

US Rates Watch

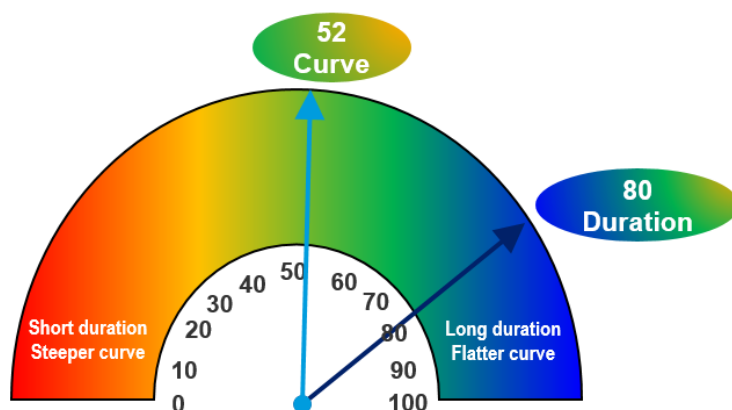
Long covering meets dip buying

Longs remain vulnerable

While futures data and CTA models show long covering on the week, positioning overall remains long and vulnerable, particularly further out the curve. This suggests more of a bear-steepening bias should these positions come off. We also saw strong fund inflows to take advantage of higher yields and Japanese investors come in to buy foreign bonds. UST flows overall show this mix of stretched long positioning and real money buying.

Exhibit 1: Curve-o-meter

Positioning for curve is mixed and duration tilts long



Source: BofA Global Research, Note: dials show 5y percentiles for the average non-commercial ex leverage funds & proxy of futures positioning for duration and the average of CTA betas and our proxy for futures positioning for the curve.

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Futures positioning points to bear steepening bias

Open interest contracted the week ending last Thursday with both shorts and longs destroyed in the front end and belly of the curve. Longs remain the predominant out of the money position at the backend (Exhibit 11), especially in TY and US which show the largest bias to selloff (Exhibit 12). TU and FV show a much smaller concentration of out of the money longs, which were largely closed out over the past week. Overall, this indicator (for construction details see: [Gauging positioning in Treasury Futures](#)) points to more of bear-steepening bias on the curve.

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

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UST= Treasury security

CTA= Commodity trading advisor

OTM= out of the money

ITM=in the money

TIC=Treasury International Capital

QT= quantitative tightening

MoF= ministry of finance

RRP = reverse repo program

SFR = SOFR futures contract

TU = Treasury 2Y futures contract

FV = Treasury 5Y contract

TY = Treasury 10Y contract

UXY = Treasury ultra 10Y contract

US = Treasury 20Y contract

WN = Treasury 30Y contract

TGA= Treasury General Account

TR FI funds = Total return fixed income funds

PPTS = percentage points

JGB = Japanese government bonds

FoF = flow of funds

DB = defined benefit

CTAs reduce longs from elevated levels

Consistent with the turn in macro momentum, CTAs reduced long positions on the week. Our model shows that CTA beta to long rates fell by the greatest extent in the last two weeks since August (Exhibit 15). Our top down and bottoms up signals (see: [CTA impact on the rates market](#)) both still suggest that CTAs have room to reduce longs should momentum continue to move shorter (Exhibit 13). Short- and long- bond betas are roughly the same, suggesting that CTAs remain neutral on the curve (Exhibit 14).

Asset managers also reduce longs

CFTC data for the week ending Feb 13th showed a notable reduction in asset manager longs, to the greatest extent in TY (Exhibit 7). Consistent with this, leveraged hedge funds moderated their short position, most notably in TY. Speculative positioning ex-leveraged hedge funds retreated to the 80th percentile over the last 5 years (Exhibit 8).

Japanese investors show dip buying

TIC data for December adjusted for change in valuation showed about \$24bn in buying from foreign private investors and \$3bn in selling from the official sector. By region, China + Belgium, UK, and Hong Kong were the largest buyers while Cayman, Japan, and Lux were the largest sellers (Exhibit 30). The inflow from China + Belgium was a divergence from the notable amount of selling observed over 2023, and was likely supported by a weaker dollar in December. The selling from Japan diverged from MoF data which showed small net buying from private investors; this in aggregate suggests that much of the selling stemmed from the official sector.

MoF data for the week ending February 9th showed \$10bn in Japanese buying of foreign bonds (Exhibit 27). This indicates dip buying from Japanese investors, like banks (Exhibit 36), but does not directly reflect USTs as the data includes spread products and other sovereign bonds. Foreign official holdings of USTs increased by around \$7bn which was offset by a similar decline in foreign repo pool usage (Exhibit 34), suggesting that the uptick did not reflect a net buying flow.

Strong inflows alongside selloff

US fixed income funds saw strong inflows, led by mixed allocation funds. UST funds also saw positive inflows apart from short-term funds (Exhibit 37). We would expect higher yield levels would continue to see better fund inflows (Exhibit 42).

On an AUM-weighted basis, total return fixed income funds saw performance roughly in line with the benchmark alongside the rate selloff (Exhibit 44). The two best performers, BlackRock Strategic Income and PIMCO Income Fund have also been the best performers over the last four weeks. These funds also run some of the largest underweight UST allocations according to Q4 filings (Exhibit 47). Excess return correlations continue to suggest a retreat in duration adds, as correlations to change in 10y rate are off the early January lows (Exhibit 48).

Exhibit 2: On deck next week

Calendar of upcoming events

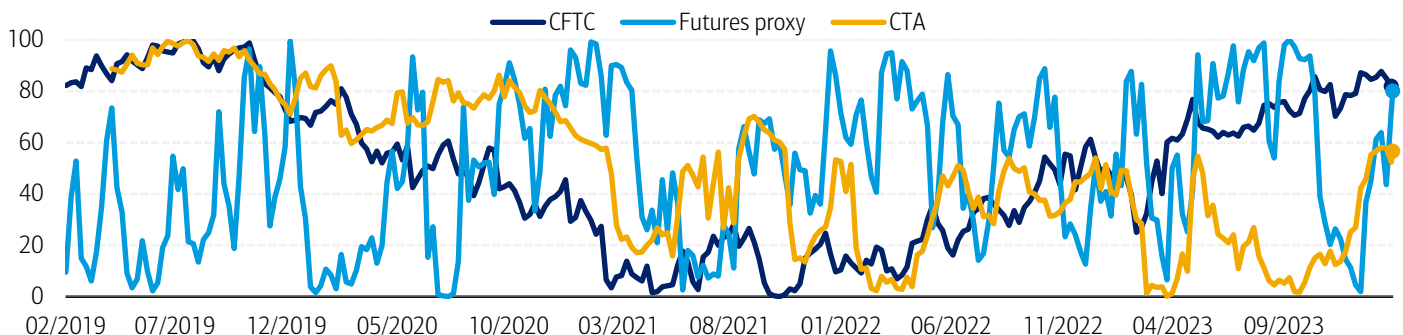
	US Data			Fed Speaker / Event	Treasury Auction			Treasury Settlements	
	Series	BofA	BB Consensus		Security	Amount (\$bn)	Prior Δ	Security	Amount
M, Feb 19									
Tu, Feb 20					13-week bills	79		Bills	24
					26-week bills	70			
					52-week bills	46			
					42-day bills	80			
W, Feb 21	MBA Mortgage Applications	-	-	8:00 Fed's Bostic (voter) Gives Welcoming Remarks	17-week bills				
	FOMC Meeting Minutes	-	-	14:00 FOMC Meeting Minutes	20-year bonds				
Th, Feb 22					1-year 11-month FRNs	28			
	Initial Jobless Claims	215k	-	10:00 Fed's Jefferson (voter) to Give Speech, Q&A	4-week bills			Bills	34
	S&P Global US manufacturing PMI	50	50.1	14:00 Fed's Harker Speaks on Economic Outlook	8-week bills				
	S&P Global US services PMI	53	52	17:00 Fed's Cook (voter) Speaks at Macrofinance Conference	30-year TIPS				
	Existing Home Sales	3.95M	3.97M	17:00 Fed's Kashkari Participates in Panel Discussion on Outlook					
F, Feb 23								Coupons	28

Source: BofA Global Research, Bloomberg, US Treasury

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Positioning indicators**Exhibit 3: 5y percentile of 10 equivalent duration positioning (percentile: higher = longer)**

Futures positioning proxy shows mixed bias, CFTC data adjusted for LFs is long, top down CTA model shows positioning is more neutral

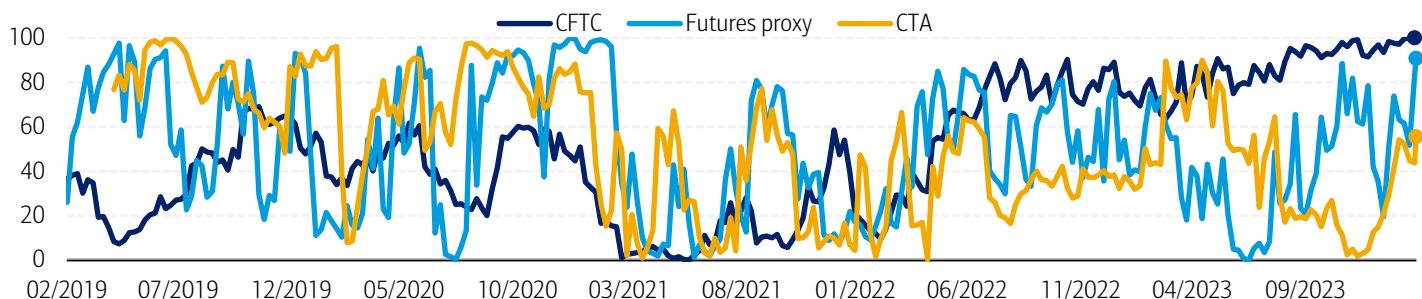


Source: BofA Global Research

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Exhibit 4: 5y percentile of curve positioning (percentile: higher = longer back-end relative to front end)

CTAs & futures positioning proxy show no clear curve bias, CFTC AMs have longs further out curve



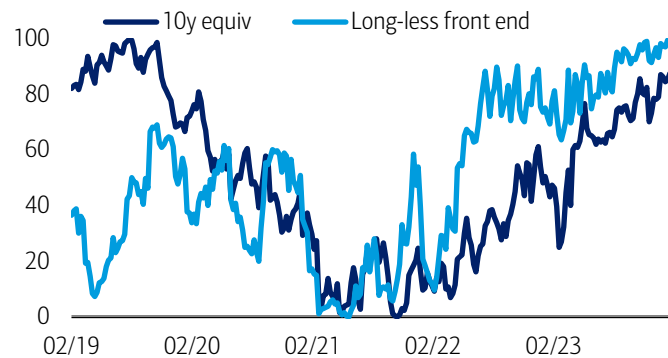
Source: BofA Global Research

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Exhibit 5: 5y percentile of non-commercial ex LF positioning

Positioning is historically long and largely concentrated at the back-end

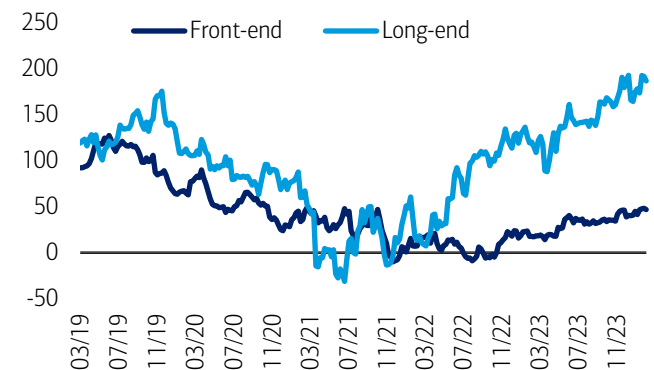


Source: BofA Global Research, Bloomberg

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Exhibit 6: Non-commercial ex leveraged fund positioning (\$bn, 10y equivalent)

Longs are more concentrated in the back-end

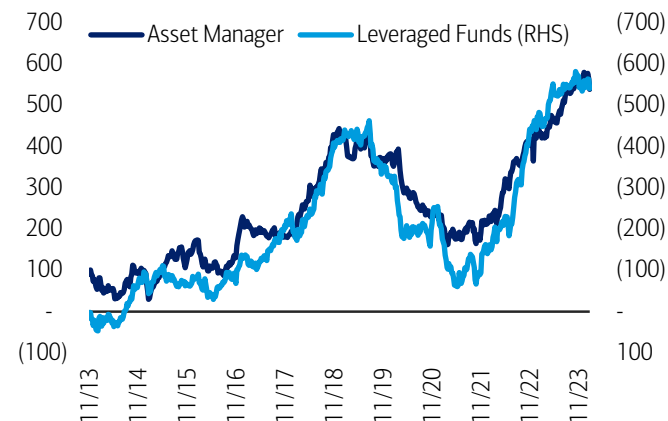


Source: BofA Global Research, Bloomberg

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Exhibit 7: Asset manager and leveraged fund positioning (10y equivalent, \$bn)

Asset manager longs correspond with leveraged fund shorts

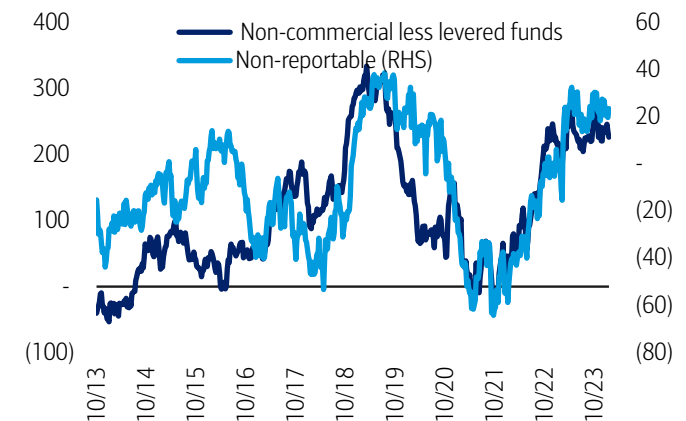


Source: BofA Global Research, Bloomberg

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Exhibit 8: Non-commercial ex LFs and non-reportable positioning (10y equivalent, \$bn)

Directional positions trend together



Source: BofA Global Research, Bloomberg

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Exhibit 9: 10y rate change for given percentile of non-commercial ex-Leveraged fund positioning (higher percentile = longer)

Positioning is a momentum signal: longer positioning is usually followed by stronger 10y performance

	0	1w	4w	8w	12w	16w
0 to 10	10	1	-1	0	1	2
10 to 20	20	2	4	4	3	4
20 to 30	30	5	2	2	2	4
30 to 40	40	2	5	5	4	4
40 to 50	50	0	0	0	1	1
50 to 60	60	1	0	0	0	0
60 to 70	70	1	0	1	1	1
70 to 80	80	-1	-1	-2	-3	-3
80 to 90	90	-4	-4	-3	-3	-5
90 to 100	100	-1	-1	-2	-1	-2

Source: BofA Global Research, Bloomberg, average performance calculated over last 5y

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Exhibit 10: 10y rate change for given percentile of leveraged fund positioning (higher percentile = longer)

Positioning is contrarian signal: shorter positioning is usually followed by stronger 10y performance

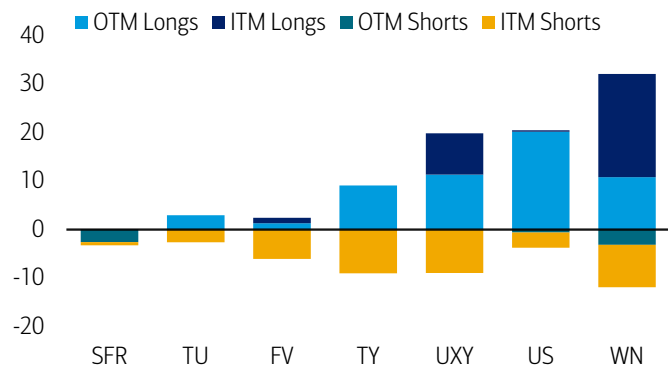
	0	1w	4w	8w	12w	16w
0 to 10	10	0	0	-2	-3	-3
10 to 20	20	3	3	3	3	4
20 to 30	30	-2	-4	-2	-2	-2
30 to 40	40	-3	-2	-3	-3	-4
40 to 50	50	-4	-3	-4	-4	-5
50 to 60	60	4	4	4	2	2
60 to 70	70	4	1	2	3	4
70 to 80	80	3	4	4	3	5
80 to 90	90	2	4	4	4	5
90 to 100	100	-1	-2	-1	0	0

Source: BofA Global Research, Bloomberg, average performance calculated over last 5y

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Exhibit 11: Proxies for futures positioning

On the week, longs are mixed in WN but largely moving OTM, while shorts are mostly ITM

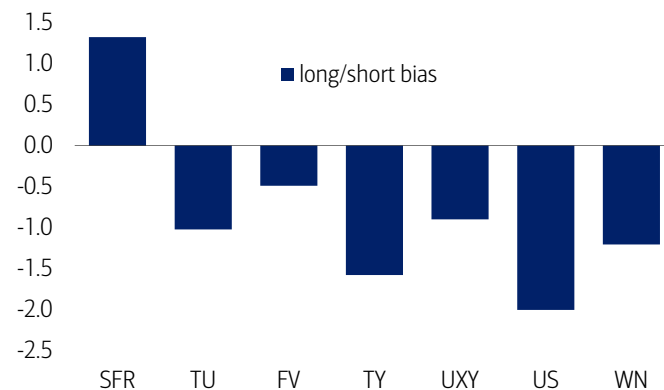


Source: BofA Global Research, Bloomberg

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Exhibit 12: Analysis of proxies for futures positioning

Bias is for rates to sell off except in SFR

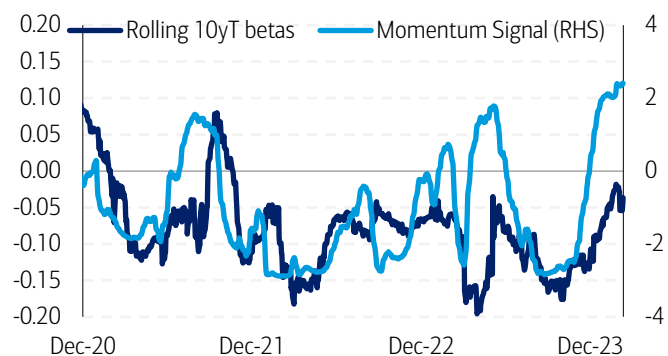


Source: BofA Global Research, Bloomberg. Note: reflects average positioning of futures stack over last 5 days

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Exhibit 13: CTA positioning in 10yT

On the week, momentum signal stalled, CTAs covered shorts

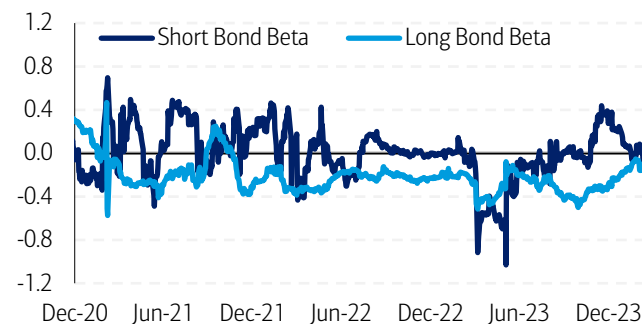


Source: BofA Global Research

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Exhibit 14: CTA positioning in longer duration and shorter duration bonds

Top-down model suggests CTAs close to neutral at the front-end

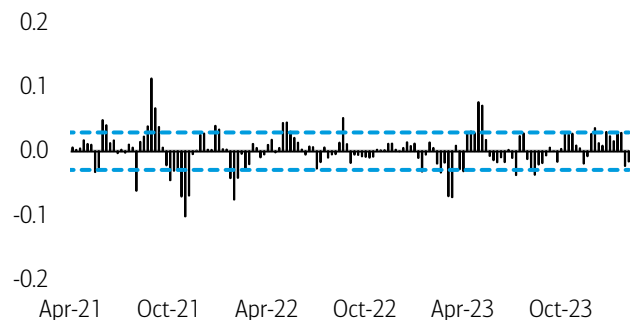


Source: BofA Global Research

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Exhibit 15: Changes in CTA 10yT beta

Change in 10y beta was negative on the week

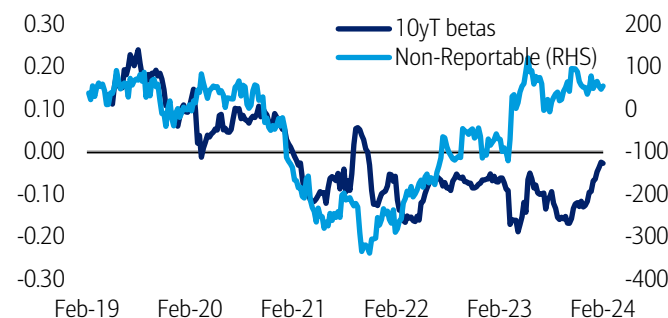


Source: BofA Global Research

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Exhibit 16: CTA 10y TSY beta and non-reportable positions

Strong divergence between non-reportable position and top-down model, which tends to be lagged



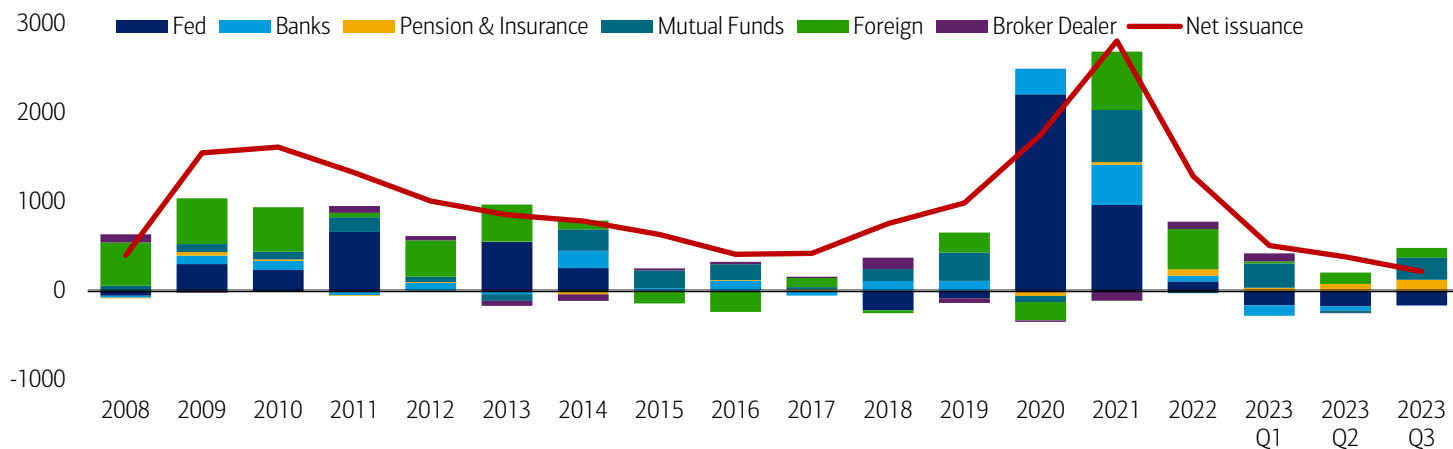
Source: BofA Global Research, Bloomberg

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Flow of funds

Exhibit 17: Large Treasury investor demand & coupon issuance (\$bn)

Mutual funds, foreign investors, pension & insurance were the largest buyers in Q3

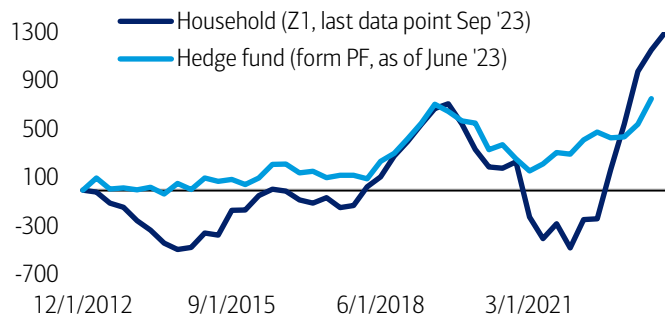


Source: BofA Global Research, Federal Reserve. Note: only reflects real money categories from flow of funds that generally invest in Treasury coupon securities, excludes households. Net issuance is coupon supply excluding Fed flows, which are shown as negative for periods where Fed is reducing size of its balance sheet

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Exhibit 18: Change in UST holdings (\$bn)

Hedge funds UST holdings increased last year based on Flow of Funds data and form PF

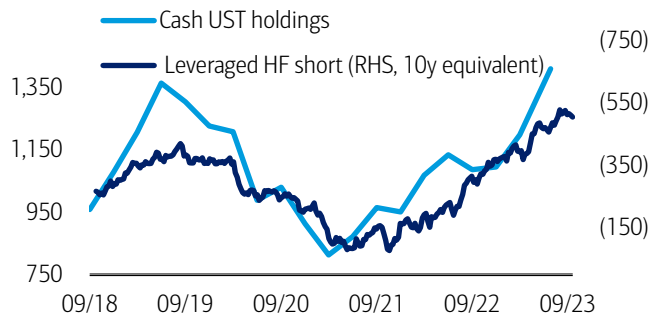


Source: BofA Global Research, Federal Reserve

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Exhibit 19: Hedge fund cash UST holdings vs leveraged fund shorts (\$bn)

Form PF confirms that cash long has grown alongside futures short



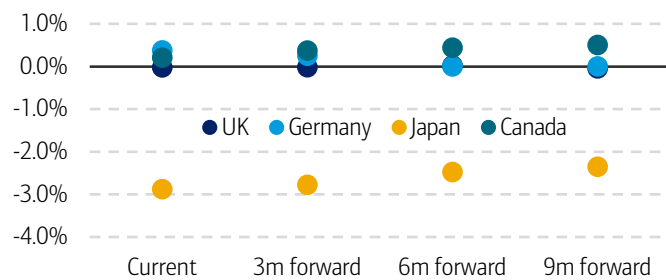
Source: BofA Global Research, Federal Reserve, Bloomberg

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FX hedged pickup and foreign flows

Exhibit 20: FX hedged pickup of TSYs vs local alternatives implied by forwards

Market pricing suggests improved environment for FX hedged carry trades in TSYs

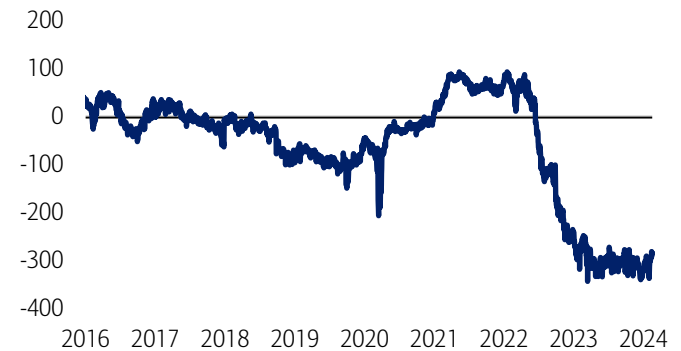


Source: BofA Global Research, Bloomberg. Note: pickup vs 10y local alternative except Japan which is relative to 20y JGB using 3m forward FX hedge

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Exhibit 21: 10Y UST pickup to 20Y JGB, with 3m fx hedge (bps)

10y TSY now offer very negative hedged pickup vs 20y JGBs

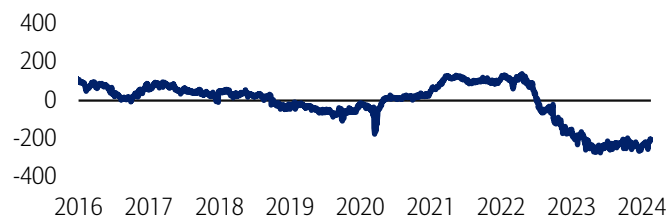


Source: BofA Global Research, Bloomberg

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Exhibit 22: 10Y UST pickup to 10Y JGB, with 3m fx hedge (bps)

10y TSY now offer very negative hedged pickup vs 10y JGBs

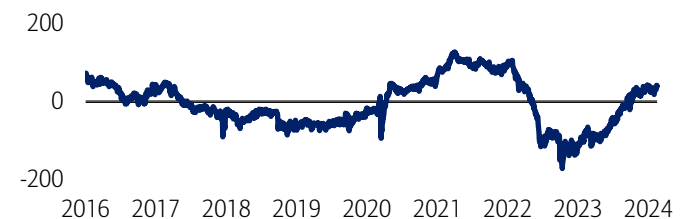


Source: BofA Global Research, Bloomberg

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Exhibit 23: 10Y UST pickup to 10Y Bund, with 3m fx hedge (bps)

10y TSY offers now offer slight positive pickup vs 10y Bund

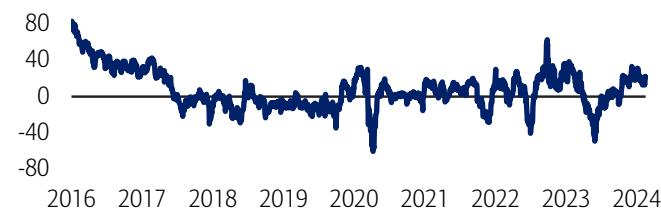


Source: BofA Global Research, Bloomberg

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Exhibit 24: 10Y UST pickup to 10Y CAD govie, with 3m fx hedge (bps)

10y TSY hedged pickup improved to 10y CAD gov bond

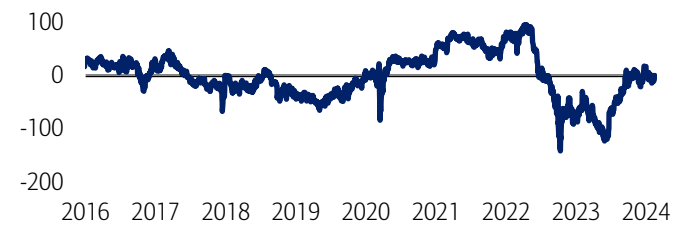


Source: BofA Global Research, Bloomberg

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Exhibit 25: 10Y UST pickup to 10Y Gilt, with 3m fx hedge (bps)

10y TSY offers flat pickup vs gilts



Source: BofA Global Research, Bloomberg

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Exhibit 26: 3m rolling JPY currency hedge

From the perspective of Japanese investor, pickup is negative across all regions

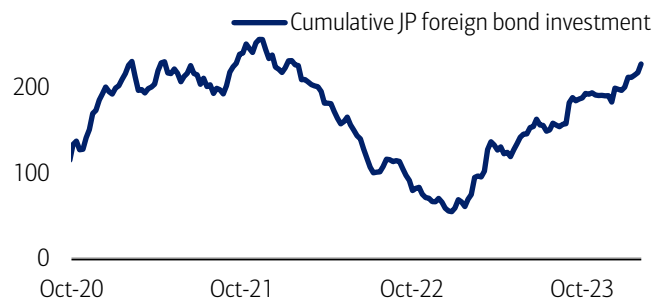
	2/15/2024		As of 1 wk ago		As of 1 mo ago		As of 1 yr ago	
	Pickup to 10y JGB	Pickup to 20y JGB	Pickup to 10y JGB	Pickup to 20y JGB	Pickup to 10y JGB	Pickup to 20y JGB	Pickup to 10y JGB	Pickup to 20y JGB
10y UST	-2.09%	-2.88%	-2.13%	-2.93%	-2.21%	-3.02%	-1.75%	-2.53%
10y GER	-2.46%	-3.25%	-2.43%	-3.22%	-2.51%	-3.32%	-0.99%	-1.77%
10y FRA	-1.98%	-2.77%	-1.92%	-2.71%	-2.03%	-2.84%	-0.53%	-1.31%
10y BEL	-1.88%	-2.66%	-1.81%	-2.60%	-1.89%	-2.69%	-0.43%	-1.21%
10y ITA	-0.98%	-1.77%	-0.86%	-1.66%	-0.99%	-1.80%	0.85%	0.07%
10y SPA	-1.55%	-2.34%	-1.45%	-2.25%	-1.62%	-2.42%	-0.04%	-0.81%
10y UK	-2.07%	-2.86%	-2.03%	-2.82%	-2.21%	-3.02%	-1.31%	-2.09%
10y CAN	-2.35%	-3.14%	-2.30%	-3.09%	-2.38%	-3.19%	-1.95%	-2.73%

Source: BofA Global Research, Bloomberg

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Exhibit 27: Japan investment in foreign bonds, cumulative weekly (\$bn)

Long & medium term bonds (\$bn) holdings increased on the week

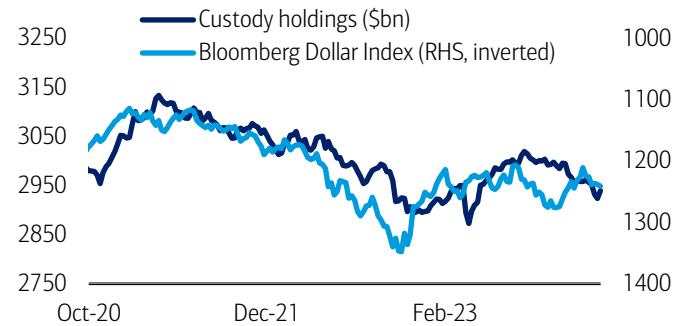


Source: BofA Global Research, Bloomberg

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Exhibit 28: Foreign custody holdings and USD

Custodial holdings picked up alongside weaker USD

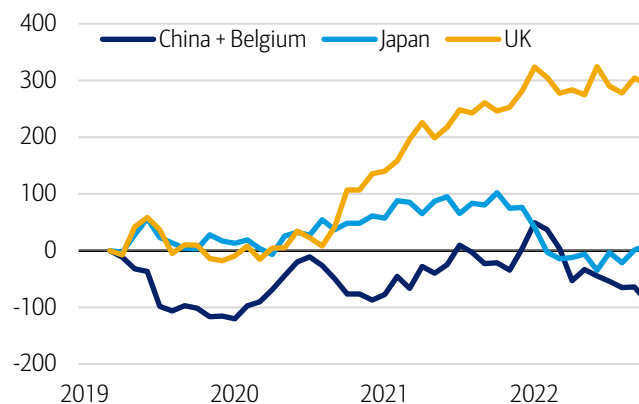


Source: BofA Global Research, Bloomberg

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Exhibit 29: Cumulative UST flows from foreign investors (\$bn)

China + Belgium have turned to net sellers since end of '22, Japan roughly flat after selling last year

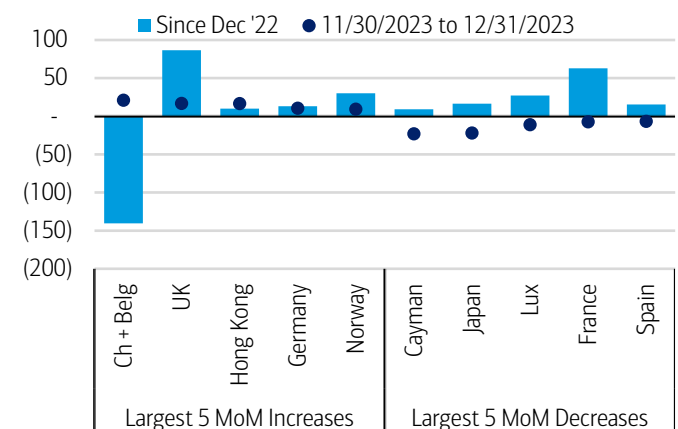


Source: BofA Global Research, Bloomberg, TIC, note: references the valuation-adjusted flow

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Exhibit 30: Largest MoM changes in foreign TSY holdings (\$bn)

China + Belgium were the largest buyer, Cayman the largest seller in December

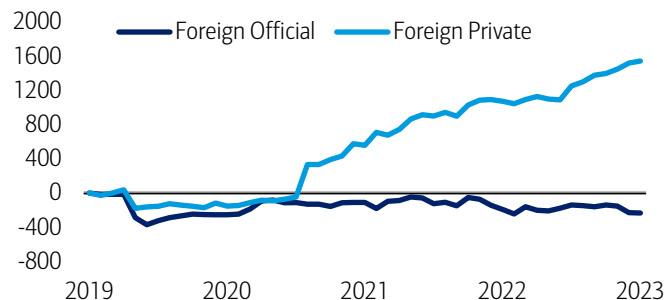


Source: BofA Global Research, TIC, Note: adjusted for level of rates

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Exhibit 31: Cumulative UST flows from foreign investors (\$bn)

While official UST holdings have declined in recent years, foreign private investors have more than offset



Source: BofA Global Research, Bloomberg, TIC, note: references the valuation-adjusted flow

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Exhibit 32: Foreign buyers and sellers of USTs in 2023 (\$bn)

Foreign demand from private investors was strong in 2023, while China and Belgium were the largest regional sellers

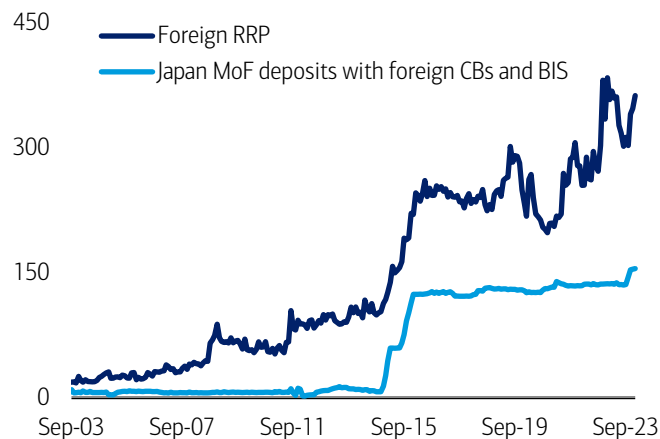


Source: BofA Global Research, Note: TIC data YTD through August adjusted for valuation

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Exhibit 33: Japanese deposits with other central banks and Fed foreign repo pool (\$bn)

Vast majority of \$154bn in MoF deposits likely at Fed's foreign repo pool

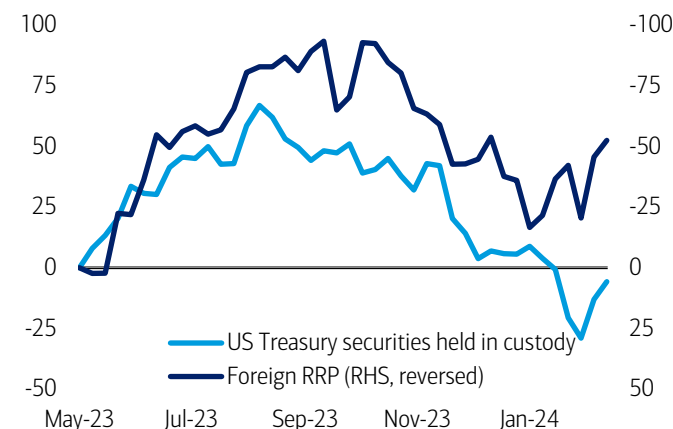


Source: Japan MoF, Federal Reserve, Bloomberg

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Exhibit 34: Cumulative change in custody holdings and foreign RRP since May 2023 (\$bn)

Custody holdings flat and RRP increased on the week



Source: BofA Global Research, Federal Reserve, Bloomberg

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Exhibit 35: Monthly change in Japanese investor foreign bond holdings (\$USD, bn)

Banks were largest buyers in January

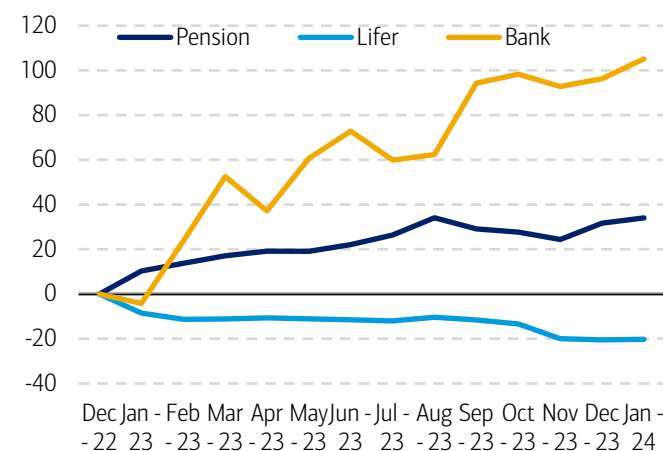
	Pension	Lifer	Bank
Jan - 24	2.4	0.3	8.9
Dec - 23	7.3	-0.5	3.5
Nov - 23	-3.3	-6.6	-5.5
Oct - 23	-1.4	-1.8	4
Sep - 23	-5	-1.2	31.9
Aug - 23	7.7	1.6	2.5
Jul - 23	4.3	-0.5	-12.9
Jun - 23	3	-0.4	12.1
May - 23	-0.1	-0.4	23.5
Apr - 23	2.1	0.5	-15.3
Mar - 23	3.4	0.1	28.8
Feb - 23	3.4	-2.8	27.9
Jan - 23	10.3	-8.5	-4.2

Source: BofA Global Research, Japanese MoF

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Exhibit 36: Cumulative change in Japanese investor foreign bond holdings (\$USD, bn)

Banks were the largest buyers in 2023



Source: BofA Global Research, Japanese MoF

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Fund flows and returns

Exhibit 37: US fixed income fund flows (\$million)

On the week, outflows were modest; US FI funds saw inflows driven by mixed allocation, gov long & corp IG funds

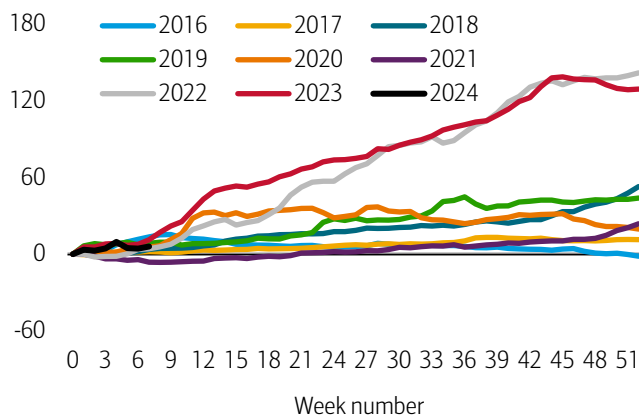
	2/14/2024	Rolling 4w average	Rolling 8w average	Rolling 12w average	Rolling 52w average
Gov: short	(19)	(1,134)	(266)	(982)	792
Gov: intermediate	304	365	458	212	325
Gov: long	1,360	1,169	627	652	1,267
Corp: IG	1,260	310	1,886	1,407	402
Corp:HY	193	738	537	711	90
Corp: all quality	53	69	80	84	46
MBS	527	335	274	199	272
Inflation	(225)	(198)	(195)	(493)	(410)
Muni	3	394	248	138	(55)
Mixed allocation	5,062	5,126	3,962	2,891	2,163
All US FI	8,264	6,980	7,498	4,781	4,568

Source: BofA Global Research, EPFR

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Exhibit 38: Sovereign fund inflows by year (\$bn)

Flows on the week picked up

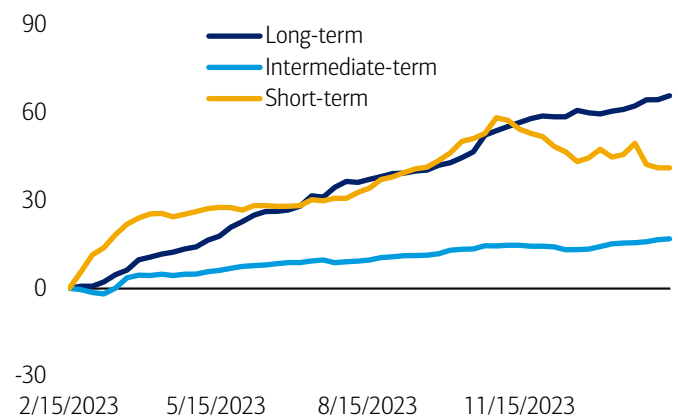


Source: BofA Global Research, EPFR

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Exhibit 39: Sovereign inflows by tenor (\$bn)

Inflows have been concentrated in long-term and short-term funds, inflows in short-term funds has declined since Nov last year

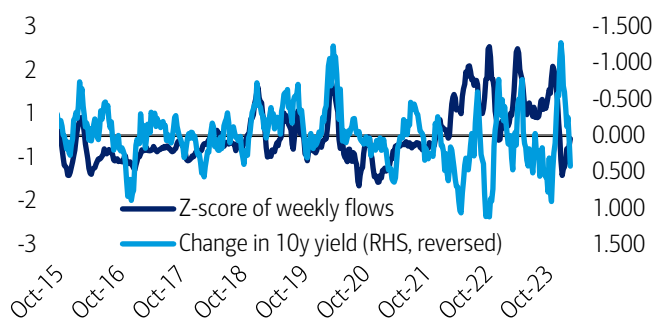


Source: BofA Global Research, EPFR

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Exhibit 40: Fund flows and rate change (Z-score)

Fund flows recently have been historically strong alongside rates rally

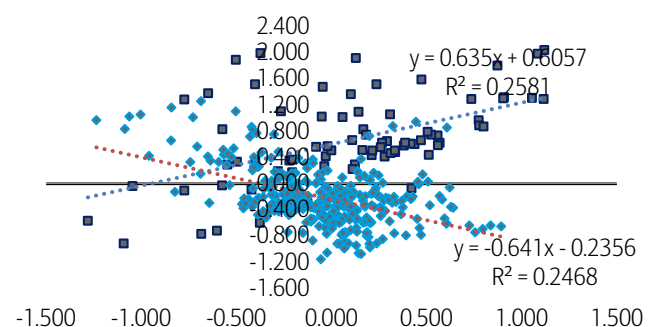


Source: BofA Global Research, EPFR

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Exhibit 41: Fund flows and rate change

Since start of '22, fund flows are less negatively correlated to change in rates

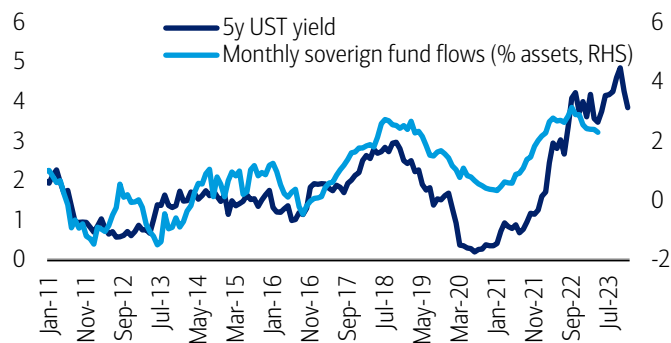


Source: BofA Global Research, EPFR, Bloomberg. Note: dark = post '22, light = '15-'22

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Exhibit 42: Sovereign fund flows and UST yield

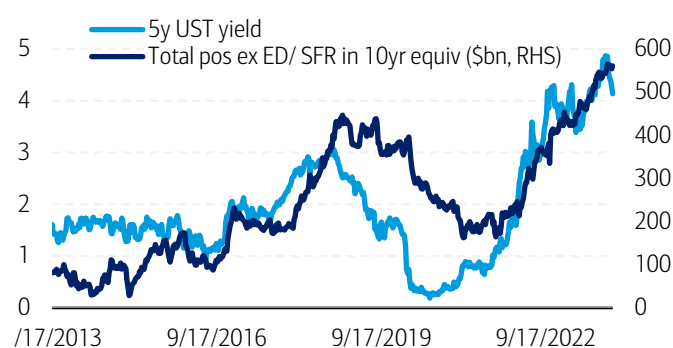
Inflows higher when yields are higher



Source: BofA Global Research, EPFR, Note: sovereign fund flows is midpoint of 12mo average
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Exhibit 43: Asset manager futures positioning and UST yield

Asset manager futures positioning trends with yield levels



Source: BofA Global Research, Bloomberg

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Exhibit 44: Total return FI fund performance vs benchmark

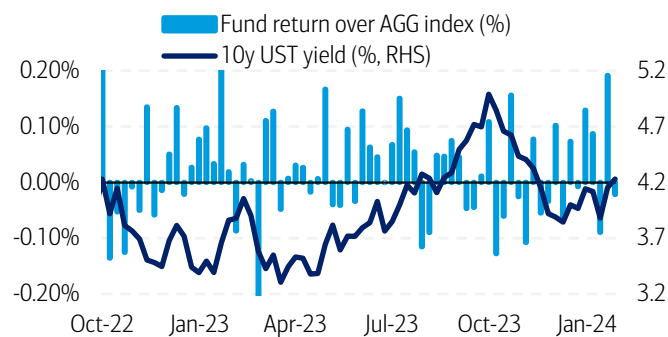
Over the last week, AUM weighted fund performance was below benchmark

	AUM (\$Bn)	2/15/2024	Vs. Agg	Last 4w	Vs. Agg
Vanguard Total Bond Market II Index Fund	275	-0.36%	-0.10%	-0.37%	-0.06%
Vanguard Total Bond Market Index Fund	211	-0.35%	-0.10%	-0.27%	0.04%
PIMCO Income fund	141	-0.06%	0.19%	0.40%	0.71%
The Bond Fund of America	80	-0.28%	-0.02%	-0.39%	-0.09%
MetWest Total Return Bond Fund	53	-0.36%	-0.11%	-0.22%	0.09%
PIMCO Total Return Fund	54	-0.15%	0.10%	-0.04%	0.27%
Dodge & Cox Income Fund	72	-0.16%	0.10%	-0.08%	0.23%
PGIM Total Return Bond Fund	43	-0.25%	0.00%	0.01%	0.32%
BlackRock Strategic Income Opportunities Fund	37	-0.02%	0.23%	0.55%	0.86%
Baird Aggregate Bond Fund	44	-0.31%	-0.05%	-0.16%	0.15%
JPMorgan Core Bond Fund	44	-0.29%	-0.04%	-0.22%	0.09%
DoubleLine Total Return Bond Fund	31	-0.34%	-0.09%	0.04%	0.35%
Fidelity Series Investment Grade Bond Fund	36	-0.22%	0.04%	-0.08%	0.23%
Fidelity Total Bond Fund	35	-0.34%	-0.09%	-0.10%	0.21%
Western Asset Core Plus Bond Portfolio	21	-0.34%	-0.08%	-0.18%	0.13%
Baird Core Plus Bond Fund	28	-0.30%	-0.04%	-0.13%	0.18%
John Hancock Bond Fund	23	-0.28%	-0.03%	-0.04%	0.27%
TIAA-CREF Bond Index Fund	23	-0.36%	-0.10%	-0.28%	0.03%
BlackRock Total Return Fund	19	-0.32%	-0.06%	-0.07%	0.24%
JPMorgan Core Plus Bond Fund	19	-0.42%	-0.16%	-0.07%	0.24%
Bridge Builder Core Bond Fund	17	-0.26%	-0.01%	-0.13%	0.18%
T Rowe Price New Income Fund	16	-0.30%	-0.04%	-0.46%	-0.15%
Western Asset Core Bond Fund	14	-0.30%	-0.04%	-0.26%	0.05%
CREF Bond Market Account	11	-0.30%	-0.04%	-0.07%	0.23%
Fidelity Investment Grade Bond Fund	9	-0.35%	-0.09%	-0.13%	0.18%
DoubleLine Core Fixed Income Fund	7	-0.33%	-0.07%	-0.02%	0.28%
TCW Total Return Bond Fund	2	-0.38%	-0.12%	-0.26%	0.05%
Janus Henderson Flexible Bond Fund	3	-0.33%	-0.07%	-0.27%	0.03%
Weighted avg	1368	-0.28%	-0.02%	-0.14%	0.17%
Agg		-0.26%		-0.31%	
10y return		-0.76%		-0.88%	

Source: BofA Global Research, Bloomberg, Note: Excess returns are fund total returns over Bloomberg Barclays Agg Index
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Exhibit 45: Total return funds, excess return vs. 10y rate

Weekly asset-weighted total returns for total return funds. Funds return was below benchmark on the week

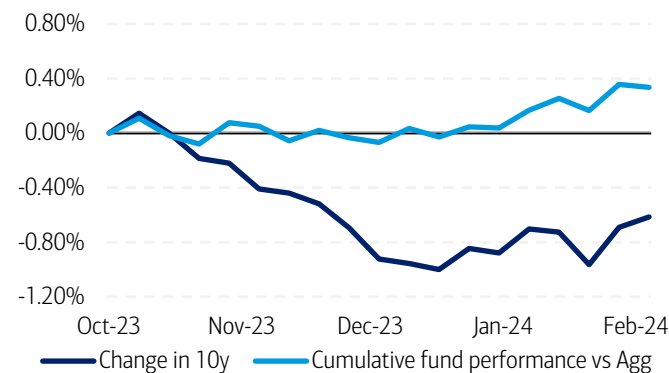


Source: BofA Global Research, Bloomberg. Note: Excess returns are fund total returns over Bloomberg Barclays Agg index

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Exhibit 46: Cumulative return of TR FI funds over benchmark vs 10yT

Funds have modestly outperformed since start of the year



Source: BofA Global Research, Bloomberg. Note: Excess returns are fund total returns over Bloomberg Barclays AGG index

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Exhibit 47: Total return funds' published UST allocations vs benchmark from Q3 and Q4 '23

While on an AUM-weighted basis positioning was largely unchanged, more funds added to UST allocation by 1PPT than reduced UST allocation by 1PPT

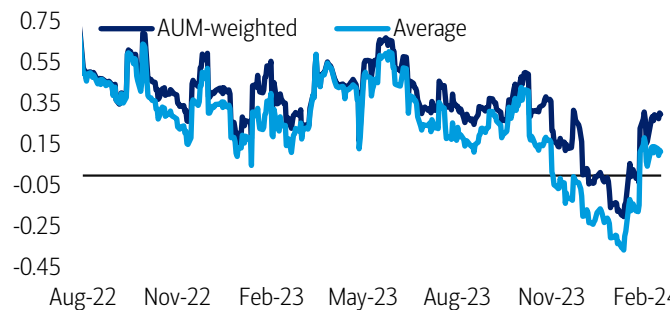
		Q3 '23 (%)	Q4 '23 (%)	Change (PPTS)
VTBIX	Vanguard Total Bond Market II Index Fund	2.2	2.3	0.0
VBMFX	Vanguard Total Bond Market Index Fund	1.3	1.0	-0.3
PIMIX	PIMCO Income fund	-34.8	-35.0	-0.2
ABNDX	The Bond Fund of America	-22.4	-23.6	-1.1
DODIX	Dodge & Cox Income Fund	-29.8	-29.1	0.7
PTTRX	PIMCO Total Return Fund	-23.9	-25.6	-1.8
MWTIX	MetWest Total Return Bond Fund	-17.4	-14.6	2.8
PGBOX	JPMorgan Core Bond Fund	-3.9	-5.3	-1.4
BAGIX	Baird Aggregate Bond Fund	-18.8	-18.3	0.5
PDBAX	PGIM Total Return Bond Fund	-34.9	-35.4	-0.5
BSIIX	BlackRock Strategic Income Opportunities Fund	-24.0	-30.2	-6.2
FSIGX	Fidelity Series Investment Grade Bond Fund	-6.4	-4.1	2.3
FTBFX	Fidelity Total Bond Fund	-11.6	-9.8	1.7
DBLTX	DoubleLine Total Return Bond Fund	-34.6	-35.1	-0.5
BCOIX	Baird Core Plus Bond Fund	-19.1	-15.2	3.9
JHBIX	John Hancock Bond Fund	-21.6	-19.6	2.0
TBIIX	TIAA-CREF Bond Index Fund	0.0	-0.1	-0.1
WACPX	Western Asset Core Plus Bond Portfolio	-38.6	-36.0	2.6
ONIAx	JPMorgan Core Plus Bond Fund	-3.1	-11.4	-8.3
MAHQX	BlackRock Total Return Fund	-1.9	-7.2	-5.3
BBTBX	Bridge Builder Core Bond Fund	-24.6	-22.1	2.5
PRCIX	T Rowe Price New Income Fund	-8.6	-6.8	1.8
WATFX	Western Asset Core Bond Fund	-32.1	-28.6	3.5
QCBMIX	CREF Bond Market Account	-23.0	-21.2	1.9
FBNDX	Fidelity Investment Grade Bond Fund	3.5	-4.4	-7.9
DBLFX	DoubleLine Core Fixed Income Fund	-18.5	-18.6	-0.1
JFLEX	Janus Henderson Flexible Bond Fund	-26.0	-28.1	-2.1
TGLMX	TCW Total Return Bond Fund	-39.9	-39.7	0.2
AUM weighted		-13.7	-13.9	-0.2

Source: BofA Global Research, funds' publicly available reports

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Exhibit 48: Rolling 30-day correlation between excess return and change in 10y UST yield

A higher correlation between the two would suggest that when UST yields increase, excess return is higher (more short), recent decline may suggest moderation in short positioning

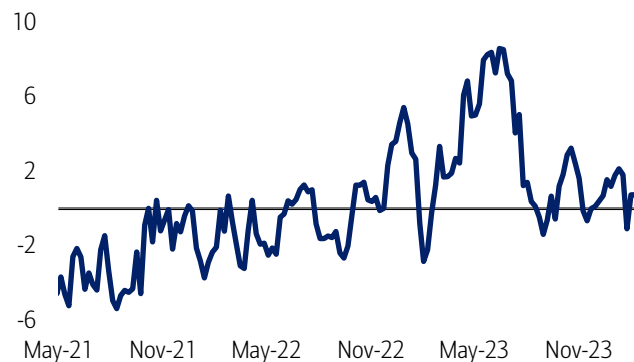


Source: BofA Global research, Bloomberg

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Exhibit 49: Primary dealer 2-6y holdings of TIPS (\$bn)

Primary dealer holdings flat so far in Feb

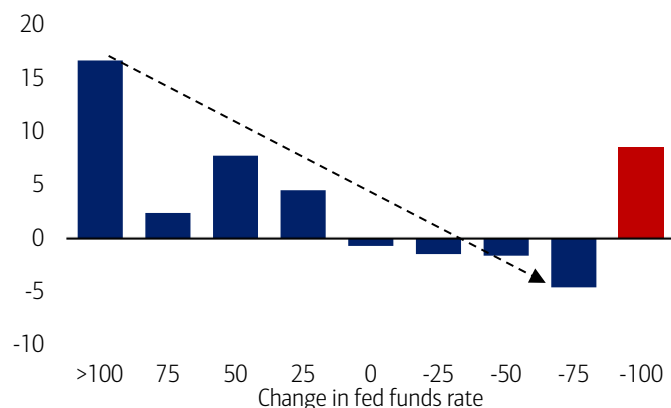


Source: BofA Global research, Note: cumulative change since 2021 reflects adjustment for change in market value

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Exhibit 50: Rolling 3mo change in US duration exposure from FXRS Survey vs rolling 3mo change in Fed funds rate

Duration allocation is stable/ lower as Fed cuts

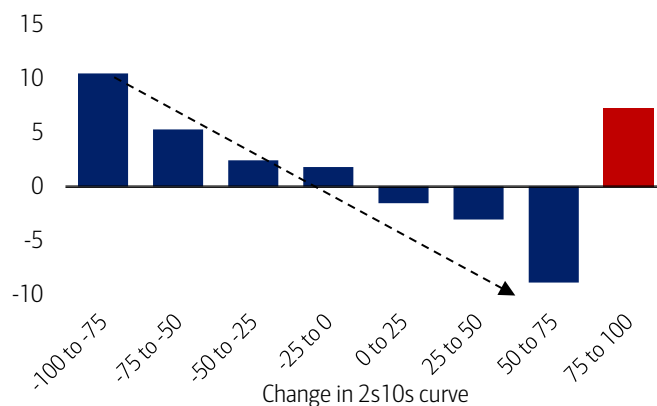


Source: BofA Global Research, Bloomberg

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Exhibit 51: Rolling 3mo change in US duration exposure from FXRS Survey vs rolling 3mo change in 2y10y curve

As curve steepens duration allocation is reduced

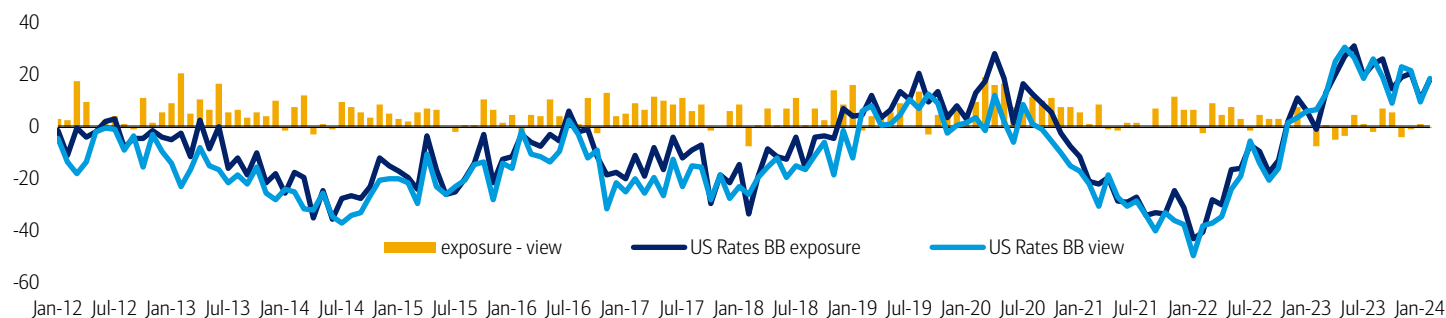


Source: BofA Global Research, Bloomberg

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Exhibit 52: Duration exposure and view: USD

Duration longs up, in line with sentiment



Source: BofA Global Research FX and Rates Sentiment Survey

BB is the Bull-Bear Index for exposure and view. It weights responses to create an index ranging from -100 to +100, zero representing neutral. See appendix for formulas.

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Bank balance sheets

Exhibit 53: Changes to bank balance sheet assets (\$bn)

US banks saw a decline in assets driven by cash and loans

		Current (02/07/2024)	1w change	Rolling 4w avg wkly chg	Rolling 8w avg wkly chg	Rolling 12w avg wkly chg	Rolling 52w avg wkly chg
All (\$bn, NSA)	Total Assets	23294	80	6	-3	17	6
	Cash	3572	98	2	-5	4	9
	UST & Agency	1559	-10	-2	0	3	-2
	MBS	2533	-9	2	3	3	-4
	Loans and Leases	12298	-30	0	-2	5	5
	Other	3331	31	3	1	2	-2
Large Domestic (\$bn, NSA)	Total Assets	13432	-30	-16	-20	-1	4
	Cash	1685	-11	-20	-17	-3	7
	UST & Agency	1153	7	0	0	2	-1
	MBS	1923	-10	3	3	2	-1
	Loans and Leases	6738	-13	-3	-6	-1	1
	Other	1932	-3	3	0	-1	-2
Small Domestic (\$bn, NSA)	Total Assets	6595	-30	-2	2	4	1
	Cash	464	-11	-1	0	1	2
	UST & Agency	293	-3	0	0	0	-1
	MBS	581	-1	-1	1	1	-3
	Loans and leases	4472	-9	1	2	3	4
	Other	784	-6	-1	-1	-1	-1
All Domestic (\$bn, NSA)	Total Assets	20026	-60	-18	-19	3	5
	Cash	2149	-22	-21	-17	-3	9
	UST & Agency	1447	5	-1	0	2	-2
	MBS	2504	-11	2	3	3	-4
	Loans and leases	11210	-23	-2	-4	2	4
	Other	2716	-9	3	-1	-2	-3
Foreign (\$bn, NSA)	Total Assets	3268	140	24	15	14	1
	Cash	1423	120	23	12	6	0
	UST & Agency	113	-14	-1	0	1	0
	MBS	29	2	0	0	0	0
	Loans and leases	1089	-7	1	2	3	1
	Other	615	40	0	1	4	1

Source: BofA Global Research, Federal Reserve, Bloomberg

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Exhibit 54: Select bank balance sheet liabilities (\$bn, NSA)

Deposits declined while other borrowing increased

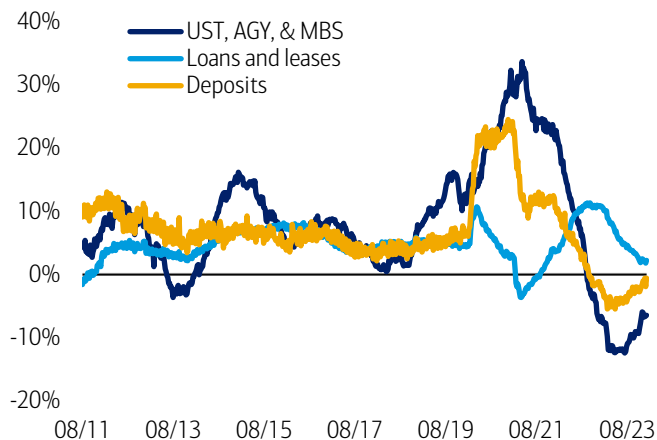
		Current (02/07/2024)	1w change	Rolling 4w avg wkly chg	Rolling 8w avg wkly chg	Rolling 12w avg wkly chg	Rolling 52w avg wkly chg
Deposits (\$bn, NSA)	All	17430	-58	-18	-12	2	-4
	Domestic	16104	-65	-24	-18	-2	-3
	Large Domestic	10783	-57	-22	-17	-3	-3
	Small Domestic	5321	-8	-2	-1	1	-1
	Foreign	1326	7	6	5	4	-1
Other borrowing (\$bn, NSA)	All	2449	99	7	15	11	9
	Domestic	1398	3	6	8	4	7
	Large Domestic	978	16	6	8	3	6
	Small Domestic	420	-13	0	0	0	1
	Foreign	1052	95	1	7	7	3

Source: BofA Global Research, Federal Reserve, Bloomberg

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Exhibit 55: YoY change in securities, loans, and deposits

Securities growth usually only positive when deposit growth is positive

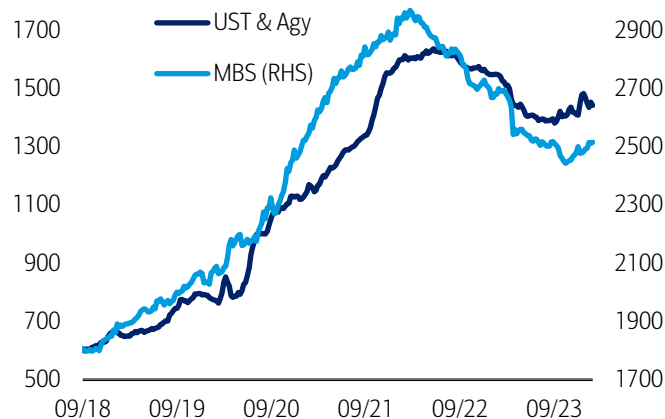


Source: BofA Global Research, Bloomberg, Federal Reserve

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Exhibit 56: Domestic bank holdings of UST& Agy, MBS

UST & Agency dropped since year end 2023, MBS holdings increased

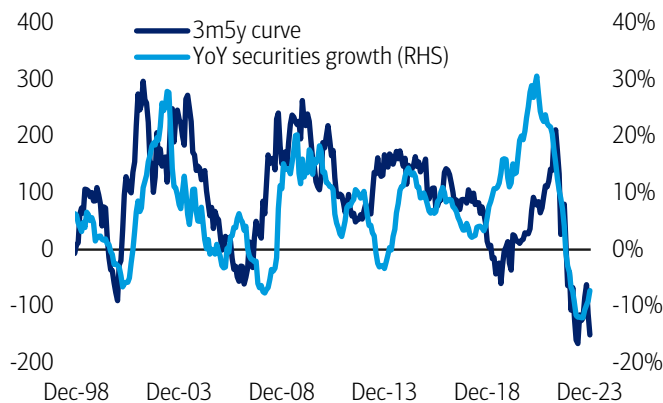


Source: BofA Global Research, Bloomberg, Federal Reserve

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Exhibit 57: Front-end curve and YoY bank securities portfolio change

Securities portfolio growth picks up historically with steeper front-end curve



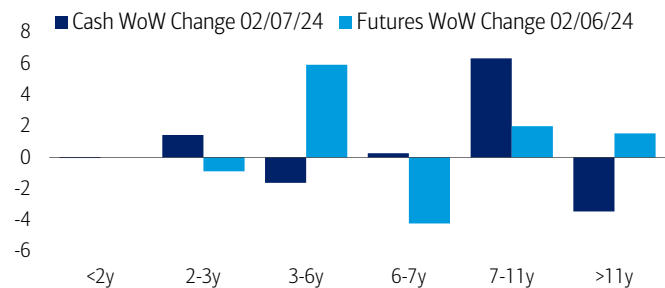
Source: BofA Global Research, Bloomberg

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Primary dealer balance sheet

Exhibit 58: Dealers WoW change in positions

10y equivalent, \$bn, cash position higher in 7-11y, futures position higher in the 3-6y bracket

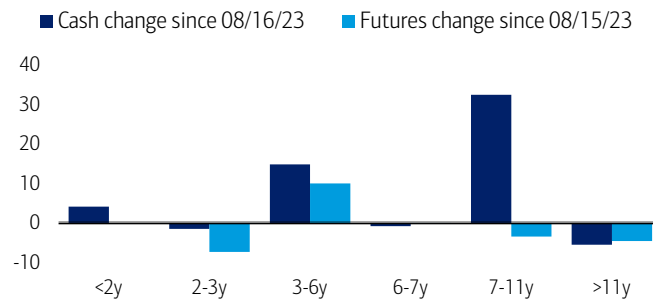


Source: BofA Global Research, NY Fed, CFTC

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Exhibit 59: Dealers change in positions over last 6mo

10y equivalent, \$bn, cash positions higher in 3-6y & 7-11y buckets

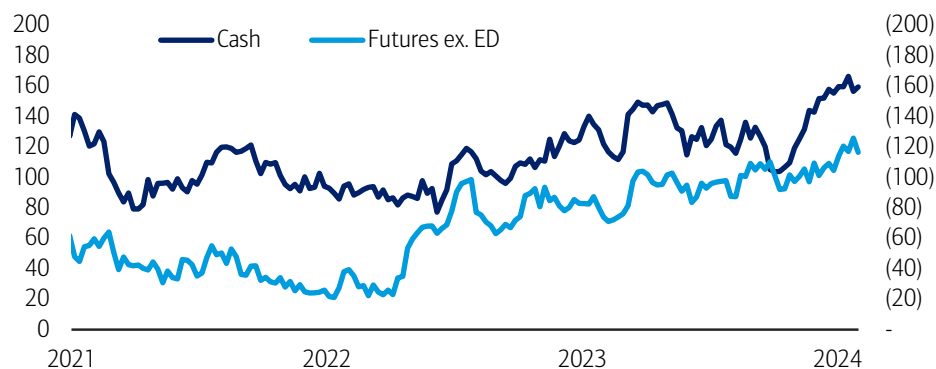


Source: BofA Global Research, NY Fed, CFTC

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Exhibit 60: Dealers total sector positions

10y equivalent, \$bn, short futures dropped on the week



Source: BofA Global Research, NY Fed, CFTC, Note: futures on RHS axis

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Auction statistics

Exhibit 61: Auction summary statistics

Z-score calculated on levels, Investment fund participation in auctions remains robust

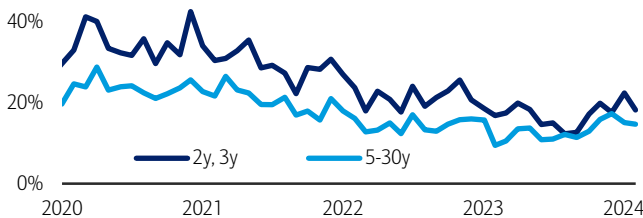
		Primary Dealer	Indirect Bidder	Direct Bidder	Investment Fund	Foreign	Depository Institution
2y	1/31/2024	18.6%	61.9%	19.5%	68.2%	14.6%	0.0%
	MoM Change	0.0%	0.0%	0.0%	0.5%	3.3%	0.0%
	1Y Z-score	0.6	-0.2	-0.4	0.5	-0.2	-0.2
3y	1/16/2024	17.8%	65.3%	16.8%	68.3%	12.3%	0.0%
	MoM Change	-8.4%	13.2%	-4.9%	8.3%	0.8%	0.0%
	1Y Z-score	0.1	0.3	-0.7	0.6	-0.9	-0.3
5y	1/31/2024	14.0%	15.4%	70.6%	68.6%	8.8%	0.0%
	MoM Change	0.0%	0.0%	0.0%	-6.4%	0.3%	0.0%
	1Y Z-score	0.3	-1.3	0.5	-1.2	-1.1	-0.5
7y	1/31/2024	16.9%	63.7%	19.4%	69.8%	13.8%	0.0%
	MoM Change	0.0%	0.0%	0.0%	0.8%	2.4%	0.0%
	1Y Z-score	0.9	-0.9	0.5	-0.4	0.4	-0.5
10y	1/16/2024	15.1%	66.1%	18.7%	67.6%	13.0%	0.0%
	MoM Change	-2.2%	2.3%	-0.2%	-0.3%	1.6%	0.0%
	1Y Z-score	0.2	-0.1	0.0	0.2	-0.4	-0.5
20y	1/31/2024	12.9%	66.4%	20.7%	69.1%	10.8%	0.0%
	MoM Change	0.0%	0.0%	0.0%	0.1%	-4.4%	0.0%
	1Y Z-score	1.2	-1.0	0.5	-1.3	-1.3	#DIV/0!
30y	1/16/2024	14.5%	67.8%	17.7%	76.0%	6.6%	0.0%
	MoM Change	0.3%	-0.7%	0.4%	6.3%	-5.8%	0.0%
	1Y Z-score	0.2	-0.1	-0.3	0.9	-1.8	-0.7

Source: BofA Global Research, Treasury

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Exhibit 62: Primary dealer – average auction allotment

Dealer participation declined

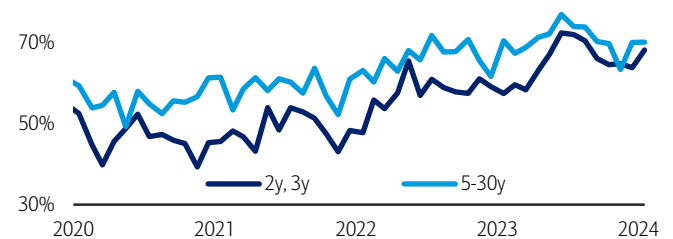


Source: BofA Global Research, Treasury

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Exhibit 63: Investment fund – average auction allotment

Fund participation still elevated

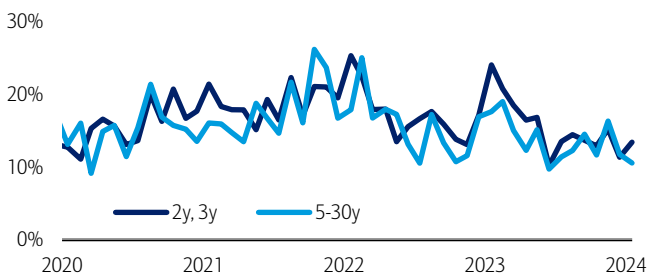


Source: BofA Global Research, Treasury

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Exhibit 64: Foreign investment – average auction allotment

Foreign participation still below average and declined recently

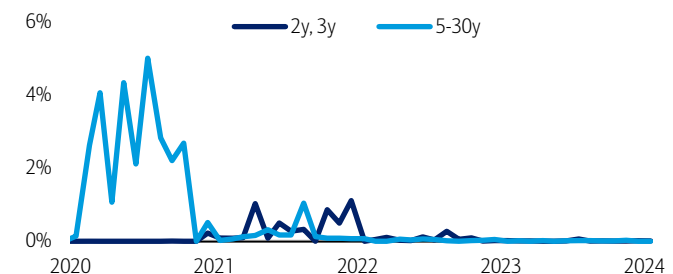


Source: BofA Global Research, Treasury

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Exhibit 65: Depository institutions – average auction allotment

Participation is minimal



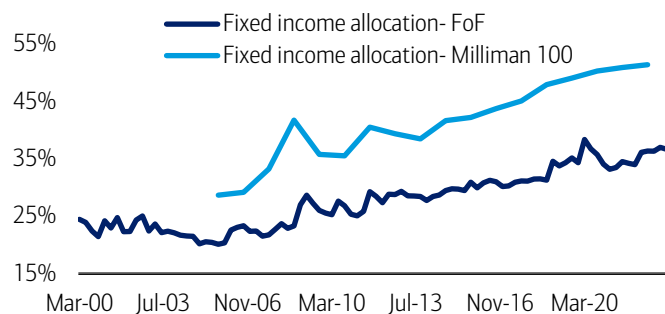
Source: BofA Global Research, Treasury

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Pensions

Exhibit 66: DB private pension fixed income allocation from Flow of Funds and smaller Milliman subset

Milliman funds have shown more de-risking than broader private DB pension funds according to FoF

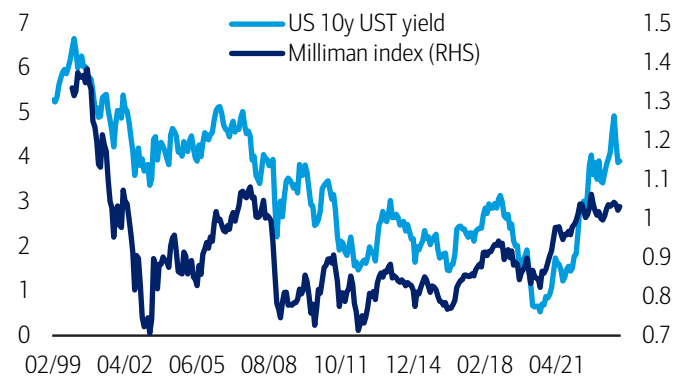


Source: BofA Global Research, Milliman, Federal Reserve

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Exhibit 67: 10y UST yield and Milliman pension funded index

Funded status historically improves with an increase in interest rates

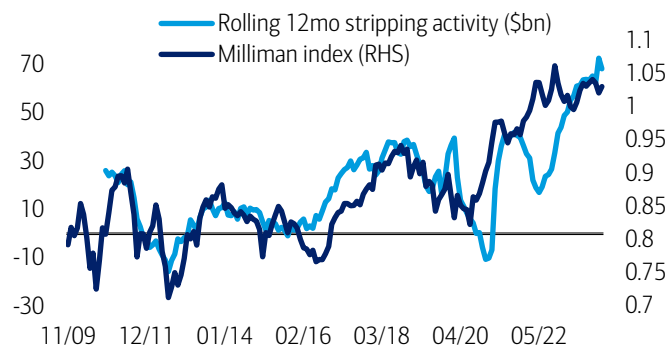


Source: BofA Global Research, Bloomberg

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Exhibit 68: Milliman index and 12mo increase in USTs held in stripped form

Higher pension funded status aligns with higher stripping activity

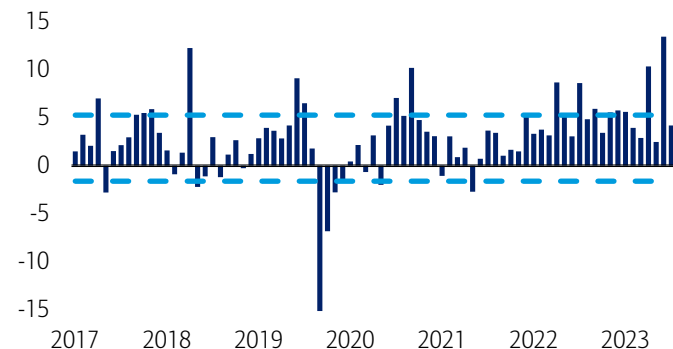


Source: BofA Global Research, Bloomberg

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Exhibit 69: Change in USTs held in stripped form (\$bn)

USTs held in stripped form declined from December record high

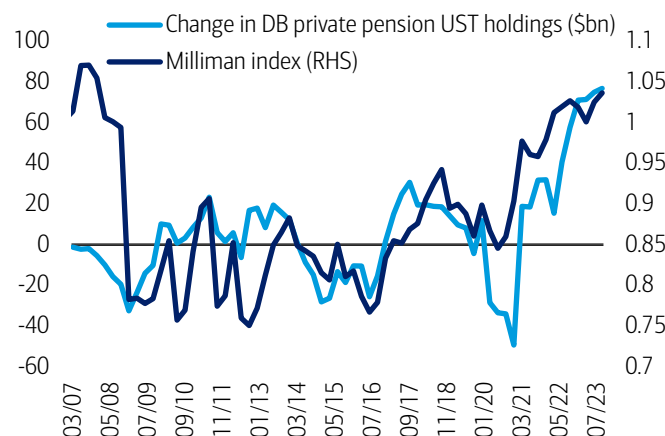


Source: BofA Global Research, Note: dashed line is 1stdev

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Exhibit 70: UST holdings of private DB pensions and funded status

When funded status is higher, pension funds buy more USTs



Source: BofA Global Research, Bloomberg, Federal Reserve

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