

Global Convertibles Chartbook

Higher rates giveth and taketh away

Who might make the switch to CBs?

In our strategy note last month (see [Who might make the switch to CBs?](#)), we wrote that companies may become more incentivized to assess convertible bond financing given the prevailing high rates backdrop since CBs offer borrowers, particularly those in more cyclical sectors, considerable interest savings versus non-convertible debt. As the 2025 and 2026 maturity wall grows closer (nearly \$1tr of market value in global CBs and HY alone), we expect more CFOs will look to convertibles to raise capital, especially now that recession expectations have meaningfully diminished and rates may remain higher-for-longer, making it more challenging for borrowers to wait for a period of lower costs. Which issuers do we think would be prudent to refinance their outstanding straight debt with a new convertible bond? We've found the majority of plausible crossover candidates are borderline IG-rated (BBB and BBB-) issuers in the media, tech, travel/leisure, energy, and real estate sectors given their upcoming refinancing needs, equity rebounds versus 2022 lows, and relatively high leverage, which generally corresponds to higher coupon payments. Overall, the crossover candidates with the most maturing debt before 2025 are Oracle (ORCL), Comcast (CMCSA), and Charter Communications (CHTR).

“Recovery” is supportive of CBs, but upside may be limited

Our equity strategists' Regime Indicator formally entered the “Recovery” phase last month, which historically has been favorable for pro-cyclical and small-cap CB issuers. In fact, CBs have realized an average annualized return of over 25% during such phases and a 2.4 Sharpe ratio—each the best relative to the other phases of the cycle. While this may bode well for CB performance, we caution that upside may be limited given they face a number of key headwinds, including higher-for-longer rates weighing on long-duration CB issuers, very low deltas, net outflows from mutual funds, and little investor conviction. This considered, we maintain our call for just modest gains into year-end.

Converts slid in September amid the cross-asset selloff

Global convertible bonds fell nearly 2.2% in September, led by the US and Europe. However, global CBs remain positive year-to-date (+4.9%), trailing only equities and HY.

Hot September volumes driven by an active global market

Global CB issuance totaled \$9.2bn last month, with strong volumes across all regions. The US realized \$5.7bn, mostly from a wave of eight deals the week after Labor Day.

CBs saw outflows concentrated in global and US funds

Weekly fund flow data suggests that CB funds across all regions saw net outflows last month. Outflows were most pronounced for US (-\$292mn) and global (-\$466mn) funds.

Chartbook access

To view the Excel Chartbook, which includes a variety of data, tables, and charts focused primarily on returns, markets characteristics, and supply and demand, among other topics, please refer to our [Global Convertibles Chartbook](#).

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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Refer to important disclosures on page 7 to 9.

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Timestamp: 02 October 2023 12:53PM EDT

02 October 2023

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Chartbook access:


 [Access the Chartbook](#)

Exhibit 1: Global convertible performance

...local currency terms

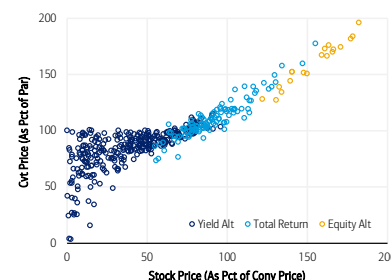
Region	Code	Sep '23	YTD
G300	VG00	-2.15%	4.91%
US	VXA0	-2.60%	5.81%
Europe	VE00	-1.68%	2.86%
Asia-ex Japan	VASI	-1.27%	5.26%
Japan Domestic	VJDM	--	-0.18%
Japan Euro	VJEU	0.17%	8.66%
Emerging Markets	VENK	-1.43%	5.52%

Source: ICE Data Indices, LLC

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Exhibit 2: Global convertibles Tableau visualization tool

Click the chart to access the tool



Source: BofA Global Research, ICE Data Indices, LLC.
Universe capped at names which are trading at less than 200% of par. Mandatories are excluded.

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List of abbreviations on page 6.

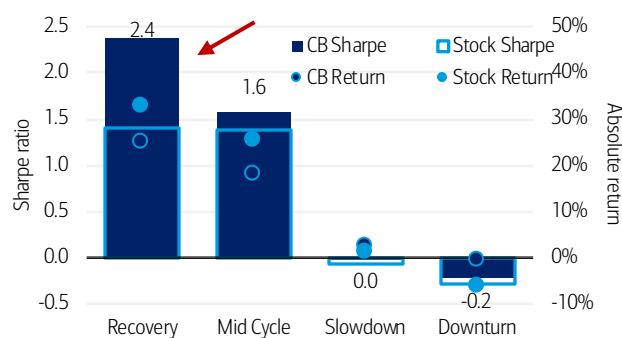
CBs sold off, but “Recovery” is supportive

“Recovery” phase is historically supportive of CBs...

Amid resilient economic activity and softening wage and price pressures, our BofA economists believe the US will avoid recession (see their [02-Aug US Economic Viewpoint](#)). Similarly, our equity strategists’ Regime Indicator, which attempts to identify where we are in the cycle based on eight top-down macro indicators that capture earnings and economic growth expectations, inflation, and credit conditions, formally entered the “Recovery” phase last month (see their [10-Sep Quantitative Profiles](#)). Historically, this phase of the cycle has favored value versus growth, cyclical sectors, and small caps over large caps—factors that generally lend themselves well to CB issuers, which have a pro-cyclical and small-cap bias. Indeed, CBs have done well during past “Recovery” periods. Based on daily data since 1995, we’ve found that they’ve realized an average annualized return of over 25% during such phases and a 2.4 Sharpe ratio—each the best relative to the other phases of the cycle (Exhibit 3 and Exhibit 4).

Exhibit 3: CB v. stock performance during each Regime Indicator phase

Historically, both CB absolute and risk-adjusted performance has been best during the Regime Indicator’s “Recovery” phase

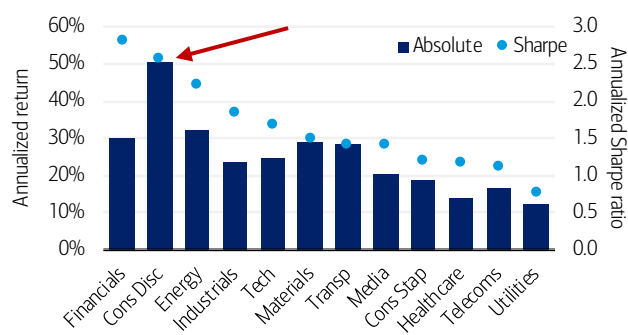


Source: BofA Global Research, ICE Data Indices, LLC. Data as of 29-Sep-2023.

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Exhibit 4: CB sector performance during historical “Recovery” periods

During past “Recovery” periods, cyclical CB sectors, including financials/real estate, consumer discretionary, energy, industrials, and tech have led



Source: BofA Global Research, ICE Data Indices, LLC. Data as of 29-Sep-2023.

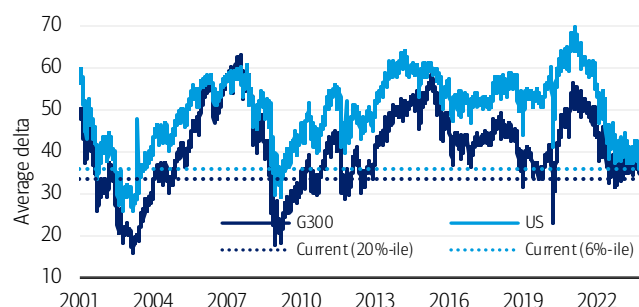
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...but higher-for-longer rates and low deltas limit upside

While this may bode well for CB performance, we caution that CBs face a number of key headwinds, and we think upside may be fairly limited from here. Specifically, we note that higher-for-longer rates may drag on the sizable subset of long-duration CB issuers, low deltas suggest upside participation may be somewhat limited (the US CB market average delta is now just 36, in its 6th percentile since 1998—see Exhibit 5), CB retail funds globally (particularly in Europe) continue to face net outflows (Exhibit 6), and investors have little conviction (see our recent [Global Convertibles Investor Survey](#)). This considered, we maintain our call for 7-9% total returns in the US versus +5.8% YTD, suggesting just modest upside into year-end. Refer to our [Halftime report](#) for forecasts.

Exhibit 5: Global G300 and US CB average delta history

Globally, CB deltas are depressed versus history (especially in the US)

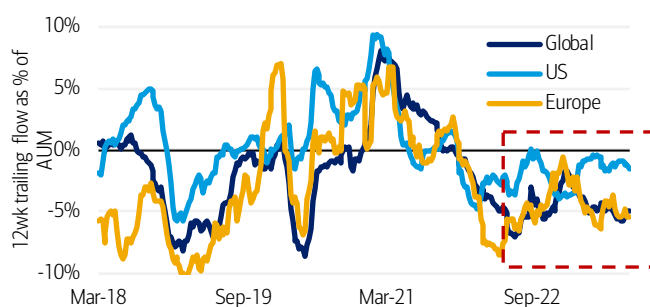


Source: BofA Global Research, ICE Data Indices, LLC. Data as of 30-Sep-2023.

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Exhibit 6: CB mutual fund 12-week trailing flows as percentage of AUM

CB mutual funds globally (particularly in Europe) have faced net outflows



Source: BofA Global Research, EPFR Global. Data as of 30-Sep-2023.

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Continued cross-asset selloff drags CBs lower

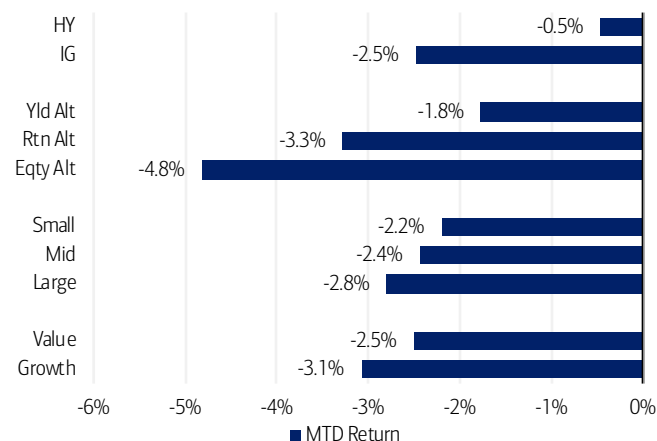
Since July, CB performance has been disappointing as a sustained cross-asset selloff has dragged CBs lower. In fact, over the past 2-months, year-to-date gains for global CBs have been effectively cut in half (the G300 is +4.9% despite being up 9.2% at the end of July). Year-to-date, US CBs have gained 5.8%, while European CBs have added 2.9%.

In more detail, the ICE BofA Global G300 (VG00) ended September down, falling 2.2% on a local-currency basis. Across regions, US CBs suffered the most (-2.6%), followed by Europe (-1.7%), Asia ex-Japan (-1.3%) and Japan Euro (+0.2%). Breaking down US performance, all buckets fell this past month, particularly equity alternatives, which shared more in the stock market decline owing to their high deltas. Growth, large-caps, and IG-rated names also underperformed (Exhibit 7). Sector-wise, losses were led by consumer staples and transportation, while media and telecoms fell the least (Exhibit 8).

On a hedged basis, as measured by the HFR Convertible Arbitrage Index, CBs fell 1.3% last month, lowering the year-to-date return to +4.5%. We expect the backdrop for CB arb will remain supportive – largely a function of upward pressure on issuance as CFOs turn to CBs as a cheaper source of capital amid high rates and looming maturities (see our updated [Convertible Arbitrage Primer](#) for an overview of the space and our outlook).

Exhibit 7: US convertible bond performance by bucket

High-delta equity alt, growth, large-caps, and IG names underperformed...

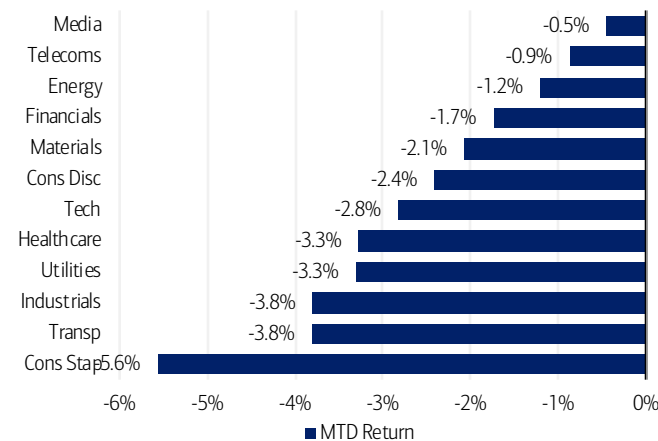


Source: ICE Data Indices, LLC

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Exhibit 8: US convertible bond performance by sector

...as did consumer staples and transportation, while media fell the least



Source: ICE Data Indices, LLC

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Last month, all asset classes we track saw declines. Global convertibles fell 2.2% and lagged all fixed income asset classes. Government bonds fell 2.0%, IG-rated corporate bonds slipped 1.8%, and HY corporate bonds lost 0.7%. However, on a relative basis, CBs outperformed global stocks, as represented by the MSCI World Index, which fell 3.5%. Year-to-date CBs are up 4.9% and are trailing only global equities and HY (Exhibit 9).

Exhibit 9: Global cross asset returns

Both USD and local currency terms

Asset Class	Code	Sep '23 USD	Sep '23 LOC	YTD USD	YTD LOC
Global Govt Bonds	WOG1	-3.32%	-2.01%	-4.12%	-1.25%
Global IG Index	GOBC	-2.62%	-1.84%	0.75%	1.05%
Global HY Index	HW00	-1.25%	-0.67%	5.36%	5.51%
MSCI World Equity Index	GDUEACWF	-4.10%	-3.46%	10.49%	11.62%
Global Convertibles (G300)	VG00	-2.67%	-2.15%	4.38%	4.91%

Source: ICE Data Indices, LLC

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For comprehensive data on returns, including detailed breakouts by structure and sector, heat maps, and single names, please refer to section 1 of the attached Excel Chartbook.

Issuance

Last month, global CB issuance totaled nearly \$9.2bn, the second-best month for primary volumes so far this year (marginally exceeding August and behind only February). The strong month also aligns with seasonal trends, which suggest September is typically among the hottest months for issuance (Exhibit 11). While volumes were skewed towards the US (\$5.7bn), all regions were active this past month with \$1.6bn from Europe, \$1.0bn in Asia, and \$865mn in Japan—a sizeable figure for the much smaller market, accounting for over one-third of the region's total issuance this year (Exhibit 10). Year-to-date, global CB issuance now totals nearly \$61bn, led by the US, and remains on track to reach our year-end forecast of \$75-85bn globally. Importantly, we expect higher-for-longer rates and the looming maturity wall may encourage issuers to refinance straight debt with lower-coupon convertibles—a particularly attractive option for names with 2024/2025 maturities, strong stock performance, and higher leverage (see our recent report [Who might make the switch to CBs?](#) for full details).

Exhibit 10: Global convertible issuance (\$mn)

Global CB issuance totaled \$9.2bn last month, driven primarily by the US

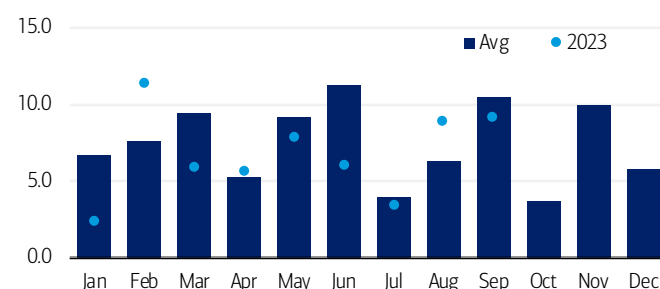
	US	Europe	Asia	Japan	Total
Sep	5,723	1,602	1,000	865	9,189
Aug	7,822	544	0	494	8,860
Jul	0	1,102	2,349	0	3,451
Jun	4,333	740	263	767	6,104
2023 YTD	40,937	9,956	7,649	2,392	60,934
2022 YTD	19,517	3,186	3,299	145	26,147
2022	28,704	6,215	4,218	417	39,555
2021	84,332	22,912	33,208	7,373	147,824
2020	105,809	31,113	20,059	1,723	158,704

Source: BofA Global Research

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Exhibit 11: Average global issuance by month (\$bn)

In line with seasonal trends, September saw high volumes, exceeding August



Source: BofA Global Research

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At the single-name level, September's largest deal was the \$1.5bn 3.5% up 30% 5y CBs from Seagate (Exhibit 12). Notably, the Seagate converts were issued the week of Labor Day, which was unusually active. In fact, the US saw a wave of eight new deals that week totaling \$5.2bn which accounted for over 90% of the region's monthly volume and was the second hottest week this year for US primary (behind only late February). The Seagate CBs were also among the largest in the tech sector primary market this year—globally they were second in size only to the \$1.7bn SK Hynix deal from April, and in the US, they were tied with the \$1.5bn ON Semi CBs issued back in February. Other large deals last month included those from Liberty Media (\$1.15bn), Eni SpA (\$1.1bn), the two-tranche NIO CBs (\$1.0bn total), and the JFE Holdings (\$614mn) deal from Japan.

Exhibit 12: Global convertibles issued during September

Last month's largest deal was the \$1.5bn Seagate 3.5% up 30% 5y CBs

Region	Date	Cusip	Issuer	Description	Coupon	Issue Amt (USD)	Issue Amt (LOC)	Currency	Initial Cv Prem	Seniority	Rating	Mandatory	Cvt Sector
US	9/8/2023	81180WBK6	SEAGATE HDD CAYMAN	STX 3 1/2 06/01/28	3.500	1,500.00	1,500.00	USD	30.00	Unsecured	NR	N	Technology
US	9/7/2023	531229AR3	LIBERTY MEDIA CORP	LMCA 2 3/8 09/30/53	2.375	1,150.00	1,150.00	USD	30.00	Unsecured	NR	N	Consumer Discretionary
Europe	9/7/2023	Z18002910	ENI SPA	ENIIM 2.95 09/14/30	2.950	1,069.90	1,000.00	EUR	20.00	Unsecured	IG	N	Energy
US	9/8/2023	928298AQ1	VISHAY INTERTECHNOLOGY	VSH 2 1/4 09/15/30	2.250	650.00	650.00	USD	20.00	Unsecured	HY	N	Technology
Japan	9/11/2023	Z18431192	JFE HOLDINGS INC	JFEHLD 0 09/28/28	0.000	614.21	90,000.00	JPY	39.98	Unsecured	NR	N	Materials
US	9/8/2023	007973AD2	ADVANCED ENERGY IND	AEIS 2 1/2 09/15/28	2.500	575.00	575.00	USD	30.00	Unsecured	NR	N	Technology
Europe	9/22/2023	ZH0693080	SNAM SPA	SRGIM 3 1/4 09/29/28	3.250	532.05	500.00	EUR	20.00	Unsecured	NR	N	Utilities
Asia	9/20/2023	62914VAG1	NIO INC	NIO 3 7/8 10/15/29	3.875	500.00	500.00	USD	30.00	Unsecured	NR	N	Consumer Discretionary
Asia	9/20/2023	62914VAH9	NIO INC	NIO 4 5/8 10/15/30	4.625	500.00	500.00	USD	30.00	Unsecured	NR	N	Consumer Discretionary
US	9/7/2023	126349AG4	CSG SYSTEMS INTERNATIONAL	CSGS 3 7/8 09/15/28	3.875	425.00	425.00	USD	32.50	Unsecured	NR	N	Technology
US	9/8/2023	22003BAQ9	CORPORATE OFFICE PROPI	CDP 5 1/4 09/15/28	5.250	345.00	345.00	USD	22.50	Unsecured	IG	N	Financials
US	9/13/2023	03209RAA1	AMPHASTAR PHARMACEUTICAL	AMPH 2 03/15/29	2.000	345.00	345.00	USD	35.00	Unsecured	NR	N	Healthcare
US	9/7/2023	122017AC0	BURLINGTON STORES INC	BURL 1 1/4 12/15/27	1.250	300.00	300.00	USD	32.50	Unsecured	NR	N	Consumer Discretionary
US	9/6/2023	753422AG9	RAPID7 INC	RPD 1 1/4 03/15/29	1.250	260.00	260.00	USD	32.50	Unsecured	NR	N	Technology
US	9/19/2023	29446YAA4	EQUINOX GOLD CORP	EQXCN 4 3/4 10/15/28	4.750	172.50	172.50	USD	20.00	Unsecured	NR	N	Materials
Japan	9/6/2023	Z17741617	NTN CORP	NTNCRP 0 12/19/25	0.000	148.99	22,000.00	JPY	11.97	Unsecured	NR	N	Industrials
Japan	9/12/2023	Z18708227	JAFCO GROUP CO LTD	JAFCO 0 09/28/28	0.000	101.72	15,000.00	JPY	12.00	Unsecured	NR	N	Financials

Source: BofA Global Research

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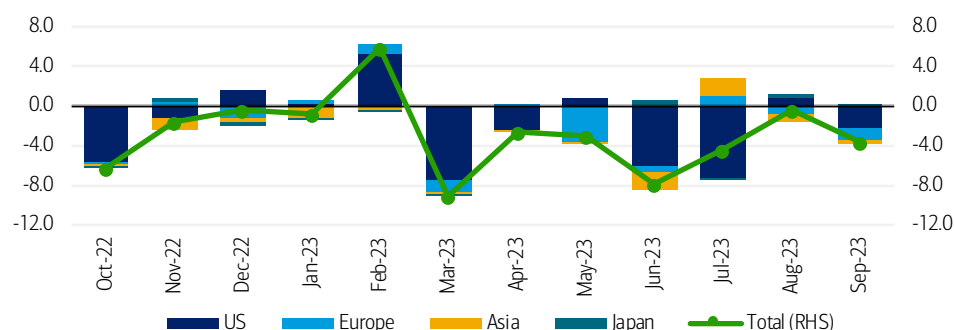


On redemptions, the global CB market realized \$12.8bn last month, driven primarily by the US (\$7.9bn) and Europe (\$2.9bn), while Asia (\$1.4bn) and Japan (\$612mn) had a smaller contribution. Nearly 60% came from maturities, including the \$1.8bn NextEra and \$1.7bn KKR mandatories. The bulk of the remaining redemptions came from a mix of debt repurchases, conversions to shares, defaults (SmileDirectClub filed for Chapter 11 bankruptcy protection), and calls (notably Copa Holdings and Sika, which totaled nearly \$700mn and \$1.7bn in market value, respectively).

On a net-new supply basis, the global CB market contracted nearly \$3.6bn last month with only very modest net-expansion in Japan (+\$252mn). The US (-\$2.1bn) and Europe (-\$1.3bn) accounted for the majority of the net contraction, while Asia (-\$436mn) was close to flat (Exhibit 13). The global CB space has now net-contracted for seven consecutive months. Year-to-date the CB market has net-contracted \$25.9bn globally.

Exhibit 13: Global net supply by month (last 12 months)

Global net supply totaled -\$3.6bn last month as redemptions outpaced new issuance



Source: BofA Global Research

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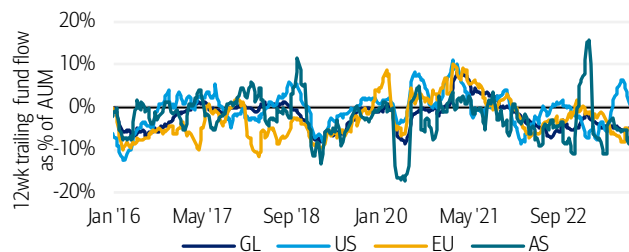
For comprehensive data on issuance and redemptions trends, including net supply totals, sector and structure trends, and use of proceeds information, please refer to section 3 of the attached Excel Chartbook.

Fund flows

Weekly fund flows aggregated to monthly totals show that convertibles retail funds that invest globally (-\$466mn, -1.3% of AUM), in the US (-\$292mn, -1.4% of AUM), in Europe (-\$61mn, -0.9% of AUM), and in Asia (-\$21mn, -4.2% of AUM) all realized net outflows in September (Exhibit 15). This past month, on a 12-week trailing basis, all regional funds saw modest net outflows, except for US CB funds, which are nearly net flat (Exhibit 14).

Exhibit 14: 12-week trailing flows as a percentage of AUM

On a trailing 12-week basis, only US CB funds have seen small net inflows



Source: EPFR Global

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Exhibit 15: Aggregated weekly flows from September

Weekly fund flows indicate that all funds saw net outflows last month

	Flows \$mn	Flow % AUM	Total Assets	NAV %
Global	-466	-1.3	33,361	-1.8
US	-292	-1.4	20,376	-2.7
Europe	-61	-0.9	6,326	-1.1
Asia-ex Japan	-21	-4.2	480	-1.8

Source: EPFR Global

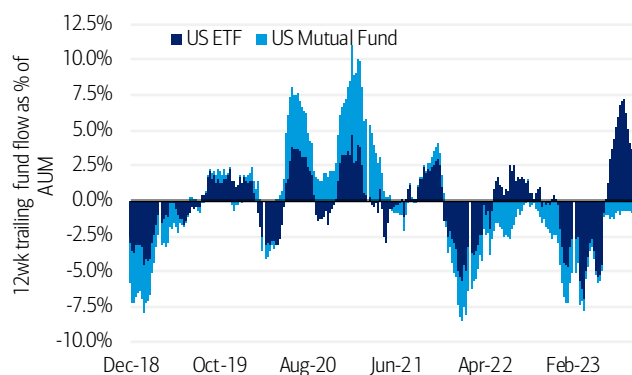
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Digging into US CB flows in more detail, over the last 12 weeks, CB mutual funds, which historically have realized less volatile flows than ETFs, were slightly net-negative (-1.5% of mutual fund AUM). In contrast, ETFs saw moderately positive flows (+5.3% of ETF AUM) representing a return to less extreme levels, albeit still elevated, for the ETF complex following record setting inflows in prior months—a phenomena we highlighted in our [Aug-2023](#) and [Sep-2023](#) Global Chartbooks (Exhibit 16 and Exhibit 17).



Exhibit 16: US ETF versus mutual fund breakdown of 12-week trailing flows

Over the past 12 weeks, US convertible bond mutual funds saw net outflows, while US CB ETFs saw inflows

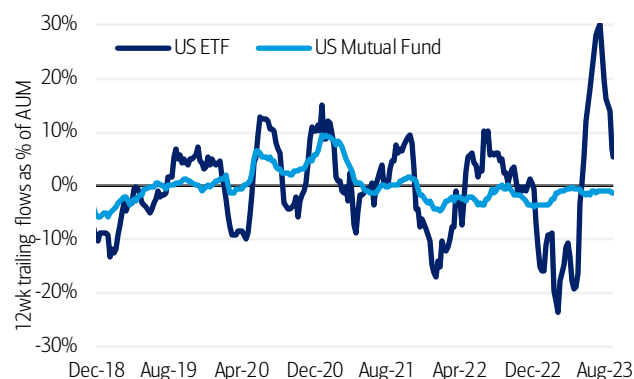


Source: EPFR Global

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Exhibit 17: US ETF and mutual fund trailing 12-week fund flows

Last month, CB ETFs saw moderate net inflows on a 12-week trailing basis, while mutual fund flows were slightly net-negative



Source: EPFR Global

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Monthly fund flow data, which is reported on a one-month lag, indicates that funds that invest in CBs across all regions saw net outflows during August (Exhibit 18). In more detail, global funds lost \$726mn (-1.9% of AUM), European funds realized net outflows of \$171mn (-2.5% of AUM), US funds suffered outflows of \$69mn (-0.2% of AUM), and Asia-ex Japan funds lost a modest \$3mn (-0.5% of AUM). Year-to-date, CB funds in all regions have seen net outflows. Global CB funds have lost the most in dollar terms, while Asia funds have endured the most extreme outflows as a percentage of total AUM.

Exhibit 18: Monthly flow breakdown for 2023

Convertible bond funds across all regions saw net outflows during August

	Global		US		Europe		Asia-exJap	
	% AUM	Flows \$mn	% AUM	Flows \$mn	% AUM	Flows \$mn	% AUM	Flows \$mn
October	-2.7	-984	-0.6	-161	-0.8	-51	-2.5	-13
November	-0.3	-121	-0.7	-192	1.1	74	1.1	5
December	-1.3	-493	-2.7	-796	-0.9	-63	7.3	37
January	-0.3	-107	-4.5	-1,229	-1.0	-75	2.3	13
February	-1.4	-565	1.1	311	0.8	58	-0.4	-2
March	-2.3	-885	-3.9	-1,073	-2.2	-168	-9.4	-54
April	-1.7	-654	-0.7	-178	-0.7	-48	-1.4	-8
May	-1.3	-470	-0.3	-74	-1.4	-101	-0.7	-4
June	-2.2	-800	1.9	485	-3.8	-264	-1.4	-7
July	-1.7	-632	1.5	418	-2.2	-153	-3.8	-20
August	-1.9	-726	-0.2	-69	-2.5	-171	-0.5	-3
YTD	-12.8	-4,840	-5.1	-1,408	-12.5	-922	-14.9	-84

Source: EPFR Global

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For additional charts and data on flow trends, please refer to the Fund Flows slide on tab 3.01 to the attached Excel Chartbook.

Chartbook access

To view the Excel Chartbook, which includes a variety of data, tables, and charts focused primarily on returns, markets characteristics, and supply and demand, among other topics, please refer to our [Global Convertibles Chartbook](#).

Abbreviations

AUM: Assets under management

CB: Convertible bond

ETF: Exchange-traded fund

HF: Hedge fund

IG: Investment grade

HY: High yield

YTD: Year-to-date

Disclosures

Important Disclosures

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