

# COP26 Recap; Technicals in Focus with 2022 in Sight

WEEKLY VIEW FROM THE DESK | November 15, 2021

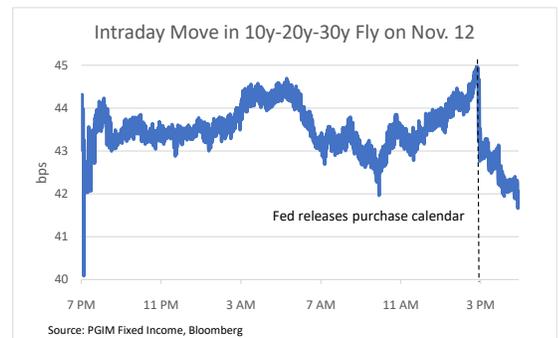
[QUICK LINK TO THE RETURNS TABLE](#)

## COP26 RECAP

- The COP26 summit concluded with numerous pledges and promises to slow climate change. Yet, in reality, many of the verbal commitments are not materially different than the ones made during the 2015 Paris Agreement, and near-term actions to reduce carbon emissions from the largest fossil fuel consumers remain lacking given the continued lack of enforcement mechanisms.
- A central concern is that the latest pledges, known as Nationally Determined Contributions (NDCs), are demonstrably insufficient in achieving the goal of limiting global warming to 1.5°C this century relatively to pre-industrial levels. Hence, one outcome of the summit was to ask nations for "revised and strengthened" NDCs in 2022 and potentially for more frequent revisions in the future.
- A main goal of the conference was to set a date for the official phasing out of coal, but the effort was watered down to reductions in coal consumption due to non-commitments from the biggest coal consumers. Negotiations over carbon offsets were somewhat more constructive with nations agreeing to clearly define the various types of carbon offsets and eliminate loopholes in double counting.
- Discussions on the climate finance front indicated that wealthy nations remain short of the \$100B/year contribution target, even though the target itself is far from the \$700B to \$1.3T range that many consider necessary for developing countries to reduce greenhouse gas emissions. One bright spot of the summit emerged in methane reduction as over 100 nations, including the biggest fossil fuel producers, agreed to reduce methane emissions by 30% by 2030. The short atmospheric life of methane means this pledge, if realized, could have immediate impact on the environment in the next few decades.
- Overall, the lack of climate actions in the past has locked in the global temperature rise for the next few decades, and it remains unclear that nations have the conviction to step up to slow the pace of temperature increase for the rest of the century.

## RATES

- Global rates remain volatile, but we are seeing a clear trend emerge across most developed markets over the past week as the substantial decline in real yields outstrips the modest increase in inflation breakevens. Market dislocations persist in cash Treasuries and futures, but we think the traditional relationships in fixed-income relative value should re-emerge shortly as the wave of hedge fund stopouts is likely coming to an end.
- The 20-year point on the yield curve continues to present a strong potential for mean reversion. Not only did the Treasury Department announce an outsized reduction in 20-year bond issuance earlier this month, but the Federal Reserve also refrained from cutting purchases in the sector in its first purchase schedule since the tapering announcement. The 20-year yield outperformed on the 10s20s30s fly following the Fed announcement, and we continue to be long the sector against US and WN futures.
- The deteriorating functioning of the secondary market has also bled into Treasury auctions, as evident by the 30-year sale last week, in which the auction yield exceeded the when-issued yield by the most since August 2011. Bonds were already selling off into the auction, and end users' participation was significantly lower than normal. We are careful not to extrapolate too much from the poor auction, but are mindful of the possibility that the 20-year bond auction this week could similarly turn into a liquidity event.
- Agency MBS spreads were little changed against Treasuries last week and are trading near three-month tight. We continue to see minimal convexity selling amid the rates selloff and have yet to see the Fed's tapering in MBS purchases make material impact on the market.



## IG CORPORATES

- The slight widening in U.S. spreads last week emerged with some fundamental and technical crosswinds. On net, on-the-run names underperformed, while BBBs and crossover energy E&P names outperformed. In terms of the fundamental headwinds, two significant corporate breakups emerged from GE and Johnson & Johnson (one of two remaining AAA credits along with Microsoft), and we generally view spinoffs as a negative credit event given the uncertainty of where the outstanding debt will reside. The announcements were accompanied with speculation about other potential spinoff candidates, such as 3M and Comcast.
- Last week's \$23B tender offer from GE was also accompanied by tender offers from Ford and Verizon, and the tenders supported a technical tailwind of investors needing to reinvest the cash back into the market. On the supply side, about \$26B priced last week, and the secondary performance was rather lackluster even with average concessions of 2.5 bps. This week may be one of the last sizable issuance weeks of the year with up to \$40B expected to price during the week prior to the Thanksgiving holiday.
- Some nervousness engulfed the European IG market as swap spreads moved solidly wider late last week, which was said to be driven by bank selling given that they hedge their Treasury desks back to LIBOR. Heavy issuance combined the bank selling and their reluctance to absorb risk led bank spreads 4-5 bps wider last week with lingering concerns about this week's incoming supply.

For Professional Investors only. All investments involve risk, including possible loss of capital.

## HIGH YIELD

- U.S. high yield generally posted negative returns last week even as spreads tightened. By quality, CCCs (+0.03%) outperformed, followed by BBs (-0.27%) and Bs (-0.28%). By industry, media (+0.46%), paper (+0.10%), and consumer products (+0.06%) were the top performing sectors, while cable (-1.05%) lagged largely on the back of issuer DISH, whose notes traded lower after the company priced \$5.25B in new unsecured notes.
- High yield primary activity saw 17 deals price for \$14.3B in proceeds. As for 2022 issuance forecasts, JP Morgan is projecting a robust year at \$425B gross and \$185B in net issuance, and Barclays is expecting \$400-\$420B gross and \$260B in net issuance.
- U.S. leveraged loans posted another week of positive returns, with technicals remaining firm despite a rapidly growing forward calendar. Last week, 13 deals priced for \$6.8B in proceeds with another 36 deals representing \$35B launching for pre-Thanksgiving pricing. Altogether, more than 50 deals worth more than \$50B are currently in the market and seeking commitments by next week. Meanwhile, loan mutual funds reported a weekly inflow of \$968M, bringing YTD inflows to \$30.24B for some technical support.
- In Europe, high yield bond and loan spreads both slightly tightened as primary supply began to slow following several weeks of heavy issuance. YTD, high yield issuance now totals €121B, marking a new annual record. Looking forward, we anticipate supply will continue to dissipate with slower issuance through the rest of the calendar year.

## EMERGING MARKETS

- Emerging market debt hard currency posted negative returns last week with overall spreads tighter as core rates sold off. Differentiation between credit ratings and issuers remained, with Ukraine, Sri Lanka, El Salvador, Belarus, and Iraq among the notable underperformers. Technicals remained supportive as hard currency funds saw inflows of \$964M and issuance remained consistent with prior weeks. In EM corporates, China real estate bonds rebounded, with some bonds trading up 20-30 points, on news that Chinese regulators are considering easing rules on leverage.
- In the sovereign new issue market, Peru issued a €1B 5-yr priced at MS+175 bps; China issued a €1.5B 3-yr priced at MS flat, a €1.5B 7-yr priced at MS+20 bps, and a €1.5B 12-yr priced at MS+52 bps; Saudi Arabia issued a \$1.25B 30-yr priced at T+153.8 bps. In the corporate and quasi-sovereign new issue market, Energean issued a \$450M 60yr priced at T+529 bps; Stillwater Mining issued a \$675M 5-yr priced to yield 4.125% and a \$525M 8-yr priced to yield 4.625%; Gazprom issued a \$500M 7-yr priced to yield 1.85%
- Emerging market local debt posted positive returns with the yield on the index declining slightly last week. Chile, Russia, South Africa, Brazil, and Colombia outperformed, while Peru, Turkey, Poland, Hungary, and Romania lagged. Russia yields declined on a decline in CPI momentum. However, CPI upside surprises continued in Brazil, Mexico, Chile, the Czech Republic, China, and India. Meanwhile, Romania's central bank hiked rates by 25 bps to 1.75%, and Mexico's central bank increased its policy rate by 50 bps to 5.00%.
- EMFX posted negative returns with LatAm and Asian currencies outperforming and European currencies lagging. The Brazilian real, Chilean peso, Thai baht, Indonesian rupiah, and Philippine peso outperformed, while the Hungarian forint, Turkish lira, Argentine peso, Czech koruna, and Polish zloty underperformed.

## SECURITIZED PRODUCTS

- U.S. conduit AAA CMBS spreads were unchanged last week as one new issue conduit deal priced last with two more set to price this week. The demand for AAA bonds on the secondary market remains strong. SASB mezzanine bonds previously widened on heavy floater issuance, but solid support emerged at the wider levels.
- U.S. CLO spreads were generally unchanged across the capital structure, and spreads at the top of the European capital structure were generally unchanged. We believe there are over 175 deals currently being marketed. U.S. CLO primary spreads for higher quality portfolios are ~3L+112/165/200/300/625 bps for AAA/AA/A/BBB/BBs, respectively for 5-year reinvestment period deals.
- ABS spreads were unchanged to wider last week (0-10bps) as some softness emerged in 1-2 year 1st tier issuer auto seniors and 2nd tier issuer auto subs. Heavy near-term supply weighed on markets with \$15 billion pricing last week and more expected this week heading into the Thanksgiving holiday. Over the longer term, we view the technical landscape as favorable with manageable new issue supply and consistent demand.

## MUNICIPAL BONDS

- Tax-exempt municipal bonds continued to benefit from a positive tone last week with munis outperforming Treasuries. The 5-, 10-, and 30-year portions of the AAA-rated muni curve ended the week at 49.8% (down from 59.5% the prior week), 69.0% (down from 77.6%), and 79.0% (down from 83.6%), respectively.
- Muni funds saw net inflows of \$2.6B, with high yield funds posting a return to strongly positive flows of \$1.2B last week. Municipal funds have now seen inflows in 77 of the past 78 weeks, totaling a record \$156.2B over that span. This week, the calendar is estimated at \$13.5B, including \$4.5B in taxable munis.
- On the credit front, state tax collection remains strong both on the income and sales tax, both increasing ~14% from 2019 levels. Tobacco bonds may see an increase in payments due to an inflation adjustment on the Tobacco Master Settlement Agreement.

**THE RETURNS TABLE** As of November 12, 2021

Sovereign Rates	Duration	YTM	OAS	Yield/ OAS Change (BPS)				Total Return (%)				
				WTD	QTD	YTD	Prior Year	WTD	QTD	YTD	Prior Year	
U.S. 2-Year	1.9	0.51	---	11	24	39	34	-0.24	-0.33	-0.34	-0.20	
U.S. 5-Year	4.8	1.23	---	17	26	86	83	-0.87	-1.00	-2.92	-2.61	
U.S. 10-Year	9.3	1.56	---	11	8	65	68	-0.96	-0.12	-4.51	-4.69	
U.S. 10-Year Breakeven	--	2.72	---	16	34	73	100	---	---	---	---	
U.S. 10-Year TIPS	4.8	-1.17	---	-7	-29	-9	-32	0.64	3.10	5.87	8.38	
U.S. 20-Year	16.5	1.99	---	7	-3	52	55	-1.65	0.90	-7.80	-7.84	
U.S. 30-Year	22.8	1.96	---	5	-11	29	29	-1.56	3.26	-6.22	-5.90	
UK 10-Year	9.5	0.91	---	7	-11	72	56	-0.64	1.16	-5.57	-3.86	
Germany 10-Year	9.8	-0.26	---	2	-6	31	28	-0.22	0.56	0.49	0.49	
Japan 10-Year	9.8	0.07	---	2	0	5	5	-0.16	0.09	0.09	0.09	
Australia 10-Year	9.4	1.80	---	-2	31	83	88	0.22	-2.68	-5.95	-6.38	
Canada 10-Year	8.8	1.67	---	8	16	99	95	-0.67	-1.23	0.26	0.26	
<b>MAJOR FI MS INDICES</b>												
Global Aggregate Unhedged	7.6	1.27	35	1	2	-2	-8	-0.82	-0.37	-4.42	-2.03	
Global Aggregate Hedged	7.6	1.27	35	1	2	-2	-8	-0.46	0.07	-1.37	-0.57	
U.S. Aggregate	6.9	1.71	34	1	1	-8	-17	-0.75	-0.14	-1.69	-0.93	
Euro-Aggregate (Unhedged)	7.8	0.08	56	3	7	8	4	-0.31	0.41	-1.88	-1.34	
Japanese Aggregate	9.6	0.11	1	0	0	0	-1	-0.12	-0.02	-0.08	0.01	
<b>MAJOR FI CREDIT INDICES</b>												
Mortgage-Backed (Agency)	5.0	1.95	27	1	1	-12	-25	-0.61	-0.40	-1.07	-0.76	
Global IG Corporate Bonds	7.4	1.78	92	1	4	-7	-23	-0.99	-0.23	-2.67	0.15	
U.S. IG Corporate Bonds	8.7	2.26	88	2	3	-8	-27	-0.99	0.15	-1.12	0.88	
European IG Corporate	5.3	0.35	91	2	7	-1	-7	-0.18	0.04	-0.27	0.33	
U.S. High Yield Bonds	4.0	4.23	284	0	-5	-76	-151	-0.25	0.19	4.73	8.11	
European High Yield Bonds	3.5	2.95	318	-1	18	-39	-83	-0.02	-0.16	4.05	6.51	
U.S. Leveraged Loans	0.3	5.31	433	-2	-4	-52	-101	0.13	0.48	5.16	7.19	
European Leveraged Loans	0.3	3.76	410	-2	4	-49	-114	0.17	0.41	4.68	6.58	
EM Hard Currency Sovs.	8.0	5.16	352	-9	-5	0	-28	-0.49	0.11	-1.25	1.22	
EM Corporates	4.9	4.53	302	-10	1	-26	-63	-0.13	-0.49	1.04	3.65	
EM Currencies	---	3.13	352	-9	-5	0	-28	-0.20	0.14	-2.03	0.74	
EM Local Rates	5.2	5.62	6	0	0	1	1	0.08	-1.38	-5.13	-3.93	
CMBS	5.1	1.81	64	2	3	-17	-34	-0.80	-0.71	-1.23	-0.07	
ABS	2.3	0.95	38	4	10	5	0	-0.34	-0.49	-0.25	0.08	
CLOs	--	1.01	101	0	-1	-15	-24	0.00	0.04	0.15	0.34	
Municipal Bonds	4.8	1.13	---	-2	1	6	-19	0.15	0.33	1.12	2.65	

Equity/Volatility	Level	Total Return (%)				FX/Commodities	Spot	% Change			
		WTD	QTD	YTD	Prior Yr			WTD	QTD	YTD	Prior Year
S&P 500 Index	9793	-0.3	8.9	26.2	34.3	EUR/USD	1.1	-1.1	-1.2	-6.3	-3.1
DAX	16143	0.2	5.5	17.3	23.3	USD/JPY	113.9	0.4	2.3	10.3	8.3
Stoxx 600	258	0.7	6.6	23.2	28.1	GBP/USD	1.3	-0.6	-0.4	-1.9	2.3
Nikkei 225	29777	0.0	0.5	9.5	17.9	USD/CHF	0.9	1.0	-1.1	4.1	0.7
Shanghai Comp.	3533	1.4	-0.8	4.1	8.3	USD (DXY)	95.1	0.9	1.0	5.8	2.3
MSCI ACWI	389	0.0	6.8	18.7	27.7	Oil	80.8	-0.6	7.7	66.5	96.5
FTSE 100	7343	0.7	3.9	17.5	20.1	Gold	1864.9	2.6	6.1	-1.8	-0.6
MOVE Index	79	17.5	28.7	60.5	78.0						
VIX Index	17	-1.2	-29.6	-28.4	-35.7						

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures and full index names. All investments involve risk, including possible loss of capital. Sources: Bloomberg except EMD (J.P. Morgan), HY (ICE BofAML), Bank Loans (Credit Suisse), and CLOs (Palmer Square). European returns are unhedged in euros unless otherwise indicated. An investment cannot be made directly in an index.

## NOTICE: IMPORTANT INFORMATION

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

PGIM Fixed Income operates primarily through PGIM, Inc., a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended, and a Prudential Financial, Inc. ("PFI") company. Registration as a registered investment adviser does not imply a certain level of skill or training. PGIM Fixed Income is headquartered in Newark, New Jersey and also includes the following businesses globally: (i) the public fixed income unit within PGIM Limited, located in London; (ii) PGIM Netherlands B.V., located in Amsterdam; (iii) PGIM Japan Co., Ltd. ("PGIM Japan"), located in Tokyo; (iv) the public fixed income unit within PGIM (Hong Kong) Ltd. located in Hong Kong; and (v) the public fixed income unit within PGIM (Singapore) Pte. Ltd., located in Singapore ("PGIM Singapore"). PFI of the United States is not affiliated in any manner with Prudential plc, incorporated in the United Kingdom or with Prudential Assurance Company, a subsidiary of M&G plc, incorporated in the United Kingdom. Prudential, PGIM, their respective logos, and the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide.

**These materials are for informational or educational purposes only. The information is not intended as investment advice and is not a recommendation about managing or investing assets. In providing these materials, PGIM is not acting as your fiduciary. Clients seeking information regarding their particular investment needs should contact their financial professional.** These materials represent the views and opinions of the author(s) regarding the economic conditions, asset classes, securities, issuers or financial instruments referenced herein. Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of PGIM Fixed Income is prohibited. Certain information contained herein has been obtained from sources that PGIM Fixed Income believes to be reliable as of the date presented; however, PGIM Fixed Income cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. PGIM Fixed Income has no obligation to update any or all of such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors. **All investments involve risk, including the possible loss of capital. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. No risk management technique can guarantee the mitigation or elimination of risk in any market environment. Past performance is not a guarantee or a reliable indicator of future results and an investment could lose value. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. PGIM Fixed Income and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein, including for proprietary accounts of PGIM Fixed Income or its affiliates.**

The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients or prospects. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. For any securities or financial instruments mentioned herein, the recipient(s) of this report must make its own independent decisions.

**Conflicts of Interest:** PGIM Fixed Income and its affiliates may have investment advisory or other business relationships with the issuers of securities referenced herein. PGIM Fixed Income and its affiliates, officers, directors and employees may from time to time have long or short positions in and buy or sell securities or financial instruments referenced herein. PGIM Fixed Income and its affiliates may develop and publish research that is independent of, and different than, the recommendations contained herein. PGIM Fixed Income's personnel other than the author(s), such as sales, marketing and trading personnel, may provide oral or written market commentary or ideas to PGIM Fixed Income's clients or prospects or proprietary investment ideas that differ from the views expressed herein. Additional information regarding actual and potential conflicts of interest is available in Part 2A of PGIM Fixed Income's Form ADV.

In the **United Kingdom**, information is issued by PGIM Limited with registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR. PGIM Limited is authorised and regulated by the Financial Conduct Authority ("FCA") of the United Kingdom (Firm Reference Number 193418). In the **European Economic Area** ("EEA"), information is issued by PGIM Netherlands B.V., an entity authorised by the Autoriteit Financiële Markten ("AFM") in the Netherlands and operating on the basis of a European passport. In certain EEA countries, information is, where permitted, presented by PGIM Limited in reliance of provisions, exemptions or licenses available to PGIM Limited under temporary permission arrangements following the exit of the United Kingdom from the European Union. These materials are issued by PGIM Limited and/or PGIM Netherlands B.V. to persons who are professional clients as defined under the rules of the FCA and/or to persons who are professional clients as defined in the relevant local implementation of Directive 2014/65/EU (MiFID II). In certain countries in **Asia-Pacific**, information is presented by PGIM (Singapore) Pte. Ltd., a Singapore investment manager registered with and licensed by the Monetary Authority of Singapore. In **Japan**, information is presented by PGIM Japan Co. Ltd., registered investment adviser with the Japanese Financial Services Agency. In **South Korea**, information is presented by PGIM, Inc., which is licensed to provide discretionary investment management services directly to South Korean investors. In **Hong Kong**, information is provided by PGIM (Hong Kong) Limited, a regulated entity with the Securities & Futures Commission in Hong Kong to professional investors as defined in Section 1 of Part 1 of Schedule 1 (paragraph (a) to (i) of the Securities and Futures Ordinance (Cap.571)). In **Australia**, this information is presented by PGIM (Australia) Pty Ltd ("PGIM Australia") for the general information of its "wholesale" customers (as defined in the Corporations Act 2001). PGIM Australia is a representative of PGIM Limited, which is exempt from the requirement to hold an Australian Financial Services License under the Australian Corporations Act 2001 in respect of financial services. PGIM Limited is exempt by virtue of its regulation by the FCA (Reg: 193418) under the laws of the United Kingdom and the application of ASIC Class Order 03/1099. The laws of the United Kingdom differ from Australian laws. In **South Africa**, PGIM, Inc. is an authorised financial services provider – FSP number 49012. In **Canada**, pursuant to the international adviser registration exemption in National Instrument 31-103, PGIM, Inc. is informing you that: (1) PGIM, Inc. is not registered in Canada and is advising you in reliance upon an exemption from the adviser registration requirement under National Instrument 31-103; (2) PGIM, Inc.'s jurisdiction of residence is New Jersey, U.S.A.; (3) there may be difficulty enforcing legal rights against PGIM, Inc. because it is resident outside of Canada and all or substantially all of its assets may be situated outside of Canada; and (4) the name and address of the agent for service of process of PGIM, Inc. in the applicable Provinces of Canada are as follows: in **Québec**: Borden Ladner Gervais LLP, 1000 de La Gauchetière Street West, Suite 900 Montréal, QC H3B 5H4; in **British Columbia**: Borden Ladner Gervais LLP, 1200 Waterfront Centre, 200 Burrard Street, Vancouver, BC V7X 1T2; in **Ontario**: Borden Ladner Gervais LLP, 22 Adelaide Street West, Suite 3400, Toronto, ON M5H 4E3; in **Nova Scotia**: Cox & Palmer, Q.C., 1100 Purdy's Wharf Tower One, 1959 Upper Water Street, P.O. Box 2380 - Stn Central RPO, Halifax, NS B3J 3E5; in **Alberta**: Borden Ladner Gervais LLP, 530 Third Avenue S.W., Calgary, AB T2P R3.

© 2021 PFI and its related entities.

**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.

For Professional Investors only. All investments involve risk, including possible loss of capital.

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.

2021-8808