

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

USA • UK • Germany



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

2020

Design Rationale (Line Chart)



Line chart
chosen to
show trend
over time.



Color-coded
lines help
differentiate
countries.



Data labels
added for
clarity.

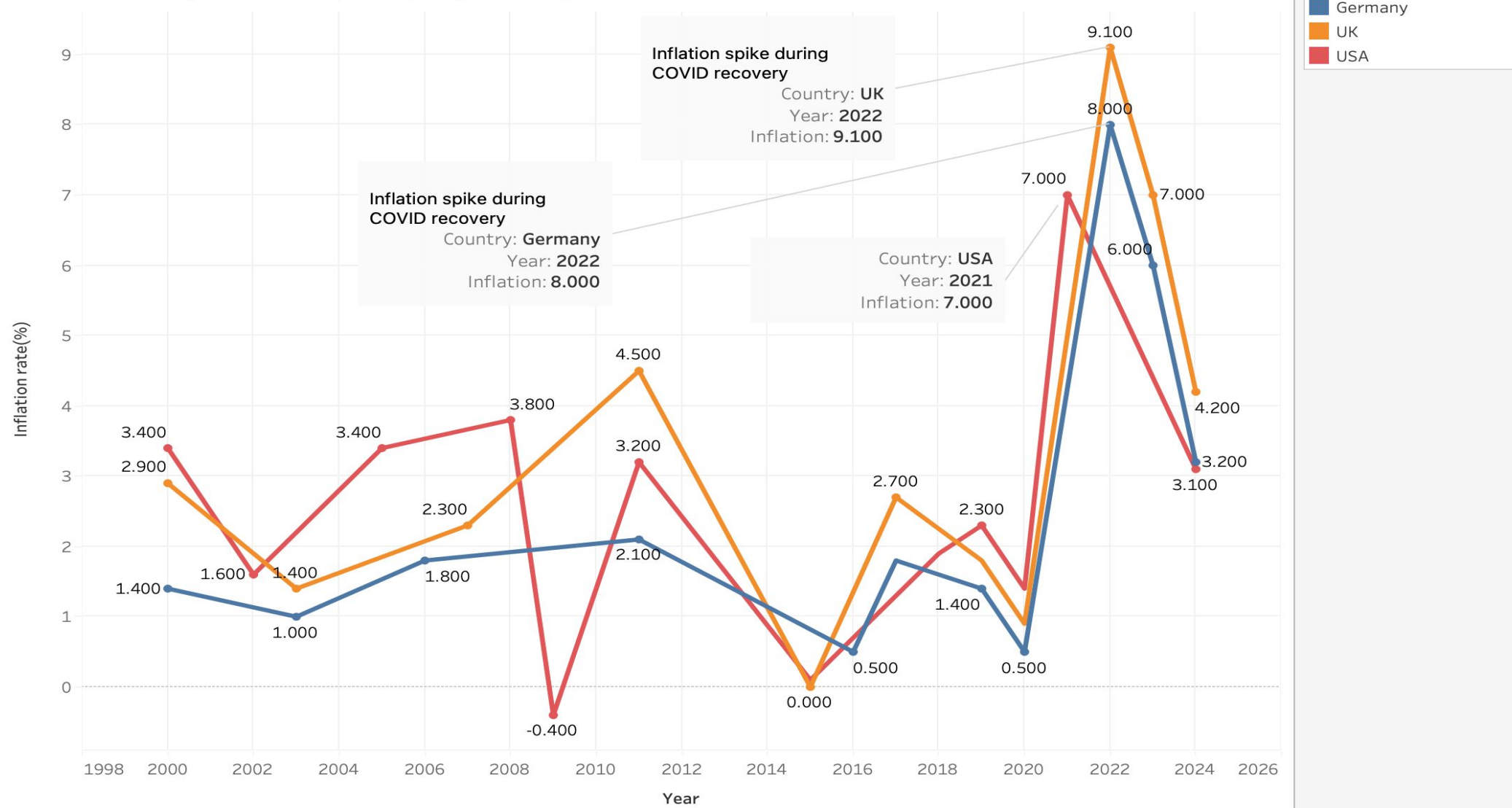


Annotations
highlight 2022
inflation spike,
the main insight.

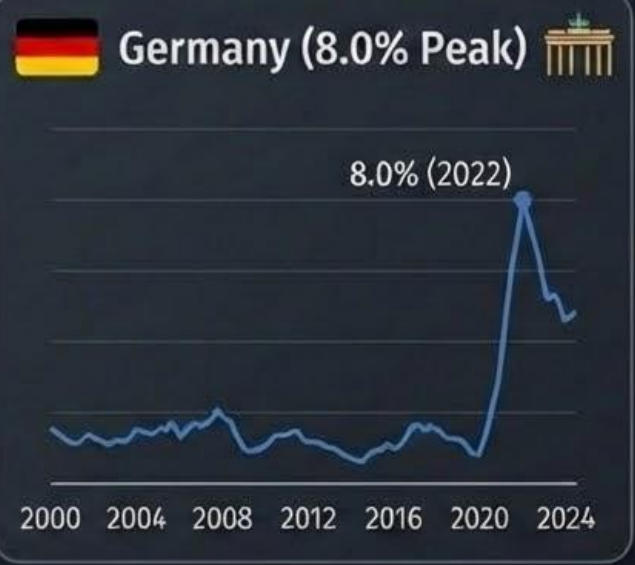
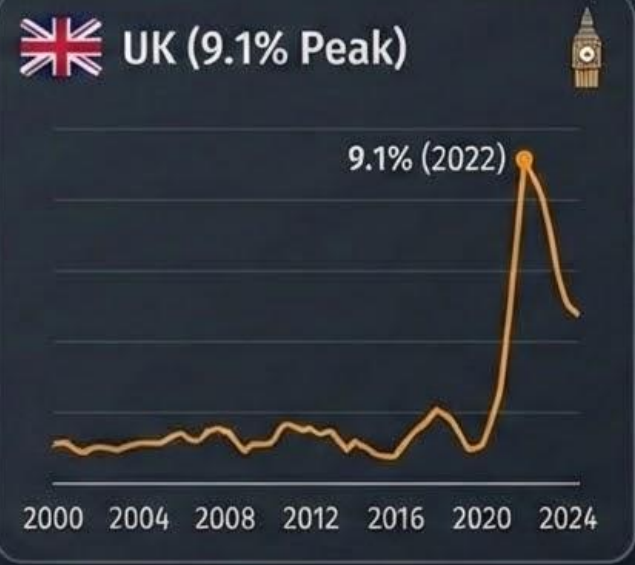
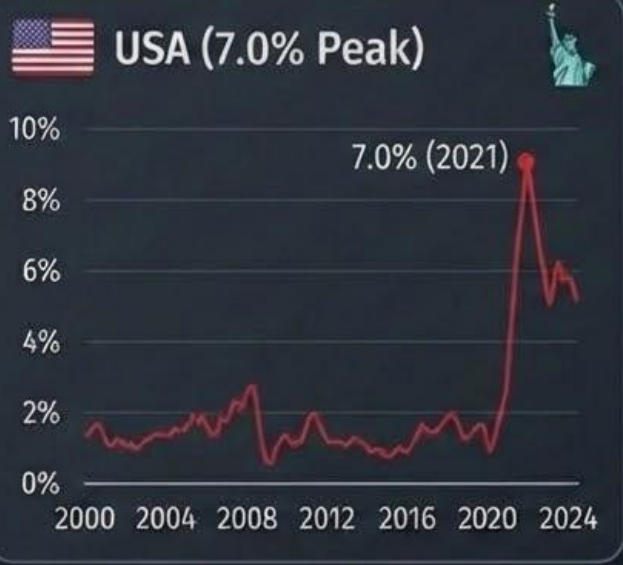


Clean layout
improves
comparability.

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



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



Timeline & Key Events



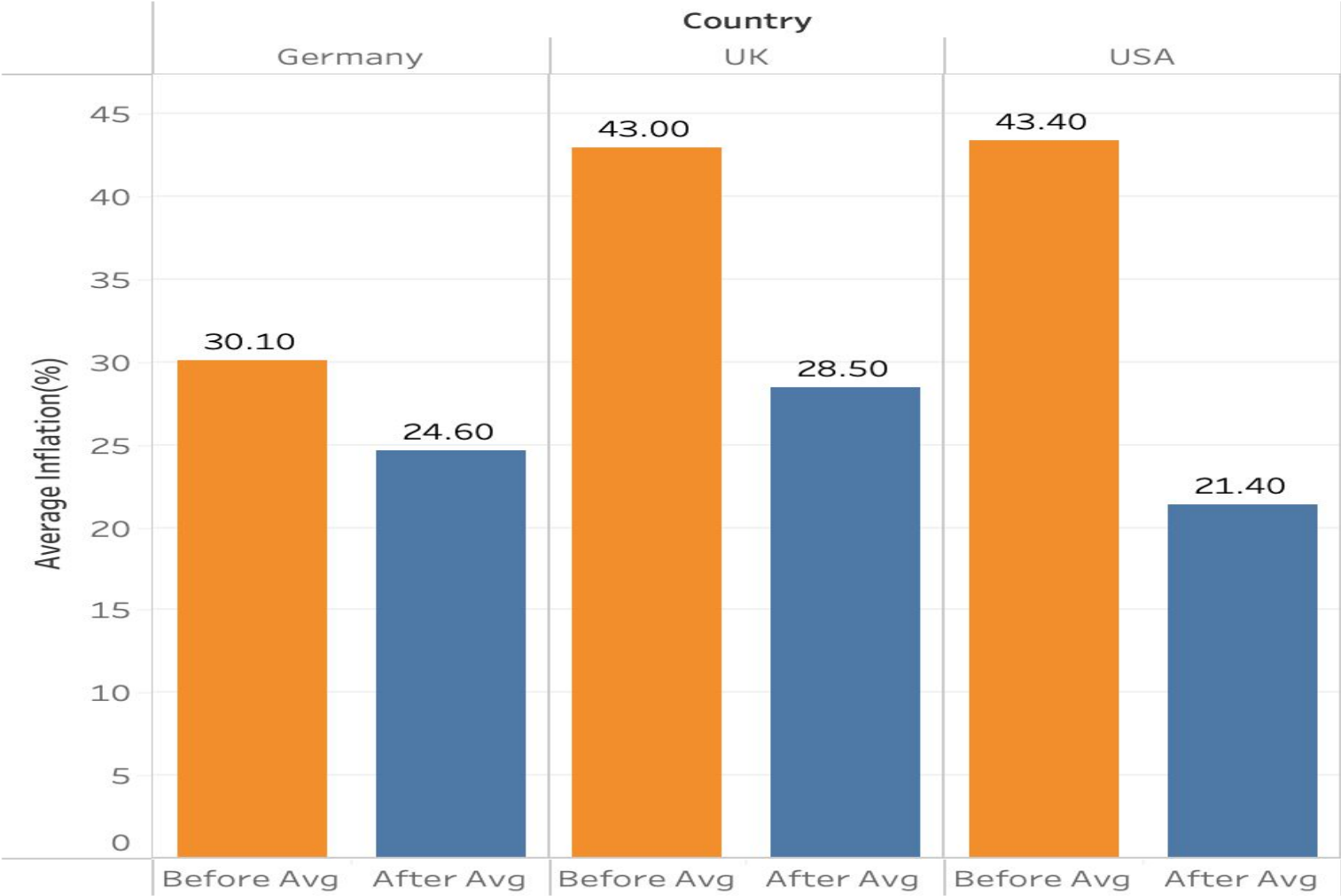
Key Insights

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

Before vs After 2020: Average Inflation Bar Chart

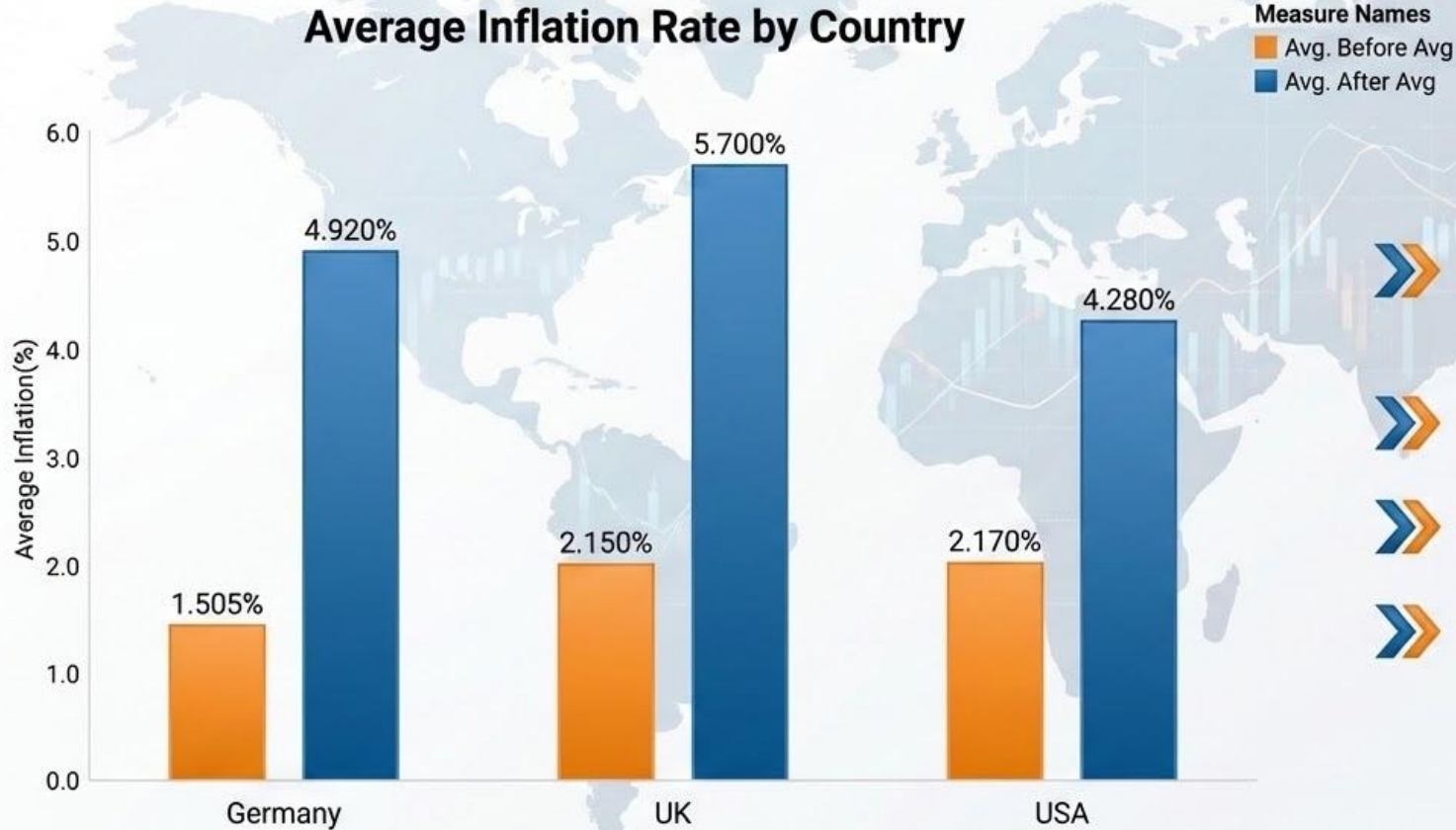
Measure Names

- 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



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

- 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.

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Design Rationale (Volatility Heat/Block Chart)



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



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



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

2.5%

Centered data labels ensure readability without tooltips.

2.5%	2.5%	2.0%	2.0%	2.0%	2.0%
1.8%	1.5%	1.9%	1.9%	2.0%	2.0%
1.7%	1.5%	1.9%	1.7%	1.5%	1.8%



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



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

Challenges and Data Limitations



Handling missing or inconsistent inflation values in some countries.



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



Needed to balance detail with readability (annotations).

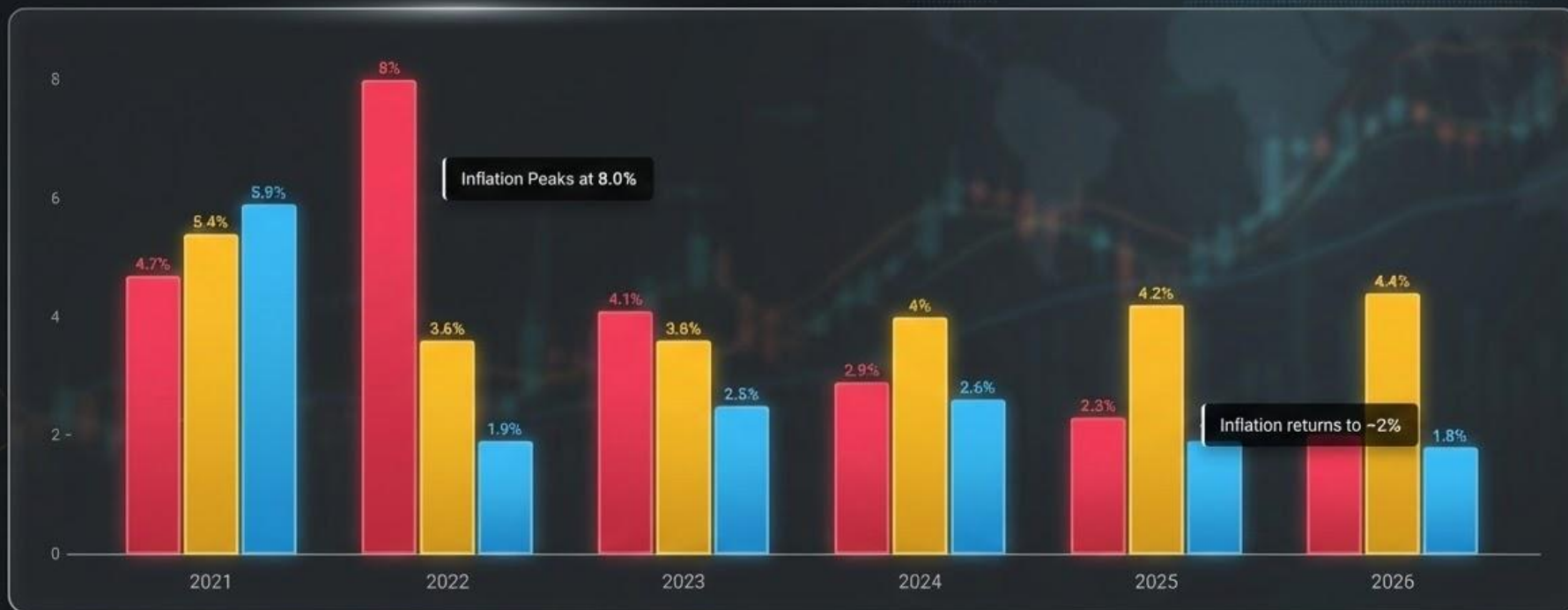


Visual clutter when too many countries were included.

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)

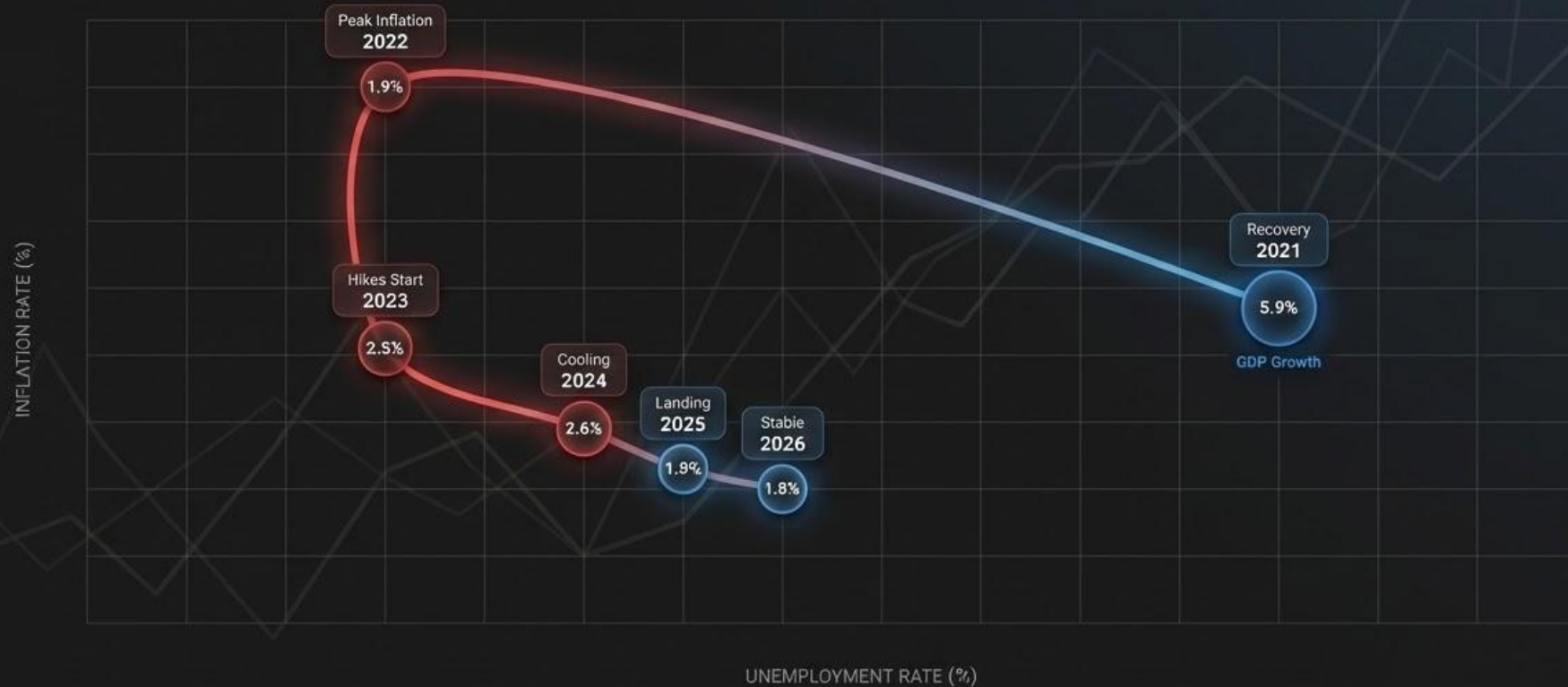
Sources: Federal Reserve SEP (Dec 2024), Consensus Economics, CBO

The Path to a Soft Landing

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

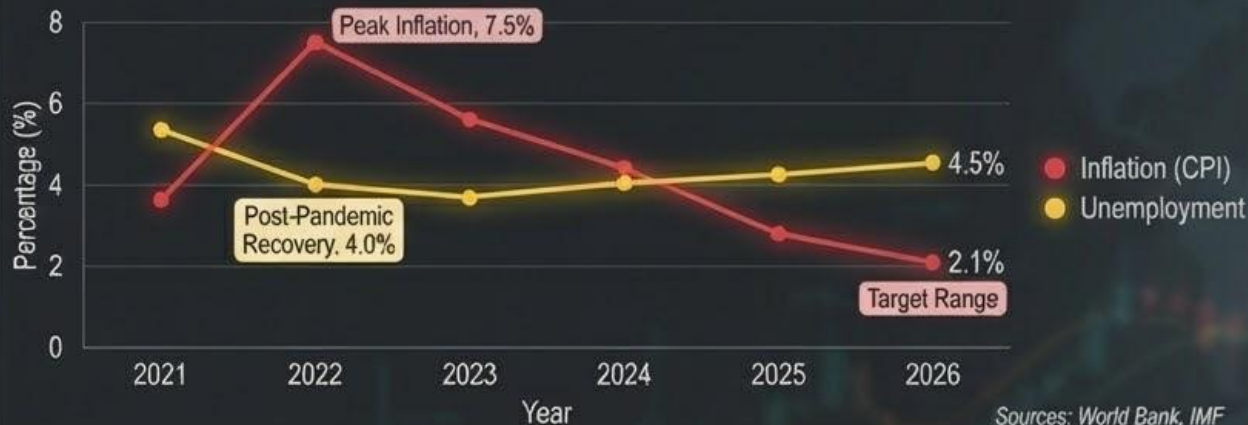
Vertical axis: Inflation. **Horizontal axis:** Unemployment.

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

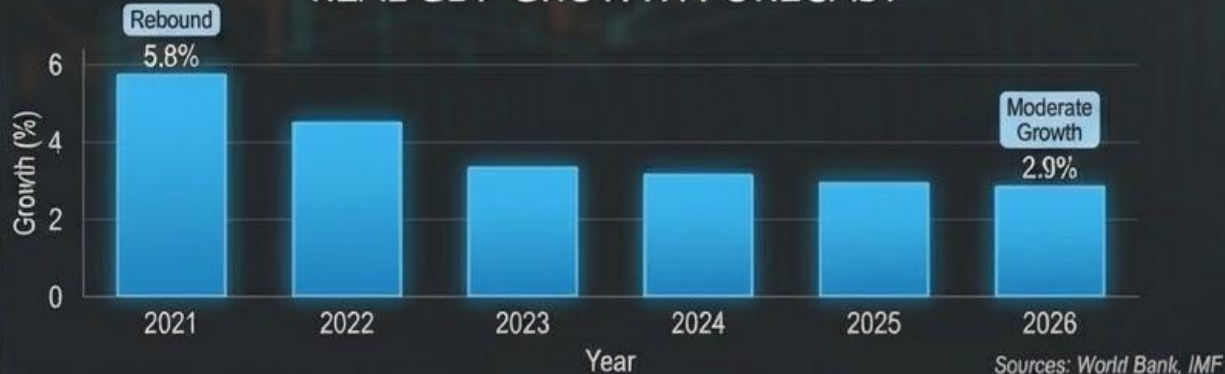


GLOBAL MACROECONOMIC INDICATORS: 2021-2026

INFLATION & UNEMPLOYMENT PROJECTIONS



REAL GDP GROWTH FORECAST



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.