Morgan Stanley

INVESTMENT MANAGEMENT

Global Fixed Income Bulletin

The End of the Beginning

FIXED INCOME | GLOBAL FIXED INCOME TEAM | MACRO INSIGHT | APRIL 2020

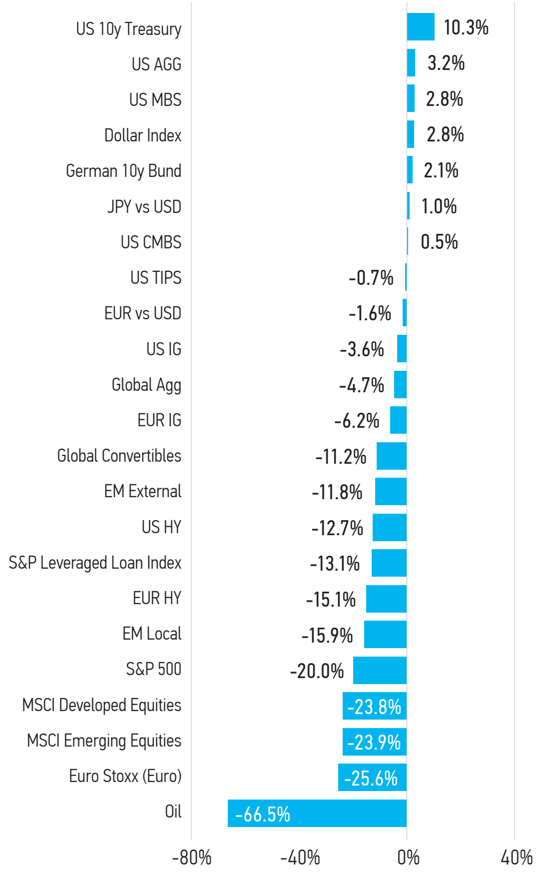
As every person on the planet knows, March was a watershed month. The COVID-19 Asian epidemic turned into a global pandemic, engulfing the rest of the world, leading to rapidly rising deaths and infections, lockdowns of populations and the closing of economies. Economic data is setting records for the most precipitous collapse on record. Unemployment is soaring, and GDP is likely to fall at a double-digit annualized rate in Q2. We are in unprecedented territory, and March financial market performance reflected this. Volatility soared; yields went down; then up; then down again. Equities also experienced similar patterns, but with a more obviously downward trajectory. By the end of March, we had had both a bear market and bull market in the same month!

As March came to a close, bond markets across the world were "infected" and performed very poorly. Normally one expects bond yields of both high-quality government bonds and investment-grade corporate bonds to fall when economic data weakens. And yet, only U.S. Treasury yields managed to fall (and only by a small amount) over the course of the month. Investment grade corporate bonds, at one point, had a double-digit negative return. The global financial system experienced panic unlike anything seen since 2008 (if not worse this time around). But, instead of a run on banks, we had a run on stocks, bonds, and money market funds. There was a global rush to USD cash, resulting in position unwinds, forced selling, and funding stresses of unprecedented size.

The good news is that policymakers had a playbook based on lessons learned from 2008. The world's central banks and governments dusted it off and went to work. The Fed cut rates to the lower bound and injected well over a trillion dollars of cash into the system, and pledged unlimited QE, a "whatever it takes" attitude. A new alphabet of programs were launched to stabilize financial markets, improve liquidity, and ensure flow of credit to the economy. Other central banks joined the Fed and launched significant QE programs after cutting rates to zero bound in record time. In most cases central bank purchases will cover all the

DISPLAY 1

Asset Performance Year-to-Date



Note: USD-based performance. Source: Bloomberg. Data as of March 31, 2020. 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 12 and 13 for index definitions.

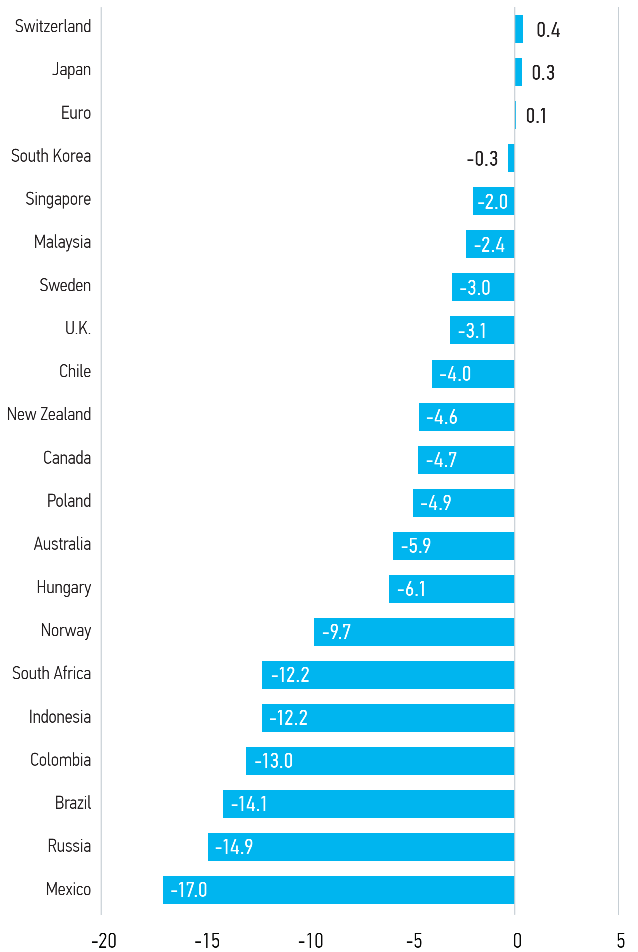
financing needs of the government. The Australian central bank (RBA) also implemented a form of yield curve control (YCC). The European Central Bank (ECB) enhanced their toolkit by establishing a new program titled the Pandemic Emergency Purchase Programme (PEPP), which allows them to invest over one trillion in government bonds, in addition to the existing QE programs and with more flexibility.

Moreover, the U.S. Congress passed landmark legislation earmarking over $2 trillion to support the economy during its closure. As a result of the Fed's and the rest of the world's actions, markets and confidence are improving. Equity and credit markets rallied significantly the last week of March, and government bond yields moved down, in line with economic logic. It remains unknown how deep and protracted the economic downturn (recession) will be. We are hopeful that existing policy actions, and future policy actions (if current actions do not prove to be sufficient), will put a floor under the economy and allow things to gradually return to normal as the health crisis recedes. In the interim we are hostage to the path of the virus. We believe we are at the end of the beginning.

DISPLAY 2

Currency Monthly Changes Versus U.S. Dollar

(+ = appreciation)



Source: Bloomberg. Data as of March 31, 2020. Note: Positive change means appreciation of the currency against the USD.

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	0.67	-48		
United Kingdom	0.36	-9	-31	+39
Germany	-0.47	+14	-114	+62
Japan	0.02	+18	-65	+65
Australia	0.76	-6	9	+42
Canada	0.70	-44	3	+4
New Zealand	1.08	+3	41	+51
EUROPE			(Spread over Bunds)	
France	-0.02	+27	46	+14
Greece	1.68	+35	215	+21
Italy	1.52	+42	199	+29
Portugal	0.87	+52	134	+38
Spain	0.68	+40	115	+26
EM	**INDEX LOCAL YIELD (%)**	**MTD CHANGE (BPS)**	**USD SPREAD (BPS)**	**MTD CHANGE (BPS)**
EM External Spreads			577	+225
EM Local Yields	5.37	+28		
EM Corporate Spreads			599	+278
Brazil	6.30	+40	385	+133
Colombia	6.87	+112	378	+164
Hungary	1.88	+32	253	+118
Indonesia	7.99	+90	321	+127
Mexico	7.19	+30	349	+130
Peru	5.04	+60	195	+66
Philippines	4.88	+77	217	+108
Poland	1.32	-29	105	+41
Russia	6.61	+36	283	+89
South Africa	11.21	+156	646	+276
Turkey	12.64	-6	721	+201
Venezuela	–	–	16467	+6093
CREDIT			**SPREAD (BPS)**	**MTD CHANGE (BPS)**
U.S. IG			272	+150
EUR IG			239	+125
U.S. HY			880	+380
EUR HY			778	+368
SECURITIZED				
Agency MBS			124	+32
U.S. BBB CMBS			687	+428

Positive Neutral Negative

Source: Bloomberg, JP Morgan. Data as of March 31, 2020.

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Fixed Income Outlook

March was another schizophrenic month of extreme volatility, with yields and spreads moving up and down like yo-yos. There were three distinct regimes: The beginning of the month to March 6 was what one could call a normal bear market; March 6 to March 19 (marking the high in IG yield spreads) was more of a global panic; and then March 19th to end of the month we would call a relief rally. Of course, things were worse by the end. The first week of the month was a continuation of February. Bad news arrived but was largely in line with expectations. Equities weaker; credit spreads modestly wider, government yields, importantly, lower. 10-year U.S. Treasury yields fell over 50 basis points (bps) while U.S. IG yields were mostly unchanged. However, the explosion of infections in Europe and impending lockdowns in the United States over the weekend of March 7, along with the announcement that OPEC+ was about to start a price war instead of cutting output, sent markets reeling. There was a surge in demand for liquidity, USD cash in particular, and many investors had to sell whatever they could to get it. Money markets reeled, and foreign exchange and government bond markets behaved erratically due to investors' pressing need to generate cash and limited liquidity for market counterparties. Equities collapsed and credit spreads (and yields) soared. The pace with which risky assets sold off into bear market territory (i.e., a decline of 20% or more) was the fastest on record.

In many ways this was a classic liquidity squeeze. The world wanted U.S. dollar cash; nothing but USD cash would do. This elicited an unprecedented response by monetary authorities worldwide. Rates were cut to the effective lower bound (if they were not there already) and trillions of dollars were injected into money markets and bond markets. New programs were begun with a whole new set of acronyms (TALF, MMCP, CPFF). These helped significantly to calm markets, particularly in government bond markets where yields, unusually, rose, as the demand for cash liquidity overwhelmed the more normal safe haven bid for (default risk-free) duration assets. By March 19, U.S. Treasury and other global government bond yields began to fall, as markets started to normalize, signaling success for the Fed's first objective: stabilizing money markets and lowering the risk-free interest rate. Importantly, the rapid fall in U.S. Treasury yields allowed IG yields to fall as well, lowering funding costs for the embattled private sector. The U.S. fiscal stabilization program, embodied in the CARES Act, although not yet implemented, is the missing link in providing support for household and business income while we wait for the infection rate to abate and the economy to reopen.

Unfortunately, stabilization does not mean recovery. The world economy is experiencing a slowdown of a pace that is unprecedented in modern times, as governments globally have ordered businesses to shut and people to stay at home. How long the shutdowns will last is unclear, with only some Asian economies moving tentatively to normalize economic activity. Macroeconomic data is likely to be awful in April, but we think this may trouble markets less than usual, as, first the dramatic slowdown is already expected and, second, the data will tell us little about how economic growth will evolve going forward, as this depends more on the COVID-19 epidemic and how quickly governments can re-open the economy. We believe any sign that the economy/cash flow/earnings are doing better than expected will lead to better performance of risky assets. The economy was in reasonably good shape before the COVID-19 outbreak, so economic activity could normalize quite quickly, assuming containment and social isolation measures can be lifted rapidly without the threat of secondary waves of infection. The good news is that the policy response is really big.

In the interim, a lot of unknowns remain, which make us cautious. Can economies simply be reopened, like turning on a light switch? Will there be lasting damage? Will unemployment come down quickly? Which industries will survive intact? Will travel and leisure industries ever be the same? So many questions, so few answers.

Given these questions, this is what we think is an appropriate investment strategy. Government bond yields are now at unprecedentedly low levels, and at record rich levels on some valuation measures. But it is not obvious that they will rise anytime soon, even with unprecedented deficits in the U.S. and the rest of the world. There is still scope for them to fall further if the economy deteriorates, which is not hard to imagine given the uncertainty around the virus shock. Central banks will use their balance sheets to provide "infinite" QE, meaning they will do whatever is necessary to make sure credit flows to all solvent companies/industries. Fiscal agents will help support incomes and employment where possible to prevent aggregate demand from collapsing now and when the pandemic is over. This implies one should focus investments, for now, on those companies/assets that can benefit directly from government help. Government bonds, investment grade credit, agency mortgage-backed securities should all be direct beneficiaries. Of these, only investment-grade credit looks fundamentally cheap, offering potential higher returns to patient, long-term investors. High yield also presents good opportunities for those willing to assume greater risks. While this crisis is in many ways different from previous periods, high yield has proven itself to be resilient and has provided strong total returns following periods of extreme spread widening. While defaults are likely to rise sharply in certain high yield sectors, we believe the widening of high yield spreads to date mean this is already in the price. Sector and company differentiation will also be crucial, as some sectors are worse affected than others, and not all businesses will be bailed out by governments. Identifying quality management teams and business model flexibility will be key to generating investment returns.

Securitized credit is an area that performed particularly poorly in March, especially given the perception of it as a relatively low risk asset. We believe this is because of forced liquidations and loss of financing that led to distressed selling. Much of the cheapening was not because of deterioration in structure or asset performance, although a prolonged economic shutdown will obviously impair asset quality. We thus expect spreads across most securitized sectors to bounce back in April, although they may remain materially wider than pre-coronavirus levels, given the elevated economic risks from the virus. We believe the current market environment may represent a great entry point for new investors and an opportunity for recovery for current investors.

Many emerging countries are in the same position, where a general retreat from the asset class has led to forced selling and asset price declines that do not necessarily match changes in fundamentals. Governance, balance sheet strength, and economic growth will be key in identifying those countries which will perform well in the months ahead.

	MONTHLY REVIEW	OUTLOOK
Developed Markets	March was an extraordinary month for DM rates and FX markets, as corona virus concerns caused risky assets to plummet, all assets to struggle from the subsequent volatility and liquidity shock, before central banks and governments intervened aggressively to a more orderly footing. In the U.S., the Federal Reserve (Fed) announced several significant policy responses: It slashed the Federal Funds rate to a range of 0.0% to 0.25% and the discount window borrowing rate was lowered to 0.25%; it "encouraged" banks to use the discount window as a source of funding to meet client needs, which removed the stigma of using it as a source of funding.	The global outlook is contingent on the coronavirus' path and pace at which it spreads in the coming weeks and is key in determining its global impact, both in the short- and long-run. However, given the downside risks, central banks are likely to remain accommodative for an extended period. A key differentiator for asset performance going forward is likely to be how well the pandemic has been handled, with more successful economies likely to see their asset prices benefit.
Emerging Markets	Extraordinary times were matched by extraordinary price action across markets, and movements in EM debt were no exception as risk markets registered new historic lows in March. The combination of the global slowdown, resulting from fighting COVID-19, and the drop in oil prices, related to both demand destruction and the ongoing friction between Saudi Arabia and Russia, has been challenging to say the least.	While we do not know when this will end, we can say that the numerous monetary and fiscal policies being put into effect by governments and central banks around the world are having a stabilizing effect. The illiquidity the stress generated cuts both ways, and we have seen dramatic and quick recoveries in many assets when risk sentiment turned positive (albeit assets are still lower than at the beginning of the month). Within EM, we believe some countries are positioned to withstand the current economic pressures while others are far more vulnerable. The changes to the global supply chain that were prompted by the recent trade wars will only be accelerated in the post-virus market as countries look to build their health and medical defenses.

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	MONTHLY REVIEW	OUTLOOK
Credit	March saw corporate spreads widen in the U.S. and in Europe. The key drivers of credit spreads in March were the uncertainty created by the coronavirus and the level of credit selling. Other factors that caused volatility include a breakdown of the OPEC discussions about managing supply, central banks' responses to the crisis including provisions of liquidity and programs to buy corporate bonds, large supply as weakness in short term funding markets pushed high quality issuers to the public corporate market and rating action, particularly in sectors directly impacted by the weak economic activity.	The economy (and asset prices) have been hit by the containment measures necessary to halt the spread of the coronavirus and the related fall in oil prices following the breakdown of OPEC discussions. Markets are looking for clarity over (1) the length of time isolation policies will remain in force and (2) the time it will take to identify a vaccine. Hopes of a V-shaped rebound are no longer the base case as questions over the assumption that warm weather will reduce the impact of the virus and health experts warning that a vaccine is months and not weeks away are re-pricing markets. The reality is a base case no longer exists with the limited credible data.
Securitized Products	The positive fundamental credit environment in both the U.S. and Europe quickly turned negative as large segments of the economy shut down, and the backdrop of low unemployment quickly changed with a surge of service-sector layoffs. Governments and central banks have responded swiftly with unprecedented stimulus, including massive Central bank purchases and direct cash payments to tax-payers, as well as support for small businesses and industries particularly affected by the coronavirus. These measures should help cushion the impact from the pandemic, but the effects will still be significant and will vary across different sectors.	We expect spreads across most securitized sectors to bounce back in April. The distressed selling and forced liquidations that took place in March seem to have subsided, and new capital appears to be flowing into the market. Spreads will likely remain materially wider than pre-coronavirus levels, given the elevated economic risks from the virus, but should tighten in from current levels as some of the market overreaction and forced selling pressures dissipate. We believe the current market environment represents a great entry point for new investors and opportunity for recovery for current investors.

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Developed Market (DM) Rate/ Foreign Currency (FX)

MONTHLY REVIEW

March was an extraordinary month for DM rates and FX markets, as COVID-19 concerns caused risky assets to plummet and all assets to struggle from the subsequent volatility and liquidity shock before central banks and governments intervened aggressively to a more orderly footing.

In the U.S., the Federal Reserve (Fed) announced several significant policy responses: It slashed the federal funds rate to a range of 0.0% to 0.25% and the discount window borrowing rate was lowered to 0.25%; it "encouraged" banks to use the discount window as a source of funding to meet client needs, which removed the stigma of using the source of funding. Additionally, FX swap lines have been set up with other central banks in an effort to reduce demand for USD. The Fed announced it would conduct quantitative easing (QE) in an unlimited manner, reintroduced the commercial paper funding facility (CPFF), primary dealer credit facility (PDCF), and money market mutual fund liquidity facility (MMLF). It also announced other new funding facilities, such as the Term Asset Backed Loan Facility (TALF). Federal Reserve Chair Jerome Powell signaled that rates would remain low indefinitely, saying that they would stay low "until we're confident that the economy has weathered recent events and is on track to achieve our maximum employment and price stability goals."[1]

The U.S. government passed a $2 trillion COVID-19 response bill, the CARES Act, to provide emergency relief to various groups in the U.S. The Act aims to provide relief to individuals, small businesses, big corporations, hospitals and public health, the federal safety net, state and local governments, and education.

In Europe, the ECB eased policy at its meeting on March 12 by boosting the size of its QE program, launching a new TLTRO funding facility for banks and easing banks' capital requirements. However, comments from President Lagarde were interpreted as unsupportive for euro sovereign spreads. This general deterioration in market sentiment caused the ECB to launch the EUR 750bn Pandemic Emergency Purchase Programme, which is less constrained than the conventional APP QE program, and has been effective at stabilizing euro sovereign spread levels. In terms of a fiscal response, EU fiscal constraints have been relaxed, so that individual countries can respond to the crisis. A joint response on the EU level is still being worked on, but is likely to include centrally provided funding for healthcare systems, company loan guarantees via the EIB and potentially unemployment support from the EU Commission.[2]

In the UK, the Bank of England took several different steps this month in response to the pandemic, ultimately cutting rates by an additional 15 bps to 0.1% and boosting QE by £200bn to £645bn while the government unveiled a fiscal package close to 4-5% of GDP. The UK has also launched a job retention plan on top of the welfare support that was previously announced. The government has offered companies an unlimited package of loan guarantees and grants will be available for smaller companies, although there have been teething issues with getting loans through to the companies that need them.[3]

In Australia, the RBA initially cut rates 25 bps before then cutting by a further 25 bps and launching QE and yield curve control. The government also announced a fiscal stimulus package of 1.2% of GDP. The policies didn't initially seem to have the desired effect, as 10 year government bond yields rose, and continued to sell off to close to 1.70%, nearly 100 bps higher than the lows seen in early March. The bond market sell off coincided with a nearly 15% depreciation in the AUD against the USD, suggesting the government bond sales may have been driven by investors having to generate USD liquidity rather than a specific view on Australian fundamentals. The establishment of currency swap lines between the RBA and the Fed, put in place so the RBA can facilitate demand for USD, has helped calm the markets, leading to lower bond yields and some currency appreciation.[4]

In New Zealand, the RBNZ cut interest rates an aggressive 75 bps and the government announced a fiscal stimulus package of 4% of GDP. The market wasn't comforted by these developments, with 10y government bond yields shooting up 100 bps from their lows and the currency depreciating. Similar to Australia, we believe the extreme market movements were due to a USD liquidity crisis, which has been eased by coordinated central bank intervention. While the fiscal expansion is significant, debt/GDP is not expected to rise much above 30%, meaning New Zealand retains very attractive fiscal fundamentals.[5]

OUTLOOK

The global outlook is contingent on the coronavirus' path and pace at which it spreads in the coming weeks and is key in determining its global impact, both in the short and long run. However, given the downside risks, central banks are likely to remain accommodative for an extended period. A key differentiator for asset performance going forward is likely to be how well the pandemic has been

[1] Source: Bloomberg, as of 3/31/2020
[2] Source: Bloomberg, as of 3/31/2020
[3] Source: Bank of England, as of 3/31/2020
[4] Source: Bloomberg, as of 3/31/2020
[5] Source: Bloomberg, as of 3/31/2020

handled, with more successful economies likely to see their asset prices benefit.

Emerging Market (EM) Rate/FX

MONTHLY REVIEW

Extraordinary times were matched by extraordinary price action across markets, and movements in EM debt were no exception as risk markets registered new historic lows in March. The combination of the global slowdown, resulting from fighting COVID-19, and the drop in oil prices, related to both demand destruction and the ongoing friction between Saudi Arabia and Russia, has been challenging to say the least. Unfortunately, as the science and medical community searches for a COVID-19 cure, it faces the challenges of managing the symptoms in much the same way that investors are grappling with the constantly evolving market risks. As bad as things currently stand, we are left questioning whether last month's lows will be soon re-tested. The answer to this conundrum will depend on the extent to which COVID-19 is destructive rather than disruptive, irrespective of the unprecedented measures being taken by governments and multilaterals to mitigate the impact of the fallout. Given this uncertainty, we can only expect price volatility to remain elevated as the negative news accompanying the pandemic works its way around the world, influencing investment flows, and liquidity constraints are exacerbated by widely adopted work-from-home arrangements. As such, we have, where possible, taken steps to pare risk to the more vulnerable countries (where fiscal dynamics limit a strong COVID-19 response), sectors (the more obvious being energy and commodities) and individual high yield issuers that struggle to pass our stress tests.

The JPM EM Aggregate Index lost -12.15%, as dollar-denominated sovereign/quasi-sovereign debt lost -12.55% (as measured by the JPM EMBI Global Index, while the diversified variant lost -13.85%), dollar corporates lost -11.52% (as measured by the JPM CEMBI BD Index), and local currency debt lost -11.07% (as measured by the JPM GBI-EM GD Index). Oil-exporting countries, such as Angola, Ecuador, Gabon, and Ghana, were among the hardest hit, as were idiosyncratic stories of weaker credits, such as Sri Lanka and Lebanon. Higher-rated countries in Europe and Asia, such as Slovakia, Taiwan, Serbia, China, Poland, Hong Kong, and Singapore, outperformed the broader market on a relative basis.[6]

The EM economic bloc is not a monolith and is comprised of many countries, each with their own strengths and weaknesses. Healthy countries, with strong balance sheets will survive this economic weakness as they have the ability to cut rates and enact fiscal stimulus, which many already have. Weaker countries with pre-existing conditions, such as Lebanon, Argentina, and Zambia, will need to possibly restructure and/or receive help from the IMF. To provide life support, the IMF announced a credit line worth $50bn available to low income economies for coronavirus-related expenditure, including $10bn loans with very limited conditionality. Meanwhile, in a joint statement, the World Bank and IMF called on all official bilateral creditors to suspend debt payments from IDA (International Development Association) countries that request forbearance. Russia's central bank was the outlier of global central banks as it kept its policy rate on hold at 6%, and dropped the forward guidance wording in its statement. The bank considered the shocks as pro-inflationary in the near term but disinflationary forces would prevail in the medium term, on weakening external demand and consumer expenditure.[7]

As with the corporate market, ratings agencies moved quickly to downgrade sovereign ratings. S&P downgraded Mexico to BBB from BBB+, Angola to CCC+, Colombia's outlook to negative, and Fitch downgraded Ecuador to CC from CCC as "some kind of default is probable following the government's intention to renegotiate commercial debt liabilities". Fitch also downgraded Colombia one notch to BBB- (negative outlook) from BBB, given the drop in oil prices and deterioration of the economic outlook.[8]

Ecuador announced that they made the payment of USD324mm corresponding to the capital and interest on the 2020 bond. Authorities mentioned that they executed the payment because they wanted to "keep open the doors of international financing to face, in a better position, this humanitarian crisis". This will allow more than USD2bn financing in the short-term. Authorities said that they will use the 30-day grace period for the payment of the upcoming USD197mm coupon, and will seek a re-profiling with commercial and bilateral creditors. We believe it is likely that Ecuador will not service their coupon payments after 30 days but we would expect an orderly approach to re-profiling their debt with some possible reductions in principal payments. While in more positive news, the Ukrainian Parliament passed the land reform bill, a key legislation required to unlock $8bn worth of IMF financing. The remaining item is a bank insolvency bill expected to be passed next week.[9]

[6] Source: JP Morgan, as of 3/31/2020
[7] Source: Bloomberg, as of 3/31/2020
[8] Source: Bloomberg, as of 3/31/2020
[9] Source: Bloomberg, as of 3/31/2020

OUTLOOK

While we do not know when this will end, we can say that the numerous monetary and fiscal policies being put into effect by governments and central banks around the world are having a stabilizing effect. The illiquidity the stress generated cuts both ways, and we have seen dramatic and quick recoveries in many assets when risk sentiment turned positive (albeit assets are still lower than at the beginning of the month).

Within EM, some countries are positioned to withstand the current economic pressures, while others are far more vulnerable. The changes to the global supply chain that were prompted by the recent trade wars will only be accelerated in the post-virus market, as countries look to build their health and medical defenses. This could benefit many smaller economies as companies shift production from China to diversify their supply chain, and thus, spread the economic benefits to a broader base. Looking forward, we believe that developed market governments will continue to implement supportive monetary and fiscal policies for as long as required. Within EM, the magnitude of the response is a function of the domestic policy space available, which varies considerably across countries. We expect the IMF and other IFI's to be supportive of and provide financing to the most vulnerable countries with limited conditionality. Crisis breeds reforms and EM has been through many before. Many of the EM countries have been prudent with their spending and have allowed their currencies to float, which provides a balancing mechanism for their economies. EM and DM are no different from each other in that they will both have to increase their debt burden to fight the virus. We expect that almost the entire global sovereign debt stock to be downgraded a credit notch as sovereigns take on more debt.

Eventually, the virus will run its course. Economic normalization will likely include a significant upswing in demand and economic activity from current levels. This upswing will be aided and supported by the monetary and fiscal policies and we may find that the recovery comes quicker and with more strength than current consensus. Certainly markets will move well before the economic data shows clear signs of improvement. In the meantime, we will continue to look for opportunities to add relative risk in oversold assets, while selling those that have held up too well.

Credit

MONTHLY REVIEW

March saw corporate spreads wider in the U.S. and in Europe. The key drivers of credit spreads in March were the uncertainty created by the coronavirus and the level of credit selling. Other factors that caused volatility include a breakdown of the OPEC discussions managing supply; central banks' responses to the crisis, including provisions of liquidity and programs to buy corporate bonds; large supply as weakness in short term funding markets pushed high quality issuers to the public corporate market; and rating action, particularly in sectors directly impacted by the weak economic activity.

BBB rated names broadly underperformed higher-rated securities both in the U.S. and in Europe. In the U.S., the Bloomberg Barclays U.S. Corporate Index closed 161 bps wider in March to end the month at 285 bps over government bonds. Financials performed in line with nonfinancials in the month. In terms of excess returns versus government bonds, the U.S. Investment Grade (IG) index generated a negative excess return of -10.40%. European IG, as measured by the Bloomberg Barclays Euro-Aggregate Corporate Index, slightly outperformed the U.S. market in March, closing 127 bps wider at 241 bps. Financials closed 142 bps wider, underperforming non financials (116 bps wider).[10]

High yield saw a historic sell-off and partial recovery in March as the coronavirus outbreak quickly became not just a public health crisis, but also a full-blown economic crisis. Spreads ended the month 380 bps wider at 880 bps, and yields widened 321 bps to end the month at 9.44%. On March 23rd, at the peak of the selloff, yields and spreads were 11.69% and 1123 bps respectively, almost 600 bps wider from the end of February. This was the fastest, most severe sell off in high yield history. To put this in perspective, the spread widening that occurred over a 6-month period in 2008 took 13 days in March. This selloff was then followed by a historic, top three rebound that only trails rallies seen in March 2001 and January 2009. The HY index gained 6.61% between March 24 and March 27, which leaves total MTD performance for March at -11.46%.[11]

Aside from coronavirus induced volatility, the HY market was further roiled by a drastic drop in oil prices. Unsurprisingly, over the month the worst performing sectors were all subsectors of the energy market followed by other corona-exposed sectors. Oil field services was down -43.70%, E&P down -37.81%, Midstream down -22.97% and Leisure -22.32%. The best-performing sectors were supermarkets -1.05%, wireless -3.20%, electric -3.32%, health insurance -3.64%. From a ratings perspective, BB-rated bonds were down -9.70%, outperforming B and CCC rated bonds which returned -12.12% and -18.90%.[12]

Risk appetite has started to return to the market and HY saw $6 billion in inflows

[10] Source: Bloomberg Barclays, as of 3/31/2020

[11] Source: Bloomberg Barclays, as of 3/31/2020

[12] Source: Bloomberg Barclays, as of 3/31/2020

in the last week of March.[13] This brings total month to date ETF and mutual fund flows to -$15.2bn. The high yield new issue market also reopened on March 31 with YUM brands issuing $600 million of 5-year senior notes. The YUM brands deal was 10x oversubscribed and traded up to103 after pricing at par.[14] However, we are not out of the woods yet and the news and data flow in April will show further deterioration before any improvement, on both the health and economic front. For example, U.S. weekly initial unemployment claims were over 6 million on April 2. The pre-crisis level was around 200,000.

While this crisis is in many ways different from previous periods, high yield has historically proven itself to be resilient, and has provided strong total returns after periods of extreme spread widening. While there are real default risks in certain high yield sectors, there are also real opportunities.

Global convertibles fell precipitously along with virtually all other risk assets in March as the COVID-19 pandemic roiled world markets. MSCI Global equities were down the most since October 2008, falling 13.73% in March and Barclays Global Credit fell 6.56% while the Reuters Global Convertibles index fell 9.06%.[15]

In times of extreme stress, it is useful to see how well convertibles have mitigated the downside risk. Over the first quarter of the year, MSCI Global equities fell 21.74%, the Bloomberg Barclays Global High Yield Corporate Index fell 13.59% and the Bloomberg Barclays Global Agg Corporate (Investment Grade) Index fell 5.42%. When considering that convertibles risk is derived from equity performance and a blend of investment grade and high yield credit performance, the 8.7% fall of the Reuters Global Convertibles Index is, of course, painful in absolute terms, but is nevertheless a relative outperformer. This is partly due to underlying equity sector performance, where, surprisingly, we observe that YTD non-cyclical stocks (-23.44%) have underperformed cyclical stocks (-19.50%). This has marginally helped convertible market return as convertible supply is broadly tilted to cyclicals. In terms of regions, U.S. convertibles have performed the worst YTD (-12.30%), followed by Europe (-10.00%) and Japan (-5.31%). This is largely due to the higher equity delta of the U.S. after a long period of equity outperformance.[16]

Finally, in terms of valuation, we note that in normal markets, converts tend to trade within 1-2% of theoretical fair value. Coming into February, converts traded about 50 bps cheap. Today, the market has sold off to about 3.5% cheap. This is a big move, but we note that the market was nearly 10% cheap in 2008. The convert market has behaved far more predictably in 2020 vs. 2008 as hedge funds owned about 2/3 of the market in 2008 using around 8-10x leverage; today they own about 1/3 and have average leverage around 3-4x. This has allowed the convert market to perform far more predictably in 2020, although of course liquidity has been very thin.[17] The average price of a bond in the Reuters Global Convertibles index as of March 31, 2020 is 90% compared to 103% to start the year. Delta is still 35%. It is always risky to call a bottom in markets, but we believe convertibles, like other asset classes, will have very attractive characteristics when markets do recover. Investors will hold bonds likely well below par that can provide appealing yield to maturity, plus a valuable potential option on any equity market recovery. In 2009, convertibles rebounded quickly, broadly matching the losses from 2008 (EG, the Reuters Global Convertibles was down 27.61% in 2008 but then recovered 23.91% in 2009). The combination of a relatively stable credit profile and an equity option provided a sort of "rubber band" effect in 2009 as convertibles were drawn back to par in the recovery, and got there quickly given the volatility of the option rebound.

OUTLOOK

The economy (and asset prices) have been hit by the containment measures necessary to halt the spread of the coronavirus and the related fall in oil prices following the breakdown of OPEC discussions. Markets are looking for clarity over (1) the length of time isolation policies will remain in force and (2) the time to identify a vaccine. Hopes of a "V" shaped rebound are no longer the base case as questions over the assumption that warm weather will reduce the impact of the virus and health experts warning that a vaccine is months and not weeks away are re-pricing markets. The reality is a base case no longer exists with the limited credible data.

Governments have responded to the crisis by prioritizing health as the primary goal. The need to reduce overcrowding in the limited medical facilities has required a policy of isolation across most developed countries (shuttering/containment) at the cost of economic activity.

In response to the economic impact, central banks have eased monetary policy with rate cuts and additional QE asset purchase programs like the CSPP in Europe. Across most developed markets, rates have been moved to the zero bound. Fiscal policy has been more limited but is expected to increase over the coming weeks. While monetary policy can provide liquidity and low

[13] Source: JP Morgan, as of 3/31/2020
[14] Source: Bloomberg, as of 3/31/2020
[15] Source: MSCI, Bloomberg Barclays, Thomson Reuters, as of 3/31/2020
[16] Source: Thomson Reuters, as of 3/31/2020
[17] Source: Bloomberg, as of 3/31/2020

rates, the economic cost is being borne by shareholders and workers to date. The next stage of support will be direct public payments to the private sector (like the UK plan to pay 80% of wages for workers at risk of redundancy caused by the coronavirus shutdowns) whereby the cost is socialized, but questions remain over the willingness of the public sector to bear the economic cost.

For the market to consolidate longer term we are looking at three key indicators to give confidence to investors:

- A vaccine for the coronavirus
- A slowdown in new cases (including consideration of re-infection)
- The market stabilizing and finding a clearing level for risk

Securitized

MONTHLY REVIEW

The global spread of coronavirus roiled nearly all markets in March. The positive fundamental credit environment in both the U.S. and Europe quickly turned negative as large segments of the economy shut down, and the backdrop of low unemployment quickly changed with a surge of service-sector lay-offs. Governments and central banks have responded swiftly with unprecedented stimulus, including massive central bank purchases and direct cash payments to tax-payers, as well as support for small businesses and industries particularly affected by coronavirus. These measures should help cushion the impact from coronavirus, but the effects will still be significant and will vary across different sectors. In the securitized markets, spreads in the more credit oriented sectors gapped wider, with AAA rated spreads widening over 300 bps at the lows, before settling down to 150 to 200 bps wider in March. BBB and BB rated spreads were substantially wider, in some instances spreads widened more than 1000 bps, before still settling in to a range of 400 to 800 basis point wider. Securitized sectors that are more sensitive to Coronavirus impacts are those relating to travel and shopping, such as aircraft asset-backed securities (ABS), and hotel and retail commercial mortgage-backed securities (CMBS); these sectors, along with unsecured consumer ABS, experienced substantial price declines as credit concerns escalated. The only securitized sector that generated positive returns in March was agency mortgage-backed securities (MBS), which benefited from both the government guarantee backing these bonds, and the renewed purchase program of the Federal Reserve (Fed).

Agency MBS performed relatively well in March, bolstered by the Fed's purchase program and the market's pursuit of liquidity and high credit quality assets. While agency MBS generated positive returns, with the Bloomberg Barclays MBS Index up 1.06% for the month and 2.82% for the year, the sector still underperformed U.S. Treasuries as nominal spreads widened roughly 30 bps to 140 bps over comparable duration U.S. Treasuries.[18] The duration of the Bloomberg Barclays MBS Index shortened from 2.17 years at the end of February to 1.67 years at the end of March.[19] Specified pools and agency collateralized mortgage obligations (CMOs) substantially underperformed securities traded on the to-be-announced market (TBAs), as the liquidity of TBAs became more attractive and as the TBA rolls surged in anticipation of an increase in agency MBS demand from the Fed's purchases. The Fed has purchased $290 billion agency MBS since March 16th, completely reversing the portfolio reduction plan that had been in place since late 2017.[20] Mortgage rates rose 0.24% in March to 3.86% as agency MBS spreads widened.[21] Although the relative value of agency MBS looks unattractive versus AAA rated securitized credit opportunities, we expect agency MBS to continue to perform well due to the Fed sponsorship and continued investor demand for liquidity and safe havens. We find specified pools to be significantly more attractive than TBAs at current prices, especially when taking into account the fast projected prepayment speeds at these low mortgage rates.

U.S. non-agency residential mortgage-backed securities (RMBS) spreads gapped wider and prices fell sharply as credit concerns increased. The Treasury announced new mortgage policies, allowing some forbearance on mortgages backed by the Government Sponsored Entities (GSEs), and putting a temporary moratorium on foreclosures and evictions. While these new policies only explicitly apply to "Federally backed" mortgages (agency MBS), we expect many servicers to also apply these new policies to non-agency mortgages as well, as part of "standard mortgage practices." We expect to see a surge in delinquencies and a rise in defaults if the current environment persists for a substantial period of time. That said, we believe most non-agency RMBS to be resilient to this market stress. The borrowers within legacy non-agency RMBS went through a similar environment during the Financial Crisis, and now their loan-to-value ratios are substantially lower after 10 years of loan amortization. Post-crisis 2.0 non-agency RMBS has been structured to withstand high levels of defaults having used the Financial Crisis as a stress test. Structural credit support levels are very high on 2.0 RMBS, and loan underwriting standards are substantially improved from pre-crisis

[18] Source: Bloomberg Barclays, as of 3/31/2020.
[19] Source: Bloomberg Barclays, as of 3/31/2020.
[20] Source: The Federal Reserve, as of 3/31/2020.
[21] Source: Bloomberg Barclays, as of 3/31/2020.

loan origination. We expect non-agency RMBS to continue to trade poorly in the near term, due to headline risks and fear factors, but we believe this sector represents strong long-term fundamental value at current valuations.

U.S. ABS spreads also jumped wider with AAA-rated spreads widening by 200 bps at one point before settling down to 50 to 100 bps wider by month end. Credit card and auto ABS fared substantially better than sectors that are likely more vulnerable to impacts from coronavirus such as unsecured consumer loans and aircraft ABS.[22] Liquidity was also a big differentiator, with less-liquid sectors such as mortgage servicing related ABS also experiencing significant price declines. In this new coronavirus-affected market, we still like auto ABS and credit card ABS as these sectors performed well during the Financial Crisis and should also perform well in the coronavirus market since consumers will likely prioritize these payments in order to buy basic necessities and to get to work. We also like mortgage servicing-related ABS given the substantial amount of government support that has been announced for mortgage services in order to keep the mortgage market operating. These securities, while less liquid, should be solid from a fundamental value perspective. We are much more concerned about the credit performance of unsecured consumer loans and aircraft ABS, but these asset classes have been substantially re-priced to now reflect these greater risks.

U.S. CMBS has also experienced substantial spread widening, with AAA-rated spreads 200 to 300 bps wider at the lows before recovering to roughly 100 to 150 bps wider by month-end. BBB CMBS widened more than 1000 bps at lows before settling in 400 to 800 bps wider, depending on underlying collateral.[23] Office buildings, multi-family housing, and logistics centers performed better, while hotels and shopping centers experienced significant devaluations. We believe this sector-level pricing differential makes sense as we think prime office space, residential-related properties, and logistics centers will ultimately perform fine, while hotel and shopping centers will perform poorly depending on how long the coronavirus impacts last. We had reduced our shopping center exposure significantly over the past several years and our hotel exposure is relatively minimal as well. AAA rated securities collateralized by hotels could offer attractive value given the very low loan-to-value ratios (often 15-25%) at this senior part of the securitization capital structure.

European RMBS also performed poorly but still fared better than its U.S. equivalents. AAA rated UK and European RMBS spreads were 150 to 200 bps wider at the lows before finishing the month closer to 100 bps wider. There was significantly less distressed selling in Europe, relative to the U.S., and the European Central Bank (ECB) announced a €750 billion Pandemic Emergency asset purchase program, which helped lend support to the European markets. European CMBS also performed better than U.S. CMBS, although securities backed by hotels and shopping centers also suffered. European ABS also widened, with credit cards and auto loans performing better than small business loans or unsecured consumer loans.

OUTLOOK

We expect spreads across most securitized sectors to bounce back in April. The distressed selling and forced liquidations that took place in March seem to have subsided, and new capital appears to be flowing into the market. Spreads will likely remain materially wider than pre-coronavirus levels, given the elevated economic risks from the virus, but should tighten in from current levels as some of the market overreaction and forced selling pressures dissipate. We believe the current market environment may represent a great entry point for new investors and an opportunity for recovery for current investors. We are focused on increasing exposure to sectors that we believe will be more resilient to the economic impacts from coronavirus, namely residential real estate-related securities, auto loans and credit card ABS, and CMBS collateralized by office buildings, residential properties, and warehouse or logistics centers. We are looking to reduce exposure to unsecured consumer loans, small business loans, hotels, shopping centers and airplanes. For opportunistic portfolios, senior securities in some of these troubled sectors could represent an attractive opportunity given the substantial levels of structural credit support for the senior securities and the substantially reduced prices. Mark-to-market risks will likely remain high for these securities, but we believe structural credit protections can help protect against substantial levels of defaults and that many of these securities will be fine from a fundamental credit perspective. We plan to reduce our Agency MBS exposure and increase our credit exposure, given the substantial outperformance of Agency MBS in March due to the Fed's renewed purchases. While the Fed support will likely remain in place for a sustained period of time and Agency MBS will remain well bid, we believe there is little upside to Agency MBS from current levels, while there is more upside to more credit-oriented opportunities.

[22] Source: JP Morgan, as of 3/31/2020.

[23] Source: Bank of America, as of 3/31/2020.

The views and opinions expressed are those of the Portfolio Management team as of April 2020 and are subject to change based on market, economic and other conditions. **Past performance is not indicative of future results.**

Risk Considerations

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, 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

R* is the real short term interest rate that would occur when the economy is at equilibrium, meaning that unemployment is at the neutral rate and inflation is at the target rate.

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.

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

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

The **Bloomberg Barclays U.S. Corporate Index (Bloomberg Barclays U.S. IG Corp)** is a broad-based benchmark that measures the investment-grade, fixed-rate, taxable corporate bond market.

The **Bloomberg Barclays U.S. 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 Barclays U.S. 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 U.S. Treasury**—U.S. 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

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

The **ICE BofAML U.S. High Yield Master II Constrained Index (ICE BofAML U.S. 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.

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The **JP Morgan CEMBI Broad Diversified Index** is a global, liquid corporate emerging markets benchmark that tracks U.S.-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 U.S. 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 U.S.-dollar corporate emerging market bonds representing Asia, Latin America, Europe and the Middle East/Africa.

JPY vs. USD—Japanese yen total return versus U.S. dollar.

The **National Association of Realtors Home Affordability Index** compares the median income to the cost of the median home.

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

The **S&P/LSTA U.S. 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 (U.S.), 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 **U.S. 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 U.S. trade partners' currencies.

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