

Dazed and Confused

FIXED INCOME TEAM | MACRO INSIGHT | NOVEMBER 2022

Bond markets were a bit more orderly in October than the mayhem experienced in September. That said, markets were still mixed, and investors could be excused for feeling a bit dazed and confused with regards to volatility, dispersion of returns, illiquidity, central bank policies and deciphering how to determine value. Nominal U.S. Treasury and investment grade U.S. dollar bond yields moved substantially higher as strong inflation and labor market data continued, to the disappointment of the Fed and other central banks. However, just to confuse things more, real yields on 10-year U.S. TIPS fell approximately 14 basis points (bps),¹ substantially outperforming nominal bonds, despite continued hawkish rhetoric coming from the central banking community. Does this mean real yields are high enough to sufficiently slow economic growth to bring down inflation to acceptable levels?

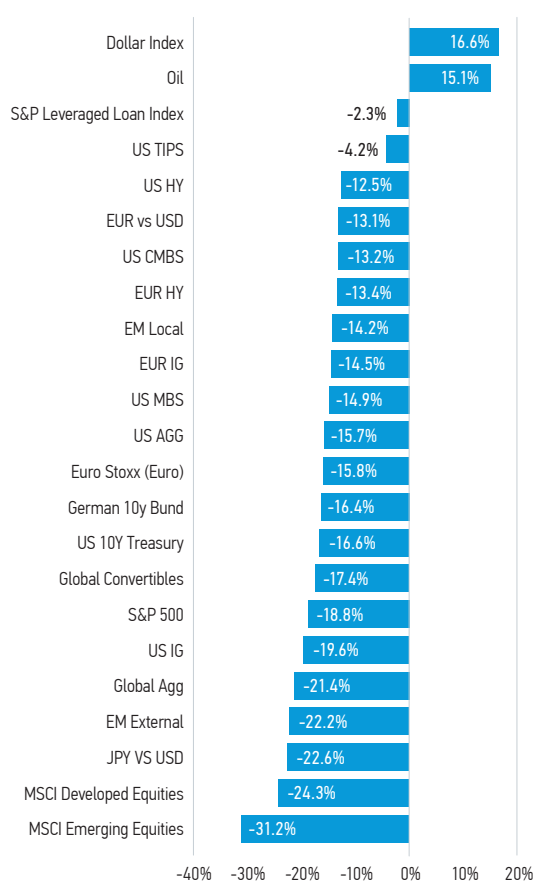
On the other hand, advanced economy bond markets outside of the U.S. generally performed well, boosted by continued fallout from the UK liability-driven investment (LDI) maelstrom in September, and a pivot by several central banks (Australia and Canada) to downshift their tightening pace. Other central banks like those in Sweden and Norway are also expected to shift to a slower pace of tightening. Other than this news, data or policy pronouncements did not particularly justify this move in and of itself, but German government 10-year yields had risen over 50 bps in September and a correction was understandable.² Emerging market local yields did not have a great month, with most countries experiencing yet again higher yields as inflation pressures fail to abate.

Despite the gyrations in government bond yields, credit markets performed well. Under constant threat of

¹ Source: Bloomberg, October 31, 2022.

² Source: Bloomberg, October 31, 2022.

DISPLAY 1
Asset Performance Year-to-Date



Note: USD-based performance. Source: Bloomberg. Data as of October 31, 2022. The indexes are provided for illustrative purposes only and are not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.** See pages 6-7 for index definitions.

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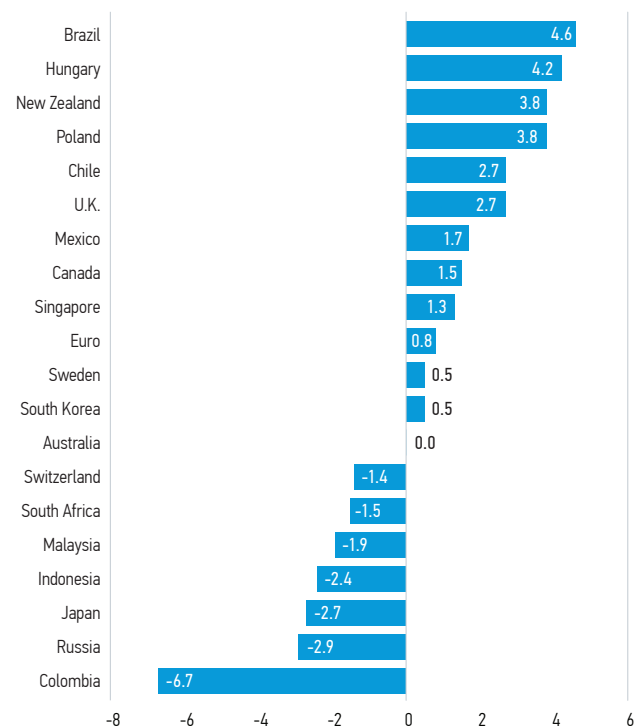
weaker economic data (this is what central banks are striving for) and higher U.S. and Euro yields, credit markets performed well, particularly high yield. In fact, after widening 68 bps in September during the British LDI meltdown, U.S. High Yield spreads tightened 88 bps in October!³ A truly impressive performance given the sideways performance of equities. This great performance was also helped by record low issuance, continued good news on default rates, good third quarter results so far for S&P companies (tech stock woes notwithstanding), and locked in term financing. Investment grade spreads also held their own: impressive.

The one continuing negative (outside of U.S. rates) has been the performance of the mortgage/securitized credit markets. U.S. agency spreads continued to widen as investor sponsorship remains sparse and the withdrawal of buying by the Fed, other official institutions, and banks weigh on the market despite the paucity of new supply.

Another interesting development in October was the mixed performance of the U.S. dollar. It was not a one-way bet. For the first time in a while, the U.S. dollar fell against almost half of the currencies we follow. In particular, EM currencies led the pack, with the Brazilian real, Hungarian forint, and Polish zloty leading the way.

DISPLAY 2
Currency Monthly Changes Versus U.S. Dollar

(+ = appreciation)



Note: Positive change means appreciation of the currency against the USD. Source: Bloomberg. Data as of October 31, 2022.

Japanese jawboning and sizeable intervention stabilized the yen below the psychologically important 150 level. This is despite the largest mismatch of monetary policies between the two countries in history. Has the low in JPY been seen? A harbinger of things to come? Maybe. Given recent U.S. data and the Fed's commitment to keep raising rates until inflation has fallen substantially, it is probably premature to believe the U.S. dollar's trend has reversed. But before the sun can come out it has to stop raining!

DISPLAY 3
Major Monthly Changes in 10-Year Yields and Spreads

COUNTRY	10-YR YIELD LEVEL (%)	MONTH CHANGE (BPS)	10-YR SPREAD (BPS)	MONTH CHANGE (BPS)
(Spread over USTs)				
United States	4.05	+22		
United Kingdom	3.52	-58	-53	-80
Germany	2.14	+3	-191	-19
Japan	0.25	0	-380	-22
Australia	3.76	-13	-29	-35
Canada	3.25	+8	-80	-14
New Zealand	4.19	-12	14	-34
EUROPE (Spread over Bunds)				
France	2.68	-4	54	-7
Greece	4.62	-24	248	-27
Italy	4.30	-22	216	-25
Portugal	3.15	-3	101	-6
Spain	3.23	-6	108	-10
EM				
	10-YR LOCAL YIELD (%)	MTD CHANGE (BPS)	SPREAD (BPS)	MTD CHANGE (BPS)
EM External Spreads			444	-14
EM Corporate Spreads			393	+4
EM Local Yields	6.89	-23		
(Spread over USTs)				
Brazil	11.87	-14	783	-36
Colombia	13.79	+101	974	+79
Hungary	10.14	+38	610	+16
Indonesia	7.51	+16	346	-6
Malaysia	4.35	-7	30	-29
Mexico	9.83	+18	578	-4
Peru	8.40	-36	436	-58
Poland	8.34	+120	429	+98
South Africa	11.34	0	729	-22
CREDIT				
			SPREAD (BPS)	MTD CHANGE (BPS)
U.S. IG			158	-1
EUR IG			221	-4
U.S. HY			464	-88
EUR HY			590	-34
SECURITIZED				
Agency MBS			174	+3
U.S. BBB CMBS			445	+40

Positive Neutral Negative Source: Bloomberg, JPMorgan. Data as of October 31, 2022

³ Source: Bloomberg, October 31, 2022.

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Fixed Income Outlook

Talk of central banks pivoting to dovish stances is premature, we believe. While the central banks of Australia and Canada did reduce their hikes in October to 25 and 50 bps respectively, in neither case did the institutions suggest that they were finished. Indeed, as the Fed communique said after their November 2nd meeting, the Fed should be expected to downshift the size of rate hikes in future meetings. And this is nothing more than logic/common sense.

With lags in the effects monetary policy has on the economy, the Fed will have to, at some point, reduce the size of their rate hikes and potentially their frequency as they assess the impact of previous rate hikes on the economy. But this is a far cry from discussing stopping rate hikes or discussing rate cuts. Chair Powell seems to have restated using other words. They are not even discussing the possibility of discussing stopping rate hikes. Indeed, central banks, including the Fed, continue to emphasize the need for further rate hikes. What investors need to figure out is how high is high enough. How long is long enough. The pace, the current market obsession, is of secondary importance.

When thinking about monetary policy changes there are three questions investors must ask about a monetary tightening cycle. One, how fast: what is the pace? Two, how high: what is the peak terminal rate? And three, how long: for what time period will rates have to stay in restrictive territory? October and early November central bank actions and communications are beginning to answer question one. But not the others. They remain open-ended and very data dependent, e.g., how strong is the economy; what is driving inflation; how tight is monetary policy, etc.

Market hopes for a resolution of these issues look to be unfulfilled. Normal data volatility can easily give markets false hope that the end is nigh (with respect to rate hikes). These rallies either in rates or credit spreads should be sold. Central banks will not signal the end until there is concrete evidence (not necessarily unequivocal, there rarely is unequivocal evidence) that inflation is *trending* lower in a *sustainable* fashion. Of course, the pace of rate hikes will slow before then, but beware false dawns. We have had many of them so far in the post-Covid cycle. U.S. real yields as measured by TIPs yields have risen over 225 bps this year, again an unprecedented amount in less than a year. If you add to this the fact that this has been happening on a global level, you have one of, if not the largest, single year global monetary policy tightening cycles ever seen. We think we are getting close to the endgame in terms of how high yields need to go.

However, it is not all doom and gloom. Central banks have made tremendous progress in getting policy rates into restrictive territory, raising policy rates at a pace not seen for 40 years and helping push real rates, the more important indicator of monetary tightness, up substantially. Global financial conditions are now tighter than they have been for over 20 years, excluding the global financial crisis period in 2008. The U.S. bond market is now discounting a peak Fed funds rate of approximately 5.1% by mid next year. Even the most die-hard hawks on the FOMC have not been talking about rates much higher than this. Income has returned to the fixed income market, making bonds a much more attractive investment than they have been for over 15 years. Unless inflation continues to rise, it might just be possible to begin talking about peak rates, with significant rallies, though still in the distant future, given the stubbornness of inflation and tight labor markets.

While inflation has more momentum in Europe than in the U.S., it may not prove stickier, due to its different underlying causes and much more subdued wage growth. The ECB is likely to continue raising rates another 100 to 150 bps over the next six months, which should provide a headwind to bonds. The UK is different. The economy is weaker. Fiscal policy, unlike in the Eurozone, is expected to tighten significantly. So significantly, in fact, that the Bank of England signaled the market was probably forecasting too many rate hikes rather than too few. UK bonds look a better value than most other markets.

Credit markets look likely to be in a range over the next few months as markets digest incoming data and continually reassess recession probabilities. Spreads are well wide of "normal" or average, but not quite high enough to say a recession is discounted. Indeed, with the recent rally in high yield, that market looks a tad expensive relative to risks in the near term. But with recession risks still likely to be down the road, there is no reason why credit markets cannot do better given their high absolute yields (driven mostly by the sell-off in government bonds). To get bullish we would like to see a bit more risk premium priced in (e.g., wider spreads) given the still uncertain economic outlook. The U.S. agency mortgage market and other securitized sectors (CMBS, ABS) look inexpensive on most metrics. Indeed, they look attractive enough that we think it will be hard for investment grade credit to rally with U.S. agency MBS doing better. The dollar may be topping. EM bonds continue to gain in attractiveness, but we have yet to see a catalyst to restart a bull market. We remain patient.

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MONTHLY REVIEW

OUTLOOK

Developed Market Rate/ Foreign Currency

After sharp increases in rates during August and September, global developed market rates were mixed in October. Numerous countries saw rates decrease as central banks like the Reserve Bank of Australia (RBA) and Bank of Canada (BoC) appeared to shift to a more dovish approach. Further, the rise in yields following the UK maelstrom reversed as the issues abated, with yields falling significantly over October. On the other hand, in the U.S., yields continued to rise following still high inflation data.⁴

With continued repricing of rates higher, the market's current pricing for rates is close to fair. However, given the continued high inflation prints and expectations, the risk for rates still seems to be for them to go marginally higher. Central banks are limited in their ability to effectively lower inflation using their current tools and strategy, especially in Europe. Further, volatility across markets is likely going to continue as uncertainty remains. Regarding foreign exchange, the U.S. dollar has benefited from the tighter Fed policy and growing global growth concerns, and we expect this could continue, although likely not as significantly as before.

Emerging Market Rate/ Foreign Currency

Hard currency debt performance was positive while local sovereign debt and USD corporate debt were down over the month.⁵ Emerging markets debt (EMD) performance was mixed in October. Some of the key takeaways of the annual fall meeting of the International Monetary Fund (IMF) included: a bearish tone for global growth, the U.S. dollar is strong but not overvalued, central banks around the globe are likely to remain hawkish, widespread concern surrounding China, and the IMF needs some "wins" which should translate into more flexible policies.

While we expect fundamentals and policies to drive both performance for the asset class as well as variation in performance among countries over the intermediate- to long-term, the macro will likely continue to drive market sentiment near term and outflows remain notable. Valuations across EMD are compelling and seem to be pricing in these risks more aggressively than other asset classes. We expect markets to place an emphasis on differentiation among countries and credits.

⁴ Source: Bloomberg. Data as of October 31, 2022.

⁵ Source: Bloomberg. Data as of October 31, 2022. EM corporates represented by The **JP Morgan CEMBI Broad Diversified Index**.

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MONTHLY REVIEW

OUTLOOK

Corporate
Credit

October saw credit markets consolidate following weakness into September quarter end, with Euro and U.S. Investment Grade corporate spreads tightening slightly. Generally, subordinated financials outperformed non-financials, BBBs underperformed higher-rated, and short-dated paper tightened less than longer-dated. Market drivers continue to be focussed on the macro environment.⁶

The high yield market showed early signs of strength in October but ended the first half of the month essentially flat from a return perspective. The market rallied sharply in the final two weeks amidst a strong technical backdrop and a host of earnings which, on average, exceeded previously lowered expectations. The strong technical conditions were based on near record inflows into the high yield ETFs and virtually no primary issuance. The top performing sectors for the month were brokerage, asset managers & exchanges, finance companies and REITs.⁷

Global convertibles rebounded from oversold levels in October as volatility rose and a mixed earnings picture contributed to underlying equity performance in sectors such as Energy, Industrials and Healthcare. However, the three highest weighted sectors in the convertibles asset class—communications, technology and consumer discretionary—added less to performance.⁸

Market valuations continue to price a very negative outcome for corporate downgrades and defaults. Corporate fundamentals are resilient and companies have built liquidity in recent quarters and implemented cost efficiencies under the COVID-era. We expect margins to be pressured and top line revenue to be challenging (as evidenced by Q3 numbers) but given the starting point we believe corporates will be able to manage a slowdown without significant downgrades or defaults (base case low default and mild recession).

We remain cautious on the U.S. high-yield market as we progress through the fourth quarter. Volatility across risk markets remains elevated and, generally speaking, investors' faith in the U.S. Federal Reserve's ability to engineer a soft economic landing remains low. Liquidity and financial conditions are expected to continue tightening moving forward, real economic activity is slowing, the health of corporate fundamentals should begin to decline.

Securitized
Products

October was another difficult month in the securitized markets. Interest rates rose again, and both agency MBS spreads and securitized credit spreads widened further with supply pressure from distressed selling. Despite the headwinds, securitized markets only marginally underperformed most other sectors in October. Current coupon agency MBS spreads widened, and the Bloomberg MBS Index return was negative. U.S. non-agency RMBS spreads widened further in October, as distressed selling and increasing liquidity concerns weighed on the markets. U.S. ABS spreads were slightly wider in October but were also helped by the lack of new issuance and lighter secondary selling. U.S. CMBS spreads widened in October too as fundamental credit conditions remain challenging in many commercial real estate markets. European securitized markets remain under pressure from heavy selling and weakening credit conditions, and European securitized spreads widened significantly in October.⁹

Our fundamental credit outlook remains positive overall, although we are becoming slightly more cautious. Credit spreads for many securitized sectors remain at levels last seen at the depths of the pandemic, but credit conditions appear materially better today.

⁶ Source: Bloomberg Indices: U.S. Corporate Index and the European Aggregate Corporate Index. Data as of October 31, 2022.

⁷ Source: J.P. Morgan and Bloomberg US Corporate High Yield Index. Data as of October 31, 2022.

⁸ Source: Refinitiv Global Convertibles Focus Index. Data as of October 31, 2022.

⁹ Source: Bloomberg, as of October 31, 2022.

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Risk Considerations

Diversification neither assures a profit nor guarantees against loss in a declining market.

There is no assurance that a portfolio will achieve its investment objective. Portfolios are subject to **market risk**, which is the possibility that the market values of securities owned by the portfolio will decline and that the value of portfolio shares may therefore be less than what you paid for them. Market values can change daily due to economic and other events (e.g. natural disasters, health crises, terrorism, conflicts and social unrest) that affect markets, countries, companies or governments. It is difficult to predict the timing, duration, and potential adverse effects (e.g. portfolio liquidity) of events. Accordingly, you can lose money investing in a portfolio. **Fixed-income securities** are subject to the ability of an issuer to make timely principal and interest payments (credit risk), changes in interest rates (interest rate risk), the creditworthiness of the issuer and general market liquidity (market risk). In a rising interest-rate environment, bond prices may fall and may result in periods of volatility and increased portfolio redemptions. In a declining interest-rate environment, the portfolio may generate less income. **Longer-term securities** may be more sensitive to interest rate changes. Certain **U.S. government securities** purchased by the strategy, such as those issued by Fannie Mae and Freddie Mac, are not backed by the full faith and credit of the U.S. It is possible that these issuers will not have the funds to meet their payment obligations in the future. **Public bank loans** are subject to liquidity risk and the credit risks of lower-rated securities. **High-yield securities (junk bonds)** are lower-rated securities that may have a higher degree of credit and liquidity risk. **Sovereign debt securities** are subject to default risk. **Mortgage- and asset-backed securities** are sensitive to early prepayment risk and a higher risk of default, and may be hard to value and difficult to sell (**liquidity risk**). They are also subject to credit, market and interest rate risks. The **currency market** is highly volatile. Prices in these markets are influenced by, among other things, changing supply and demand for a particular currency; trade; fiscal, money and domestic or foreign exchange control programs and policies; and changes in domestic and foreign interest rates. Investments in **foreign markets** entail special risks such as currency, political, economic and market risks. The risks of investing in **emerging market** countries are greater than the risks generally associated with foreign investments. **Derivative instruments** may disproportionately increase losses and have a significant impact on performance. They also may be subject to counterparty, liquidity, valuation, and correlation and market risks. **Restricted and illiquid securities** may be more difficult to sell and value than publicly traded securities (liquidity risk). Due to the possibility that prepayments will alter the cash flows on **collateralized mortgage obligations (CMOs)**, it is not possible to determine in advance their final maturity date or average life. In addition, if the collateral securing the CMOs or any third-party guarantees are insufficient to make payments, the portfolio could sustain a loss.

DEFINITIONS

Basis point: One basis point = 0.01%.

INDEX DEFINITIONS

The indexes shown in this report are not meant to depict the performance of any specific investment, and the indexes shown do not include any expenses, fees or sales charges, which would lower performance. The indexes shown are unmanaged and should not be considered an investment. It is not possible to invest directly in an index.

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The **Bloomberg Euro Aggregate Corporate Index (Bloomberg Euro IG Corporate)** is an index designed to reflect the performance of the euro-denominated investment-grade corporate bond market.

The **Bloomberg Global Aggregate Corporate Index** is the corporate component of the Bloomberg Global Aggregate index, which provides a broad-based measure of the global investment-grade fixed income markets.

The **Bloomberg US Corporate High Yield Index** measures the market of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The index excludes emerging market debt.

The **Bloomberg US Corporate Index** is a broad-based benchmark that measures the investment grade, fixed-rate, taxable, corporate bond market.

The **Bloomberg US Mortgage Backed Securities (MBS) Index** tracks agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage. Introduced in 1985, the GNMA, FHLMC and FNMA fixed-rate indexes for 30- and 15-year securities were backdated to January 1976, May 1977 and November 1982, respectively. In April 2007, agency hybrid adjustable-rate mortgage (ARM) pass-through securities were added to the index.

Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care.

Euro vs. USD—Euro total return versus U.S. dollar.

German 10YR bonds—Germany Benchmark 10-Year Datastream Government Index; **Japan 10YR government bonds**—Japan Benchmark 10-Year Datastream Government Index; and **10YR US Treasury**—US Benchmark 10-Year Datastream Government Index.

The **ICE BofAML European Currency High-Yield Constrained Index (ICE BofAML Euro HY constrained)** is designed to track the performance of euro- and British pound sterling-denominated below investment-grade corporate debt publicly issued in the eurobond, sterling

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The **ICE BofAML US Mortgage-Backed Securities (ICE BofAML US Mortgage Master) Index** tracks the performance of US dollar-denominated, fixed-rate and hybrid residential mortgage pass-through securities publicly issued by US agencies in the US domestic market.

The **ICE BofAML US High Yield Master II Constrained Index (ICE BofAML US High Yield)** is a market value-weighted index of all domestic and Yankee high-yield bonds, including deferred-interest bonds and payment-in-kind securities. Its securities have maturities of one year or more and a credit rating lower than BBB-/Baa3, but are not in default.

The **ISM Manufacturing Index** is based on surveys of more than 300 manufacturing firms by the Institute of Supply Management. The ISM Manufacturing Index monitors employment, production inventories, new orders and supplier deliveries. A composite diffusion index is created that monitors conditions in national manufacturing based on the data from these surveys.

Italy 10-Year Government Bonds—Italy Benchmark 10-Year Datastream Government Index.

The **JP Morgan CEMBI Broad Diversified Index** is a global, liquid corporate emerging markets benchmark that tracks US-denominated corporate bonds issued by emerging markets entities.

The **JPMorgan Government Bond Index**—emerging markets (**JPM Local EM debt**) tracks local currency bonds issued by emerging market governments. The index is positioned as the investable benchmark that includes only those countries that are accessible by most of the international investor base (excludes China and India as of September 2013).

The **JPMorgan Government Bond Index Emerging Markets (JPM External EM Debt)** tracks local currency bonds issued by emerging market governments. The index is positioned as the investable benchmark that includes only those countries that are accessible by most of the international investor base (excludes China and India as of September 2013).

The **JP Morgan Emerging Markets Bond Index Global (EMBI Global)** tracks total returns for traded external debt instruments in the emerging markets and is an expanded version of the EMBI+. As with the EMBI+, the EMBI Global includes US dollar-denominated Brady bonds, loans and eurobonds with an outstanding face value of at least \$500 million.

The **JP Morgan GBI-EM Global Diversified Index** is a market-capitalization weighted, liquid global benchmark for US-dollar corporate emerging market bonds representing Asia, Latin America, Europe and the Middle East/Africa.

JPY vs. USD—Japanese yen total return versus US dollar.

The **Markit ITraxx Europe Index** comprises 125 equally weighted credit default swaps on investment grade European corporate entities, distributed among 4 sub-indices: Financials (Senior & Subordinated), Non-Financials and HiVol.

The **Nikkei 225 Index (Japan Nikkei 225)** is a price-weighted index of Japan's top 225 blue-chip companies on the Tokyo Stock Exchange.

The **MSCI AC Asia ex-Japan Index (MSCI Asia ex-Japan)** captures large- and mid-cap representation across two of three developed markets countries (excluding Japan) and eight emerging markets countries in Asia.

The **MSCI All Country World Index (ACWI, MSCI global equities)** is a free float-adjusted market capitalization weighted index designed to measure the equity market performance of developed and emerging markets. The term "free float" represents the portion of shares outstanding that are deemed to be available for purchase in the public equity markets by investors. The performance of the Index is listed in US dollars and assumes reinvestment of net dividends.

MSCI Emerging Markets Index (MSCI emerging equities) captures large- and mid-cap representation across 23 emerging markets (EM) countries.

The **MSCI World Index (MSCI developed equities)** captures large and mid-cap representation across 23 developed market (DM) countries.

Purchasing Managers Index (PMI) is an indicator of the economic health of the manufacturing sector.

The **Refinitiv Convertible Global Focus USD Hedged Index** is a market weighted index with a minimum size for inclusion of \$500 million (US), 200 million (Europe), 22 billion Yen, and \$275 million (Other) of Convertible Bonds with an Equity Link.

The **Russell 2000® Index** is an index that measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **S&P 500® Index (US S&P 500)** measures the performance of the large-cap segment of the US equities market, covering approximately 75 percent of the US equities market. The index includes 500 leading companies in leading industries of the US economy.

S&P CoreLogic Case-Shiller US National Home Price NSA Index seeks to measure the value of residential real estate in 20 major US metropolitan areas: Atlanta, Boston, Charlotte, Chicago, Cleveland, Dallas, Denver, Detroit, Las Vegas, Los Angeles, Miami, Minneapolis, New York, Phoenix, Portland, San Diego, San Francisco, Seattle, Tampa and Washington, D.C.

The **S&P/LSTA US Leveraged Loan 100 Index (S&P/LSTA Leveraged Loan Index)** is designed to reflect the performance of the largest facilities in the leveraged loan market.

The **S&P GSCI Copper Index (Copper)**, a sub-index of the S&P GSCI, provides investors with a reliable and publicly available benchmark for investment performance in the copper commodity market.

The **S&P GSCI Softs (GSCI soft commodities) Index** is a sub-index of the S&P GSCI that measures the performance of only the soft commodities, weighted on a world production basis. In 2012, the S&P GSCI Softs Index included the following commodities: coffee, sugar, cocoa and cotton.

Spain 10-Year Government Bonds—Spain Benchmark 10-Year Datastream Government Index.

The **Thomson Reuters Convertible Global Focus USD Hedged Index** is a market weighted index with a minimum size for inclusion of \$500 million (US), 200 million euro (Europe), 22 billion yen, and \$275 million (Other) of convertible bonds with an equity link.

U.K. 10YR government bonds—U.K. Benchmark 10-Year Datastream Government Index. For the following Datastream government bond indexes, benchmark indexes are based on single bonds. The bond chosen for each series is the most representative bond available for the given maturity band at each point in time. Benchmarks are selected according to the accepted conventions within each market. Generally, the benchmark bond is the latest issue within the given maturity band; consideration is also given to yield, liquidity, issue size and coupon.

The **US Dollar Index (DXY)** is an index of the value of the United States dollar relative to a basket of foreign currencies, often referred to as a basket of US trade partners' currencies.

The **Chicago Board Options Exchange (CBOE) Market Volatility (VIX) Index** shows the market's expectation of 30-day volatility.

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