PGIM FIXED INCOME

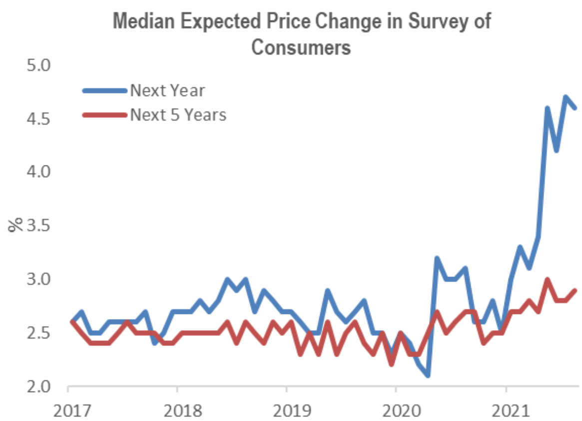
Evergrande Stumbles Over Three Red Lines

WEEKLY VIEW FROM THE DESK | SEPTEMBER 20, 2021

QUICK LINK TO THE RETURNS TABLE

MACRO/EVERGRANDE

- After what was already a busy start to the week with the Evergrande developments, the calendar also features central bank meetings in the U.S., Japan, the U.K., Switzerland, and Norway with some of them potentially moving closer to reducing monetary support. The Norges Bank may become the first developed-market central bank to raise interest rates, and the Federal Reserve is widely expected to set the table for tapering asset purchases later this year.
- While market participants generally agree that the Fed will set the pace of tapering at $10 and $5 billion for Treasuries and MBS, respectively, it isn't clear whether the reductions will occur every month or at every Fed meeting, which are about six weeks apart. The pace of the reductions can affect the timing of a subsequent interest-rate liftoff given Fed officials have stated that they prefer to raise interest rates only after they conclude the bond-buying program.
- Even though medium-term inflation expectations remain anchored, the Fed's inflation estimate for end-2021 will likely be raised to reflect the impacts of the lingering chip shortage and the rising cost of housing. However, we still think the rise in inflation will remain transient, in line with survey- and market-based measures of inflation, which are both inverted. An important observation is that higher prices have so far played a role in delaying consumers' purchasing decisions, rather than fueling irrational buying that often feed into an inflation spiral as future inflation expectations remain relatively contained (see accompanying chart).



Source: PGIM Fixed Income, University of Michigan

- Fed officials are likely monitoring any tail risks emanating from China's real-estate sector and assessing the extent to which the **Evergrande** debt crisis will lead to tightening of financial conditions and heightened systemic risks across the broader global economy. The Fed faced a similar dilemma in its attempt to kick off the hiking cycle in 2015, when an unexpected currency devaluation in China spurred a severe selloff in global risk assets and ultimately forced the Fed to delay raising rates until December that year.
- We've previously touched upon China's industry crackdowns (Navigating China's Credit Crackdown and The Taming of China's Tech Titans) and consider the Evergrande situation as another result of China's shift from a form of market-based capitalism to more of a state-capitalism model (see the EM section for additional details).
- Given the recent developments in China, we will likely reduce our 2021 GDP forecast from 8.5% to the 8.0% range, and our forecast for 2022 remains at 4.5%. The property sector accounts for roughly 25% of China's GDP.
- While Evergrande's liquidity situation was tenuous for the last several years, it finally stumbled amid the implementation of the PBoC's Three Red Lines policy, which limits developers' total debt growth based upon certain triggers. Banks were also told not to increase total real estate loan exposure, which limited Evergrande's ability to refinance a large portion of its short-term debt.
- At this point, banks have reportedly been given the green light to allow Evergrande to renegotiate specific payments under certain conditions, and we believe this latest development is another factor that will diminish an eventual recovery for unsecured creditors. In a Western-style restructuring, the recovery value would probably be zero. But based on past precedence, we believe the recovery value is probably closer to trading levels on Evergrande's offshore bonds, which recently traded at 20 cents on the dollar, or a haircut of 60-70 points on a net present value.

RATES

- Treasuries have been trading relatively flat ahead of the Fed meeting, although the CPI miss and unexpectedly strong retail sales print for August caused some short-term swings in yields. Market pricing continues to indicate one rate hike in 2022 and around four hikes in total by 2024; meanwhile, the Fed's June median dot plot indicates the Fed will not begin hiking rates until 2023 and will have five hikes announced by 2024.
- We think the current pricing in the front end may be too complacent about the Fed's reaction function if inflation continues to surprise to the upside, and a few rate hikes next year is certainly possible as we think Fed officials ultimately have low tolerance for persistent inflation. Quicker rate hikes will only flatten the curve further and favor our long-rates positions, as indicated by previous episodes of repricing of Fed expectations.

- The U.S. debt ceiling situation looms as another potential market-moving event. The so-called drop-dead date for when Treasury will run out of cash is expected to be around early November, and front-end bills have increasingly priced in the risk that a resolution fails to materialize. However, we don't think Treasury bills will repeat the 2011 debt ceiling episode when the one-month bill yield was higher by as many as 15 bps at the height of the debacle. With record amount of cash being parked at the Fed's reverse repo facility, we expect the cash will shift to buying bills if yields rise substantially from current levels.
- Mortgages remained close to the richer end of the recent range last week, as flat origination was met by slightly higher Fed reinvestment activity. Our prepayment model continues to forecast slower prepayment speeds. We underestimated speeds during the pandemic as rates fell and originators were more efficient than we had expected. However, given current rates and barring any material policy changes, conditional prepayment rates for seasoned higher coupons may move below 40 over the next few quarters and could explain the stronger performance recently.

IG CORPORATES

- After drifting slightly wider last week, U.S. IG spreads widened another 2 bps Monday on the volatility in China. We believe HSBC and Standard Chartered are the most exposed banks with existing U.S. dollar-denominated debt to China's economy. The latter's spreads were quoted 5 bps wider on Monday. The commodities picture was mixed with metals coming under pressure, but oil and natural gas continued to perform well.
- Levering activities still continue in earnest with Intuit's $12B acquisition of MailChimp, which we assumed would result in a credit ratings downgrade from A to BBB, yet Moody's appears willing to give Intuit additional time to delever. After Canadian National Railway failed to acquire Kansas City Southern, the former appears ready to lever up as part of a significant stock repurchase program. Teck Resources is reportedly considering a sale or spinoff of its met coal business for up to $8B, and indications pertaining to potential delivering drove its spreads 10 bps tighter before they subsequently softened on the China news.
- The European IG market traded flat last week as new issue supply continued to run at above average levels with a further €15.3B pricing. The new issues took place against a constructive market tone following dovish comments from the ECB. Financials outperformed last week and the compression trade between BBB and A issues continued as well.

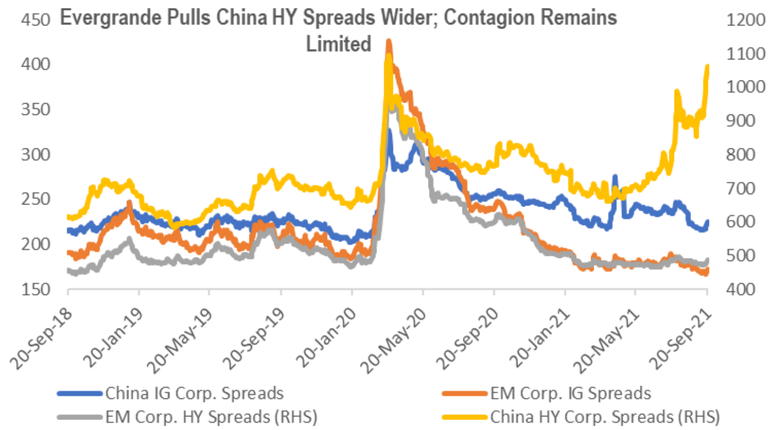
HIGH YIELD

- U.S. high yield posted positive returns last week as spreads closed in on their post-financial crisis lows. An inflow into high yield bond mutual funds and less-than-expected new issuance provided a strong technical backdrop. However, spreads widened out again on Monday alongside the downdraft in equities. By quality, CCCs (+0.37%) outperformed both Bs (+0.18%) and BBs (+0.12%).
- The primary calendar picked up but not by as much as expected, with 14 deals pricing for $8.9B in proceeds. Despite expectations for a busy calendar, new supply has been mildly disappointing so far in September. However, we expect issuance to pick up in the coming weeks. Meanwhile, high yield bond funds posted $791M in inflows, which trims the year-to-date outflow to $11.7B.
- U.S. leveraged loan prices continued to move higher with managers focused on the robust primary calendar. So far, more than $30B in loans have launched in September, with 14 issues totaling $10.9B pricing just last week. Following allocations from issuers Springs Window Fashions, Caesar Entertainment, Zurn, and Pactiv last week, Medline's $6B term loan backing its $30B LBO is now coming into focus. Given the large forward calendar, we have modestly lowered our short-term outlook for loans, but remain constructive over the long term.
- European high yield bond and loan returns were strong last week. For high yield, new supply continues to underwhelm versus expectations and inflows into the asset class remain strong. Bond primary issuance totaled €2.3B across six deals. COVID-related sectors outperformed after having lagged the broader market over the prior few weeks. On the loan side, €2.5B in new loans were announced last week, which was slightly higher than the previous week, but still below market expectations.

EMERGING MARKETS

- Emerging market hard currency assets posted negative returns last week as China property and growth concerns weighed on the market. The high yield portion of the index underperformed the investment grade portion on Monday as concerns around Evergrande mounted. Performance remained differentiated and country-specific, with Lebanon, Argentina, Angola, Venezuela, and Iraq outperforming. El Salvador, Sri Lanka, Ecuador, Costa Rica, and Turkey lagged.
- The China selloff is starting to impact the broader EM Corporate market, particularly high yield. While the broader fundamental backdrop remains favorable, we now expect the 2021 EM corporate high yield default rate to rise to 5.5% from 3.5% in 2020 due, in large part, to Evergrande and other high yield Chinese property names. Excluding China, the default rate is expected to total only 1.8% as fundamentals in the rest of the market remain strong.

- As for Evergrande, we believe the most likely scenario (greater than an 80% probability) is a "soft" default in which the provincial government sends in a team to take over the business, lead asset sales, and facilitate a debt restructuring. At this time, we do not expect to see any significant spillover to China's banking sector or to the commodity market. In China more broadly, we continue to prefer strategic SOEs and higher-quality property issuers, while maintaining an overall underweight to credits in the country.
- EMFX weakened against the U.S. dollar last week, with China uncertainty and the U.S. Fed's move toward tapering weighing on the asset class. The Russian ruble and Chilean peso outperformed on the back of higher oil prices, while the South African rand, Polish zloty, Thai baht, Turkish lira, and Hungarian forint lagged.



Source: J.P. Morgan Corp. EM Bond Index

- Within local rates, the Index yield rose to a YTD high of 5.15% as yields in Columbia, South Africa, the Czech Republic, and Hungary were 10 bps to 20 bps higher. Chile, Peru, Romania, the Philippines, and Brazil outperformed.
- Emerging Market bond fund flows were positive, totaling $1.4B. Hard currency funds saw inflows of $1.24B, local currency funds saw inflows of $85M, and blend funds saw an inflow of $74M. This brings year-to-date total flows into EM bond funds to $39.19B, with hard currency, local currency, and blend strategies accounting for $15.82B, $17.25B, and $6.11B, respectively. EM equity funds saw $1.81B of inflows.

SECURITIZED PRODUCTS

- U.S. conduit AAA CMBS spreads were 2 bp tighter last week as two conduit deals priced with slightly tighter levels than the initial talk due to strong demand. Several SASB deals and another two conduit deals will be announced this week. We remain constructive on senior, well-enhanced CMBS tranches.
- U.S. CLO spreads across the capital structure were generally unchanged as supply and demand remain fairly balanced. European spreads were also unchanged despite a firmer tone at week's end. We believe issuance will accelerate in the near term as a number of deals are in the works and expected to price in the coming weeks, and there are over 175 deals currently being marketed across both markets. U.S. CLO primary spreads for higher quality portfolios are ~3L+113/160/195/280/625 bps for AAA/AA/A/BBB/BB, respectively for 5-year reinvestment period deals.
- ABS spreads held in at/near their YTD tights as new issue activity significantly increased last week. Strong demand was evident with most classes well over-subscribed, resulting in clearing levels inside of initial price guidance for most tranches. YTD new issuance is $188B, 8% ahead of 2019 pace and well ahead of 2020.

MUNICIPAL BONDS

- Municipal bond fund saw another net inflow last week, totaling $1.3B, which brings year-to-date inflows to $86.5B. Municipal bond funds have now seen inflows in 69 of the past 70 weeks, totaling $148B over that span. The 5 , 10-, and 30-year portions of the AAA-rated muni curve ended the week at 47.4% (down from 50.1% the prior week), 68.8% (down from 69.8%), and 80.9% (up from 79.0%), respectively.
- Tax-exempt technicals are expected to soften over the near term as J.P. Morgan expects net supply of +$8.3B over September and October. We continue to view any softening over the next month as a buying opportunity as technicals are expected to improve toward year-end.

THE RETURNS TABLE As of September 17, 2021

Sovereign Rates	Duration	YTM	OAS	Yield/ OAS Change (BPS) WTD	QTD	YTD	Prior Year	Total Return (%) WTD	QTD	YTD	Prior Year
U.S. 2-Year	1.9	0.22	---	1	-3	10	9	-0.01	0.17	0.06	0.14
U.S. 5-Year	4.8	0.87	---	5	-3	50	58	-0.24	0.28	-1.42	-1.61
U.S. 10-Year	9.3	1.37	---	2	-11	45	67	-0.26	1.12	-3.03	-4.82
U.S. 10-Year Breakeven	--	2.35	---	-5	1	36	67	---	---	---	---
U.S. 10-Year TIPS	4.9	-0.98	---	7	-11	10	1	-0.71	2.68	3.59	4.99
U.S. 20-Year	16.7	1.86	---	-1	-17	41	63	0.10	2.97	-5.95	-9.18
U.S. 30-Year	22.5	1.91	---	-3	-19	26	46	0.56	4.09	-5.49	-9.96
UK 10-Year	9.7	0.85	---	9	13	65	66	-0.83	0.04	-5.08	-3.11
Germany 10-Year	9.9	-0.28	---	5	-7	29	21	-0.50	0.68	0.75	0.75
Japan 10-Year	9.7	0.05	---	1	0	3	4	-0.06	-0.11	-0.11	-0.11
Australia 10-Year	9.6	1.30	---	8	-23	33	46	-0.74	2.57	-1.66	-2.31
Canada 10-Year	8.9	1.28	---	5	-11	61	71	-0.38	1.25	-4.32	-4.73
MAJOR FI MS INDICES											
Global Aggregate Unhedged	7.6	1.09	33	0	1	-3	-15	-0.52	0.41	-2.81	-0.13
Global Aggregate Hedged	7.6	1.09	33	0	1	-3	-15	-0.17	0.76	-0.77	0.01
U.S. Aggregate	6.8	1.47	35	0	3	-7	-24	-0.03	0.85	-0.77	-0.32
Euro-Aggregate (Unhedged)	7.7	0.02	48	-1	0	0	-11	-0.32	0.58	-1.72	-0.37
Japanese Aggregate	9.6	0.10	1	0	0	0	-1	-0.03	0.24	0.10	0.04
MAJOR FI CREDIT INDICES											
Mortgage-Backed (Agency)	4.6	1.74	32	0	5	-7	-32	-0.09	0.39	-0.38	-0.06
Global IG Corporate Bonds	7.4	1.56	88	-1	3	-11	-41	-0.32	0.53	-1.17	2.27
U.S. IG Corporate Bonds	8.8	2.02	85	-1	5	-11	-43	0.08	1.16	-0.12	2.16
European IG Corporate	5.3	0.26	83	-1	0	-9	-31	-0.14	0.42	0.02	1.81
U.S. High Yield Bonds	3.7	3.76	274	-5	6	-86	-213	0.14	1.34	5.01	10.82
European High Yield Bonds	3.3	2.41	281	-8	-9	-77	-155	0.20	1.16	4.76	9.22
U.S. Leveraged Loans	0.3	5.02	441	-3	+10	-29	-142	0.17	0.94	4.45	7.61
European Leveraged Loans	0.3	3.72	405	-1	-4	-53	-193	0.11	0.73	3.73	8.24
EM Hard Currency Sovs.	8.0	4.84	343	2	3	-9	-63	-0.17	1.40	0.73	4.43
EM Corporates	4.9	4.24	300	0	3	-28	-90	-0.17	0.95	2.24	6.03
EM Currencies	---	3.00	343	2	3	-9	-63	-0.69	-0.54	-1.14	3.24
EM Local Rates	5.2	5.15	5	0	0	1	1	-0.23	-0.29	-3.20	-1.38
CMBS	5.1	1.50	63	1	4	-18	-42	-0.23	0.38	-0.12	0.86
ABS	2.3	0.58	30	2	7	-3	-12	-0.04	0.13	0.31	0.70
CLOs	---	1.01	101	0	-3	-15	-28	-0.01	0.05	0.11	0.48
Municipal Bonds	4.8	0.98	---	0	-3	-9	-33	0.01	0.44	1.50	3.33

Equity/Volatility	Level	Total Return (%) WTD	QTD	YTD	Prior Yr
S&P 500 Index	9254	-0.5	3.5	19.3	34.0
DAX	15059	-0.8	-0.3	12.9	17.3
Stoxx 600	246	-0.8	2.3	17.3	26.6
Nikkei 225	30500	0.4	6.0	12.1	32.9
Shanghai Comp.	3614	-2.3	1.7	6.2	12.9
MSCI ACWI	375	-1.0	1.7	14.2	30.0
FTSE 100	6836	-0.9	0.1	11.0	19.3
MOVE Index	56	8.4	-2.1	14.5	45.8
VIX Index	26	-0.7	31.5	-8.5	-21.4

FX/Commodities	Spot	% Change WTD	QTD	YTD	Prior Year
EUR/USD	1.2	-0.8	-1.1	-4.0	-1.0
USD/JPY	109.7	0.0	-1.1	6.5	5.0
GBP/USD	1.4	-0.7	-0.7	0.5	5.9
USD/CHF	0.9	1.6	0.8	5.3	2.6
USD (DXY)	93.2	0.7	0.8	3.6	0.2
Oil	72.0	3.2	-2.0	48.3	75.7
Gold	1754.3	-1.9	-0.9	-7.6	-9.8

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Source(s) of data (unless otherwise noted): PGIM Fixed Income as of September 2021

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U.S. Investment Grade Corporate Bonds: Bloomberg Barclays U.S. Corporate Bond Index: The Bloomberg Barclays U.S. Investment Grade Corporate Bond Index covers U.S.D-denominated, investment-grade, fixed-rate or step up, taxable securities sold by industrial, utility and financial issuers. It includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

European Investment Grade Corporate Bonds: Bloomberg Barclays European Corporate Bond Index (unhedged): The Bloomberg Barclays Euro-Aggregate: Corporates bond Index is a rules-based benchmark measuring investment grade, EUR denominated, fixed rate, and corporate only. Only bonds with a maturity of 1 year and above are eligible.

U.S. High Yield Bonds: ICE BofAML U.S. High Yield Index: The ICE BofAML U.S. High Yield Index covers US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, and at least one year remaining term to final maturity as of the rebalancing date.

European High Yield Bonds: ICE BofAML European Currency High Yield Index: This data represents the ICE BofAML Euro High Yield Index value, which tracks the performance of Euro denominated below investment grade corporate debt publicly issued in the euro domestic or eurobond markets. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P, and Fitch). Qualifying securities must have at least one year remaining term to maturity, a fixed coupon schedule, and a minimum amount outstanding of €100 M. ICE Data Indices, LLC, used with permission. ICE DATA INDICES, LLC IS LICENSING THE ICE DATA INDICES AND RELATED DATA "AS IS," MAKES NO WARRANTIES REGARDING SAME, DOES NOT GUARANTEE THE SUITABILITY, QUALITY, ACCURACY, TIMELINESS, AND/OR COMPLETENESS OF THE ICE DATA INDICES OR ANY DATA INCLUDED IN, RELATED TO, OR DERIVED THEREFROM, ASSUMES NO LIABILITY IN CONNECTION WITH THEIR USE, AND DOES NOT SPONSOR, ENDORSE, OR RECOMMEND PGIM FIXED INCOME OR ANY OF ITS PRODUCTS OR SERVICES.

U.S. Senior Secured Loans: Credit Suisse Leveraged Loan Index: The Credit Suisse Leveraged Loan Index is a representative, unmanaged index of tradable, U.S. dollar denominated floating rate senior secured loans and is designed to mirror the investable universe of the U.S. dollar denominated leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

European Senior Secured Loans: Credit Suisse Western European Leveraged Loan Index: All Denominations EUR hedged. The Index is a representative, unmanaged index of tradable, floating rate senior secured loans designed to mirror the investable universe of the European leveraged loan market. The Index return does not reflect the impact of principal repayments in the current month.

Emerging Markets U.S.D Sovereign Debt: JP Morgan Emerging Markets Bond Index Global Diversified: The Emerging Markets Bond Index Global Diversified (EMBI Global) tracks total returns for U.S.D-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, and Eurobonds. 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. To be deemed an emerging market by the EMBI Global Diversified Index, a country must be rated Baa1/BBB+ or below by Moody's/S&P rating agencies. Information has been obtained from sources believed to be reliable, but J.P. Morgan does not warrant its completeness or accuracy. The Index is used with permission. The Index may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright 2021, J.P. Morgan Chase & Co. All rights reserved.

Emerging Markets Local Debt (unhedged): JPMorgan Government Bond Index-Emerging Markets Global Diversified Index: The Government Bond Index-Emerging Markets Global Diversified Index (GBI-EM Global) tracks total returns for local currency bonds issued by emerging market governments.

Emerging Markets Corporate Bonds: JP Morgan Corporate Emerging Markets Bond Index Broad Diversified: The CEMBI tracks total returns of U.S. dollar-denominated debt instruments issued by corporate entities in Emerging Markets countries.

Emerging Markets Currencies: JP Morgan Emerging Local Markets Index Plus: The JP Morgan Emerging Local Markets Index Plus (JPM ELMI+) tracks total returns for local currency–denominated money market instruments.

Municipal Bonds: Bloomberg Barclays Municipal Bond Indices: The index covers the U.S.D-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The bonds must be fixed-rate or step ups, have a dated date after Dec. 13, 1990, and must be at least 1 year from their maturity date. Non-credit enhanced bonds (municipal debt without a guarantee) must be rated investment grade (Baa3/BBB-/BBB- or better) by the middle rating of Moody's, S&P, and Fitch.

U.S. Treasury Bonds: Bloomberg Barclays U.S. Treasury Bond Index: The Bloomberg Barclays U.S. Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Mortgage Backed Securities: Bloomberg Barclays U.S. MBS - Agency Fixed Rate Index: 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.

Commercial Mortgage-Backed Securities: Bloomberg Barclays CMBS: ERISA Eligible Index: The index measures the performance of investment-grade commercial mortgage-backed securities, which are classes of securities that represent interests in pools of commercial mortgages. The index includes only CMBS that are Employee Retirement Income Security Act of 1974, which will deem ERISA eligible the certificates with the first priority of principal repayment, as long as certain conditions are met, including the requirement that the certificates be rated in one of the three highest rating categories by Fitch, Inc., Moody's Investors Services or Standard & Poor's.

Palmer Square AAA CLO DM Index represents the discount margin of CLO AAA rated tranches in the Palmer Square CLO Senior Index, which is designed to reflect the investable universe of U.S CLO senior original rated AAA and AA debt issued after Jan 1, 2011.

Global Aggregate Bond Index is a measure of global investment grade debt from twentyfour local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

U.S. Aggregate Bond Index: Bloomberg Barclays U.S. Aggregate Bond Index: The Bloomberg Barclays U.S. Aggregate Index covers the U.S.D-denominated, investment-grade, fixed-rate or step up, taxable bond market of SEC-registered securities and includes bonds from the Treasury, Government-Related, Corporate, MBS (agency fixed-rate and hybrid ARM passthroughs), ABS, and CMBS sectors. Securities included in the index must have at least 1 year until final maturity and be rated investment-grade (Baa3/ BBB-/BBB-) or better using the middle rating of Moody's, S&P, and Fitch.

Euro Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, euro-denominated, fixedrate bond market, including treasuries, government-related, corporate and securitized issues. Inclusion is based on currency denomination of a bond and not country of risk of the issuer.

Japanese Aggregate Bond Index The Japanese Aggregate Index contains fixed-rate investment-grade securities denominated in Japanese yen and registered as domestic bonds. The index is composed primarily of local currency sovereign debt but also includes government-related, corporate, and securitized bonds.

The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities. There is over U.S.D 9.9 trillion indexed or benchmarked to the index, with indexed assets comprising approximately U.S.D 3.4 trillion of this total. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.

The DAX Index is a total return index of 30 selected German blue chip stocks traded on the Frankfurt Stock Exchange. The equities use free float shares in the index calculation. The DAX has a base value of 1,000 as of December 31, 1987. As of June 18, 1999 only XETRA equity prices are used to calculate all DAX indices.

The STOXX 600 Index is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 1800 Index. With a fixed number of 600 components, the STOXX Europe 600 Index represents large, mid and small capitalization companies across 17 countries of the European region.

The Nikkei 225 Index is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange. The Nikkei Stock Average was first published on May 16, 1949.

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

MSCI ACWI is a free-float weighted equity index. It was developed with a base value of 100 as of December 31 1987. MXWD includes both emerging and developed world markets.

FTSE 100 is a capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange. The equities use an investibility weighting in the index calculation. The index was developed with a base level of 1000 as of December 30, 1983.

MOVE Index is a yield curve weighted index of the normalized implied volatility on 1-month Treasury options. It is the weighted average of volatilities on the CT2, CT5, CT10, and CT30. (weighted average of 1m2y, 1m5y, 1m10y and 1m30y Treasury implied vols with weights 0.2/0.2/0.4/0.2, respectively).

VIX Index is a financial benchmark designed to be an up-to-the-minute market estimate of the expected volatility of the S&P 500® Index, and is calculated by using the midpoint of real-time S&P 500 Index (SPX) option bid/ask quotes.

Bloomberg Commodity Index Bloomberg Commodity Index (BCOM) is calculated on an excess return basis and 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.

The U.S. Dollar Index indicates the general international value of the USD. The USDX does this by averaging the exchange rates between the USD and major world currencies. The ICE US computes this by using the rates supplied by some 500 banks.

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