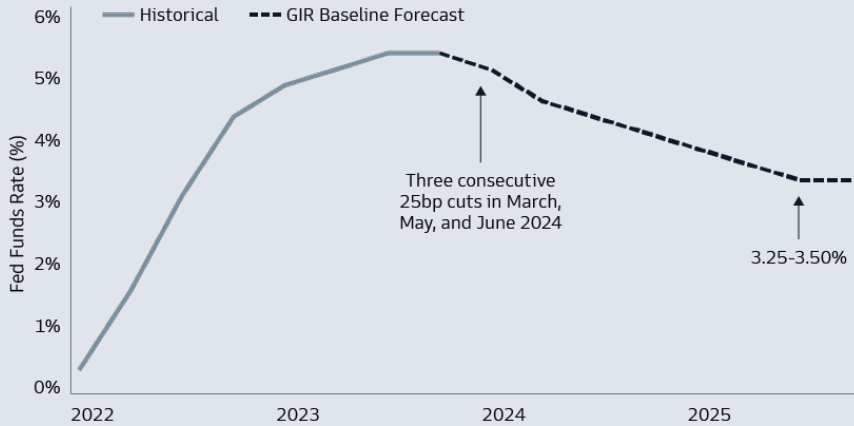


MARKET MONITOR

Chart Of The Week: A Feel for Fed Cuts



MACRO

Declining inflation may justify an accelerated path towards policy easing, leading our economists in GIR to project five 25 bp Fed cuts in 2024. While still offering attractive risk-adjusted yields, a swift pace of monetary easing may erode cash returns in the year ahead. This may encourage flows into equities and longer-duration fixed income as money market fund assets totaled roughly \$5.9tn at the end of 2023, a 31% increase since the Fed began its hiking cycle.

Source: GS GIR and Goldman Sachs Asset Management. As of January 12, 2024.

MARKET SUMMARY

GLOBAL EQUITIES: US equities rose last week despite firm inflation and flaring geopolitical tensions. The S&P 500 ended the week 1.87% higher, paring some losses from the week prior. Across the pond, the FTSE 100 finished last week -0.82% lower, despite UK GDP rebounding in November. In Europe, the STOXX 600 remained relatively flat on a slight drop in the unemployment rate, ultimately ending the week 0.10% higher.

COMMODITIES: Oil prices fell last week despite tensions in the Middle East continuing to escalate. Brent crude futures hit \$80/bbl for the first time this year, as geopolitical uncertainty continues to drive market volatility. WTI and Brent crude ultimately finished the week at \$72.68 and \$78.29/bbl, respectively. Meanwhile, the price of gold ended the week higher at \$2071.40/troy oz as global conflict boosted demand for the safe-haven asset.

FIXED INCOME: US Treasury yields fell last week amidst a higher-than-expected YoY US CPI print, reflecting the consensus view that inflation is expected to lower in 2024. The 2-Year and 10-Year US Treasury yields ultimately ended the week at 4.14% and 3.95%, respectively. Outside of the US, the 10-Year German bund yield closed higher at 2.18%.

FX: The US dollar held steady against a basket of currencies last week despite a decline in producer prices. The US dollar index ended the week 0.08% higher, continuing the increase from the week prior. Elsewhere, the Japanese yen weakened against the dollar, ending at ¥144.87 as weak wage data deflated expectations for a pivot from the BoJ's relaxed monetary policy stance.

ECONOMIC SUMMARY

INFLATION: US inflation picked up slightly more than expected in December, driven primarily by higher costs for housing, car insurance, and dining. US headline CPI registered at 3.4% YoY for the month of December, 0.3pp above the November figure. Meanwhile, core CPI registered at 3.9% YoY, a decline from the prior month's print but still above consensus expectations. Despite this price stickiness, GIR continues to anticipate 125 bps of cuts from the Fed in 2024. The Producer Price Index declined -0.1% in December from the prior month, led lower by energy and food prices. Elsewhere, continuing its deflationary streak, China's headline CPI registered at -0.3% YoY in December, slightly up from -0.5% YoY in November. This hails from still dampened domestic demand due to the ongoing property downturn and a weak labor market.

LABOR: The US labor market continued to demonstrate resilience as initial jobless claims fell to 202k in the week ended January 6, 8k below consensus expectations. In the Euro area, the unemployment rate reached 6.4% in November 2023, matching its lowest level on record. Market pricing of the first ECB rate cut shifted from Q1 to Q2 2024, while GIR expects the first rate cut to take place in April, followed by 25bp cuts at every meeting until landing at 2.25% in early 2025.

US POLITICS: On January 7, members of Congress and the White House agreed on topline spending numbers for 2024, but still need to address a number of core priorities to avoid a potential government shutdown. While a shutdown still remains a clear risk, the first deadline on January 20 has less of an impact on overall funding and the output of economic data. The February 2nd deadline, when 8 of the 12 annual spending bills expire, may serve as a larger risk.

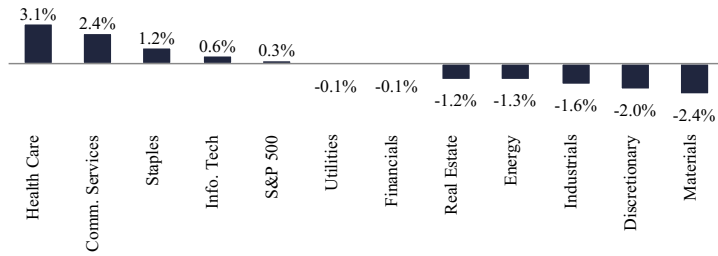
MARKET WATCH

S&P 500 INDEX SECTOR RETURNS

MONTH-TO-DATE, AS OF 01/12/24

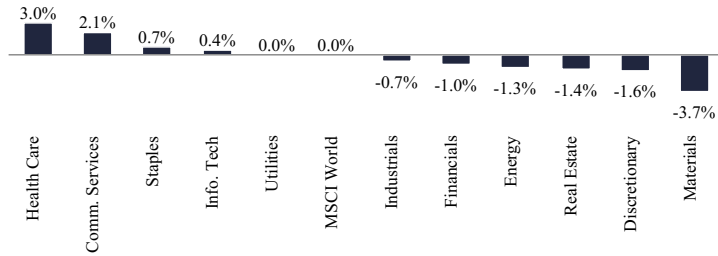


YEAR-TO-DATE, AS OF 01/12/24

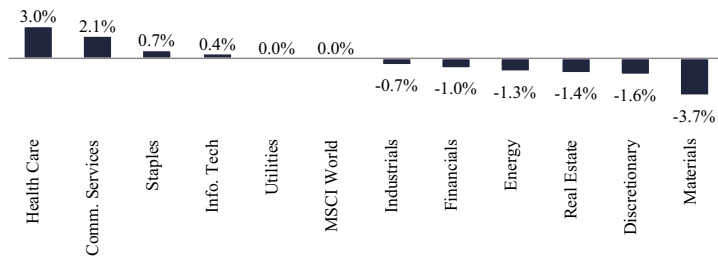


MSCI WORLD INDEX SECTOR RETURNS

MONTH-TO-DATE, AS OF 01/12/24



YEAR-TO-DATE, AS OF 01/12/24



ECONOMIC WATCH

Monday, January 15	Tuesday, January 16	Wednesday, January 17	Thursday, January 18	Friday, January 19	Critical Future Events
	UK Unemployment Rate (Cons: N/A, Prior: 4.2%)	US Retail Sales MoM (Cons: 0.3%, Prior: 0.3%) UK CPI YoY (Cons: 3.8%, Prior: 3.9%) EA CPI YoY (Cons: 2.9%, Prior: 2.4%)	Philadelphia Fed Manufacturing Index (Cons: N/A, Prior: -10.5) US Initial Jobless Claims (Cons: N/A, Prior: 202K) US Crude Oil Inventories (Cons: N/A, Prior: 1.338M)	US Existing Home Sales (Cons: 3.82M, Prior: 3.82M) UK Retail Sales MoM (Cons: N/A, Prior: 1.3%)	BoJ Meeting – Jan 23 ECB Meeting – Jan 25 FOMC Meeting – Jan 31 BoE Meeting – Feb 1

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 01/12/24)			Year-to-Date			
Value	Core	Growth		Value	Core	Growth
-0.62%	0.17%	0.84%	Large	-0.62%	0.17%	0.84%
-1.64%	-1.52%	-1.24%	Medium	-1.64%	-1.52%	-1.24%
-3.85%	-3.73%	-3.61%	Small	-3.85%	-3.73%	-3.61%

MSCI WORLD SIZE & STYLE RETURNS

Month-to-Date (as of 01/12/24)			Year-to-Date			
Value	Core	Growth		Value	Core	Growth
-0.12%	0.25%	0.57%	Large	-0.12%	0.25%	0.57%
-1.19%	-1.34%	-1.57%	Medium	-1.19%	-1.34%	-1.57%
-2.25%	-2.43%	-2.60%	Small	-2.25%	-2.43%	-2.60%

US FIXED INCOME MATURITY AND QUALITY RETURNS

Month-to-Date (as of 01/12/24)			Year-to-Date			
Short	Intermed.	Long		Short	Intermed.	Long
0.28%	0.15%	-2.31%	Government	0.28%	0.15%	-2.31%
0.29%	0.07%	-1.01%	Corporate	0.29%	0.07%	-1.01%
-0.13%	-0.16%	0.04%	High Yield	-0.13%	-0.16%	0.04%

EUROPEAN FIXED INCOME MATURITY AND QUALITY RETURNS

Month-to-Date (as of 01/12/24)			Year-to-Date			
Short	Intermed.	Long		Short	Intermed.	Long
-0.14%	-0.60%	-1.67%	Government	-0.14%	-0.60%	-1.67%
-0.08%	-0.75%	-1.78%	Corporate	-0.08%	-0.75%	-1.78%
0.42%			High Yield	0.42%		

WEEKLY MARKET RECAP

INDEX RETURNS				
	1 WEEK	MTD	QTD	YTD
EQUITIES				
S&P 500	1.87%	0.34%	0.34%	0.34%
DJ Industrial Average	0.35%	-0.21%	-0.21%	-0.21%
Russell 2000	0.00%	-3.73%	-3.73%	-3.73%
Russell Midcap	0.66%	-1.52%	-1.52%	-1.52%
STOXX Europe 50 (€)	0.41%	-0.83%	-0.83%	-0.83%
STOXX Europe 600 (€)†	0.10%	-0.44%	-0.44%	-0.44%
MSCI EAFE Small Cap	0.79%	-1.47%	-1.47%	-1.47%
FTSE 100 (£)	-0.82%	-1.37%	-1.37%	-1.37%
DAX (€)	0.66%	-0.28%	-0.28%	-0.28%
FTSE MIB (€)	0.10%	0.39%	0.39%	0.39%
CAC 40 (€)†	0.60%	-0.96%	-0.96%	-0.96%
SWISS MKT (CHF)	0.36%	0.80%	0.80%	0.80%
TOPIX (¥)	4.21%	5.40%	5.40%	5.40%
Hang Seng (HKD)	-1.76%	-4.71%	-4.71%	-4.71%
MSCI World	1.56%	0.02%	0.02%	0.02%
MSCI China Free†	-1.73%	-3.48%	-3.48%	-3.48%
MSCI EAFE	0.87%	-0.39%	-0.39%	-0.39%
MSCI EM	-0.57%	-2.65%	-2.65%	-2.65%
MSCI Brazil (BRL)	-0.88%	-2.01%	-2.01%	-2.01%
MSCI India (INR)	1.09%	1.63%	1.63%	1.63%
FIXED INCOME				
Bloomberg Aggregate	0.92%	-0.29%	-0.29%	-0.29%
Bloomberg Euro Aggregate	-0.05%	-1.43%	-1.43%	-1.43%
Bloomberg US High Yield	0.97%	-0.16%	-0.16%	-0.16%
Bloomberg Euro High Yield (€)	0.95%	0.42%	0.42%	0.42%
Bloomberg Muni Aggregate	0.05%	-0.24%	-0.24%	-0.24%
Bloomberg TIPS	0.97%	0.11%	0.11%	0.11%
JPM EMBI Gbl. Divers.	1.10%	-0.84%	-0.84%	-0.84%
JPM GBI-EM Gbl. Divers.	0.51%	-0.47%	-0.47%	-0.47%
OTHER				
DJ US Real Estate	0.70%	-1.28%	-1.28%	-1.28%
FTSE EPRA/NAREIT Dvlpd. Ex-US	0.48%	-1.95%	-1.95%	-1.95%
S&P GSCI	-0.21%	1.04%	1.04%	1.04%
Alerian MLP	0.76%	1.81%	1.81%	1.81%
US Dollar Index	0.08%	1.17%	1.17%	1.17%
VIX	-4.87%	2.01%	2.01%	2.01%

COMMODITIES				
	01/12/24	12/31/23	09/30/23	12/31/22
WTI Oil (\$/barrel)	\$72.68	\$71.65	\$90.79	\$80.26
Brent Oil (\$/barrel)	\$78.29	\$77.04	\$95.31	\$85.91
Gold (\$/oz)	\$2071.40	\$2091.80	\$1885.40	\$1842.20
Natural Gas (\$/mmBtu)	\$3.31	\$2.51	\$2.93	\$4.47

CURRENCIES				
	01/12/24	12/31/23	09/30/23	12/31/22
Euro (\$/€)	1.0956	1.1041	1.0577	1.0701
Pound (\$/£)	1.2748	1.2746	1.2205	1.2063
Japanese Yen (¥/\$)	144.87	141.02	149.40	130.97
Swiss Franc (CHF/€)	0.9341	0.9289	0.9682	0.9890
Chinese Yuan Renminbi (CNY/\$)	7.1169	7.0842	7.1746	6.9225

RATES & SPREADS				
	01/12/24	12/31/23	09/30/23	12/31/22
RATES				
Secured Overnight Financing Rate *	5.31%	5.38%	5.31%	4.30%
3-Month US Dollar Libor	5.58%	5.59%	5.66%	4.77%
ECB Depo Rate	4.00%	3.75%	3.50%	2.00%
US Treasuries 2-Year	4.14%	4.25%	5.05%	4.41%
US Treasuries 10-Year	3.95%	3.86%	4.57%	3.84%
US Treasury 2-10 Slope	-0.19%	-0.39%	-0.47%	-0.57%
German Bunds 2-Year	2.52%	2.40%	3.20%	2.76%
German Bunds 10-Year	2.18%	2.02%	2.84%	2.57%
Japanese Govt Bonds 10-Year	0.61%	0.61%	0.76%	0.42%
UK Gilts 10-Year	3.79%	3.54%	4.44%	3.67%
Swiss Govt Bonds 10-Year	0.84%	0.70%	1.10%	1.62%
French OATs 10-Year	2.68%	2.56%	3.40%	3.12%
Italian BTPs 10-Year	3.73%	3.70%	4.78%	4.71%
Spanish Bonos 10-Year	3.09%	2.99%	3.93%	3.66%
SPREADS				
HY Corp. Spread (bps)	337	323	395	468
Bank Loan Spread (bps) *	523	528	551	652
IG Corp. Spread (bps)	96	98	120	130
EMD Spread (bps)	451	438	478	500

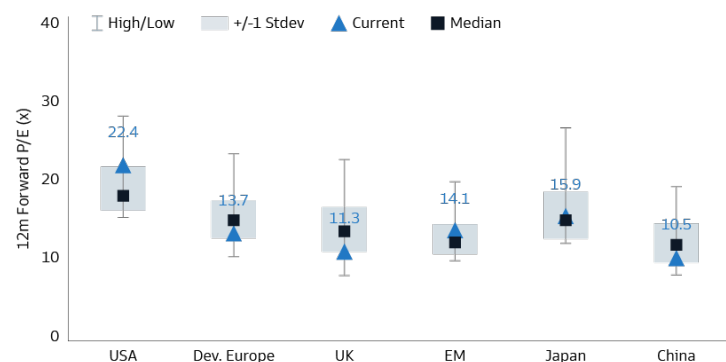
Global Equity Valuations


Chart Source: Goldman Sachs Asset Management and Bloomberg as of close of trading on December 31, 2023. Chart data shows next 12-month P/E ratio from January 2014 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: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of January 12, 2024. Chart shows both historical and forward-looking forecasts for the Fed Funds Rate set by the Federal Open Market Committee. GIR Baseline Forecast refers to Goldman Sachs Global Investment Research's projected future path of the Fed Funds Rate from the current date through December 2026. The Fed began its hiking cycle refers to March 2022. For illustrative purposes only.

Page 1 Market Summary Notes: "GDP" refers to Gross Domestic Product. "Bbl" refers to barrel. "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. "YoY" refers to year-over-year. "CPI" refers to Consumer Price Index. "BOJ" refers to the Bank of Japan.

Page 1 Economic Summary Notes: "CPI" refers to Consumer Price Index. "YoY" refers to year-over-year. "pp" refers to percentage points. "Core CPI" refers to Consumer Price Index, excluding food and energy. "GIR" refers to Goldman Sachs Global Investment Research. "Fed" refers to the US Federal Reserve. "Headline CPI" refers to the raw inflation figure reported through the Consumer Price Index. "ECB" refers to the European Central Bank.

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: "MoM" refers to month-over-month. "CPI" refers to Consumer Price Index. "YoY" refers to year-over-year. "BoJ" refers to the Bank of Japan. "ECB" refers to the European Central Bank. "FOMC" refers to Federal Open Market Committee. "BoE" refers to the Bank of England.

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 an 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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