

US Rates Watch

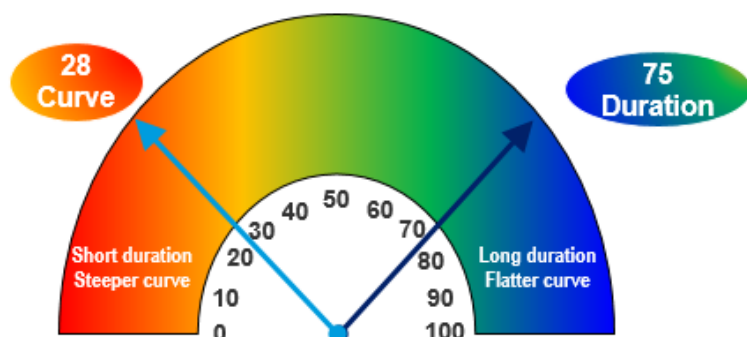
Steeperers at risk, fund inflows take a breather

Steeperers remain at risk

Ahead of multiple central bank meetings next week, longs at the front-end of the curve appear vulnerable, biasing the curve flatter. Open interest declined on the week, suggesting that longs were taken off which may reflect profit taking following the recent rally. Asset managers continued to extend longs with leveraged funds taking the other side in what we think represents part of a basis trade. Foreign investor & bank buying remains relatively muted, putting the pressure on asset managers/ investment funds to keep up demand. US fixed income fund inflows cooled on the week, albeit after a very strong influx the week prior.

Exhibit 1: Curve-o-meter

Investors are largely in steeper and long duration



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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Open interest contracts, bias is for deeper inversion

Open interest declined on the week, with the most notable change longs destroyed particularly at the belly of the curve. This may reflect some profit taking in the context of the larger rally we have observed in recent weeks. Positions that were created were modestly concentrated in longs across TY, FV, and US. The futures positioning proxy (for construction details see: Gauging positioning in Treasury Futures), still points to a bias for rates to sell off, particularly at the front-end (Exhibit 12). This presents some additional flattening risk ahead of central bank meetings next week, where policy makers are likely to maintain optionality for additional rate hikes.

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

ED= Eurodollars

TIC=Treasury International Capital

QT= quantitative tightening

MoF= ministry of finance

COB = close of business

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

Asset manager longs extend alongside LF shorts

Asset managers added to long positions across the curve the week of July 18th while leveraged funds largely took the other side and added shorts (Exhibit 7). We continue to think that the leveraged fund futures short for the most part represents a basis trade rather than an outright short view on the rates market (see: [Back to basis](#)). Speculative investors ex- leveraged funds modestly reduced their long position, particularly in FV (Exhibit 8).

Momentum inflection point for CTAs

Our cross over momentum signal endorses an inflection point and turned modestly less short after the downturn in recent weeks (Exhibit 13). Similarly, non-reportable positioning also shows a modest uptick after last week's drop. Our top down model shows that CTAs remain in steepeners (Exhibit 14) and cut duration on the week (Exhibit 15). This drop likely reflects a positioning adjustment that occurred over recent weeks as our model is inherently lagged (see: CTA impact on the rates market). In general, data suggests that should the rally continue, CTAs likely have room to add duration.

Inflows take a breather

US fixed income fund inflows cooled the week ending July 19th. Outflows were most heavily concentrated in mixed allocation funds followed by long- and short-term UST funds (Exhibit 28). This follows relatively strong inflows in recent weeks. We continue to believe that strong auction performance is likely supported by fund buying as evidenced in the most recent auction buyer statistics (Exhibit 42).

AUM-weighted total return fixed income funds continue to outperform their benchmark (Exhibit 31). Outperformance is largely dominated by funds that have consistently performed well in prior weeks (Exhibit 29).

Foreign investor support sidelined

Foreign flow data largely points to key UST investors sidelined by hedging costs and muted conviction in USD direction. Despite USD depreciation pressures last week, custodial holdings for the week ending July 19th dropped \$7bn, the largest decline since the banking risk events in March (Exhibit 25). MoF data showed that Japanese flows into foreign bonds were limited the week ending July 14th (Exhibit 24).

Recent TIC data for May showed notable selling from Japan and China (Exhibit 27). While a BoJ YCC adjustment later this year is largely expected (see: [FX and Rates Sentiment Survey](#)) & UST hedged pickup for a JP investor is already deeply negative, any upward pressure on the JGB curve would be a further headwind to Japanese investor demand.

Primary dealer cash UST holdings increase

Primary dealers added cash positions across the curve the week ending July 12th, to the greatest extent in the belly (Exhibit 36). Futures shorts were similarly added across the curve except the 7-11y bucket, where futures shorts were covered. Since the banking risk events the 7-11y bucket remains the sector that has seen the largest increase in PD futures shorts (Exhibit 37).

Banks unlikely to buy until deposits increase

While the banking sector was one of the prominent buyers of USTs and MBS as the Fed was expanding its balance sheet, declines in deposits have driven a drop in securities holdings (Exhibit 35). Even if most of the Fed liability drain for the remainder of the year comes out of ON RRP, as we expect, reserves will still moderate keeping banks out of the UST market. Domestic bank buying the week ending July 12th was tepid after several weeks of modest declines (Exhibit 33).

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, Jul 24	S&P Global US services PMI	54	54.3	<i>Fed Blackout period</i>	13 week bills	65	0		
	S&P Global US manufacturing PMI	47	46.1		26 week bills	58	0		
					2 year notes	42	0		
Tu, Jul 25	Case-Shiller HPI (yoy)	-1.0%	-	<i>Fed Blackout period</i>	42 day bills	50	0	Bills	35
	Consumer Confidence	113	112		5 year notes	43	0		
W, Jul 26	MBA Mortgage Applications	-	-	FOMC rate decision	2 year FRNs	24	2		
	New Home Sales	730k	721k	<i>Fed Chair Powell holds press conference post FOMC decision</i>					
	FOMC Rate Decision (mid-point)	5.375%	5.375%						
Th, Jul 27	Initial Jobless Claims	240k	-		7 year notes	35	0	Bills	23
	Wholesale Inventories	-	-						
	GDP (qoq saar)	1.50%	1.80%						
	Personal consumption (qoq saar)	1.50%	-						
	GDP Price Index (qoq saar)	3.50%	3.00%						
	Core PCE (qoq saar)	4.00%	-						
	Durable Goods Orders	2.50%	0.50%						
	Durables Ex Transportation	0.10%	0.20%						
	Core Capital Goods Orders	-0.10%	-						
	Core Capital Goods Shipments	0.10%	-						
	Advance Goods Trade Balance	-\$92.5bn	-\$91.5bn						
F, Jul 28	Pending Home Sales	-0.50%	1.00%						
	Personal Income	0.60%	0.50%						
	Personal Spending	0.50%	0.40%						
	PCE Headline Prices (mom)	0.20%	0.20%						
	PCE Headline Prices (yoy)	3.00%	3.10%						
	PCE Core Prices (mom)	0.20%	0.20%						
	PCE Core Prices (yoy)	4.20%	4.20%						
	Personal saving rate	4.70%	-						
	Employment Cost Index	1.10%	1.10%						
	U. of Michigan Sentiment	73	72.6						

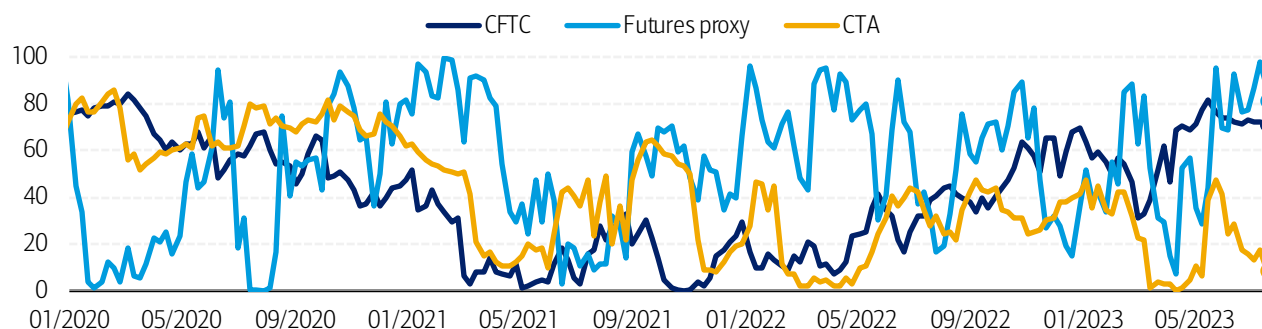
Source: BofA Global Research, Bloomberg, US Treasury

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Positioning indicators

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

Futures positioning proxy shows bias for rates to sell off, CFTC data adjusted for LFs is long, top down CTA model is lagged and shows historic shorts that may have been previously covered



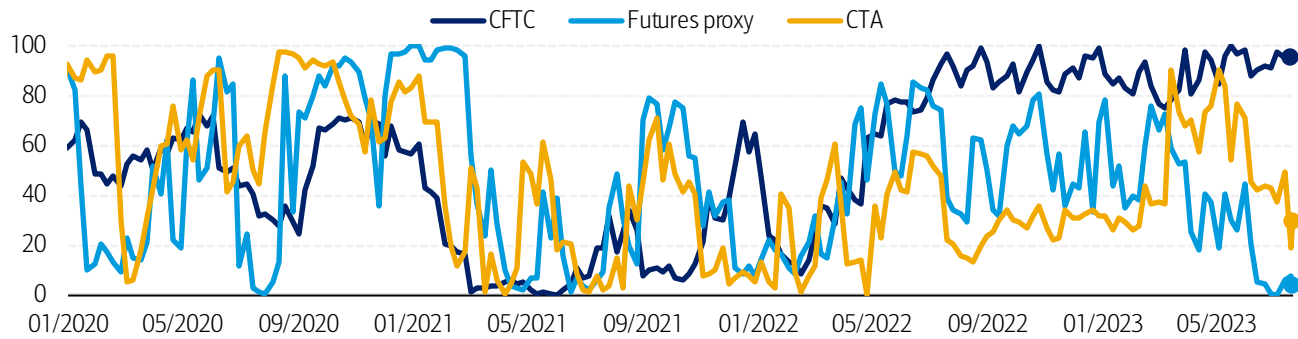
Source: BofA Global Research

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

Indicators generally point to steeper curve positioning besides CFTC speculative ex-LFs as these investors have long position concentrated further out the curve

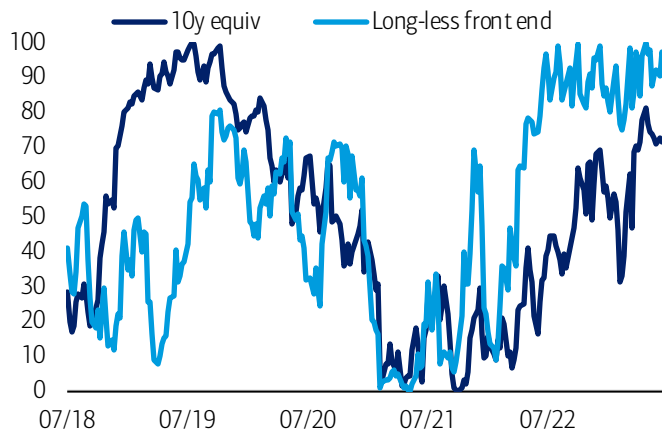


Source: BofA Global Research

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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

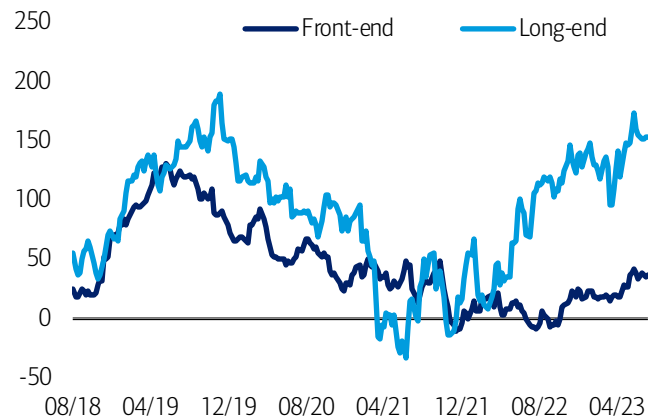


Source: BofA Global Research, Bloomberg

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

Longs are more concentrated in the back-end

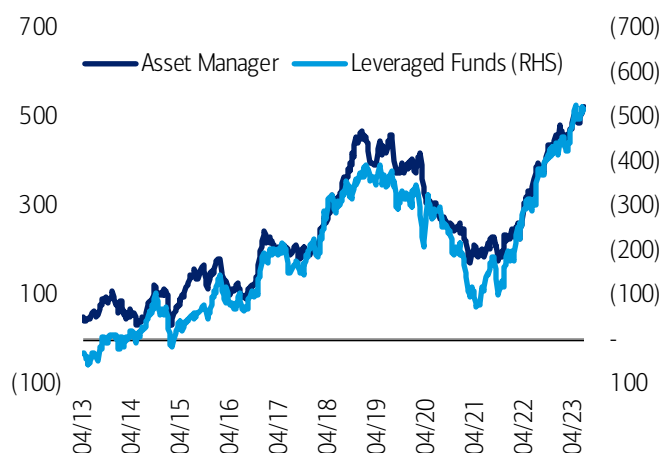


Source: BofA Global Research, Bloomberg

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

Asset manager longs correspond with leveraged fund shorts

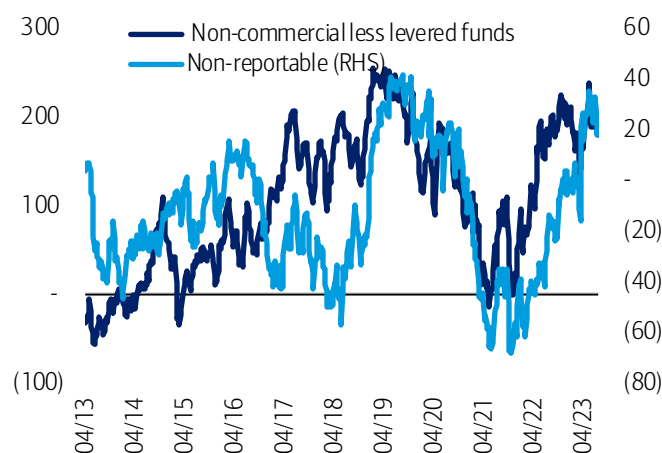


Source: BofA Global Research, Bloomberg

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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	0	3	3	2	3
20 to 30	30	3	2	2	2	2
30 to 40	40	6	4	3	3	4
40 to 50	50	2	3	2	2	2
50 to 60	60	-2	-1	0	0	0
60 to 70	70	1	0	0	0	0
70 to 80	80	-2	-3	-4	-6	-7
80 to 90	90	-3	-2	-2	-3	-5
90 to 100	100	-2	-2	-2	-2	-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

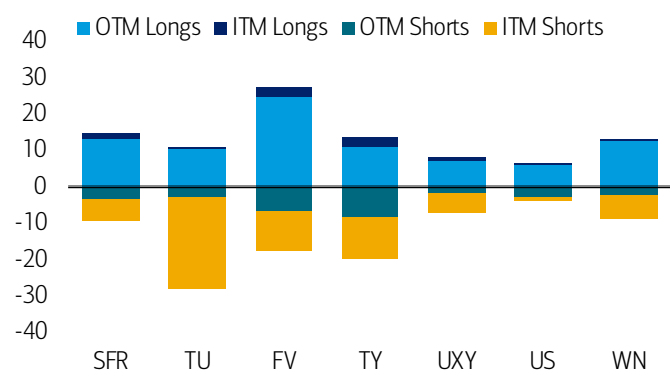
	0	1w	4w	8w	12w	16w
0 to 10	10	1	2	1	1	0
10 to 20	20	0	-3	-2	-2	-2
20 to 30	30	-5	-3	-4	-4	-5
30 to 40	40	-3	-3	-3	-3	-4
40 to 50	50	3	2	2	1	0
50 to 60	60	1	1	0	0	0
60 to 70	70	3	2	2	3	4
70 to 80	80	4	3	4	3	4
80 to 90	90	2	4	4	4	5
90 to 100	100	-1	-2	-1	0	0

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

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Exhibit 11: Proxies for futures positioning

Longs largely OTM, shorts are more mixed but mostly ITM in TU

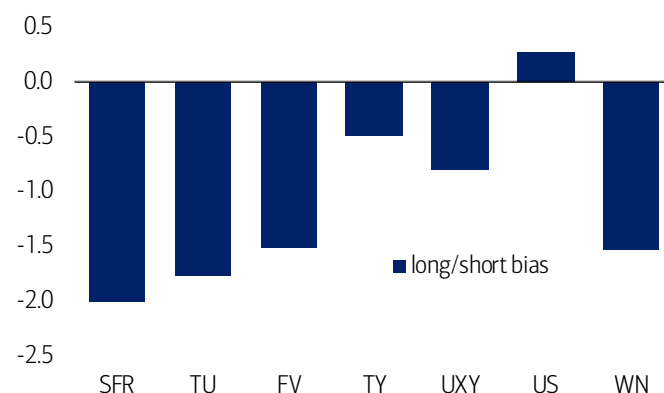


Source: BofA Global Research, Bloomberg

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Exhibit 12: Analysis of proxies for futures positioning

Bias for rates to sell off particularly at the front-end

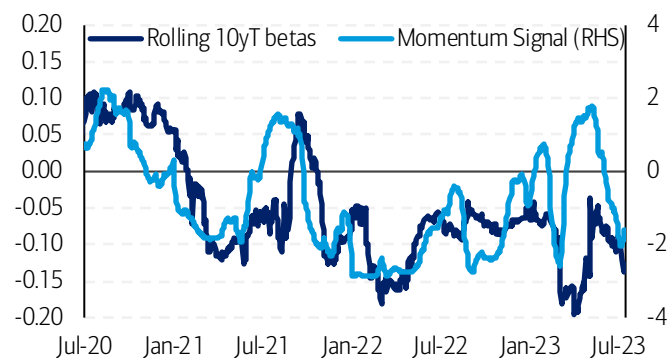


Source: BofA Global Research, Bloomberg. Note: reflects average positioning of futures stack over last 5 days

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Exhibit 13: CTA positioning in 10yT

CTA continued to add shorts while momentum signal picked up on the week

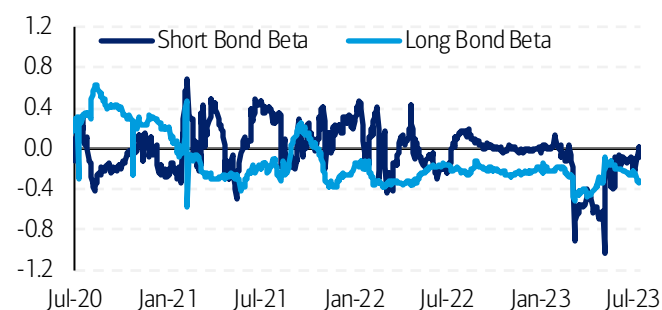


Source: BofA Global Research

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

Top-down model suggests CTAs added shorts in long duration bonds

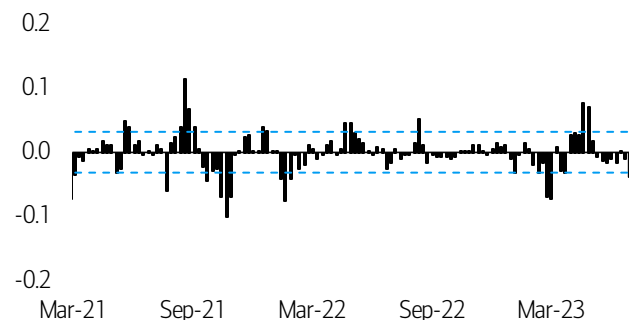


Source: BofA Global Research

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Exhibit 15: Changes in CTA 10yT beta

Change in 10yT beta negative on the week

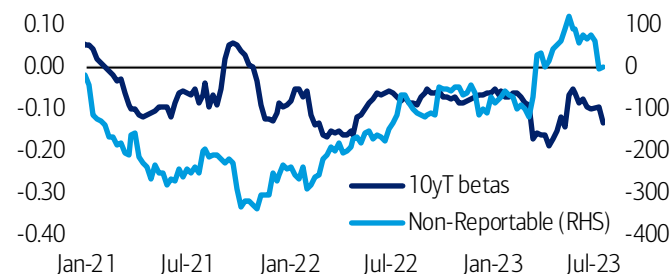


Source: BofA Global Research

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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



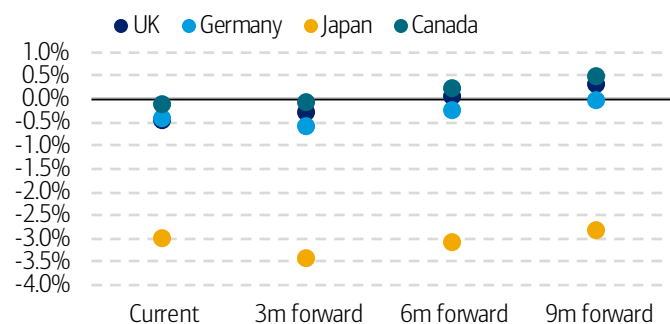
Source: BofA Global Research, Bloomberg

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FX hedged pickup and foreign flows

Exhibit 17: FX hedged pickup of TSYs vs local alternatives implied by forwards

Market pricing does not reflect attractive environment for FX hedged carry trades in TSYs currently but forwards suggest improvement

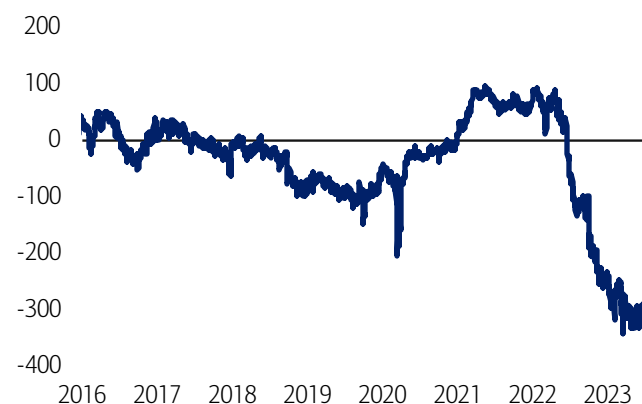


Source: BofA Global Research, Bloomberg. Note: pickup vs 10y local alternative except Japan which is relative to 20y JGB using 3m forward FX hedge

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Exhibit 18: 10Y UST pickup to 20Y JGB, with 3m fx hedge (bps)

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

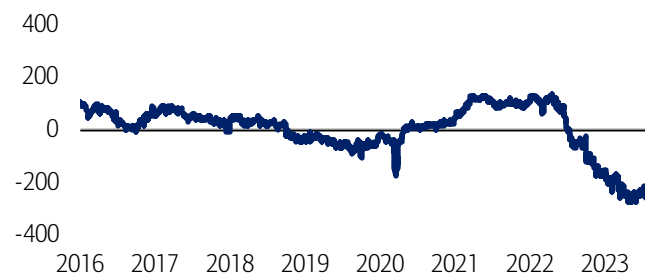


Source: BofA Global Research, Bloomberg

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Exhibit 19: 10Y UST pickup to 10Y JGB, with 3m fx hedge (bps)

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



Source: BofA Global Research, Bloomberg

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

10y TSY offers negative pickup vs 10y Bund

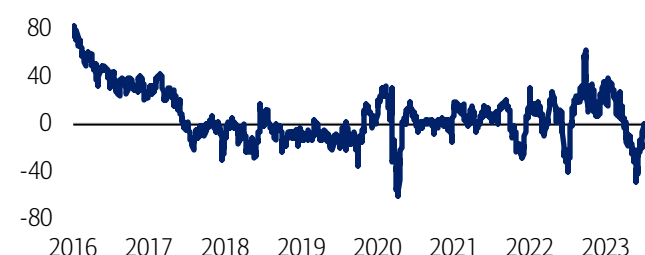


Source: BofA Global Research, Bloomberg

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

10y TSY erased previous modest hedged pickup to 10y CAD gov bond

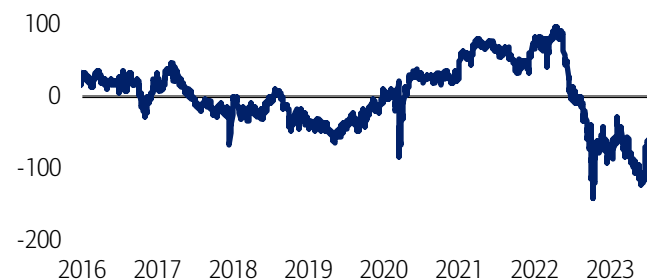


Source: BofA Global Research, Bloomberg

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

10y TSY offers negative pickup vs 10y Gilt but shows improvement recently



Source: BofA Global Research, Bloomberg

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Exhibit 23: 3m rolling JPY currency hedge

From the perspective of Japanese investor, pickup has been unattractive except vs the EU periphery

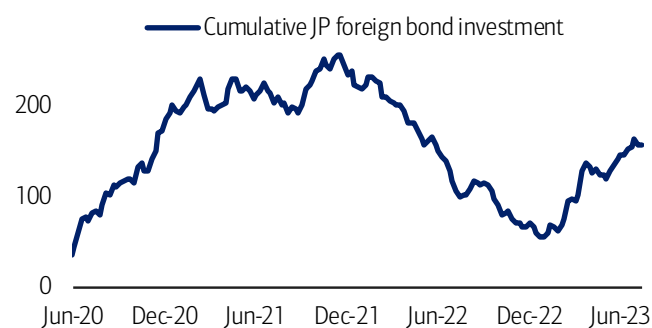
	7/20/2023		As of 1 wk ago		As of 1 mo ago		As of 1 yr ago	
	Pickup to 10y JGB	Pickup to 20Y JGB	Pickup to 10y JGB	Pickup to 20Y JGB	Pickup to 10y JGB	Pickup to 20Y JGB	Pickup to 10y JGB	Pickup to 20Y JGB
10y UST	-2.40%	-3.04%	-2.42%	-3.06%	-2.35%	-2.96%	-0.27%	-0.94%
10y GER	-1.96%	-2.60%	-1.94%	-2.58%	-1.88%	-2.48%	0.77%	0.10%
10y FRA	-1.44%	-2.08%	-1.42%	-2.06%	-1.36%	-1.96%	1.35%	0.67%
10y BEL	-1.32%	-1.96%	-1.29%	-1.94%	-1.23%	-1.83%	1.38%	0.70%
10y ITA	-0.36%	-1.00%	-0.29%	-0.93%	-0.27%	-0.87%	2.90%	2.23%
10y SPA	-0.98%	-1.61%	-0.93%	-1.57%	-0.93%	-1.53%	2.00%	1.32%
10y UK	-1.90%	-2.54%	-1.81%	-2.45%	-1.67%	-2.28%	-0.25%	-0.92%
10y CAN	-2.27%	-2.91%	-2.40%	-3.04%	-2.21%	-2.82%	-0.26%	-0.94%

Source: BofA Global Research, Bloomberg

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Exhibit 24: Japan investment in foreign bonds, cumulative weekly (\$bn)

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

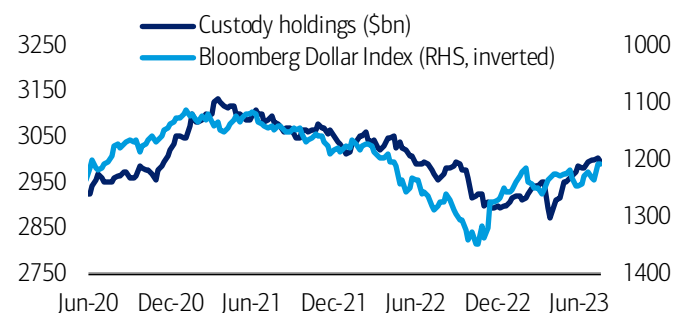


Source: BofA Global Research, Bloomberg

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Exhibit 25: Weekly UST custody holdings, foreign official (\$bn)

Custody holdings dropped on the week

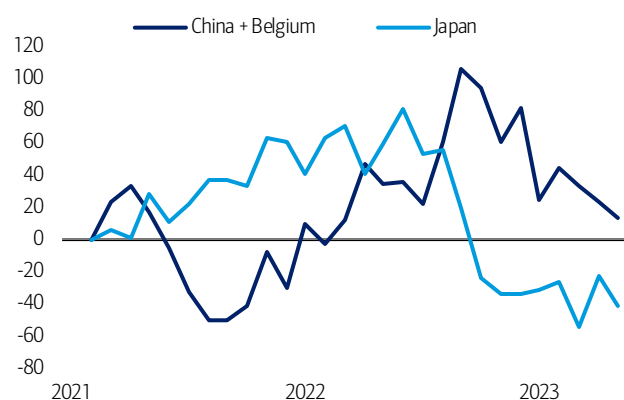


Source: BofA Global Research, NY Fed

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Exhibit 26: Cumulative UST flows from foreign investors (\$bn)

China + Belgium and Japan have turned to net sellers since end of '22

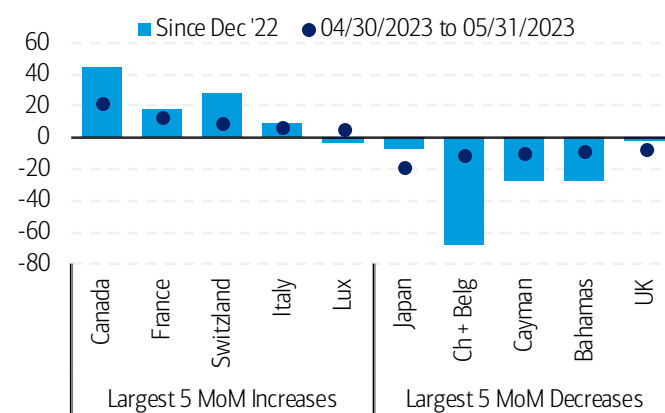


Source: BofA Global Research, Bloomberg, TIC, note: references the valuation-adjusted flow

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Exhibit 27: Largest MoM changes in foreign TSY holdings (\$bn)

Canada was largest buyer, Japan largest seller in May



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

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Fund flows and returns

Exhibit 28: US fixed income fund flows (\$million)

US FI funds saw inflows but outflows in mixed allocation, inflows primarily led by muni & corp IG funds

	7/19/2023	Rolling 4w average	Rolling 8w average	Rolling 12w average	Rolling 52w average
Gov: short	(370)	481	294	386	1,178
Gov: intermediate	346	320	355	406	403
Gov: long	(473)	1,206	1,280	1,475	1,125
Corp: IG	1,173	316	449	388	402
Corp:HY	614	570	577	180	(84)
Corp: all quality	139	99	68	59	17
MBS	286	346	426	342	77
Inflation	(326)	(300)	(415)	(397)	(548)
Muni	1,362	280	248	90	(405)
Mixed allocation	(1,613)	2,448	2,372	2,828	929
All USFI	1,212	5,550	5,278	5,256	2,557

Source: BofA Global Research, EPFR

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Exhibit 29: Total return FI fund performance vs benchmark

Over the last week, AUM weighted fund performance slightly outperformed benchmark

	AUM (\$Bn)	7/20/2023	Vs. Agg	Last 4w	Vs. Agg
Vanguard Total Bond Market II Index Fund	252	-0.47%	0.03%	0.24%	0.03%
Vanguard Total Bond Market Index Fund	203	-0.46%	0.03%	0.23%	0.02%
PIMCO Income fund	124	-0.25%	0.24%	1.07%	0.86%
The Bond Fund of America	76	-0.63%	-0.13%	0.20%	-0.01%
MetWest Total Return Bond Fund	62	-0.58%	-0.08%	0.21%	0.00%
PIMCO Total Return Fund	55	-0.39%	0.11%	0.42%	0.21%
Dodge & Cox Income Fund	57	-0.32%	0.18%	0.48%	0.27%
PGIM Total Return Bond Fund	42	-0.33%	0.16%	0.43%	0.22%
BlackRock Strategic Income Opportunities Fund	36	-0.13%	0.37%	0.57%	0.36%
Baird Aggregate Bond Fund	40	-0.41%	0.09%	0.37%	0.16%
JPMorgan Core Bond Fund	39	-0.49%	0.01%	0.17%	-0.04%
DoubleLine Total Return Bond Fund	34	-0.45%	0.05%	0.13%	-0.08%
Fidelity Series Investment Grade Bond Fund	34	-0.42%	0.08%	0.31%	0.10%
Fidelity Total Bond Fund	31	-0.34%	0.16%	0.43%	0.22%
Western Asset Core Plus Bond Portfolio	25	-0.65%	-0.15%	1.07%	0.86%
Baird Core Plus Bond Fund	25	-0.40%	0.10%	0.49%	0.28%
John Hancock Bond Fund	22	-0.44%	0.06%	0.40%	0.19%
TIAA-CREF Bond Index Fund	21	-0.47%	0.03%	0.33%	0.12%
BlackRock Total Return Fund	18	-0.52%	-0.02%	0.22%	0.01%
JPMorgan Core Plus Bond Fund	18	-0.55%	-0.06%	0.30%	0.09%
Bridge Builder Core Bond Fund	16	-0.38%	0.12%	0.29%	0.08%
T Rowe Price New Income Fund	16	-0.42%	0.08%	0.18%	-0.03%
Western Asset Core Bond Fund	15	-0.58%	-0.08%	0.38%	0.17%
CREF Bond Market Account	11	-0.37%	0.13%	0.36%	0.15%
Fidelity Investment Grade Bond Fund	9	-0.49%	0.01%	0.28%	0.07%
DoubleLine Core Fixed Income Fund	7	-0.32%	0.18%	0.28%	0.07%
TCW Total Return Bond Fund	3	-0.61%	-0.11%	0.00%	-0.21%
Janus Henderson Flexible Bond Fund	3	-0.56%	-0.06%	0.32%	0.11%
Weighted avg	1291	-0.43%	0.06%	0.38%	0.17%
Agg		-0.50%		0.21%	
10y return		-0.87%		-0.56%	

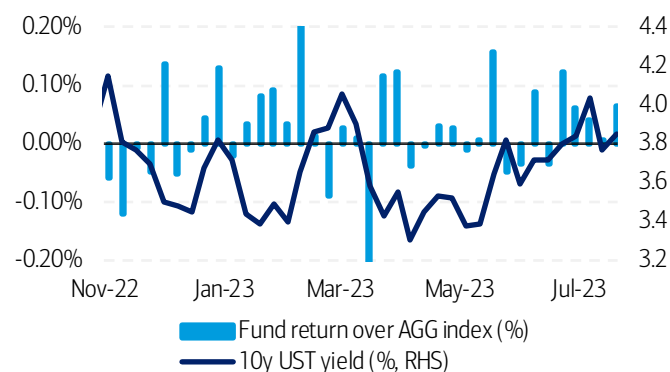
Source: BofA Global Research, Bloomberg. Note: Excess returns are fund total returns over Bloomberg Barclays Agg Index

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Exhibit 30: Total return funds, excess return vs. 10y rate

Weekly asset-weighted total returns for total return funds. Funds return slightly outperformed benchmark on the week

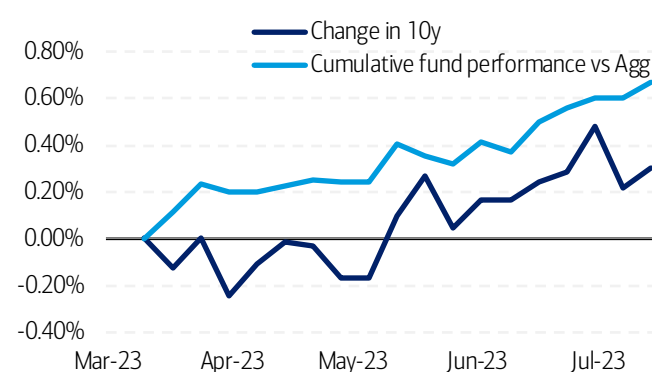


Source: BofA Global Research, Bloomberg. Note: Excess returns are fund total returns over Bloomberg Barclays Agg index

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Exhibit 31: 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 32: Total return funds' published UST allocations vs benchmark from Q3 and Q4 '22

Funds remained underweight USTs in Q1 and overall increased underweight vs end of '22

		AUM (\$bn)	Q4 '22 (%)	Q1 '23 (%)	Change (PPTS)
VTBIX	Vanguard Total Bond Market II Index Fund	251.8	1.6	2.4	0.8
VBMFX	Vanguard Total Bond Market Index Fund	202.9	1.2	1.7	0.5
PIMIX	PIMCO Income fund	123.7	-37.7	-43.4	-5.7
ABNDX	The Bond Fund of America	76.5	-9.7	-11.3	-1.6
MWTIX	MetWest Total Return Bond Fund	62.2	-17.4	-16.5	0.9
DODIX	Dodge & Cox Income Fund	56.9	-31.2	-28.1	3.1
PTTRX	PIMCO Total Return Fund	54.6	-15.2	-15.4	-0.2
PDBAX	PGIM Total Return Bond Fund	41.6	-33.8	-33.7	0.1
BAGIX	Baird Aggregate Bond Fund	39.6	-17.7	-16.9	0.8
PGBOX	JPMorgan Core Bond Fund	39.4	-7.3	-5.0	2.3
BSIIX	BlackRock Strategic Income Opportunities Fund	35.8	-14.6	-17.3	-2.7
DBLTX	DoubleLine Total Return Bond Fund	33.9	-32.4	-32.7	-0.3
FSIGX	Fidelity Series Investment Grade Bond Fund	33.5	-10.4	-7.5	3.0
FTBFX	Fidelity Total Bond Fund	31.1	-18.3	-12.0	6.3
WACPX	Western Asset Core Plus Bond Portfolio	24.7	-29.1	-33.7	-4.6
BCOIX	Baird Core Plus Bond Fund	24.6	-20.0	-18.5	1.4
JHBIX	John Hancock Bond Fund	22.0	-26.1	-22.8	3.3
TBIIX	TIAA-CREF Bond Index Fund	20.7	0.9	0.8	-0.1
MAHQX	BlackRock Total Return Fund	18.1	21.3	-13.7	-35.0
ONIAI	JPMorgan Core Plus Bond Fund	17.5	-7.6	-5.1	2.5
BBTBX	Bridge Builder Core Bond Fund	16.5	-22.6	-22.1	0.5
PRCIX	T Rowe Price New Income Fund	16.0	-11.2	-16.2	-4.9
WATFX	Western Asset Core Bond Fund	15.2	-23.6	-30.7	-7.1
QCBMIX	CREF Bond Market Account	10.7	-22.3	-21.1	1.2
FBNDX	Fidelity Investment Grade Bond Fund	8.8	-8.6	-5.7	2.9
DBLFX	DoubleLine Core Fixed Income Fund	7.1	-20.3	-16.9	3.4
JFLEX	Janus Henderson Flexible Bond Fund	2.9	-9.5	-11.3	-1.8
TGLMX	TCW Total Return Bond Fund	2.8	-40.6	-38.5	2.1
AUM weighted		1291.1	-12.7	-13.3	-0.5

Source: BofA Global Research, funds' publicly available reports

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Bank balance sheets

Exhibit 33: Changes to bank balance sheet assets (\$bn)

Domestic bank assets decline driven by cash and loans

		Current	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	22802	-58	-34	-14	-4	-1
	Cash	3260	-27	-24	-10	1	-2
	UST & Agency	1510	4	-3	-1	-3	-5
	MBS	2571	-13	-4	-5	-4	-6
	Loans and Leases	12089	-27	-2	0	2	12
	Other	3373	6	0	2	-1	-1
Large Domestic (\$bn, NSA)	Total Assets	13265	-74	-34	-16	-10	-5
	Cash	1508	-46	-25	-8	-2	-1
	UST & Agency	1102	2	-3	-2	-3	-4
	MBS	1936	-11	-2	-4	-3	-2
	Loans and Leases	6726	-14	-4	-3	-1	3
	Other	1992	-4	0	0	-1	-1
Small Domestic (\$bn, NSA)	Total Assets	6489	-18	-1	2	2	3
	Cash	453	-8	0	0	0	0
	UST & Agency	292	2	-1	0	0	0
	MBS	609	-1	-2	-2	-1	-3
	Loans and leases	4344	-8	2	5	5	7
	Other	791	-4	0	0	0	0
All Domestic (\$bn, NSA)	Total Assets	19754	-92	-35	-14	-8	-2
	Cash	1961	-54	-25	-8	-2	-1
	UST & Agency	1394	4	-4	-2	-3	-5
	MBS	2545	-12	-4	-5	-4	-5
	Loans and leases	11071	-22	-2	2	4	11
	Other	2783	-9	-1	0	-1	-2
Foreign (\$bn, NSA)	Total Assets	3048	34	1	0	3	2
	Cash	1299	27	1	-1	4	0
	UST & Agency	116	0	0	1	1	0
	MBS	26	-2	0	0	0	0
	Loans and leases	1019	-6	-1	-2	-2	1
	Other	589	14	0	2	0	1

Source: BofA Global Research, Federal Reserve, Bloomberg

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Exhibit 34: Select bank balance sheet liabilities (\$bn, NSA)

Domestic bank balance sheets decline driven by deposits

		Current	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	17260	-90	0	14	3	-14
	Domestic	15976	-111	-5	10	1	-14
	Large Domestic	10779	-104	-8	2	-3	-11
	Small Domestic	5197	-7	3	8	4	-3
	Foreign	1285	21	5	4	2	0
Other borrowing (\$bn, NSA)	All	2284	0	-30	-26	-10	12
	Domestic	1286	-2	-25	-25	-15	10
	Large Domestic	812	7	-18	-17	-11	6
	Small Domestic	474	-9	-6	-8	-3	4
	Foreign	999	2	-5	-1	5	1

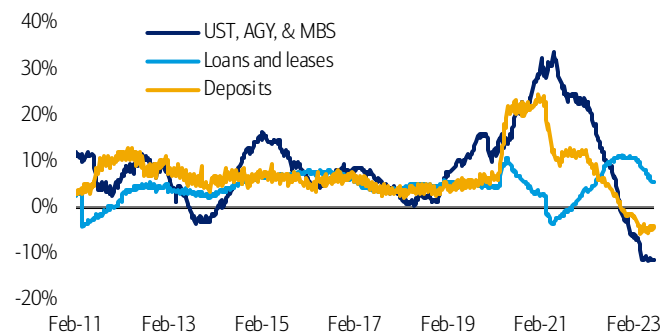
Source: BofA Global Research, Federal Reserve, Bloomberg

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Exhibit 35: YoY change in securities, loans, and deposits

Securities growth usually only positive when deposit growth is positive



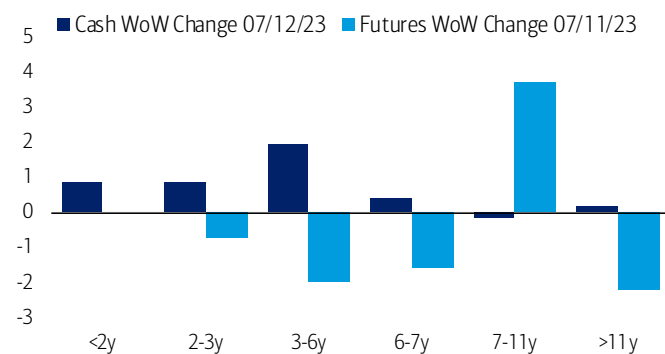
Source: BofA Global Research, Bloomberg, Federal Reserve

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Primary dealer balance sheet

Exhibit 36: Dealers WoW change in positions

10y equivalent, \$bn, futures positions reduced in belly & backend but increased in 7-10y tenors

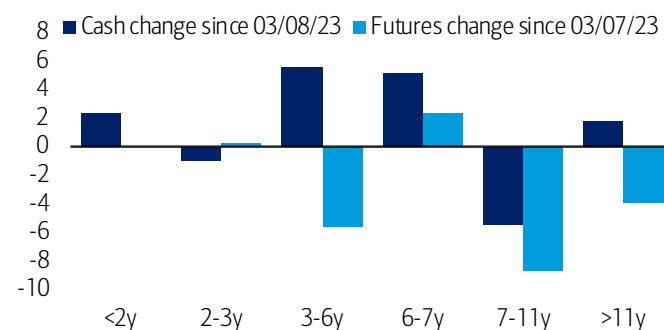


Source: BofA Global Research, NY Fed, CFTC

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Exhibit 37: Dealers change in positions since bank risk events

10y equivalent, \$bn, cash positions lower in the back-end

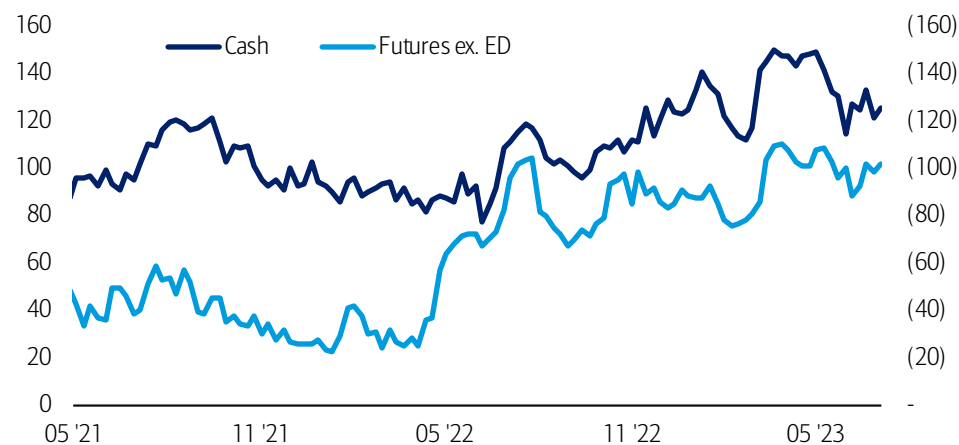


Source: BofA Global Research, NY Fed, CFTC

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Exhibit 38: Dealers total sector positions

10y equivalent, \$bn, cash longs & futures shorts picked up on the week



Source: BofA Global Research, NY Fed, CFTC

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Auction statistics

Exhibit 39: Auction summary statistics

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

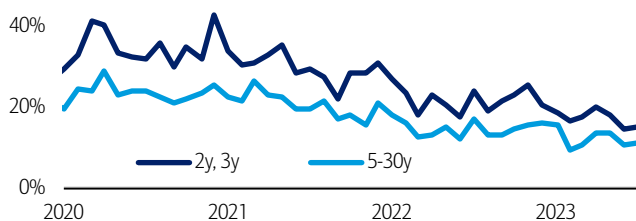
		Primary Dealer	Indirect Bidder	Direct Bidder	Investment Fund	Foreign	Depository Institution
2y	6/30/2023	13.3%	68.5%	18.2%	74.8%	9.3%	0.0%
	MoM Change	-2.9%	0.3%	2.6%	9.7%	-7.5%	0.0%
	1Y Z-score	-1.7	1.5	-0.9	2.8	-1.8	-0.5
3y	6/15/2023	16.7%	61.5%	21.7%	70.1%	11.1%	0.0%
	MoM Change	3.7%	-11.8%	8.0%	1.1%	-5.8%	0.0%
	1Y Z-score	-0.8	0.1	0.8	1.9	-1.6	-0.4
5y	6/30/2023	12.2%	19.7%	68.1%	77.7%	8.3%	0.1%
	MoM Change	2.9%	1.7%	-4.6%	6.0%	-9.7%	0.1%
	1Y Z-score	-0.7	1.2	0.3	2.0	-1.5	1.5
7y	6/30/2023	8.1%	75.3%	16.6%	81.1%	9.6%	0.0%
	MoM Change	-2.3%	3.0%	-0.7%	4.1%	-1.9%	0.0%
	1Y Z-score	-1.2	1.3	-0.9	1.8	-1.0	-0.3
10y	6/15/2023	17.8%	62.3%	19.9%	68.7%	10.7%	0.0%
	MoM Change	4.8%	-5.2%	0.4%	1.9%	-6.7%	0.0%
	1Y Z-score	0.2	-0.3	0.6	1.0	-0.7	-0.7
20y	6/30/2023	7.8%	74.6%	17.6%	78.9%	10.6%	0.0%
	MoM Change	-3.5%	4.0%	-0.5%	5.4%	-2.7%	0.0%
	1Y Z-score	-0.9	0.6	-0.2	1.4	-0.8	-0.3
30y	6/15/2023	9.0%	72.9%	18.1%	78.9%	9.6%	0.0%
	MoM Change	-1.2%	0.5%	0.7%	7.0%	-6.1%	0.0%
	1Y Z-score	-1.0	0.8	-0.2	1.5	-1.1	-0.8

Source: BofA Global Research, Treasury

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Exhibit 40: Primary dealer – average auction allotment

Dealer participation has declined

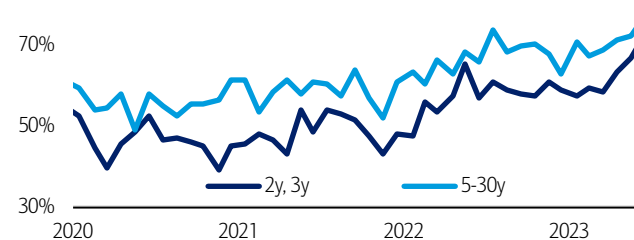


Source: BofA Global Research, Treasury

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Exhibit 41: Investment fund – average auction allotment

Fund participation moderated recently after increasing in 2022

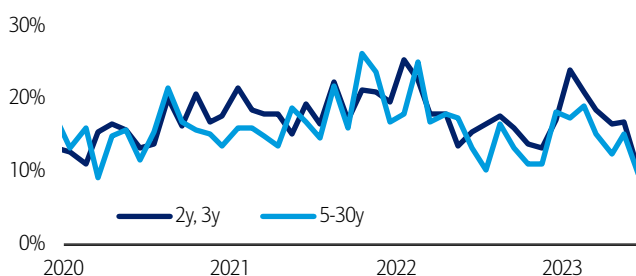


Source: BofA Global Research, Treasury

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Exhibit 42: Foreign investment – average auction allotment

Foreign participation has been more muted

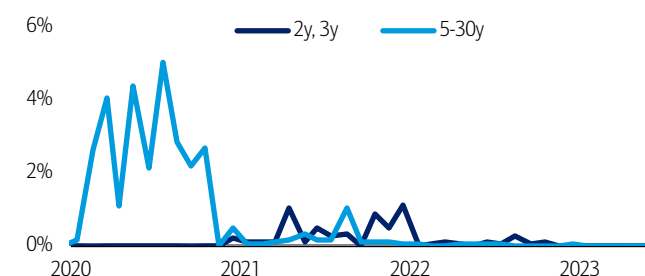


Source: BofA Global Research, Treasury

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Exhibit 43: Depository institutions – average auction allotment

Participation is minimal



Source: BofA Global Research, Treasury

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