Daily Fixed-Income Insights

December 14, 2023 (market close)
Daily Trends in Yields, Equity Returns, FX

- **Cumulative MSCI Equity Return in USD (%):**
  - USA
  - World ex USA
  - Emerging Markets

- **10-Yr US Government Yield (%)**
  - Nominal Yield
  - MSCI USA

- **10-Yr Government Yield: Cumulative Change (bps):**
  - US
  - Germany
  - UK
  - Japan

- **Strength of USD**
  - vs EUR
  - vs GBP
  - vs JPY
  - vs CNY

*See Appendix for data sources*
Monthly 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

*As of December 14
**See Appendix for data sources
Euro Corporate and Sovereign Spreads vs Equities

10-Yr BBB OAS (bps)*

<table>
<thead>
<tr>
<th>Month</th>
<th>May 2023</th>
<th>Jun 2023</th>
<th>Jul 2023</th>
<th>Aug 2023</th>
<th>Sep 2023</th>
<th>Oct 2023</th>
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<th>Dec 2023</th>
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<td>BBB</td>
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<td>A</td>
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<td>-176</td>
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Option Adjusted Spread

MSCI Europe

*Option Adjusted Spread in basis points to German government curve.

Equity Return (%)*

<table>
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<tr>
<th>Month</th>
<th>May 2023</th>
<th>Jun 2023</th>
<th>Jul 2023</th>
<th>Aug 2023</th>
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<th>Nov 2023</th>
<th>Dec 2023</th>
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<td>0.00</td>
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<td>-4.00</td>
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10-Yr Sovereign OAS (bps)*

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<th>Jun 2023</th>
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<tbody>
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<td>4.00</td>
<td>6.00</td>
<td>8.00</td>
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</table>

MSCI Europe

*Option Adjusted Spread in basis points to German government curve.

Equity return expressed in USD

10-Yr Corporate OAS: Cumulative Change (bps)

<table>
<thead>
<tr>
<th>Month</th>
<th>May 2023</th>
<th>Jun 2023</th>
<th>Jul 2023</th>
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<tr>
<td>BBB</td>
<td>-167</td>
<td>-173</td>
<td>-178</td>
<td>-184</td>
<td>-190</td>
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<td>A</td>
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<td>-200</td>
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10-Yr Sovereign OAS: Cumulative Change (bps)

<table>
<thead>
<tr>
<th>Month</th>
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<th>Jun 2023</th>
<th>Jul 2023</th>
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<th>Oct 2023</th>
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<td>110</td>
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<td>155</td>
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<td>200</td>
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</tbody>
</table>

MSCI Europe

*Option Adjusted Spread in basis points to German government curve.

Equity return expressed in USD

**As of December 14

***See Appendix for data sources
Drilldown: G4 Government Bonds and Rates
Government Nominal Yield Curves

US Government Yield Curve (%)

Germany Government Yield Curve (%)

UK Government Yield Curve (%)

Japan Government Yield Curve (%)

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

*Change from Dec 13 to Dec 14

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

*Change from Dec 07 to Dec 14

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

*Change from Nov 14 to Dec 14

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

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

**See Appendix for data sources**
US Government Yields: Nominal, Real and BEI

10-Yr US Government Yields (%)

US Nominal
US BEI
US Real

10-Yr Yields: Cumulative Change (bps)

US Nominal
US BEI
US Real

*See Appendix for data sources
4-Year Trends in Government 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: 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 (%)

*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

<table>
<thead>
<tr>
<th>Maturity (years)</th>
<th>US BBB OAS (bps)</th>
<th>Euro BBB OAS (bps)*</th>
<th>Euro Sovereign OAS (bps)*</th>
<th>Italy Sovereign OAS (bps)*</th>
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<tr>
<td>250</td>
<td>250</td>
<td>250</td>
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</table>

*Spread to German government curve as of December 14
**See Appendix for data sources
4-Year Spread Trends on Corporates & Euro / EM Sovereigns

**10-Yr US Corporate OAS (bps)**
- BBB
- A
- AA

**10-Yr Euro Sovereign OAS (bps)**
- Italy
- France
- Spain

**10-Yr Euro OAS (bps)**
- BBB
- A
- AA

**10-Yr Emerging Markets Sovereign OAS (bps)**
- Mexico
- Brazil
- Turkey
- Indonesia

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

*Spread to US Treasury curve
Long-Run Trends in Spreads

10-Yr US Corporate OAS (bps)

- BBB
- A
- AA

10-Yr Euro Sovereign OAS (bps)*

- Italy
- France
- Spain

*Spread to German government curve

10-Yr Euro OAS (bps)*

- BBB
- A
- AA

10-Yr Emerging Markets Sovereign OAS (bps)*

- Mexico
- Brazil
- Turkey
- Indonesia

*Spread to US Treasury curve

**See Appendix for data sources
China Government Bond Drilldown

China Sovereign (CNY) Yield Curve (%)

10-Yr China Sovereign Yield (%)  
Equity Return (%)*

Realized Inflation (%)**

***See Appendix for data sources

**China inflation (yoy) -0.2% as of Oct 2023
Inflation measured by All Items CPI includes food and energy prices

*MSCI China

As of December 14. Equity return in USD

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MSCI
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*

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

Yield Correlations: 10-Yr US Government*

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

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

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

*Realized correlation using exponential time decay with half life of 2-years
**See Appendix for data sources
FX Trends

**Strength of US Dollar**

- vs EUR
- vs GBP
- vs JPY
- vs CNY

FX Forward Curve: Strength of US Dollar*

- vs EUR
- vs GBP
- vs JPY

FX Volatility (%)**

- USD/EUR
- USD/GBP
- USD/JPY
- USD/CNY

*As of December 14

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

***See Appendix for data sources
Historical Inflation and GDP
US Inflation: Annual and Monthly (CPI and PCE)

**CPI 1-Year (%)**
- As of Nov 2023: 4.0 for ex Food/Energy and 3.1 for All Items

**CPI 1-Month (%)**
- As of Nov 2023: 0.3 for ex Food/Energy and 0.1 for All Items

**PCE 1-Year (%)**
- As of Oct 2023: 3.5 for ex Food/Energy and 3.0 for All Items

**PCE 1-Month (%)**
- As of Oct 2023: 0.2 for ex Food/Energy and 0.0 for All Items

**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
<table>
<thead>
<tr>
<th>Country</th>
<th>GDP (%)</th>
<th>Notes</th>
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<td>US</td>
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<td>Most recent quarterly GDP: 1.3</td>
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<tr>
<td>Eurozone</td>
<td>2.0</td>
<td>Most recent quarterly GDP: -0.1</td>
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<tr>
<td>China</td>
<td>1.3</td>
<td>Most recent quarterly GDP: 1.3</td>
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<td>Japan</td>
<td>-0.7</td>
<td>Most recent quarterly GDP: 1.3</td>
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<td>UK</td>
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<td>Most recent quarterly GDP: 0.0</td>
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<tr>
<td>Germany</td>
<td>-0.1</td>
<td>Most recent quarterly GDP: -0.1</td>
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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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<th>EUROPE, MIDDLE EAST &amp; AFRICA</th>
<th>ASIA PACIFIC</th>
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* = toll free  
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