

Situation Room

The IMR impact on valuations, volumes

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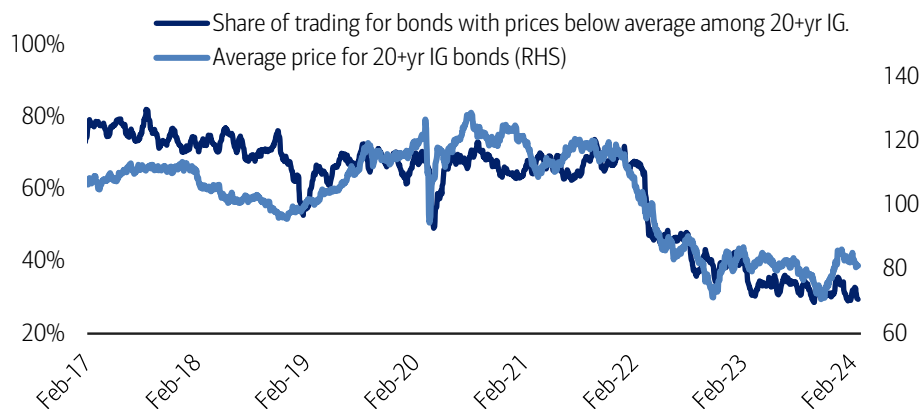
In August 2023, the NAIC (National Association of Insurance Commissioners) relaxed a restriction on so called negative IMR (Interest Maintenance Reserves). The change made it easier for life insurance companies to sell bonds that had declined in value due to the increase in interest rates. In other words, the rule change helped unfreeze holdings of low-coupon, low-dollar price, long-duration (30yr) corporate bonds that otherwise could be stuck on insurance company balance sheets. With the restrictions eased, life insurance companies could be incentivized to increase the average yield of their investment portfolios by rotating out of the low book yield bonds and into more recently issued bonds with higher coupons and yields. Still, trading volumes in low dollar price bonds remained low, but the spread premium for low dollar prices has compressed.

Trading volumes: little impact

Despite the rule change, trading volumes for low-dollar priced back-end bonds remains low. In Exhibit 1 below we plot the share of trading volumes for back-end IG corporate bonds that trade at below-average dollar prices (vs. the total trading volumes for back-end IG bonds). The share dropped significantly in 2022 as off-the-run bonds shifted from trading at a premium to trading at a discount. However, the share did not change much in late 2023 and into 2024, even as the average price increased. At the same time, the overall trading in back-end bonds remained relatively stable, as a share of the total (Exhibit 2).

Exhibit 1: No increase in trading volume of low-price back-end IG bonds recently

The share of trading in back-end low-dollar price bonds remained relatively stable in late 2023 and into 2024.



Source: BofA Global Research, TRACE, ICE Data Indices, LLC

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21 February 2024

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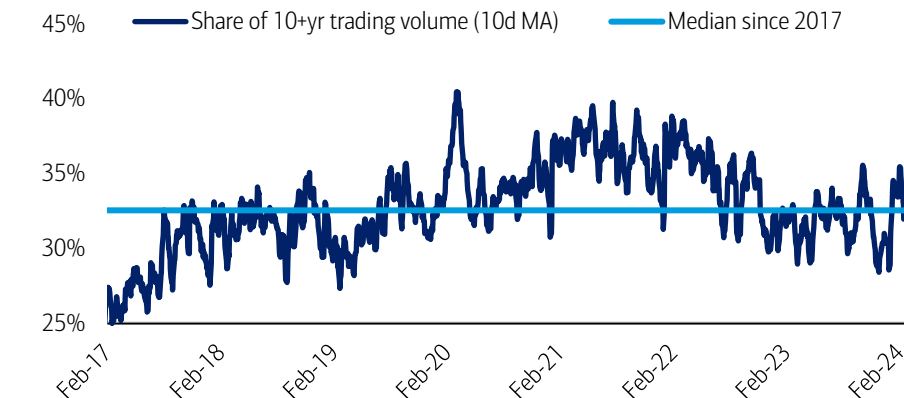
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Timestamp: 21 February 2024 06:37PM EST

Exhibit 2: The overall trading volumes for IG back-end corporate bonds remained steady

Currently the share of IG corporate bond trading volumes for bonds 10yr and longer is 32% -- similar to the median since 2017.



Source: BofA Global Research, TRACE, ICE Data Indices, LLC

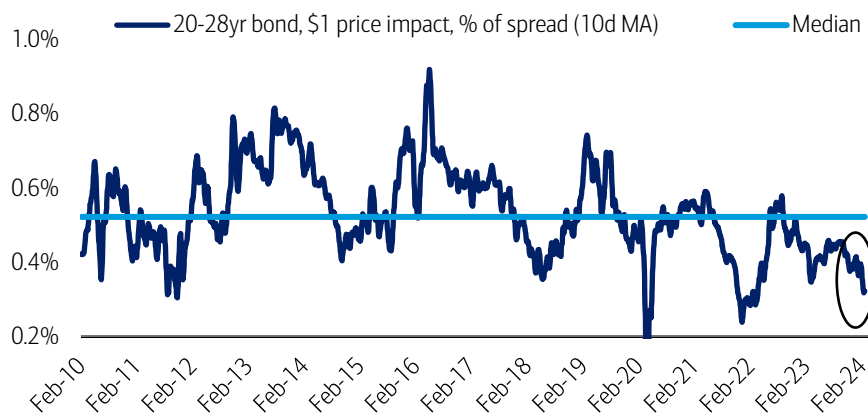
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Valuations: cheaper

Unlike trading volumes, valuations cheapened for bonds trading at low dollar prices. We estimate that investors currently pay 0.32% of spread for each \$1 of price discount for back-end bonds. That is just 4th percentile since 2010 and notably below 0.52% median since 2010. The dollar price premium was already below average in late 2023 and declined further in 2024 (Exhibit 3). That suggests net selling by insurance companies has potentially impacted valuations, making discount bonds attractive from a relative value perspective.

Exhibit 3: Discount bonds are trading cheap

The average premium for back-end bond low dollar prices has declined to 0.32% of spread for each \$1 of price, which is just 4th percentile since 2010.



Note: for the details of the calculation see: [Credit Market Strategist: Price fall](#)

Source: BofA Global Research, ICE Data Indices, LLC

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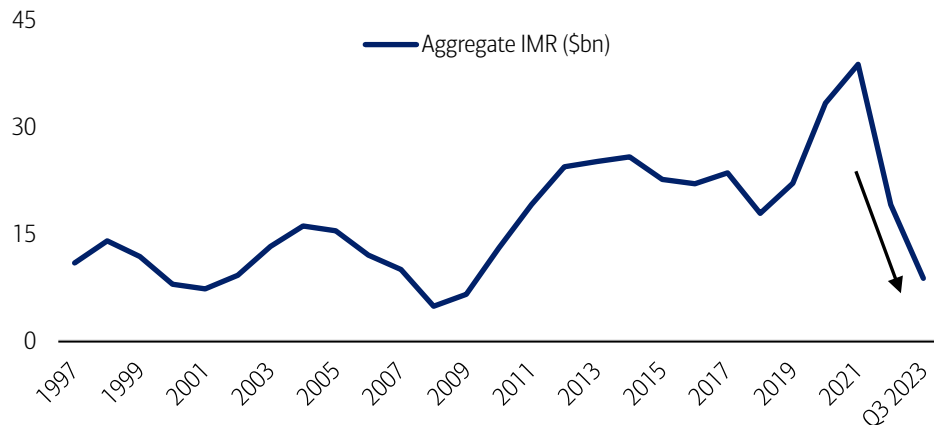
What is IMR

IMR (Interest Maintenance Reserves) is a statutory accounting concept for US life insurance companies. It effectively allows gains or losses on bond sales due to changes in interest rates to be amortized over the duration of the bond. Mechanically, the IMR is positive when the sale of a bond generates a gain and negative – when the sale generates a loss. However, the original rule did not allow for a negative aggregate IMR. In other words, when the aggregate dropped below zero, insurance companies could no longer amortize losses, and the entire loss amount would directly reduce statutory capital. The new rule removes this restriction under certain circumstances (up to 10% of the adjusted statutory surplus, only if risk-based capital (“RBC”) ratio remains above 300%, the change is currently set to expire on January 1, 2026).

Therefore, on balance the updated IMR rule makes it easier for life insurance companies to sell underwater bonds. Note that life insurance companies were able to sell underwater bonds even before the change if, for example, they had a positive IMR balance (about 70% of companies as of 3Q-2023) or could take a hit to capital. As a result, estimating the potential impact of the rule is complicated. Prudential, for example, stated on their 3Q-2023 earnings call that they were able to “admit” \$1.3bn of additional IMR due to the rule change. That would correspond to the ability to sell \$6.5bn of back-end IG bonds, assuming the average price of \$80. Prudential had one of the largest negative IMR balances, according to SNL data.

Exhibit 4: The aggregate life insurance IMR balance declined in 2023.

The aggregate IMR for life insurance companies declined to \$8.8bn by 3Q-2023 from the highs of \$39bn in 2021.



Source: SNL

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Daily credit snapshot

US IG issuance totaled \$19.4bn across 4 deals today, \$33.7bn WTD and \$118.7bn MTD. The average new issue concession was 5.8bps today, while the average break performance was 5.0 bps tighter today. This week's new issues are trading 4 bps tighter on average from pricing.

S&P 500 closed +0.13%, 10-year Treasury yields +4bps, CDX IG -0.5bps, CDX HY +\$0.03pts, and cash bond spreads quoted -1/-4bp today, LQD closed 1.64bps tighter today.



Exhibit 5: Recent new issue pricing and new issue concessions

List of new issues in the IG corporate bond market today along with performance metrics.

Date	Ticker	Name	Tenor	Size (\$mm)	Moody's/S&P Rating	Coupon (%)	Px Spread (bps)	New Issue Conc. (bps)	* Break performance	Current spread (bps)
2024-02-20	AWK	American Water Capital Corp	10	700	Baa1/A	5.15	92	n.a.	n.a.	n.a.
2024-02-20	AWK	American Water Capital Corp	30	700	Baa1/A	5.45	107	n.a.	n.a.	n.a.
2024-02-20	CBG	CBRE Services Inc	5	500	Baa1/BBB+	5.5	130	n.a.	-11	120
2024-02-20	DTE	DTE Electric Co	3	500	Aa3/A	4.85	47	n.a.	n.a.	46
2024-02-20	DTE	DTE Electric Co	10	500	Aa3/A	5.2	93	12	-2	91
2024-02-20	HCA	HCA Inc	7	1,000	Baa3/BBB-	5.45	120	n.a.	n.a.	118
2024-02-20	HCA	HCA Inc	10	1,300	Baa3/BBB-	5.6	135	4	n.a.	133
2024-02-20	HCA	HCA Inc	30	1,500	Baa3/BBB-	6	160	7	n.a.	158
2024-02-20	HCA	HCA Inc	40	700	Baa3/BBB-	6.1	170	n.a.	n.a.	169
2024-02-20	MAR	Marriott International Inc/MD	5	500	Baa2/BBB	4.875	90	6	-4	87
2024-02-20	MAR	Marriott International Inc/MD	10	1,000	Baa2/BBB	5.3	120	6	n.a.	118
2024-02-20	MIZUHO	Mizuho Financial Group Inc	6NC5	750	A1/A-	5.376	112	-8	n.a.	103
2024-02-20	MIZUHO	Mizuho Financial Group Inc	11NC10	750	A1/A-	5.579	130	5	n.a.	121
2024-02-20	SO	Georgia Power Co	3	500	Baa1/BBB+	5.004	62	n.a.	n.a.	60
2024-02-20	SO	Georgia Power Co	10	900	Baa1/BBB+	5.25	102	5	-3	99
2024-02-20	VZ	Verizon Communications Inc	30	1,000	Baa1/BBB+	5.5	115	n.a.	-2	112
2024-02-20	WSTPNZ	Westpac New Zealand Ltd	3	750	A1/AA-	5.132	75	n.a.	n.a.	74
2024-02-20	WSTPNZ	Westpac New Zealand Ltd	5	750	A1/AA-	5.195	95	n.a.	n.a.	94
2024-02-21	AZN	Astrazeneca Finance LLC	3	1,250	A2/A	4.8	42	5	n.a.	n.a.
2024-02-21	AZN	Astrazeneca Finance LLC	5	1,250	A2/A	4.85	57	8	n.a.	n.a.
2024-02-21	AZN	Astrazeneca Finance LLC	7	1,000	A2/A	4.9	62	8	-3	59
2024-02-21	AZN	Astrazeneca Finance LLC	10	1,500	A2/A	5	72	12	-4	68
2024-02-21	CMPCCI	Inversiones CMPC SA	10	500	NA/BBB	6.125	185	n.a.	n.a.	n.a.
2024-02-21	CSCO	Cisco Systems Inc	2	1,000	NA/AA-	4.9	25	n.a.	-4	21
2024-02-21	CSCO	Cisco Systems Inc	3	2,000	NA/AA-	4.8	40	n.a.	-6	34
2024-02-21	CSCO	Cisco Systems Inc	5	2,500	NA/AA-	4.85	55	n.a.	-6	49
2024-02-21	CSCO	Cisco Systems Inc	7	2,500	NA/AA-	4.95	65	n.a.	-7	58
2024-02-21	CSCO	Cisco Systems Inc	10	2,500	NA/AA-	5.05	75	n.a.	-7	68
2024-02-21	CSCO	Cisco Systems Inc	30	2,000	NA/AA-	5.3	85	n.a.	-6	79
2024-02-21	CSCO	Cisco Systems Inc	40	1,000	NA/AA-	5.35	90	n.a.	-2	88
2024-02-21	NGGLN	Massachusetts Electric Co	30	400	Baa1/BBB+	5.867	165	-4	n.a.	n.a.

Note: We calculate new issue concessions by estimating the difference between new issue bond spread and interpolated G spread from comparable liquid secondary bonds of the same issuer prior to the new issue deal announcement, adjusted for the spread impact of dollar prices deviating from par. Break performance is computed as the difference between new issue pricing and secondary closing spread on the first day of trading.

Source: BofA Global Research, Bloomberg

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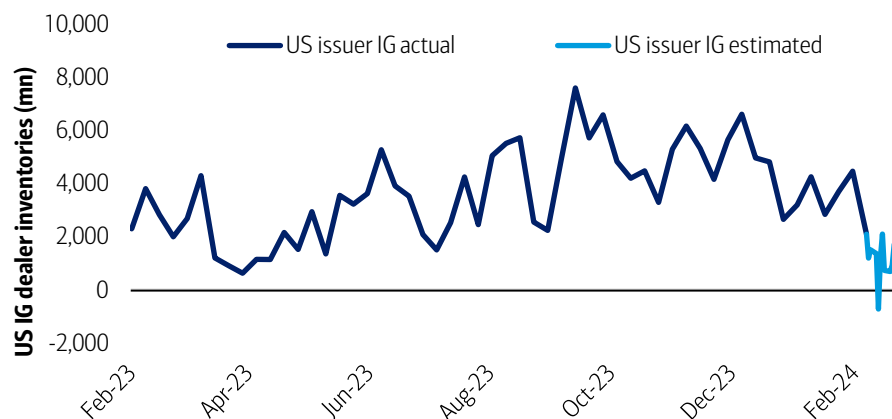
Daily dealer inventories update

Below we estimate dealer inventories for the IG corporate bonds based on TRACE data.

The actual inventories of US issuer bonds based on NY Fed survey, as well as the estimated change since the latest Fed report are plotted in Exhibit 6. We estimate the corresponding DV01 equivalent in Exhibit 7. More details by sector and maturity are available in Exhibit 8 and Exhibit 9. Finally, note that the data for the current date is through about 4:40 p.m. Eastern Standard Time.

Exhibit 6: Estimated dealer inventories of IG corporate bonds.

We estimate IG dealer inventories of US issuer bonds declined to \$1.7bn currently from \$2.1bn on Feb-07.



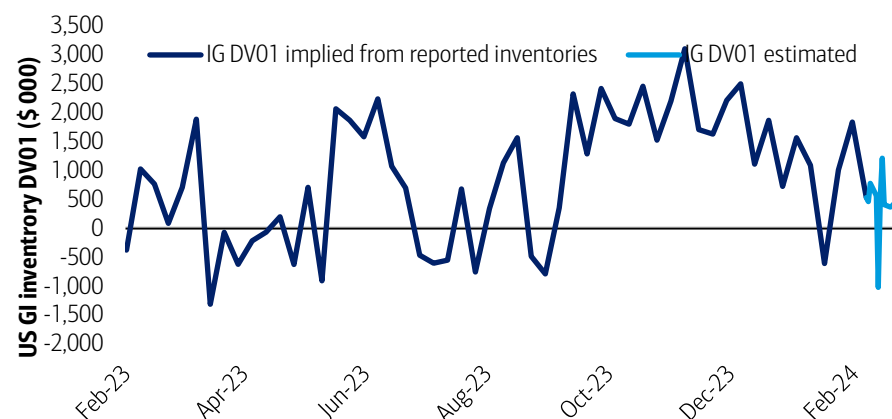
Note: data for US issuer bonds only, maturities 13M or longer. Actual dealer inventory data is from Primary Dealer Statistics survey by the NY Fed. The subsequent change in inventory is estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE, Federal Reserve

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Exhibit 7: Estimated dealer inventory DV01 for IG corporate bonds.

We estimate IG dealer inventory DV01 of US issuer bonds declined to \$0.4mn currently from \$0.5bn on Feb-07.



Note: data for US issuer bonds only, maturities 13M or longer. Actual dealer inventory data is from Primary Dealer Statistics survey by the NY Fed. The subsequent change in inventory is estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE, Federal Reserve

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Exhibit 8: Estimated changes in IG dealer inventories by maturity and broad sector.

We estimate IG dealer inventories increased \$562mn today and increased \$416mn over the prior week.

Sector	Net dealer buy (\$mn)					Net dealer DV01 change (\$thousand)					Trading volumes on 21-Feb-24 (\$mn)			
	21-Feb	20-Feb	1 W	2 W	4 W	21-Feb	20-Feb	1 W	2 W	4 W	Buy	Sell	Dealer	Total
High grade (13M+)	562	127	416	-688	-3,514	-176	18	-384	-43	-440	13,864	13,303	8,774	35,941
<3yr	515	-224	753	-84	-871	90	-47	115	-62	-322	2,268	1,753	1,396	5,417
3-5yr	337	85	-513	-1,013	-1,191	138	26	-234	-459	-462	2,774	2,437	1,872	7,084
5-11yr	-228	277	145	-1,168	-5,197	-194	170	-9	-871	-3,417	4,805	5,032	2,924	12,760
11+yr	-63	-10	31	1,576	3,745	-209	-130	-255	1,349	3,760	4,017	4,081	2,582	10,680
Fin	-26	-465	-1,100	-2,789	-5,190	-114	-198	-781	-1,270	-1,985	5,340	5,367	3,114	13,822
Non-Fin	588	592	1,516	2,102	1,676	-62	216	397	1,227	1,545	8,524	7,936	5,659	22,119
Fixed	634	142	464	-576	-3,099	-158	17	-366	-29	-381	13,754	13,120	8,698	35,572
Floating	-73	-15	-49	-112	-415	-17	2	-17	-14	-59	110	183	75	369
US issuers	794	233	535	-375	-2,564	39	20	-133	-106	-499	11,089	10,295	7,125	28,509
DM Yankees	-312	-206	-293	-660	-1,710	-256	-106	-363	-181	-461	2,454	2,765	1,553	6,772
EM Yankees	79	100	174	347	761	41	104	112	244	519	322	243	95	660

Exhibit 8: Estimated changes in IG dealer inventories by maturity and broad sector.

We estimate IG dealer inventories increased \$562mn today and increased \$416mn over the prior week.

Net dealer buy (\$mn)**Net dealer DV01 change (\$thousand)****Trading volumes on 21-Feb-24 (\$mn)**

Note: data for maturities 13M or longer. Changes in inventories are estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE.

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Exhibit 9: Estimated changes in IG dealer inventories by sector.

We estimate today IG dealer inventories declined -\$131mn for Banks/Brokers and increased \$209mn for Energy.

Sector	Net dealer buy (\$mn)					Net dealer DV01 change (\$thousand)					Trading volumes on 21-Feb-24 (\$mn)			
	21-Feb	20-Feb	1 W	2 W	4 W	21-Feb	20-Feb	1 W	2 W	4 W	Buy	Sell	Dealer	Total
Aerospace/Defense	25	78	126	447	704	31	-8	-12	172	520	224	199	149	572
Automobiles	77	28	131	-39	-260	23	10	75	-2	-244	434	357	285	1,076
Banks/Brokers	-131	-381	-631	-1,728	-3,665	-147	-146	-617	-1,055	-1,853	3,842	3,972	2,024	9,838
Basic Materials	127	20	125	120	182	32	17	47	51	79	456	329	193	978
Commercial Services	30	-29	-33	-88	-144	4	-3	-20	-1	14	120	91	89	300
Energy	209	-29	105	-265	-794	125	5	128	-38	-370	899	690	613	2,202
Finance	86	58	-19	-299	-578	8	55	12	-63	-188	802	716	596	2,115
Food, Bev, & Bottling	5	33	108	166	-163	-15	-2	-8	143	-227	253	248	226	727
Health Care	-256	44	-141	93	282	-453	-64	-322	-201	260	1,967	2,223	1,063	5,253
Industrial Products	79	109	456	312	291	39	99	385	258	295	370	292	219	881
Insurance	-16	-73	-110	-48	-13	-3	-70	-56	212	452	272	288	222	782
Media & Entertainment	-21	-50	-262	-274	-487	-78	-30	-243	-383	-486	450	471	435	1,357
REITs	34	-70	-339	-715	-934	27	-36	-120	-364	-397	424	390	272	1,086
Retail	119	-46	39	7	344	108	-48	-50	63	373	487	368	293	1,149
Technology	200	175	358	85	414	99	143	177	-20	498	965	765	832	2,562
Telecom	-17	-20	-148	176	-383	-13	4	-100	177	-257	424	441	237	1,102
Tobacco	-7	42	67	374	316	5	28	45	188	124	149	156	217	521
Transportation	49	-24	153	303	449	80	-33	126	325	461	148	99	133	379
Utilities	-33	228	421	719	879	-44	79	208	509	454	980	1,013	532	2,525
Other	3	33	13	-34	45	-5	18	-40	-15	50	198	195	143	535

Note: data for maturities 13M or longer. Changes in inventories are estimated based on TRACE.

Source: BofA Global Research, FINRA, TRACE.

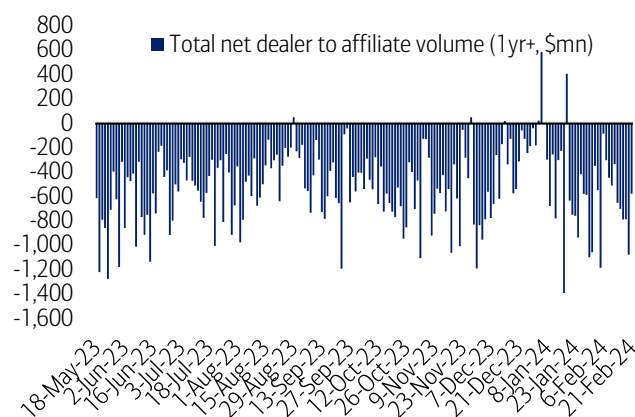
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Daily foreign demand tracker

We believe net dealer-to-affiliate volumes from Trace are correlated with foreign buying of US HG corporate bonds - i.e., negative numbers mean foreign investor buying (US dealers taking down inventory in favor of foreign affiliates). For supporting material see our "primer" on tracking foreign inflows. Exhibit 10 shows the overall daily dealer-to-affiliate volumes while Exhibit 11, Exhibit 12 and Exhibit 13 show subsets of this data. In particular Exhibit 11 shows net dealer-to-affiliate volumes for longer maturity (12+ years) bonds, Exhibit 12 displays volumes reported to Trace before 8am NY time (biased toward Asian buying) and Exhibit 13 shows the subset of net trades reported between 8am and noon (biased toward European buying).

Exhibit 10: Net dealer buying from affiliate (1yr+)

Exhibit shows inconsistent overall foreign buying of US IG corporate bonds for some time.



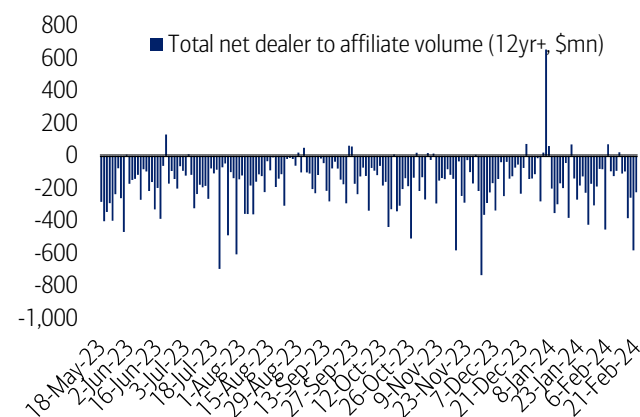
Note: Net dealer-to-affiliate volumes are correlated with foreign buying/selling. Negative numbers indicate foreign buying.

Source: Bloomberg, TRACE

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Exhibit 11: Net dealer buying from affiliate (12yr+)

Foreign buying of longer maturity US IG corporate bonds has been consistent this year



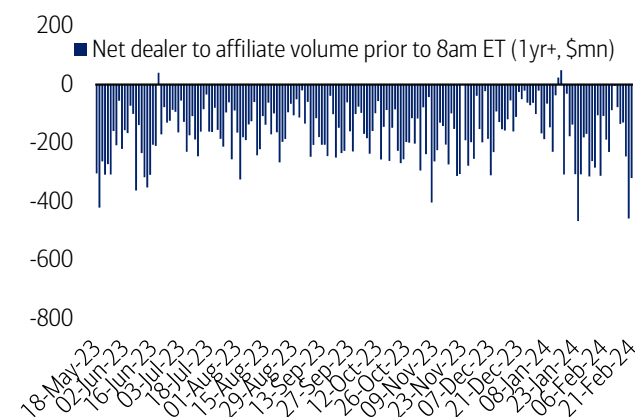
Note: Net dealer-to-affiliate volumes are correlated with foreign buying/selling. Negative numbers indicate foreign buying.

Source: Bloomberg, TRACE

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Exhibit 12: Net dealer-to-affiliate trading volumes before 8am ET

Foreign buying before 8am NY time is dominated by Asia and has been consistent this year



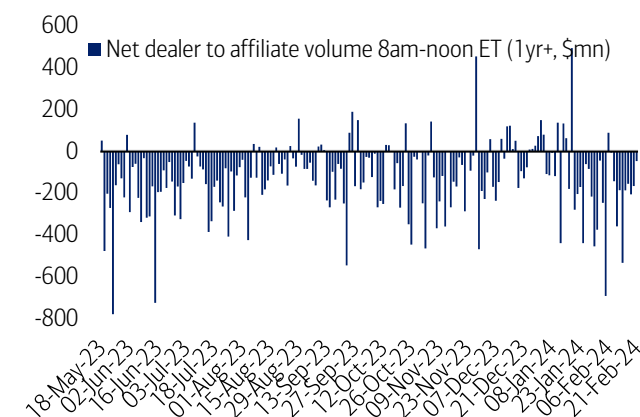
Note: Morning share of daily trading volume is correlated with secondary market activity of foreign investors due to different time zones.

Source: BofA Global Research, TRACE

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Exhibit 13: Net dealer-to-affiliate trading volumes 8am - noon ET

Foreign buying 8am-noon NY time is dominated by Europe and has been inconsistent this year



Note: Morning share of daily trading volume is correlated with secondary market activity of foreign investors due to different time zones.

Source: BofA Global Research, TRACE

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Common abbreviations:

IG: Investment Grade

HG: High Grade

LQD: iShares iBoxx \$ Investment Grade Corporate Bond ETF

DV01: Dollar value of a basis point

CDX IG: The Markit CDX North America Investment Grade Index

CDX HY: Markit CDX North America High Yield Index

ECB: European Central Bank

QE: Quantitative Easing

CSPP: corporate sector purchase programme

Unchd: Unchanged

CPI: Consumer Price Index

FOMC: The Federal Open Market Committee

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