



Monthly Commentary

May 2018

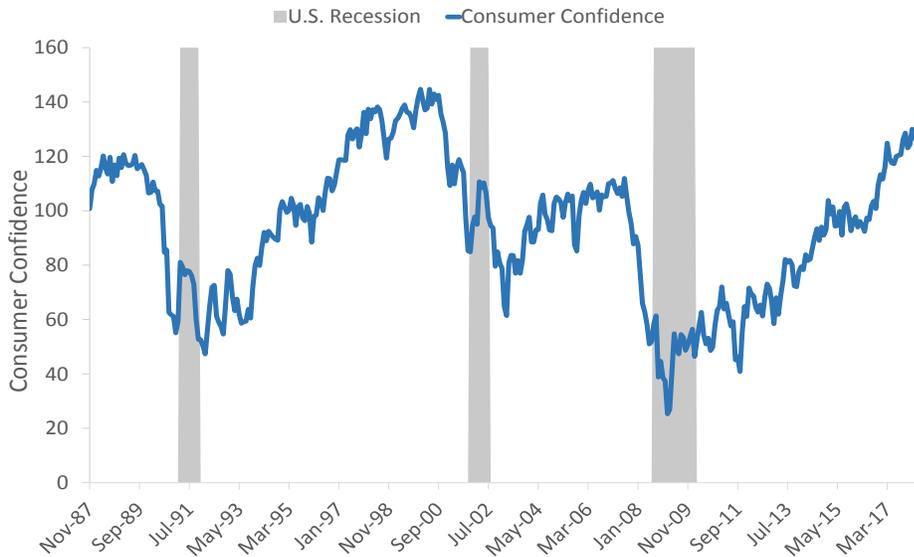
Overview

May's new economic data remained constructive on the U.S. economy. U.S. Consumer Confidence, as measured by the Conference Board Consumer Confidence Index Seasonally-Adjusted, jumped from 125.6 in April to 128 in May, its second-highest level of the year. The Institute for Supply Management Manufacturing Purchasing Managers Index (ISM PMI), an indicator for the economic health of the Manufacturing and Services sectors, rose to 58.7 in May from 57.3 a month prior. In the past, the ISM PMI has dipped below 50 on average 1-9 months prior to a recession. The U.S. Consumer Confidence and ISM PMI levels suggest little chance of a recession over the near-term.

In a continuation of the \$50 billion of sanctions against China announced in April, the Trump Administration announced that they would be imposing a 25% tax on steel and 10% tax on aluminum imports from Canada, Mexico and the European Union. Together, Canada, Mexico, the United Kingdom and Germany account for over 41% of U.S. exports. We see the potential for these tariffs to be inflationary should they be imposed.

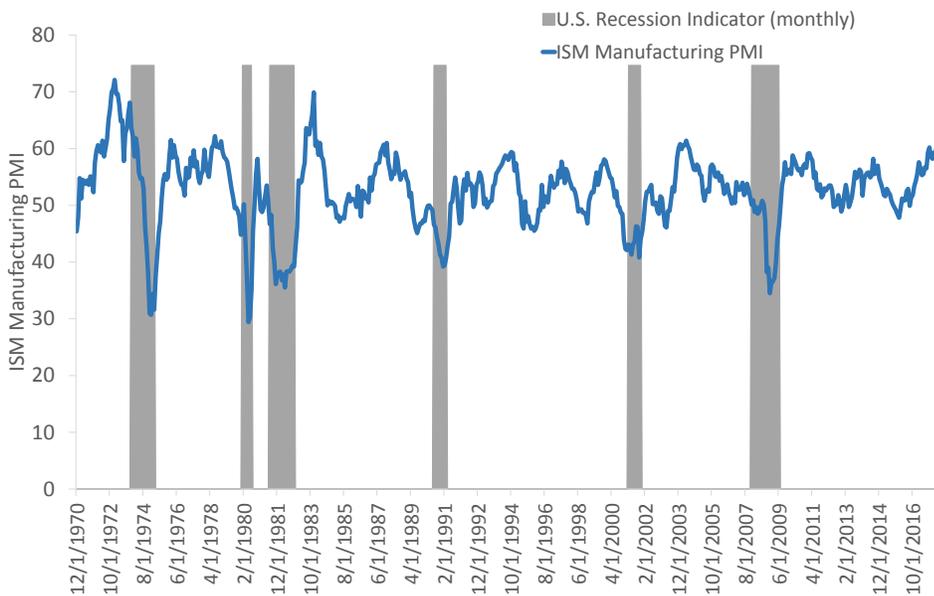
Furthermore, geopolitical risks rippled through global fixed income markets on May 28th when Italian President Sergio Mattarella refused to confirm a Euroskeptic economist, Paolo Savona, as finance minister and instead appointed Carlo Cottarelli as Prime Minister, leading to a collapse in the coalition agreement three months in the making between the two populist parties, the Five Star Movement and the far-right League, who were both win-

Conference Board Consumer Confidence Index Seasonally-Adjusted November 30, 1987 to May 31, 2018



Source: DoubleLine, Bloomberg

Institute for Supply Management Manufacturing Purchasing Managers Index December 31, 1970 to May 31, 2018



Source: DoubleLine, Bloomberg

ners in the March parliamentary elections. This announcement sent the 10-year German Bund yield as low as 0.34%, while the Italian 10-year government bond yield widened to as high as 3.15%. Simultaneously the U.S.

Treasury (UST) market and U.S. Dollar (USD) rallied, as investors fled to risk-off assets and fears of an "Italexit" from the European Union heightened.

European markets showed mixed data with the eurozone's Gross Domestic

Overview

Product (GDP) print coming in at 2.5% year-over-year (YoY), the unemployment falling to 8.4%, and the Eurozone Manufacturing ISM PMI measures falling to 55.5 from a high of 60.6 in December. Additionally, Consumer Confidence in the Eurozone was near a 17-year high with business confidence decreasing.

Despite the recent global volatility, DoubleLine still believes the U.S. Federal Reserve (Fed) will move forward with 2018's second Fed Funds Rate hike in June. Historically, tightening has led to a shrinking deficit and easing has led to an increasing deficit. Today, however, the Fed is tightening and the deficit is increasing, which is abnormal. Additionally, corporations are also coming under pressure from an uptick in wage inflation, as well as increased transportation costs due to higher oil prices. This could potentially lead to corporations passing higher expenses on to the consumer, putting additional upward pressure on inflation.

The potential increase in inflation, increased deficit, Fed tightening and Fed balance sheet reduction should continue to drive interest rates higher over the medium-term. At DoubleLine, we believe rising interest rates will lead to heightened volatility, especially within the equity and credit markets given their historically high valuations. As such, we caution investors to favor higher credit quality portfolios while remaining underweight duration and interest rate sensitive sectors.

U.S. Government Securities

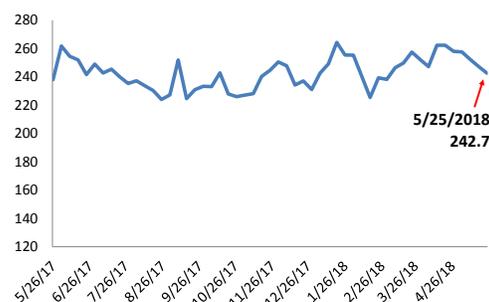
- The Bloomberg Barclays U.S. Treasury Index gained 0.90% in May, paring its year-to-date (YTD) loss to 1.1%. Most of the gains can be attributed to the final week of May, when turmoil in Italian bonds drove investors to seek safe haven in UST.
- The 10-year UST yield touched 3.12% intraday on May 17th. On the same day, the 30-year UST yield tested the critical level of 3.22%, but failed to break steadily to the upside. The speculators in the market had accumulated massive short positions, according to the Commitment of Traders (COT) position data.¹ It was suspected that the strong rally towards the end of the month had forced the speculators to at least partially cover their shorts, which in turn fortified the rally in Treasuries.
- Another catalyst for lower yields during the month was the May 23rd release of the Federal Open Market Committee (FOMC) minutes, which proposed technical changes to Interest Rate on Excess Reserves (IOER) that could put downward pressure on the effective Fed Funds Rate.
- Treasury Inflation-Protected Securities (TIPS) breakeven rates ended the month lower after widening to multi-year highs. The yield curve continued its flattening trend.

Agency Mortgage-Backed Securities

- Overall aggregate prepayment speeds increased by about 9% month-over-month (MoM); this was attributed to the additional business day during May and greater seasonal turnover.
- Refinancing activity declined by about 12% while purchasing activity declined by about 6% during May, according to Mortgage Bankers Association (MBA) Refinancing and Purchase Indices on a seasonally-adjusted basis.
- Overall gross issuance in Agency MBS was roughly \$134 billion for

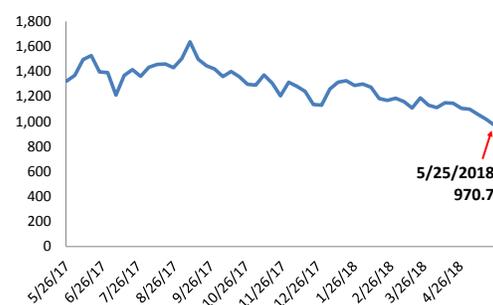
the month, increasing by about 5% from the prior month and bringing YTD volumes to around \$519 billion; for the same time period in 2017, there was roughly 7% less in issuance this year compared to last year, likely caused by the continued low prepayment environment from rates being higher.

Mortgage Bankers Association (MBA) Purchase Index As of May 25, 2018



Source: Bloomberg

MBA Refinance Index As of May 25, 2018



Source: Bloomberg

U.S. Treasury Yield Curve

	4/30/2018	5/31/2018	Change
3 month	1.80%	1.89%	0.09%
6 month	2.00%	2.08%	0.08%
1 year	2.23%	2.22%	-0.01%
2 year	2.49%	2.43%	-0.06%
3 year	2.63%	2.55%	-0.08%
5 year	2.80%	2.70%	-0.10%
10 year	2.95%	2.86%	-0.09%
30 year	3.12%	3.03%	-0.09%

Source: Bloomberg

Conditional Prepayment Rates (CPR)

	2017-2018	May	June	July	Aug	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Fannie Mae (FNMA)		12.3%	11.4%	12.4%	11.2%	12.1%	10.9%	10.6%	9.4%	8.9%	10.2%	10.0%	10.8%
Freddie Mac (FHLMC)		15.4%	14.8%	16.0%	14.6%	15.7%	15.3%	14.3%	12.9%	11.5%	12.1%	11.5%	12.6%
Ginnie Mae (GNMA)		12.1%	11.3%	12.2%	11.0%	11.8%	10.7%	10.1%	9.0%	8.4%	9.5%	9.5%	10.5%

Bloomberg Barclays Capital

U.S. MBS Index	3/31/2018	4/30/2018	5/31/2018	MoM Change
Average Dollar Price	\$101.50	\$100.27	\$100.71	\$0.44
Duration	5.05	5.28	5.09	-0.19

Bloomberg Barclays Capital

U.S. Index Returns	3/31/2018	4/30/2018	5/31/2018
Aggregate	0.64%	-0.74%	0.71%
MBS	0.64%	-0.50%	0.70%
Corporate	0.31%	-0.91%	0.50%
Treasury	0.94%	-0.81%	0.90%

Source: eMBS, Barclays Capital

1. The Commodity Futures Trading Commission (CFTC) publishes a weekly report outlining how trades are positioned in the futures market based on data from reporting firms.

- The Bloomberg Barclays U.S. MBS Index returned 0.70% for the month of May and ended the period with a duration of 5.09 years.

Non-Agency MBS

- Despite broader macro volatility, spreads across non-Agency MBS were flat in subprime and 10 basis points (bps) tighter in the prime and Alt-A space. Technical and fundamental factors endogenous to the non-Agency market remained strong.
- Investors received approximately \$700 million in settlement payouts for JP Morgan and Lehman deals during the month. There remain a number of deals from these issuers still in court proceedings over payment methodology. It is anticipated these deals will receive payouts over the next 6-9 months.
- BWIC volumes were \$5.9 billion compared to \$3.7 billion during May.² Subprime bonds continued to make up a majority of these lists.
- The U.S. housing market continues to show strength as the S&P/ CoreLogic Case-Shiller U.S. National Home Price NSA Index was up 6.5% annually through March. Home prices have been supported by both a strong economy and low inventory as homebuilder production levels are well below historical norms.
- New issuance volumes were approximately \$5.1 billion (excluding credit risk transfer). We continued to see growth in non-qualifying mortgage (non-QM) and mortgage

servicing rights issuance as five of these deals came to market this month. There was \$1.1 billion in non-performing and re-performing loan (NPL and RPL) securitizations. A strong new issuance calendar is beneficial to investors in non-Agency MBS looking to reinvest legacy paydowns and settlement payouts in a sector with positive fundamentals.

Commercial MBS

- May private-label Commercial Mortgage-Backed Security (CMBS) issuance totaled \$6.8 billion, bringing the YTD total to \$34.5 billion, or 33% above the same period in 2017. Four conduit deals totaling \$3.4 billion and five single-asset single-borrower (SASB) deals totaling \$1.9 billion priced during the month. SASB deals continued to be the driver of new issuance, up about 125% over the same time period in 2017 as compared to conduit which is up about 1%. The Senior Loan Office Opinion Survey indicated that lending standards loosened for Commercial Real Estate (CRE) in the first quarter 2018; however, this was also met with declining demand for CRE loans, potentially due to increased competition from non-bank lenders. Since YoY annual CRE price appreciation hit a trough in June 2017, annual appreciation has been strongest in non-major markets, alongside slowing transaction volume and price appreciation in major markets. This is indicative of investors shifting focus to non-major

markets, which trade at a wider cap rate to major markets.

- Secondary principal & interest CMBS trading totaled \$21.4 billion in May, decreasing 8% MoM and 7% below the 2018 monthly average of \$23.1 billion through April. Secondary market cash spreads generally widened alongside higher rates, with AAA last cash flows (LCF) widening by 5 bps to swaps +83 bps and BBBs widening by 5 bps to swaps +330 bps. Floating rate paper remains well bid as a hedge to fixed rate paper as investors seek upside from rising rates. CMBX spreads rallied, with AAA 2012-2016 reference indices tightening by an average of 2 bps, and BBBs by an average of 19 bps.
- The outstanding private-label CMBS universe increased by \$3.4 billion or 0.8% to \$471.1 billion in May. While the outstanding conduit universe is up around 1% since December 2017, the outstanding SASB universe is up around 7%. The CMBS delinquency rate continued to decline to 4.4%, falling 19 bps in April and 116 bps lower than the same period in 2017. The delinquency rate declined by 24 bps to 4.12%, which is now 77 bps lower YTD, the lowest level since May 2008.

Asset-Backed Securities

- In the wake of concerns from investors that Auto and Consumer Loans are poised to see sharper increases of distress in a recessionary environment, a recent Senior Loan

2. BWIC = Bid Wanted in Competition

Investment Grade Credit

Officer Opinion Survey reported that lending standards are continuing to tighten across both Auto and Credit Card loans. As lending standards tightened, demand eased moderately for both Credit Cards and Auto Loans.

- Auto Asset-Backed Security (ABS) 60+ Delinquency rates for subprime Auto ABS decreased for the second consecutive month, seeing the lowest rates of delinquency since May 2017. Constant Default Rates (CDR) also fell YoY, down 11%, making it the fifth straight month of decreasing CDRs.
- Student Loan markets have been bifurcated, with Federal Family Education Loan Program (FFELP) product seeing the highest delinquency rates since February 2016, up 26% YoY. Private-label student loans are faring much differently, with delinquencies down 13% YoY.
- Transportation ABS, in the areas of Rail, Shipping and Aviation, have seen robust issuance YTD with Shipping and Aviation leading the way. Spreads continued to remain on a tightening trajectory despite the spread volatility in the corporate credit market.
- Investor participation has been strong, but for the first time we are starting to see price tiering of issuers in the esoteric space as investors identify the strongest platforms and are willing to pay up for them.

- The Bloomberg Barclays U.S. Credit Index widened by 7 bps in May to 109 bps, underperforming duration-matched Treasuries by 45 bps. Total return for the month was 0.50%. The heightened political uncertainties in Italy pushed spreads wider and interest rates lower, especially at the long end of the Treasury market. Yield-to-worst hit 4% on May 17th, the highest level in over 5 years.
- The new issue market slowed with \$91 billion in gross new issues and -\$18 billion of net new issue. This compares to May 2017 gross new issue of \$162 billion and net new issue of \$94 billion. During the month, Vodafone dominated the new issue market with \$11.5 billion of issuance to fund the acquisition of Liberty Global. This was the second largest issue of the year. Takeda is expected to come to mar-

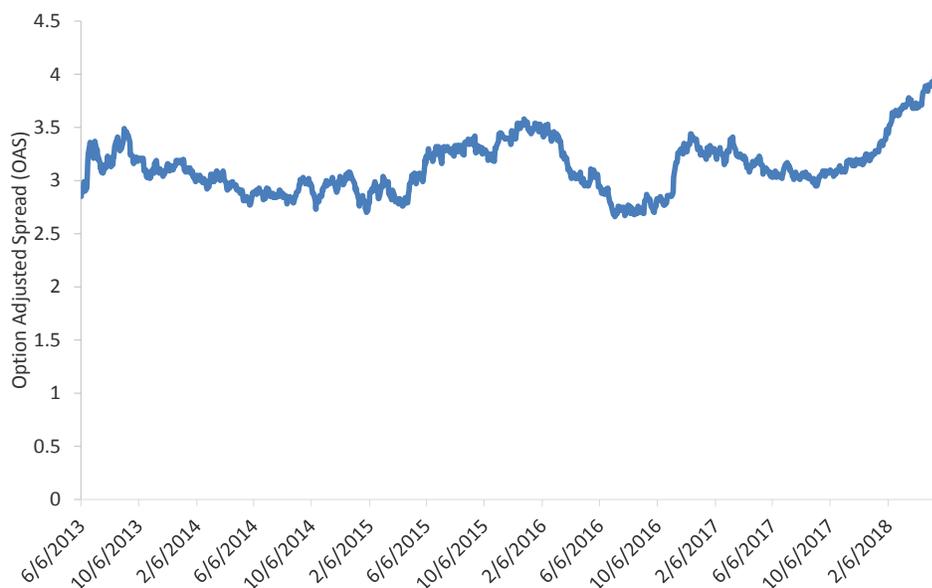
ket in 2018, with up to \$20 billion in bonds to fund the acquisition of Shire.

- Approximately \$8.2 billion flowed into Investment Grade (IG) mutual funds during the month, skewed towards the short-end of the market. Short-duration funds had \$8.7 billion of inflows and total return funds had outflows of \$2 billion. This compares to YTD monthly average inflows of \$14.7 billion and May 2017 inflows of \$33 billion.

Collateralized Loan Obligations

- The Collateralized Loan Obligation (CLO) new issue market continued its fourth consecutive month of double-digit issuance. May saw a total of \$11.23 billion in new issue across 21 deals. This brings U.S. CLO new issuance up to \$54.18 billion for the year.

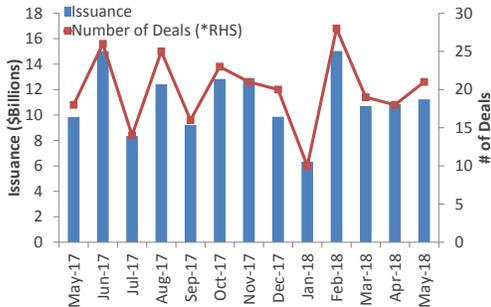
Bloomberg Barclays U.S. Credit Index Option-Adjusted Spread June 6, 2013 to May 31, 2018



Source: Bloomberg, DoubleLine

Bank Loans

U.S. CLO Monthly Issuance
May 2017 to May 2018



Source: S&P Capital IQ
*RHS = Right Hand Side

- The reset and refinance market remained robust as an additional \$11.60 billion came to the market in May. Refinances and resets typically try to time the reset with the quarterly payment dates in January, April, July and October. May's reset and refinance number was a strong showing for a non-payment month when this issuance tends to slow down.
- New issue spreads have widened out slightly from the tights we saw at the beginning of the year, with AAA wider by 10 to 25 bps. The spread widening is due to the influx of supply.
- With the successful repeal of risk retention, we have seen a few managers liquidate their vertical risk retention for multiple deals on the secondary market. These lists include securities up and down the capital stack, including equity. The market was able to absorb the additional supply without making spreads leak out wider.
- The loan market, as measured by the S&P/LSTA Leveraged Loan Index, returned just 0.17% in May, a six-month low. The interest component of returns was 0.46%, but the price return was -0.29%. May was a robust month for new loan issuance, which put downward pressure on secondary prices.
- With the strong new issue calendar, \$40.5 billion of new loans entered the Index during the month, an 11-month high. After factoring in repayments, net supply increased by almost \$25 billion.
- Inflows to the asset class continued throughout the month, but not enough to match the pace of new supply. CLO managers priced \$11.2 billion of paper last month, consistent with the 12-month average. U.S. loan funds have seen inflows for 15 consecutive weeks, including \$2.6 billion over the five weeks ending May 31st.
- The weighted average bid price of the Index fell by 22 bps to \$98.35, the lowest level since early April. Despite the sell-off, 56% of performing loans remained at or above par.
- Lower credit quality loans outperformed in May, with CCC-rated loans returning 1.14% relative to returns of 0.16% for single-B rated loans and 0.02% for BB-rated loans.
- The default rate in May remained low at 1.72% and was down from 1.95% in April.
- The best performing sectors in May were Surface Transport, Non-ferrous Metals-Minerals, and Oil & Gas with returns of 1.81%, 1.76%, and 0.45%, respectively. The worst performing sectors were Home Furnishings, Radio & Television, and Clothing-Textiles with returns of -0.78%, -0.29%, and -0.22%, respectively.

High Yield

- High Yield (HY) bond returns were modestly negative in May after an uptick in the S&P 500, a rally in UST, and moderately lower oil prices. The Bloomberg Barclays U.S. High Yield Index returned -0.03% for May and -0.24% YTD. Generally, duration-sensitive bonds are underperforming the Index this year, and that theme continued in May despite the move lower in UST yields toward month-end. For the month, bonds of 6+ year duration fell 1% with a return of -3.4% YTD versus the bonds of 0-3 year duration which rose 40 bps with a return of 1.5% YTD.
- Best performing sectors for May were led by Pharmaceuticals, followed by Supermarkets and Oil Field Services with returns of 2.1%, 2.0% and 1.5%, respectively. Worst performing sectors were Retail, Industrial Other and Building Materials with returns of -1.4%, -1.4% and -1.0%, respectively. Among the top borrowers within the High Yield sector, Sprint led declines with a return of -2.1% following a big move higher in April after its announced credit-enhancing merger with T-Mobile. Stressed-issuer In-

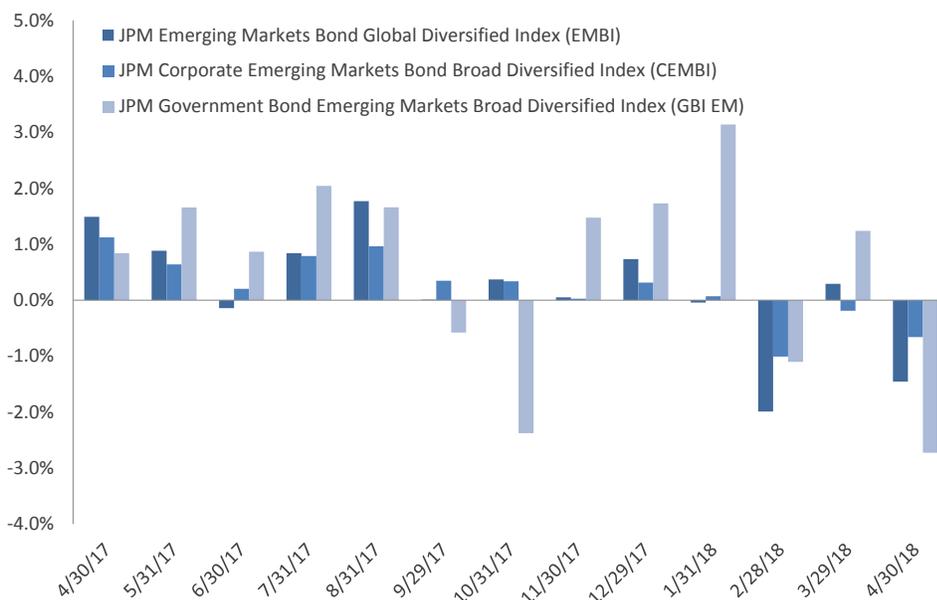
telsat was the best performer, returning 7.0%, on the back of market optimism about the company's asset value.

- According to Lipper, HY mutual funds and exchange-traded funds (ETF) posted May outflows of \$1 billion, following a \$402 million inflow in April, bringing YTD outflows to \$20.1 billion.
- New issue was relatively quiet in May and totaled \$14.4 billion, down 44% from last May's \$25.8 billion mark. On a YTD basis, HY new issue supply has totaled \$94.7 billion, down 24% from the prior-year total of \$124 billion. The market is on pace to issue \$229 billion in 2018 vs \$278 billion in 2017.
- According to JP Morgan, only one U.S. company defaulted in May with par debt of \$375 million. So far in 2018, 17 companies have defaulted with \$18.7 billion in bonds, increasing the par-weighted default rate modestly to 2.26%, up 98 bps this year and 95 bps from the same time period last year.

Commodities

- In May, the broad commodity market increased by 1.28% and 1.25%, as measured by the S&P Goldman Sachs Commodity Index (GSCI) and Bloomberg Commodity Index (BCOM), respectively.
- The Industrial Metals sector rallied 1.94% as Nickel surged 11.34%. The Precious Metals sector was mixed with a return of -1.38%, as Gold declined 1.57% and Silver increased 0.35%.

JP Morgan Emerging Markets Bond Index Performance May 31, 2017 to May 31, 2018



Source: JP Morgan

- Livestock was the best performing sector in May with a return of 1.99% with Lean Hogs, Live Cattle, and Feeder Cattle all rallying with returns of 5.46%, 0.17%, and 0.82%, respectively.
- The Agriculture sector increased 1.10% with Cotton and Cocoa being the best and worst performers with returns of 11.10% and -13.13%, respectively. The Energy sector rallied 1.32% while Crude Oil was mixed with WTI down 2.13% while Brent rallied 4.20%.

Emerging Markets

- Emerging Market (EM) sovereign and corporate external bonds both posted negative performance in the month of May. The negative performance of external EM debt

was driven by wider credit spreads which offset lower UST yields.

- The JP Morgan Emerging Markets Bond Index (EMBI) Global Diversified's credit spread widened 32 bps to 344 bps over the month, while the UST yield curve flattened with 2-year UST yields lower by 6 bps and 10-year UST yields falling 9 bps over the month.
- April and May have seen an increase in volatility across the asset class, which has provided an opportunity to selectively reposition the portfolio into some higher yielding credits with good credit fundamentals that sold off to attractive levels.

International Sovereign

- Global government bonds posted negative returns in the month of

May, driven primarily by foreign currency losses against the USD.

- The USD, as indicated by the U.S. Dollar Index (DXY), rose during the month against a backdrop of heightened trade tensions and fluctuating UST yields. The 10-year UST yields reached their highest level in nearly seven years during May, before reversing lower by month-end.
- The Euro fell against the USD during the month with market participants concerned about increased political uncertainty in Italy and Spain and moderating economic data across the eurozone.
- The Japanese Yen rallied against the USD this month, benefitting from its safe-haven status against a pickup in market volatility. Bank of Japan (BoJ) Governor Haruhiko Kuroda indicated inflation was far from the Central Bank's 2% target, and the BoJ would not exit extremely accommodative monetary policy before that target was reached.

Infrastructure

- Infrastructure debt generated positive returns in May with the largest contributions coming from Aircraft and Renewable Energy ABS exposures.
- Overall, Infrastructure-related ABS was the best performing sector in May, as rates and spreads tightened slightly. In terms of supply, new issuance remains robust as deals related to Rail, Aircraft, Containers, and Solar all came to market.

- U.S. Corporate Infrastructure exposures generated positive total returns in May, driven by lower rates and a positive environment for energy and transportation-related assets.
- Internationally, volatility in EM had a negative impact on returns during the month. Geopolitics, a strong USD and higher interest have weighed on the sector YTD.

U.S. Equities

- Corporate America wrapped up the first quarter earnings release season in May, posting the fastest earnings growth rate since the post-recession bounce of late 2010. According to FactSet, the companies of the S&P 500 grew earnings in the first quarter by almost 25%, the fourth double-digit growth quarter in the last five quarters.
- Corporate earnings benefited from the Tax Cuts and Jobs Act passed in December 2017; however, corporate finances were strong even excluding the benefit of lower tax rates. For instance, the constituents of the S&P 500 grew revenues at over 8% YoY in the first quarter, an acceleration from the 6% pace of 2017. Among the fundamental tailwinds, the weak USD early in 2018 boosted both revenue and earnings for the S&P 500.
- Basking in the glow of these strong earnings U.S. equities started the month on a strong note, with the S&P 500 rising almost 3% in the first half of the month.

- While fixed income markets responded to the global policy risks at month-end with a sharp one third of 1% drop in the yield of the 10-year UST note off mid-month levels, the S&P 500 was largely able to shrug off the headlines and closed the month 1% off its mid-month high and up 2.4% for May.

Global Equities

- Global equities managed small positive returns in May. The Morgan Stanley Capital International All-Country World Index (MSCI ACWI) returned 0.19% during the month. U.S. equities outperformed the broader market with the S&P 500 and Dow Jones returning 2.41% and 1.41%, respectively. The Russell 2000 and NASDAQ Composite both produced positive returns of 6.07% and 5.50%, respectively.
- In Europe, equities underperformed on increased Italian geopolitical risk with the Eurostoxx 50 returning -2.31% during the month. Core European equities declined with the DAX returning -0.06% and CAC returning -0.70%. In the periphery, equities came under pressure with the FTSEMIB -8.00% and IBEX -5.09%. UK equities, as measured by the FTSE 100, were 2.79%.
- Asian equities were mixed in May. Japanese equities, as measured by the Nikkei 225, returned -1.18%. Chinese equities, as measured by the Shanghai Composite, returned 0.74%. Hong Kong equities, as measured by the Hang Seng, returned 1.31%. Korean equities, as

measured by the KOSPI, returned -2.78%.

- EM equities underperformed the broader market in May as the USD rallied with MSCI EM Index returning -3.52%. Brazil's Ibovespa declined 10.87%. Russian equities, as measured by MSCI Russia Index, rallied 1.16%. Indian equities, as measured by MSCI India, returned 0.71%.

Basis Point - A basis point (bps) equals to 0.01%.

Bloomberg Barclays U.S. Credit Index—The US Credit component of the U.S. Government/Credit Index. This index consists of publicly-issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered. The US Credit Index is the same as the former US Corporate Investment Grade Index.

Bloomberg Barclays U.S. Corporate Index - An index that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market, including Treasuries, government-related and corporate securities.

Bloomberg Barclays U.S. High Yield Index - A market value-weighted index which covers the U.S. non-investment grade fixed-rate debt market. The index is composed of U.S. dollar-denominated corporate debt in Industrial, Utility, and Finance sectors with a minimum \$150 million par amount outstanding and a maturity greater than 1 year. The index includes reinvestment of income.

Bloomberg Barclays U.S. MBS Index—An index that measures the performance of investment grade fixed-rate mortgage-backed pass-through securities of the Government-Sponsored Enterprises (GSEs): Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC).

Bloomberg Barclays U.S. Treasury Index -The Barclays Capital U.S. Treasury Index is the U.S. Treasury component of the U.S. Government Index. Public obligations of the U.S. Treasury with a remaining maturity of one year or more.

Bloomberg Commodity Index (BCOM) - An index calculated on an excess return basis that reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule.

Conference Board Consumer Confidence Index Seasonally-Adjusted - An index that measures the degree of optimism that consumers feel and future expectations about the overall economy.

Cotation Assistee en Continu 40 (CAC) - The CAC 40 Index which is a French stock market index. It tracks 40 of the largest French stocks on the Paris Bourse, or stock exchange.

Deutsche Borse AG German Stock Index (DAX) - The German stock index, which represents 30 of the largest and most liquid German companies that trade on the Frankfurt Exchange.

Dow Jones Industrial Average (DJIA) - A price-weighted average of 30 significant stocks traded on the New York Stock Exchange and the Nasdaq.

Eurostoxx 50 Index - A stock index of Eurozone stocks designed by STOXX, an index provider owned by Deutsche Borse Group and SIX group, with the goal of providing a blue-chip representation of Supersector leaders in the Eurozone.

Financial Times Stock Exchange 100 (FTSE 100) - A capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange.

Financial Times Stock Exchange Milano Italia Borsa (FTSE MIB) - The benchmark stock market index for the Borsa Italiana, the Italian national stock exchange, which superseded the MIB-30 in September 2004. The index consists of the 40 most-traded stock classes on the exchange.

Hang Seng Index - A free-float capitalization-weighted index of a selection of companies from the Stock Exchange of Hong Kong. The components of the index are divided into four subindices: Commerce and Industry, Finance, Utilities, and Properties.

Ibovespa - This accumulation index represents the present value of a portfolio begun on 2 January 1968, with a starting value of 100 and taking into account share price increases plus the reinvestment of all dividends, subscription rights and bonus stocks received.

JP Morgan Corporate Emerging Markets Bond Broad Diversified Index (CEMBI) -This index is a market capitalization weighted index consisting of US-denominated Emerging Market corporate bonds. It is a liquid global corporate benchmark representing Asia, Latin America, Europe and the Middle East/Africa.

JP Morgan Government Bond Emerging Markets Broad Diversified Index (GBI EM) -This index is the first comprehensive, global local Emerging Markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.

JP Morgan Emerging Markets Bond Global Diversified Index (EMBI) -This index is uniquely-weighted version of the EMBI Global. It limits the weights of those index countries with larger debt stocks by only including specified portions of these countries' eligible current face amounts of debt outstanding. The countries covered in the EMBI Global Diversified are identical to those covered by EMBI Global.

Korea Composite Stock Price Index (Kospi) - A market capitalization weighted index of all common stocks traded on the Stock Market Division—previously, Korea Stock Exchange—of the Korea Exchange. It is the representative stock market index of South Korea, similar to the Dow Jones Industrial Average or S&P 500 in the United States.

Last Cash Flow (LCF) – The last revenue stream paid to a bond over a given period.

Markit CMBX Index (CMBX) - A synthetic tradable index with 6 subindices referencing a basket of 25 commercial mortgage-backed securities offerings issued in 2012.

Morgan Stanley Capital International All Country World Index (MSCI ACWI) -A market-capitalization-weighted index designed to provide a broad measure of stock performance throughout the world, including both developed and emerging markets.

MSCI EM Index - A float-adjusted market capitalization index designed to measure equity market performance in global emerging markets. The index consists of 26 emerging economies, including but not limited to, Argentina, Brazil, China, India, Poland, Thailand, Turkey, and Venezuela.

An investment cannot be made directly in an index.

MSCI India Index - An index designed to measure the performance of the large and mid cap segments of the Indian market. With 69 constituents, the index covers approximately 85% of the Indian equity universe.

MSCI Russia Index - A free-float capitalization-weighted index used to track the equity market performance of Russian securities on the MICEX Stock Exchange.

Mortgage Bankers Association (MBA) Purchase Index - An index that includes all mortgage applications for purchases of single-family homes. It covers the entire market, both conventional and government loans and all products.

Mortgage Bankers Association (MBA) Refinance Index - An index that covers all mortgage applications to refinance an existing mortgage. It includes conventional and government refinances.

NASDAQ Composite - A stock market index of the common stocks and similar securities (e.g. ADRs, tracking stocks, limited partnership interests) listed on the NASDAQ stock market with over 3,000 components. This index is highly followed in the U.S. as an indicator of the performance of stocks of technology companies and growth companies. Since both U.S. and non-U.S. companies are listed on the NASDAQ stock market, the index is not exclusively a U.S. index.

Nikkei 225 Index - A price-weighted index comprised of Japan's top 225 blue-chip companies on the Tokyo Stock Exchange. The Nikkei is equivalent to the Dow Jones Industrial Average Index in the U.S.

Russell 2000 Index - A subset of the Russell 3000 Index representing approximately 10% of the total market capitalization and measuring the performance of the small-cap segment of the U.S. equity universe.

S&P/CoreLogic Case-Shiller U.S. National Home Price NSA Index - A composite calculated monthly of single-family home price indices for the nine U.S. census divisions with the goal of measuring changes in the total value of all existing single-family housing stock

S&P Goldman Sachs Commodity Index (GSCI) - Standard & Poor's Goldman Sachs Commodity Index, or GSCI, is a composite index of commodity sector returns which represents a broadly diversified, unleveraged, long-only position in commodity futures.

S&P GSCI Precious Metals - A sub-index of the S&P GSCI that represents the Precious Metals sector, currently comprised of gold and silver.

S&P GSCI Industrial Metals - A sub-index of the S&P GSCI that represents the Industrial Metals sector, currently comprised of aluminum, copper, zinc, nickel and lead.

S&P GSCI Energy - A sub-index of the S&P GSCI that represents the Energy sector, currently comprised of West Texas Intermediate (WTI) light sweet crude oil, Brent crude oil, gas oil, heating oil, RBOB gasoline and natural gas.

S&P GSCI Livestock - A sub-index of the S&P GSCI that represents the Livestock sector.

S&P GSCI Agriculture - A sub-index of the S&P GSCI that represents the Agriculture sector, currently comprised of wheat, Kansas wheat, corn, sugar, soybean, coffee, cocoa, and cotton.

S&P 500 Index - Standard & Poor's US 500 Index, a capitalized-weighted index of 500 stocks.

S&P/LSTA Leveraged Loan Index - An index designed to track the market-weighted performance of the largest institutional leveraged loans based on the market weightings, spreads and interest payments.

Shanghai Composite Index - A capitalization-weighted index that tracks the daily performance of all A-shares and B-shares listed on the Shanghai Stock Exchange. The index was developed on December 19, 1990 with a base value of 100.

Spread - The difference between yields on differing debt instruments, calculated by deducting the yield of one instrument from another. The higher the yield spread, the greater the difference between the yields offered by each instrument. The spread can be measured between debt instruments of differing maturities, credit ratings and risk.

U.S. Dollar Index (DXY) - A weighted geometric mean of the United States dollar's value relative to a basket of 6 major foreign currencies, including the Euro, Japanese yen, Pound sterling, Canadian dollar, Swedish krona and Swiss franc.

An investment cannot be made directly in an index.

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