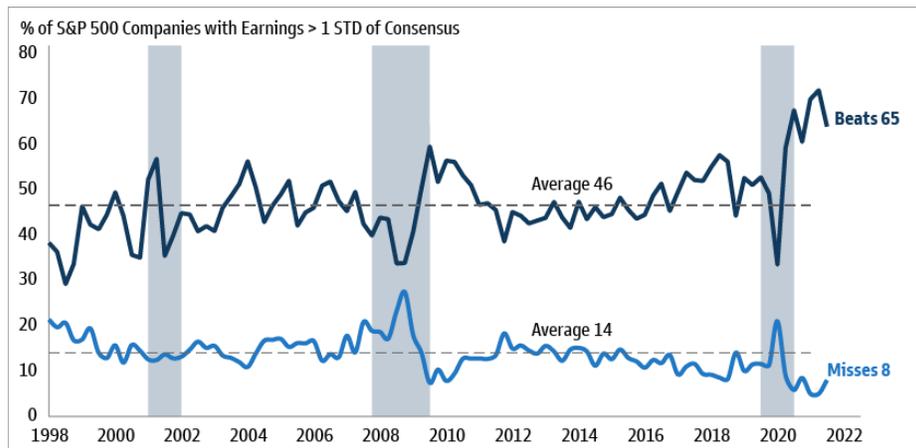


Perspectives from GSAM Strategic Advisory Solutions

Chart of the Week: Surprise Party



Source: FactSet and Goldman Sachs Global Investment Research



EQUITIES

Q3 earnings results have been much stronger than expected. With 70% of companies having reported, 65% have beaten earnings estimates by >1SD – significantly higher than the 46% historical average. While we expect earnings growth to decelerate sharply from 45% in 2021FY, earnings should remain at record high levels supported by strong fundamentals.

MARKET SUMMARY

GLOBAL EQUITIES: US equities rallied to new highs last week on the back of strong earnings and falling interest rates. The S&P 500 rose 1.35% as it appears on track to beat consensus expectation of nearly 40% YoY Q3 EPS growth. In Europe, stronger-than-expected GDP growth and solid earnings helped push the STOXX 600 up 0.80% higher over the week. In the UK, the October Budget pledged additional spending that would result in significant fiscal easing. The FTSE 100 rose 0.47%, with domestic firms leading.

COMMODITIES: Oil prices moderated as potential for additional supply emerged. US inventories showed crude stocks rose more than expected last week, while Iran said talks on rejoining the 2015 nuclear deal may resume in November. With the next OPEC+ meeting on November 4 addressing supply, prices for Brent and WTI ended the week at \$84.38 per barrel and \$83.57 per barrel, respectively.

ECONOMIC SUMMARY

GROWTH: US Q3 GDP growth slowed to 2.0% from 6.7% in Q2, reflecting drag from supply constraints in manufacturing and Delta variant on service sectors. Euro area economic growth was 2.2% in Q3, slightly higher than the revised Q2 reading of 2.1%. France and Italy experienced a strong rebound, with growth that outstripped expectations at 3% and 2.6% respectively. Gloomier news came in Germany and Spain, where prints were slower than expected at 1.8% and 2%.

SENTIMENT: Germany's Ifo Business Climate index fell to 97.7 in October, suggesting that prolonged supply problems still weigh on business.

FIXED INCOME: Last week, sovereign yield curves flattened as markets priced in accelerating central bank tightening, signaling market concerns that less accommodative policies may hamper global growth. The 2-Year US Treasury yield rose while the 10-Year fell, ending at 0.49% and 1.56%, respectively. Yields for both the UK Gilts and German Bunds followed the same pattern, with respective 10-Year yields finishing the week at 1.03% and -0.11%.

FX: The US dollar rose 0.54% last week against a basket of currencies on strong inflation prints and potential for higher US policy rates. The euro slipped to \$1.1559 after the ECB meeting held policy steady. The yen ended last week relatively flat at \$113.92 after the BOJ kept its dovish stance, remaining near yearly lows. The pound sterling finished lower at \$1.3689.

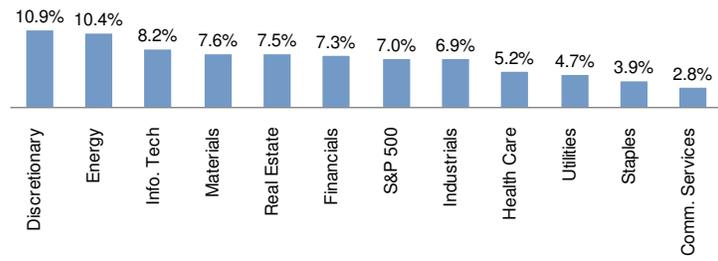
INFLATION: The US September core PCE price index increased 0.21% MoM, and the YoY rate rose to 3.64%, reflecting price increases in both goods and services. Euro area headline inflation rose from 3.4% in September to a higher-than-expected 4.1% in October, driven by both energy and core inflation. The core rate only rose from 1.9% to 2.1%.

POLICY: The ECB, which kept monetary policy unchanged last Thursday, acknowledged that inflation might be stickier than expected in the European Monetary Union while reiterating their view that the price pressure remains temporary.

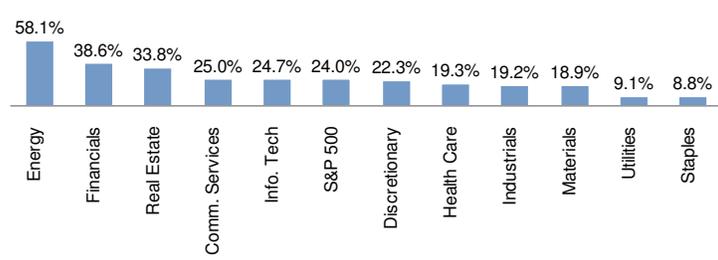
Market Watch

S&P 500 Index Sector Returns

Month-to-Date, As of 10/29/21

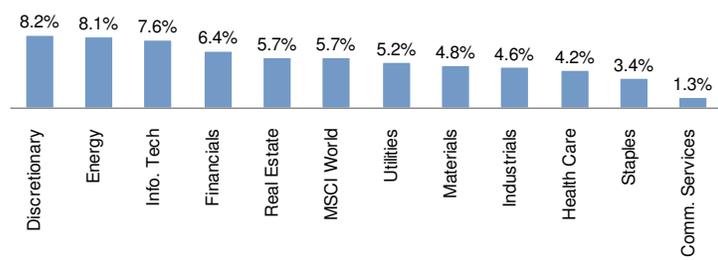


Year-to-Date, As of 10/29/21

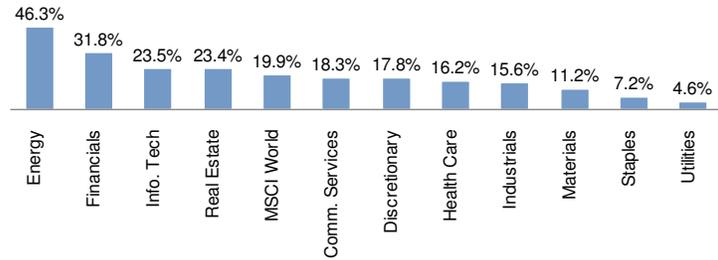


MSCI World Index Sector Returns

Month-to-Date, As of 10/29/21



Year-to-Date, As of 10/29/21



Economic Watch

Monday, Nov 1	Tuesday, Nov 2	Wednesday, Nov 3	Thursday, Nov 4	Friday, Nov 5	Critical Future Events
US ISM Manuf. (Cons: 60.5, Prior: 61.1)		US ISM Services (Cons: 62.0, Prior: 61.9) Euro area unemp. (Cons: 7.4%, Prior: 7.5%)	US Initial Jobless Claims (Cons: 275k, Prior: 280k) BoE Bank Rate (Cons: 0.25% Prior: 0.10%)	Nonfarm Payrolls (Cons: 450k, Prior: 194k) US Unemp. Rate (Cons: 4.7% Prior: 4.8%)	FOMC Meeting – Nov 2-3

Style Performance

US Equity Size & Style Returns

Month-to-Date (as of 10/29/21)			Year-to-Date			
Value	Core	Growth		Value	Core	Growth
5.08%	6.94%	8.66%	Large	22.03%	23.18%	24.20%
5.32%	5.95%	7.01%	Medium	24.54%	22.02%	17.29%
3.81%	4.25%	4.68%	Small	27.60%	17.19%	7.64%

MSCI World Size & Style Returns

Month-to-Date (as of 10/29/21)			Year-to-Date			
Value	Core	Growth		Value	Core	Growth
4.70%	5.88%	6.97%	Large	18.78%	19.91%	20.66%
3.83%	4.59%	5.42%	Medium	19.60%	17.14%	13.94%
3.34%	3.61%	3.88%	Small	20.56%	17.32%	13.81%

US Fixed Income Maturity and Quality Returns

Month-to-Date (as of 10/29/21)			Year-to-Date			
Short	Intermed.	Long		Short	Intermed.	Long
-0.51%	-0.57%	1.86%	Government	-0.97%	-1.71%	-5.77%
-0.52%	-0.55%	1.50%	Corporate	-0.31%	-0.99%	-1.10%
0.06%	-0.22%	0.48%	High Yield	5.39%	4.09%	7.88%

European Fixed Income Maturity and Quality Returns

Month-to-Date (as of 10/29/21)			Year-to-Date			
Short	Intermed.	Long		Short	Intermed.	Long
-0.29%	-1.16%	-0.08%	Government	-0.75%	-2.30%	-6.64%
-0.23%	-1.04%	-0.58%	Corporate	0.02%	-0.98%	-3.70%
	-0.59%		High Yield		3.08%	

Source: 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.**

Weekly Market Recap

Index Returns				
	1 week	MTD	QTD	YTD
Equities				
S&P 500	1.35%	7.01%	7.01%	24.04%
DJ Industrial Average	0.40%	5.93%	5.93%	18.77%
Russell 2000	0.27%	4.25%	4.25%	17.19%
Russell Midcap	-0.40%	5.95%	5.95%	22.02%
STOXX Europe 50 (€)	1.51%	5.18%	5.18%	22.53%
STOXX Europe 600 (€)†	0.80%	4.67%	4.67%	21.55%
MSCI EAFE Small Cap	-0.44%	1.58%	1.58%	12.09%
FTSE 100 (£)	0.47%	2.21%	2.21%	15.58%
DAX (€)	0.94%	2.81%	2.81%	14.36%
FTSE MIB (€)	1.14%	5.27%	5.27%	24.43%
CAC 40 (€)†	1.44%	4.76%	4.76%	25.03%
SWISS MKT (CHF)	0.43%	4.00%	4.00%	16.36%
TOPIX (¥)	-0.04%	-1.42%	-1.42%	13.06%
Hang Seng (HKD)	-2.87%	3.27%	3.27%	-4.47%
MSCI World	0.77%	5.69%	5.69%	19.89%
MSCI China Free†	-4.17%	2.15%	2.15%	-15.89%
MSCI EAFE	-0.10%	2.48%	2.48%	11.49%
MSCI EM	-2.18%	1.00%	1.00%	-0.00%
MSCI Brazil (BRL)	-2.36%	-5.89%	-5.89%	-12.72%
MSCI India (INR)	-1.72%	0.11%	0.11%	29.00%
MSCI Russia (RUB)	-1.07%	2.04%	2.04%	32.66%
Fixed Income				
Bloomberg Aggregate	0.52%	-0.03%	-0.03%	-1.58%
Bloomberg Euro Aggregate	-0.80%	-0.76%	-0.76%	-8.15%
Bloomberg US High Yield	0.09%	-0.17%	-0.17%	4.36%
Bloomberg Euro High Yield (€)	0.05%	-0.59%	-0.59%	3.08%
Bloomberg Muni Aggregate	0.10%	-0.29%	-0.29%	0.50%
Bloomberg TIPS	-0.01%	1.18%	1.18%	4.62%
JPM EMBI Gbl. Divers.	0.53%	0.02%	0.02%	-1.34%
JPM GBI-EM Gbl. Divers.	-0.64%	-1.33%	-1.33%	-7.62%
Other				
DJ US Real Estate	-0.28%	7.12%	7.12%	29.94%
FTSE EPRA/NAREIT Dvlpd. Ex-US	-0.63%	3.50%	3.50%	10.28%
S&P GSCI	-0.31%	5.80%	5.80%	46.28%
Alerian MLP *	-2.41%	6.68%	6.68%	48.70%
US Dollar Index	0.54%	-0.09%	-0.09%	4.81%
VIX	5.38%	-29.73%	-29.73%	-28.53%

Commodities				
	10/29/21	09/30/21	06/30/21	12/31/20
WTI Oil (\$/barrel)	\$83.57	\$75.03	\$73.47	\$48.52
Brent Oil (\$/barrel)	\$84.38	\$78.52	\$75.13	\$51.80
Gold (\$/oz)	\$1785.90	\$1758.50	\$1775.80	\$1899.60
Natural Gas (\$/mmBtu)	\$5.43	\$5.87	\$3.65	\$2.54

Currencies				
	10/29/21	09/30/21	06/30/21	12/31/20
Euro (\$/€)	1.1559	1.1584	1.1847	1.2226
Pound (\$/£)	1.3689	1.3475	1.3803	1.3653
Japanese Yen (¥/\$)	113.92	111.40	111.09	103.29
Swiss Franc (CHF/€)	1.0581	1.0803	1.0972	1.0821
Chinese Yuan Renminbi (CNY/\$)	6.4125	6.4520	6.4645	6.5140

Rates & Spreads				
	10/29/21	09/30/21	06/30/21	12/31/20
Rates				
Fed Funds Target	0.25%	0.25%	0.25%	0.25%
Secured Overnight Financing Rate *	0.05%	0.05%	0.05%	0.07%
ECB Depo Rate	-0.50%	-0.50%	-0.40%	-0.40%
3-Month US Dollar Libor	0.13%	0.13%	0.15%	0.24%
US Treasuries 2-Year	0.49%	0.29%	0.25%	0.12%
US Treasuries 10-Year	1.56%	1.53%	1.44%	0.91%
US Treasury 2-10 Slope	1.07%	1.24%	1.19%	0.79%
German Bunds 2-Year	-0.58%	-0.69%	-0.66%	-0.70%
German Bunds 10-Year	-0.11%	-0.20%	-0.21%	-0.57%
Japanese Govt Bonds 10-Year	0.10%	0.07%	0.06%	0.02%
UK Gilts 10-Year	1.03%	1.02%	0.72%	0.20%
Swiss Govt Bonds 10-Year	-0.03%	-0.16%	-0.22%	-0.55%
French OATs 10-Year	0.27%	0.15%	0.13%	-0.34%
Italian BTPs 10-Year	1.17%	0.86%	0.82%	0.54%
Spanish Bonos 10-Year	0.61%	0.46%	0.41%	0.05%
Spreads				
HY Corp. Spread (bps)	285	287	267	359
Bank Loan Spread (bps) *	440	438	443	486
IG Corp. Spread (bps)	87	84	80	96
EMD Spread (bps)	366	365	353	359

Global Equity Valuations

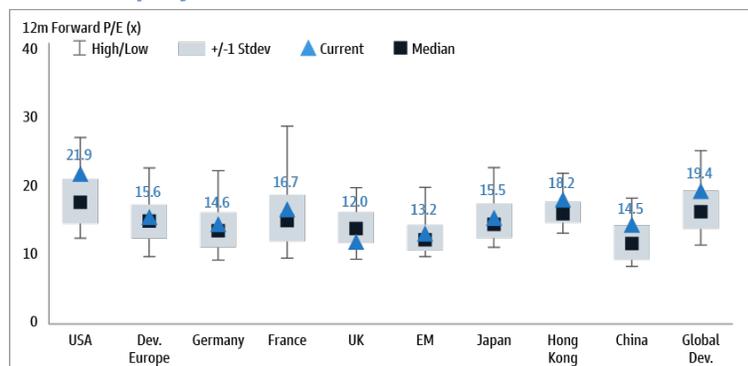


Chart Source: Goldman Sachs Asset Management and Bloomberg as of close of trading on September 30, 2021. Chart data shows next 12 month P/E ratio from October 2011 to the current period. 12m forward P/E(x) refers to price-to-earnings ratio for the next 12 months, which is a valuation measure applied 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: 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:

As of October 29, 2021. Chart shows the percentage of S&P 500 companies that have beaten and missed consensus earnings per share (EPS) estimates by one standard deviation or more. Standard deviation is a measure of the dispersion of a set of data from its mean.

Page 1 Market Summary Notes:

"YoY" refers to Year over Year. "BOJ" refers to the Bank of Japan. "Dovish" refers to an accommodative monetary policy stance. "OPEC+" refers to the Organization of the Petroleum Exporting Countries+. "Crude inventories" refer to the Energy Information Administration's Crude Oil Inventories. "WTI" stands for West Texas Intermediate crude oil, a common US benchmark for oil prices. "Brent" is a global benchmark for oil prices worldwide.

Page 1 Economic Summary Notes:

"MoM" refers to month over month. "Core PCE" refers to the personal consumption expenditures index, excluding food and energy. "ECB" refers to European Central Bank. the Federal Reserve's Federal Open Market Committee. "Ifo Business Climate Index" refers to the German IFO Business Climate Survey.

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, 2021, the Barclays indices are branded "Bloomberg indices".

Page 2 Economic Watch Notes:

"US ISM Manuf." refers to the US Institute of Supply Management Manufacturing Index. "Euro area unemp." refers to September unemployment in the euro area. "BoE" refers to the Bank of England. "FOMC" refers to the Federal Open Market Committee.

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.

USA is represented by the MSCI USA Index, Dev. Europe is represented by MSCI Europe Index, Germany is represented by MSCI Germany Index, France is represented by MSCI France Index, UK is represented by MSCI UK Index, EM is represented by MSCI EM Index, Japan is represented by MSCI Japan Index, Hong Kong is represented by MSCI Hong Kong Index, China is represented by MSCI China Index, Global Dev. is represented by MSCI World Index.

Risk Considerations

Equity securities are more volatile than bonds and subject to greater risks. Small and mid-sized company stocks involve greater risks than those customarily associated with larger companies. Bonds are subject to interest rate, price and credit risks. Prices tend to be inversely affected by changes in interest rates. Unlike stocks and bonds, U.S. Treasuries securities are guaranteed as to payment of principal and interest if held to maturity. High yield fixed income securities are considered speculative, involve greater risk of default, and tend to be more volatile than investment grade fixed income securities. Income from municipal securities is generally free from federal taxes and state taxes for residents of the issuing state. While the interest income is tax-free, capital gains, if any, will be subject to taxes. Income for some investors may be subject to the federal Alternative Minimum Tax (AMT). Investments in foreign securities entail special risks such as currency, political, economic, and market risks. These risks are heightened in emerging markets. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity.

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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 five EM countries in Latin America. The **MSCI Frontier Markets Index** is a free float-adjusted market capitalization index that captures large and mid-cap representation across 22 frontier markets 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. **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. **CSI 300 Index** covers 300 stocks traded in the Shanghai and Shenzhen stock exchanges. **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 **Bloomberg US High Yield Municipal Bond Index** (formerly the Lehman Brothers High Yield Municipal Bond Index) is an unmanaged index made up of bonds that are noninvestment grade, unrated, or rated below Ba1 by Moody's Investors Service with a remaining maturity of at least one year. The **J.P. Morgan Emerging Markets Bond Index-Global (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 Euro Agg 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 **S&P 500 Utilities Sector** comprises those companies included in the S&P 500 that are classified as members of the GICS® utilities sector. 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. The **S&P 500 Consumer Staples Index** comprises those companies included in the S&P 500 that are classified as members of the GICS® consumer staples sector. The **USD Index** tracks the value of the USD relative to 6 major foreign currencies.

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. **OPEC** refers to the Organization of the Petroleum Exporting Countries. The **Gold Spot** price is quoted as US Dollars per Troy Ounce.

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 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 **Core-Periphery spreads** refers to the spread between sovereign debt yields of core European countries and peripheral European countries. 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.

It is not possible to invest in an unmanaged index.

Although certain information has been obtained from sources believed to be reliable, we do not guarantee its accuracy, completeness or fairness. We have relied upon and assumed without independent verification, the accuracy and completeness of all information available from public sources.

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