Credit Currents:

Insights across public and private credit

November 5, 2026



Dominique Bly
Macro Credit Research Strategist



Jack Sweeney
Macro Credit Research Strategist

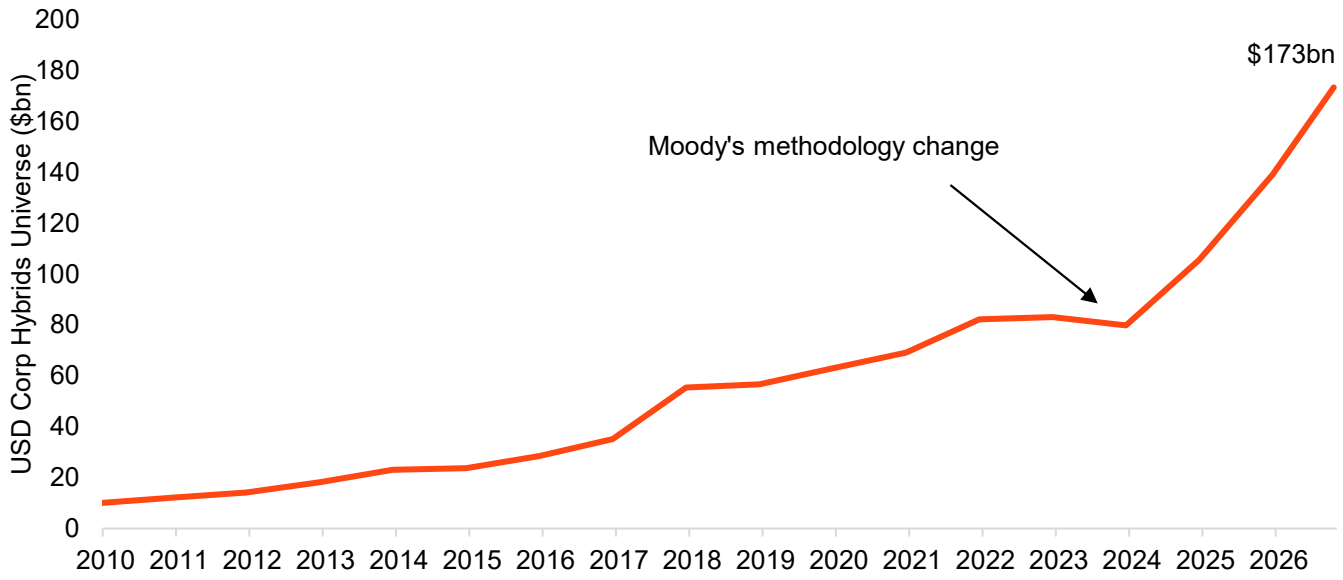
Topics in this piece:
Hybrid capital

Estimated read time: 10 minutes

USD corporate hybrids: Opportunities down the capital structure

1. **The USD corporate hybrid universe has grown rapidly over the past three years.** Following a methodology change from Moody's in 2024, corporate hybrid issuance has flourished, with the universe growing by 117% since YE2023. Most new investment grade (IG) and high yield (HY) hybrids are now eligible for inclusion in Bloomberg/ICE BofA indices, helping drive investor interest in the space.
2. **Most hybrids are rated BBB or BB and are issued by companies in the electric utilities, energy, or communications sectors.** The market growth has also led to more standardized structures, with most new issues taking the form of a 30NC5 or 30NC10. Additionally, the increased use of coupon floors and step-ups has made the asset class more investor-friendly.
3. **Hybrids now make up a sizable portion of the BB universe, and their current spread ratios mostly exceed their historical spread betas.** Hybrids account for 3% of the HY index and 5% of the BB index. While their historical spread betas range from roughly 0.4-0.7x across structures, their current spread ratios versus the index range from roughly 0.6-0.75x.

Exhibit 1: The USD corporate hybrid universe has grown rapidly
Size of the USD corporate hybrids market since 2010



Source: Bloomberg, BlackRock. As of October 23, 2026.

FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

GPD1126-M-6084116-EXP1127-1/12

USD corporate hybrids: Opportunities down the capital structure

We previously discussed how the HY universe has evolved in recent years, becoming higher quality, with a larger share of secured debt and lower duration. Another important evolution in the index has been the growing presence of corporate hybrids.

Financial institutions have long issued forms of hybrid capital, including Additional Tier 1 (AT1s) instruments, contingent convertible (CoCo) bonds, and bank preferreds, primarily for regulatory capital purposes. In this *Credit Currents*, however, we focus on hybrids issued by nonfinancial corporates.

As the name suggests, they combine features of debt and equity. Indeed, they share many characteristics with traditional corporate bonds, including debt treatment for tax purposes and seniority over common equity in a bankruptcy scenario. Their equity-like qualities stem from deep subordination, long-dated or perpetual maturities, and the ability to defer coupon payments without triggering a default. Together, these features provide issuers with durable capital and financial flexibility.

These characteristics, alongside changes in rating agency methodologies, have helped corporate hybrids become a sizable portion of the HY market.

The modern corporate hybrid's standard structure

USD corporate hybrids have become more mainstream in recent years, following a 2024 change to Moody's rating methodology (Exhibit 1). The change simplified Moody's framework to assess equity credit for hybrids and brought it more closely in line with S&P and Fitch (Exhibit 2).

Exhibit 2: Illustrative example of generic corporate hybrid structures from an IG-rated issuer
Key features of standard corporate hybrid structures from IG issuers

Illustrative corporate hybrid structures from IG-rated issuers	30NC5	30NC10
Effective Maturity:	Year 30	
First Call:	Year 5	Year 10
Extension Risk Considerations:	Dependent on economic considerations at first call	Lower extension risk due to alignment of first call and loss of equity credit at S&P
Benchmark Rate:	5y UST; Reset at year 5 to 5y UST (if extended)	10y UST; Reset at year 10 to 5y UST (if extended)
Coupon Structure:	Fixed-to-fixed	
Coupon Spread (i.e., Coupon - Benchmark Rate):	Fixed until year 5; Reset at issuance spread (if no floors/step-ups)	Fixed until year 10; Reset at issuance spread (if no floors/step-ups)
Coupon Deferral:	Optional	
Seniority:	Junior subordinated (Above equity / below traditional subordinated debt)	
Rating:	S&P: 2 notches below senior Moody's: 1 notch below senior Fitch: 2 notches below senior	
Loss of Bloomberg Index Eligibility:	Year 4 (One year before the first reset date)	Year 9 (One year before the first reset date)
Equity Credit at Issuance:	50%	
Loss of Equity Credit:	**S&P: Year 10** Moody's: Year 20 Fitch: Year 25	

Source: Bloomberg, BlackRock. Note: All securities are subject to variations. The figure serves as an illustrative example. Effective maturity is listed here as legal maturity; certain step-up provisions can bring that date forward for rating-agency purposes.

FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Corporate hybrids can receive 50% equity credit treatment from ratings agencies for a defined period, reducing their impact on leverage metrics compared with more traditional debt. Although treatment varies by agency, S&P takes the most conservative approach on timing, extending equity credit to hybrids issued by investment grade (IG)-rated issuers until 20 years before their effective maturity. It is also worth noting that Moody's assigns no equity credit to hybrids issued by HY-rated companies if the instruments provide creditor rights in bankruptcy, which helps explain why the market has largely developed among IG-rated issuers.

Indeed, equity credit is the primary reason IG issuers tap this market. Given the less punitive leverage implications (vs. traditional debt), hybrids offer issuers a way to preserve their ratings without diluting equity holders. It can be particularly useful for lower-BBB-rated issuers seeking to avoid downgrades.

Hybrids also offer a relatively inexpensive source of quasi-equity capital on a weighted-average cost of capital (WACC) basis. Across our identified universe of index-eligible hybrids, the median after-tax cost is 5.1% for IG-rated hybrids and 5.5% for HY-rated hybrids. For comparison, the median after-tax cost of a 50/50 debt/equity blend for the same issuers is roughly 7% (Exhibit 3).

Heavy supply has pushed corporate hybrids into the mainstream

The USD corporate hybrid universe has grown to roughly $173bn (again, Exhibit 1). While the USD IG and HY markets remain much larger ($9.9trn and $1.5trn in par debt outstanding including 144A), the hybrid universe has grown by 117% since YE2023, versus 18% and 15% for IG and HY.

YTD corporate hybrid issuance has reached roughly $50bn, already a record and continuing the growth of the prior two years (Exhibit 4). Most of this issuance has represented net new supply, which explains the growth in the outstanding hybrid universe.

Exhibit 3: Outstanding hybrids have an after-tax cost of 5.1–5.5%, compared with roughly 7% for a 50/50 debt/equity blend from the same issuers

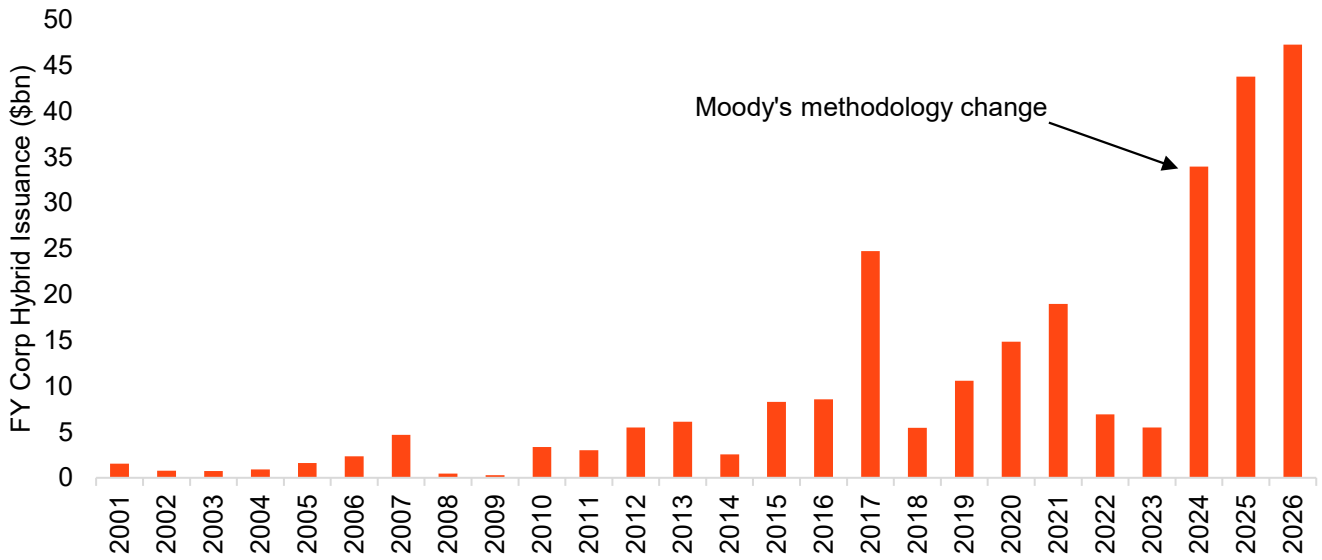
Illustrative financing cost comparison: hybrids versus a 50/50 debt/equity mix

	IG-rated Hybrid Universe	HY-rated Hybrid Universe
Median Hybrids Cost (After-tax)	5.06%	5.53%
Median 50/50 Debt/Equity Blend Cost (After-tax)	6.96%	7.05%

Source: Bloomberg, BlackRock. As of October 27, 2026. Assuming a 21% corporate tax rate. The illustrative blend uses Bloomberg's estimates of the cost of equity and after-tax cost of debt.

Exhibit 4: Corporate hybrid issuance has increased rapidly

USD corporate hybrid supply annually since 2001 and YTD 2026 through October 23, 2026



Source: Bloomberg, BlackRock. 2026 YTD as of October 23, 2026.

FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Most hybrids are BBB or BB, with electric utilities, energy, and communications as the most prominent sectors

The subordination of hybrids affects their bond-level ratings, making them relevant to the HY market despite being issued by IG-rated companies. The 'rule of thumb' is that S&P and Fitch rate hybrids two notches below the issuer's senior unsecured debt, while Moody's rates them one notch lower.

For example, an issuer's senior unsecured bonds rated BBB/BBB/Baa2 across S&P/Fitch/Moody's, respectively, could be eligible for the Bloomberg IG Corporate Index, while its junior subordinated bonds rated BB+/BB+/Baa3 could qualify for the Bloomberg High Yield Index with an index rating of Ba1.

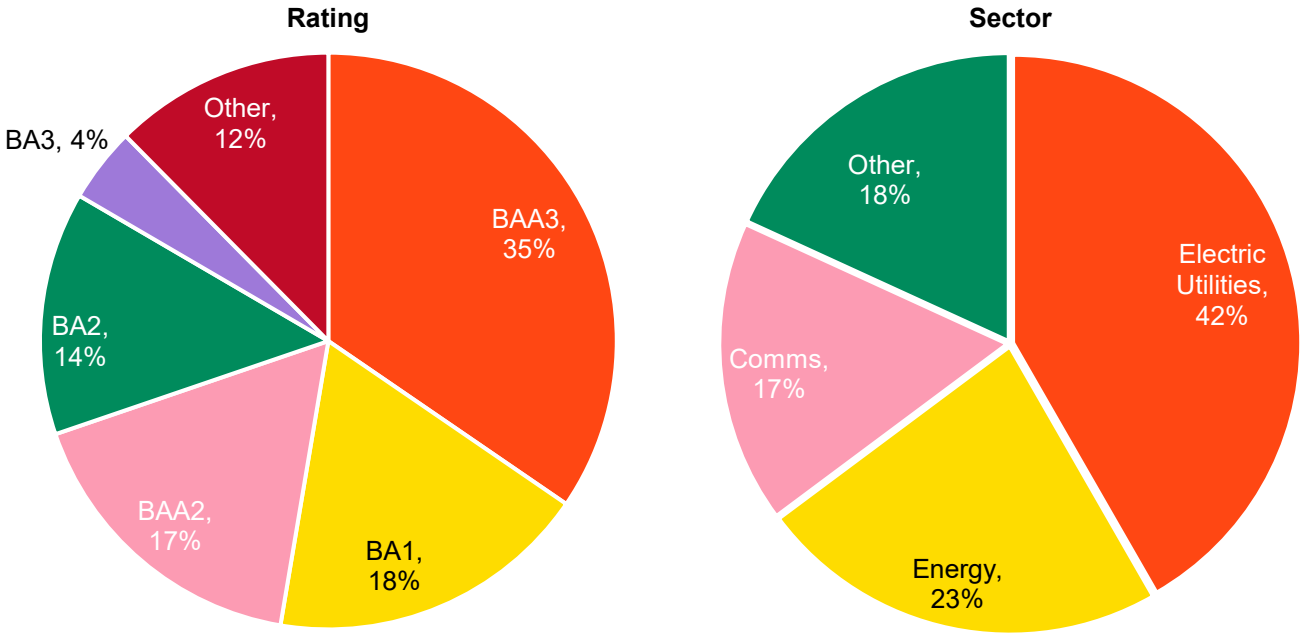
Reflecting the issuer mix and the instruments' subordination, 88% of hybrids are rated either BBB or BB by par value. The notches closest to the IG/HY boundary account for the largest share, with Baa3 and Ba1 debt alone accounting for 35% and 18% of the universe, respectively (Exhibit 5).

The equity credit benefits of issuing hybrids are particularly useful for historically capital-intensive sectors, which also account for a significant share of hybrid issuance. For context, electric utilities, energy, and communications represent 82% of our identified hybrid universe (Exhibit 5).

Electric utilities represent the largest segment, at 42%. They have become increasingly important capital raisers given their strong ties to the AI investment cycle. Thus far, hybrids have not been a meaningful tool for other major players in the AI investment cycle. We expect that broader adoption across sectors will depend on issuer funding needs, structural economics, and investor demand.

Exhibit 5: The vast majority of hybrids are rated BBB or BB, and are issued by electric utility, energy, or communications companies

Breakdown of the hybrids universe by rating and sector



Source: Bloomberg, BlackRock. As of October 23, 2026.

Hybrid structures have become more standardized, supporting index eligibility and investor demand

Prior to Moody's methodology change, corporate hybrid structures varied widely, as did their eligibility across indices. While structures continue to evolve, the wider adoption of 30-year maturities, with first calls after five or ten years (30NC5 and 30NC10), has brought greater standardization to the market.

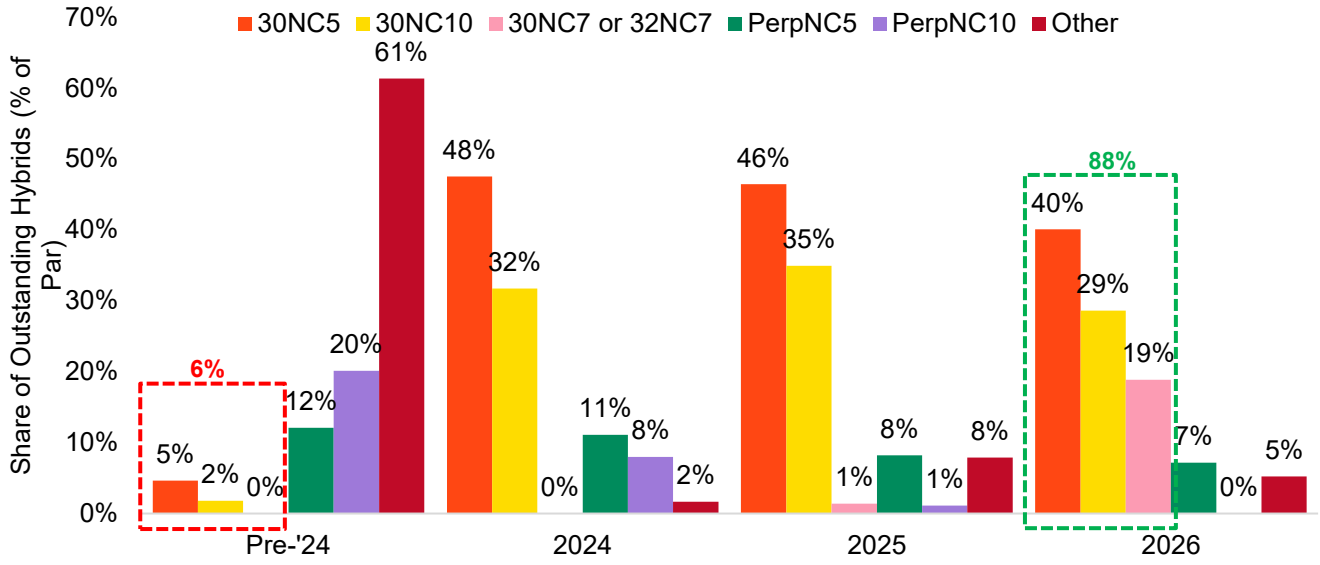
Within the currently outstanding hybrid universe, 30NC5, 30NC10, and 30/32NC7 structures account for 88% of the 2026 vintage, compared with just 6% of pre-2024 vintages (Exhibit 6). Note that the 30/32NC7 is a newer iteration that functions similarly to the 30NC5, but with a later first call date.

FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

For investors, this shift toward *dated* bonds has expanded eligibility for Bloomberg and ICE BofA indices. Indeed, $45bn, or 61%, of the HY bonds in our hybrid universe are eligible for the Bloomberg HY index, while $66bn, or 69%, of the IG bonds are eligible for the Bloomberg IG Corporate index.

This has generated both supply and demand for the space. Index inclusion broadens the potential investor base and increases the relevance of hybrids to benchmark-aware portfolios, subject to mandate restrictions and active allocation decisions. In turn, it has become easier for issuers to tap this market, given the larger buyer base available for new deals.

Exhibit 6: Outstanding hybrid structures have standardized across recent vintages
Structure mix of currently outstanding hybrids, by issuance vintage



Source: Bloomberg, BlackRock. Based on the currently outstanding universe of corporate hybrids as of October 23, 2026. Issuance vintage reflects the original issuance year; percentages represent each structure's share of outstanding par value within that vintage.

Hybrid structures have evolved to include more investor protections via coupon floors and step-ups

Corporate hybrid structures have also evolved to become more investor-friendly, most notably by addressing 'extension risk.' As noted in Exhibit 2, investors in 30NC5 structures face this risk because it may be economical for an issuer to keep the debt outstanding beyond the first call date. Indeed, the additional incentive to redeem due to S&P equity credit loss would not come until year 10, five years after the first call date.

Uncertainty around the redemption date can complicate liability matching and portfolio construction for investors that require predictable principal repayment. These bonds also leave the Bloomberg indices one year before the first reset date (year 4) without eligibility to be added back after an extension. Together, these dynamics can put significant downward pressure on prices. A report from Barclays notes that non-bank hybrids have historically fallen by as much as 12 points ahead of an extension, though part of this decline is likely mechanical, reflecting investors pricing in a later repayment date.

Extension risk is less pronounced for 30NC10 structures because the first call date aligns with the loss of S&P equity credit. This creates a strong incentive for issuers to redeem at year 10, making extensions less likely outside periods of significant issuer stress or limited market access.

Coupon floor

In response to these concerns, issuers introduced the "coupon floor." Typically, at year 5, a 30NC5 coupon resets to the prevailing 5y U.S. Treasury (UST) yield, plus a spread set at issuance. A coupon floor establishes the original coupon rate as the *minimum*, preventing the contractual coupon rate from resetting below its original level upon extension.

For example, if company ABC issues a 30NC5 with a 7% coupon and a floor, the new coupon cannot reset below 7%, even if the 5y UST yield falls to 1% and the reset spread was just 200bp, which would otherwise imply a new coupon of 3%.

FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

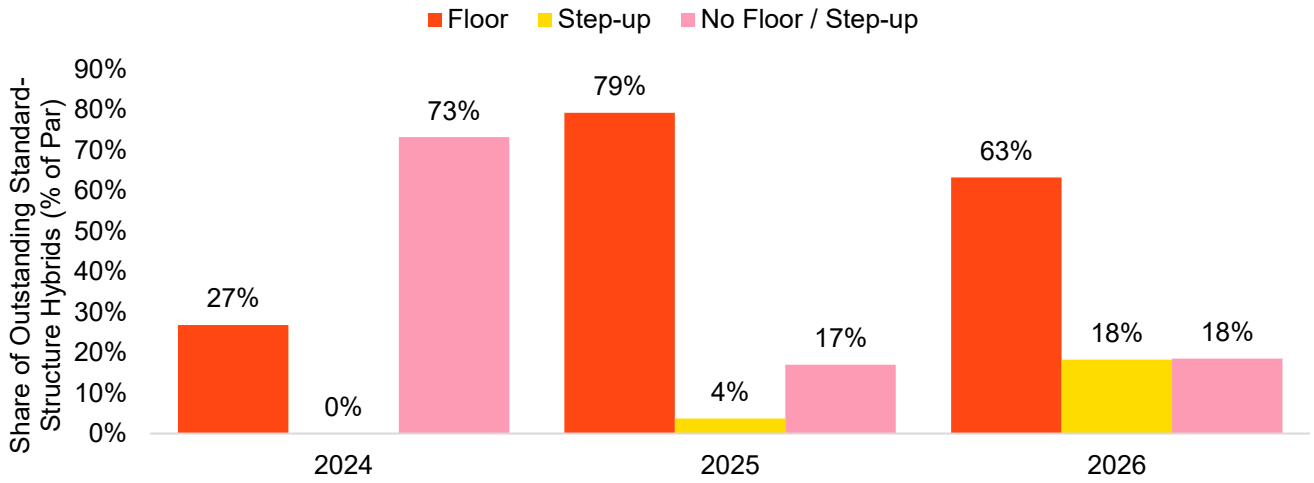
Step-ups

More recently, some USD issuers have introduced "step-ups" to hybrids, a feature more commonly used in Europe. These structures increase the reset spread at specified dates, making it more expensive for issuers to extend the bond. Under S&P's rating methodology, step-ups can also bring forward the bond's "effective maturity," aligning the loss of equity credit with the first call date and creating an incentive for the issuer to redeem.

For example, a hybrid with a stated maturity of 2056 and a first call date in 2031 would normally lose S&P equity credit in 2036, 20 years before maturity. However, suppose its reset spread of 200bp in 2031 increases to 225bp in 2036 and then to 300bp in 2051. The cumulative 100bp step-up would make 2051 the "effective maturity" under S&P's methodology, bringing the loss of equity credit forward to 2031, the first call date.

While few USD issuers have utilized step-ups thus far, we believe they have potential to become more mainstream, especially given their prevalence in Europe. More broadly, coupon floors and step-ups have become increasingly common features. Among currently outstanding standard-structure hybrids (defined as 30NC5, 30NC10, 30NC7, and 32NC7 instruments) issued in 2024, 73% of par outstanding has neither a floor nor a step-up. For the 2026 vintage, 82% includes one of these features (Exhibit 7).

Exhibit 7: Most outstanding hybrids issued more recently include floors or step-ups
Share of currently outstanding standard-structure hybrids with or without floors or step-ups from 2024, 2025, and 2026 vintages



Source: Bloomberg, BlackRock. As of October 23, 2026. Standard-structure includes 30NC5, 30NC10, 30NC7, and 32NC7 instruments. Based on the currently outstanding universe of corporate hybrids. Issuance vintage reflects the original issuance year; percentages represent each feature's share of outstanding par value within that vintage.

Hybrids account for 3% of the HY index, 5% of BBs, and 26% of HY utilities

The growth of the corporate hybrids universe has made the space hard to ignore for index-based investors. Hybrids make up 3.1% of the Bloomberg HY index at $45bn in market value ($45bn in par terms). For context, their market value is comparable to the 11th largest HY sector based on the Bloomberg BCLASS4 sector classifications.

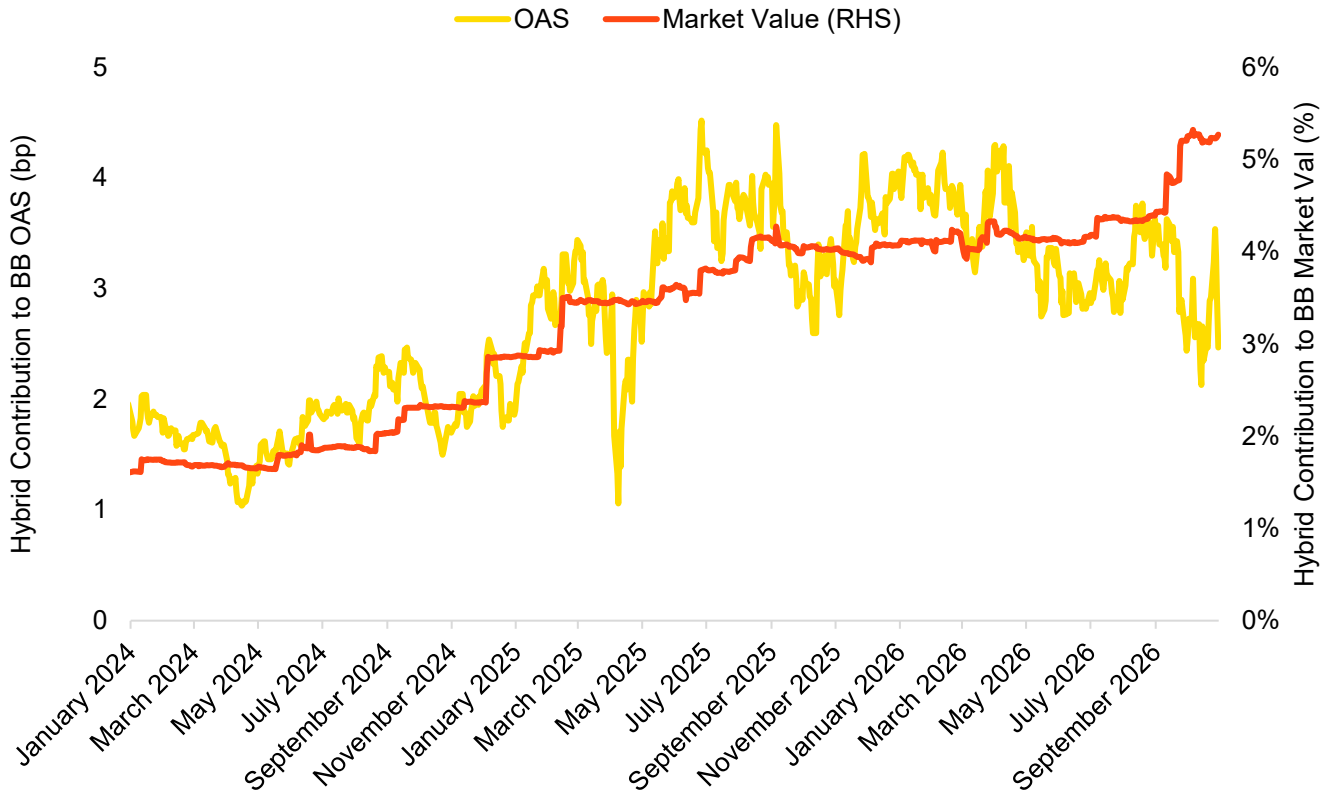
Hybrids account for 5.3% of the BB portion of the index (Exhibit 8, next page). While the wider spreads of lower-rated debt minimize the impact hybrids have on the index's option-adjusted spread (OAS), hybrids have on average contributed roughly 3-4bp to BB OAS over the past two years.

From a HY sector perspective, their largest presence is in utilities, where they currently account for 26% of market value and contribute 27bp of the sector's OAS (Exhibit 9, next page). They have also contributed 32bp and 44bp to the sector's YTD total and excess returns, respectively (as of October 30).

For the broader HY and BB indices, the impact on returns has been more limited, reflecting hybrids' relatively small index weight. In 2024 and 2025, hybrids added 4bp and 1bp to index total returns, respectively, and have added 1bp YTD. Within BBs, hybrids added 6bp in 2024 but detracted 1bp last year and 2bp YTD.

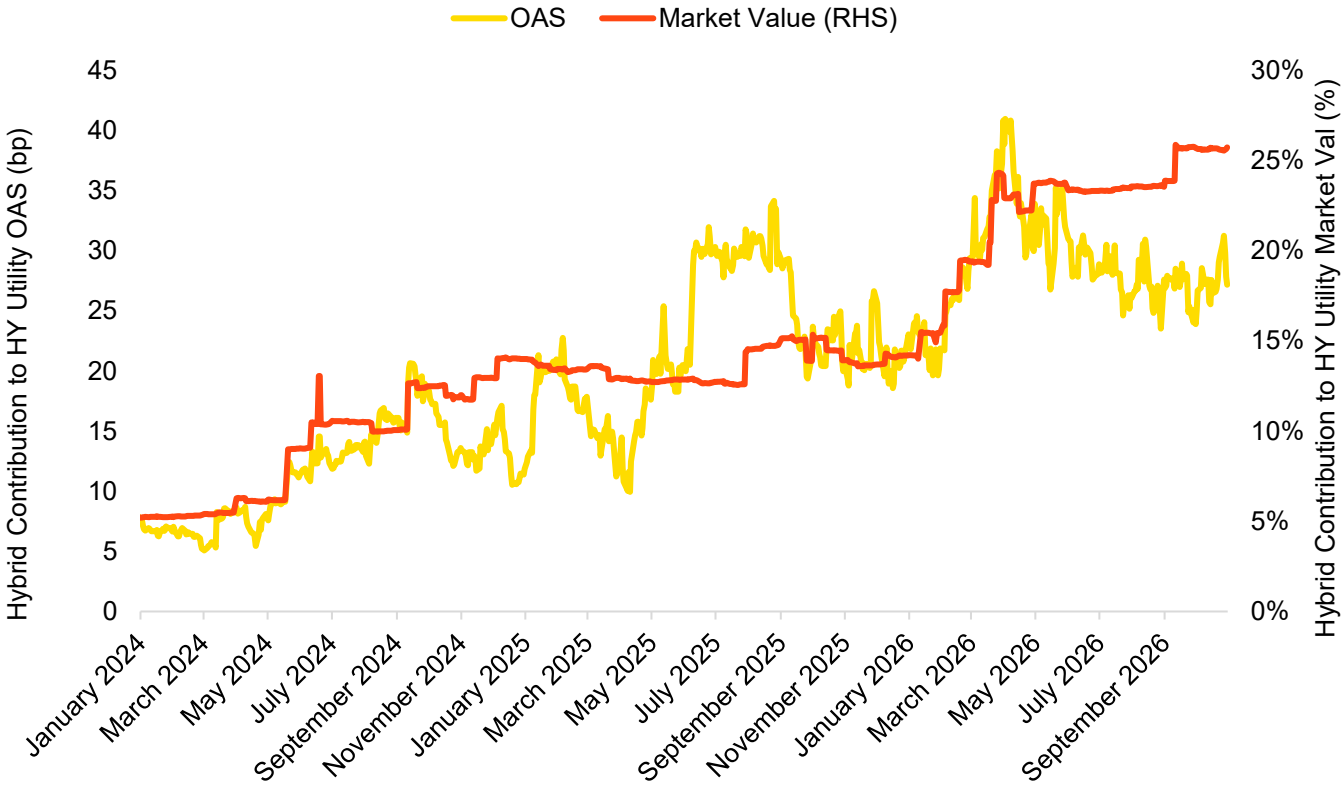
FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Exhibit 8: Hybrids make up 5% of BBs and typically add 3-4bp to the BB index's spread
Hybrids' contribution to BB index OAS (LHS) and percent of BB index market value (RHS)



Source: Bloomberg, BlackRock. As of October 30, 2026. Using the Bloomberg I00182 index.

Exhibit 9: Hybrids account for even more of the HY utility sector
Hybrids' contribution to HY utilities index OAS (LHS) and percent of HY utilities index market value (RHS)



Source: Bloomberg, BlackRock. As of October 30, 2026. Using the Bloomberg I00471 index.

FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Hybrids mostly offer substantial spread relative to their historical HY sensitivity

Index-eligible hybrids offer roughly 60-75% of HY index spread despite exhibiting only around 40-70% of the index's weekly spread sensitivity since 2025 (Exhibit 10). Said differently, hybrids can offer a meaningful share of HY spreads despite having historically experienced smaller spread movements than the broader index. Using median weekly spread changes across our identified HY hybrid cohorts and the broader HY index, we find that HY hybrid spread ratios (i.e., hybrid spread / index spread) exceed their respective spread betas in three of the four structures examined, although the magnitude varies.

30NC10s have the highest spread ratios relative to their betas, with spread ratios of 0.7-0.8x compared with betas of roughly 0.4x. The typical loss of equity credit at year 10 reduces the need for additional structural protections, which may help explain the similar spread behavior of 30NC10s with and without floors or step-ups. 30NC5/7s with structural protections also offer substantial spread relative to their historical HY sensitivity. While structures without floors or step-ups currently trade with lower spread ratios, we believe this is more likely a reflection of their older vintages and proximity to their call dates, rather than a signal investors prefer these structures.

Exhibit 11 shows how hybrids' betas to the HY index reacted to different stress periods in the past year. Although the outbreak of the Middle Eastern conflict earlier this year led to some increased volatility, they were more stable in the more recent selloff, with the 30NC10 structures more stable across both.

Exhibit 10: Spread ratios exceed historical spread betas in three of four HY hybrid cohorts
Betas of weekly median spread changes by HY hybrid cohort to the Bloomberg HY index since 2025 compared with the current spread ratios between the hybrid structures and the HY index

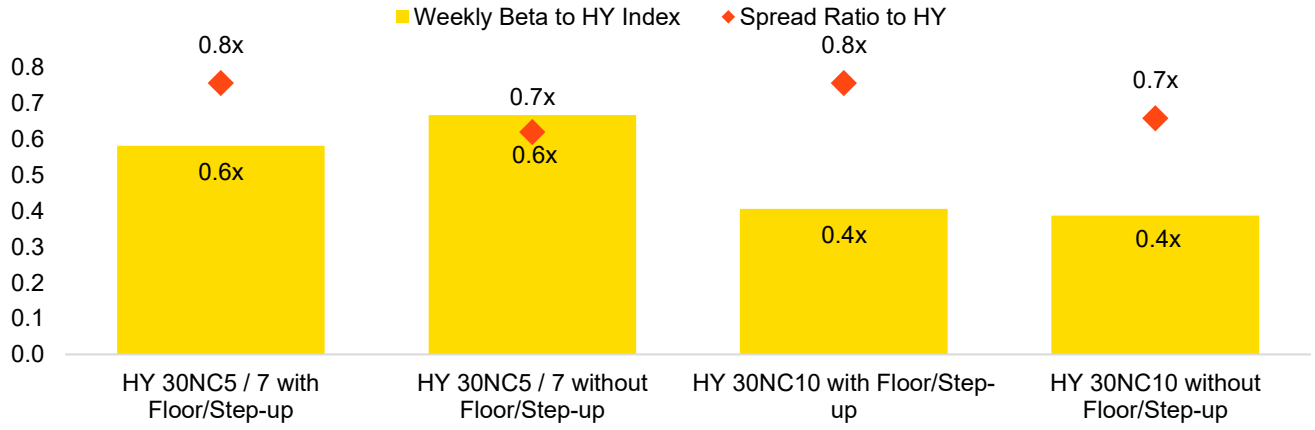
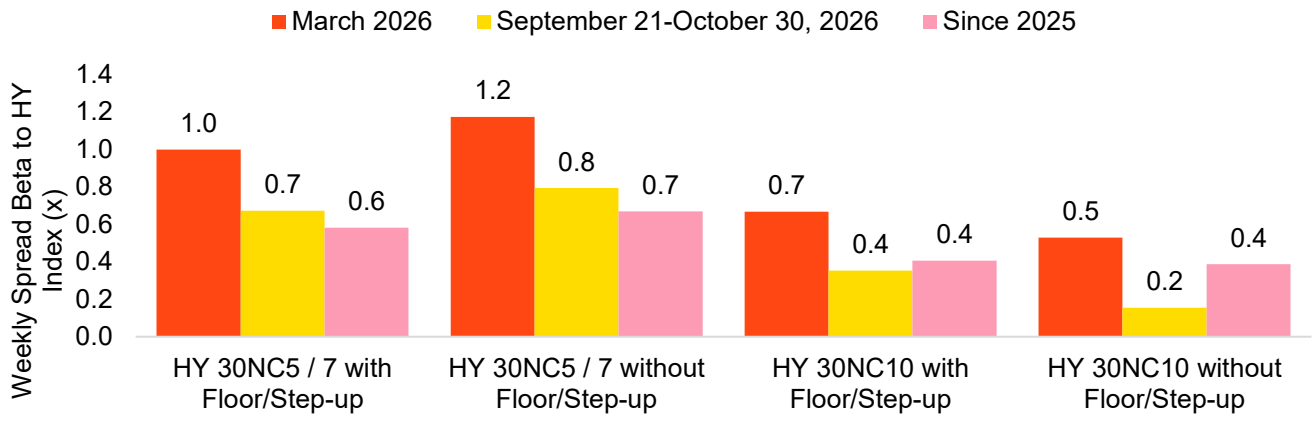


Exhibit 11: Hybrids' betas during periods of stress
Betas of weekly median spread changes by HY hybrid cohort to the Bloomberg HY index during select date ranges



Source for both charts: BlackRock, Bloomberg. Data from January 3, 2025, through October 30, 2026. Spread ratios as of October 30, 2026. Hybrid cohorts based on index-eligible HY corporate hybrids. Beta calculated using median weekly changes in a cohort's G-spread versus weekly changes in HY index OAS. Spread ratio compares current median cohort G-spread with HY index OAS. The analysis uses currently identified cohort constituents and available historical observations. The number of contributing securities varies over time, and some early observations represent very small samples. Results may therefore reflect changes in issuer and security composition as well as market sensitivity. Past relationships may not persist.

FOR QUALIFIED, PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTORS/ PROFESSIONAL CLIENTS ONLY | NOT FOR PUBLIC DISTRIBUTION

Unless otherwise stated, all reference to $ are in USD.

Risk Warnings:

Capital at risk. The value of investments and the income from them can fall as well as rise and are not guaranteed. You may not get back the amount originally invested.

Past performance is not a reliable indicator of current or future results and should not be the sole factor of consideration when selecting a product or strategy.

Changes in the rates of exchange between currencies may cause the value of investments to diminish or increase. Fluctuation may be particularly marked in the case of a higher volatility fund and the value of an investment may fall suddenly and substantially. Levels and basis of taxation may change from time to time.

Cliffwater Direct Lending Index (CDLI) is an index that assists investors to better understand private credit as an asset class. The CDLI seeks to measure the unlevered, gross of fees performance of U.S. middle market corporate loans, as represented by the underlying assets of Business Development Companies ("BDCs"), including both exchange-traded and unlisted BDCs, subject to certain eligibility criteria. The CDLI is an asset-weighted index that is calculated on a quarterly basis using financial statements and other information contained in the U.S. Securities and Exchange Commission ("SEC") filings of all eligible BDCs. Eligibility is set as all assets held by BDCs that (1) are regulated by the SEC as a BDC under the Investment Company Act of 1940; (2) have a substantial majority (approximately 75%) of reported total assets represented by direct loans made to corporate borrowers, as categorized by each BDC and subject to Cliffwater's discretion, and (3) file SEC form 10-Q (or 10-K, as applicable) within 75 (or 90) calendar days following the current Valuation Date. If a BDC meets the eligibility criteria, but has not filed its report on Form 10-K or 10-Q with the SEC at the time the index is reconstituted, asset information from its report will be included in the index at the time of the next reconstitution. This information is derived from sources that are considered reliable, but BlackRock does not guarantee the veracity, currency, completeness or accuracy of this information.

Important Information:

In the U.S., this material is for institutional use only – not for public distribution.

In Canada, this material is intended for permitted clients as defined under Canadian securities law, is for educational purposes only, does not constitute investment advice and should not be construed as a solicitation or offering of units of any fund or other security in any jurisdiction.

In **China,** this material may not be distributed to individuals resident in the People's Republic of China ("PRC", for such purposes, not applicable to Hong Kong, Macau and Taiwan) or entities registered in the PRC unless such parties have received all the required PRC government approvals to participate in any investment or receive any investment advisory or investment management services.

In **Hong Kong**, this material is issued by BlackRock Asset Management North Asia Limited and has not been reviewed by the Securities and Futures Commission of Hong Kong. This material is for distribution to "Professional Investors" (as defined in the Securities and Futures Ordinance (Cap.571 of the laws of Hong Kong) and any rules made under that ordinance.) and should not be relied upon by any other persons or redistributed to retail clients in Hong Kong.

In **Japan**, this is issued by BlackRock Japan. Co., Ltd. (Financial Instruments Business Operator: The Kanto Regional Financial Bureau. License No375, Association Memberships: Japan Investment Advisers Association, The Investment Trusts Association, Japan, Japan Securities Dealers Association, Type II Financial Instruments Firms Association) for Institutional Investors only. All strategies or products BLK Japan offer through the discretionary investment contracts or through investment trust funds do not guarantee the principal amount invested. The risks and costs of each strategy or product we offer cannot be indicated here because the financial instruments in which they are invested vary each strategy or product. Therefore, before deciding to receive our strategies or products, please refer to the document provided prior to the execution of agreement, prospectus, terms and conditions of investment trust and the explanatory document, etc. that will be delivered to you in accordance with each offering model and confirm the contents thereof.

In **South Korea**, this information is issued by BlackRock Investment (Korea) Limited. This material is for distribution to the Qualified Professional Investors (as defined in the Financial Investment Services and Capital Market Act and its sub-regulations) and for information or educational purposes only and does not constitute investment advice or an offer or solicitation to purchase or sells in any securities or any investment strategies.

In Singapore, this is issued by BlackRock (Singapore) Limited (Co. registration no. 200010143N) for use only with **accredited/institutional** investors as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore. This advertisement or publication has not been reviewed by the Monetary Authority of Singapore.

For Southeast Asia: This document is issued by BlackRock and is intended for the exclusive use of any recipient who warrants, by receipt of this material, that such recipient is an institutional investors or professional/sophisticated/qualified/accredited/expert investor as such term may apply under the relevant legislations in Southeast Asia (**for such purposes, includes only Malaysia, the Philippines, Thailand, Brunei and Indonesia**). BlackRock does not hold any regulatory licenses or registrations in Southeast Asia countries listed above, and is therefore not licensed to conduct any regulated business activity under the relevant laws and regulations as they apply to any entity intending to carry on business in Southeast Asia, nor does BlackRock purport to carry on, any regulated activity in any country in Southeast Asia. BlackRock funds, and/or services shall not be offered or sold to any person in any jurisdiction in which such an offer, solicitation, purchase, or sale would be deemed unlawful under the securities laws or any other relevant laws of such jurisdiction(s).

This material is provided to the recipient on a strictly confidential basis and is intended for informational or educational purposes only. Nothing in this document, directly or indirectly, represents to you that BlackRock will provide, or is providing BlackRock products or services to the recipient, or is making available, inviting, or offering for subscription or purchase, or invitation to subscribe for or purchase, or sale, of any BlackRock fund, or interests therein. This material neither constitutes an offer to enter into an investment agreement with the recipient of this document, nor is it an invitation to respond to it by making an offer to enter into an investment agreement.

The distribution of the information contained herein may be restricted by law and any person who accesses it is required to comply with any such restrictions. By reading this information you confirm that you are aware of the laws in your own jurisdiction regarding the provision and sale of funds and related financial services or products, and you warrant and represent that you will not pass on or utilize the information contained herein in a manner that could constitute a breach of such laws by BlackRock, its affiliates or any other person.

For Other Countries in APAC: This material is provided for your informational purposes only and must not be distributed to any other persons or redistributed. This material is issued for Institutional Investors only (or professional/sophisticated/qualified investors as such term may apply in local jurisdictions) and does not constitute investment advice or an offer or solicitation to purchase or sell in any securities, BlackRock funds or any investment strategy nor shall any securities be offered or sold to any person in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities laws of such jurisdiction.

The information provided here is not intended to constitute financial, tax, legal or accounting advice. You should consult your own advisers on such matters. BlackRock does not guarantee the suitability or potential value of any particular investment. Investment involves risk including possible loss of principal. International investing involves risks, including risks related to foreign currency, limited liquidity, less government regulation, and the possibility of substantial volatility due to adverse political, economic or other developments. These risks are often heightened for investments in emerging/developing markets or smaller capital markets.

THIS MATERIAL IS HIGHLY CONFIDENTIAL AND IS NOT TO BE REPRODUCED OR DISTRIBUTED TO PERSONS OTHER THAN THE RECIPIENT.

In **Australia & New Zealand**, issued by BlackRock Investment Management (Australia) Limited ABN 13 006 165 975, AFSL 230 523 (BIMAL) for the exclusive use of the recipient, who warrants by receipt of this material that they are a wholesale client as defined under the Australian Corporations Act 2001 (Cth) and the New Zealand Financial Advisers Act 2008 respectively. BIMAL is not licensed by a New Zealand regulator to provide 'Financial Advice Service' 'Investment manager under an FMC offer' or 'Keeping, investing, administering, or managing money, securities, or investment portfolios on behalf of other persons'. BIMAL's registration on the New Zealand register of financial service providers does not mean that BIMAL is subject to active regulation or oversight by a New Zealand regulator. This material provides general advice only and does not take into account your individual objectives, financial situation, needs or circumstances. Before making any investment decision, you should therefore assess whether the material is appropriate for you and obtain financial advice tailored to you having regard to your individual objectives, financial situation, needs and circumstances. Refer to BIMAL's Financial Services Guide on its website for more information. This material is not a financial product recommendation or an offer or solicitation with respect to the purchase or sale of any financial product in any jurisdiction. This material is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation. BIMAL is a part of the global BlackRock Group which comprises of financial product issuers and investment managers around the world. BIMAL is the issuer of financial products and acts as an investment manager in Australia. BIMAL does not offer financial products to persons in New Zealand who are retail investors (as that term is defined in the Financial Markets Conduct Act 2013 (FMCA)). This material does not constitute or relate to such an offer. To the extent that this material does constitute or relate to such an offer of financial products, the offer is only made to, and capable of acceptance by, persons in New Zealand who are wholesale investors (as that term is defined in the FMCA). BIMAL, its officers, employees and agents believe that the information in this material and the sources on which it is based (which may be sourced from third parties) are correct as at the date of publication. While every care has been taken in the preparation of this material, no warranty of accuracy or reliability is given and no responsibility for the information is accepted by BIMAL, its officers, employees or agents. Except where contrary to law, BIMAL excludes all liability for this information.

In **Central America**, these securities have not been registered before the Securities Superintendence of the Republic of Panama, nor did the offer, sale or their trading procedures. The registration exemption has made according to numeral 3 of Article 129 of the Consolidated Text containing of the Decree-Law No. 1 of July 8, 1999 (institutional investors). Consequently, the tax treatment set forth in Articles 334 to 336 of the Unified Text containing Decree-Law No. 1 of July 8, 1999, does not apply to them. These securities are not under the supervision of the Securities Superintendence of the Republic of Panama. The information contained herein does not describe any product that is supervised or regulated by the National Banking and Insurance Commission (CNBS) in Honduras. Therefore any investment described herein is done at the investor's own risk. This is an individual and private offer which is made in Costa Rica upon reliance on an exemption from registration before the General Superintendence of Securities ("SUGEVAL"), pursuant to articles 7 and 8 of the Regulations on the Public Offering of Securities ("Reglamento sobre Oferta Pública de Valores"). This information is confidential, and is not to be reproduced or distributed to third parties as this is NOT a public offering of securities in Costa Rica. The product being offered is not intended for the Costa Rican public or market and neither is registered or will be registered before the SUGEVAL, nor can be traded in the secondary market. If any recipient of this documentation receives this document in El Salvador, such recipient acknowledges that the same has been delivered upon his request and instructions, and on a private placement basis. For Guatemala Investors, This communication and any accompanying information (the "Materials") are intended solely for informational purposes and do not constitute (and should not be interpreted to constitute) the offering, selling, or conducting of business with respect to such securities, products or services in the jurisdiction of the addressee (this "Jurisdiction"), or the conducting of any brokerage, banking, or other similarly regulated activities ("Financial Activities") in the Jurisdiction. Neither BLACKROCK, nor the securities, products and services described herein, are registered (or intended to be registered) in the Jurisdiction. Furthermore, neither BLACKROCK, nor the securities, products, services, or activities described herein, are regulated, or supervised by any governmental or similar authority in the Jurisdiction. The Materials are private, confidential and are sent by BLACKROCK only for the exclusive use of the addressee. The Materials must not be publicly distributed and any use of the Materials by anyone other than the addressee is not authorized. The addressee is required to comply with all applicable laws in the Jurisdiction, including, without limitation, tax laws and exchange control regulations if any.

The information provided within this document is for education purposes only in **Bermuda**. This information is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution would be unlawful under the securities laws of such jurisdiction or country.

In **Latin America**, for institutional investors and financial intermediaries only (not for public distribution). This material is for educational purposes only and does not constitute investment advice or an offer or solicitation to sell or a solicitation of an offer to buy any shares of any fund or security and it is your responsibility to inform yourself of, and to observe, all applicable laws and regulations of your relevant jurisdiction. If any funds are mentioned or inferred in this material, such funds may not been registered with the securities regulators of Argentina, Brazil, Chile, Colombia, Mexico, Panama, Peru, Uruguay or any other securities regulator in any Latin American country and thus, may not be publicly offered in any such countries. The securities regulators of any country within Latin America have not confirmed the accuracy of any information contained herein. No information discussed herein can be provided to the general public in Latin America. The contents of this are strictly confidential and must not be passed to any third party.

In **Colombia**, the promotion of each product discussed herein is carried out through the Representative Office of BlackRock Fund Advisors, authorized by the Colombian Financial Superintendence. The transmission of this information does not constitute a securities public offering in Colombia. The products discussed herein may not be promoted or marketed in Colombia or to Colombian residents unless such promotion and marketing is made in compliance with Decree 2555 of 2010 and other applicable rules and regulations related to the promotion of foreign financial and/or securities related products or services in Colombia. With the receipt of these materials, and unless the Client contacts BlackRock with additional requests for information, the Client agrees to have been provided the information for due advisory required by the marketing and promotion regulatory regime applicable in Colombia.

In **Chile**, The securities if any described in this document are foreign securities, therefore: i) their rights and obligations will be subject to the legal framework of the issuer's country of origin, and therefore, investors must inform themselves regarding the form and means through which they may exercise their rights; and that ii) the supervision of the Commission for the Financial Market (Comisión para el Mercado Financiero or "CMF") will be concentrated exclusively on compliance with the information obligations established in General Standard No. 352 of the CMF and that, therefore, the supervision of the security and its issuer will be mainly made by the foreign regulator; In the case of a fund not registered with the CMF is subject to General Rule No. 336 issued by the SVS (now the CMF). The subject matter of this sale may include securities not registered with the CMF; therefore, such securities are not subject to the supervision of the CMF. Since the securities are not registered in Chile, there is no obligation of the issuer to make publicly available information about the securities in Chile. The securities shall not be subject to public offering in Chile unless registered with the relevant registry of the CMF.

IN MEXICO, FOR INSTITUTIONAL AND QUALIFIED INVESTORS USE ONLY. INVESTING INVOLVES RISK, INCLUDING POSSIBLE LOSS OF PRINCIPAL. THIS MATERIAL IS PROVIDED FOR EDUCATIONAL AND INFORMATIONAL PURPOSES ONLY AND DOES NOT CONSTITUTE AN OFFER OR SOLICITATION TO SELL OR A SOLICITATION OF AN OFFER TO BUY ANY SHARES OF ANY FUND OR SECURITY**.** This information does not consider the investment objectives, risk tolerance or the financial circumstances of any specific investor. This information does not replace the obligation of financial advisor to apply his/her best judgment in making investment decisions or investment recommendations. It is your responsibility to inform yourself of, and to observe, all applicable laws and regulations of Mexico. If any funds, securities or investment strategies are mentioned or inferred in this material, such funds, securities or strategies have not been registered with the Mexican National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores, the "CNBV") and thus, may not be publicly offered in Mexico. The CNBV has not confirmed the accuracy of any information contained herein. The provision of investment management and investment advisory services ("Investment Services") is a regulated activity in Mexico, subject to strict rules, and performed under the supervision of the CNBV. These materials are shared for information purposes only, do not constitute investment advice, and are being shared in the understanding that the addressee is an Institutional or Qualified investor as defined under Mexican Securities (Ley del Mercado de Valores). Each potential investor shall make its own investment decision based on their own analysis of the available information. Please note that by receiving these materials, it shall be construed as a representation by the receiver that it is an Institutional or Qualified investor as defined under Mexican law. BlackRock México Operadora, S.A. de C.V., Sociedad Operadora de Fondos de Inversión ("BlackRock México Operadora") is a Mexican subsidiary of BlackRock, Inc., authorized by the CNBV as a Mutual Fund Manager (Operadora de Fondos), and as such, authorized to manage Mexican mutual funds, ETFs and provide Investment Advisory Services. For more information on the Investment Services offered by BlackRock Mexico, please review our Investment Services Guide available in www.blackrock.com/mx. This material represents an assessment at a specific time and its information should not be relied upon by the you as research or investment advice regarding the funds, any security or investment strategy in particular. Reliance upon information in this material is at your sole discretion. BlackRock México is not authorized to receive deposits, carry out intermediation activities, or act as a broker dealer, or bank in Mexico. For more information on BlackRock México, please visit: www.blackRock.com/mx. BlackRock receives revenue in the form of advisory fees for our advisory services and management fees for our mutual funds, exchange traded funds and collective investment trusts. Any modification, change, distribution or inadequate use of information of this document is not responsibility of BlackRock or any of its affiliates. Pursuant to the Mexican Data Privacy Law (Ley Federal de Protección de Datos Personales en Posesión de Particulares), to register your personal data you must confirm that you have read and understood the Privacy Notice of BlackRock México Operadora. For the full disclosure, please visit www.blackRock.com/mx and accept that your personal information will be managed according with the terms and conditions set forth therein.

In **Peru**, this private offer does not constitute a public offer, and is not registered with the Securities Market Public Registry of the Peruvian Securities Market Commission, for use only with institutional investors as such term is defined by the Superintendencia de Banca, Seguros y AFP.

General Disclosure: This material is intended for information purposes only, and does not constitute investment advice, a recommendation or an offer or solicitation to purchase or sell any securities to any person in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities laws of such jurisdiction. Reference to specific company names, asset classes and financial markets are for illustrative purposes only and should not be construed as investment advice or investment recommendations. This material may contain estimates and forward-looking statements, which may include forecasts and do not represent a guarantee of future performance. This information is not intended to be complete or exhaustive. No representations or warranties, either express or implied, are made regarding the accuracy or completeness of the information contained herein. The opinions expressed are as of publication date and are subject to change without notice. Reliance upon information in this material is at the sole discretion of the reader. Investing involves risks.

This material is for distribution to Professional Clients (as defined by the Financial Conduct Authority or MiFID Rules) only and should not be relied upon by any other persons.

In the UK and Non-European Economic Area (EEA) countries: this is Issued by BlackRock Investment Management (UK) Limited, authorised and regulated by the Financial Conduct Authority. Registered office: 12 Throgmorton Avenue, London, EC2N 2DL. Tel: + 44 (0)20 7743 3000. Registered in England and Wales No. 02020394. For your protection telephone calls are usually recorded. Please refer to the Financial Conduct Authority website for a list of authorised activities conducted by BlackRock.

In the European Economic Area (EEA): This document is marketing material. This is Issued by BlackRock (Netherlands) B.V. and is authorised and regulated by the Netherlands Authority for the Financial Markets. Registered office Amstelplein 1, 1096 HA, Amsterdam, Tel: 020 – 549 5200, Tel: 31-20-549-5200. Trade Register No. 17068311 For your protection telephone calls are usually recorded.

In **Switzerland**: This document shall be exclusively made available to, and directed at, qualified investors as defined in Article 10 (3) of the CISA of 23 June 2006, as amended, at the exclusion of qualified investors with an opting-out pursuant to Art. 5 (1) of the Swiss Federal Act on Financial Services ("FinSA"). For information on art. 8 / 9 Financial Services Act (FinSA) and on your client segmentation under art. 4 FinSA, please see the following website: www.blackrock.com/finsa.

In Israel: BlackRock Investment Management (UK) Limited is not licenced under Israel's Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 5755-1995 (the "Advice Law"), nor does it carry insurance thereunder.

In the DIFC: This document is intended strictly for Professional Clients as defined under the Dubai Financial Services Authority ("DFSA") Conduct of Business (COB) Rules. Blackrock Advisors (UK) Limited -Dubai Branch is a DIFC Foreign Recognised Company registered with the DIFC Registrar of Companies (DIFC Registered Number 546), with its office at Unit L15 - 01A, ICD Brookfield Place, Dubai International Financial Centre, PO Box 506661, Dubai, UAE, and is regulated by the DFSA to engage in the regulated activities of 'Advising on Financial Products' and 'Arranging Deals in Investments' in or from the DIFC, both of which are limited to units in a collective investment fund (DFSA Reference Number F000738).

In **Saudi Arabia**, This document is intended for Institutional and Qualified Clients (as defined by the Capital Market Authority) only and should not be relied upon by any other persons. BlackRock Saudi Arabia, authorised and regulated by the Capital Market Authority (License Number 18- 192-30). Registered office: 7976 Salim Ibn Abi Bakr Shaikan St, 2223 West Umm Al Hamam District Riyadh, 12329 Riyadh, Kingdom of Saudi Arabia, Tel: +966 11 838 3600. CR No, 1010479419. For your protection telephone calls are usually recorded. Please refer to the Capital Market Authority website for a list of authorised activities conducted by BlackRock Saudi Arabia.

In Bahrain: The information contained in this document is intended strictly for sophisticated institutions

In the United Arab Emirates (UAE) (excluding the Dubai International Financial Centre (DIFC) and the Abu Dhabi Global Market (ADGM)): The information contained in this document is intended to Professional Investors.

Abu Dhabi Global Markets

This communication is sent strictly within the context of, and constitutes, an Exempt Communication under the Financial Services and Markets Regulations 2015 (as amended).

BlackRock Advisors (UK) Limited - ADGM Branch is a Branch of a Foreign Company registered with the Abu Dhabi Global Market Registration Authority (Registered number 21523), with its office at Floor 25, Al Sila Tower, Abu Dhabi Global Market Square, Al Maryah Island, Abu Dhabi, UAE, and is regulated by the ADGM Financial Services Regulatory Authority ("FSRA") to engage in the regulated activities of 'Arranging Deals in Investments'; 'Advising on Investments or Credit' 'Managing Assets'; and 'Managing in a Collective Investment Fund' (FRSA Reference 240099.

In the **State of Qatar and the Qatar Financial Centre (QFC):** This document is intended strictly for sophisticated institutions.

In **Kuwait:** This document is intended strictly for sophisticated institutions that are 'Professional Clients' as defined under the Kuwait Capital Markets Law and its Executive Bylaws.

The information contained in this document, does not constitute and should not be construed as an offer of, invitation or proposal to make an offer for, recommendation to apply for or an opinion or guidance on a financial product, service and/or strategy. Whilst great care has been taken to ensure that the information contained in this document is accurate, no responsibility can be accepted for any errors, mistakes or omissions or for any action taken in reliance thereon. You may only reproduce, circulate and use this document (or any part of it) with the consent of BlackRock Investment Management (UK). The information contained in this document is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public.

The information contained in this document, may contain statements that are not purely historical in nature but are "forward-looking statements". These include, amongst other things, projections, forecasts or estimates of income. These forward-looking statements are based upon certain assumptions, some of which are described in other relevant documents or materials. If you do not understand the contents of this document, you should consult an authorised financial adviser. Any research in this document has been procured and may have been acted on by BlackRock for its own purpose. The results of such research are being made available only incidentally. The views expressed do not constitute investment or any other advice and are subject to change. They do not necessarily reflect the views of any company in the BlackRock Group or any part thereof and no assurances are made as to their accuracy. Any opinions, forecasts represent an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This information should not be relied upon by the reader as research, investment advice or a recommendation. This document is for information purposes only and does not constitute an offer or invitation to anyone to invest in any BlackRock funds and has not been prepared in connection with any such offer. If you are an intermediary or third-party distributor, you must only disseminate this material to other Professional Investors as permitted in the above-specified jurisdictions and in accordance with applicable laws and regulations. Certain information contained herein has been obtained from published sources and from third parties, including without limitation, market forecasts, internal and external surveys, market research, publicly available information and industry publications. In addition, certain information contained herein may have been obtained from companies in which investments have been made by entities affiliated with BlackRock. Although such information is believed to be reliable for the purposes used herein, neither the Fund nor BlackRock assumes any responsibility for the accuracy or completeness of such information. Reliance upon information in this material is at the sole discretion of the reader. Certain information contained herein represents or is based upon forward-looking statements or information. BlackRock and its affiliates believe that such statements and information are based upon reasonable estimates and assumptions. However, forward-looking statements are inherently uncertain, and factors may cause events or results to differ from those projected. Therefore, undue reliance should not be placed on such forward-looking statements and information.

© 2025 BlackRock, Inc. or its affiliates. All Rights Reserved. BLACKROCK,BLACKROCK SOLUTIONS, iSHARES, BUILD ON BLACKROCK and SO WHAT DO I DO WITH MY MONEY are trademarks of BlackRock, Inc. or its affiliates. All other trademarks are those of their respective owners.

In EMEA, this material is for distribution to Professional Clients (as defined by the Financial Conduct Authority or MiFID Rules) only and should not be relied upon by any other persons.

In the Kingdom of Bahrain, to Central Bank of Bahrain (CBB) Category 1 or Category 2 licensed investment firms, CBB licensed banks or those who would meet the description of an Expert Investor or Accredited Investors as defined in the CBB Rulebook. **In Albania, Azerbaijan, Botswana, Egypt, Georgia, Ghana, Jordan, Kazakhstan, Kenya, Lebanon, Mauritius, Morocco, Namibia, Nigeria, North Macedonia, Serbia, Uganda, Tanzania, Turkey, Zimbabwe, Zambia** this information contained in this document is intended strictly for Central Banks and Sovereign Investors only.

No part of this material may be reproduced, stored in retrieval system or transmitted in any form or by any means, electronic, mechanical, recording or distributed without the prior written consent of BlackRock.

©2025 BlackRock, Inc. or its affiliates. All Rights Reserved. BLACKROCK is a trademark of BlackRock, Inc. or its affiliates. All other trademarks are those of their respective owners