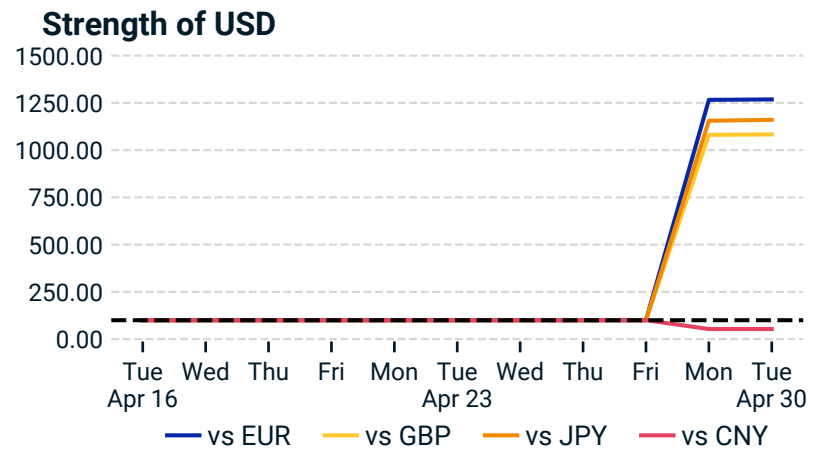
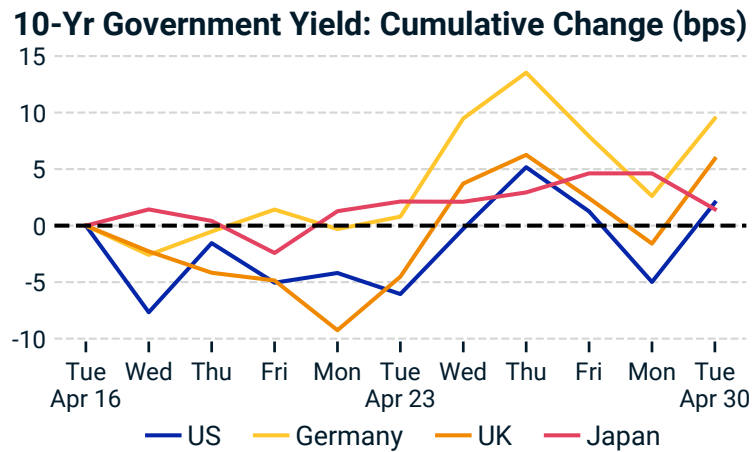
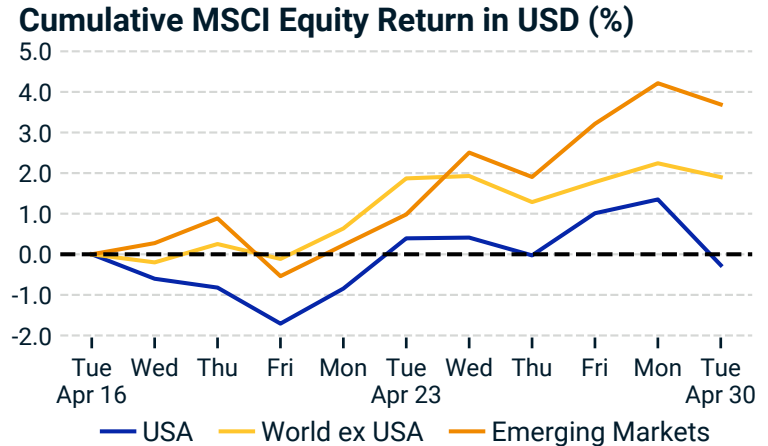
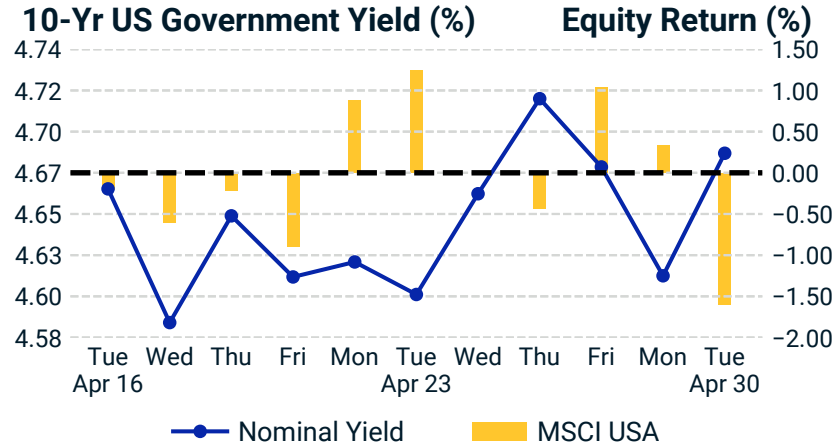


# Daily Fixed-Income Insights

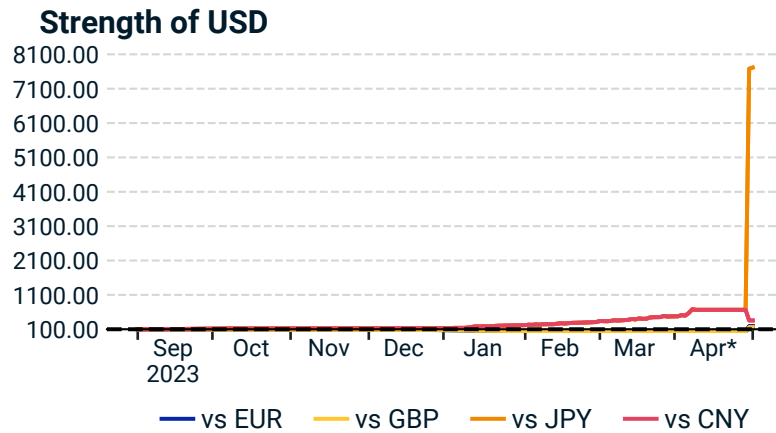
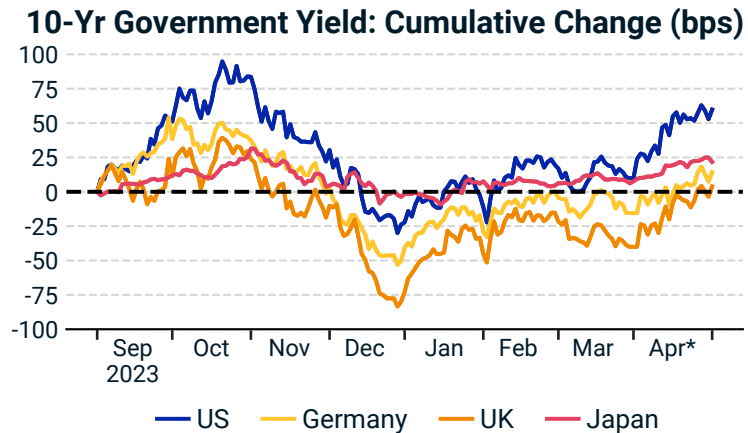
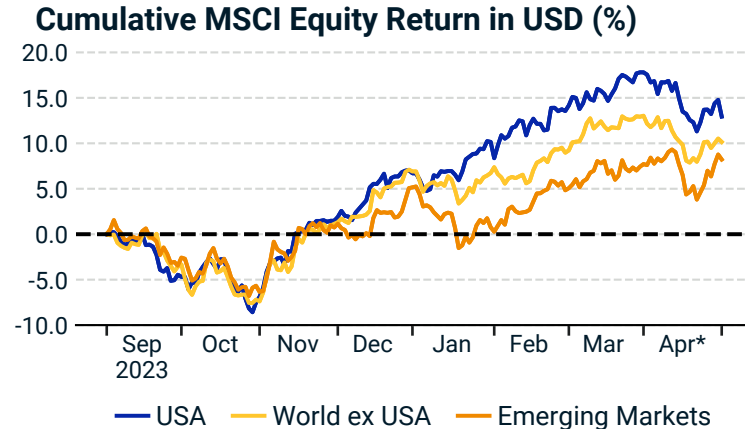
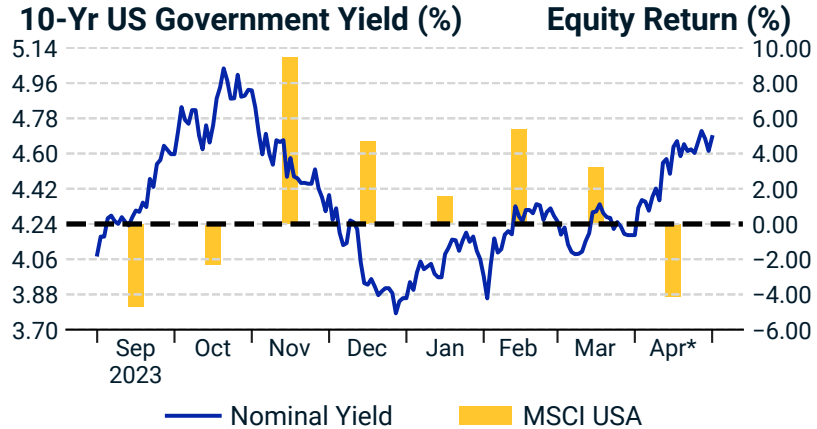
April 30, 2024 (market close)

# Daily Trends in Yields, Equity Returns, FX



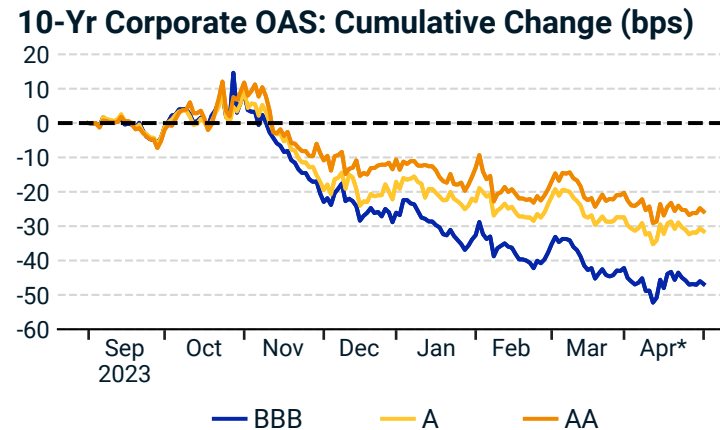
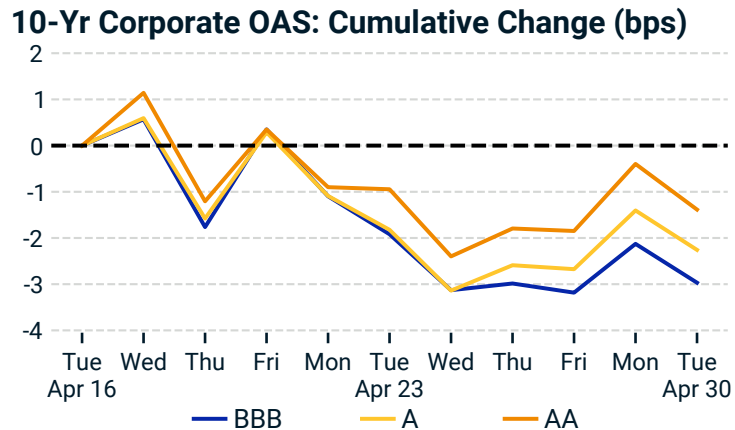
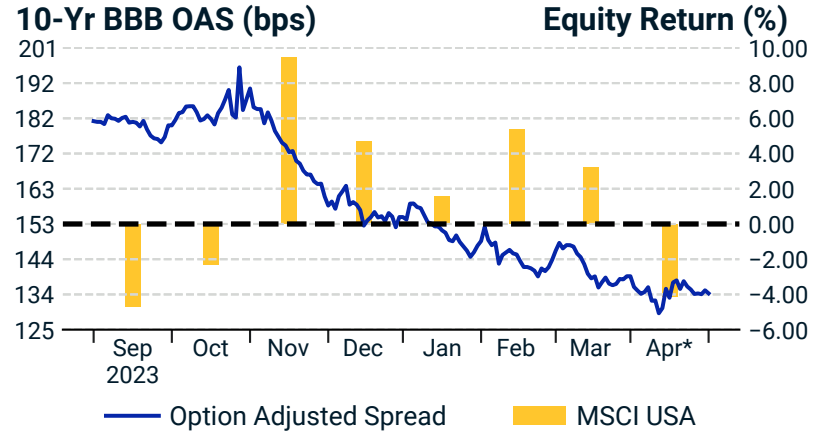
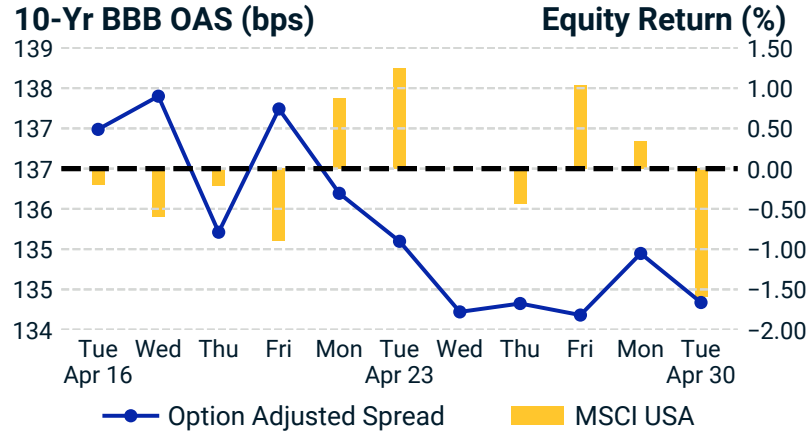
\*See Appendix for data sources

# Monthly Trends in Yields, Equity Returns, FX



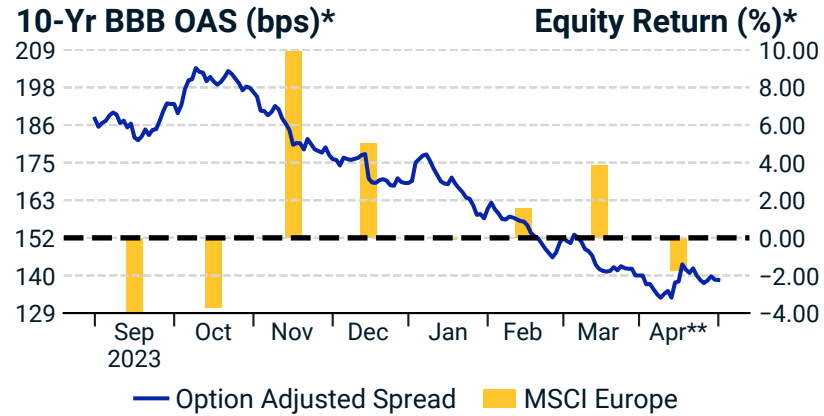
\*As of April 30  
 \*\*See Appendix for data sources

# Daily & Monthly US Corporate Spreads vs Equities

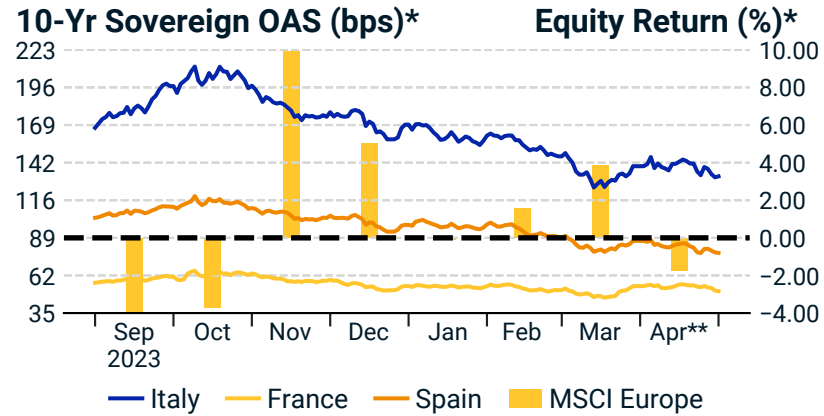


\*As of April 30  
 \*\*See Appendix for data sources

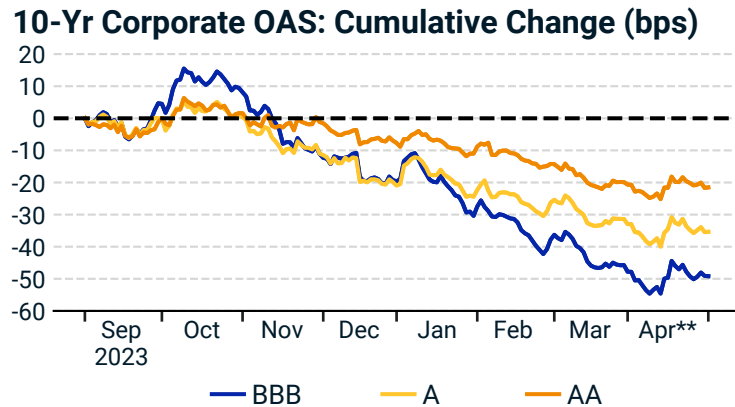
# Euro Corporate and Sovereign Spreads vs Equities



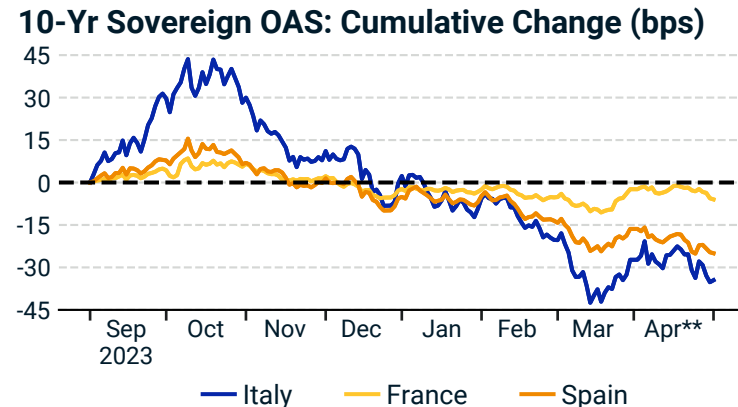
— Option Adjusted Spread    ■ MSCI Europe  
 \*Option Adjusted Spread in basis points to German government curve.  
 Equity return expressed in USD



— Italy — France — Spain ■ MSCI Europe  
 \*Option Adjusted Spread in basis points to German government curve.  
 Equity return expressed in USD



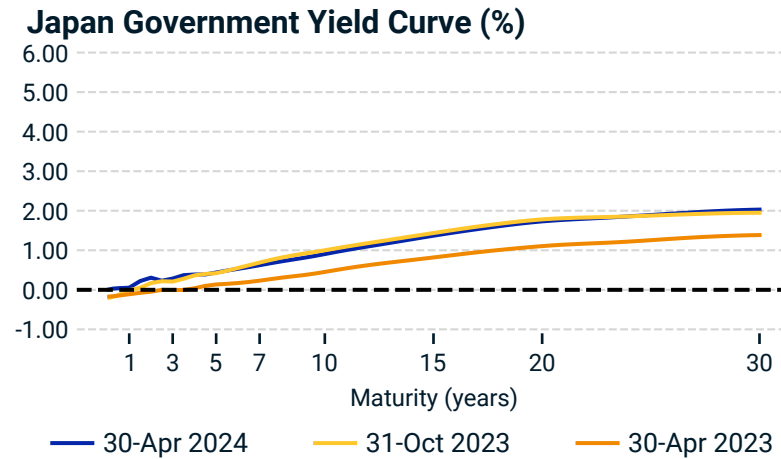
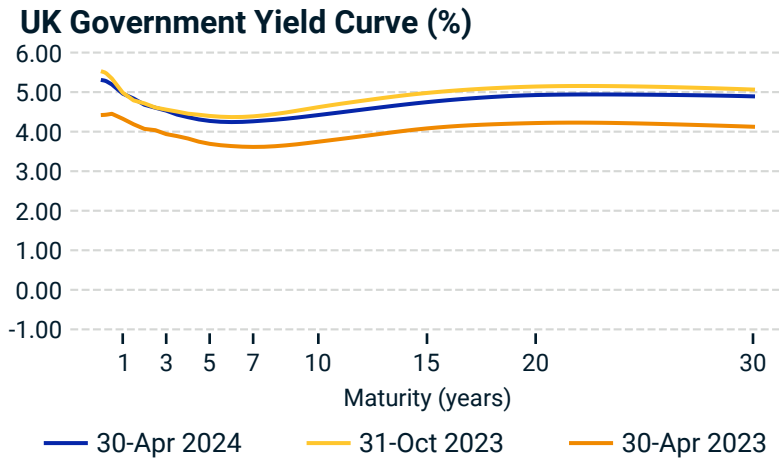
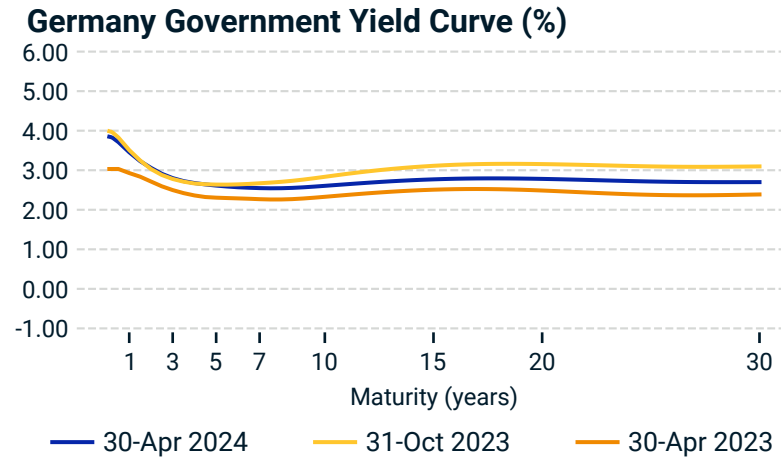
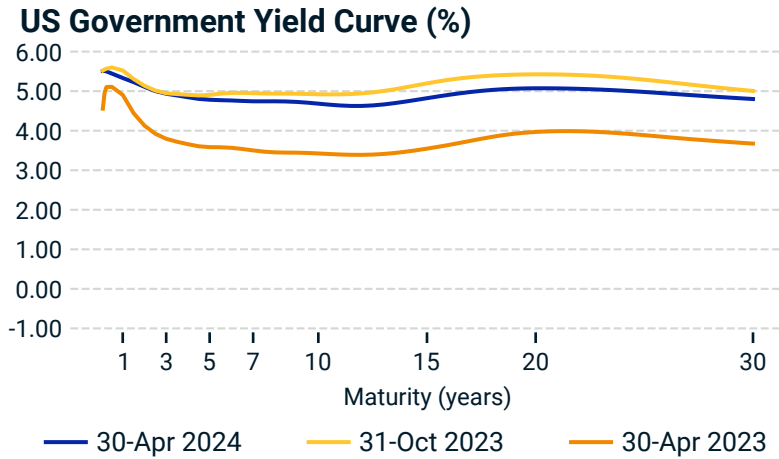
— BBB — A — AA  
 \*\*As of April 30  
 \*\*\*See Appendix for data sources



# Drilldown: G4 Government Bonds and Rates

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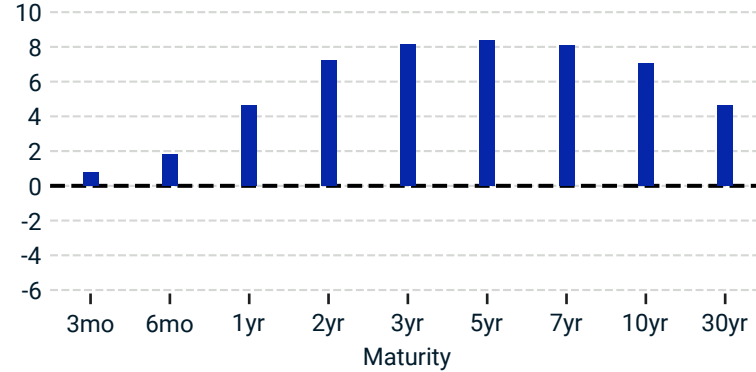
# Government Nominal Yield Curves



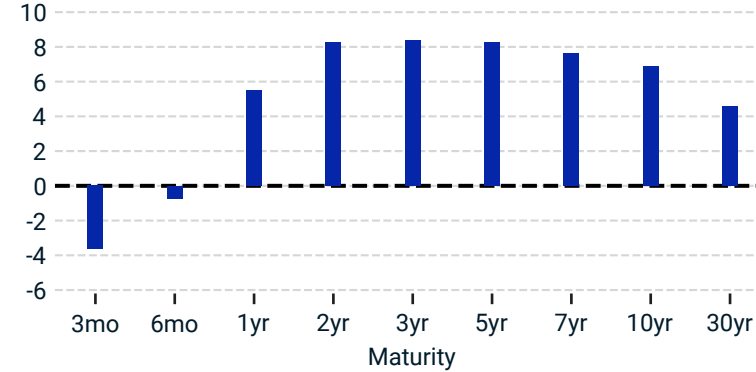
\*See Appendix for data sources

# Government Yields: 1-Day Changes (Nominal)\*

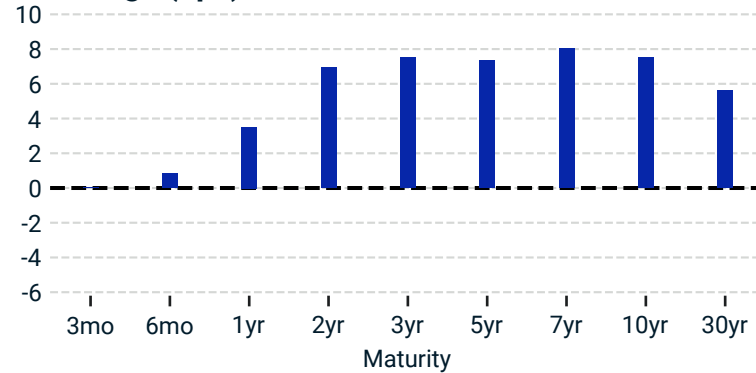
US Change (bps)



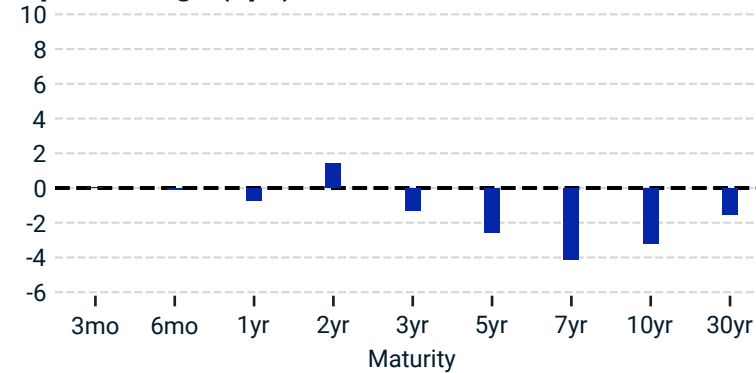
Germany Change (bps)



UK Change (bps)



Japan Change (bps)



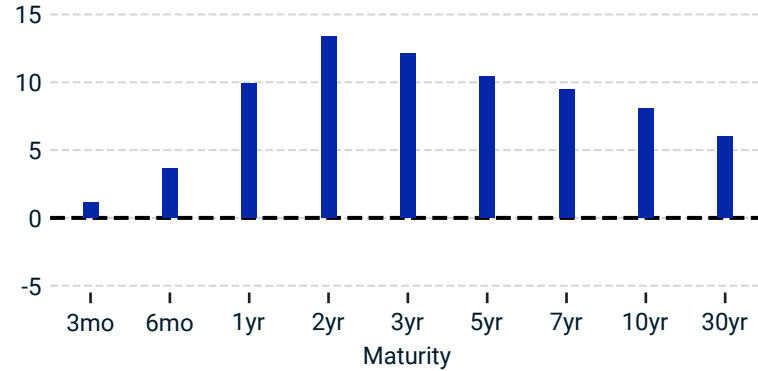
\*Change from Apr 29 to Apr 30

\*\*See Appendix for data sources.

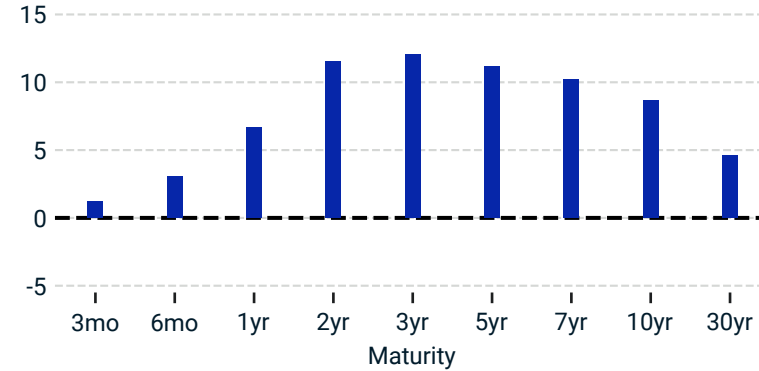


# Government Yields: 1-Week Changes (Nominal)\*

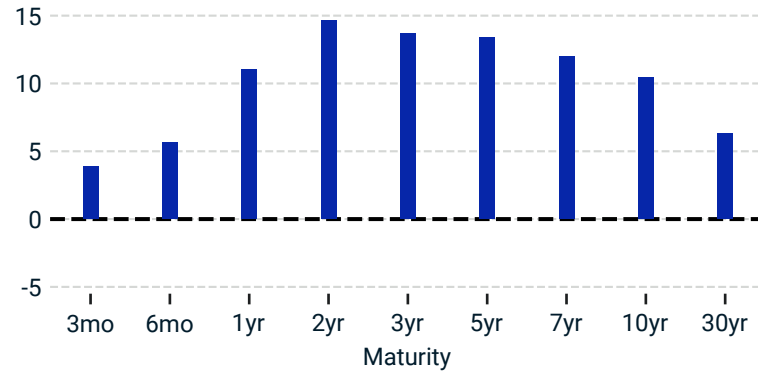
US Change (bps)



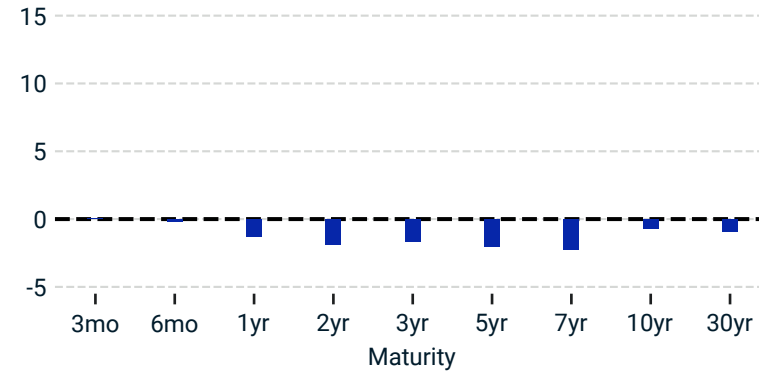
Germany Change (bps)



UK Change (bps)



Japan Change (bps)

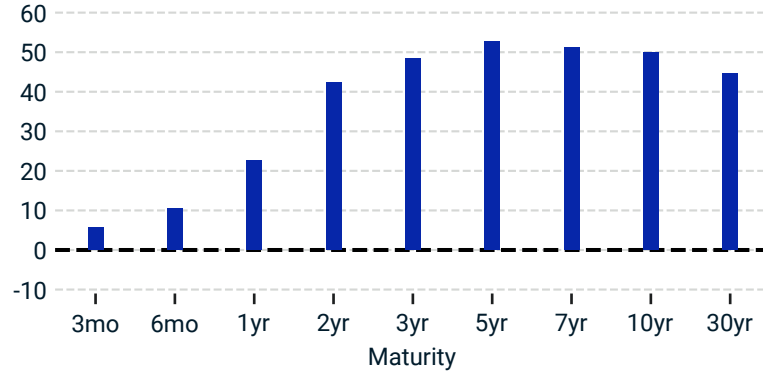


\*Change from Apr 23 to Apr 30

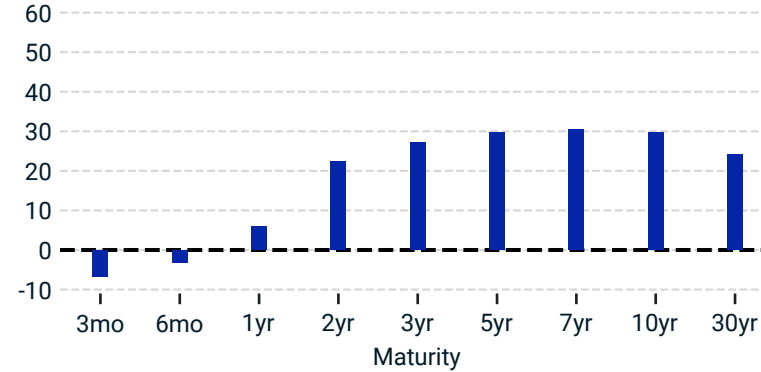
\*\*See Appendix for data sources

# Government Yields: 1-Month Changes (Nominal)\*

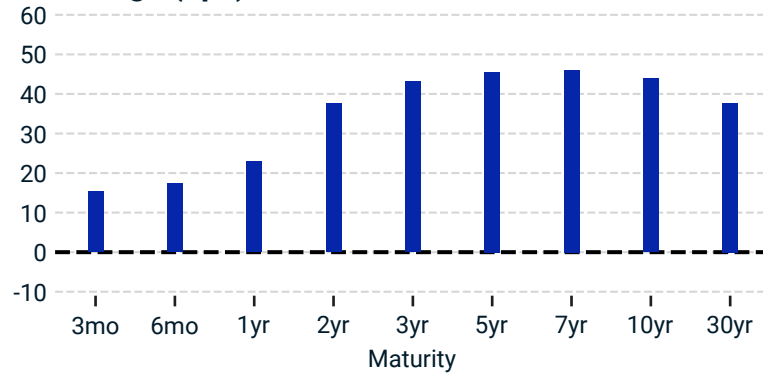
US Change (bps)



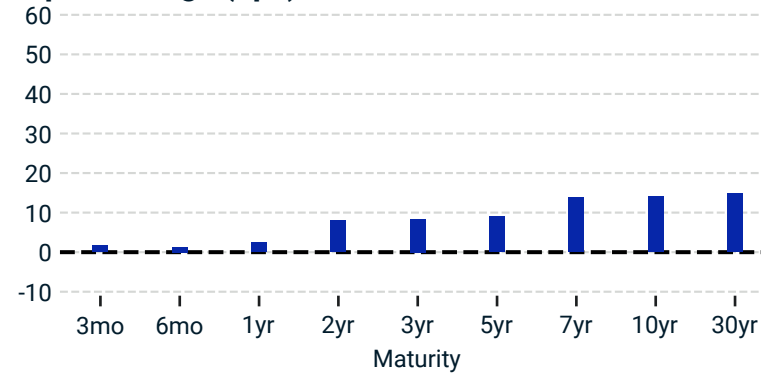
Germany Change (bps)



UK Change (bps)



Japan Change (bps)

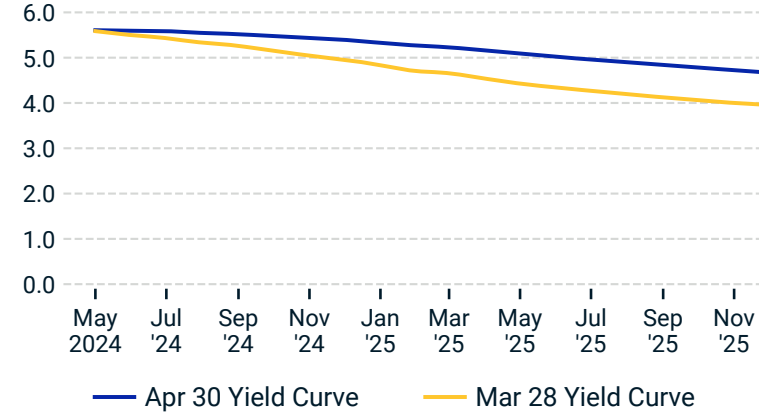


\*Change from Mar 29 to Apr 30

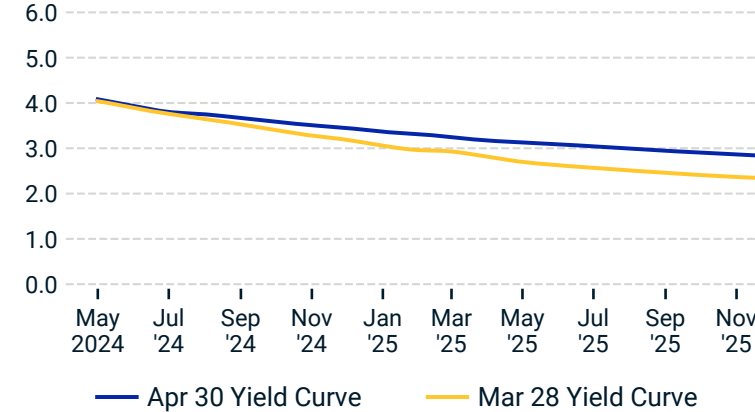
\*\*See Appendix for data sources

# 1-Month Forward Rates on Futures and Overnight Index Swaps

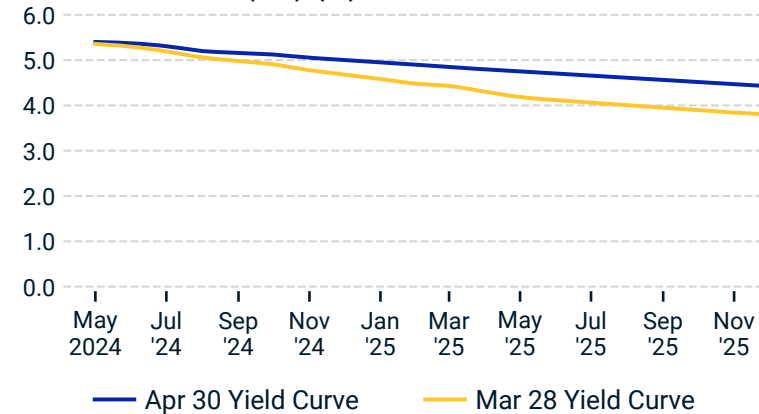
USD SOFR Futures (SP) (%)



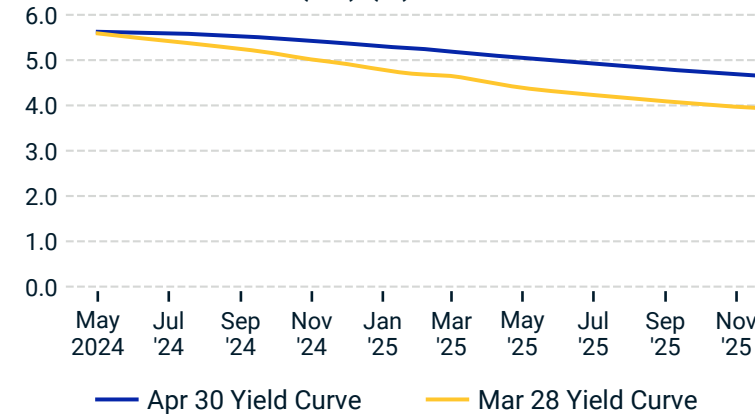
EUR ESTR OIS (SP) (%)



GBP SONIA OIS (SP) (%)

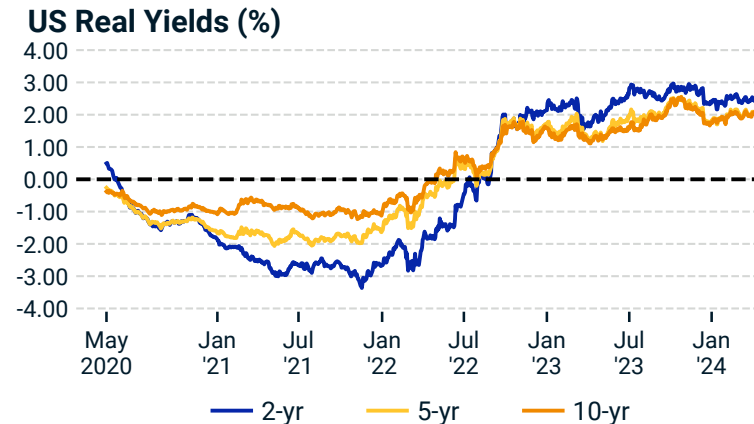
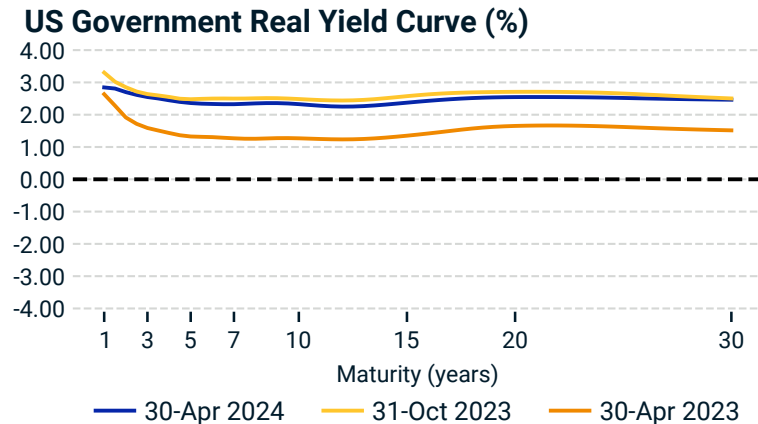
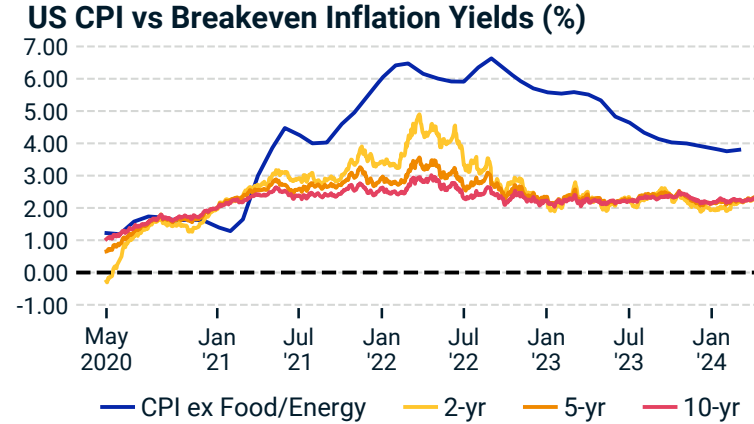
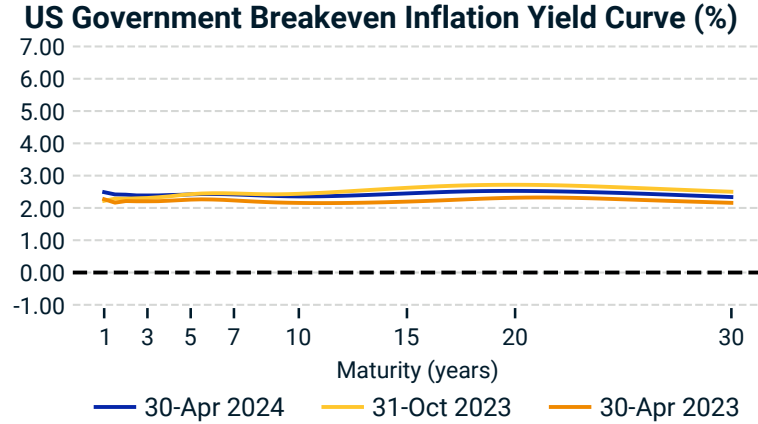


USD Fed Funds OIS (SP) (%)



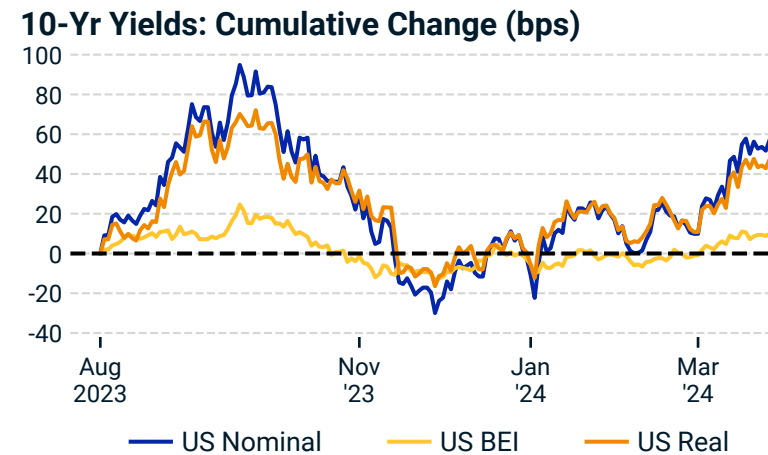
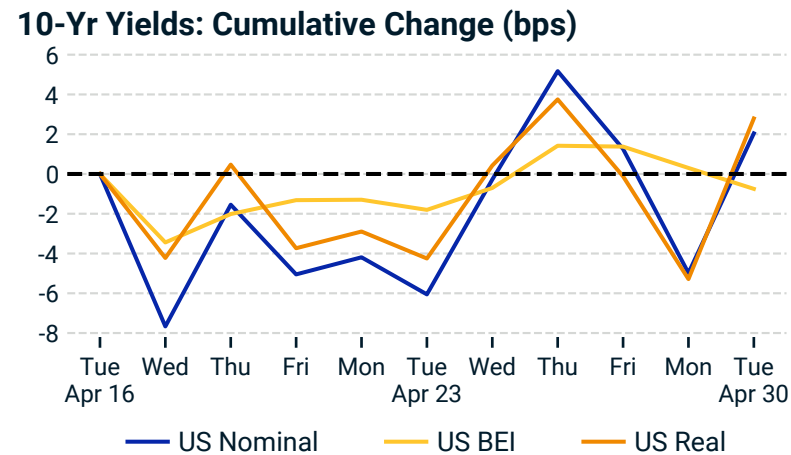
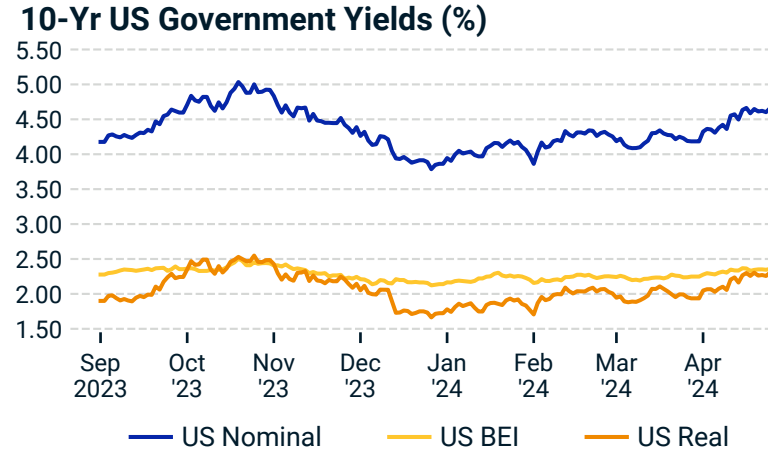
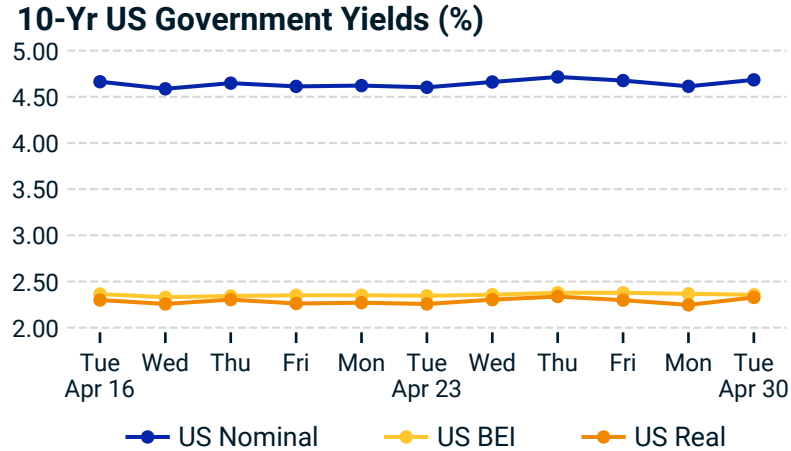
\*See Appendix for data sources

# US Breakeven Inflation and Real Yields



\*\*See Appendix for data sources

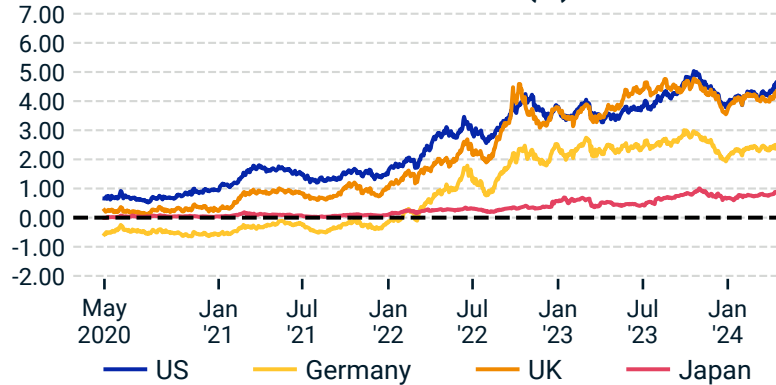
# US Government Yields: Nominal, Real and BEI



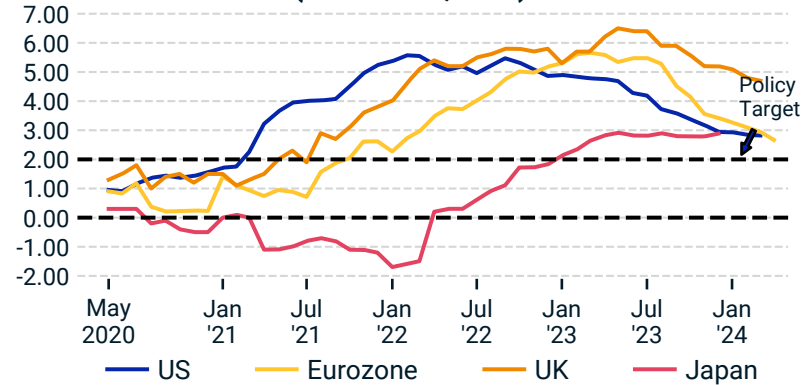
\*See Appendix for data sources

# 4-Year Trends in Government Yields and Inflation

10-Yr Government Nominal Yields (%)

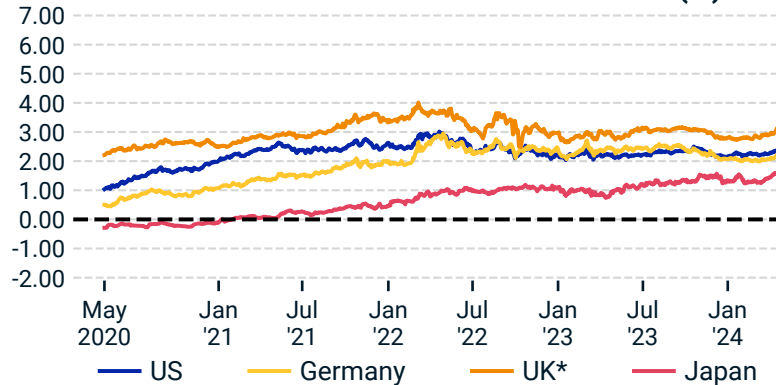


Realized Inflation (12-Month, in %)



\*US: PCE ex Food/Energy; Eurozone: HICP ex Food/Energy/Alcohol/Tobacco  
 UK: CPIH ex Food/Energy/Alcohol/Tobacco; Japan: CPI ex Food/Energy

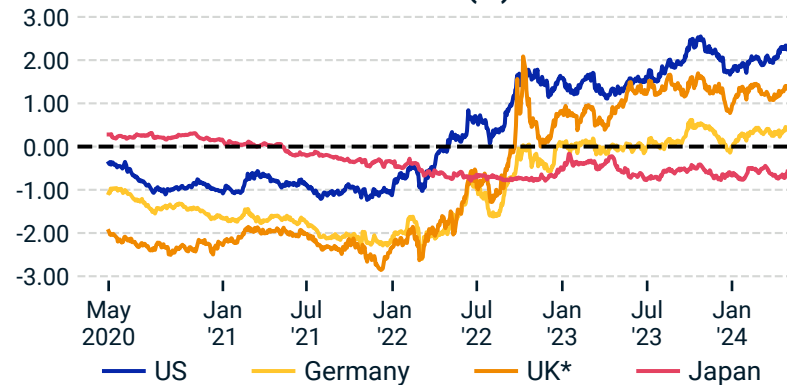
10-Yr Government Breakeven Inflation Yields (%)



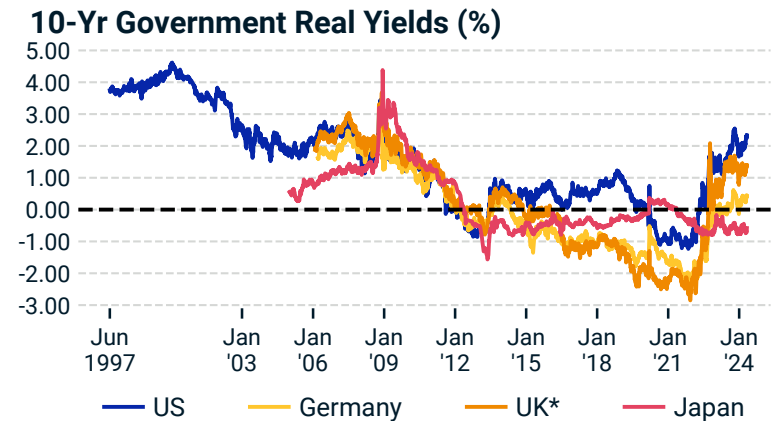
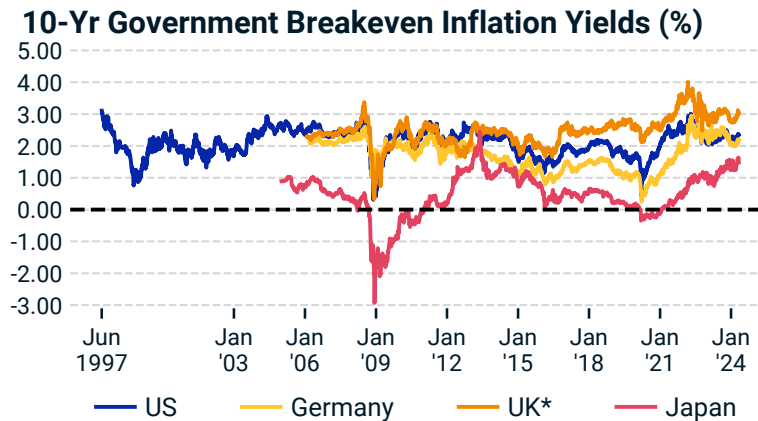
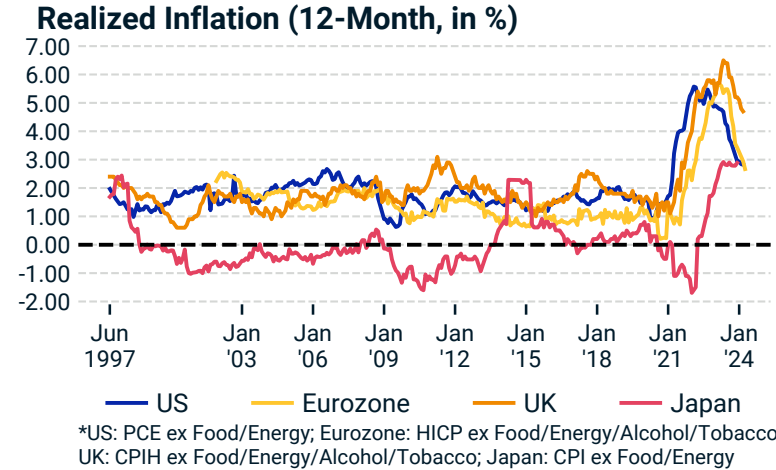
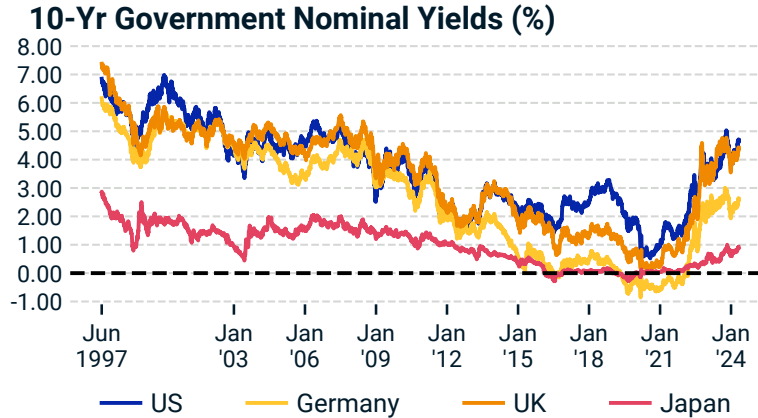
\*UK breakeven inflation and real yields are adjusted to reflect historical differences between the Retail Price Index (RPI) and the Consumer Price Index (CPI)

\*\*See Appendix for data sources

10-Yr Government Real Yields (%)



# Long-Run Trends in Yields and Inflation

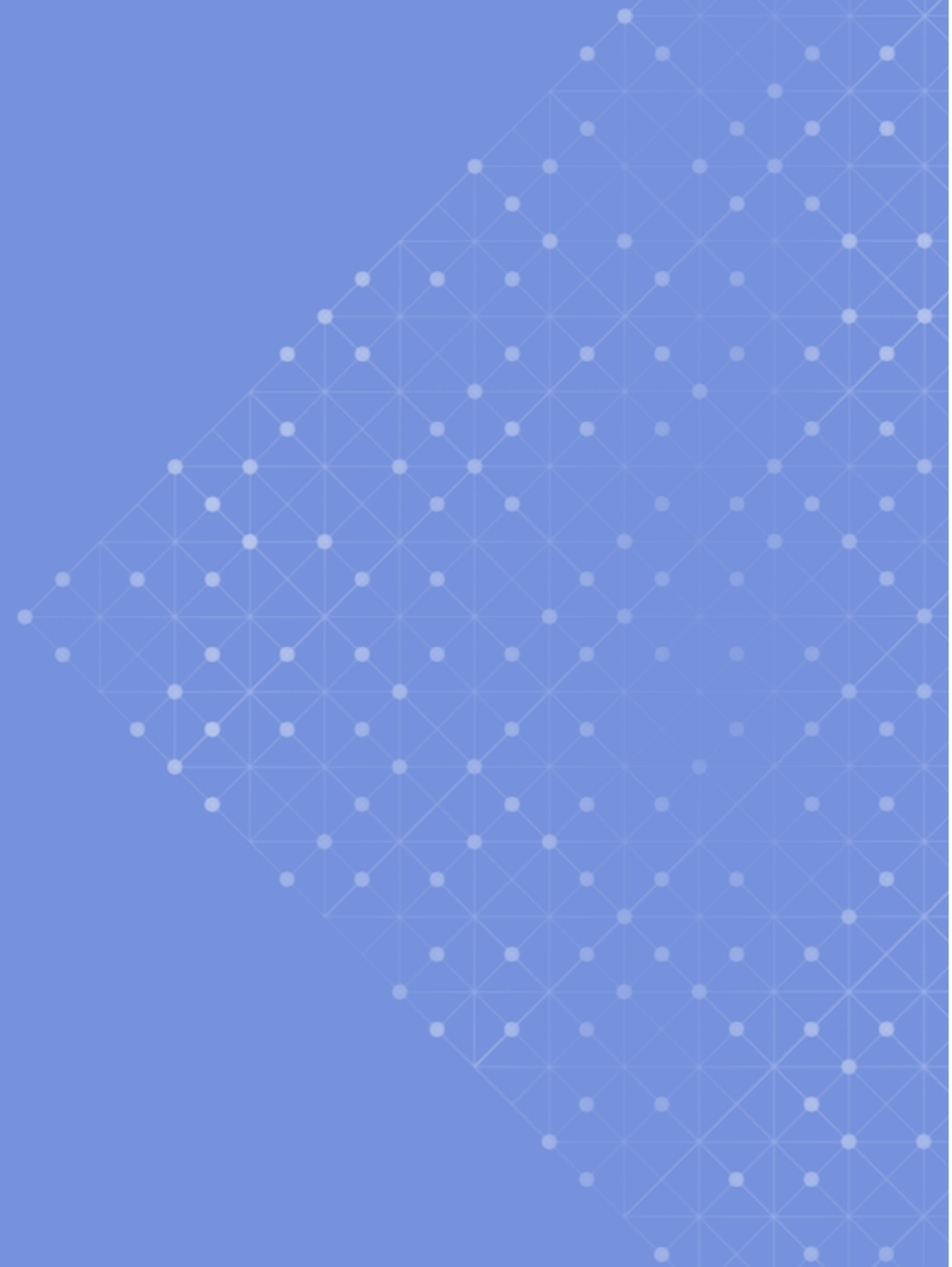


\*UK breakeven inflation and real yields are adjusted to reflect historical differences between the Retail Price Index (RPI) and the Consumer Price Index (CPI)

\*\*See Appendix for data sources

# Drilldown: Credit

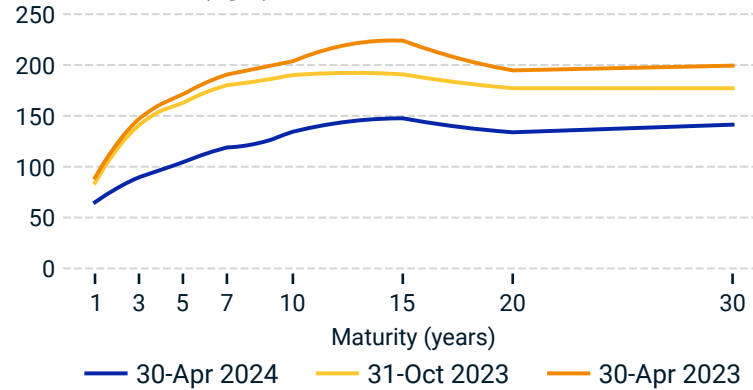
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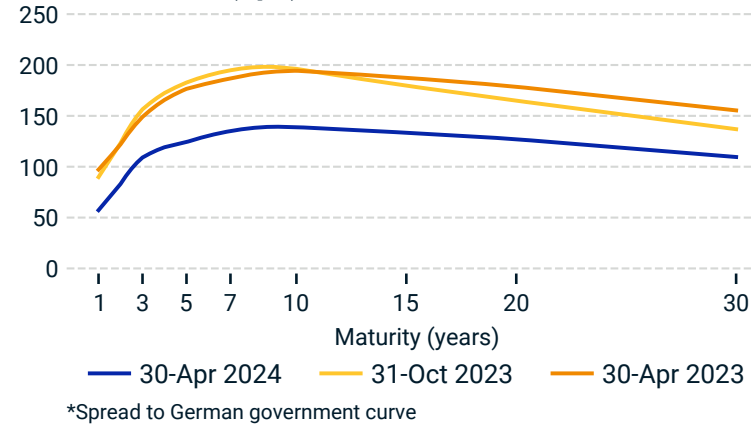


# Spread Term Structure: BBB Corporates & Sovereigns

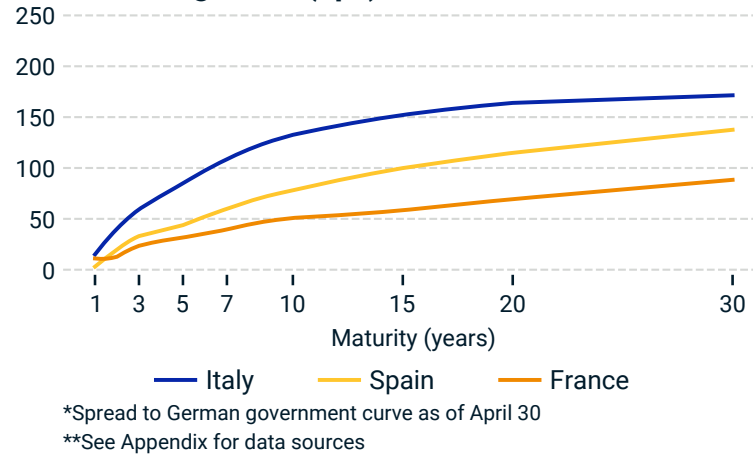
**US BBB OAS (bps)**



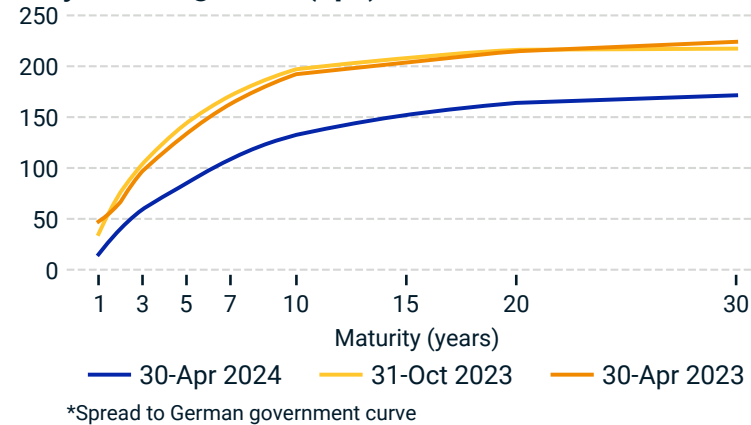
**Euro BBB OAS (bps)\***



**Euro Sovereign OAS (bps)\***

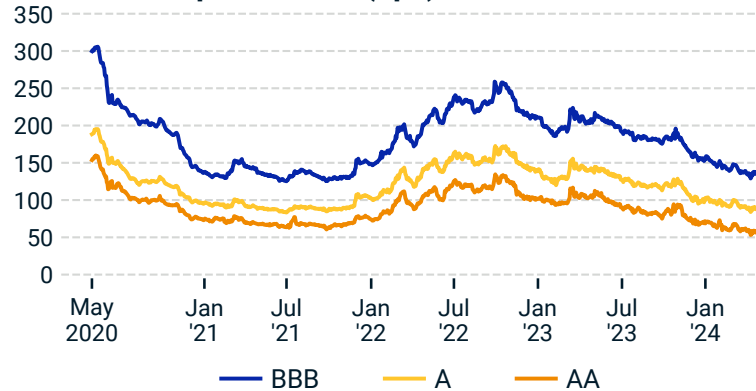


**Italy Sovereign OAS (bps)\***

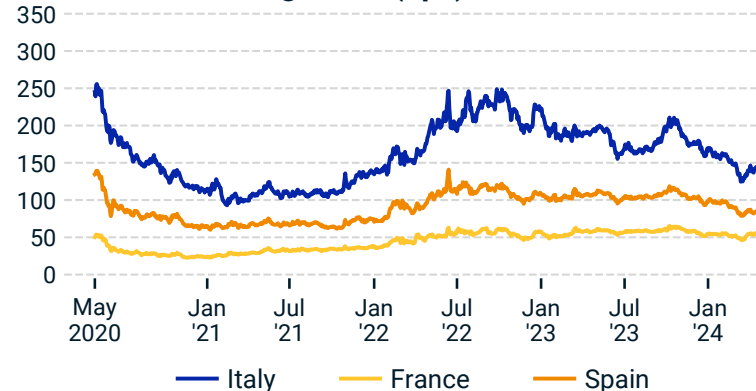


# 4-Year Spread Trends on Corporates & Euro / EM Sovereigns

10-Yr US Corporate OAS (bps)

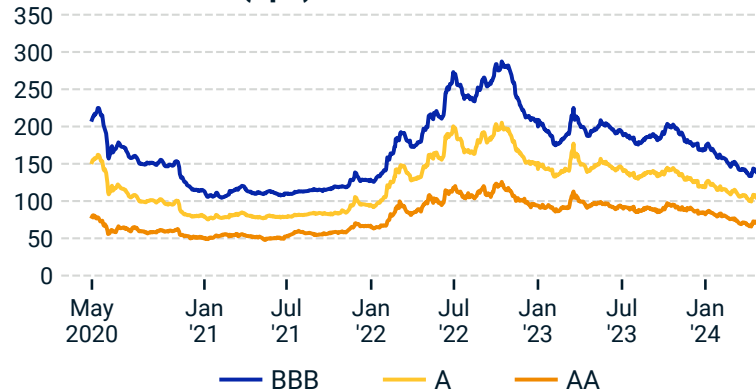


10-Yr Euro Sovereign OAS (bps)\*



\*Spread to German government curve

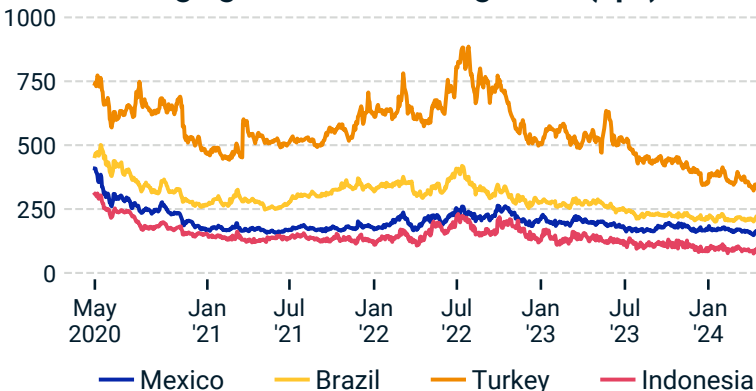
10-Yr Euro OAS (bps)\*



\*Spread to German government curve

\*\*See Appendix for data sources

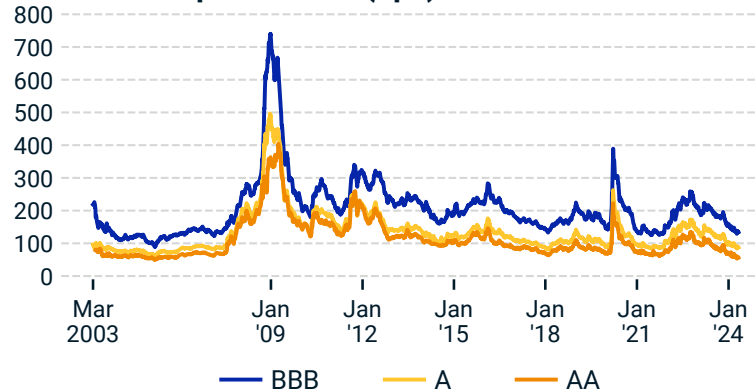
10-Yr Emerging Markets Sovereign OAS (bps)\*



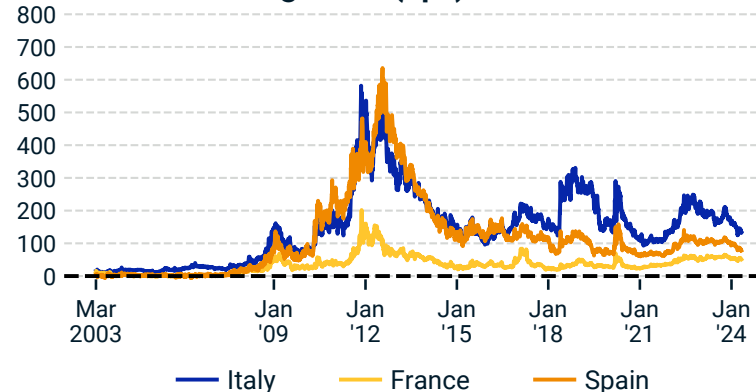
\*Spread to US Treasury curve

# Long-Run Trends in Spreads

10-Yr US Corporate OAS (bps)

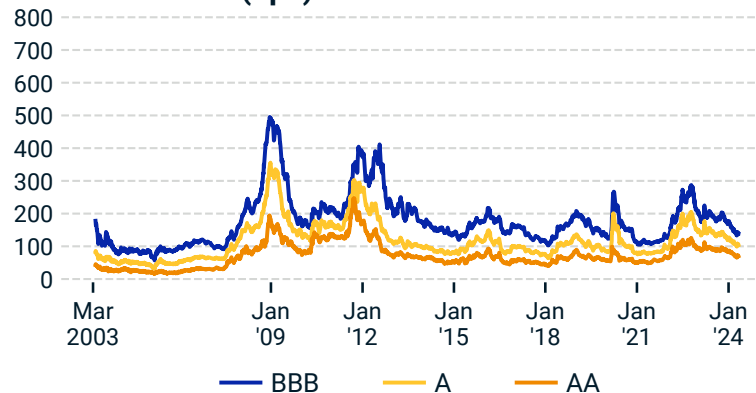


10-Yr Euro Sovereign OAS (bps)\*



\*Spread to German government curve

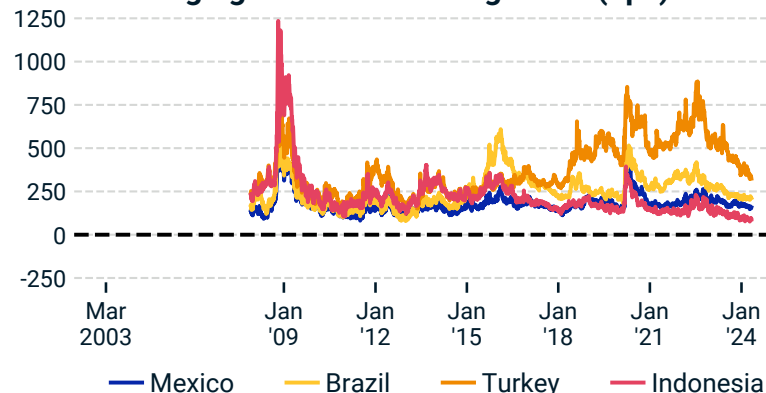
10-Yr Euro OAS (bps)\*



\*Spread to German government curve

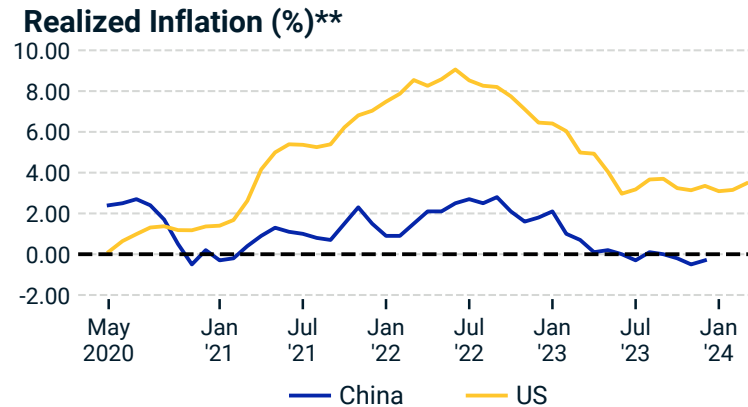
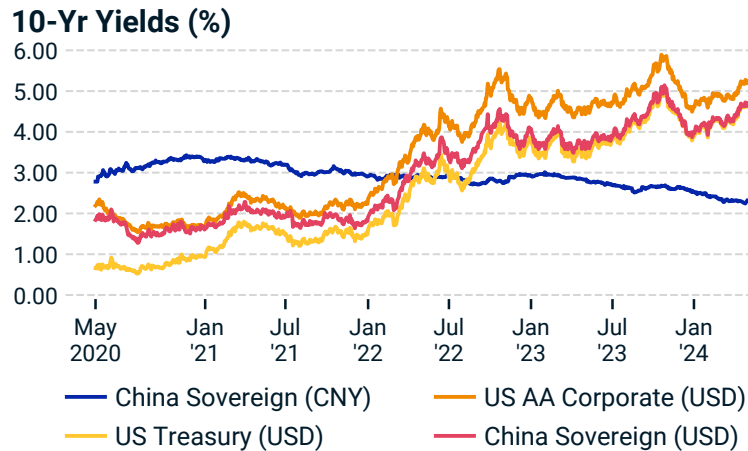
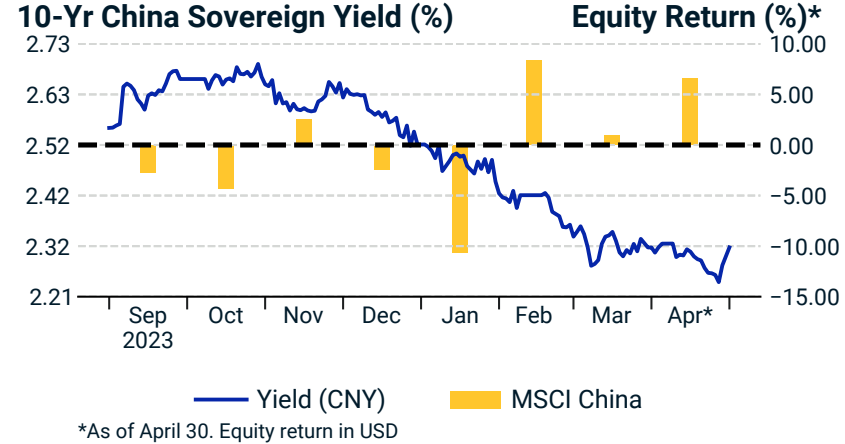
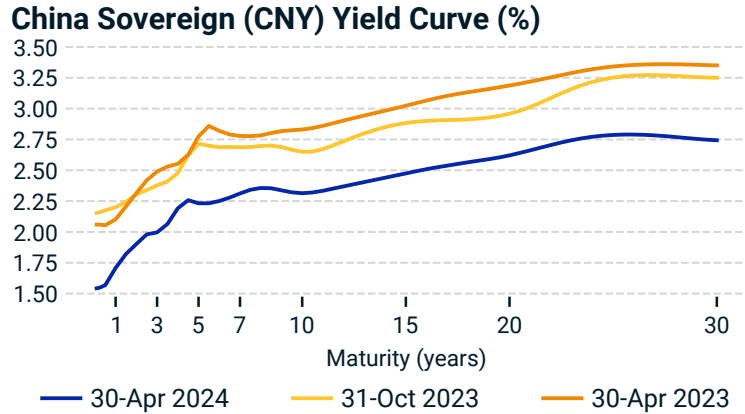
\*\*See Appendix for data sources

10-Yr Emerging Markets Sovereign OAS (bps)\*



\*Spread to US Treasury curve

# China Government Bond Drilldown



\*\*\*See Appendix for data sources

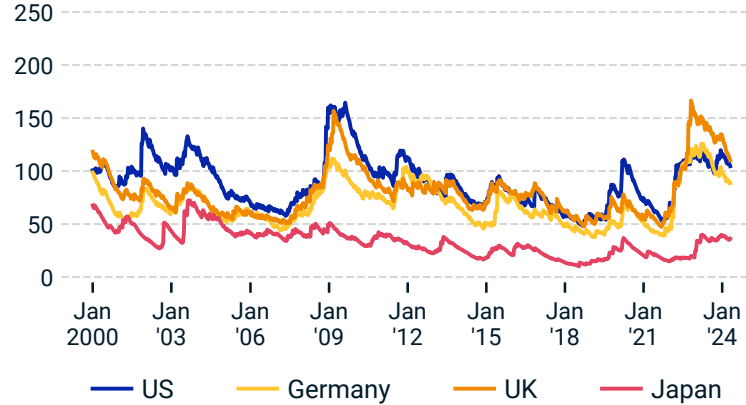
\*\*China inflation (yoy) -0.3% as of Dec 2023  
Inflation measured by All Items CPI includes food and energy prices

# Volatilities, Correlations, FX

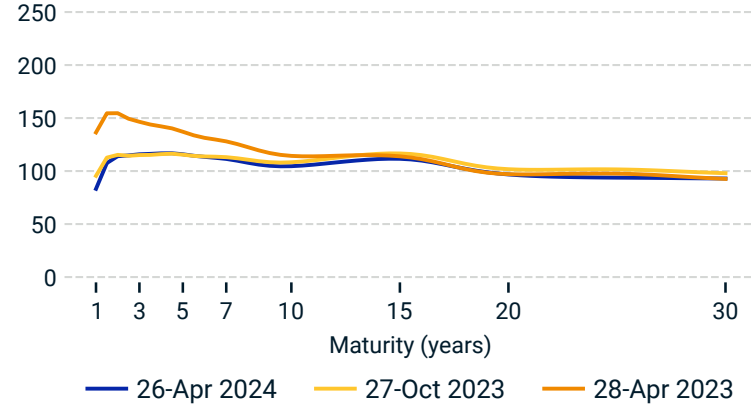
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# Trends in Yield and Return Volatilities

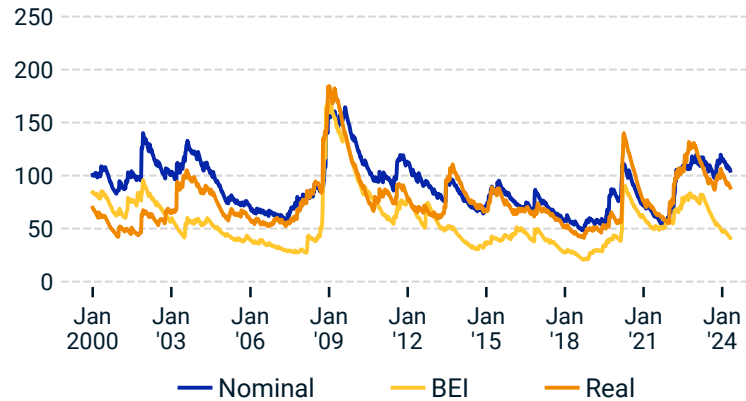
10-Yr Government Nominal Yield Volatility (bps)\*



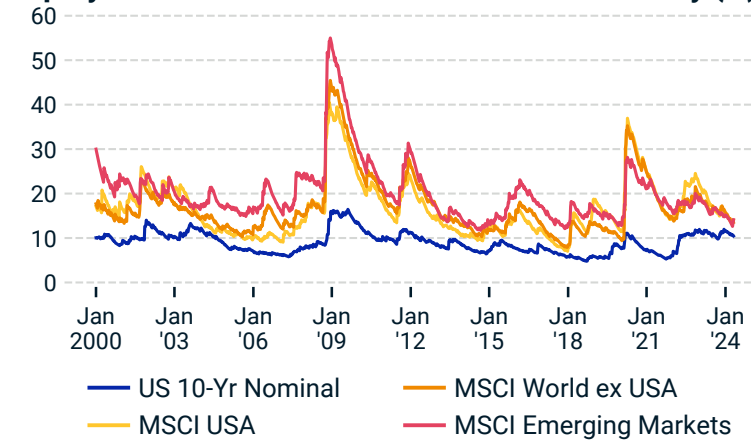
US Nominal Yield Volatility Curve (bps)\*



10-Yr US Yield Volatility (bps)\*



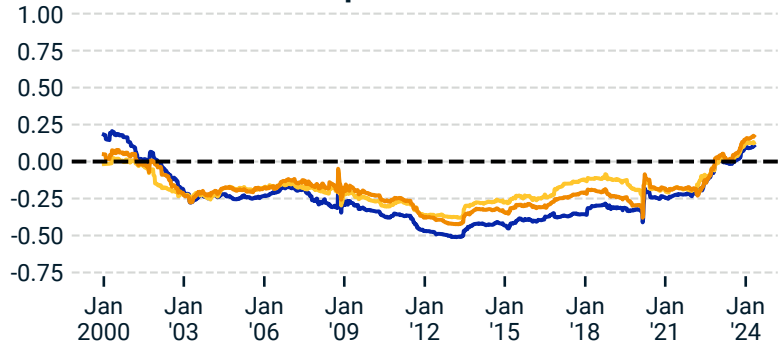
Equity and 10-Yr US Government Return Volatility (%)\*



\*Realized volatility using exponential time decay with half life of 18-weeks  
\*\*See Appendix for data sources

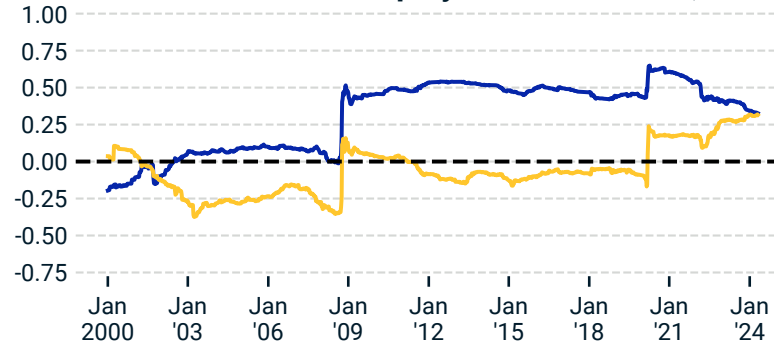
# Trends in Correlations and Yield Curve Slope

**Return Correlations: Equities & 10-Yr US Government\***



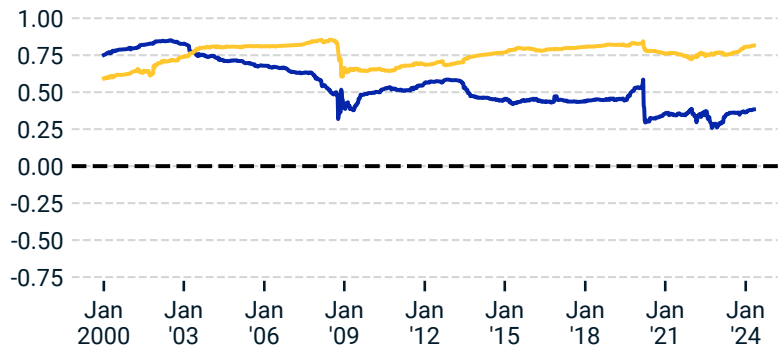
10-Yr Nominal vs: — MSCI USA — MSCI World ex USA  
— MSCI Emerging Markets

**Return Correlations: US Equity & 10-Yr US Real, BEI\***



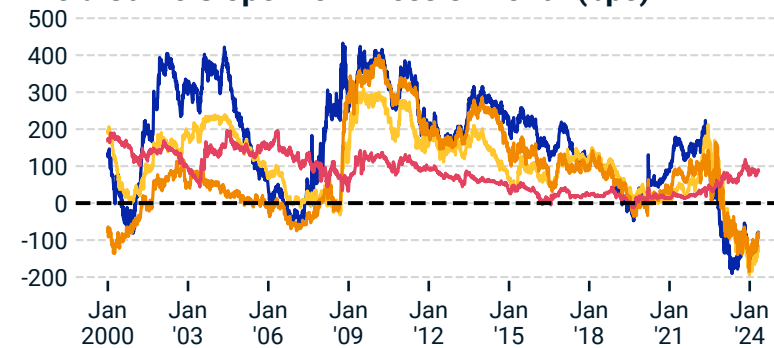
MSCI USA vs: — 10-Yr Government BEI  
— 10-Yr Government Real

**Yield Correlations: 10-Yr US Government\***



10-Yr Nominal vs: — 10-Yr BEI — 10-Yr Real

**Yield Curve Slope: 10-Yr less 3-Month (bps)**

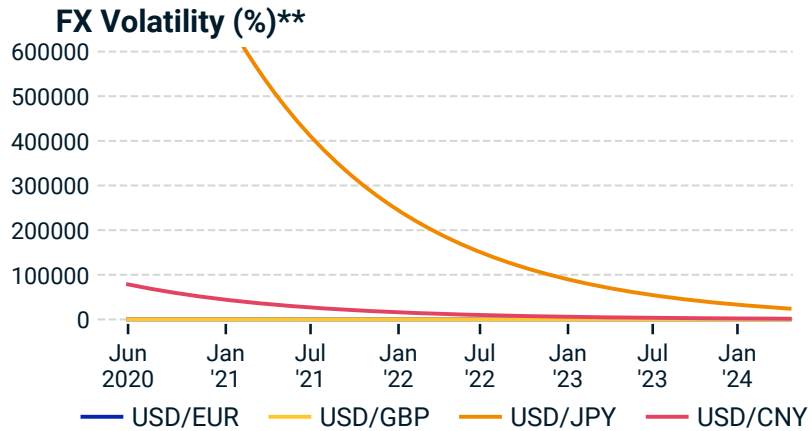
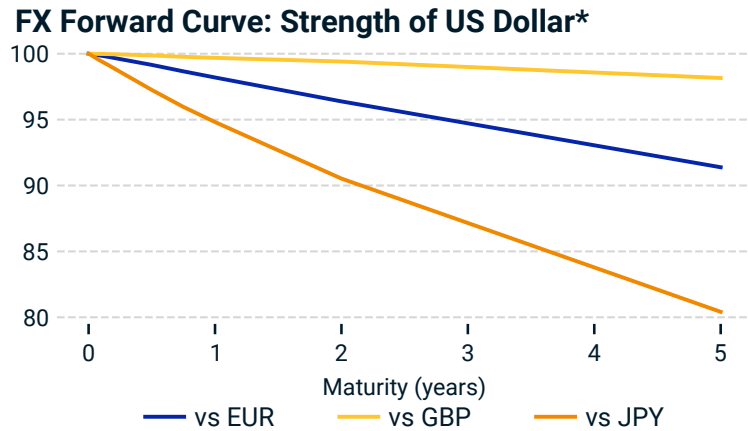
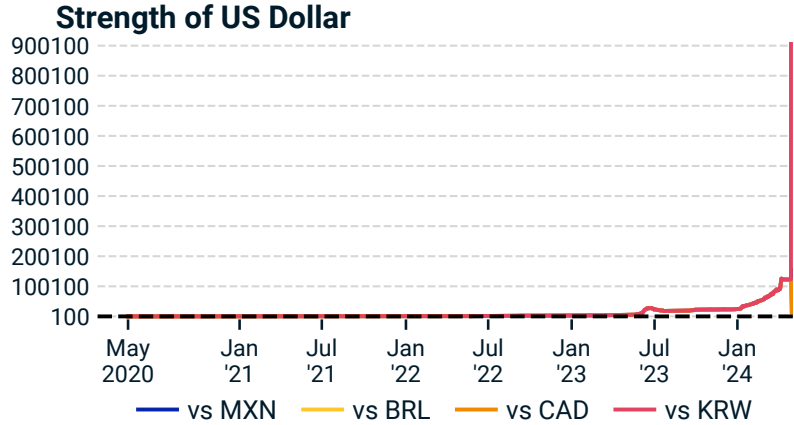
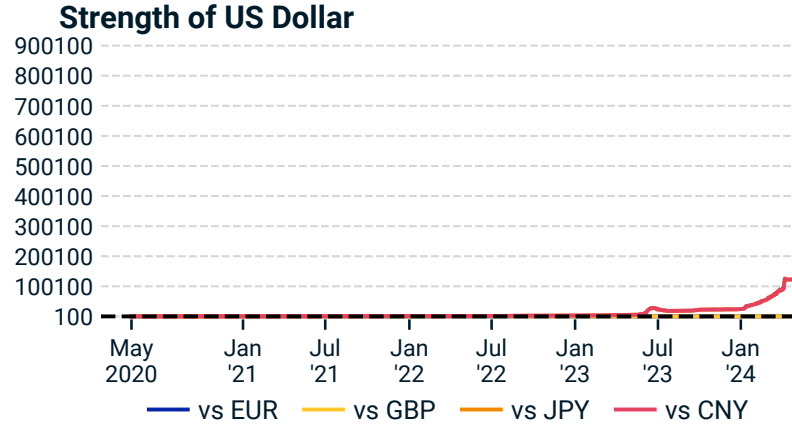


— US — Germany — UK — Japan

\*Realized correlation using exponential time decay with half life of 2-years

\*\*See Appendix for data sources

# FX Trends



\*As of April 30

\*\*\*See Appendix for data sources

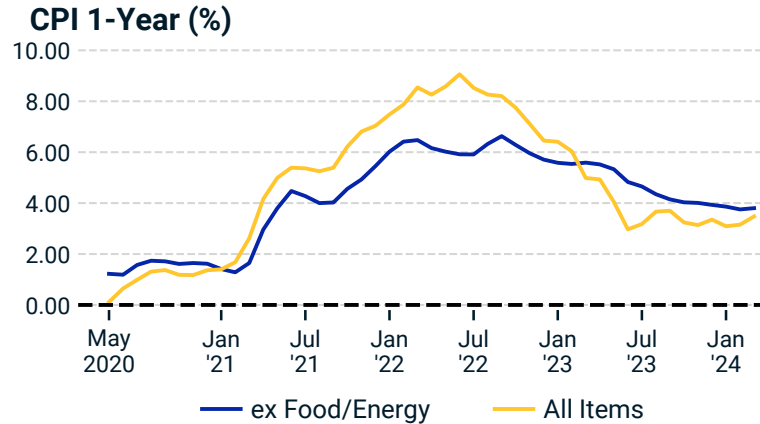
\*\*Realized volatility using exponential time decay with half life of 18-weeks



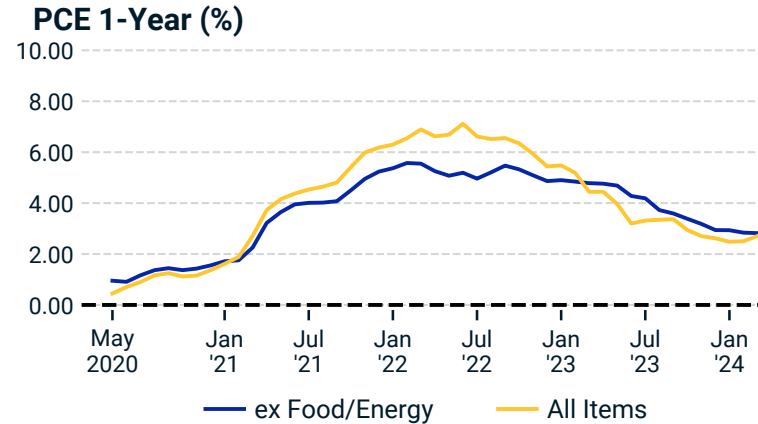
# Historical Inflation and GDP

---

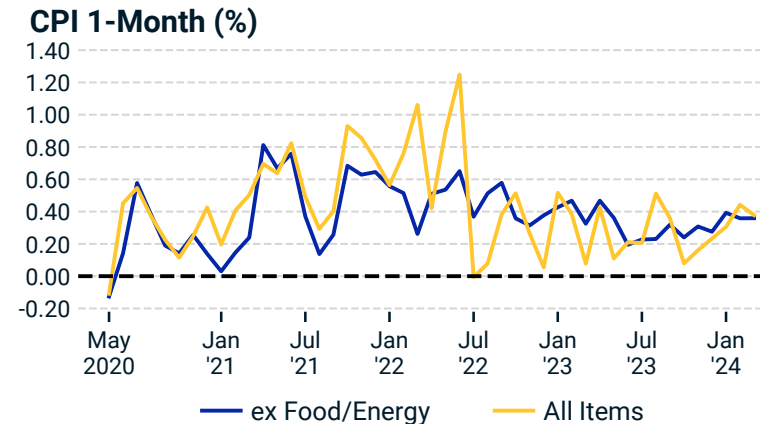
# US Inflation: Annual and Monthly (CPI and PCE)



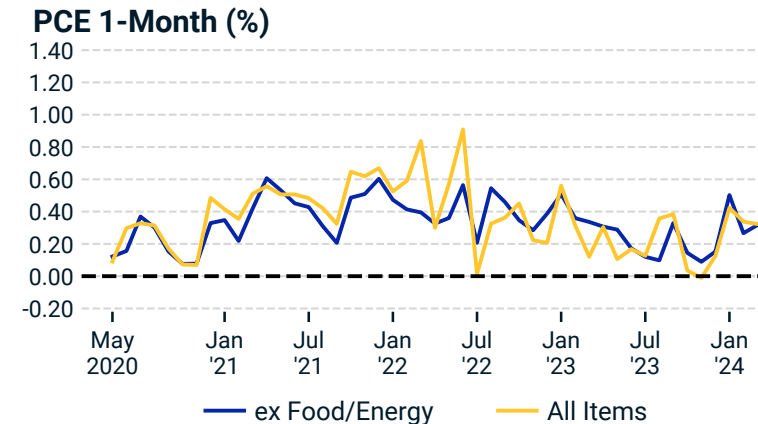
\*As of Mar 2024: 3.8 for ex Food/Energy and 3.5 for All Items



\*As of Mar 2024: 2.8 for ex Food/Energy and 2.7 for All Items



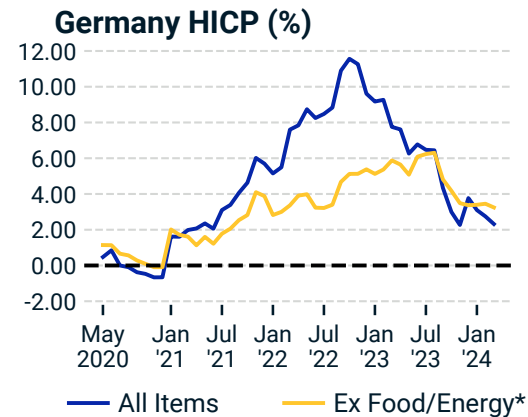
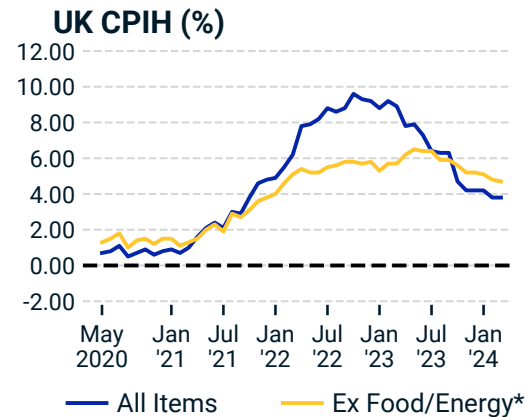
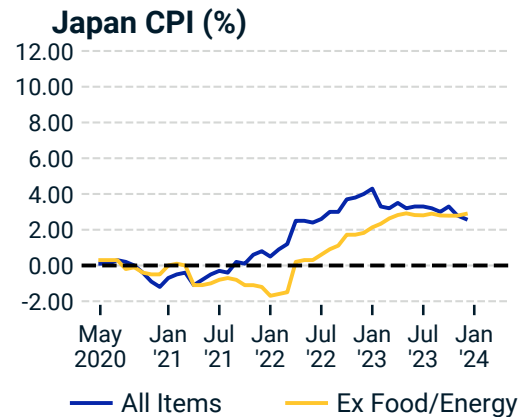
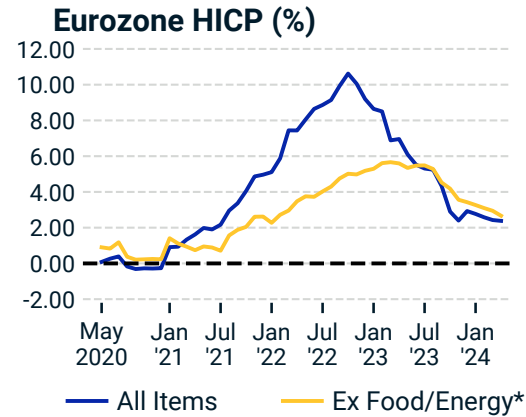
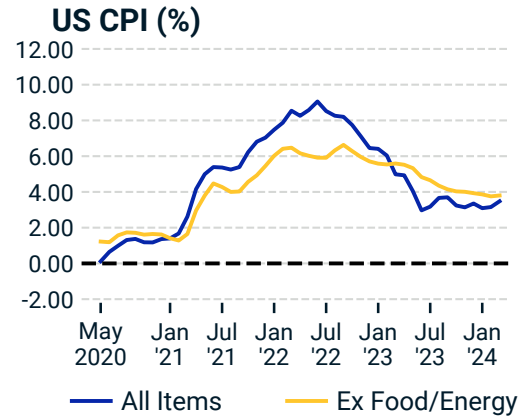
\*As of Mar 2024: 0.4 for ex Food/Energy and 0.4 for All Items



\*As of Mar 2024: 0.3 for ex Food/Energy and 0.3 for All Items

\*\*See Appendix for data sources

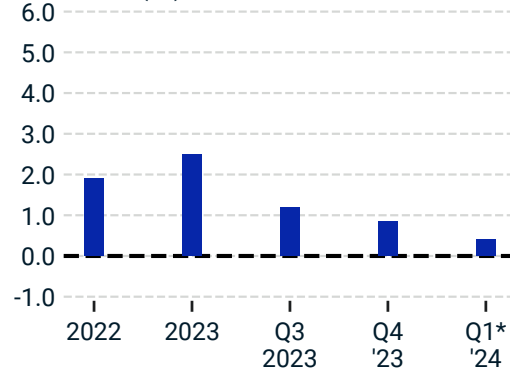
# Global Inflation: Annual



\*Also excludes Alcohol and Tobacco  
 \*\*See Appendix for data sources

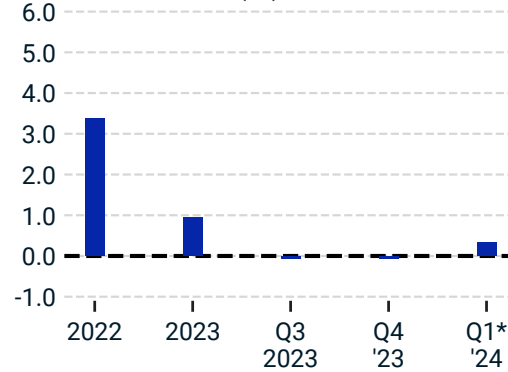
# GDP

**US GDP (%)**



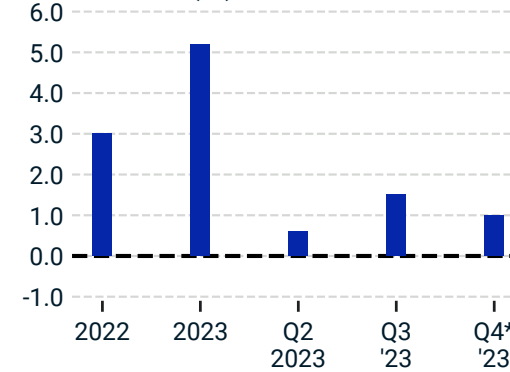
\*Most recent quarterly GDP: 0.4

**Eurozone GDP (%)**



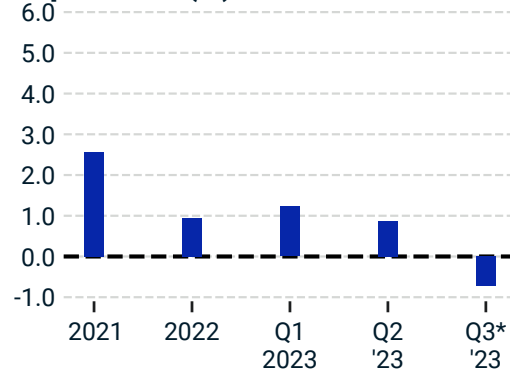
\*Most recent quarterly GDP: 0.3

**China GDP (%)**



\*Most recent quarterly GDP: 1.0

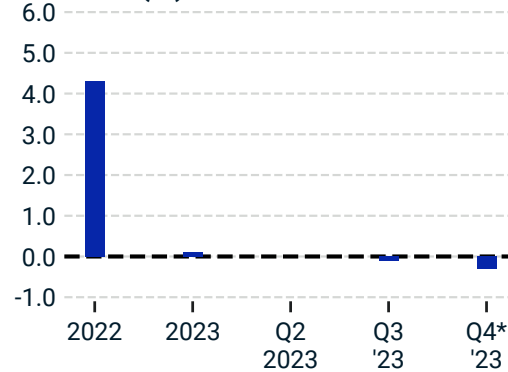
**Japan GDP (%)**



\*Most recent quarterly GDP: -0.7

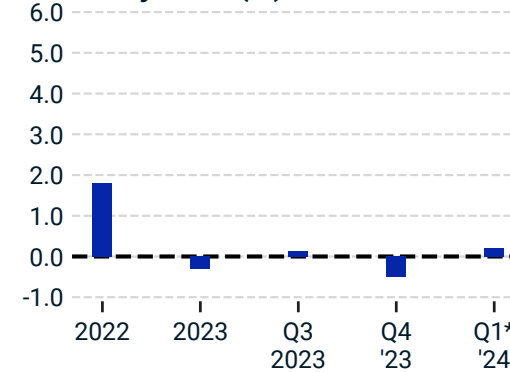
\*\*See Appendix for data sources

**UK GDP (%)**



\*Most recent quarterly GDP: -0.3

**Germany GDP (%)**



\*Most recent quarterly GDP: 0.2

# Appendix

# Data Sources

## Yields and Spreads

MSCI zero coupon yield and spread curves

## Indexes

MSCI USA Index, MSCI World ex USA Index, MSCI Europe Index, MSCI China, MSCI Emerging Market Index

## Relative Strength of Currencies

MSCI

## Inflation and GDP

OECD, Eurostat, UK Office of National Statistics, Cabinet Office of Japan, US Bureau of Economic Analysis, US Bureau of Labor Statistics, National Bureau of Statistics China

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