PGIM FIXED INCOME

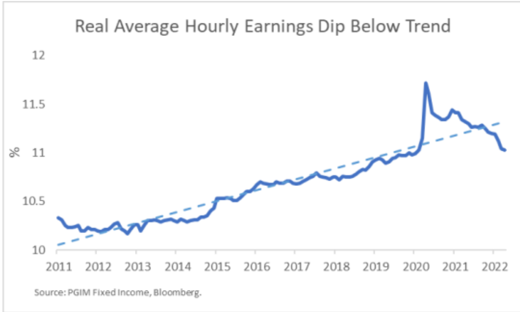
Monetary Policy Expectations Shift with the Currents

WEEKLY VIEW FROM THE DESK | June 6, 2022

QUICK LINK TO THE RETURNS TABLE

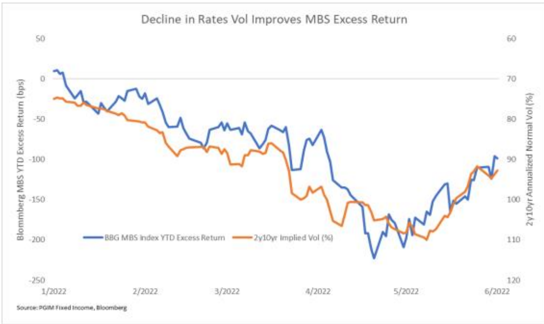
MACRO

- While recent data generally reinforce the prospects for a soft landing, some observable cracks are starting to emerge. Consumer spending has remained historically strong even as incomes have generally failed to keep pace with inflation. Hence, households have tapped their savings to keep spending, dropping the savings rate from 8.7% at the end of 2021 to 4.4% in May, which isn't quite to the lows of the mid-2000s, but is headed in that direction.
- Despite the rapid changes in the macro and market backdrop, the pricing for Fed funds futures has remained notably steady, perhaps alluding to confidence regarding a rate hike needed to eventually slow inflation. For instance, at the end of 2022, 2023, and 2024, the market is pricing in a Fed funds rate of 2.84%, 3.05% and 2.65%, respectively.
- In terms of next week's Fed meeting, we have an eye on several potential developments, including: whether Fed officials begin to differentiate between inflation categories that it can control vs. those that it cannot, such as supply side factors; whether and to what extent Fed officials might begin to pivot back towards their inflation outlook, rather than the current readings; and whether any Fed officials deviate from their prior/current projections for a soft landing.
- This week's ECB meeting comes as analysts continue to lower their GDP forecasts. After the invasion, we reduced our 2022 forecast to 1.3%, and Morgan Stanley, Goldman Sachs, Bank of America, and HSBC recently followed suit into similar levels (with most still above 1.3%). However, Barclays recently reduced its estimate to 0.5%, primarily due to a pronounced slowdown towards the end of the year.



RATES

- Global rates resumed their drastic selloffs across the curve, and U.S. Treasuries by no means led the moves among developed markets. Canada and Germany experienced the sharpest repricing in the front end last week with the two-year yields rising more than 30 bps. In order to keep inflation expectations anchored, the Bank of Canada indicated that persistent inflation is leading to higher likelihood of the policy rate rising above its 2-3% neutral range. The messaging led market participants to quickly reprice expectations for the policy rate and some even expect the BoC to deliver 75bp rate hikes in July and September.
- A 50bp rate hike is baked in for next week's Fed meeting, and the rally in risk assets in recent weeks seems to hint at an emerging narrative that inflation and growth fears have been adequately priced. For now, the market is pricing in double hikes for June and July and the tightening path flattens considerably at the end of this year. But that seems too early to tell especially given the CPI report this Friday will likely show persistent inflation dynamics. Also, considering the similarities and connectedness between the US and the Canadian economy, we think there's a risk that investors will shift their focus to the US again and begin to resume pricing in more rate hikes and inflation pressure.
- As Treasury yields remain largely rangebound, liquidity has improved modestly following the heightened volatility earlier this quarter. JPMorgan's price impact indicator, which measures the price response of 10-year notes in reaction to a $100m transaction, is now at around 0.7 tick after rising to as high as 1 tick recently; market functioning is still relatively strained as the price impact pre-pandemic was around 0.4 tick.
- Mortgage-backed securities continued its solid performance versus rates in recent weeks. The risk-on sentiments, decline in rate volatility, and light supply all provided support. We have found that MBS excess returns have moved roughly in line with the decline in rate volatilities, as intermediate- and longer-dated vols in May posted their largest monthly drops since the global financial crisis.



IG CORPORATES

- Last week's stabilization in IG corporates included several sectors, including utilities (particularly PG&E with a 10 bps tightening on Fitch's positive outlook on the credit, and it consequently entered the market on Monday with an offering that was said to be heavily oversubscribed), energy, and yankee banks. However, U.S. banks were a notable underperformer last week. Most issuer curves looked slightly steeper with intermediates outperforming.
- As participants consider the relative value opportunities across sectors, one telling figure emerged from a price perspective: about $84B in A-rated corporates trade below a $75 dollar price, while only $60B of high yield corporates trade below the same dollar price. While A-rated industrials are historically subject to more event risk (although event risk has not been as prominent recently), we find BBBs trading at low dollar prices may present more compelling relative value.
- The $30B that priced last week wrapped up a slow May in the U.S. Concessions averaged about 8 bps on books that were about 2 times covered, yet, demand was firmer at the back end as concessions were said to be 2 bps on books that were 6 times covered. Estimates indicate that $25B may price this week with 12 deals emerging on Monday alone. The estimates for issuance in June range from $120-$130B with many moving to the high side of those estimates. Elsewhere in technicals, dealer inventories are said to be at historically low levels at about the 8th percentile since 2013.

- Holidays on Thursday and Friday in the UK and the Whit Monday holiday in much of continental Europe made for a short trading week. As a result, few new issues came to market, which helped performance, especially for bank bonds and other highly cyclical issues. It remains to be seen if increased issuance in coming weeks will halt recent weeks' relatively strong performance of IG corporate bonds.

HIGH YIELD

- U.S. high yield spreads tightened even as yields rose and total returns were negative. After posting more than $36B in outflows so far in 2022, U.S. high yield bond mutual funds posted inflows of $4.8B in what was the strongest weekly inflow since June 2020. By sector, paper (+0.86%), capital goods (+0.51%), and chemicals (+0.46%) outperformed. ETF inflows helped support CCCs, which returned 0.18% on a total return basis. Primary activity picked up, with $6.6B pricing last week.
- JP Morgan revised its 2022 and 2023 U.S. high yield expectations for 2022 and 2023 higher by 50 bps to 1.25% and 1.75%, respectively. These revised default expectations remain historically low amid expectations that most high yield issuers will be able to withstand higher rates, slower growth, and inflation, aided in large part by the record $1T of bond and loan refinancings in 2020 and 2021 resulting in a low maturity wall for 2022 and 2023. We agree that strong credit fundamentals provide a defensive buffer to rising defaults. However, we anticipate higher default rates of 3% and 7% over the next two years, should the economy follow our 55% probability scenario of a typical recession occurring in two years.
- Loans posted a positive return as loan mutual funds posted a small inflow following three straight weekly outflows. Amid rising base rates, the average coupon for the JP Morgan Leveraged Loan Index now stands at 4.8% and would rise to approximately 6.2% by the end of 2022 based on the realization of the forward curve. For context, the average coupon for high yield bonds is currently 5.8% and the average loan coupon has never before exceeded the average high yield coupon.
- In Europe, high yield bond spreads tightened amid inflows and a lack of forced selling. By quality, BBs, Bs, and CCCs returned 0.05%, 0.21%, and 0.03%, respectively. Whereas we believe BBs appear well anchored, we are less confident in Bs and CCCs, which appear more vulnerable to decompression given how much they have outperformed on a risk-adjusted basis and, more generally, believe high yield spreads could widen from here.

EMERGING MARKETS

- EM bonds carried over their relatively strong performance from two weeks ago into last week, with the first weekly inflows into EM hard-currency bonds since some time ago. EM hard-currency spreads continued to tighten, but less so than in the previous week.
- Emerging markets have formed the centre of much of this year's disruption, which includes Russia's invasion of Ukraine, China's slowdown, and rising energy prices. In addition, most investors think that the Fed is yet to reach peak hawkishness, that spreads have room to widen, and that most EM central banks will raise rates or maintain them at high levels. The possibility of unorthodox policy measures, e.g. price caps to curb inflation, is an investment consideration as well.
- As a result of this uncertain environment, most investors, including ourselves, remain cautiously positioned. We continue to dispose of overweight positions that have performed well, often covering underweight allocations elsewhere. For example, from the BB-rated overweight positions that we prefer in the corporate and quasi-sovereign segments, we have reduced our exposure to Brazilian corporates.
- Even with a cautious view on the overall market, however, distinct opportunities exist in a widely dispersed asset class such as EM debt. Some EM government bonds, for example, benefit from the fact their issuers don't have to come to market to finance or refinance. And investor appetite exists for transactions such as Pemex's US-dollar bonds, due 2029, issued last week, albeit at a reduced size and a higher-than-expected yield to maturity of 9.25%. Overall, increased uncertainty may imply higher risk premiums, which we're aiming to capture.

SECURITIZED PRODUCTS

- U.S. conduit AAA CMBS spreads were unchanged last week, and two conduit deals should price this week. Last cash flow tranches are expected to come in the mid to high 140 bps and 155 bps, while the BBB- tranches are expected in the 560 bps range. Two more conduit deals are expected in June before a slowdown for the remainder of the summer. We continue to recommend staying at the top of the capital structure as CRE fundamentals have increasing uncertainty from both monetary policy and geopolitical risk. SASB floater spreads tightened 5 bps. SASB issuance has remained steady although it has been quiet the last couple weeks. Non-agency RMBS spreads were a mixed bag last week. Generically, credit risk transfer spreads tightened up to 25 bps, while non-qualifying mortgages widened by 20 bps.
- Primary AAA CLO spreads were largely unchanged at the top of the capital structure as the market remains in price discovery mode. We believe spreads for benchmark issuers in the U.S. are ~3M SOFR+185/255/290/435/800 for AAA/AA/A/BBB/BB, respectively. We continue to see varying prints at the AAA level as some deals continue to price at stale levels. Primary levels remain roughly 10 basis points tight to secondary valuations as the two continue to converge. Total issuance across new issue, refinancings, and resets was ~$2.7B for the week, in line with the ~$2.3B last week. Issuance persisted at varying levels this week, as spreads were mixed. AAAs priced in a wide range, between 3M SOFR+140s to 190s, depending on the timing of negotiations. Euro CLO spreads at the top of the capital structure were unchanged as there was no issuance this week. We expect primary spreads to price in the 3E+140s to varying tenors. Primary levels are still ~10 basis points tight to where secondary trades are occurring.
- ABS spreads were unchanged to wider last week, with most asset classes sitting at YTD wides. Secondary market liquidity remains weak due to diminished market depth and broker-dealer risk aversion. An example was a $50m bid list for 2yr AAA One Main subprime auto that did not trade but had a T+182bp cover (30 bps wider than previous print). New issuance remained slow last week, but due to pick up over the next two weeks with auto, equipment, and student loan transactions. YTD issuance is $119B, 14% ahead of 2021 pace. We remain cautious on ABS, but would continue to add selectively.

MUNICIPAL BONDS

- Muni technicals appear to be improving as weekly reporting funds had $1.2B of inflows, bringing the YTD total to -$59.4B. About $7.1B is expected to price this week, which would be 71% of the 5yr average. Furthermore, -$33B net supply is projected for June.
- Munis outperformed Treasuries significantly for the second week in a row, with AAA muni yields decreasing 5-10 bps while Treasury yields moved higher. The reversal to positive fund flows and heavy June reinvestment is helping muni outperformance. While we have seen a remarkable snap back in tax-exempts, we're also monitoring the effect of rising Treasury yields.

THE RETURNS TABLE As of June 3, 2022

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	2.66	---	18	32	192	250	-0.28	-0.19	-2.69	-3.22
U.S. 5-Year	4.6	2.95	---	22	47	167	209	-0.93	-2.01	-6.94	-8.04
U.S. 10-Year	8.6	2.96	---	20	60	143	131	-1.72	-4.99	-11.40	-9.43
U.S. 10-Year Breakeven	--	2.77	---	11	-6	17	33	---	---	---	---
U.S. 10-Year TIPS	4.8	0.18	---	9	67	128	99	-0.57	-4.17	-7.49	-1.32
U.S. 20-Year	14.5	3.34	---	15	71	137	109	-2.36	-10.58	-19.75	-14.63
U.S. 30-Year	19.7	3.11	---	12	64	119	79	-2.58	-13.00	-22.92	-14.86
UK 10-Year	8.3	2.15	---	24	55	119	131	-1.93	-4.15	-8.77	-8.47
Germany 10-Year	9.6	1.27	---	31	73	145	145	-2.91	-6.64	-12.29	-12.29
Switzerland 10-Year	9.7	1.00		29	43	115	117	-2.82	-4.03	-10.44	-10.15
Japan 10-Year	9.6	0.23	---	0	2	17	15	-0.01	0.14	0.14	0.14
Australia 10-Year	9.1	3.48	---	23	64	181	182	-2.02	-5.22	-14.53	-13.53
Canada 10-Year	8.7	3.06	---	27	66	164	154	-2.29	-5.14	-12.30	-10.19
MAJOR FI MS INDICES											
Global Aggregate Unhedged	7.2	2.67	49	-1	7	13	16	-1.24	-5.82	-11.62	-13.33
Global Aggregate Hedged	7.2	2.67	49	-1	7	13	16	-0.87	-3.11	-7.93	-7.25
U.S. Aggregate	6.7	3.46	48	0	8	12	17	-0.88	-3.55	-9.28	-8.36
Euro-Aggregate (Unhedged)	7.1	1.75	85	-1	15	28	36	-1.33	-5.20	-10.33	-10.53
Japanese Aggregate	9.5	0.28	1	0	0	0	0	-0.14	-0.39	-1.93	-1.82
MAJOR FI CREDIT INDICES											
Mortgage-Backed (Agency)	6.2	3.53	37	3	13	6	20	-0.84	-2.78	-7.61	-7.76
Global IG Corporate Bonds	6.8	3.85	145	-3	21	48	55	-0.78	-5.61	-12.64	-13.22
U.S. IG Corporate Bonds	8.0	4.28	131	-3	15	38	46	-0.85	-4.99	-12.30	-10.37
European IG Corporate	5.0	2.45	163	-4	34	68	78	-0.73	-4.12	-8.88	-9.11
U.S. High Yield Bonds	4.8	7.13	401	-11	76	118	106	-0.35	-3.72	-8.37	-5.84
European High Yield Bonds	3.8	5.81	479	-20	84	161	186	0.05	-4.20	-8.15	-7.25
U.S. Leveraged Loans	0.3	8.22	548	-22	99	109	115	0.70	-1.84	-1.94	0.24
European Leveraged Loans	0.3	4.10	592	12	89	177	182	0.02	-2.74	-3.28	-1.25
EM Hard Currency Sovs.	7.1	7.50	448	-7	48	80	119	-0.69	-5.88	-15.31	-15.78
EM Corporates	4.6	6.39	345	-20	14	33	52	-0.03	-2.68	-11.26	-10.92
EM Currencies	---	5.99	---	16	143	166	356	0.10	-2.18	-7.59	-10.85
EM Local Rates	4.9	6.75	7	0	1	1	2	-0.11	-2.05	-10.01	-12.58
CMBS	4.9	3.88	100	-2	16	32	42	-0.76	-2.52	-7.96	-8.22
ABS	2.3	3.46	81	0	24	43	56	-0.37	-0.68	-3.54	-4.02
CLOs	---	1.69	169	-1	39	61	67	0.12	-1.26	-1.81	-1.89
Municipal Bonds	5.4	2.89	---	-5	30	179	188	0.32	-1.14	-7.30	-6.71

Equity/Volatility	Level	Total Return (%) WTD	QTD	YTD	Prior Yr
S&P 500 Index	8666	-1.2	-9.0	-13.2	-0.6
DAX	14614	0.0	0.3	-9.0	-7.5
Stoxx 600	240	-0.5	-1.6	-7.3	0.4
Nikkei 225	27916	3.7	-0.2	-2.6	-2.6
Shanghai Comp.	3236	2.2	-1.5	-11.9	-8.9
MSCI ACWI	337	-0.5	-8.4	-13.3	-7.3
FTSE 100	7627	-0.6	1.0	3.9	10.6
MOVE Index	98	-0.8	-8.6	26.8	81.1
VIX Index	25	-3.6	20.6	44.0	37.4

FX/Commodities	Spot	% Change WTD	QTD	YTD	Prior Year
EUR/USD	1.1	-0.1	-3.1	-5.7	-11.6
USD/JPY	130.9	3.0	7.5	13.7	18.7
GBP/USD	1.2	-1.1	-4.9	-7.7	-11.5
EUR/CHF	1.0	0.4	1.0	-0.6	-5.8
USD/CHF	1.0	0.6	4.3	5.4	6.5
USD (DXY)	102.1	0.5	3.9	6.8	12.8
Oil	77.0	3.3	18.5	54.4	72.8
Gold	1851.2	-0.1	-4.5	1.2	-1.0

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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

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Source(s) of data (unless otherwise noted): PGIM Fixed Income as of June 2022

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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 twenty four 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, fixed rate 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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