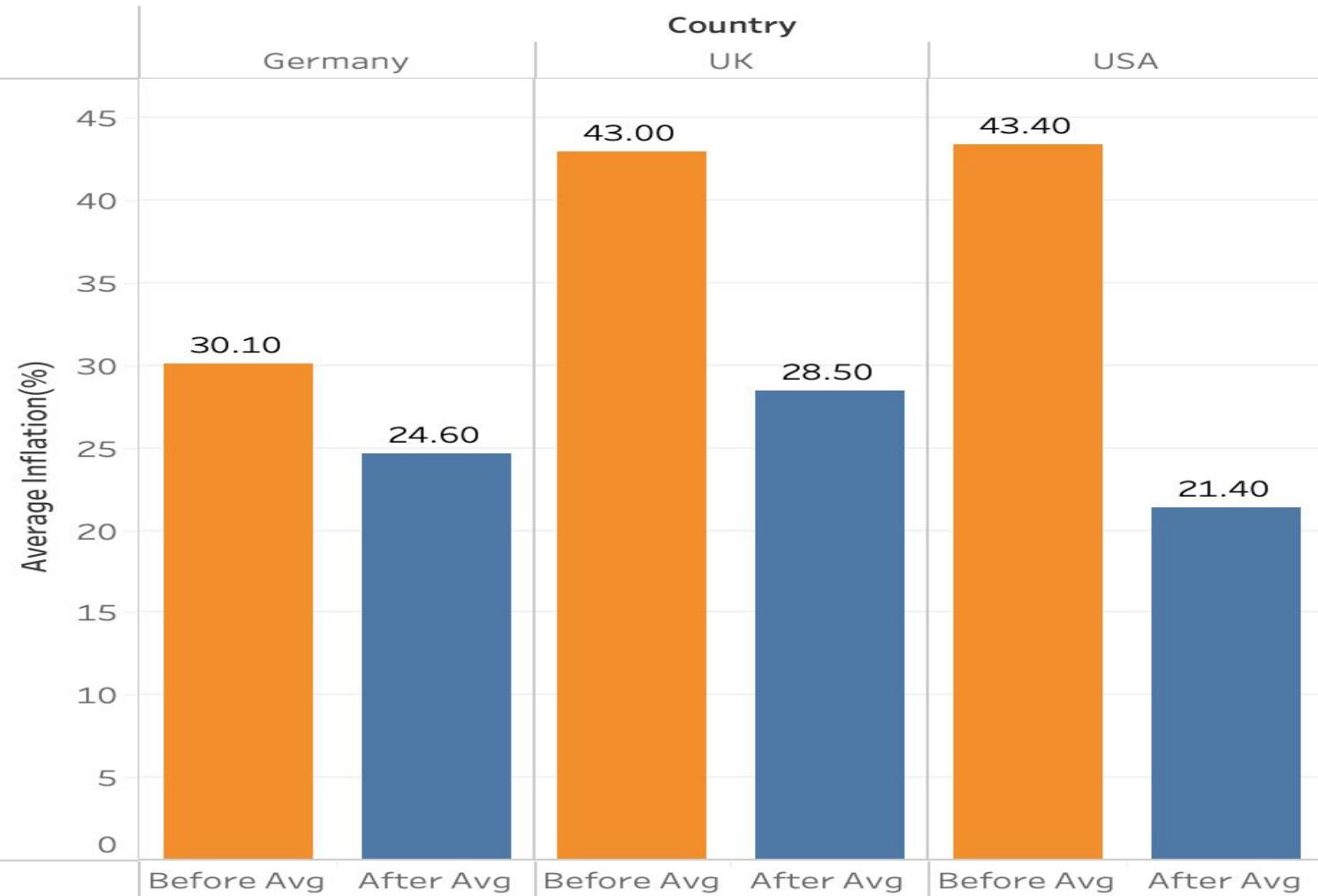
Sharp global inflation spike during COVID recovery in 2021-2022.

Key Insights

- UK experienced the largest peak (9.1%).
- Germany peak: 8.0%.
- USA peak: 7.0%.

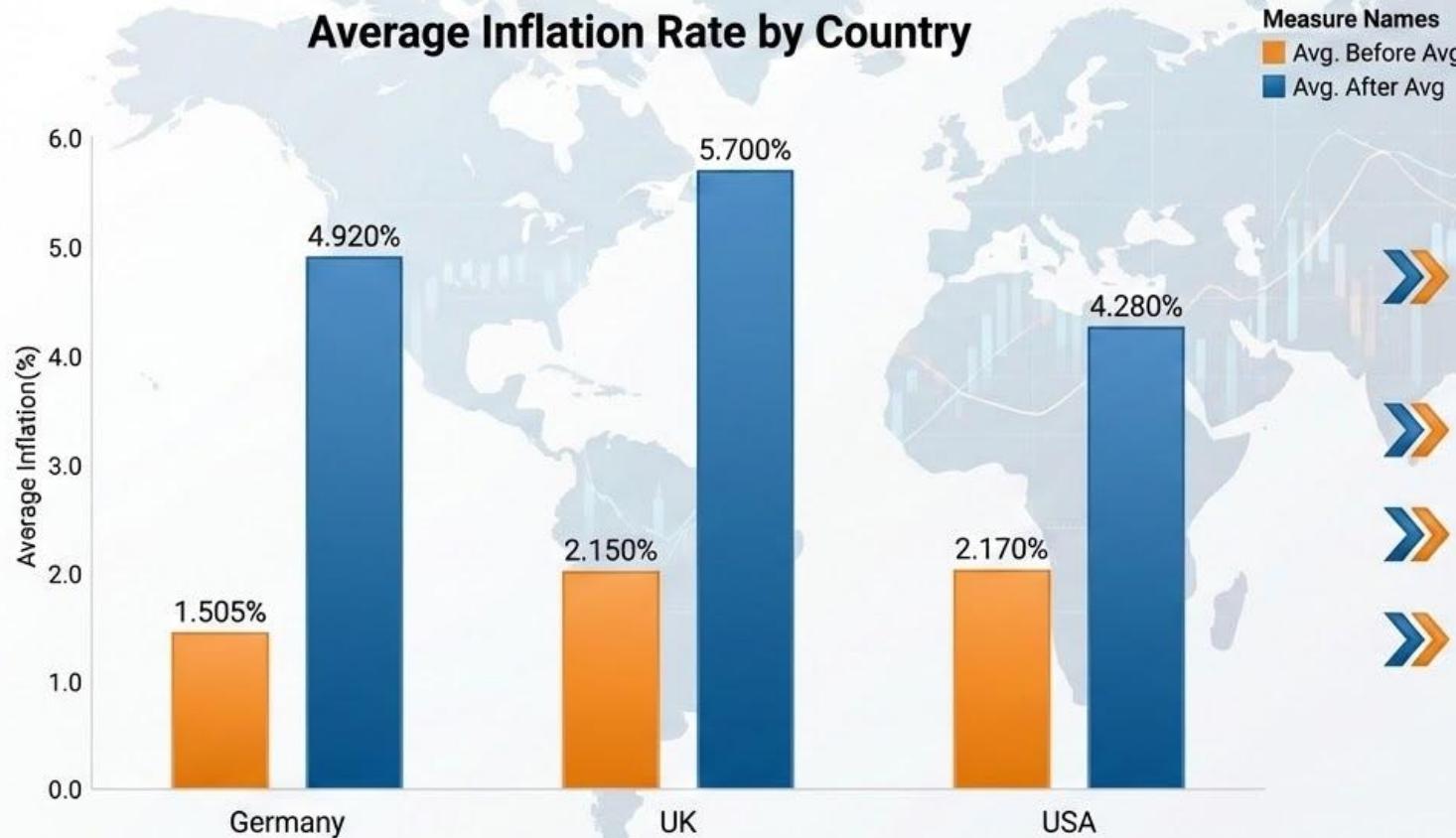
Before vs After 2020: Average Inflation Bar Chart

Measure Names
Before Avg
After Avg



BEFORE VS AFTER 2020: AVERAGE INFLATION

Average Inflation Rate by Country



- • All three countries saw higher average inflation after 2020.
- • Germany has the largest jump(more than 3 times).
- • UK increased significantly too.
- • USA increased moderately but still noticeable.

Design Rationale (Bar Chart)



Clear Comparison (Bar Chart)
Bar chart chosen for clear comparison between before and after periods.



Side-by-Side Comparison
Grouped bars allow side-by-side comparison by country.



Data Comparison (Data Labels)
Data labels used to highlight differences.



Time Period Colors
Colors differentiate the two time periods.



Highlighted Differences (Data Labels)
Data labels used to highlight differences.

Comparing Inflation Volatility: USA, UK, Germany

Standard deviation of annual inflation shows the UK experienced the highest volatility



- The UK shows the highest inflation volatility, indicating greater year-to-year fluctuations compared with the USA and Germany.
- Germany's volatility is moderately high, reflecting noticeable variability across the period.
- The USA has the lowest volatility, suggesting more stable inflation movements relative to the UK and Germany.
- Higher volatility values reflect less predictable inflation, making economic planning more challenging.

Volatility measured as the standard deviation of annual inflation (2000–2024). Higher values indicate greater year-to-year fluctuation.

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Design Rationale (Volatility Heat/Block Chart)



Clean, high-level comparison of inflation volatility across countries.

2.5%

Centered data labels ensure readability without tooltips.

Color intensity reflects volatility levels for quick identification of highest fluctuations.



Minimal gridlines and clutter keep focus on cross-country differences.



Uniform block size removes emphasis on quantity, focusing on relative variability.



Simple layout enables fast interpretation, consistent with storytelling best practices.

Challenges and Data Limitations



Handling missing or inconsistent inflation values in some countries.



Needed to balance detail with readability (annotations).



Designing clear labels without clutter (Tableau hides overlapping labels to avoid clutter).

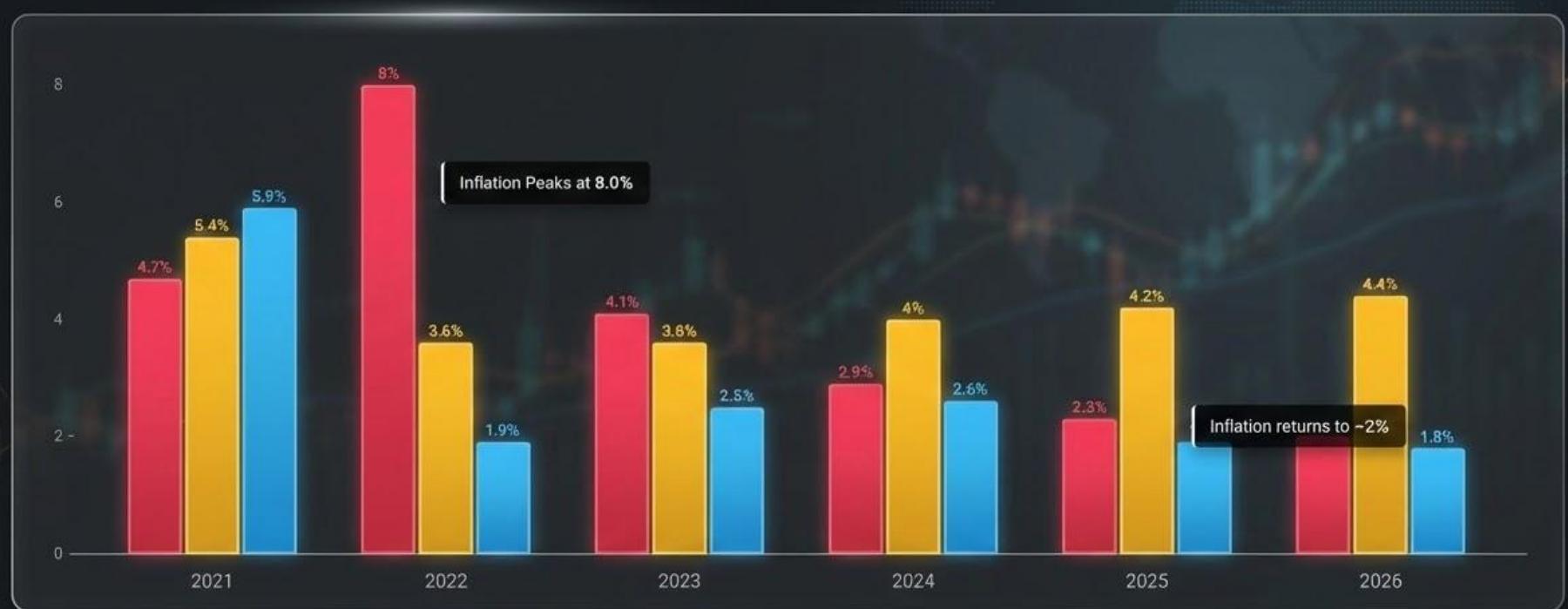


Visual clutter when too many countries were included.

Macro Outlook: The Soft Landing

As inflation (red) cools back to target, unemployment (yellow) rises modestly, and GDP growth (blue) stabilizes—avoiding a recession.

■ Inflation (CPI) ■ Unemployment ■ GDP Growth



Forecast Period: 2021 - 2026 (Projected)

Sources: Federal Reserve SEP (Dec 2024), Consensus Economics, CBO

The Path to a Soft Landing

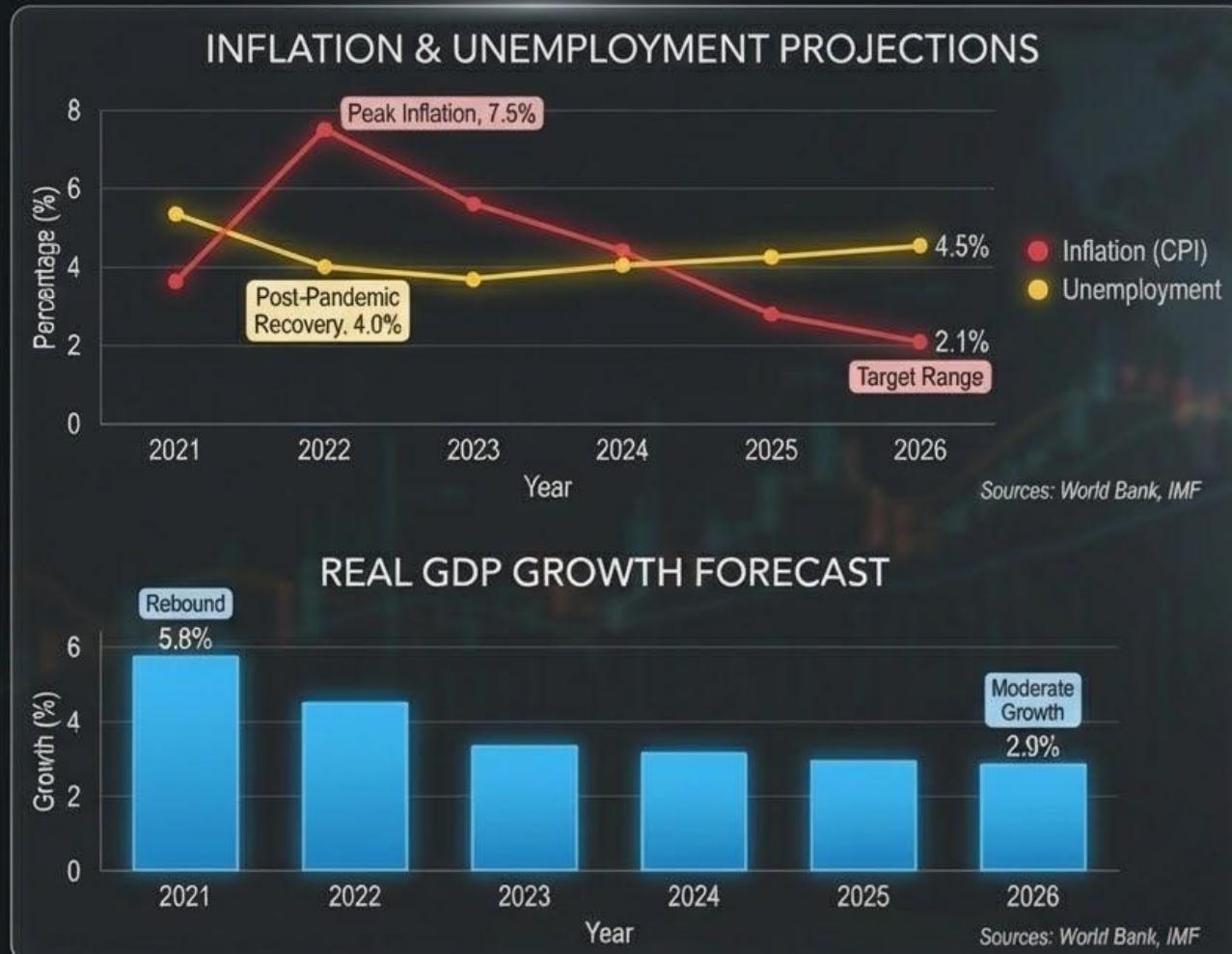
This chart traces the economy's journey (2021–2026).

Vertical axis: Inflation. Horizontal axis: Unemployment.

Note how the line loops back down without crashing too far to the right (Unemployment).



GLOBAL MACROECONOMIC INDICATORS: 2021-2026



KEY ECONOMIC INSIGHTS

- **Inflation** is projected to **decline** from its 2022 peak, stabilizing towards central bank targets by 2026.
- **Unemployment** is expected to remain relatively low but may see a slight uptick as the economy normalizes.
- Real GDP growth is forecast to moderate after the post-pandemic rebound, settling into a stable, albeit slower, growth path.
- The outlook suggests a transition to more sustainable economic conditions following a period of volatility.