Monthly Market Commentary

November 2024

Overview

November market activity took off after the highly anticipated U.S. presidential election on Nov. 5. Both equity and rates markets were boosted by a clear outcome, with the S&P 500 Index returning 5.87% on the month. *(Figure 1)* U.S. Treasury rate volatility remained elevated, as rates rose in the two weeks following the election before rallying in the last week of the month. The two-year, 10-year and 30-year Treasury yields declined 2 basis points (bps), 12 bps and 12 bps, respectively. The Bloomberg US Aggregate Bond Index returned 1.06% on the month, bringing year-to-date return to 2.93%. Outside of the U.S., global central banks across both developed and emerging markets reduced policy rates, including the Bank of England (BOE), Sweden's Riksbank and Banco de Mexico. Global currencies were largely challenged by an appreciating U.S. dollar, as markets began pricing in the potential for protectionist and pro-growth U.S. policies under the incoming administration. The U.S. Dollar Index appreciated 4% from Nov. 5 to Nov. 22, finishing the month up 1.69%.

The Federal Open Market Committee (FOMC) met on Nov. 7 and unanimously decided to continue its rate-cutting cycle, reducing the federal funds rate 25 bps. This move was expected by market participants, with Chair Jerome H. Powell's post-meeting press conference a key focus point for investors trying to gauge the future path of rate cuts. Chair Powell's noting that recent economic data was stronger than expected alongside a slightly higher-than-expected inflation print led some investors to speculate that the pace of rate cuts could be slowing. Investors finished November expecting three cuts of 25 bps through the end of 2025, according to the Bloomberg World Interest Rate Probability function, one less relative to the beginning of the month.

Total Return by Asset Class | As of November 30, 2024
Denominated in U.S. Dollars

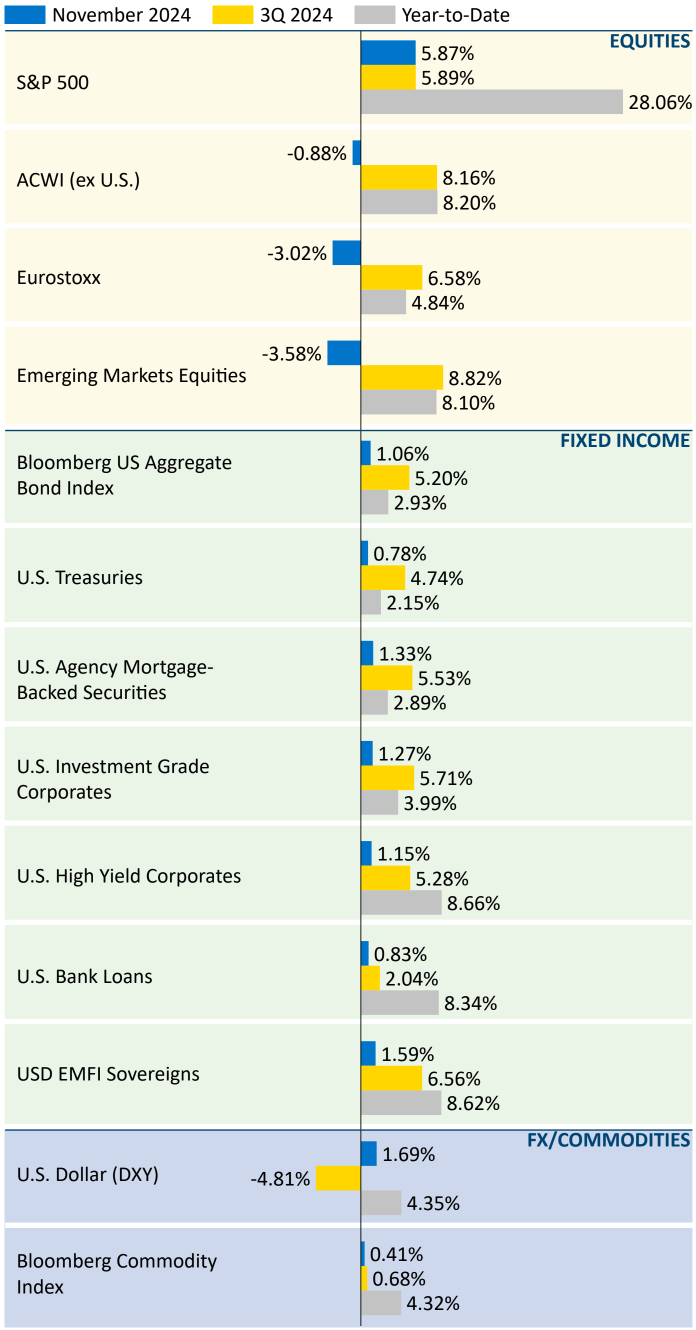


Figure 1
Source: DoubleLine, Bloomberg

Indices used in this chart: S&P 500 Index, MSCI ACWI ex U.S., Euro Stoxx 50, Emerging Markets Equities - MSCI EM Index, Bloomberg US Aggregate Bond Index, U.S. Treasuries - Bloomberg US Treasury Index, U.S. Agency MBS - Bloomberg US MBS Index, U.S. Corporate IG - Bloomberg US Credit Index, U.S. Corporate HY - Bloomberg US Corporate High Yield Index, U.S. Bank Loans - Morningstar LSTA US Leveraged Loan TR USD, USD EMFI Sovereign - Bloomberg EM USD Aggregate Sovereign Index, U.S. Dollar Index, Bloomberg Commodity Index.

November added 227,000 jobs month-over-month (MoM), according to the nonfarm payrolls report, in line with a consensus estimate of 220,000. The previous two months were revised higher by 56,000, bringing the three-month moving average to 138,000. The U-3 unemployment rate increased MoM to 4.2% in November from 4.1% and remained above its 36-month moving average of 3.8%. Job Openings and Labor Turnover Survey data for October came in above expectations as job openings increased MoM to 7.7 million from 7.4 million and above a 7.5 million consensus estimate. The ratio of vacancies per unemployed job seeker remained stable at 1.1x, in line with the pre-pandemic average from 2017 to 2019. The quits rate rose to MoM 2.1% from a post-pandemic low of 1.9% in September, marking the first increase since May 2023.

Other U.S. economic indicators continued to show mixed signals. The ISM Manufacturing PMI remained in contractionary territory (a number below 50) for the eighth consecutive month but increased MoM in November to 48.4 from 46.5. ISM Services PMI declined but remained in expansionary territory, falling to 52.1 from 56.0 and missing a consensus estimate of 55.7. October retail sales came in stronger than expected, according to Bloomberg data, as headline retail sales grew 0.4% MoM versus a 0.3% consensus estimate. The Conference Board Leading Economic Index declined 0.4% MoM in October versus negative 0.3% the prior month and a negative 0.3% consensus estimate.

The European Central Bank (ECB) did not have a monetary policy meeting in November, but rate-cut expectations were trending toward at least one cut in December. Expectations for cuts have been stoked by recent economic weakness and President-elect Donald Trump's election and policy rhetoric. Eurozone annual inflation ticked up MoM to 2.0% in October from 1.7%, as reported by the European Commission. The S&P Global Eurozone Purchasing Managers' Index (PMI) remained in contractionary territory in November, declining to 45.2 MoM from 46.0. The S&P Global Eurozone Services PMI fell into contractionary territory at 49.5, down from 51.6. In England, the BOE cut its policy rate by 25 bps, its second cut of the year. The BOE followed up with a warning that the budget could drive up inflation, which could affect future policy.

The People's Bank of China continued its stimulative activity in November, injecting 800 billion yuan ($111 billion) into the banking system via reverse repurchase agreements, exceeding October's 500 billion yuan ($69 billion) injection. The Caixin China General Manufacturing PMI remained in expansionary territory at 51.5 in November, up from 50.3 MoM. The Caixin China General Services PMI declined MoM but remained expansionary at 51.5.

Bank of Japan (BOJ) Governor Kazuo Ueda reiterated that BOJ policy would be driven by economic activity and financial conditions in a November speech. Inflation declined MoM in October to 2.3% from 2.5%, trending toward the BOJ's 2.0% target. The BOJ December meeting will be closely watched for a possible normalization of economic policy, a move that has been highly anticipated.

The U.S. election ushered in mixed feelings around the possibility of a pickup in investment and government spending. Stocks rallied, and the dollar strengthened versus major currencies. At the same time, the labor market remained strong; credit spreads were tight; and profits were growing, albeit unevenly. Given the high level of uncertainty around how the new administration will implement its agenda, market participants will likely continue to assess the outlook for growth and inflation. With one FOMC meeting remaining in 2024, market participants will be eager to gain clarity on the path of monetary policy entering the new year.

U.S. Government Securities

In November, the U.S. rates market navigated a complex interplay of political uncertainty, fiscal expectations and cautious Federal Reserve messaging. The Bloomberg US Treasury Index returned 0.78% for the month, bringing year-to-date performance to 2.15%. U.S. Treasury yields initially moved up after President-elect Donald Trump's victory, driven by concerns over inflationary pressures tied to proposed tariffs and fiscal expansion. However, after reaching local highs midmonth, rates rallied, tempering initial market reactions. By month's end, yields fell modestly, with the 10-year Treasury down 12 basis points (bps).

U.S. Treasury Yield Curve (%)

	10/31/2024	11/29/2024	Change
3 Months	4.54	4.49	-0.05
6 Months	4.46	4.44	-0.02
1 Year	4.27	4.28	0.01
2 Years	4.17	4.15	-0.02
3 Years	4.13	4.09	-0.04
5 Years	4.16	4.05	-0.11
10 Years	4.28	4.16	-0.12
30 Years	4.48	4.36	-0.12

Source: Bloomberg

Economic data, including stable core Consumer Price Index data and mixed labor indicators, took a backseat to the election's impact on market sentiment and fiscal outlook. Term premium concerns were front and center, reflecting anticipated fiscal stimulus and trade disruptions under the new administration. Nonetheless, many investors saw elevated yields as an opportunity, spurring renewed demand and stabilizing long-term rates.

The Fed maintained a deliberate, data-dependent approach in November, cutting the federal funds rate 25 bps while reiterating a meeting-by-meeting strategy.

Agency Residential and Agency Commercial Mortgage-Backed Securities

Agency residential mortgage-backed securities (RMBS) experienced a strong rebound in November as volatility subsided following the highly anticipated U.S. elections. Agency RMBS generated a return of 1.33%, as measured by the Bloomberg US MBS Index, and an excess return of 56 basis points (bps), the highest mark since December. The MBS index outperformed the Bloomberg US Treasury Index's return of 0.78%, the Bloomberg US Agency Commercial MBS (CMBS) Index's 0.87% and Bloomberg US Credit Index's 1.27%.

Agency RMBS option-adjusted spreads (OAS), as measured by the Bloomberg US MBS Index, tightened modestly 8 bps on the month to 41 bps. Agency CMBS OAS, as measured by the Bloomberg US CMBS Index, tightened 5 bps to 37 bps. Spreads for current-coupon Agency RMBS tightened 16 bps to 1.38%.

Aggregate prepayment speeds came in slower than expected in November, impacted by negative seasonal housing factors, a three-day lower day count and a higher driving mortgage rate. The 30-year mortgage rate, as measured by the Freddie Mac U.S. Mortgage Market Survey 30-Year Homeowner Commitment National Index, increased 9 bps month-over-month (MoM) to 6.81%.

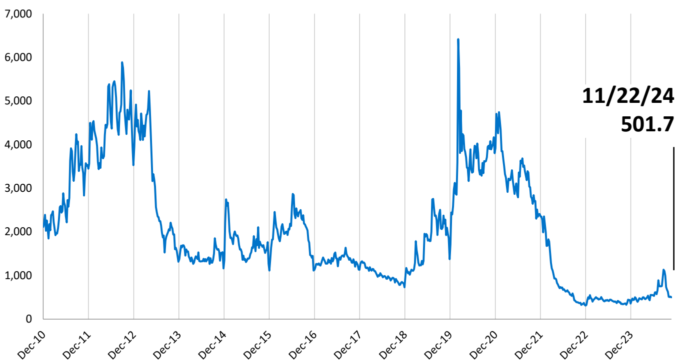
Gross issuance of Agency RMBS increased MoM to $118.8 billion, the highest print of 2024. Net issuance increased to $39.6 billion, bringing year-to-date volume to $190.3 billion. Monthly issuance of Agency CMBS was $13.5 billion in October, the latest full month for which data was available. Paydowns on the Federal Reserve's MBS portfolio decreased MoM in November to $15.5 billion from $17.0 billion.

For more on mortgage market activity, please see the following page.

Monthly Market Commentary

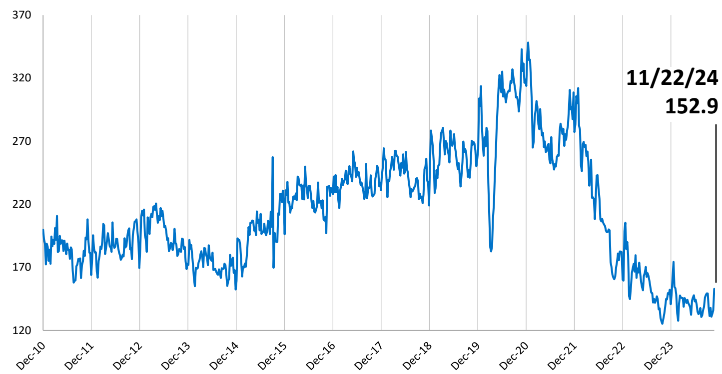
November 2024

MBA U.S. Refinancing Index | As of November 22, 2024



Source: Bloomberg. Base = 100 on 3/16/1990. Seasonally Adjusted

MBA Purchase Index | As of November 22, 2024



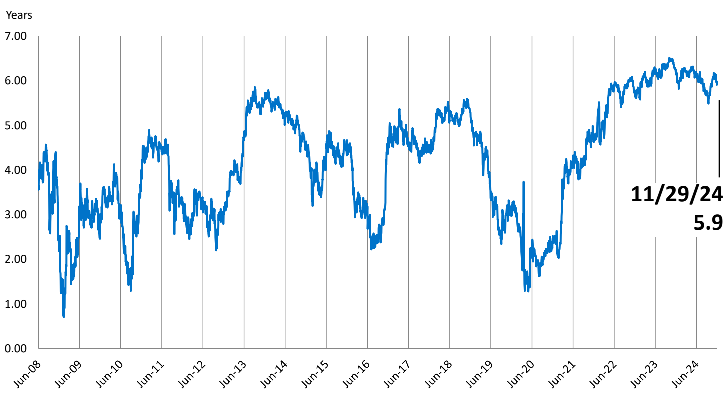
Source: Bloomberg. Base = 100 on 1/14/2011. Seasonally Adjusted

Freddie Mac Commitment Rate - 30 Year | As of November 28, 2024

Source: Bloomberg, DoubleLine

As of 1/4/2024, new methodology for gathering this data was implemented. Instead of surveying lenders, the Primary Mortgage Market Survey® results are now based on actual applications from lenders across the country submitted to Freddie Mac when a borrower applies for a mortgage.

Duration of Bloomberg US MBS Bond Index | As of November 29, 2024



Source: Bloomberg. Base = 100 on 1/14/2011. Seasonally Adjusted

Conditional Prepayment Rates (CPR)												
2023-2024	December	January	February	March	April	May	June	July	August	September	October	November
Fannie Mae (FNMA)	4.4	4.3	4.7	5.4	6.0	6.5	6.1	6.6	6.6	6.4	8.1	6.2
Ginnie Mae (GNMA)	5.1	6.0	6.8	6.9	7.3	7.9	7.5	8.6	10.0	10.9	12.9	9.3
Freddie Mac (FHLMC)	4.1	4.1	4.5	5.2	5.8	6.3	6.0	6.4	6.6	6.5	8.5	6.2

Bloomberg U.S. MBS Index	9/30/2024	10/31/2024	11/30/2024	Change
Average Dollar Price ($)	91.68	88.81	89.73	0.92
Duration (Years)	5.71	6.07	5.91	-0.16

Bloomberg U.S. Index Returns (%)	9/30/2024	10/31/2024	11/30/2024
Aggregate	1.34	-2.48	1.06
MBS	1.19	-2.83	1.33
Corporate	1.77	-2.43	1.34
Treasury	1.20	-2.38	0.78

Source: eMBS, Barclays Capital
FHLMC Commitment Rate Source: Bloomberg
As of November 30, 2024

Non-Agency Residential Mortgage-Backed Securities

Performance of non-Agency residential mortgage-backed securities (RMBS) was generally positive across subsectors in November, supported by a rally in yields across the U.S. Treasury curve and credit spread tightening due to a favorable supply-demand backdrop. A positive outlook on housing fundamentals also contributed to strong investor demand for non-Agency RMBS on the month.

Credit fundamentals were mixed versus October remittance, as delinquencies were mixed while prepayments and mortgage rates increased. The Freddie Mac U.S. Mortgage Market Survey 30-Year Homeowner Commitment National Index rose 9 basis points month-over-month (MoM) to 6.81%.

November marked $8.3 billion in new issuance, according to BofA Global Research, down approximately $9.6 billion MoM, with activity concentrated in prime jumbo mortgages.

Housing supply has continued to steadily increase in recent months despite the rise in mortgage rates, contributing to a 0.35% MoM decrease in home prices and a 4.57% year-over-year (YoY) increase in September, the most recent month for which data was available for the S&P CoreLogic Case-Shiller 20-City Composite Home Price NSA Index. Furthermore, existing-home sales increased 3.4% in October, the most recent month for which data was available as measured by the National Association of Realtors Existing-Home Sales Report. YoY sales increased in the Midwest, South and West but remained steady in the Northeast.

Non-Agency Commercial Mortgage-Backed Securities

In November, the primary non-Agency commercial mortgage-backed securities (CMBS) market was active, pricing $9.07 billion of deals across 14 transactions. *(Figure 2)* Conduit benchmark last-cash-flow bonds rated AAA tightened 10 basis points (bps) to 0.99% compared to duration-matched U.S. Treasuries. Bonds rated BBB- tightened 10 bps to 4.86% compared to duration-matched Treasuries.

Month-over-month (MoM) price movements on commercial real estate (CRE) were smaller in October, the latest month for which data was available, compared to September's robust activity. While stagnant in September, the industrial property type rose 136 bps in October. The RCA U.S. All-Property Commercial Property Price Index was down 0.18% MoM and 1.83% year-over-year (YoY). CRE transaction volume was $29.8 billion, up 3% YoY. *(Figures 3 and 4)*

Private-Label New Issuance ($ Billions)	Monthly		Quarter-to-Date	
	Deals	Volume	Deals	Volume
Conduit	4	$3.44	8	$6.80
Single Asset, Single Borrower	10	$5.63	25	$16.57
Commercial Real Estate CLO	0	–	2	$1.90
Other	0	–	0	$0.30
Private-Label Total	14	$9.07	35	$25.57

Private-Label New Issuance ($ Billions)	Year-to-Date		Comparable to YTD 2023	
	Deals	Volume	Volume	% of YTD 2023
Conduit	36	$30.79	$18.35	168%
Single Asset, Single Borrower	103	$65.78	$16.82	391%
Commercial Real Estate CLO	10	$8.32	$6.06	137%
Other	0	$0.55	$1.18	47%
Private-Label Total	149	$105.44	$42.40	249%

Figure 2
Source: DoubleLine, J.P. Morgan as of November 30, 2024

Property Type	MoM Price Change (%)	YoY Price Change (%)
Apartment	-0.41%	-6.44%
Retail	-0.62%	-2.13%
Industrial	1.36%	6.65%
Office - Central Business District	0.79%	-19.45%
Office - Suburban	0.17%	-1.72%
National All-Property	0.18%	-1.83%

Figure 3
Source: Real Capital Analytics as of October 31, 2024

RCA U.S. CPPI Indexes | As of October 31, 2024

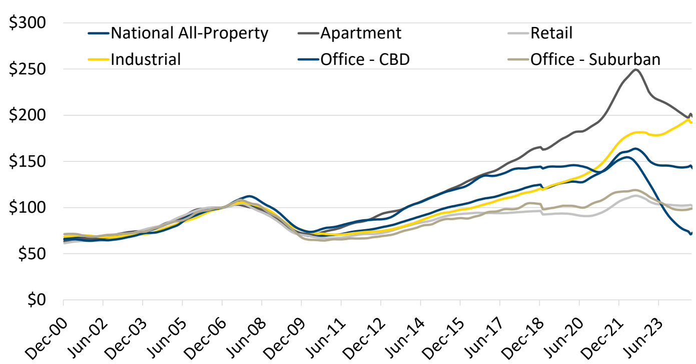


Figure 4
Source: Real Capital Analytics

30-Day-Plus Delinquency Rates | As of November 30, 2024

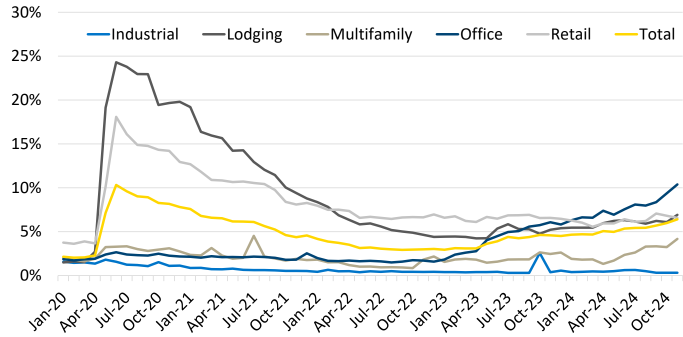


Figure 5
Source: Trepp

The 30-day-plus delinquency rate for non-Agency CMBS ticked up 2 bps MoM in November to 6.40%. *(Figure 5)* The percentage of loans that were seriously delinquent (60 days or longer, in foreclosure, real estate owned or non-performing) was also up 2 bps to 5.88%. Delinquencies in the heavily watched office segment increased 101 bps to 10.38%, and retail delinquencies decreased 25 bps to 6.57%. Multifamily delinquencies increased 94 bps to 4.18%..

Asset-Backed Securities

The asset-backed securities (ABS) market generally delivered positive returns in November as market-based volatility measures declined after the U.S. presidential election and Federal Open Market Committee rate cut in the first week of the month. Short-duration and high-credit-quality ABS, such as those held in the Bloomberg US ABS Index, returned 0.70% while more off-the-run sectors, such as those held in the ICE BofA U.S. Fixed-Rate Miscellaneous ABS Index, returned 0.71%. The broader fixed-income market, as measured by the Bloomberg US Aggregate Bond Index returned 1.06%, with the index bolstered by its relatively longer duration than the ABS indices.

The pace of primary issuance continued to exceed that of 2023 as roughly $306.8 billion of new-issue ABS was sold year-to-date. Spreads were modestly tighter across ABS sectors for the month. The top-performing ABS subsectors were aviation securitizations, as robust investor demand drove modest spread tightening for these assets. Despite delivering positive returns, the laggard ABS subsectors were shorter-duration exposures such as consumer-related securitizations.

Investment Grade Credit

The Bloomberg US Credit Index returned 1.27% in November as investor risk appetite remained strong, supported by better-than-expected economic data. U.S. investment grade (IG) credit spreads, as measured by the index, tightened 5 basis points (bps) to 74 bps on the month, outperforming duration-matched U.S. Treasuries by 44 bps.

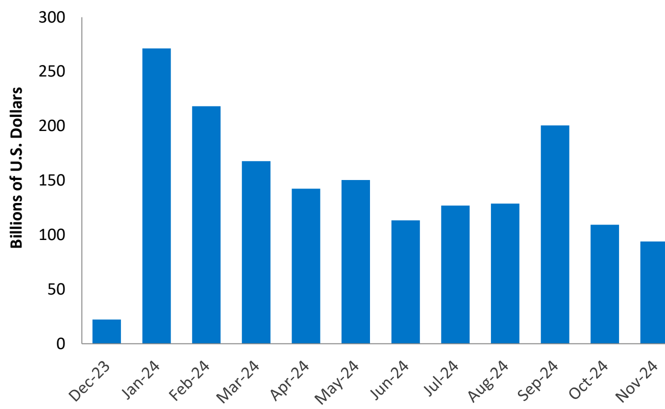
Bloomberg US Credit Index
As of November 30, 2024

	Total Return by Rating Category (%)			
	One Month	Quarter-to-Date	Year-to-Date	Last 12 Months
US IG Credit Index	1.27	-1.17	3.99	8.36
AAA	0.65	-1.34	3.03	5.59
AA	1.21	-1.53	2.80	7.00
A	1.21	-1.35	3.68	8.06
BBB	1.44	-0.91	4.68	9.37

Source: Barclays Live

Total return continued to be driven by moves in the Treasury market, as the yield curve flattened amid repricing of fiscal and term premiums following U.S. November elections. Long-duration credit returned 2.21% on the month, outperforming intermediate-duration credit's 0.83% and short-duration credit's 0.45%.

Total Fixed-Rate Investment Grade Supply
As of November 30, 2024

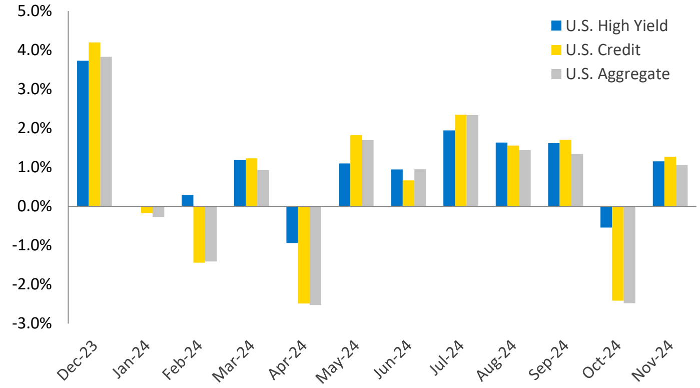


Source: Barclays Live

The best-performing sectors were communications, energy and other industrial. The worst performers were banking, other financial and consumer cyclical.

U.S. dollar-denominated IG new issuance on a gross basis was $100.5 billion in November, down 5% year-over-year (YoY), and $35.1 billion on a net basis, down 39% YoY.

Performance of Select Bloomberg Indices
December 2023 through November 2024



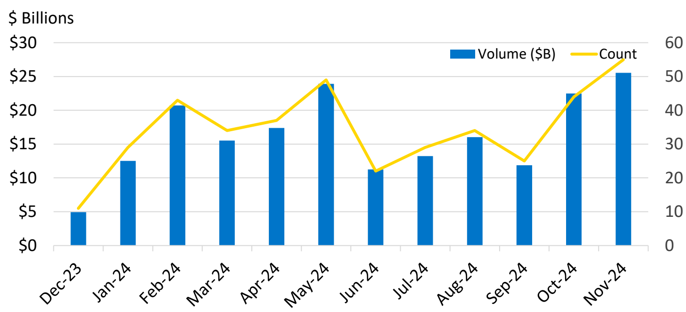
Source: Barclays Live

IG fund inflow was $34 billion on the month, according to EPFR Global as reported by J.P. Morgan, versus $6 billion in November 2023. Year-to-date inflow hit $367.9 billion, up 123% versus the same period last year.

Collateralized Loan Obligations

Spreads for U.S. collateralized loan obligations (CLOs) continued to grind tighter throughout November amid record issuance and unprecedented demand. The J.P. Morgan CLO Total Return Index rose 0.60% on the month, bringing year-to-date (YTD) return to 7.69%.

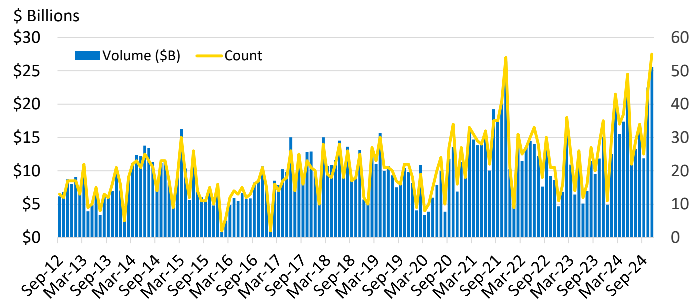
Last 12 Months Issuance | December 2023 to November 2024



Source: LCD-CLO Global Databank

The rate of CLO new issuance in the primary market showed no signs of slowing, with November marking another record month by volume and deal count, pricing $25.6 billion across 55 transactions. Refinancings (refis) and resets added $8.2 billion via 20 deals and $25.6 billion via 49 deals, respectively. At $190.6 billion via 401 deals, YTD CLO issuance has surpassed that of any other year and outpaced last year's YTD issuance volume by 72%. YTD refi volume totaled $75.3 billion via 193 transactions, and reset volume reached $197.6 billion via 400 transactions. That compares to 11 refi and 30 reset transactions totaling $17.1 billion at this time last year.

CLO New Issuance | September 2012 to November 2024



Source: LCD-CLO Global Databank

In the secondary market, the monthly supply of CLO bids wanted in competition remained flat at $4.1 billion. Investment grade (IG) trading volume fell 9% to $8.9 billion while below-IG trading volume fell 1% to $4.2 billion, per Trade Reporting and Compliance Engine data.

Moody's CLO rating metrics, namely weighted average rating factor and the number of concentrations rated CCC, worsened in November as the rolling three-month ratio of downgrades to upgrades worsened for the third consecutive month, moving to 2.36x from 2.23x. Three new issuers joined the trailing 12-month U.S. leveraged loan default rate by principal amount, bringing the rate to 0.94%, a month-over-month (MoM) increase of 21 basis points (bps), the largest monthly increase since May 2023. The count of out-of-court liability-management exercises prompting selective defaults also rose MoM to 4.56% from 4.40%.

Market-based metrics improved throughout the month alongside the Morningstar LSTA US Leveraged Loan PR USD Index, which rose MoM to $97.25 from $96.90. The ratio of performing leveraged loans priced below $80, referred to as the distressed ratio, also improved, easing 44 bps MoM to 3.24%, its lowest reading since July 2022.

Bank Loans

The bank loan market returned 0.83% in November, per the Morningstar LSTA US Leveraged Loan TR USD Index, as interest income was supplemented by 0.14% of price appreciation. The index was up 8.34% year-to-date. Strong demand from collateralized loan obligation and retail investors boosted prices in a market with limited new issuance. A favorable post-election risk environment was also supportive. The weighted average bid price of the Morningstar LSTA US Leveraged Loan PR USD Index ended the month at $97.25, up from $96.90 the prior month; 65.3% of bank loans ended the month trading at par or above. The bank loan market ended November with a yield to maturity of 8.73% and a spread to maturity of 3.45%. The yield has been moving lower as the Federal Reserve has cut the federal funds rate, and spreads have been compressing due to an elevated level of loan repricings, but overall index yield still compares favorably to other areas of fixed income.

Despite the risk-on tone, investors remained cautious on weaker credits. Loans rated CCC posted a negative return of 0.47%, significantly underperforming the 0.92% and 0.95% returns for loans rated B and BB, respectively. The market has experienced a proliferation of liability-management exercises, where borrowers have conducted out-of-court exchanges to raise incremental liquidity, reduce principal balances on existing debt and extend maturities. In many cases, borrowers have pitted groups of lenders against each other, and this has created heightened uncertainty for investors in stressed credits.

Although there were three new bankruptcy filings on the month, the headline default rate remained low at 0.94%. (*Figure 6)* However, including distressed exchanges, the default rate was significantly higher at 4.56%.

Distressed Ratio | January 2024 to November 2024

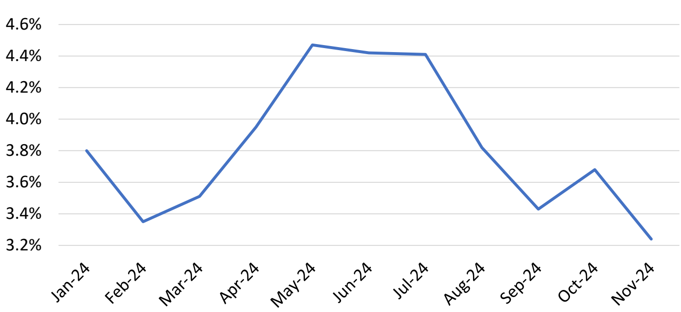


Figure 6
Source: DoubleLine, Morningstar LSTA US Liquid Leveraged Loan Index

The distressed ratio, defined as bank loans trading below $80, declined month-over-month (MoM) to 3.24% from 3.68%, but loans continued to be downgraded at a faster pace than upgraded. *(Figure 7)* The three-month rolling downgrade-to-upgrade ratio ended November at 2.36x, the highest level since December.

Bank Loan Default Rate | January 2023 to November 2024

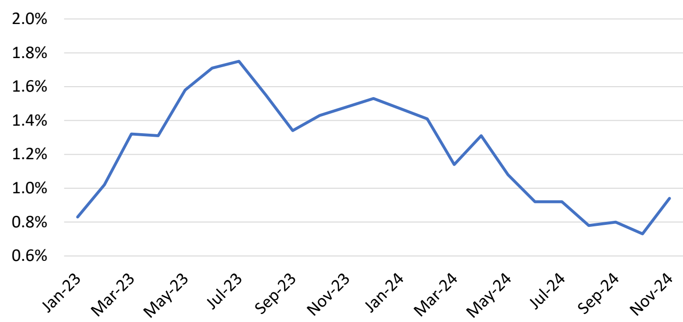


Figure 7
Source: DoubleLine, Leveraged Commentary & Data

The new-issue market remained active for refinancing and repricing transactions, but there were still limited new money deals. Total new issuance of $105.1 billion was up slightly MoM from $100.1 billion but well above $34.5 billion in November 2023. Repricings accounted for 71% of total volume while nonrefinancing issuance made up just 11%. Retail loan funds marked $4.7 billion of estimated inflow on the month.

High Yield

Risk assets rallied in November on increased optimism about the economic outlook after the U.S. national elections. The Bloomberg US Corporate High Yield (HY) Index returned 1.15% on the month (up 8.66% year-to-date (YTD)). Yields fell 19 bps to 7.14%, per the index, and spreads tightened 17 bps to 2.66%.

Bloomberg US Corporate High Yield Index
As of November 30, 2024

	Total Return by Rating Category (%)			
	One Month	Quarter-to-Date	Year-to-Date	Last 12 Months
US High Yield Index	1.15	0.60	8.66	12.71
BB	1.10	0.17	7.00	10.47
B	1.07	0.62	7.71	11.58
CCC	1.41	2.17	14.99	21.77

Source: Bloomberg, DoubleLine

HY default rates declined for the 10th time in the last 11 months. The 12-month, par-weighted default rate declined 39 bps month-over-month to 0.55%, as reported by J.P. Morgan, a steep decline from the 2.08% at the end of 2023. The 25-year average is 3.00%. When including distressed exchanges, the default rate declined 24 bps to 1.39%, compared to 2.85% at the end of 2023. The 25-year default average including distressed exchanges is 3.40%.

By a slim margin, upgrade volume ($27.8 billion) outpaced downgrade volume ($26.4 billion), as reported by J.P. Morgan. This brought the upgrade-downgrade volume ratio to 1.6x YTD. By number, upgrades (15) also slightly outpaced downgrades (14), bringing the YTD upgrade-downgrade number ratio to 1.3x.

The HY market priced 39 bonds for $27.2 billion, as reported by J.P. Morgan, bringing YTD volume to $267.0 billion compared to $143.2 billion for the same period a year ago. Refinancing remained the predominant use of proceeds, accounting for 76% of issuance YTD compared to 63% for the same period a year ago.

October reported an inflow of $1.1 billion, the sixth consecutive monthly inflow, according to Lipper as reported by J.P. Morgan, making for a YTD inflow of $16.9 billion. In 2023 and 2022, full-year outflow totaled $7.0 billion and $48.9 billion, respectively.

Commodities

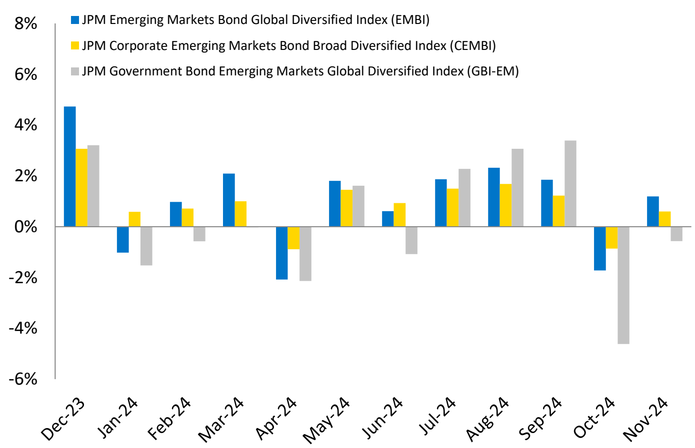
The broad commodity markets experienced a sluggish November, with the Bloomberg Commodity Index up 0.05% and the S&P GSCI down 0.30%.

The energy sector dipped 0.35% on the month, with Brent crude (-0.97%) and WTI crude (-1.51%) declining while natural gas rallied 14.76%. Industrial metals depreciated 2.51%; the best performer among the group was lead (+2.82%) while the weakest was copper (-5.64%). Precious metals dropped 3.64%, with silver (-6.44%) and gold (-3.37%) declining. The agriculture sector appreciated 2.08%, with cocoa (+31.47%) the best performer and sugar (-7.30%) the weakest.

Emerging Markets Fixed Income

Emerging markets (EM) sovereign and corporate bonds posted positive returns in November amid rate volatility during the period. The J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI GD), which tracks sovereign bonds, returned 1.19%. The J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI BD), which tracks corporate bonds, returned 0.60%. The credit spread for the EMBI GD tightened 1 basis point (bp) while the credit spread for the CEMBI BD widened 5 bps.

J.P. Morgan Emerging Markets Bond Index Performance
December 31, 2023 to November 30, 2024



Source: J.P. Morgan

Performance across all regions was positive for both indices. Latin America was the best performer in the EMBI GD; Europe was the best performer in the CEMBI BD. The Middle East was the laggard in both indices. The high yield (HY) subindex outperformed the investment grade (IG) subindex in the EMBI GD; the HY and IG subindices posted the same return in the CEMBI BD.

Risk appetite for the final month of 2024 and into 2025 will likely be driven by expectations around central banks' monetary policy in developed markets, which seem largely economic-data dependent. Other factors to watch include China's stimulus measures, inflation surprises and geopolitical risks such as China-Taiwan tension, the Israel-Hamas war, the Russia-Ukraine war and U.S. policy in the wake of November elections.

International Sovereign

Global government bonds, as measured by the FTSE World Government Bond Index, returned 0.25% in November, driven by falling global government bond yields and despite foreign currency depreciation against the U.S. dollar.

The dollar, as measured by the U.S. Dollar Index, strengthened against nearly all G-10 peers over the month following a sweep by the Republican Party of the presidency and both houses of Congress. Markets began to focus on the potential policy path for the incoming administration as President-elect Donald Trump's Cabinet announcements signaled that tax cuts, deregulation, and aggressive trade and tariff policies would be key priorities. The election result, coupled with strong U.S. economic data, buoyed U.S. markets, particularly stocks, and the dollar.

The euro weakened against the dollar over the month as the aggressive trade posture of the incoming Trump administration prompted markets to price in potential adverse impacts for the European economy. The region's already weak macroeconomic backdrop fueled speculation of accelerated policy easing by the European Central Bank as well as concern for domestic political uncertainty in Germany and France, all of which added pressure on the euro.

The Japanese yen was the only G-10 peer to strengthen against the dollar. A combination of falling U.S. Treasury yields and comments from Bank of Japan (BOJ) Governor Kazuo Ueda pointing to an imminent policy-rate hike provided support for the yen. Japan's macro data continued to track the BOJ's economic outlook, supporting policymakers' plans to normalize monetary policy.

Infrastructure

Infrastructure assets outperformed the broader-fixed income market in November, as measured by the Bloomberg US Aggregate Bond Index return of 1.06%, in a period in which U.S. Treasury yields rallied slightly across the curve. Fixed income markets experienced a decline in volatility after U.S. election results, and the Federal Reserve delivered another cut of 25 basis points to the federal funds rate in the first week of the month.

The best-performing infrastructure subsectors on the month were electric utilities and midstream industrial corporate bonds, which benefited from their longer-duration profiles as yields fell slightly across longer Treasury tenors. Telecom asset-backed securities also performed well, boosted by modest spread tightening. Despite generating positive returns, railcar ABS, and oil- and gas-related assets were relative laggards.

U.S. Equities

November was a strong month for U.S. equities as stocks rallied sharply after the U.S. presidential election. The S&P 500 Index increased 5.87%, the Nasdaq Composite Index rallied 6.30%, and the Dow Jones Industrial Average appreciated 7.74%. The rally was broad based, with both value and growth stocks performing similarly (Russell 1000 Value Index, +6.39%; Russell 1000 Growth Index, +6.49%), and the S&P 500 Equal Weight Index (+6.42%) had a similar return.

The best-performing sectors during the month were consumer discretionary (+12.82%) and financial services (+10.28%). The biggest laggards were healthcare (+0.28%) and materials (+1.51%).

Global Equities

Global equities rallied in November, as measured by the MSCI All Country World Index (ACWI). U.S. equities, as measured by the S&P 500 Index, outperformed the MSCI ACWI, supported by optimism stemming from the re-election of Donald Trump to the White House. In turn, the S&P 500 Equal Weight Index and small-capitalization U.S. equities, as tracked by the Russell 2000 Index, outperformed the S&P 500. The Nasdaq Composite Index also outperformed the S&P 500.

European equities broadly underperformed the MSCI ACWI, impacted by slowing growth and increased geopolitical risks, with French, Italian and Spanish equities lower on the month. Asian equities broadly underperformed, with South Korean, Hong Kong, Taiwanese, Chinese and Japanese equities producing negative returns. Emerging markets equities, as measured by the MSCI Emerging Markets Index, also generated negative returns.

Global and U.S. Equities (%)	November 2024	October 2024	Year-to-Date
MSCI All Country World Index	3.77	-2.21	20.85
S&P 500 Index	5.87	-0.92	28.06
S&P 500 Equal Weight Index	6.42	-1.64	20.54
Nasdaq Composite Index	6.30	-0.49	28.88
Dow Jones Industrial Average	7.74	-1.26	21.21
Russell 2000 Index	10.97	-1.44	21.57

Eurozone (%)	November 2024	October 2024	Year-to-Date
Stoxx Europe 600 (Eurozone)	-1.58	-5.70	5.17
DAX (Germany)	0.09	-3.81	11.91
CAC 40 (France)	-4.20	-6.18	-5.63
FTSE MIB (Italy)	-3.99	-2.12	11.02
IBEX 35 (Spain)	-2.66	-3.65	14.88
FTSE 100 Index (U.K.)	1.52	-5.43	10.68

Asia (%)	November 2024	October 2024	Year-to-Date
Nikkei 225 (Japan)	-0.55	-3.07	9.24
Shanghai Stock Exchange Composite (China)	-0.32	-2.97	12.86
Hang Seng Index (Hong Kong)	-4.29	-3.92	19.46
KOSPI (South Korea)	-5.18	-5.85	-13.51
TAIEX (Taiwan)	-3.89	1.54	19.55
AORD (Australia)	3.06	-6.61	10.92

Emerging Markets (%)	November 2024	October 2024	Year-to-Date
MSCI Emerging Markets Index	-3.58	-4.32	8.10
Ibovespa (Brazil)	-7.25	-7.37	-24.68
MSCI India Index	-0.45	-7.68	15.65

Source for the above market chart data: Bloomberg

Agency – Refers to mortgage-backed securities (MBS) whose principal and interest are guaranteed by a U.S. government agency such as Fannie Mae (FNMA) or Freddie Mac (FHLMC).

Australia All Ordinaries (AORD) Index – This index tracks the share prices of the 500 largest companies listed on the Australian Securities Exchange (ASX). The market capitalization of the AORD companies amounts to more than 95% of the value of all shares listed on the ASX.

Basis Points (bps) – Basis points (or basis point (bp)) refer to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to 1/100th of 1%, or 0.01% or 0.0001, and is used to denote the percentage change in a financial instrument. The relationship between percentage changes and basis points can be summarized as: 1% change = 100 basis points; 0.01% = 1 basis point.

Below Investment Grade/Non-Investment Grade – Term indicating a security is rated below investment grade (IG). These securities are seen as having higher default risk or being prone to other adverse credit events. They typically pay higher yields than higher-quality bonds in order to make them attractive. They are less likely than IG bonds to pay back 100 cents on the dollar.

Bid Wanted in Competition (BWIC) – Formal request for bids on a package of securities that is submitted by an institutional investor to a number of securities dealers. The dealers are being invited to submit bids on the listed securities.

Bloomberg Commodity (BCOM) Index – This index is calculated on an excess return basis and reflects the price movements of commodity futures. It rebalances annually, weighted two-thirds by trading volume and one-third by world production, and weight caps are applied at the commodity, sector and group levels for diversification. The roll period typically occurs from the sixth to 10th business day based on the roll schedule.

Bloomberg Emerging Markets (EM) USD Aggregate Sovereign Index – This index tracks fixed- and floating-rate, U.S. dollar-denominated debt issued by EM governments. Country eligibility and classification as an emerging market is rules based and reviewed annually using World Bank income group and International Monetary Fund country classifications.

Bloomberg US Agency Commercial Mortgage-Backed Securities (CMBS) Index – This index measures the U.S. market of Agency conduit and fusion CMBS deals.

Bloomberg US Aggregate Bond Index – This index (the "Agg") represents securities that are SEC registered, taxable and U.S. dollar denominated. It covers the U.S. investment grade, fixed-rate bond market, with components for government and corporate securities, mortgage pass-through securities and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis.

Bloomberg US Asset-Backed Securities (ABS) Index – This index is the ABS component of the Bloomberg US Aggregate Bond Index, a flagship measure of the U.S. investment grade, fixed-rate bond market. The ABS index has three subsectors: credit and credit cards, autos and utility.

Bloomberg US Corporate High Yield (HY) Index – This index measures the U.S. dollar-denominated, HY, fixed-rate corporate bond market. Securities are classified as HY if the respective middle ratings of Moody's, Fitch and S&P are Ba1, BB+ or BB+ or below. The Bloomberg US HY Long Bond Index, including bonds with maturities of 10 years or greater, and the Bloomberg US HY Intermediate Bond Index, including bonds with maturities of 1 to 9.999 years, are subindices of the Bloomberg US Corporate HY Bond Index.

Bloomberg US Corporate Index – This index measures the investment grade, fixed-rate taxable corporate bond market. It includes U.S. dollar-denominated securities publicly issued by U.S. and non-U.S. industrial, utility and financial issuers.

Bloomberg US Credit Index – This index measures the investment grade, U.S. dollar-denominated fixed-rate, taxable corporate and government-related bond markets. It is composed of the Bloomberg US Corporate Index and a noncorporate component that includes foreign agencies, sovereigns, supranationals and local authorities.

Bloomberg US Mortgage-Backed Securities (MBS) Index – This index measures the performance of investment grade, fixed-rate mortgage-backed pass-through securities of the government-sponsored enterprises (GSEs): Federal Home Loan Mortgage Corp. (Freddie Mac), Federal National Mortgage Association (Fannie Mae) and Government National Mortgage Association (Ginnie Mae).

Bloomberg US Treasury Index – This index measures U.S. dollar-denominated, fixed-rate nominal debt issued by the U.S. Treasury with a remaining maturity of one year or more. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index.

Bloomberg World Interest Rate Probability (WIRP) – Statistical function developed by Bloomberg that uses fed funds futures and options to assess the probability of future Federal Open Market Committee (FOMC) decisions. It seeks to calculate the chances of a rate hike at each of the FOMC meetings using futures trading data.

Brent Crude Oil – Major trading classification of sweet light crude oil that serves as a benchmark price for purchases of oil worldwide. Brent is known as a light, sweet oil because it contains 0.24% sulfur, making it "sweet," and has a low density, making it "light."

Caixin China General Manufacturing Purchasing Managers' Index – This index, published monthly by S&P Global, is compiled from responses to questionnaires sent to purchasing managers on a panel of over 500 private and state-owned manufacturers. The panel is stratified by detailed sector and company workforce size as measured by contribution to gross domestic product. A reading above 50 indicates an expansion of the sector, a reading below 50 represents a contraction, and 50 indicates no change.

Caixin China General Services Purchasing Managers' Index – This index, published monthly by S&P Global, is compiled from responses to questionnaires sent to purchasing managers on a panel of over 400 private and state-owned services companies. The panel is stratified by detailed sector and company workforce size as measured by contribution to gross domestic product. A reading above 50 indicates an expansion of the sector, a reading below 50 represents a contraction, and 50 indicates no change.

Collateralized Loan Obligation (CLO) – Single security backed by a pool of debt.

Conditional Prepayment Rate (CPR) – Metric (also known as "Constant Prepayment Rate") that indicates a loan prepayment rate at which the outstanding principal of a pool of loans, such as mortgage-backed securities, is paid off. The higher the CPR, the more prepayments are anticipated and thus the lower the duration of the note. This is called "prepayment risk."

Conduit Loans – Type of loans, also known as commercial mortgage-backed securities (CMBS) loans, that are commercial real estate loans pooled together with similar commercial mortgages and sold on the secondary market. On the secondary market, conduit loans are divided into tranches based on risk, return and loan maturity.

Conference Board Leading Economic Index (LEI) – This index tracks a group of composite indices (manufacturers' orders, initial unemployment insurance claims, etc.) as a means of gauging the strength of a particular industry or the economy.

Cotation Assistee en Continu (CAC) 40 – This stock market index tracks the 40 largest French stocks on the Euronext Paris based on market capitalization, trading activity, size of balance sheet and liquidity.

Deutscher Aktien Index (DAX) – This blue-chip stock market index comprises the 40 major German companies trading on the Frankfurt Stock Exchange.

Dow Jones Industrial Average (DJIA) – This index tracks 30 large publicly owned companies trading on the New York Stock Exchange and the Nasdaq. It is price-weighted, unlike stock indices, which use market capitalization. Furthermore, the DJIA does not use a weighted arithmetic mean.

Duration – A commonly used measure of the potential volatility of the price of debt securities in response to a change in interest rates prior to maturity. Securities with longer duration generally have more volatile prices than securities of comparable quality with shorter duration.

Euro Stoxx 50 Index – This index of 50 eurozone stocks provides a blue-chip representation of supersector leaders in the eurozone.

Excess Return – Return achieved above and beyond the return of a proxy such as a benchmark index.

Fannie Mae (FNMA) – The Federal National Mortgage Association (Fannie Mae) is a government-sponsored enterprise (GSE) chartered by Congress in 1938 during the Depression to stimulate home ownership and provide liquidity to the mortgage market. Its purpose is to help moderate- to low-income borrowers obtain financing for a home.

Federal Funds Rate – Target interest rate, set by the Federal Reserve at its Federal Open Market Committee (FOMC) meetings, at which commercial banks borrow and lend their excess reserves to each other overnight. The Fed sets a target federal funds rate eight times a year, based on prevailing economic conditions.

Federal Open Market Committee (FOMC) – Branch of the Federal Reserve System that determines the direction of monetary policy specifically by directing open market operations. The FOMC comprises the seven board governors and five (out of 12) Federal Reserve Bank presidents.

Freddie Mac (FHLMC) – The Federal Home Loan Mortgage Corp. (Freddie Mac) is a stockholder-owned, government-sponsored enterprise (GSE) chartered by Congress in 1970 to keep money flowing to mortgage lenders in support of homeownership and rental housing for middle-income Americans. Freddie Mac purchases, guarantees and securitizes mortgages to form mortgage-backed securities (MBS).

Freddie Mac U.S. Mortgage Market Survey 30-Year Homeowner Commitment National Index – This index tracks the 30-year fixed-rate mortgages component of the Freddie Mac Primary Mortgage Market Survey (PMMS), which tracks the most-popular 30- and 15-year fixed-rate mortgages, and 5-1 hybrid amortizing adjustable-rate mortgage products among a mix of lender types.

FTSE Milano Indice di Borsa (FTSE MIB) – This benchmark index for the Borsa Italian, the Italian stock exchange, comprises the 40 largest and most-liquid stocks on the exchange.

FTSE 100 Index – This index tracks the 100 companies with the highest market capitalization on the London Stock Exchange.

FTSE World Government Bond Index (FTSE WGBI) – This broad index measures the performance of fixed-rate, local-currency, investment grade sovereign bonds. It is a widely used benchmark that comprises sovereign debt from more than 20 countries that is denominated in a variety of currencies.

G-10 (Group of Ten) – The G-10 comprises 11 industrialized nations that meet on an annual basis, or more frequently as needed, to consult each other, debate and cooperate on international financial matters. The member countries are: Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States.

Ginnie Mae (GNMA) – The Government National Mortgage Association (Ginnie Mae) is a federal government corporation that guarantees the timely payment of principal and interest on mortgage-backed securities (MBS) issued by approved lenders. Ginnie Mae's guarantee allows mortgage lenders to obtain a better price for MBS in the capital markets.

Hang Seng Index – This free-float-capitalization-weighted index tracks a selection of companies on the Stock Exchange of Hong Kong. The index has four subindices: finance, utilities, properties, finance, and commerce and industry.

High Yield (HY) – Bonds that pay higher interest rates because they have lower credit ratings than investment grade (IG) bonds. HY bonds are more likely to default, so they must pay a higher yield than IG bonds to compensate investors.

Ibovespa Index – This gross return index is weighted by trade volume and comprises the most-liquid stocks on Brazil's Sao Paulo Stock, Commodities and Futures Exchange (known as "B3").

ICE BofA U.S. Fixed-Rate Miscellaneous Asset-Backed Securities (ABS) Index – A subset of the ICE BofA U.S. Fixed-Rate ABS Index, including all ABS collateralized by anything other than auto loans, home equity loans, manufactured housing, credit card receivables and utility assets. The ICE BofA U.S. Fixed-Rate ABS Index tracks the performance of U.S. dollar-denominated, investment grade (IG), asset-backed securities publicly issued in the U.S. domestic market. Qualifying securities must have an IG rating based on an average of Moody's, S&P and Fitch.

Indice Bursatil Espanol (IBEX) – This official index of the Spanish Continuous Market comprises the 35 most-liquid stocks traded on the market.

Investment Grade (IG) – Rating that signifies a municipal or corporate bond presents a relatively low risk of default. Bonds below this designation are considered to have a high risk of default and are commonly referred to as high yield (HY) or "junk bonds." The higher the bond rating the more likely the bond will return 100 cents on the U.S. dollar.

ISM Manufacturing PMI – This index (which used to be called the ISM Manufacturing Purchasing Managers Index) is compiled by the Institute for Supply Management and tracks the economic health of the manufacturing sector. The index is based on five major indicators: new orders, inventory levels, production, supplier deliveries and employment environment. A reading above 50 indicates an expansion of the sector, a reading below 50 represents a contraction, and 50 indicates no change.

ISM Services PMI – This index (which used to be called the ISM Non-Manufacturing Purchasing Managers Index) is compiled by the Institute for Supply Management and tracks the economic health of the services (formerly nonmanufacturing) sector. A reading above 50 indicates an expansion of the sector, a reading below 50 represents a contraction, and 50 indicates no change.

Job Openings and Labor Turnover Survey (JOLTS) – Conducted by the U.S. Bureau of Labor Statistics, JOLTS involves the monthly collection, processing and dissemination of job openings and labor turnover data. The data, collected from sampled establishments on a voluntary basis, includes employment, job openings, hires, quits, layoffs, discharges and other separations. The number of unfilled jobs – used to calculate the job openings rate – is an important measure of the unmet demand for labor, providing a more complete picture of the U.S. labor market than by looking solely at the unemployment rate.

J.P. Morgan Collateralized Loan Obligation (CLO) Total Return Index – This index is a total return subindex of the J.P. Morgan Collateralized Loan Obligation Index (CLOIE), which is a market value-weighted index consisting of U.S. dollar-denominated CLOs.

J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI BD) – This index is a uniquely weighted version of the CEMBI, which is a market capitalization-weighted index consisting of U.S. dollar-denominated emerging markets corporate bonds. It limits the weights of index countries with larger debt stocks by only including specified portions of those countries' eligible current face amounts of debt outstanding.

J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI GD) – This index is a uniquely weighted version of the EMBI, which tracks emerging markets (EM) bonds and comprises sovereign debt and EM corporate bonds. It limits the weights of index countries with larger debt stocks by only including specified portions of those countries' eligible current face amounts of debt outstanding.

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

Jumbo Loan – Type of financing, also known as a jumbo mortgage, that exceeds the limits set by the Federal Housing Finance Agency (FHFA). Unlike conventional mortgages, a jumbo loan is not eligible to be purchased, guaranteed or securitized by the government agencies Fannie Mae or Freddie Mac. Designed to finance luxury properties and homes in highly competitive local real estate markets, jumbo mortgages come with unique underwriting requirements and tax implications.

Korea Composite Stock Price Index (KOSPI) – This index comprises all common stocks traded on the stock market division of the Korea Exchange. It is the representative stock market index in South Korea, like the S&P 500 Index in the U.S.

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

Leveraged Commentary & Data (LCD) – A unit of S&P Global Market Intelligence, LCD provides in-depth coverage of the leveraged loan market through real-time news, analysis, commentary and proprietary loan data.

Morningstar LSTA US Leveraged Loan Index – This market capitalization-weighted index tracks the U.S. leveraged loan market.

Morningstar LSTA US Leveraged Loan PR USD Index – This index (formerly the S&P/LSTA Leveraged Loan Price Index) tracks the prices of institutional weighted loans based on market weightings, spreads and interest payments.

Morningstar LSTA US Leveraged Loan TR USD Index – This index (formerly the S&P/LSTA Leveraged Loan Index) tracks the market-weighted performance of institutional weighted loans based on market weightings, spreads and interest payments.

Mortgage Bankers Association (MBA) Purchase Index – This index, a component of the MBA's Weekly Application Survey, includes all mortgage applications for purchases of single-family homes. The index covers the entire market, including all products, and conventional and government loans.

Mortgage Bankers Association (MBA) Refinance Index – This index, a component of the MBA's Weekly Application Survey, tracks the number of mortgage refinance applications. The index is used to help predict mortgage activity and loan prepayments based on the number of mortgage refinance applications submitted.

MSCI All Country World Index (MSCI ACWI) – This market capitalization-weighted index is designed to provide a broad measure of stock performance throughout the world. It comprises stocks from 23 developed countries and 24 emerging markets.

MSCI All Country World Index (MSCI ACWI) ex U.S. – This market capitalization-weighted index is designed to provide a broad measure of stock performance throughout the world. It comprises stocks from 22 of 23 developed countries and 24 emerging markets.

MSCI Emerging Markets Index (MSCI EMI) – This index captures large- and midcapitalization representation across 24 emerging markets countries. With 1,440 constituents, the index covers approximately 85% of the free-float-adjusted market cap in each country.

MSCI India Index – This index measures the performance of the mid- and large-capitalization segments of the Indian market. With 131 constituents, the index covers approximately 85% of the Indian equity universe.

Nasdaq Composite Index – This index ("the Nasdaq") comprises the more than 3,400 common stocks and similar securities (e.g., American depository receipts (ADRs), tracking stocks, limited-partnership interests) listed on the Nasdaq exchange. The index, which includes U.S. and non-U.S. companies, is highly followed in the U.S. as an indicator of the stock performance of technology companies and growth companies.

National Association of Realtors Existing-Home Sales Report – This report tracks sales and prices of existing single-family homes for the nation overall, and gives breakdowns for the West, Midwest, South and Northeast regions of the country. These figures include condos and co-ops in addition to single-family homes.

Nikkei 225 Index – This price-weighted index ("the Nikkei") comprises Japan's top 225 blue-chip companies on the Tokyo Stock Exchange. The Nikkei is equivalent to the Dow Jones Industrial Average Index in the U.S.

Non-Performing Loan (NPL) – Loan in which the borrower is in default due to the fact that they have not made the scheduled payments for a specified period. Although the exact elements of non-performing status can vary depending on the specific loan's terms, "no payment" is usually defined as zero payments of either principal or interest.

Non-Qualified Mortgage (Non-QM) – Any home loan that doesn't comply with the Consumer Financial Protection Bureau's existing rules on qualified mortgages (QM). Usually this type of alternative mortgage loan accommodates people who are not able to prove they are capable of making the mortgage payments. Just because it is a non-QM mortgage loan does not necessarily mean high risk or subprime mortgage risk, and in many cases these non-QM mortgage loans require a high FICO score but simply do not check all the boxes associated with a QM loan. Non-QM loans for mortgages are protected by the lender against any type of lawsuit should the borrower become unable to afford the loan.

Option-Adjusted Spread (OAS) – Measurement of the spread of a fixed-income security rate and the risk-free rate of return, which is then adjusted to take into account an embedded option. Typically, an analyst uses U.S. Treasury yields for the risk-free rate. The spread is added to the fixed-income security price to make the risk-free bond price the same as the bond.

Par – Short for "par value," par can refer to bonds, preferred stock, common stock or currencies, with different meanings depending on the context. Par most commonly refers to bonds, in which case, it means the face value, or value at which the bond will be redeemed at maturity.

Prime – Classification of borrowers, rates or holdings in the lending market that are considered to be of high quality. This classification often refers to loans made to high-quality "prime" borrowers that are offered "prime" or relatively low interest rates.

Quits Rate – Number of quits during the entire month as a percentage of employment. This metric is tracked in the U.S. Bureau of Labor Statistics' monthly Job Opening and Labor Turnover Survey (JOLTS). A trending increase is a sign of an expanding job market while a trending decrease is a sign of a tightening job market.

RCA Commercial Property Price Index (CPPI) – This index describes various nonresidential property types for the U.S. (10 monthly series from 2000). It is a periodic same-property, round-trip investment, price-change index of the U.S. commercial investment property market. The dataset contains 20 monthly indicators.

RCA U.S. All-Property Commercial Property Price Index (CPPI) – This index is a component of the suite of price indices that comprise the RCA CPPI.

Real Estate Owned (REO) – Property owned by a lender, such as a bank, that has not been successfully sold at a foreclosure auction. A lender – often a bank or quasi-governmental entity such as Fannie Mae or Freddie Mac – takes ownership of a foreclosed property when it fails to sell at the amount sought to cover the loan.

Russell 1000 Growth (RLG) Index – This index measures the performance of the large-capitalization growth segment of the U.S. equity universe. It includes Russell 1000 Index companies with higher price-to-book ratios and higher forecasted growth values. Growth stocks are shares in a company that are anticipated to grow at a rate significantly above the average growth for the market.

Russell 1000 Value (RLV) Index – This index measures the performance of the large-capitalization value segment of the U.S. equity universe. It includes Russell 1000 Index companies with lower price-to-book ratios and lower expected growth values. Value stocks are shares of a company that appear to trade at a lower price relative to the company's fundamentals.

Russell 2000 Index – This market capitalization-weighted index comprises 2,000 small-cap U.S. companies and is considered a bellwether index for small-cap investing.

S&P CoreLogic Case-Shiller 20-City Composite Home Price Not Seasonally Adjusted (NSA) Index – This index measures the value of residential real estate in 20 major U.S. metropolitan areas: Atlanta; Boston; Charlotte; Chicago; Cleveland; Dallas; Denver; Detroit; Las Vegas; Los Angeles; Miami; Minneapolis; New York City; Phoenix; Portland, Oregon; San Diego; San Francisco; Seattle; Tampa; and Washington, D.C.

S&P 500 Equal Weight Index (EWI) – This index is the equal-weight version of the widely used S&P 500 Index. The S&P 500 EWI includes the same constituents as the capitalization-weighted parent index, but each company in the S&P 500 EWI is allocated a fixed weight, or 0.2% of the index, at each quarterly rebalance.

S&P 500 Index – This unmanaged capitalization-weighted index of the stocks of the 500 largest publicly traded U.S. companies is designed to measure performance of the broad domestic economy through changes in the aggregate market value of the 500 stocks, which represent all major industries.

S&P Global Eurozone Manufacturing Purchasing Managers' Index (PMI) – This index measures the performance of the manufacturing sector derived from a survey of 3,000 manufacturing firms and includes national data for Germany, France, Italy, Spain, the Netherlands, Austria, the Republic of Ireland and Greece. The PMI is based on five individual indices: new orders (30%), output (25%), employment (20%), suppliers' delivery times (15%) and stock of items purchased (10%), with the delivery times index inverted to move in a comparable direction. A reading above 50 indicates an expansion of the sector, a reading below 50 represents a contraction, and 50 indicates no change.

S&P Global Eurozone Services Purchasing Managers' Index (PMI) – This index is based on original survey data from a representative panel of around 2,000 private service sector firms. National data is included for Germany, France, Italy, Spain and the Republic of Ireland. These countries account for an estimated 78% of eurozone private-sector services output. A reading above 50 indicates an expansion of the sector, a reading below 50 represents a contraction, and 50 indicates no change.

S&P GSCI – This index (formerly the Goldman Sachs Commodity Index) measures investment in the commodity markets and commodity market performance over time.

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

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

Spread to Maturity (STM) – Measure of return from a floating-rate note relative to that from its index or reference rate, such as the Secured Overnight Financing Rate (SOFR), calculated by discounting future cash flows on a bond basis.

Stoxx Europe 600 Index – This index has a fixed number of 600 components representing large, mid- and small-capitalization companies among 17 European countries, covering approximately 90% of the free-float market cap of the European stock market (not limited to the eurozone).

TAIEX Index – This index tracks companies traded on the Taiwan Stock Exchange. The index covers all listed stocks excluding preferred, full-delivery and newly listed stocks, which are listed for less than one calendar month.

Trade Reporting and Compliance Engine (TRACE) – Financial Industry Regulatory Authority (FINRA)-developed vehicle that facilitates the mandatory reporting of over-the-counter secondary market transactions in eligible fixed-income securities.

U-3 Unemployment Rate – Officially recognized rate of unemployment, compiled and released monthly by the U.S. Bureau of Labor Statistics, measuring the number of unemployed people as a percentage of the labor force.

U.S. Dollar Index (DXY) – A weighted geometric mean of the U.S. dollar's value relative to a basket of six major foreign currencies: the euro, Japanese yen, British pound, Canadian dollar, Swedish krona and Swiss franc.

West Texas Intermediate (WTI) Crude Oil– Specific grade of crude oil and one of the main three benchmarks, along with Brent and Dubai Crude, in oil pricing. WTI is known as a light sweet oil because it contains 0.24% sulfur, making it "sweet," and has a low density, making it "light." It is the underlying commodity of the New York Mercantile Exchange's (NYMEX) oil futures contract and is considered a high-quality oil that is easily refined.

Yield to Maturity (YTM) – The total return anticipated on a bond if the bond is held until it matures. Yield to maturity is considered a long-term bond yield but is expressed as an annual rate.

You cannot invest directly in an index.

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