BofA SECURITIES

The Fixed Income Digest

Update on commercial and residential real estate

Financial Stability Oversight Council 2023 Annual Report

US Treasury Secretary (and FSOC Chair) Janet Yellen recently testified to Congress, after release of the Financial Stability Oversight Council (FSOC) 2023 Annual Report. FSOC was established under Dodd-Frank legislation with three purposes: 1) identify risks to financial stability from banks and nonbanks; 2) promote market discipline by eliminating expectations of US government bailouts; 3) respond to emerging threats to stability of US financial system. The Council consists of ten voting members (US Treasury, Fed, OCC, CFPB, SEC, FDIC, CFTC, FHFA, NCUA, FSOC Insurance specialist) and five nonvoting members. It brings together the expertise of federal financial regulators, state regulators, and an insurance expert appointed by the President. The Annual Report is therefore a good representation of official Washington's view of key financial risks. Notably, but not surprisingly, commercial real estate ranked at the top of FSOC's "vulnerabilities" list, albeit in the context of a financial system that has remained resilient amid the notable increase in interest rates. Overall, we think the key takeaway from the FSOC report is that official Washington has an excellent understanding and awareness of the risks associated with CRE and will (and can) take appropriate measures (such as BTFP in 2023) to avert broad based financial instability. CRE will remain challenging, but likely manageable and, importantly, will also present opportunities for patient distressed investors. More details are provided inside this report.

View from JLL, CRE broker: cautious optimism

JLL - key themes shaping the office CRE market today: 1) early tailwinds, but more stability/consistency needed; 2) rate cuts on the horizon; 3) debt markets liquid (BBB-CMBS up 7.4% YTD); 4) regional bank pressures re-emerging but CRE not presenting systemic risk; 5) more investors starting to contemplate offensive plays, FOMO is real; 6) risk and uncertainty: need to continue to expect. "Tenants in market" up 20.4% YOY in 4Q23. Lack of new development continues to intensify. More details inside.

Leveraged loans, preferreds attractive

Strong January CPI print followed strong January payrolls print. Consistent upside economic surprises in 2024 shift the narrative to lower likelihood of hard landing, higher likelihood of soft landing/no landing – and a 10y yield retracing from a recent low of 3.8% to the 4.3% area. Upside target range for 10y was 4.25%-4.5%. If upside economic surprises persist, overshoot of that range back to 5.0% area is possible. Maybe nibble on duration add at current levels; we prefer BBB corporate and muni bonds over UST as the vehicle to add duration. Meanwhile, with the market still calibrating 2024 Fed rate cuts lower and persistent economic strength, we continue to top pick zero rate duration leveraged loans at 9.5% nominal yield. Stick with G-SIB preferreds and be careful on regional bank preferreds where CRE exposure might be high. We reduced agency MBS exposure to neutral. Exhibit 1 shows leveraged loans and preferreds delivering relatively strong returns yet again.

15 February 2024

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Exhibit 1: Total returns since December 31 and 2023 YTD

BBB CMBS leads monthly total returns as of 2/9/24.

	Total Return (%)	
Sector (Eff Dur, Eff Yld)	Since 12/31	YTD
BBB CMBS (3.2, 15.3%)	7.3	7.3
Nasdaq 100 (NA, 0.8%)	6.8	6.8
S&P 500 (NA, 1.4%)	5.5	5.5
FX Preferred Stocks (6.9, 4.7%)	4.0	4.0
FL Preferred Stocks (0.2, 4.5%)	2.6	2.6
Leveraged Loans (0.1, 10%)	0.9	0.9
US HY Corp. (3.3, 7.6%)	0.2	0.2
EM Corp. (4.8, 6.5%)	0.1	0.1
US Municipal Securities (6.8, 3.2%)	-0.4	-0.4
Agency CMBS Index (4.4, 4.7%)	-0.5	-0.5
US Inflation-Linked Treasury (5.7, 2.0%)	-1.0	-1.0
US IG Corp. (6.7, 5.4%)	-1.1	-1.1
US Broad Index (6.0, 4.9%)	-1.3	-1.3
US Treasury & Agency (6.2, 4.4%)	-1.4	-1.4
EM External Debt Govt. (7.0, 6.8%)	-1.6	-1.6
US MBS (5.5, 5.1%)	-1.7	-1.7
Global Govt. Excluding the US (8.2, 2.3%)	-1.7	-1.7

Source: Ice Data Indices, LLC, Bloomberg

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Refer to important disclosures on page 26 to 27.
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Update on commercial and residential real estate

Introduction

This month, we consider a key risk sector for the US economy, commercial real estate (CRE), with focus on the office sector. Our baseline view is that office CRE remains challenged by the combination of higher interest rates in the context of over $200 billion of refinancing needs in 2024 and possible structural changes associated with work from home (or its inverse, return to office (RTO)), but that it does not represent systemic risk to the economy. Office prices are down on the order of 35%-40% since COVID, suggesting cash-in refinancings will likely be a necessity in many instances. However, a slow and steady approach to working through the challenges, including loan modifications and workouts, says to us the sector can muddle through over the next few years. Meanwhile, the sector is likely to present excellent distressed investment opportunities for the substantial pools of capital that continue to be raised.

We emphasize that the sector remains highly dependent on the strength of the economy and the path of interest rates. If the 10y UST yield continues to move higher and revisits the 5% or higher area (not our base case), the refinancing challenges and systemic risk from the sector increase. Alternatively, if the 10y yield drops down to the low 3% area, risk will decrease. Perhaps ironically, CRE may hold the keys to its fate: significant additional stress from the sector could end up as a key driver of recession, by forcing banks to tighten credit standards, which in turn may lead to the low interest rates that end up alleviating that stress. This suggests rate reflexivity, where rates could first move higher before ultimately moving lower.

In this context, we found the recently released 2023 Annual Report from the Financial Stability Oversight Council to be particularly interesting, for two reasons: 1) it provides what we think is a concise and accurate assessment of the state of commercial real estate and the economic fault lines associated with regional bank exposure, including benefits from regional and sector diversification within CRE; 2) it shows that official Washington is ahead of the curve in terms of its awareness of the risks, which means it likely will fulfill its financial stability mandate and be able to respond with effective bank supervision and policy if necessary.

In the sections below, we provide a bullet style summary of the FSOC report, first for CRE and later for residential real estate (RRE). We also provide a real time perspective on commercial real estate from JLL (Jones Lang LaSalle), a CRE broker, based on a recent presentation made by the company on what they are seeing on the ground these days. Overall, we characterize JLL as cautiously optimistic, as they see increased bidding activity over the past year.

We conclude the report with the usual sections on sector picks and BofA Global Research views on the economy and various sectors.

Financial Stability Oversight Council, Yellen: 2023 Annual Report to Congress

- 10 voting FSOC members: Fed, US Treasury, OCC, CFPB, SEC, FDIC, CFTC, FHFA, NCUA, FSOC Insurance specialist
- Janet Yellen (FSOC Chair) Congressional testimony: required under Dodd-Frank to provide annual report to Congress
- Key vulnerabilities/financial risks: commercial real estate; residential real estate (household finance); corporate credit; short term funding markets; digital assets; climate-related financial risks

- **Financial risks: Vulnerabilities or shocks in real estate and corporate credit sectors can directly affect the flow of credit to households, businesses**
- Financial institutions: US banking system; G-SIBs and large non-G-SIBs; regional banks (spring 2023 turmoil and policy response); investment funds; central counterparties; insurance sector
- Financial market structure, operational and technological risk: treasury market; alternative reference rates; cybersecurity; AI in financial services; 3rd party service providers
- EXECUTIVE SUMMARY:
    1. Financial system has remained resilient amid notable rate increases in 2023
    2. Banks have tightened lending standards across all loan categories, citing a desire to improve capital and liquidity conditions (for example, selling auto loans in cash or synthetic form), increased concerns about deposit outflows, reduced tolerance for risk
    3. Refinancing risk of CRE loans is elevated due to sizeable amount of maturities in 2024 ($930 billion overall, $206 billion of office, according to the Mortgage Bankers Association); cash-in refinancing likely a necessity in many instances
    4. Evolving participation of nonbank financial institutions (NBFI) in the provision of financial services is an important area to monitor for vulnerabilities and potential risks to the broader financial system
    5. Report includes discussion of potential risks related to nonbank mortgage lenders and private credit
    6. Climate risk: impacts pricing and availability of property and casualty (P&C) insurance, which has implications for the functioning of residential real estate (California, Florida, Louisiana)

Commercial real estate: FSOC - heterogeneous, but challenging

- Elevated interest rates, high costs (insurance), weakness in central business district CRE conditions, and potential structural changes in demand for office space have heightened concerns about CRE.
- Maturing loans and expiring leases amid weak demand have the potential to strain office sector conditions further, which could cause stress to spread beyond the sector
- Supervisors, banks, investors should: 1) closely monitor CRE exposures and concentrations; 2) track market conditions; 3) continue to evaluate loan portfolios' resilience to potential stress, ensure adequate credit loss allowance (eg, NYCB), assess CRE underwriting standards, and review contingency planning for a possibly protracted period of rising loan delinquencies
- CRE loans totaled almost $6 trillion in 2Q23; banks hold 50% of CRE loans; CRE is the largest loan category for almost half of US banks; bank CRE delinquencies at 81 bps in 2Q23, up from 74 bps in 2Q22
- CRE vulnerabilities: a rise in vacancies and declines in values for some property types (office), elevated interest rates, heightened CRE maturities, inflation in property operating costs, and increased CRE loan delinquencies
- CRE sector data:

1. Office: vacancy at 13% in 2Q23 (multi-year high, up from 9% area in 2019); price down 35% from March 2020 by September 2023;
2. Multifamily: vacancy at 7% in 2Q23; price down 4% from March 2020 by September 2023; heavy supply
3. Industrial: vacancy at 5% in 2Q23; price up 42% from March 2020 by September 2023; heavy supply
4. Retail/mall: vacancy at 4% in 2Q23; mall vacancy rate twice the level of rest of retail sector; mall price down 15% from March 2020 by September 2023; light supply, little construction in past 10 years

- **Recommendation**: accommodations and workouts are often in the best interest of lenders and borrowers

Commercial real estate: JLL (Jones Lang LaSalle, CRE broker) – cautious optimism

- Key themes shaping the CRE market today:
    1. Early tailwinds, but more stability/consistency needed
    2. Rate cuts on the horizon
    3. Debt market liquid (and pricing has been improving – BBB CMBS up 7.1% YTD)
    4. Regional bank pressures re-emerging but CRE not presenting systemic risk
    5. **More investors starting to contemplate offensive play; FOMO is real**
    6. Risk and uncertainty: need to continue to expect
- CRE bid frequency: growing number of bidders have re-entered the market since late 2022
- Bid-ask spreads in CRE markets remain widened
- Key office sector themes:
    1. **Demand is broadly strengthening**
    2. Sublease vacancy rates have peaked; now declining
    3. Developing slowdown intensified through year-end
    4. Active tenants continue to emphasize asset quality
    5. RTO trends continuing to support long-term demand recovery
- Office data: 4.8 billion square feet (SF) existing inventory; 62 million SF under construction; 21.4% total vacancy; -61 million SF net absorption in 2023; 206 million SF sublease available
- Remote-first companies have become a rarity among large employers: 3.08 days/week = min attendance req
- **RTO momentum and macroeconomic stabilization driving demand recovery: "tenants in market" up 20.4% YOY in 4Q23; bottomed in 1Q23**
- Net absorption still negative at -10 million SF, but … occupancy loss is tentatively slowing, though many tenants still intend to right size

- **Flight to quality continues to drive occupancy gains in new and highly-amenitized product**. +127 million SF net absorption of properties from 2015-present; -123 million SF net absorption of 1980s product
- **Lack of new development continues to intensify**; pipeline down 57% from 2019; shortage of new deliveries starts in 2024. Record levels of conversion of office in 2023.
- San Francisco office real estate boosted by tech recovery.

Residential real estate, non-bank lenders: FSOC – healthy, theoretical fault lines

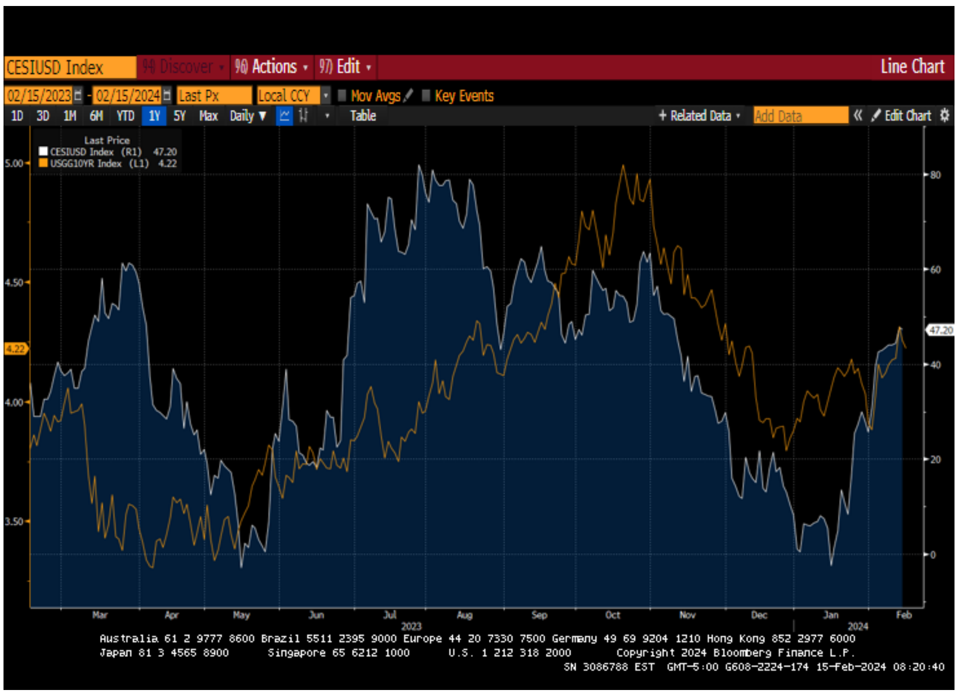
- Housing: low inventory, high prices, high mortgage rates, high mortgage-10y UST spread, low transaction volume
- Effective mortgage rate = 3.8%; spot mortgage rate = 6.6%; lock-in effect remains strong
- Benign environment: mortgage debt service ratio = 4% < pre-COVID levels; mortgage delinquencies = 3.9%, close to historical low of 3.4% - 45-year average = 5.3%
- Vulnerability: nonbank mortgage companies do not have deposit funding but dominate mortgage lending – 70% market share in 1H23 v 42% in 2014. Dodd-Frank and other post-GFC developments pushed banks out of mortgage lending
- **Nonbank mortgage lender challenges:**
    1. **Reliance on short-term wholesale financing; can be pulled in times of stress (created by CRE for example)**
    2. Do not have access to liquidity backstops that could provide bridge financing if traditional lending lines tighten or close
    3. Have limited loss absorbing capacity while retaining less liquid mortgage servicing rights (MSRs)
    4. Could face acute liquidity strains in the event of widespread delinquencies (not expected as baseline, but could be caused by CRE contagion): GNMA servicers have uncapped servicer advance obligations to investors and must pay taxes and insurance if borrower does not
    5. Collapse in mortgage originations due to backup in mortgage rates has severely impacted key earnings source: origination fees. Need to increase primary-secondary spread to boost profitability, but that reduces originations
- Efforts to strengthen the nonbank mortgage sector are ongoing:
    1. Enhanced minimum seller/servicer requirements at the end of 3Q23 – effectively regulated by GSEs/GNMA
    2. Eligibility requirements: Tangible net worth, capital ratio, base liquidity, origination liquidity, liquidity buffer, capital and liquidity plans, 3rd party assessment
    3. State regulation of servicers
- **Recommendation**: relevant federal agencies and state regulators should continue to coordinate closely to collect data; identify risks, and take additional steps to address potential risks of nonbank mortgage companies

Duration nibble at 4.3% 10y; lev loans; preferreds attractive

Strong January CPI print followed strong January payrolls print. Consistent upside economic surprises in 2024 (Exhibit 2) shift the narrative to lower likelihood of hard landing, higher likelihood of soft landing/no landing – and a 10y yield retracing from a recent low of 3.8% to the 4.3% area. Upside target range for 10y was 4.25%-4.5%. If upside economic surprises persist, overshoot of that range back to 5.0% area is possible. Maybe nibble on duration add at current levels; we prefer BBB corporate and muni bonds over UST as the vehicle to add duration. Meanwhile, with the market still calibrating 2024 Fed rate cuts lower and persistent economic strength, we continue to top pick zero rate duration leveraged loans at 9.5% nominal yield. Stick with G-SIB preferreds and be careful on regional bank preferreds where CRE exposure might be high. We reduced agency MBS exposure to neutral. Exhibit 1 shows leveraged loans and preferreds delivering relatively strong returns yet again in 2024. Exhibit 3 provides the broader sector return picture.

Exhibit 2: Citi economic surprise index (CESIUSD) v 10y yield (USGG10YR)

Economic surprises have moved sharply to the upside in 2024, with the surprise index going from the 0 area up to the 40s recently. We are not surprised to see an associated bounce higher in the 10y UST yield given the upside economic surprises



Source: Bloomberg

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Exhibit 3: Total returns sorted by YTD
Nasdaq 100 leads YTD returns as of 2/9/24.

	Total Returns (%)				
Sector (Eff Dur, Eff Yld)	**January**	**Since 3/23/20**	**Last 3M**	**2023 YTD**	**Last 12M**
BBB CMBS (3.2, 15.3%)	7.1	9.9	12.2	7.3	4.1
Nasdaq 100 (NA, 0.8%)	1.9	164.5	18.5	6.8	46.3
S&P 500 (NA, 1.4%)	1.7	138.8	16.1	5.5	25.2
FX Preferred Stocks (6.9, 4.7%)	3.7	36.6	12.1	4.0	2.1
FL Preferred Stocks (0.2, 4.5%)	2.4	59.9	5.3	2.6	10.2
Leveraged Loans (0.1, 10%)	0.7	54.0	3.2	0.9	10.6
US HY Corp. (3.3, 7.6%)	0.0	42.1	6.4	0.2	9.3
EM Corp. (4.8, 6.5%)	0.3	9.0	5.6	0.1	5.0
US Municipal Securities (6.8, 3.2%)	-0.2	11.9	5.4	-0.4	3.2
Agency CMBS Index (4.4, 4.7%)	0.3	-0.4	4.2	-0.5	3.1
US Inflation-Linked Treasury (5.7, 2.0%)	0.4	4.0	3.0	-1.0	1.1
US IG Corp. (6.7, 5.4%)	0.1	9.5	6.5	-1.1	4.2
US Broad Index (6.0, 4.9%)	-0.1	-5.2	4.9	-1.3	2.0
US Treasury & Agency (6.2, 4.4%)	-0.2	-12.8	4.0	-1.4	1.0
EM External Debt Govt. (7.0, 6.8%)	-1.1	8.9	6.7	-1.6	5.7
US MBS (5.5, 5.1%)	-0.4	-8.0	5.2	-1.7	0.9
Global Govt. Excluding the US (8.2, 2.3%)	-0.8	-11.8	2.2	-1.7	0.7

Source: Ice Data Indices, LLC, Bloomberg

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Forecasts and yields

The BofA economics and rates forecasts can be seen in Exhibit 4 through Exhibit 6. Recession is no longer expected. The baseline view is that the Fed has successfully executes a soft landing and will cut three times in 2024. The strength of the labor and inflation reported led BofA Economics to recently reduce its rate cut expectations from 4 to 3 and to push out the end of QT to the second half of 2024. The near-term risk to the rate forecast is to the upside. We would take advantage of yield spikes by adding duration.

Exhibit 7 and Exhibit 8 show yields in low yield and high yield sectors over time. Yields moved higher over the past month, making them very attractive from a longer-term perspective.

Exhibit 4: US GDP forecast

GDP forecast as of 2/9/24

	Historical				Quarterly Forecast								Average Quarterly			
	1Q 23	2Q 23	3Q 23	4Q 23	1Q 24	2Q 24	3Q 24	4Q 24	1Q 25	2Q 25	3Q 25	4Q 25	2022	2023	2024	2025
Real GDP (QoQ, % SAAR)	2.2	2.1	4.9	3.3	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	1.9	2.5	2.1	1.8
Real GDP (YoY)	1.7	2.4	2.9	3.1	2.8	2.5	1.7	1.2	1.5	1.7	1.9	2.0				

Source: BofA US Economics Research

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Exhibit 5: Other key macro indicators and inflation forecasts

Forecasts are as of 2/9/24

	Historical				Quarterly Forecast								Average Quarterly			
Monthly Averages	1Q 23	2Q 23	3Q 23	4Q 23	1Q 24	2Q 24	3Q 24	4Q 24	1Q 25	2Q 25	3Q 25	4Q 25	2022	2023	2024	2025
Nonfarm Payrolls (Avg mom ch, 000s)	305	274	213	227	176	75	75	100	100	125	125	150	377	255	107	125
Civilian Unemployment Rate (%)	3.5	3.6	3.7	3.8	3.8	4.0	4.1	4.2	4.2	4.2	4.1	4.1	3.6	3.6	4.0	4.2
Civilian Participation Rate (%)	62.5	62.6	62.7	62.6	62.6	62.7	62.7	62.7	62.6	62.6	62.6	62.6	62.2	62.6	62.6	62.6
Core PCE Chain Prices (% YoY)	5.0	3.7	2.0	2.0	2.5	2.5	2.5	2.3	2.5	2.2	2.0	2.0	5.2	4.1	2.4	2.3
CPI, Consumer Prices (% YoY)	3.8	2.7	3.6	2.8	2.3	2.5	2.5	2.0	2.5	2.0	2.7	2.4	8.0	4.1	2.6	2.3
CPI ex Food & Energy (% YoY)	5.0	4.7	2.8	3.4	3.3	3.1	2.9	2.7	2.6	2.6	2.5	2.4	6.1	4.8	3.2	2.7

Source: BofA US Economics Research

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Exhibit 6: Rates forecast

Forecasts are as of 2/9/24

	Historical			Quarterly Forecast				
(% EOP)	2021	2022	2023	Q1 24	Q2 24	Q3 24	YE 24	YE 25
Fed Funds	0.00-0.25	4.25-4.50	5.25-5.50	5.00-5.25	4.75-5.00	4.50-4.75	4.25-4.50	3.25-3.50
Fed effective	0.13	4.38	5.38	5.13	4.88	4.63	4.38	3.38
2-Year T-Note	0.50	4.50	4.75	4.75	4.50	4.25	4.00	3.75
5-Year T-Note	1.25	4.25	4.30	4.50	4.40	4.25	4.15	4.00
10-Year T-Note	1.51	3.88	3.88	4.40	4.30	4.25	4.25	4.25
30-Year T-Bond	2.10	4.10	4.20	4.70	4.65	4.65	4.75	4.75

Source: BofA US Rates Research

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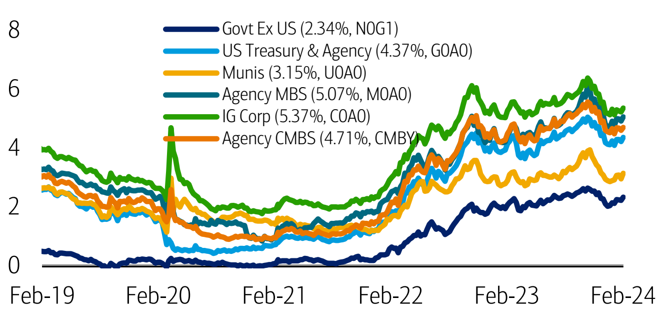
Exhibit 7: Yields on high quality sectors

IG Corp leads yields as of 2/9/24 at 5.4%



Source: ICE Data Indices, LLC

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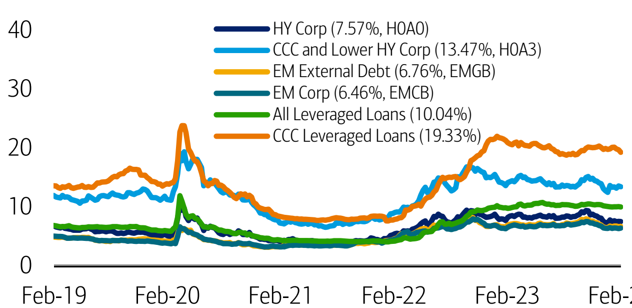
Exhibit 8: Yields on HY bonds and loans

CCC Leveraged Loans leads yields as of 2/9/24 at 19.3%



Source: ICE Data Indices, LLC

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New issue debt market volumes slow – US treasury issuance high

Exhibit 9 shows gross and net supply numbers across various fixed income sectors, as well as forecasts for 2024. This does not account for runoff of the Fed balance sheet due to QT.

Exhibit 9: US Fixed Income Gross and Net Issuance ($bn)

YTD FI total supply was $1.02tn

	TSY	Munis	Tax Exempt	Taxable	AMT	Agency Debt	Agency MBS	Agency CMBS	ABS	US CLO	USD HG Corp	USD HY Corp	USD Lev Loans	Total Securitized Products	US Fixed Income Issuance
Gross Issuance ($bn)															
2011	2,135	287	247	32	8	966	1,131	90	125	13	770	208	231	1,392	5,988
2012	2,153	380	334	33	13	840	1,663	102	201	56	969	322	295	2,074	7,032
2013	2,140	334	286	38	10	591	1,544	102	179	84	1,024	312	456	2,018	6,876
2014	2,215	337	303	27	8	482	923	87	205	124	1,105	292	377	1,475	6,284
2015	2,119	399	362	31	6	551	1,251	114	195	98	1,264	252	257	1,818	6,660
2016	2,019	452	409	31	12	794	1,472	134	195	71	1,289	228	337	1,996	7,114
2017	2,047	449	393	39	16	596	1,304	157	239	117	1,396	271	503	2,003	7,265
2018	2,388	339	295	33	11	546	1,174	157	244	121	1,237	162	438	1,923	7,033
2019	2,692	422	330	71	22	816	1,531	158	242	115	1,198	228	311	2,298	7,965
2020	3,434	474	319	145	9	923	3,158	183	183	90	1,851	390	289	3,789	11,149
2021	4,405	479	345	120	14	455	3,482	183	284	185	1,495	455	607	4,509	12,405
2022	3,305	385	310	53	22	738	1,674	128	253	128	1,216	106	225	2,427	8,401
2023	3,268	376	323	37	16	1,220	1,000	120	274	117	1,214	174	229	1,627	8,109
2024 YTD	331	38	36	2	0	98	100	11	47	19	236	40	80	195	1,018
2024 Forecast	4,308	400	340	45	15	1,300	1,056	133	270	110	1,330	165	240	1,716	9,459
Net Issuance ($bn)															
2011	1,326	-160	-130	3	-33	-207	15	45	-60	-17	335	-7	19	-264	1,042
2012	1,008	-104	-73	-1	-30	-245	33	60	-2	21	367	72	34	-117	1,014
2013	853	-123	-111	12	-23	-53	232	60	30	29	570	82	131	186	1,648
2014	783	-67	-42	-8	-17	-45	69	49	44	76	617	74	150	174	1,685
2015	632	-26	-13	5	-17	-55	164	59	-1	53	724	-3	41	200	1,513
2016	411	33	49	2	-19	-41	229	83	9	18	752	-67	8	199	1,294
2017	421	32	27	14	-8	-53	315	96	13	56	782	5	75	411	1,672
2018	754	-75	-75	2	-2	-105	276	79	20	82	627	-78	192	512	1,827
2019	987	39	3	30	6	-30	224	79	-6	88	574	30	46	456	2,103
2020	1,734	47	-26	78	-5	-163	508	88	-69	63	757	173	0	572	3,121
2021	819	111	44	63	4	-249	878	71	29	116	425	131	148	1,200	2,585
2022	1,540	-36	-51	12	3	208	496	32	18	88	383	-52	75	680	2,798
2023	1,002	41	40	-1	2	189	235	51	7	68	454	64	-	344	2,093
2024 YTD	60	0	4	-2	-2	13	10	8	18	11	136	28	-	45	281
2024 Forecast	1,538	-16	-	-	-	500	321	107	58	35	384	-10	-10	497	2,883

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Next we summarize highlights and themes from colleagues in BofA Economics and Strategy.

Economics – Michael Gapen, Aditya Bhave, Stephen Juneau, Shruti Mishra, Jeseo Park

US Economic Weekly: Is the US economy re-accelerating?

- After blockbuster growth in 2H 2023, the January data flow generally points to continued economic momentum in January.
- We see downside risks to housing and used cars in coming months, but upside risks to growth could mean slower disinflation.
- Our analysis suggests that most of the recent strength in consumer spending has been due to supply expansion.

Morning Market Tidbits: Has economic momentum carried over into the new year?

- Most of the recent strength in consumer spending has been due to supply expansion. That is good news, if it continues.
- The CPI revisions showed little change to the inflation trajectory and did not alter our Fed outlook.

Morning Market Tidbits: Faster trend productivity growth? Think again

- Pickup in productivity in 2H23 likely represents normalization of behavior as COVID-induced shocks to relative demand fade.
- CPI inflation came in stronger than expected with the headline and core CPI rising by 0.3% and 0.4% m/m, respectively.
- We stick with our call for rate cuts to start in June. Markets removed 17bp of rate cuts from 2024 after today's print.

Investment Strategy – Michael Hartnett

Global Fund Manager Survey: Magnificent Sentiment

- Most bullish FMS in 2 years, cash sharply cut to 4.2% as investors stop predicting global recession for 1st time since Apr'22
- Allocation to US stocks highest since Nov'21, to tech sector highest since Aug'20, "long Magnificent 7" extremely "crowded"
- BofA Bull & Bear Indicator at 6.8…investor positioning increasingly a headwind for risk assets

The Flow Show: If Stocks were the Super Bowl

- Ain't nothing that keeps pace with Super Bowl inflation but if wings, beer & S&P500 had kept up past 35 years…
- BofA Bull & Bear jumps to 6.8…"tops are a process, lows are a moment" & bubbles respect real rates not positioning…
- …still BofA proprietary trading rules closing in on "sell signals" as positioning flips from tailwind to headwind

Rates – Mark Cabana, Ralph Axel, Bruno Braizinha, Meghan Swiber, Katie Craig, Caiyi (Anna) Zhang, Paul Ciana

Global Rates Weekly: Ranger danger

- If bank concerns contained, 10y range can push higher with strong US data. Patience in adding duration closer to 10Y at 4.5%
- When 10Y yield is up in January it tended to be 70% of the time in Q1. If 10Y > 4.20% then double bottom and higher Q1.

US Watch: January CPI Inflation: detour from disinflation

- CPI inflation came in stronger than expected with the headline and core CPI rising by 0.3% and 0.4% m/m, respectively.
- The main driver of the beat was sticky core services. Some, but not all, of this strength will read through into the PCE.
- We stick with our call for rate cuts to start in June. Markets removed 17bp of rate cuts from 2024 after today's print.

US Rates Watch: Follow the money: cash & collateral trends Feb 13 update

- We continue to see limited signs of funding stress around US commercial banks.
- FHLB net issuance has increased in February, likely due to banks precautionary funding.
- Other signs of funding stress, including Fed lending facilities, are little changed.

US Rates Watch: Longs remain dominant but challenged position

- Many of our positioning indicators agree that longs are dominant; long way for position to unwind if conviction challenged.
- Foreign official sector remains net seller YTD; auction stats suggest limited bid from foreign investors.
- More US funds added vs reduced UST allocations in Q4; UST funds observe outflows on the week.

US Rates Watch: Fed balance sheet: tax date tweaks

- We adjust our Fed bal sheet forecast for the April tax date liquidity drain, BTFP repayment & end '24 debt limit dynamics.
- These factors could see ON RRP remain higher than the $200-250b threshold we believe is important to the Fed.
- A slower pace of ON RRP depletion would mean a later timing of QT slowdown vs our base case in May.

Municipals – Yingchen Li, Ian Rogow

Municipals Weekly: Collapsing vol supports narrowing spreads

- Munis are a buy with vol collapsing; spreads should tighten more and any rate spike should be contained.
- We expect 4Q spread widening to fully retrace in 1H24. Recoveries lagging in some sectors.
- S&P upgrades outpaced downgrades with a ratio of 2.6 to 1in January; outlook revisions were heavily positive.
- Our views are summarized in Exhibit 10

Exhibit 10: Strategic and tactical views & key forecasts

Buy long duration high grade bonds, especially 4% coupons

Strategic views	Tactical views	Key forecasts
• OW 15-30yr part of the curve, particularly 4% coupon bonds • OW AMT bonds* • Neutral BBBs and high yield • UW (1) the territories; (2) small private colleges; (3) rural, single facility hospitals	• Position for ratios to reach historically-rich levels. • Swap long-end muni taxables for long-end tax-exempts • 4% coupon bracket to benefit more in a rally	•2024 issuance to total $400bn; $300bn of new money and $100bn of refundings. •2024 principal redemptions to total $416bn and coupon payments $158bn. Cumulative fund inflows positive. •1s10s slope to stay inverted in 2024; 10s30s to steepen, then flatten; 10s30s max slope of 110bp in 2024. •10 yr muni/Tsy ratio range of 55%-80% and 30y 75%-92%. •Stable credit spreads in 2024 given non-recessionary environment; any material widening is an opportunity.

Source: BofA Global Research. *If the holder is certain they are not subject to the AMT under current tax law.

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Investment Grade Strategy – Yuri Seliger

Credit Market Strategist: Tariffs vs. IG credit

- One of the potential implications of the 2024 US elections is an increase use of tariffs.
- "Trade war" was by far the biggest concern for US credit investors in 2019.
- Soft landing = buy BBBs

High Yield Strategy – Oleg Melentyev

High Yield Strategy: Threading the Needle

- Barbelled positioning (high cash balance + meaningful lower quality tilt) is working well ytd and should continue to do so.
- Lower quality tilt requires high precision: focus on the bottom two deciles away from default candidates.
- Overlay this with rich/cheap screen and sector views to get a portfolio outyielding the index even with near-record cash.

Leveraged Loan Strategy – Neha Khoda

Collateral Thinking: Private-to-public deals on a hot streak

- We break down YTD new-issue surge into components, spotlighting a notable primary market trend: Pvt Debt (DL) to BSL takeouts.
- DL premium over BSL is at a decade high, setting off a rotation from pvt to public markets. Opportunity set here is >$100bn.
- We discuss resurgence of dividend deals, while LBOs/M&As stay muted; repricings scaling back giving way to bond/loan refis.

Preferred Strategy – Michael Youngworth

Preferred Strategy: Who's most exposed to CRE?

- Investor concern over CRE exposure has been renewed following NYCB's earnings release and common dividend cut last week.
- We measured preferred issuers' exposure to CRE, and we found the most exposed names have underperformed year-to-date.
- While broad preferreds have held up so far, 2023's experience suggests the market is not immune should CRE stress persist.

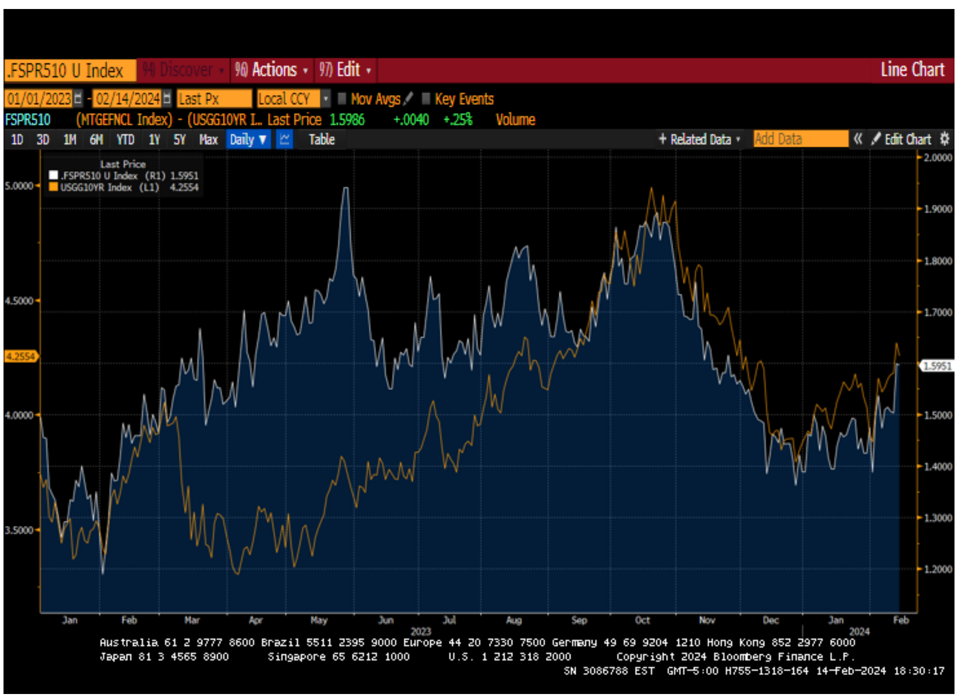
Preferred Recommended List: Recommended Lists for February

- Preferreds outperformed both fixed-income and equities in January, led by senior notes, foreign names, and REITs.
- While higher-for-longer rates risks are prevalent, we think even a small drop in yields would be supportive of preferreds.
- This month's recommended lists include preferreds from our fundamental analysts' favored mega-cap and regional banks.

Agency MBS – Chris Flanagan, Jeana Curro

- Agency MBS gave back some of the strong returns of November and December, down 2.2% on the year, making it the worst sector performer in fixed income. We turned neutral on the sector in the past month. Until 10y yield finds a near term top, MBS performance is likely to be weak.
- MBS current coupon spread retraced wider recently, to 159 bps, as 10y UST yield moved above 4.25%. We moved to neutral before the recent gap wider (Exhibit 11). More near term spread widening is probable if 10y yield moves higher.
- MBS value proposition: still cheap to corporates, even after recent OAS tightening. Agency MBS index OAS (47 bps) is 62% wider since Jan 1, 2022, when the Fed shifted to aggressive policy tightening. IG (94 bps) and HY OAS (319 bps) are only 1% and 15% wider, respectively (Exhibit 12).

Exhibit 11: Agency MBS current coupon spread to 5y/10y UST (FSPR510) v 10y UST yield
MBS current coupon spread retraced wider recently, to 159 bps, as 10y UST yield moved above 4.25%. We moved to neutral before the recent gap wider. More near term spread widening is probable if 10y yield moves higher.



Source: Bloomberg

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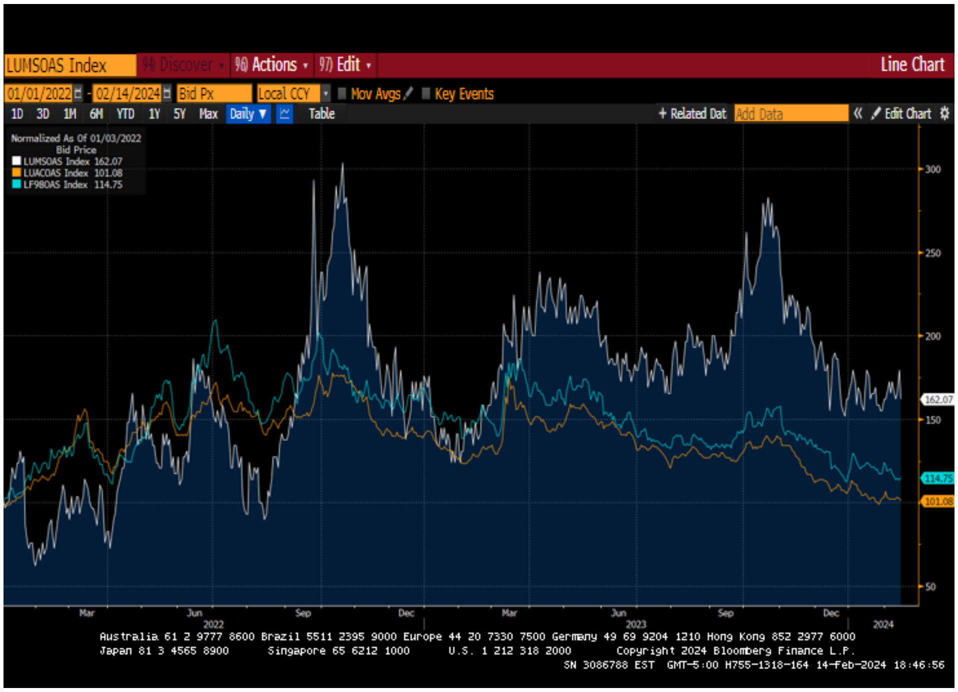
Exhibit 12: Normalized index OAS since 1/1/22: agency MBS (white), high grade (amber), high yield (blue)

MBS value proposition: still cheap to corporates, even after recent OAS tightening. Agency MBS index OAS (47 bps) is 62% wider since Jan 1, 2022, when the Fed shifted to aggressive policy tightening. IG (94 bps) and HY OAS (319 bps) are only 1% and 15% wider, respectively.



Source: Bloomberg

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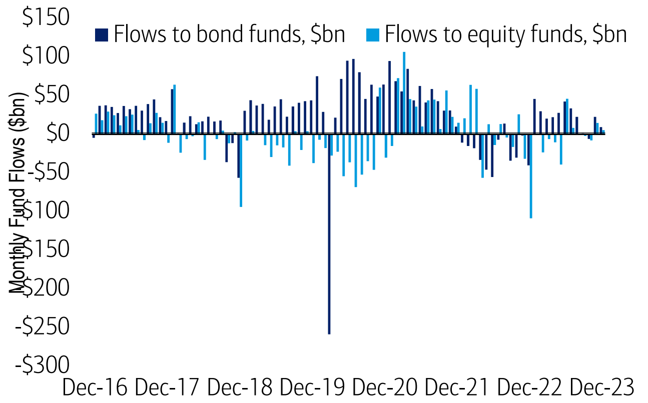
Mutual fund flows

Exhibit 13: Equity vs Fixed Income fund flows ($bn)
Data as of 12/31/2023; Fund flows have been mixed this year



Source: EPFR

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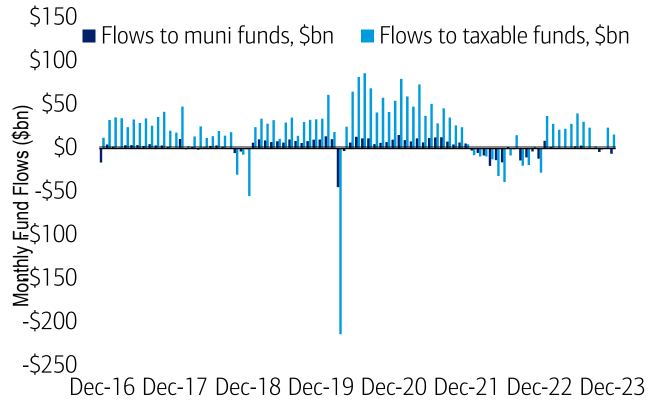
Exhibit 14: Taxable vs Municipal fund flows ($bn)
The data is as of 12/31/2023. Fund flows have been mixed this year.



Source: EPFR

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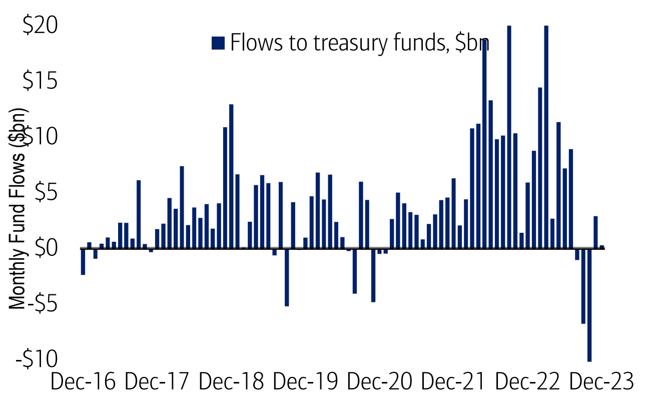
Exhibit 15: Treasury fund flows ($bn)
The data is as of 12/31/2023. Fund flows have been strong this year but started to weaken towards the end of 2023.



Source: EPFR

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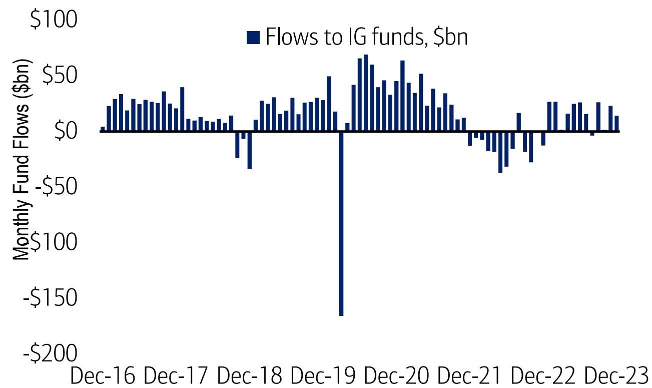
Exhibit 16: Investment grade fund flows ($bn)
The data is as of 12/31/2023. Fund flows have been mixed this year.



Source: EPFR

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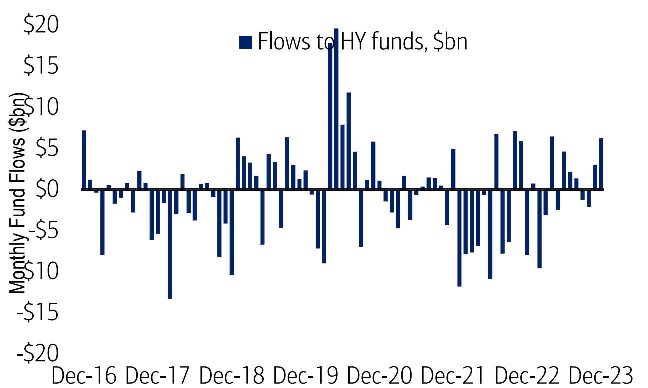
Exhibit 17: High yield corporate fund flows ($bn)
The data is as of 12/31/2023. Fund flows have been mixed this year.



Source: EPFR

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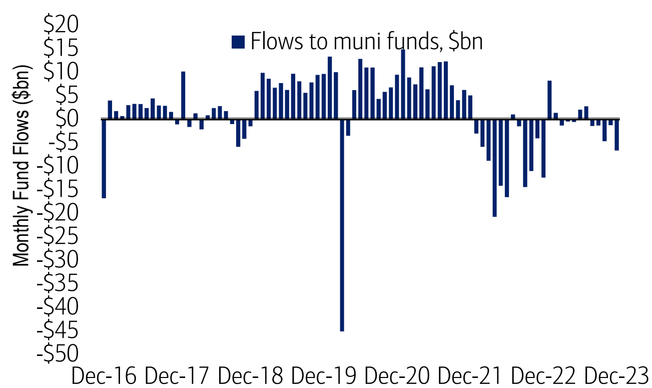
Exhibit 18: Municipal fund flows ($bn)
The data is as of 12/31/2023. Fund flows have been mostly outflows this year.



Source: EPFR

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Exhibit 19: Market total returns (%)
S&P 500 leads YTD returns as of 1/31/2024

		As of 1/31/2024								
Index	**Ticker**	**1mo**	**3mo**	**12mo**	**YTD**	**2020**	**2021**	**3yr[2]**	**5yr[2]**	**10yr[2]**
US Treasury	G0Q0	**-0.2**	7.0	1.1	**3.7**	8.2	-14.9	-3.7	0.3	1.2
US 3-Month Treasury Bill	G0O1	**0.4**	1.3	5.1	**5.5**	0.7	1.5	2.3	1.9	1.3
Current 2-year Treasury	GA02	**0.4**	2.5	3.2	**3.9**	3.0	-4.7	-0.3	1.0	0.9
Current 10-year Treasury	GA10	**-0.2**	8.8	-0.4	**2.7**	10.6	-19.4	-5.6	-0.2	1.0
Current 30-year Treasury	GA30	**-2.3**	15.9	-6.8	**-1.1**	18.6	-36.5	-12.9	-2.9	0.9
US Composite Agency	UAGY	**0.3**	4.4	3.7	**5.2**	5.7	-9.3	-1.4	1.3	1.6
US Inflation-Linked Treasury	G0QI	**0.4**	5.7	2.0	**4.0**	11.5	-7.3	-1.3	2.9	2.3
US Corporate	C0A0	**0.1**	10.1	4.5	**8.6**	9.8	-16.2	-2.7	2.2	2.8
AAA US Corporate	C0A1	**-0.4**	10.8	1.7	**6.0**	12.2	-20.9	-4.9	1.0	2.3
AA US Corporate	C0A2	**-0.2**	9.2	2.9	**6.5**	9.5	-17.2	-3.6	1.0	2.1
Single-A US Corporate	C0A3	**0.1**	9.7	3.9	**7.7**	9.8	-16.2	-2.9	1.9	2.5
BBB US Corporate	C0A4	**0.3**	10.5	5.4	**9.7**	9.8	-16.0	-2.4	2.8	3.2
US High Yield	H0A0	**0.0**	8.4	9.2	**13.5**	6.2	-6.5	1.9	4.3	4.4
BB US High Yield	H0A1	**0.1**	8.2	7.9	**11.5**	8.6	-6.5	1.4	4.7	4.8
Single-B US High Yield	H0A2	**0.1**	8.3	9.7	**14.0**	3.7	-6.2	2.2	3.9	4.1
CCC & Lower US High Yield	H0A3	**-0.4**	10.0	12.9	**19.9**	2.9	-7.6	2.7	3.3	4.0
Leveraged Loans	SPBDAL	**0.7**	3.6	11.1	**14.1**	3.1	4.4	6.5	5.4	4.4
BB Loans	SPBDBB	**0.5**	2.9	8.5	**10.7**	0.8	6.0	5.9	4.6	4.0
Single-B Loans	SPBDBL	**0.7**	3.9	12.2	**15.6**	3.8	3.9	6.8	5.8	4.7
US Mortgage Backed Securities	M0A0	**-0.4**	9.1	1.3	**4.6**	4.1	-12.9	-3.1	0.0	1.2
Fixed Rate Preferred Securities	P0P1	**2.8**	13.3	3.7	**13.3**	6.9	-12.7	0.1	3.3	4.9
DRD Eligible Preferred Securities	P0D0	**2.7**	12.8	3.4	**11.9**	7.3	-10.9	0.3	3.5	4.9
Hybrid Preferred Securities	P0H0	**1.7**	14.2	4.8	**18.5**	7.3	-18.6	-0.3	2.8	4.7
REIT Preferred Securities	P0N0	**3.3**	19.9	6.6	**20.3**	8.3	-25.0	-2.7	2.1	4.6
American Depository Shares Preferred Securities	P0S0	**3.4**	14.8	1.9	**18.5**	6.0	-21.7	-1.9	2.1	4.3
Adjustable Rate Preferred Securities	P0A0	**2.4**	6.4	10.6	**15.0**	8.0	4.3	6.2	7.3	6.8
US Fixed Rate Asset Backed	R0A0	**0.7**	3.6	5.5	**7.1**	3.8	-4.1	0.8	2.1	1.9
US Municipal Securities	U0A0	**-0.2**	8.7	3.1	**6.3**	5.3	-7.4	-0.7	2.1	2.9
Taxable equivalent[1]	U0A0*	**0.0**	9.5	6.1	**9.6**	8.1	-2.4	2.0	4.9	5.8
US General Obligation Municipal Securities	U0AG	**-0.3**	8.0	2.6	**5.4**	5.3	-6.6	-0.7	1.9	2.5
Taxable equivalent[1]	U0AG*	**-0.1**	8.8	5.5	**8.7**	8.1	-1.6	2.1	4.8	5.4
US Revenue Municipal Securities	U0AR	**-0.2**	9.0	3.3	**6.5**	5.3	-7.6	-0.8	2.1	3.0
Taxable equivalent[1]	U0AR*	**0.0**	9.8	6.3	**9.9**	8.1	-2.7	2.0	5.0	6.0
US Pre-refunded Municipal Securities	U0AF	**-0.1**	2.7	1.8	**2.9**	2.4	-2.9	-0.1	1.0	1.0
Taxable equivalent[1]	U0AF*	**0.2**	3.5	4.9	**6.3**	5.5	2.8	3.0	4.1	4.2
1-5 Year US Municipal Securities	UVA0	**-0.1**	3.4	2.1	**3.5**	2.8	-3.0	0.0	1.2	1.2
Taxable equivalent[1]	UVA0*	**0.1**	4.1	5.0	**6.7**	5.8	2.4	2.9	4.1	4.2
5-10 Year US Municipal Securities	U6AX	**-0.3**	6.9	2.0	**4.7**	5.0	-5.8	-0.6	1.9	2.4
Taxable equivalent[1]	U6AX*	**0.0**	7.7	4.9	**8.0**	7.9	-0.8	2.1	4.7	5.2
10+ Year US Municipal Securities	U9AX	**-0.2**	11.5	3.8	**7.8**	6.2	-9.8	-1.2	2.3	3.5
Taxable equivalent[1]	U9AX*	**0.0**	12.3	6.8	**11.3**	9.0	-5.0	1.6	5.1	6.4
Global Government Excluding the US Index	N0G1	**-3.1**	8.1	-2.7	**0.2**	9.8	-29.3	-10.4	-4.4	-2.0
Emerging Markets										
BBB & Lower Sovereign USD	IGOV	**-1.3**	10.5	7.4	**11.1**	4.8	-20.5	-3.6	0.3	2.9
Local Debt Markets Plus Index	LDMP	**-1.2**	6.8	4.8	**8.7**	4.5	-17.5	-3.1	0.7	1.1
Emerging Markets Corporate Plus Index	EMCB	**0.1**	7.6	4.9	**8.1**	7.8	-16.5	-3.2	1.3	2.6
S&P 500	SPXT	**1.7**	16.0	20.8	**28.4**	18.4	5.4	12.0	14.3	12.6
US CPI Urban Consumers NSA	CPURNSA	**-0.2**	0.0	3.1	**10.1**	1.4	13.9	5.7	4.0	2.8
BBG GOLD TR Index	BCOMGCTR	**-0.7**	3.0	5.7	**12.0**	20.9	-5.0	4.2	8.1	4.3
VIX Index	VIX	**15.3**	-20.9	-26.0	**-33.8**	65.1	-4.7	-11.3	-2.8	-2.5

Source: ICE Data Indices, LLC; [1]Assumes a 40.8% Federal tax bracket. [2]Three-year, five-year and 10-year returns are annualized. *Price return index

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Exhibit 20: Sector yields, duration and credit ratings

Data as of 2/09/2024. Sectors have higher yields as credit risk increases.

	Effective yield*	Effective Duration*	Average Credit Rating	% of US taxable market
Treasuries				
US Treasury	4.36	6.24	AA1	43.1%
1-5 Year	4.40	2.55	AA1	23.2%
5-10 Year	4.17	6.13	AA1	9.8%
10-15 Year	4.18	9.83	AA1	0.4%
15+ Year	4.47	14.98	AA1	9.8%
US Inflation-Linked Treasury	2.04	5.67	AA1	4.8%
US Agency	4.51	3.33	AA1	0.8%
US Mortgage Backed Securities	5.07	5.51	AA1	22.4%
IG Corporates				
US Corporate	5.37	6.65	A3	24.7%
1-5 Year	5.23	2.53	A3	10.3%
5-10 Year	5.35	6.02	A3	6.7%
10-15 Year	5.51	8.71	A3	1.3%
15+ Year	5.56	13.52	A3	6.4%
Core Plus Fixed Rate Preferred Securities	4.74	6.86	BBB3	0.3%
High Yield				
US High Yield	7.57	3.29	B1	3.8%
1-5 Year US Cash Pay HY	7.75	2.20	B1	2.0%
5-7 Year US Cash Pay HY	7.36	4.04	B1	1.2%
7-10 Year US Cash Pay HY	6.80	5.26	BB3	0.4%
10-15 Year Cash Pay HY	7.58	7.83	BB3	0.0%
15+ Year US Cash Pay HY	7.24	11.25	BB2	0.0%
				100.0%
International				
Global Government Excluding the US	2.34	8.17	AA3	
EM				
Sovereign	7.94	6.87	BB2	
BBB-B Sovereign USD External Debt	6.70	7.07	BB1	
Local Debt Markets Plus Index	6.55	5.93	BBB2	
Emerging Markets Corporate Plus Index	6.46	4.78	BBB2	
Municipals				**% of Muni Market**
Municipals	3.15	6.77	AA3	100.0%
US Municipal Securities	3.02	2.46	AA2	21.7%
1-5 Year US Municipal Securities	2.85	5.00	AA3	19.5%
5-10 Year US Municipal Securities	2.97	6.65	AA3	13.4%
10-15 Year US Municipal Securities	3.39	9.62	AA3	45.5%

Source: ICE Data Indices, LLC . *Effective yield and duration adjust for call options

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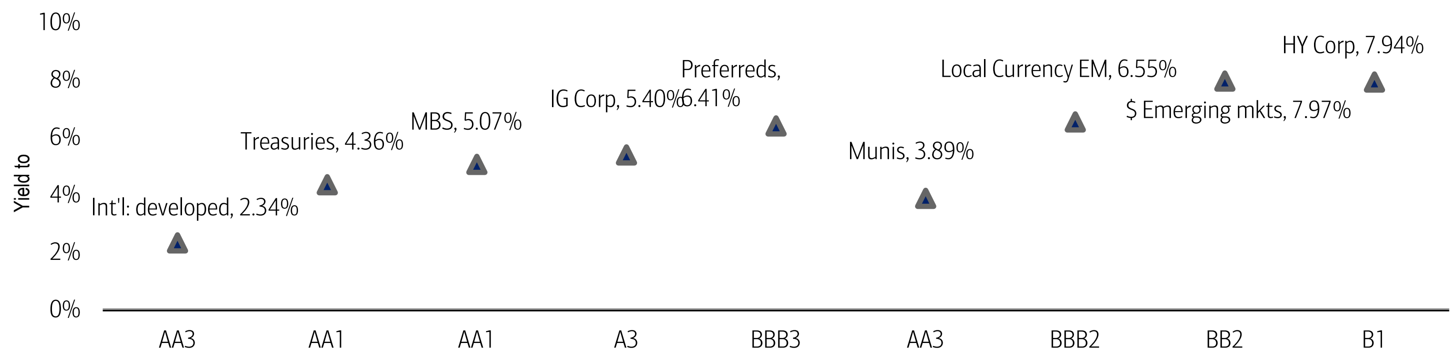
Exhibit 21: Yield to maturity vs. credit rating

Data as of 2/09/2024. The data is showing sector, effective duration, yield-to-maturity



Source: ICE Data Indices, LLC

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Profile of taxable & tax-exempt bond markets

Exhibit 22: Sensitivity of total returns on Treasuries to yield changes. 1-year horizon*
Data As of 2/09/2024. High maturity has high sensitivity to yield changes.

	Change in yield				
Treasury maturity	**-2%**	**-1%**	**0**	**+1%**	**+2%**
2-Year	NA	NA	4.5%	2.6%	0.8%
5-Year	NA	8.7%	4.1%	-0.2%	-4.4%
10-Year	NA	12.7%	4.2%	-3.6%	-10.6%
30-Year	NA	23.2%	4.4%	-10.4%	-22.2%

Source: BofA Global Research. *Approximate total return (income plus price change) over a one-year horizon for the given change in yield. Excludes the effect of rolling down the yield curve.

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Exhibit 23: Sensitivity of total returns on municipals to yield changes. 1-year horizon*
Data As of 2/09/2024. High maturity has high sensitivity to yield changes.

	Change in yield				
Municipal maturity	**-2%**	**-1%**	**0**	**+1%**	**+2%**
2-Year	NA	NA	2.7%	0.8%	-1.0%
5-Year	NA	7.7%	2.4%	-2.2%	-6.5%
10-Year	NA	12.2%	3.2%	-4.8%	-12.2%
30-Year	NA	24.4%	3.6%	-12.7%	-25.4%

Source: BofA Global Research. *Approximate total return (income plus price change) over a one-year horizon for the given change in yield. Excludes the effect of rolling down the yield curve.

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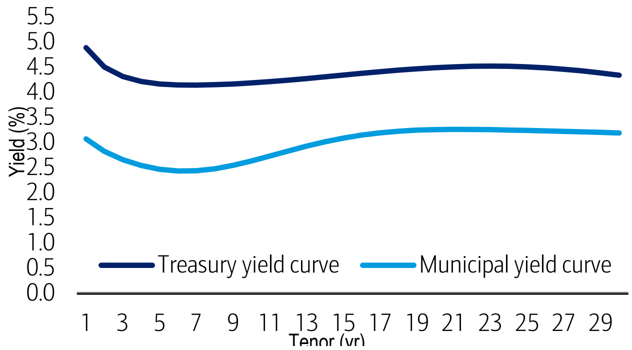
Fixed Income Chartbook

Exhibit 24: Treasury and municipal yield curves (%)

As of 2/09/2024, Treasury and municipal yields by tenor; yields converge at the long end



Source: ICE Data Indices, LLC

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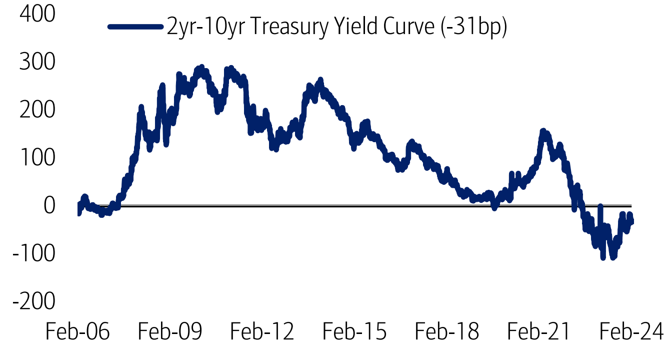
Exhibit 25: Historical 2yr / 10yr Treasury yield spread (bps)

Data as of 2/09/2024.The 2/10yr treasury curve is inverted.



Source: Bloomberg

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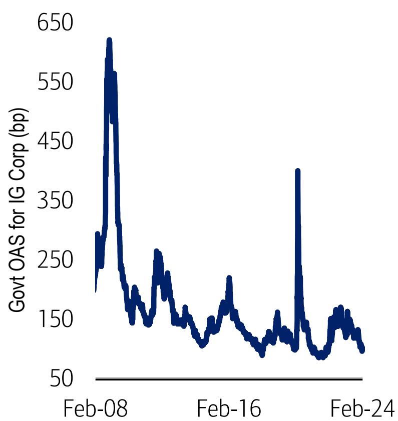
Exhibit 26: IG corporate Govt OAS spreads (bps)

Data as of 2/09/2024; Spreads have tightened this year.



Source: Ice Data Indices, LLC

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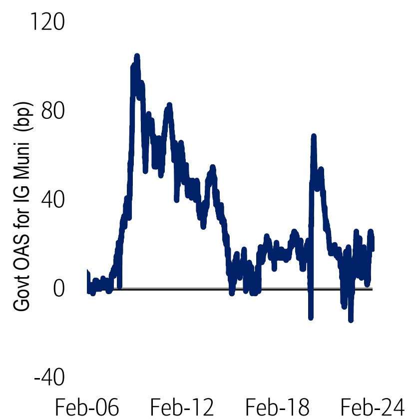
Exhibit 27: IG muni Govt OAS spreads (bps)

Data as of 2/09/2024 Spreads have widened this year



Source: Ice Data Indices, LLC

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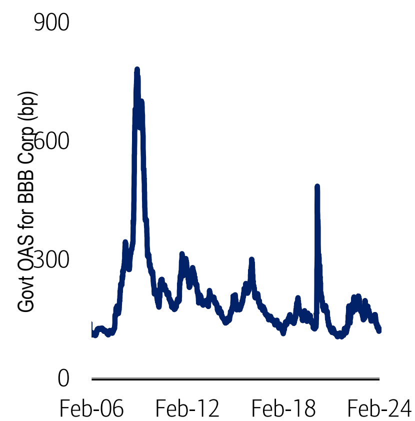
Exhibit 28: BBB corporate Govt OAS spreads (bps)

Data as of 2/09/2024; Spreads have tightened this year



Source: Ice Data Indices, LLC

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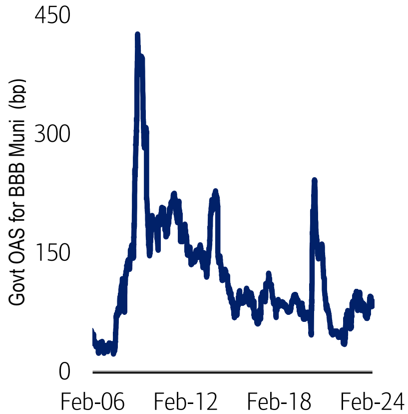
Exhibit 29: BBB muni Govt OAS spreads (bps)

Data as of 2/09/2024; Spreads have tightened this year



Source: Ice Data Indices, LLC

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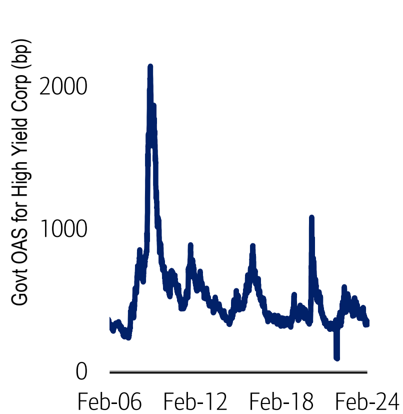
Exhibit 30: High yield corporate Govt OAS spreads (bps)

Data as of 2/09/2024; Spreads have tightened this year



Source: Ice Data Indices, LLC

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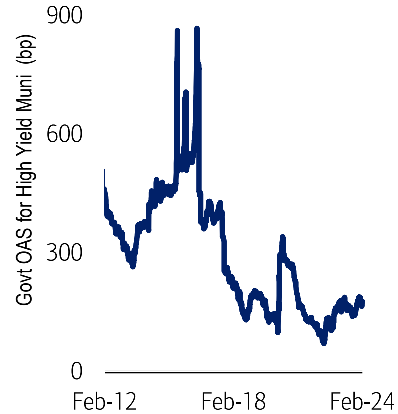
Exhibit 31: High yield muni Govt OAS spreads (bps)

Data as of 2/09/2024; Spreads have widened this year



Source: Ice Data Indices, LLC

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Appendix: common acronyms

Table 1: Common Terminology – Multiple Sectors

Acronyms	Description
Multiple Sectors	
ABCP	Asset-backed commercial paper
AIFM	Alternative Investment Fund Managers
AIFMR	EU financial regulation of hedge funds, private equity, real estate funds and other alternative investment fund managers
ALS	Average Loan Size
AMF	Financial Markets Authority (France)
BaFin	Federal Financial Supervisory Authority (Germany)
BLS	Bureau of Labor Statistics
BPS	Basis points
BWIC	Bid Wanted In Competition
CDR	Constant default rate
CE	Credit Enhancement
CEE	Central and Eastern Europe
CFPB	Consumer Financial Protection Bureau
CLTV	Combined Loan-to-value ratio or Current Loan-to-value ratio
CPR	Constant prepayment rate
CQS	Credit quality step
CRD	Capital Requirements Directive (EU)
CRR	Capital Requirements Regulation (EU)
CRR	Conditional Repayment Rate
CRR	EU prudential regulation for credit institutions and investment firms
DD	Due diligence
DM	Discount Margin
DQ	Delinquency
DTI	Debt-to-Income ratio
EBA	European Banking Authority
EC	European Council (EU)
EComm	European Commission (EU)
EDSF	Euro Dollar Swap FRA
EL	Expected Loss
EP	European Parliament (EU)
ESAs	European Supervisory Authorities (EU)
ESG	Environmental, Social and Governance
ESMA	European Securities Market Authority
EU	European Union
Euribor	European interbank offered rate
FCA	Financial Conduct Authority (UK)
FCF	Front cash flow
Fed or FRB	Federal Reserve Board
FICO	Fair Isaac Corporation
FINRA	Financial Industry Regulatory Authority
FNMA	Federal National Mortgage Association
GDP	Gross domestic product
Ginnie Mae	Government National Mortgage Association
GNMA or GNR	Government National Mortgage Association
HAMP	Home Affordable Modification Program
HARP	Home Affordable Refinance Program
HY	High Yield
IAA	Internal Assessment Approach
IG	Investment grade
IO	Interest-only mortgages or tranches
Multiple Sectors	
ISM	Institute for Supply Management
ITS	Implementing Technical Standards (EU)
JHF	Japanese Housing Finance Agency
LCF	Last cash flow
LGD	Loss Given Default
LIBOR	London Interbank Offered Rate
LTV	Loan-to-value ratio
MBS	Mortgage-Backed Security
MEP	Member of European Parliament (EU)
MoM	Month over Month
NR	Non-rated
NSFR	Net Stable Funding Ratio
N-Spread	Nominal spreads to swaps
NY Fed	The Federal Reserve Bank of New York
OAS	Option-adjusted Spreads
OC	Overcollateralization
OID	Original issue discount
OLTV	Original Loan-to-value ratio
OWIC	Offer wanted in competition
PRA	Prudential Regulation Authority (UK)
QE	Quantitative Easing
QM	Qualified Mortgages
R&W	Representation and warranty
REIT	Real estate investment trust
RTS	Regulatory Technical Standards (EU)
SEV	Severity
SOFR	The Secured Overnight Financing Rate
Solvency II	EU insurance regulation
SONIA	Sterling overnight interbank average rate
SRT	Significant Risk Transfer
SSM	Single Supervisory Mechanism (EU)
STC	Simple Transparent and Comparable Securitisation
STS	Simple Transparent and Standardised Securitisation
TRACE	Trade Reporting and Compliance Engine
UCITS	Undertakings for the Collective Investments in Transferable Securities
UST	United States Treasury
WAC	Weighted average coupon
WAL	Weighted average life
WALA	Weighted average loan age
WAM	Weighted Average Maturity
WAS	Weighted average spread
WAVG	Weighted average
WoW	Week over Week
YoY	Year over Year
YTD	Year to date
YTM	Yield to maturity

Source: BofA Global Research

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Table 2: Common Terminology – Asset Backed Securities (ABS) and Collateralized Loan Obligations (CLO)

.

Acronyms	Description
Asset Backed Securities	
A&C	Agriculture and Construction
ABS	Asset Backed Securities
ABS	Absolute Prepayment Speed
CEU	Container shipping, Cost Equivalent Unit
CNL	Cumulative Net Loss
DPP	Device Payment Plan
ECASLA	The Ensuring Continued Access to Student Loans Act
ED	The Department of Education
EFC	Education Financial Council
FDLP	William D. Ford Federal Direct Loan Program
FFELP	The Federal Family Education Loan Program
HEA	Higher Education Act of 1965, as amended
IBR	Income based repayment
IDR	Income driven repayment
MPR	Monthly payment rate
NCHER	The National Council of Education Resources
PAYE	Pay As You Earn
REPAYE	Revised Pay As You Earn Plan
RV	Residual value (auto lease / loan)
SAARS	Seasonally adjusted annual rate
TEU	Container shipping, Twenty Foot Equivalent Unit
TIVAS	Title IV Additional Servicers
VT	Voluntary Termination (auto loan by borrower)
WBS	Whole business securitization
YSOC	Yield Supplement Overcollateralization

Acronyms	Description
Collateralized Loan Obligations	
A to E	Amend to extend
AMA	Asset manager affiliate
AUM	Assets under management
BDC	Business development company
BSL CLO	CLO backed primarily by broadly syndicated loans
CBO	Collateralized bond obligation
CDO	Collateralized debt obligation
CLO	Collateralized loan obligation
CMV	Capitalized management vehicle
Cov-Lite	Covenant-lite
CQT	Collateral quality tests
DIV	Diversity Score
EBITDA	Earnings before interest, tax, depreciation and amortization
ELLI	European Leveraged Loan Index
EOD	Event of default
IC	Interest coverage
ID	Interest diversion
IPO	Initial public offering
IRR	Internal rate of return
JR OC	Junior overcollateralization
LBO	Leveraged buyout
Liquidation NAV	NAV assuming portfolio can be liquidated immediately at its market value without any additional costs
LLI	Leveraged loan index
LTM	Last-twelve-months
M&A	Mergers and acquisitions
MM CLO	CLO backed primarily by middle-market loans
MOA	Majority owned affiliate
MVOC	Market value overcollateralization
NAV	Net asset value
O&G	Oil and gas
PIK	Payment in kind
PPT	Portfolio profile tests
RCF	Revolving credit facility
RP	Reinvestment Period
RR	Risk retention
SME	Small and medium enterprise
SR OC	Senior overcollateralization
TLA	Term loan A
TLB	Term loan B
TRUPS	Trust preferred securities
WAP	Weighted average price
WARF	Weighted average rating factor
WARR	Weighted average recovery rate
WAS	Weighted average spread

Source: BofA Global Research

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Table 3: Common Terminology – Commercial Mortgage Backed Securities (CMBS)

.

Acronyms	Description
Commercial Mortgage Backed Securities	
ACLI	American Council of Life Insurers
ADR	Average Daily Rate
ARA	Appraisal Reduction Amount
ARD	Anticipated Repayment Date
ASERs	Appraisal Subordinate Entitlement Reductions
Cap Rate	Capitalization rate
CapEx	Capital Expenditure
CBD	Central Business District
CMBS	Commercial mortgage backed security
CPY	Constant Prepayment Yield
CRE	Commercial real estate
Def	Defeasance
DSCR	Debt service coverage ratio
DUS	Fannie Mae delegated underwriting and servicing
DY	Debt yield
ERV	Estimated Rental Value
Fannie Mae GeMs	Fannie Mae Guaranteed Multifamily Structures
FRESB	Freddie Mac Small Balance Mortgage Transactions
Freddie K	Freddie Mac K deals
FT IO	Full term interest only loan
GFC	Global Financial Crisis
GLA	Gross Leasing Area
GSA	Green Street Advisors
HT	Hotel
IN	Industrial
L/O	Lockout
LC	Leasing Commissions
MCAS	Multifamily Connecticut Avenue Securities
Mezz	Mezzanine tranche
MF	Multifamily
MH	Manufactured Housing
MP3	Monetary Policy 3
MR	Most Recent
MX	Mixed Use
MU	Mixed Use
NAV	Net Asset Value
NCF	Net cash flow
NCREIF	National Council of Real Estate Investment Fiduciaries
NOI	Net operating income
OF	Office
OMV	Open Market Valuation
PL CMBS	Private Label CMBS
PT IO	Partial term interest only loan
RCA	Real Capital Analytics
RevPar	Revenue Per Available Room
RT	Retail
SASB	Single asset/single borrower
SBA	Small Business Administration
SBIC	Small Business Investment Company
SBL	Small balance loan
PSF	Per Square Foot
SH	Senior Housing
SPE	Special purpose entity
SS	Special Servicing
SS (Property Type)	Self-storage
TI	Tenant Improvements
TIC	Tenant-In-Common
UW	Underwriting/Underwritten
WAM	Weighted average maturity
WL	Watchlist
YM	Yield maintenance

Source: BofA Global Research

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Table 4: Common Terminology – Agency MBS

.

Acronyms	Description
Agency MBS	
AFS	Available-for-sale
AOCI	Accumulated other comprehensive income
AOLS	Average original loan size
ARM	Adjustable-rate mortgage
BU/BD	Buy-up/Buy-down
CBR	Constant buyout rate
CC	Current coupon rate
CMO	Collateralized mortgage obligation
CPR	Cumulative prepayment rate
CSP	Common Security Platform
CSS	Common Securitization Solutions
EHS	Existing home sales
FG	Freddie Gold security (typically followed by a two-letter code: LMC, CI, etc.)
FHA	Federal Housing Administration
FHFA	Federal Housing Finance Agency
FHLB	Federal Home Loan Bank
FHLMC	Federal Home Loan Mortgage Corporation
FLS	Funding for Lending Scheme (FLS)
FN	Fannie Mae security (typically followed by a two-letter code: CL, CI, etc.)
FRM	Fixed-rate mortgage
GEO	Mortgages by state
G-Fee	Government-sponsored entity fee
GN, G2	Ginnie Mae security (typically followed by a two-letter code: SF, JO, etc.)
GSE	Government-sponsored entity
GWAC	Gross-weighted average coupon
HAC	Hedge-adjusted carry
HARP	Home Affordable Refinance Program
HECM	Home equity conversion mortgage
HELOC	Home equity line of credit
HERA	Housing and Economic Recovery Act of 2008
HFA	Housing Finance Authority
HLB	High loan balance MBS
HPA	Home price appreciation
HPI	Home price index
HTB	Help-to-Buy scheme
HQLA	High-quality liquid assets
HR	Hedge ratio
HTM	Held-to-maturity
HY CDX	High yield credit default swap index
IIO	Inverse interest-only securities
IO	Interest-only
IOS	Interest-only swap
IG CDX	Investment grade credit default swap index
JPY	Japanese Yen
LCR	Liquidity coverage ratio
LLB	Low loan balance MBS
MBS	Mortgage Backed Securities
LLPA	Loan-level pricing adjustment
MBA	Mortgage Bankers Association
MHA	Making Home Affordable program
MIP	Mortgage insurance premium
MLB	Mid loan balance MBS
MMI	Mutual Mortgage Insurance

Acronyms	Description
Agency MBS	
MPE	Mortgage payment to earnings ratio
mREIT	Mortgage real-estate investment trust
MSR	Mortgage servicing rights
NHS	New home sales
NTB	Net tangible benefit
OC	Overcollateralisation
OO	Owner-occupied
P/S spread	Primary/Secondary spread
PAC	Planned Amortization Class CMO
PIH	Office of Public and Indian Housing
PIW	Property Inspection Waiver
PLS	Private label security
PMI (or MI)	Private mortgage insurance
PMMS	Primary mortgage market survey rate
PO	Principal-only MBS
PSA	Public Securities Association
PT	Passthrough MBS
RELO	Relocation loan
RESPA	Real Estate Settlement Procedures Act
RF	Reserve Fund
RHS	Rural Housing Service
RMBS	Residential mortgage-backed security
RRP	Reverse repurchase agreement
SATO	Spread at origination
SCRT	Seasoned Credit Risk Transfer Trust
SEQ	Sequential CMO
SLR	Supplementary leverage ratio
SMM	Single monthly mortality
TAC	Targeted Amortization Class CMO
TBA	To be announced securities
TFS	Term Funding Scheme (UK)
TIC	Treasury International Capital System
TILA	Truth in Lending Act
TRID	TILA/RESPA integrated disclosure
UMBS	Uniform MBS
USD	United Stated Dollar
USDA	United States Department of Agriculture
VA	Veterans Affairs
VADM	Very Accurately Defined Maturity CMO
VPR	Voluntary prepayment rate
ZVOAS	Zero-volatility option-adjusted spreads

Source: BofA Global Research

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Table 5: Common Terminology – Non-agency MBS

.

Acronyms	Description
Non-agency MBS	
5/1 ARM	Loan has a fixed interest rate for the first 5 years. After 5 years, the rate can change once every year for the remaining life of the adjustable-rate mortgage
60+	60 or more days delinquent
90+	90 or more days delinquent
AC	Always Current
ATR	Ability to Repay
CAS	Connecticut Avenue Securities
CBDB	Current but delinquent before
C-D	Current-to-delinquent roll rate
CRT	Credit Risk Transfer
Cum Default	Cumulative Default
Cum Loss	Cumulative Loss
Cum prepay	Cumulative Prepayment
D180	Delinquent for 180 days or more
ERR	Enhanced Relief Refinance program
FCLR	Foreclosure
FRM	Fixed rate mortgages
FstBuy	First time home buyer
HOA	Hybrid Option ARM
Home Eq	Home Equity Loans or Subprime Loans
HUD	United States Department of Housing and Urban Development
ILN	Insurance Linked Note
LTD Loss	Loss to date
MILN	Mortgage Insurance Linked Note
NAIC	National Association of Insurance Commissioners
Neg am	Negative amortization
NIW	New insurance written
Non-agency RMBS	Non-agency residential mortgage backed securities
Non-QM	Non-Qualified Mortgages
NPL	Non-performing loans (securities or loans)
PMIERs	Primary Mortgage Insurer Eligibility Requirements – requirements set by Fannie Mae and Freddie Mac to insure loans acquired by either GSE
POA	Pay Option ARM
REMIC	Real Estate Mortgage Investment Conduit
REO	Real estate owned
ReREMIC	Resecuritization of real estate mortgage investment conduits
RIF	Risk in Force
RPL	Re-performing loans (securities or loans)
SA	Servicer Advance
SFR	Single Family Rental Securitizations
SLST	Freddie Mac Seasoned Loan Structured Transaction
STACR	Freddie Mac Structured Agency Credit Risk debt notes
VPR	Voluntary Prepayment Rate
XoL	Excess of Loss reinsurance

Source: BofA Global Research

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