Daily Trends in Yields, Equity Returns, FX

10-Yr US Government Yield (%)  Equity Return (%)

Cumulative MSCI Equity Return in USD (%)

10-Yr Government Yield: Cumulative Change (bps)

Strength of USD

*See Appendix for data sources

MSCI
Monthly Trends in Yields, Equity Returns, FX

10-Yr US Government Yield (%) vs Equity Return (%)

Cumulative MSCI Equity Return in USD (%)

10-Yr Government Yield: Cumulative Change (bps)

Strength of USD

*As of November 23
**See Appendix for data sources
Daily & Monthly US Corporate Spreads vs Equities

10-Yr BBB OAS (bps)

Equity Return (%)

10-Yr Corporate OAS: Cumulative Change (bps)

*As of November 23
**See Appendix for data sources
Euro Corporate and Sovereign Spreads vs Equities

10-Yr BBB OAS (bps)*

10-Yr Sovereign OAS (bps)*

Equity Return (%)*

10-Yr Corporate OAS: Cumulative Change (bps)

10-Yr Sovereign OAS: Cumulative Change (bps)

*Option Adjusted Spread in basis points to German government curve.
Equity return expressed in USD

**As of November 23
***See Appendix for data sources

MSCI Europe

Italy
France
Spain
MSCI Europe

BBB
A
AA

Option Adjusted Spread
MSCI Europe

Option Adjusted Spread in basis points to German government curve.
Equity return expressed in USD

Equity return expressed in USD
Drilldown: G4 Government Bonds and Rates
Government Nominal Yield Curves

*See Appendix for data sources
Government Yields: 1-Day Changes (Nominal)*

*Change from Nov 22 to Nov 23

**See Appendix for data sources.
Government Yields: 1-Week Changes (Nominal)*

*Change from Nov 16 to Nov 23

**See Appendix for data sources
Government Yields: 1-Month Changes (Nominal)*

*Change from Oct 23 to Nov 23

**See Appendix for data sources
1-Month Forward Rates on Futures and Overnight Index Swaps

**USD SOFR Futures (SP) (%)**

- Nov 23 Yield Curve
- Oct 23 Yield Curve

**EUR ESTR OIS (SP) (%)**

- Nov 23 Yield Curve
- Oct 23 Yield Curve

**GBP SONIA OIS (SP) (%)**

- Nov 23 Yield Curve
- Oct 23 Yield Curve

**USD Fed Funds OIS (SP) (%)**

- Nov 23 Yield Curve
- Oct 23 Yield Curve

*See Appendix for data sources*
US Breakeven Inflation and Real Yields

**See Appendix for data sources**
4-Year Trends in Government Yields and Inflation

10-Yr Government Nominal Yields (%)

10-Yr Government Breakeven Inflation Yields (%)

10-Yr Government Real 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

*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
Long-Run Trends in Yields and Inflation

10-Yr Government Nominal Yields (%)

Realized Inflation (12-Month, in %)

10-Yr Government Breakeven Inflation Yields (%)

10-Yr Government Real Yields (%)

US Germany UK Japan

US Eurozone UK Japan

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

*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
Spread Term Structure: BBB Corporates & Sovereigns

US BBB OAS (bps)

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Euro BBB OAS (bps)*

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Euro Sovereign OAS (bps)*

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Italy Sovereign OAS (bps)*

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*Spread to German government curve
**See Appendix for data sources
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

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

*Spread to US Treasury curve

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*See Appendix for data sources

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**Data Sources:**

- **BBB**: BBB-rated corporates
- **A**: A-rated corporates
- **AA**: AA-rated corporates
- **Italy**
- **France**
- **Spain**
- **Mexico**
- **Brazil**
- **Turkey**
- **Indonesia**

---

MSCI
Long-Run Trends in Spreads

10-Yr US Corporate OAS (bps)

10-Yr Euro Sovereign OAS (bps)*

10-Yr Euro OAS (bps)*

10-Yr Emerging Markets Sovereign OAS (bps)*

*Spread to German government curve

**See Appendix for data sources
China Sovereign (CNY) Yield Curve (%)

- Maturity (years)
  - 1.75
  - 2.00
  - 2.25
  - 2.50
  - 2.75
  - 3.00
  - 3.25
  - 3.50
  - 3.75

- Yield curve for China Sovereign (CNY) with maturity years from 1 to 30.

10-Yr China Sovereign Yield (%)

- 10-Yr Yields (%)
- Yield (CNY)

- Equity Return (%)*
- MSCI China

- Realized Inflation (%)**
- China
- US

**See Appendix for data sources

*As of November 23. Equity return in USD

**China inflation (yoy) -0.2% as of Oct 2023
Inflation measured by All Items CPI includes food and energy prices
Volatilities, Correlations, FX
Trends in Yield and Return Volatilities

10-Yr Government Nominal Yield Volatility (bps)*

US Nominal Yield Volatility Curve (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)**

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

**See Appendix for data sources**
FX Trends

Strength of US Dollar

FX Forward Curve: Strength of US Dollar*

FX Volatility (%)**

*As of November 23
***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)

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<th>Jul '20</th>
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<td><strong>CPI 1-Year (%)</strong>&lt;br&gt;<em>As of Oct 2023: 4.0 for ex Food/Energy and 3.2 for All Items</em></td>
<td>0.00</td>
<td>2.00</td>
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<td><strong>CPI 1-Month (%)</strong>&lt;br&gt;<em>As of Oct 2023: 0.2 for ex Food/Energy and 0.0 for All Items</em></td>
<td>0.00</td>
<td>0.25</td>
<td>0.50</td>
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<td><strong>PCE 1-Year (%)</strong>&lt;br&gt;<em>As of Sep 2023: 3.7 for ex Food/Energy and 3.4 for All Items</em></td>
<td>0.00</td>
<td>2.00</td>
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<td><strong>PCE 1-Month (%)</strong>&lt;br&gt;<em>As of Sep 2023: 0.3 for ex Food/Energy and 0.4 for All Items</em></td>
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*See Appendix for data sources*
Global Inflation: Annual

US CPI (%)

Eurozone HICP (%)

China CPI (%)

Japan CPI (%)

UK CPIH (%)

Germany HICP (%)

*Also excludes Alcohol and Tobacco

**See Appendix for data sources
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,
National Bureau of Statistics China
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