

MARKET MONITOR

Chart Of The Week: On the Horizon

2024 GS GIR Market Forecasts by Asset Class			
Equities	Current	3m	12m
S&P 500	4508	4500	4700
STOXX Europe 600	451	450	480
TOPIX	2369	2500	2650
Fixed Income- 10 Year Sovereign Yields (%)			
US	4.44	4.75	4.58
Germany	2.59	2.69	2.31
UK	4.15	4.32	4.06
Commodities (\$/bbl)			
Brent Crude Oil	77.4	88	93

2024 Outlook

We expect stronger global growth in 2024 on cooling inflation, the potential end of monetary tightening, and a rebound in manufacturing. High cash yields have been a staple of 2023, but we believe that 2024 will signal a resurgence of a balanced portfolio, as equities, fixed income, and alternatives may help hedge inflation and growth risks. Still, optimism around a soft landing may be reflected in some markets, and idiosyncratic investing is paramount, in our view.

Source: Bloomberg, GS GIR and GS Asset Management. As of November 16, 2023.

MARKET SUMMARY

GLOBAL EQUITIES: US equities rose last week on a softer-than-consensus CPI print that bolstered bets that the Fed had concluded its hiking campaign. On the heels of its best day since April, the S&P 500 ended last week 2.31% higher and is now up 9.63% since October 27th. Elsewhere, the STOXX Europe 600 climbed to a more than one-month high, ultimately ending 2.88% higher as many investors lauded cooling inflation across major global economies in the Euro area.

COMMODITIES: Oil prices dipped into bear market territory last week as weak economic data stoked some investors' fears over a stumble in global growth and demand. WTI and Brent crude prices fell to \$75.89 and \$80.61/bbl, respectively, putting pressure on OPEC+ to consider extending production cuts in its upcoming meeting. Meanwhile, gold ultimately closed higher at \$2004.80 troy/oz.

FIXED INCOME: Global sovereign yields fell last week following the lowest year-over-year core CPI print in over two years. The 2-Year and 10-Year US Treasury yields experienced their largest one-day declines since March following the below-consensus inflation print, ultimately ending last week lower at 4.91% and 4.44%, respectively. Across the pond, the 10-Year UK Gilt yield fell to 4.10% as CPI in the UK also printed below consensus expectations.

FX: The greenback depreciated last week against a basket of currencies as retail sales in the US fell for the first time in seven months. Ultimately, the US dollar index ended last week -1.76% lower. In the Euro area, both the euro and the pound sterling finished the week higher at \$1.090 and \$1.245, respectively, as year-over-year Euro area CPI continued its decline, notching its lowest level since August 2021.

ECONOMIC SUMMARY

INFLATION: US headline CPI decreased from 3.7% in September to 3.2% in October, below consensus expectations. The print was mostly fueled by a decrease in energy prices partially offset with increasing food prices. Meanwhile, core CPI edged down to a 25-month low from 4.1% in September to 4.0% in October, below consensus expectations, partially due to lower auto prices. US PPI declined by -0.5% in October, against consensus expectations for a modest increase, reflecting declining prices in energy and food and flat core producer prices. The trend of cooling inflation informs our view that the Fed has concluded its tightening campaign.

CONSUMER: US retail sales declined -0.1% month-over-month in October, above consensus expectations for a lower decrease on a decline in gasoline, auto, and building materials sales. Core retail sales rose 0.2% month-over-month, in line with consensus expectations, driven predominantly by strong health and personal care sales.

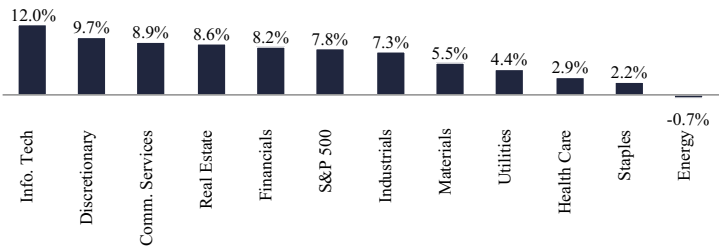
GROWTH: In Japan, the first estimate of 3Q real GDP growth came in at -2.1% annualized quarter-over-quarter, significantly below consensus expectations of -0.4%. Overall, growth was weak, in part due to negative contributions across the board for consumption and other private demand items. The 3Q print marked a swing into negative territory for the first time in three quarters.

LABOR: Initial jobless claims rose by 13k to 231k in the week ended November 11, above consensus expectations for a more modest increase. Despite the fourth consecutive above consensus print, we maintain our view that supply-demand dynamics may be normalizing, and the labor market continues to rebalance.

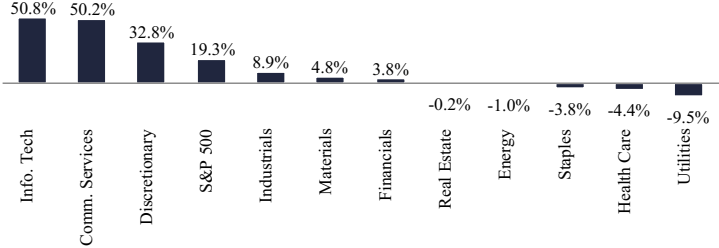
MARKET WATCH

S&P 500 INDEX SECTOR RETURNS

MONTH-TO-DATE, AS OF 11/17/23

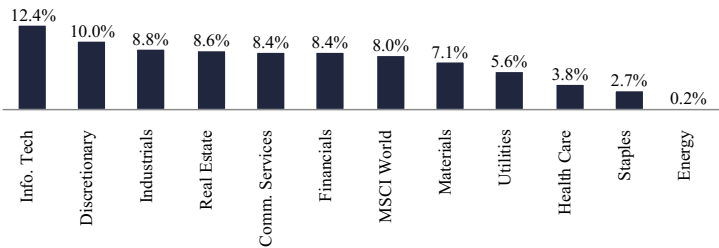


YEAR-TO-DATE, AS OF 11/17/23

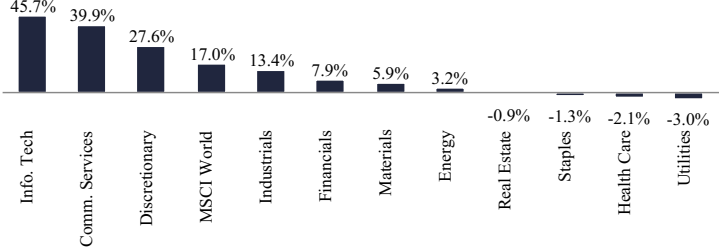


MSCI WORLD INDEX SECTOR RETURNS

MONTH-TO-DATE, AS OF 11/17/23



YEAR-TO-DATE, AS OF 11/17/23



ECONOMIC WATCH

Monday, November 20	Tuesday, November 21	Wednesday, November 22	Thursday, November 23	Friday, November 24	Critical Future Events
	US Existing Home Sales (Cons: 3.90M, Prior: 3.96M) FOMC Meeting Minutes	US Initial Jobless Claims (Cons: 225k, Prior: 231k) US Core Durable Goods Orders (MoM) (Cons: N/A, Prior: 0.4%)	US Holiday - Thanksgiving Day Euro Area Manuf. PMI (Cons: 43.4, Prior: 43.1) UK Manuf. PMI (Cons: 45.0, Prior: 44.8)	US Services PMI (Cons: 50.3, Prior: 50.6) US Manuf. PMI (Cons: 49.8, Prior: 50.0)	FOMC Meeting – Dec 14 BoE Meeting – Dec 14 ECB Meeting – Dec 14 BoJ Meeting – Dec 19

Source: MSCI, Bloomberg, and Goldman Sachs Asset Management. For style performance, Large, Mid, and Small for US Equity refer to the Russell 1000, Russell Midcap, and Russell 2000 indices, respectively. Value refers to companies with lower price-to-book ratios and lower expected growth values, and Growth refers to higher price-to-book ratios and higher forecasted growth values. For US Fixed Income, Government, Corporate, and High Yield refer to the Bloomberg Treasury, Bloomberg Corporate Credit, and Bloomberg High Yield indices, respectively. Short, Intermediate, and Long refer to the Short, Intermediate, and Long segments of their respective curves. For European Fixed Income, Government, Corporate, and High Yield refer to the Bloomberg Euro Treasury Index, the Bloomberg Euro Corporate Index, and the Bloomberg Euro High Yield Index, respectively. Quality returns refers to the credit quality of asset classes ranging from Government, highest quality, to High Yield, lowest quality. Since August 24, 2021, the Barclays indices are branded “Bloomberg indices”. Please see end disclosures for footnotes. **Past performance does not guarantee future results, which may vary.**

Style Performance

US EQUITY SIZE & STYLE RETURNS

Month-to-Date			(as of 11/17/23)	Year-to-Date		
Value	Core	Growth		Value	Core	Growth
5.58%	7.83%	9.78%	Large	3.68%	18.91%	35.25%
7.44%	7.99%	9.35%	Medium	2.67%	6.61%	14.03%
8.54%	8.28%	8.01%	Small	1.53%	3.46%	4.90%

MSCI WORLD SIZE & STYLE RETURNS

Month-to-Date			(as of 11/17/23)	Year-to-Date		
Value	Core	Growth		Value	Core	Growth
5.50%	7.89%	9.96%	Large	4.44%	18.37%	32.87%
7.28%	8.15%	9.35%	Medium	3.36%	5.86%	9.02%
7.59%	7.98%	8.39%	Small	2.98%	4.32%	5.64%

US FIXED INCOME MATURITY AND QUALITY RETURNS

Month-to-Date			(as of 11/17/23)	Year-to-Date		
Short	Intermed.	Long		Short	Intermed.	Long
0.98%	1.54%	7.45%	Government	2.20%	1.47%	-6.59%
1.44%	2.58%	7.92%	Corporate	3.38%	3.18%	0.59%
2.33%	2.99%	5.31%	High Yield	7.65%	7.87%	6.15%

EUROPEAN FIXED INCOME MATURITY AND QUALITY RETURNS

Month-to-Date			(as of 11/17/23)	Year-to-Date		
Short	Intermed.	Long		Short	Intermed.	Long
0.39%	1.38%	4.75%	Government	2.02%	3.20%	1.42%
0.54%	1.75%	4.07%	Corporate	3.39%	5.20%	5.21%
1.61%			High Yield	7.69%		

WEEKLY MARKET RECAP

INDEX RETURNS				
	1 WEEK	MTD	QTD	YTD
EQUITIES				
S&P 500	2.31%	7.77%	5.51%	19.29%
DJ Industrial Average	2.06%	5.93%	4.60%	7.46%
Russell 2000	5.49%	8.28%	0.90%	3.46%
Russell Midcap	3.72%	7.99%	2.60%	6.61%
STOXX Europe 50 (€)	3.44%	6.93%	4.12%	18.08%
STOXX Europe 600 (€)†	2.88%	5.22%	1.41%	10.05%
MSCI EAFE Small Cap	4.53%	8.53%	2.16%	4.48%
FTSE 100 (£)	2.14%	2.84%	-0.96%	4.49%
DAX (€)	4.49%	7.49%	3.46%	14.33%
FTSE MIB (€)	3.49%	6.33%	4.44%	29.51%
CAC 40 (€)†	2.71%	5.09%	1.42%	14.23%
SWISS MKT (CHF)	1.72%	3.33%	-2.06%	3.24%
TOPIX (¥)	2.33%	6.10%	2.92%	29.37%
Hang Seng (HKD)	1.47%	2.18%	-1.81%	-8.51%
MSCI World	2.99%	7.96%	4.86%	16.97%
MSCI China Free†	0.70%	1.55%	-2.59%	-5.11%
MSCI EAFE	4.51%	8.00%	3.63%	11.50%
MSCI EM	2.99%	6.76%	2.62%	4.84%
MSCI Brazil (BRL)	3.24%	9.61%	6.32%	13.88%
MSCI India (INR)	1.96%	4.57%	1.75%	10.63%
FIXED INCOME				
Bloomberg Aggregate	1.37%	3.40%	1.77%	0.54%
Bloomberg Euro Aggregate	2.98%	4.85%	5.10%	4.87%
Bloomberg US High Yield	0.88%	3.05%	1.85%	7.81%
Bloomberg Euro High Yield (€)	0.66%	1.61%	1.31%	7.69%
Bloomberg Muni Aggregate	1.33%	4.03%	3.14%	1.71%
Bloomberg TIPS	0.80%	2.16%	1.33%	0.45%
JPM EMBI Gbl. Divers.	1.45%	3.51%	2.11%	3.91%
JPM GBI-EM Gbl. Divers.	2.43%	4.82%	4.27%	8.74%
OTHER				
DJ US Real Estate	4.55%	8.52%	4.63%	-0.46%
FTSE EPRA/NAREIT Dvlpd. Ex-US	5.13%	9.82%	4.12%	-3.11%
S&P GSCI	-0.18%	-3.66%	-7.69%	-1.01%
Alerian MLP	2.93%	3.98%	4.41%	25.88%
US Dollar Index	-1.76%	-2.51%	-1.85%	0.47%
VIX	-2.61%	-23.93%	-21.23%	-36.32%

COMMODITIES				
	11/17/23	10/31/23	09/30/23	12/31/22
WTI Oil (\$/barrel)	\$75.89	\$81.02	\$90.79	\$80.26
Brent Oil (\$/barrel)	\$80.61	\$87.41	\$95.31	\$85.91
Gold (\$/oz)	\$2004.80	\$2014.60	\$1885.40	\$1842.20
Natural Gas (\$/mmBtu)	\$2.96	\$3.58	\$2.93	\$4.47

CURRENCIES				
	11/17/23	10/31/23	09/30/23	12/31/22
Euro (\$/€)	1.0900	1.0582	1.0577	1.0701
Pound (\$/£)	1.2449	1.2151	1.2205	1.2063
Japanese Yen (¥/\$)	149.64	151.60	149.40	130.97
Swiss Franc (CHF/€)	0.9653	0.9623	0.9682	0.9890
Chinese Yuan Renminbi (CNY/\$)	7.1642	7.1881	7.1746	6.9225

RATES & SPREADS				
	11/17/23	10/31/23	09/30/23	12/31/22
RATES				
Fed Funds Target	5.50%	5.50%	5.50%	4.50%
Secured Overnight Financing Rate *	5.32%	5.35%	5.31%	4.30%
ECB Depo Rate	4.00%	3.75%	3.50%	2.00%
3-Month US Dollar Libor	5.63%	5.64%	5.66%	4.77%
US Treasuries 2-Year	4.91%	5.07%	5.05%	4.41%
US Treasuries 10-Year	4.44%	4.87%	4.57%	3.84%
US Treasury 2-10 Slope	-0.47%	-0.20%	-0.47%	-0.57%
German Bunds 2-Year	2.96%	3.02%	3.20%	2.76%
German Bunds 10-Year	2.59%	2.81%	2.84%	2.57%
Japanese Govt Bonds 10-Year	0.76%	0.95%	0.76%	0.42%
UK Gilts 10-Year	4.10%	4.51%	4.44%	3.67%
Swiss Govt Bonds 10-Year	1.00%	1.12%	1.10%	1.62%
French OATs 10-Year	3.15%	3.43%	3.40%	3.12%
Italian BTPs 10-Year	4.36%	4.73%	4.78%	4.71%
Spanish Bonos 10-Year	3.60%	3.88%	3.93%	3.66%
SPREADS				
HY Corp. Spread (bps)	391	432	395	468
Bank Loan Spread (bps) *	558	578	551	652
IG Corp. Spread (bps)	114	128	120	130
EMD Spread (bps)	477	488	478	500

Global Equity Valuations

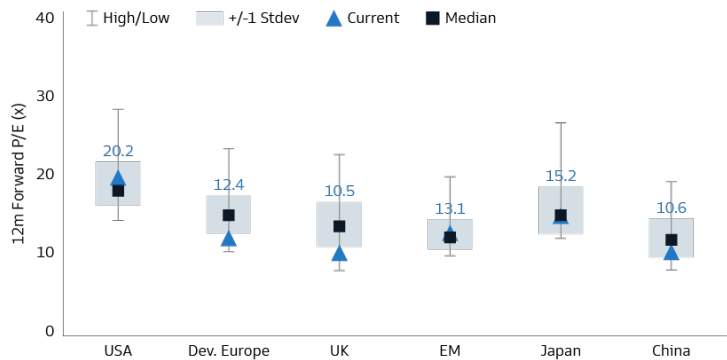


Chart Source: Goldman Sachs Asset Management and Bloomberg as of close of trading on October 31, 2023. Chart data shows next 12-month P/E ratio from November 2013 to the current period. 12m forward P/E(x) refers to price-to-earnings ratio for the next 12 months, which is a valuation measure applied to respective broad equity indices. Please see additional disclosures at the end of this presentation.

Weekly Market Recap Notes:

All data is denominated in USD unless noted otherwise.

† Data is released weekly, as of Monday.

If data displays an asterisk:

* Data is lagged by 1 day.

** Data is lagged by 2 days.

Source: MSCI and Goldman Sachs Asset Management. **Past performance does not guarantee future results, which may vary. Please see end disclosures for footnotes.**

IMPORTANT INFORMATION

Page 1 Chart of the Week Notes: Source: Bloomberg, Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of November 16, 2023. "We" refers to Goldman Sachs Asset Management. Chart shows 3-month and 12-month GIR forecasts for 2024 by asset class. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures.

Page 1 Market Summary Notes: "WTI" refers to West Texas Intermediate crude oil, a common US benchmark for oil prices. "Brent" refers to a global benchmark for oil prices worldwide. "Bbl" refers to barrel. "OPEC+" refers to the 13 members of the Organization of Petroleum Exporting Countries and 11 other non-OPEC members. "Core CPI" refers to a Consumer Price Index, excluding food and energy. "CPI" refers to a consumer price index.

Page 1 Economic Summary Notes: "CPI" refers to a consumer price index. "Core CPI" refers to a Consumer Price Index, excluding food and energy. "PPI" refers to a producer price index. "GDP" refers to gross domestic product.

Page 2 Style Performance Notes: For US Fixed Income, Government, Corporate, and High Yield refer to the Bloomberg US Treasury, the Bloomberg US Corporate Credit, and the Bloomberg US High Yield indices, respectively. For European Fixed Income, Government, Corporate, and High Yield refer to the Bloomberg Euro Treasury Index, the Bloomberg Euro Corporate Index, and the Bloomberg Euro High Yield Index, respectively. Short, Intermediate, and Long refer to the Short, Intermediate, and Long segments of their respective curves. Quality returns refers to the credit quality of asset classes ranging from Government, highest quality, to High Yield, lowest quality. Since August 24, 2016, the Barclays indices are co-branded "Bloomberg Barclays indices".

Page 2 Economic Watch Notes: "FOMC" refers to Federal Open Market Committee. "MoM" refers to month-over-month. "Manuf." refers to manufacturing. "PMI" refers to a price manufacturing index. "BoE" refers to the Bank of England. "ECB" refers to the European Central Bank. "BoJ" refers to the Bank of Japan.

Page 3 Global Equity Valuations Chart Notes: Earnings are forward looking Bloomberg estimates of operating earnings per share over the next four quarters, which may exclude one-time extraordinary gains and losses. Please see index disclosures for additional definitions on the indices.

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Index Benchmarks: Equities: The **S&P 500 Index** is the Standard & Poor's 500 Composite Stock Prices Index of 500 stocks, an unmanaged index of common stock prices. The Dow Jones Industrial Average Index is a price-weighted average of 30 actively traded blue-chip stocks. The **Russell 1000 Index** is a market-cap weighted index that measures the performance of the 1,000 largest companies in the Russell 3000 Index. The **Russell Mid Cap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 30% of the total market capitalization of the Russell 1000 Index. The **Russell 2000 Index** is an unmanaged index of common stock prices that measures the performance of the 2000 smallest companies in the Russell 3000 Index. The **MSCI EAFE Index** is a free-float weighted equity index, which covers developed markets countries in Europe, Australasia, Israel, and the Far East. The **MSCI Emerging Markets (EM) Index** is a free float-adjusted market capitalization index that captures large and mid-cap representation across 24 Emerging Markets (EM) countries. The **STOXX Europe 600 Index** is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 1800 Index. With a fixed number of 600 components, the STOXX Europe 600 Index represents large, mid and small capitalization companies across 18 countries of the European region. The **Japan TOPIX Index** is a capitalization-weighted index of the largest companies and corporations that are found in the First Section of the Tokyo Stock Exchange. The **German DAX** is a capitalization-weighted blue chip stock market index consisting of the 30 major German companies trading on the Frankfurt Stock Exchange. The **Shanghai Composite** is a market capitalization weighted index of all A-shares and B-shares that trade on the Shanghai Stock Exchange. **Euro Stoxx 50 Index**, Europe's leading Blue-chip index for the Eurozone, provides a Blue-chip representation of supersector leaders in the Eurozone. The **Financial Times Stock Exchange (FTSE) 100 Index** is an index of the 100 companies listed on the London Stock Exchange with the highest market capitalization. **FTSE MIB Index** is composed of 40 Italian equities and seeks to replicate the broad sector weights of the Italian stock market. **CAC 40 Index** is composed of the 40 largest equities listed in France. **SWISS Market Index** is composed of the largest and most liquid stocks traded on the Geneva, Zurich, and Basel Stock Exchanges. **Hang Seng Composite Index** covers about 95% of the total market capitalization of companies listed on the Main Board of the Hong Kong Stock Exchange. The **MSCI World Index** is a broad global equity index that represents large and mid-cap equity performance across 23 developed markets countries. It covers approximately 85% of the free float-adjusted market capitalization in each country. The **MSCI China Index** captures large and mid cap representation across China H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). With 461 constituents, the index covers about 85% of this China equity universe. Currently, the index also includes Large Cap A shares represented at 5% of their free float adjusted market capitalization. **MSCI Brazil Index** covers about 85% of the total market capitalization of the Brazilian equity universe. **MSCI India Index** covers about 85% of the total market capitalization of the Indian equity universe. **MSCI Russia Index** covers about 85% of the free float-adjusted market capitalization in Russia. The **CBOE Volatility Index (VIX)** is a leading measure of market expectations of near-term volatility conveyed by S&P 500 Index option prices. **Fixed Income:** The **Bloomberg US Aggregate Bond Index** represents an unmanaged diversified portfolio of fixed-income securities, including US Treasuries, investment-grade corporate bonds, and mortgage-backed and asset-backed securities. The **Bloomberg US High-Yield Index** covers the USD-denominated, non-investment grade, fixed-rate, taxable corporate bond market. The **Bloomberg US Aggregate Municipal Bond Index** is an unmanaged broad-based total return index composed of approximately 8,000 investment grade, fixed rate, and tax-exempt issues, with a remaining maturity of at least one year. The **J.P. Morgan Emerging Markets Bond Index (EMBI Global Index)** is an unmanaged market capitalization Index that tracks total returns for USD-denominated debt instruments issued by emerging market sovereign and quasi-sovereign issuers.

The **J.P. Morgan Government Bond Index-Emerging Markets Global Diversified (GBI-EM Global Index)** is a market capitalization Index that tracks the performance of local currency debt issued by emerging market governments. **Bloomberg Euro Aggregate Index** refers to the Bloomberg EuroAgg Index. The index measures the market of investment grade, euro-denominated, fixed-rate bond market, including treasuries, government-related, corporate and securitized issues. Inclusion is based on currency denomination of a bond and not country of risk of the issuer. **Bloomberg Euro High Yield Index** refers to the Bloomberg Euro High Yield 3% Issuer Capped Index. The index measures the of non-investment grade, fixed-rate corporate bonds denominated in USD. Inclusion is based on the currency of issue, and not the domicile of the issuer. The index excludes emerging market debt. **Other:** The **FTSE EPRA/NAREIT Developed ex US Index** is a subset of the FTSE EPRA/NAREIT Developed Index and is designed to track the performance of listed real estate companies and REITS. The **S&P GSCI Commodity Index** is a composite index of commodity sector returns, representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities. It is not possible to invest in an unmanaged index. **Commodities:** **WTI Oil** refers to West Texas Intermediate (WTI) Crude Oil, a land-locked crude, delivered via pipeline into Cushing, Oklahoma. **Brent Oil** refers to Brent crude oil, a waterborne crude oil produced in the North Sea. **Currencies:** **Euro (\$/€)** refers to the Euro's exchange rate with the Dollar. **Pound (\$/£)** refers to the British Pound's exchange rate with the US Dollar. **Japanese Yen (¥/\$)** refers to the US Dollar's exchange rate with the Japanese Yen. **Swiss Franc (CHF/€)** refers to the Euro's exchange rate with the Swiss Franc. **Chinese Yuan Renminbi (CNY/\$)** refers to the US Dollar's exchange rate with the Chinese Yuan Renminbi. **Rates:** The **federal funds rate** is the interest rate at which depository institutions lend balances at the Federal Reserve to other depository institutions overnight. The **LIBOR** is the USD-denominated London Interbank Offered Rate, and is the average of interest rates estimated by each of the leading banks in London that it would be charged were it to borrow from other banks. The **2-Year Treasury** is a US Treasury debt obligation that has a maturity of 2 years. The **10-Year Treasury** is a US Treasury debt obligation that has a maturity of 10 years. The **2-10 Treasury Slope** is the difference between the 10-Year Treasury and the 2-Year Treasury. The **German Bunds 2-Year** is a German debt obligation that has a maturity of 2 years. The **German Bunds 10-Year** is a German debt obligation that has a maturity of 10 years. The **Japanese Govt Bonds 2-Year** is a Japanese debt obligation that has a maturity of 2 years. The **Japanese Govt Bonds 10-Year** is a Japanese debt obligation that has a maturity of 10 years. The **UK Gilts 10-Year** is a UK debt obligation that has a maturity of 10 years. The **Swiss Govt Bonds 10-Year** is a Swiss debt obligation that has a maturity of 10 years. The **French OATs 10-Year** is a French debt obligation that has a maturity of 10 years. The **Italian BTPs 10-Year** is a Italian debt obligation that has a maturity of 10 years. The **Spanish Bonos 10-Year** is a Spanish debt obligation that has a maturity of 10 years. **Spreads:** **High Yield (HY) Corporate Spread** is the Bloomberg US Corporate High Yield Average Option Adjusted Spread (OAS), which measures the spread between the US Treasury yield curve and the Bloomberg US Corporate High Yield curve. The **Bank Loan Spread** is the daily discount margin (3-year life) of the Credit Suisse Leveraged Loan Index, which is designed to mirror the investable universe of the USD-denominated leveraged loan market. The **Investment Grade (IG) Corporate Spread** is the Bloomberg US Aggregate Corporate Average OAS, which measures the spread between the US Treasury yield curve and the Bloomberg US Corporate Average curve. The **EMD Spread** is the J.P. Morgan EMBI Global Diversified Sovereign Spread, which measures the spread between the US Treasury yield curve and the J.P. Morgan EMBI Global Diversified Sovereign curve.

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