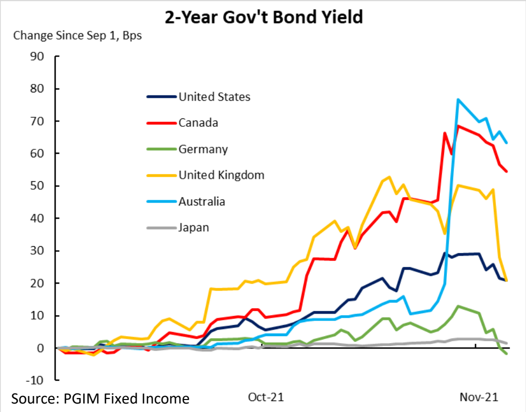
The Great Reversal Collapses Front-end Yields

WEEKLY VIEW FROM THE DESK | November 8, 2021

QUICK LINK TO THE RETURNS TABLE

MACRO

- Last week's great reversal in near-term rate expectations across major markets underscores the difficulties that central banks face when trying to engineer smooth exit strategies from their COVID-related stimulus measures. The Bank of England took the markets by surprise by not raising rates, while members of the ECB Governing Council indicated a less hawkish outlook than expected.
- The ECB and the BoE are charting very different courses for their exit strategies. Credibility issues have beset the ECB for years as officials struggle to fight disinflation, and the ECB may need to right the wrongs of the past by increasing the size of regular asset purchases after it exits the pandemic-era measures in March 2022. Meanwhile, BoE policymakers are likely desperate to remove some of the unprecedented stimulus—even it's a small amount—in order to create enough policy room and buffers for future economic downturns. We think the BoE will increase the policy rate to 0.5% and gradually shrink the size of its balance sheet next year.

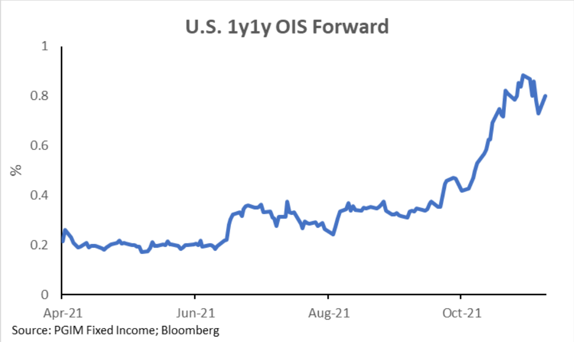


Source: PGIM Fixed Income

- While the Fed's meeting did not offer nearly as many surprises, officials overcame a tricky communication challenge in terms of the "transitory" inflation characterization. Policymakers announced tapering of asset purchases as expected and delivered the softest acknowledgement possible that they could potentially be wrong about the transitory nature of inflation.
- An underappreciated theme that contributed to last week's substantial reversal was the decline in commodity prices after the U.S. government hinted at the possibility of releasing crude from the Strategic Petroleum Reserve. It's too early to tell whether this price action will persist, but the hint relieved pressure on inflation expectations.

RATES

- While markets have moved away from pricing in extreme policy tightening, we think the retracement has further room to run. In the U.S., the 1y1y OIS forward is still pricing in too many rate hikes, which is reminiscent of previous periods leading up to hiking cycles, such as in 2015, when OIS forwards persistently overestimated the timing and pace of the Fed's eventual rate increases. While the pace of hikes as indicated by the front end of the forward curve is still much steeper than Fed officials' projections, the rest of the curve has priced in a terminal Fed funds rate of around 1.5%, lower than the Fed's 2.5% longer-run estimate.



Source: PGIM Fixed Income; Bloomberg

- When measured against the Fed's tapering, last week's Treasury announcement on upcoming coupon issuance amounts to significant reductions in the supply available to the private sector. Treasury will likely continue reducing coupon issuance going forward in order to make room for bill issuance and respond to changing funding needs.
- The continued dislocations of the Treasury yield curve have led to sizable relative-value opportunities that are normally only present during systemic crises such as 2008 and 2020. We still see large liquidations and stopouts from RV and macro hedge funds, whose capital and balance sheet are normally devoted to capture these arbitrage opportunities. We continue to engage in longs in TY futures against 2- and 10-year cash Treasuries, as well as longs in the 20-year against WN futures and the 30-year.
- Agency MBS cheapened last week as spreads struggled to keep pace with the rally in rates. Convexity accounts added duration amid the Treasury rally, and the decline in yields may have also incentivized banks to add exposure as well.

IG CORPORATES

- U.S. IG spreads shifted with last week's macro news as they were wider early in the week and ended slightly tighter. With about 90% of the S&P 500 reporting Q3 results and continuing to report on supply chain constraints and inflation, profit margins appear to be holding up around 12.9%, slightly below the recent record of 13.1%, but well above the five-year average of 10.9%. While aggregate leverage ratios returned to pre-pandemic levels in Q2, it appears many BBB names still have room to delever in the current quarter.
- Indeed, the deleveraging process appears to be continuing within the crossover area. Continental Resources recently entered the IG sector even after a sizable acquisition in the Permian Basin, and protein provider JBS recently moved into IG as well. Although Kraft Heinz remains in the high yield sector with BB+ aggregate credit ratings, it was placed on "positive" watch by S&P.

- European IG spreads drifted slightly wider last week and U.S. bank issues in euros continue to lag European financials amid the technical factor of cheap issuance in the U.S., which leads to an equivalently cheap offering in euros that tends to drag secondary spreads wider. For example, a cursory look at a handful of benchmark issues from U.S. banks shows an average YTD widening of 14 bps, while a handful of benchmark issues from European banks shows an average YTD tightening of 8 bps.

HIGH YIELD

- U.S. high yield spreads tightened last week, receiving a strong lift on Friday from the better-than-expected jobs report. So-called re-opening sectors (e.g., airlines, cruise operators, lodging) also rose following news of Pfizer's new COVID pill. These positive developments were somewhat offset by a sizeable ETF outflow and lackluster new issue performance. By quality, BBs (+0.64%) outperformed both Bs (+0.56%) and CCCs (+0.44%). By industry, cable (+1.03%), food & beverage (+0.94%), and airlines (+0.87%) outperformed. Metals & mining (+0.26%), technology (+0.32%), and media (+0.34%) lagged.
- High yield primary activity picked up, with nine deals pricing for $9.3B in proceeds. Last week's calendar included a two-part, $2B sustainability-linked deal for pharmaceutical manufacturer Teva. As the company is not in most high yield indices, it was not widely followed and was little changed on the break, but received a modest lift when the market traded up on Friday. In October, default activity was muted as the trailing 12-month par-weighted U.S. high yield default rate decreased 56 bps month-over-month to 0.44%, the lowest level since its historical low of 0.38% in December 2007. We continue to expect default rates to remain less than 1.0% through 2022.
- U.S. leveraged loans posted positive returns last week with investors reinvesting proceeds from a number of paydowns. At $46B, October was the third highest month for repayments over the last 20 years and the highest since August 2019. An additional $8.25B of paydowns have occurred so far in November. Last week's primary activity consisted of 19 deals for $13B in proceeds with the forward calendar now standing at $20B. With about 25% of the loan market currently trading above par and about 10% trading at 100.5 or better, we are beginning to see a small number of issuers coming back to the market to reprice their loans lower.
- In Europe, high yield bond and loan returns were positive as both markets continue to absorb heavy supply. Looking forward, however, we anticipate supply will begin to dissipate. This better technical backdrop, combined with strong fundamentals and low expected default rates, led us to recently raise our short-term and long-term outlook for both asset classes, with high yield spreads potentially tightening by an additional 30-35 bps through year-end.

EMERGING MARKETS

- Emerging market hard currency markets posted positive returns last week with spreads slightly wider with the rally in core rates. Differentiation between credit ratings and issuers remains apparent, but CCCs generally widened while Bs were slightly tighter. New supply was consistent with prior weeks and fund flows were supportive with more than $713M flowing into hard currency funds. In EM corporates, China real estate bonds continued to selloff with China high yield spreads doubling since July to +1,709 bps, while China IG spreads have widened 25 bps in November to +237 bps.
- The sovereign new issue market was quiet with no new issuances. In the corporate and quasi-sovereign market, Teva issued a €1.1B 6-yr priced at T+421.7 bps, a €1.5B 9-yr priced at T+465.3 bps, a $1B 8-yr priced at T+370 bps, and a $1B 6-yr priced at T+353 bps; Empresa Haina issued a $300M 7-yr priced to yield 5.75%; Amipeace issued a $600M 5-yr priced T+75 bps; China Bohai Bank issued a $300M 3-yr priced at T+85 bps.
- Emerging market local debt posted positive returns last week with the yield on the index declining 2 bps to 5.62%—the first weekly decline since the end of August. High yielders, such as Brazil, South Africa, and Mexico, outperformed on the back of the rally in the U.S. rates, while Poland and the Czech Republic underperformed on the back of aggressive central bank rate hikes. The Czech central bank surprised markets with a 125 bp rate hike while Poland's central bank raised rates by 75 bps to 1.25%.
- EMFX was relatively flat, with LatAm currencies outperforming and Asia lagging, and it performed better after the Fed meeting. Idiosyncratic factors also affected performance with the Czech koruna being the best performer after the central bank surprised markets with a bigger-than-expected hike. EMFX may continue to struggle amid Fed tapering and the Chinese growth slowdown.

SECURITIZED PRODUCTS

- U.S. conduit AAA CMBS spreads were unchanged last week. One new issue conduit deal priced last week and there will be two more this week. The demand for AAA bonds on the secondary market remains strong. We have started to see investors participate in wider SASB mezzanine bonds after heavy SASB floater issuance widened spreads 20-60 bps over the past few weeks.
- Senior U.S. CLO spreads were fairly well supported and upper mezzanine tranches were marginally softer last week. Spreads at the top of the European capital structure remains firm amid strong demand. 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 continue to trade range bound, slightly off YTD tights, as a softer tone remains amid heavier supply. We continue to find on-the-run ABS less compelling relative to other securitized products. Within ABS, we are buyers of senior and subordinate classes in branch based unsecured consumer loans and top tier subprime auto subordinates.

MUNICIPAL BONDS

- Tax-exempt municipal bonds continued to benefit from a positive tone last week. The 5 , 10-, and 30-year portions of the AAA-rated muni curve ended at 59.5% (up from 54.0% the prior week), 77.6% (down from 77.7%), and 83.6% (down from 87.3%), respectively.
- Muni funds saw net inflows of $603M, with long term, high yield, and intermediate funds experiencing inflows of $569M, $1M, and $184M, respectively. Municipal funds have now seen inflows in 76 of the past 77 weeks, totaling a record $153.6B over that span. This week, the calendar is estimated at $11B, including $2B in taxable munis. Looking forward, the technical backdrop is expected to remain supportive, with JP Morgan estimating net negative supply of -$5B in November and -$10B in December.

THE RETURNS TABLE As of November 5, 2021

				Yield/ OAS Change (BPS)				Total Return (%)			
Sovereign Rates	**Duration**	**YTM**	**OAS**	**WTD**	**QTD**	**YTD**	**Prior Year**	**WTD**	**QTD**	**YTD**	**Prior Year**
U.S. 2-Year	2.0	0.40	---	-10	13	28	26	0.21	-0.09	-0.10	0.01
U.S. 5-Year	4.8	1.04	---	-13	9	70	73	0.67	-0.13	-2.07	-2.04
U.S. 10-Year	9.1	1.45	---	-10	-3	54	69	0.97	0.85	-3.59	-4.61
U.S. 10-Year Breakeven	--	2.55	---	-3	18	57	90	---	---	---	---
U.S. 10-Year TIPS	4.8	-1.10	---	-7	-21	-1	-21	1.03	2.44	5.19	7.32
U.S. 20-Year	16.5	1.89	---	-8	-9	45	60	1.67	2.60	-6.25	-7.95
U.S. 30-Year	22.4	1.89	---	-5	-16	24	36	1.28	4.89	-4.74	-6.81
UK 10-Year	9.6	0.84	---	-19	-18	65	61	1.84	1.81	-4.96	-2.99
Germany 10-Year	9.8	-0.28	---	-18	-8	29	36	1.72	0.78	0.71	0.71
Japan 10-Year	9.8	0.06	---	-4	-1	4	4	0.38	0.24	0.24	0.24
Australia 10-Year	9.4	1.81	---	-28	32	84	107	2.66	-2.90	-6.16	-8.29
Canada 10-Year	8.8	1.59	---	-13	8	91	98	1.21	-0.56	0.94	0.94
MAJOR FI MS INDICES											
Global Aggregate Unhedged	7.6	1.19	34	0	1	-2	-11	0.70	0.45	-3.63	-1.77
Global Aggregate Hedged	7.6	1.19	34	0	1	-2	-11	0.80	0.53	-0.91	-0.47
U.S. Aggregate	6.8	1.58	34	0	1	-8	-19	0.64	0.61	-0.95	-0.52
Euro-Aggregate (Unhedged)	7.8	0.05	53	-1	4	5	-4	1.35	0.73	-1.57	-1.40
Japanese Aggregate	9.6	0.10	1	0	0	0	0	0.22	0.10	0.03	-0.04
MAJOR FI CREDIT INDICES											
Mortgage-Backed (Agency)	4.8	1.81	26	2	0	-13	-25	0.40	0.21	-0.47	-0.27
Global IG Corporate Bonds	7.5	1.68	91	0	3	-8	-31	0.74	0.77	-1.69	0.94
U.S. IG Corporate Bonds	8.8	2.13	86	-1	2	-10	-33	0.89	1.14	-0.14	1.54
European IG Corporate	5.3	0.32	89	2	5	-3	-21	0.97	0.22	-0.09	0.70
U.S. High Yield Bonds	3.9	4.04	284	-3	-5	-76	-152	0.61	0.44	5.00	8.88
European High Yield Bonds	3.5	2.93	320	10	20	-38	-120	0.28	-0.14	4.07	7.76
U.S. Leveraged Loans	0.3	5.13	435	-5	-3	-51	-127	0.11	0.35	5.02	7.98
European Leveraged Loans	0.3	3.76	412	1	6	-47	-135	0.03	0.24	4.51	7.68
EM Hard Currency Sovs.	8.0	5.08	361	3	4	9	-36	0.58	0.60	-0.77	2.35
EM Corporates	5.0	4.47	311	11	10	-17	-70	0.11	-0.36	1.17	4.43
EM Currencies	---	3.39	361	3	4	9	-36	0.02	0.34	-1.84	1.93
EM Local Rates	5.2	5.62	6	0	0	1	1	0.20	-1.46	-5.20	-3.81
CMBS	5.1	1.64	62	2	2	-18	-42	0.48	0.09	-0.44	0.71
ABS	2.3	0.80	35	-1	6	2	-4	0.20	-0.15	0.09	0.39
CLOs	--	1.01	101	0	-1	-15	-33	0.00	0.04	0.15	0.61
Municipal Bonds	4.9	1.15	---	-6	3	8	-17	0.47	0.17	0.97	2.56

		Total Return (%)			
Equity/Volatility	**Level**	**WTD**	**QTD**	**YTD**	**Prior Yr**
S&P 500 Index	9820	2.0	9.2	26.6	35.8
DAX	16024	2.3	5.2	17.0	27.7
Stoxx 600	256	2.0	5.9	22.4	33.5
Nikkei 225	29507	2.5	0.5	9.5	24.8
Shanghai Comp.	3499	-1.6	-2.1	2.7	7.4
MSCI ACWI	390	1.6	6.8	18.7	30.0
FTSE 100	7298	1.0	3.2	16.6	28.1
MOVE Index	67	-11.3	9.5	36.6	52.9
VIX Index	17	1.4	-28.8	-27.6	-40.2

		% Change			
FX/Commodities	**Spot**	**WTD**	**QTD**	**YTD**	**Prior Year**
EUR/USD	1.2	0.08	-0.11	-5.31	-2.19
USD/JPY	113.4	-0.47	1.90	9.84	9.59
GBP/USD	1.3	-1.34	0.18	-1.26	2.66
USD/CHF	0.9	-0.37	-2.04	3.11	0.88
USD (DXY)	94.3	0.21	0.10	4.87	1.94
Oil	81.3	-2.75	8.32	67.50	109.51
Gold	1818.4	1.96	3.50	-4.21	-6.73

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NOTICE: IMPORTANT INFORMATION

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