

200+

institutions, surveying senior executives responsible for private markets allocations*

22

countries*

US\$15T

in total AUM with US\$3.2 trillion invested in private markets*

Public pensions, corporate pensions, insurers, family offices, foundations and endowments, and sovereign wealth funds*

03

Introduction

05

Private asset allocations

09

Investment views

12

Accessing private markets

*Interviews conducted by third-party consultancy iResearch Services. Responses were received from October 2022 through January 2023. Note: Numbers in charts may not always add to 100% due to rounding.

Rising to meet investor needs



Edwin Conway

Global Head, BlackRock Alternatives Welcome to the first BlackRock Alternatives Global Private Markets Survey. Over the past 20 years, we have seen private markets grow from a niche category with roughly US\$700 billion in assets to a cornerstone of many portfolios, worth more than US\$13 trillion¹.

For many investors, private credit, private equity, infrastructure and real estate are no longer considered alternative but, in fact, a core component of the modern investment portfolio. And while private markets have experienced an extended period of rapid growth, these asset classes are not immune to the conditions that have been impacting their public market counterparts over the past year or so.

Against this backdrop, we surveyed capital allocators across the globe to understand how they are constructing their portfolios in the new regime.

We learned that investors believe short-term uncertainty isn't enough to derail the growth of private markets. While the recent banking turmoil has raised new concerns among investors, the conversations I've had suggest that clients are focused on navigating the current cycle with caution and care, albeit with an eye towards capturing opportunities. Even amid heightened volatility and uncertainty, investing in areas such as renewable energy, mature private companies and direct lending - venture and middle market debt in particular – can provide a ballast to portfolios.

Sophisticated investors have long abandoned the 60/40 asset allocation model. Among our respondents, private assets represent an average 24% of portfolios. Income generation is a key allocation driver – cited by 82% of those we surveyed. The search for yield in the years since the global financial crisis, as interest rates hit historic lows, is a familiar story. The survey results tell us, however, that even with rates rising and worries about a possible recession this year, institutions continue to see private assets as essential tools to help meet their income needs.

In the following pages, we detail where respondents see the biggest opportunities across private asset classes, explore their priorities when accessing the markets and explain what they look for when choosing their investment managers.

We'd like to thank the investors around the world who took the time to participate in the survey. And we hope that you find the results both insightful and useful.

Key takeaways



Private asset allocations

- Our respondents' average portfolio allocation to private markets is 24%.
- Income generation is the top reason for investors allocating to private markets, with capital appreciation ranked in second place.
- Investors plan to increase their allocations to most private assets this year.



Investment opportunities

• Respondents see infrastructure and real estate debt, niche real estate (such as data centers) and mature private companies as some of the biggest investment opportunities.



Accessing private markets

- Liquidity concerns are the main barrier when it comes to investing in private markets.
- Sourcing is the top priority for investors when selecting a private markets manager.

Respondents allocate an average 24% to private markets

The institutions in our survey hold a combined US\$3.2 trillion in private assets, one-fourth of the US\$13-trillion¹ global market.

As the next page shows, those holdings are set to rise as investors plan to increase their allocations across asset classes.

The **head of private assets at a U.S.-based insurer** said the growth is due to both supply and demand.

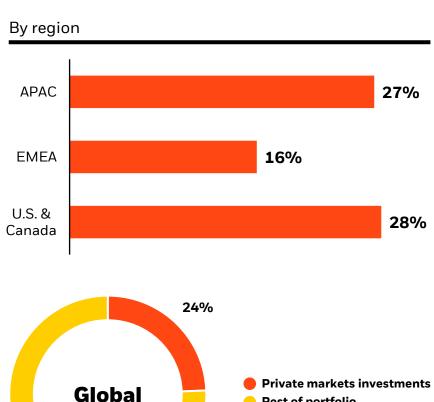
Private markets appeal to corporations, who can stay out of the glare of equity markets and are able to negotiate financing directly. And private markets offer a variety of structures for investors, he said, as they try to meet their investment goals.

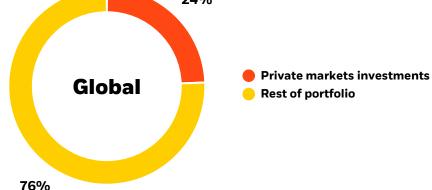
"I think you'll have continued steady growth and flow, as there's likely going to be emerging new subsets and types of private assets, as well as potential supply," agreed the **CIO of a U.S. public pension plan**, whose fund has about 10% invested in private assets, but is increasing its allocation.

It remains to be seen how recent banking turmoil will affect private markets. But one investor said they don't see it as something that will change their long-term plans.

"I don't think anybody has really changed their plan over the next three years because of what's happened recently. We see it as being the result of factors that are already part of our planning – rising rates, a slowing economy, higher inflation," said a **private markets investor at a U.S. corporate pension**. "It was more a sign of ongoing trends than a new piece of information."

Q. What percentage of your portfolio is currently allocated to private markets?





Institutions plan more private asset allocations this year

Long-term trends around corporate choices and the growth of investible assets are boosting private markets allocations. There are also more immediate factors.

"Private equity vintages that invest during downturns tend to outperform, according to our research," said **John Seeg**, Global Co-Head of Private Equity Partners at BlackRock Alternatives. And 43% of respondents say they plan to "substantially increase" their private equity holdings this year – though it remains to be seen if recent upheavals have changed that outlook.

A portfolio manager who specializes in alternatives at a U.S. corporate pension said the heightened interest in private equity may also be due to the fact that many institutions had to pull back last year as public valuations plunged, leaving investors overweight in private markets.

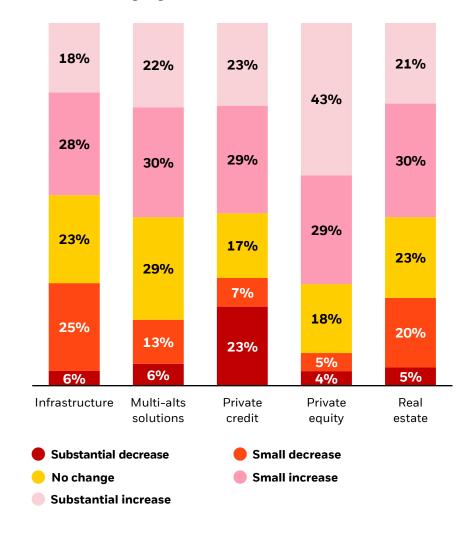
"I know from talking to my peers that the denominator effect really worked against new allocations in the space," he said. As portfolios rebalanced – whether due to exits, revaluations of private holdings or the improved performance of public markets, "there's more capacity this year."

In private credit, 36% of U.S. and Canada respondents say they will "substantially increase" their allocations, while 68% of those in the Asia-Pacific region plan an increase.

A **portfolio manager at a Swiss pension fund** said he believes that private credit will take up an increasing share of investor portfolios in the years ahead.

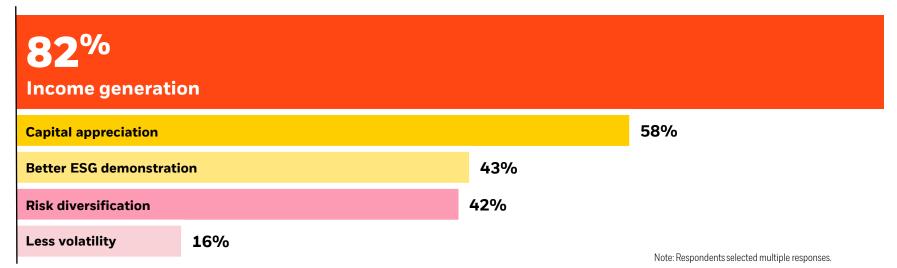
"In the same way that private equity is gaining a lot of traction and taking away from the public or listed equity allocation, I think you're seeing that on the credit side as well," he said.

Q. How do you see your allocations to private asset classes changing in 2023?



Income is the most important factor driving private markets investments

Q. What are the most important factors driving your allocation to private markets?



Investors have in recent years turned to asset classes such as private credit, infrastructure and real estate for income in a low-rate environment. Even as many central banks raise interest rates, the appeal of these assets persists.

And while higher rates bode well for yields in public markets, they also portend even more attractive returns for private debt holders across the spectrum of financing options.

In direct lending, for example, most deals have floating-rate structures that lead to higher yields as rates rise.

And the nature of direct lending – where investors negotiate with the borrowers – brings several other benefits to participants. "Private credit doesn't just help amplify income and offer diversification," said **Phil Tseng**, Co-Head of U.S. Private Credit at BlackRock Alternatives.

"The greater ability to drive deal structures and covenants has led to stronger protections, lower defaults and higher recoveries compared with liquid markets."

And today's market, with rising rates and a fear of recession, is a lender-friendly environment, according to **Raj Vig**, who jointly runs the U.S. Private Credit team. "That means better terms for investors," he said.

And while recent banking turmoil has roiled markets, it may also provide an opportunity for the addressable market of direct lending to expand, as some regional banks take a more conservative approach to lending. Direct lending may also be more appealing to borrowers given that deals aren't subject to a bank's ability to syndicate to a wide range of investors.

Meanwhile, with inflation in the U.S. and elsewhere at its highest level in decades, private assets can also provide investors with income that rises in line with broader price increases.

"Infrastructure investments are typically resilient through market cycles, and in particular during periods of increased volatility, with built-in inflation protections," said **Mark Florian**, Group Head of Infrastructure Funds at BlackRock Alternatives.

Many infrastructure-related businesses benefit from inflation-linked tariffs, as well as underlying contracts that are linked to inflation, Florian noted.

It's not hard to see the appeal of income-generating assets for major investors.

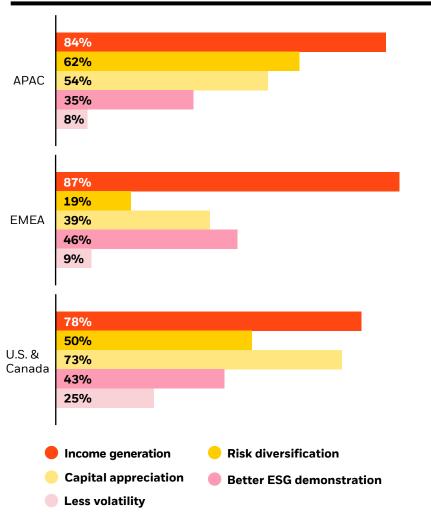
"If you think of an institution, like a pension fund that has fixed liabilities, if they have beneficiaries that need that capital along the way, timing cash flows and having cash to recycle through their system can be very important," said a **private markets** specialist at a Canadian family office.

Capital appreciation is another leading factor for allocating to private markets, according to respondents, particularly in the U.S. and Canada.

"From our point of view as a family office, having that capital appreciate is much more advantageous to us," said the private markets specialist. "In both cases, I think it speaks to the long-term view of the role of capital from private markets investors."

Q. What are the most important factors driving your allocation to private markets?





The wide array of private opportunities

As they increase their private markets allocations, investors can choose from an incredibly wide selection of assets with different characteristics, from the potential appreciation of venture capital to the steady income offered by toll roads.

"Private markets encompass so many different areas that they can meet investors' needs across the time horizon of a portfolio, and through market and economic cycles," said **Tarek Mahmoud**, Head of Multi-Alts Solutions at BlackRock Alternatives.

"But we're also seeing that institutions are willing to consider the opportunities presented by certain asset classes at moments of dislocation – opportunistic and distressed strategies, for example, as well as secondaries," he said.

In private credit, investors see the biggest opportunities in infrastructure or real estate debt, driven by expected tailwinds from recent U.S. infrastructure legislation and what some see as a temporary dislocation in property values as a result of higher interest rates.

Distressed strategies are a close second, as many investors view a potential recession as a catalyst – especially at a time when elevated borrowing costs are pressuring corporate balance sheets across much of the globe.

Direct lending is popular in both Europe and the U.S. due to an expectation that many of the structural drivers of the past several years – including its appeal to investors as well as borrowers, and higher barriers to entry in the public funding markets – will remain in place.

Q. Where do you see the biggest opportunities in each asset class?

Private credit

51%

Infrastructure or real estate debt

50%

Distressed

48% European direct lending

43% Opportunistic

42% Venture debt

40% U.S. direct lending

Meanwhile, the best opportunities in infrastructure are emerging markets, transportation and renewables, according to our respondents.

"I think there are such tailwinds in renewables," said a **private** markets investor at a U.S. corporate pension.

"There's an insatiable demand for renewable energy, both from the traditional utilities, and even more so, I'd say, from corporate users – for example solar helping big tech firms trying to meet net-zero pledges."

"There's a wide demand set and supplies are ramping up – but it's not an established market so there are many opportunities for investors."

In the U.S., the sector also stands to benefit from legislation passed last year, particularly the Inflation Reduction Act.

In private equity, most respondents – more than half in each region – see mature companies as the best opportunity. Venture capital is the second most-popular choice, highlighting that there's still an appetite for risk despite the tumult.

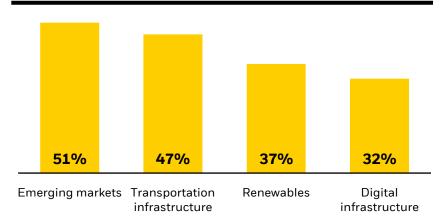
"I think people are cautious right now, so mature companies make sense, though I am a little surprised to see venture capital so high," said a **portfolio manager who specializes in alternatives at a U.S. corporate pension**.

"But given the uncertainty we're living with and the higher cost of capital, venture could be seen as a risky but attractive opportunity if you have the right manager and the right fund," he said.

Speaking in general about the opportunities in private markets, the manager said rising rates may create more dispersion across asset classes.

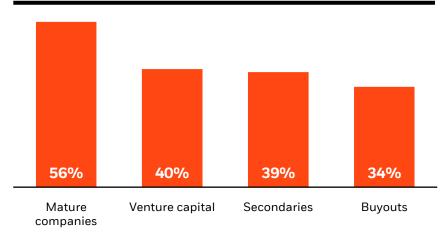
Q. Where do you see the biggest opportunities in each asset class?

Infrastructure



Q. Where do you see the biggest opportunities in each asset class?

Private equity



"I think the smart people in the space will be able to excel, but it won't be like in a zero-rate environment where everyone can make money from it," he said.

While niche sectors such as data centers and cold storage facilities are a hit with respondents, the least popular opportunity across all categories is the office sector.

However, even this was chosen by 26% of those surveyed perhaps investors comfortable with higher levels of risk who are considering opportunities to redevelop buildings into modern offices or other uses, such as residential.

"It comes down to a market-share play, and I think those people with the best assets can really take market share," said the private markets investor at a U.S. corporate pension.

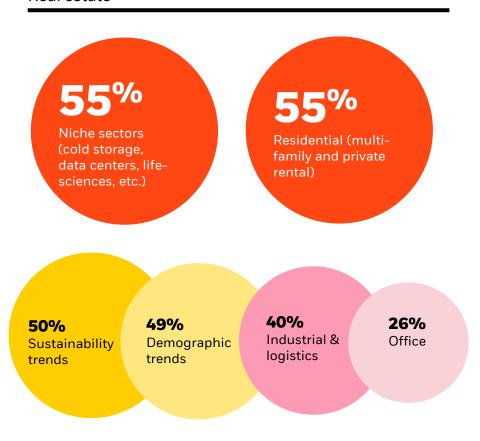


Within the office sector there's a huge differentiation between new, modern and energy-efficient spaces relative to generic spaces."

Private markets investor, U.S. corporate pension

Q. Where do you see the biggest opportunities in each asset class?

Real estate



Barriers remain to investing in private markets

While private markets continue to expand, and investors plan to allocate more, there are factors hindering further investments.

Though private markets specialists shared their views prior to the recent bank failures, the survey reveals that liquidity is their single biggest barrier to investing in private assets.

Our respondents differ, however, in just how big an issue liquidity is. More than half of all pensions name illiquidity as their main obstacle to private markets, while only 40% of insurers agree.

It remains to be seen how recent banking turmoil and broader shifts in market-wide liquidity will affect private markets. But the limited liquidity of private assets can also create investment opportunities, in the form of secondaries.

The secondary market last year saw US\$108 billion of volume,¹ just shy of the record-breaking levels seen in 2021. And as LPs and GPs continue to turn to secondaries for liquidity, there will likely be more supply this year – which may mean greater discounts for those looking to buy.

Other barriers to private markets include getting internal stakeholder buy-in and limited organizational expertise or comfort levels with the asset class.

"One way that an institution's attitudes toward private markets could change is, for example, at the board level at pensions, which can be very top-down in their decision-making," said the **portfolio** manager at a Swiss pension fund.

"Over time, a different generation will come in with a different focus, and a different understanding of certain principles or certain investments."

Q. What are the main barriers you face in allocating assets to private markets?

49%	Illiquidity/capital lockup
41%	Internal stakeholder buy-in
33%	Inappropriate legal structures and/or operational set-up
32 %	Expertise of/comfort with the asset class
29 %	Risk profile of private assets
27 %	Ability to deploy capital
23 %	Regulation
23 %	Transparency/Data quality
21 %	Valuation issues

Source: 1. Jefferies - Global Secondary Market Review, January 2023.

Investors prioritize deal sourcing when choosing a manager

Making the most of the private markets opportunities available means choosing the right manager. For our survey respondents, there was a fairly clear answer about how to make that selection.

"Sourcing is where the value gets created," said a **private** markets specialist at a Canadian family office.

"Investment opportunities in private markets aren't uniformly distributed like you see in public markets, where there's a very transparent process and everybody gets a fair shot at the deal," he added.

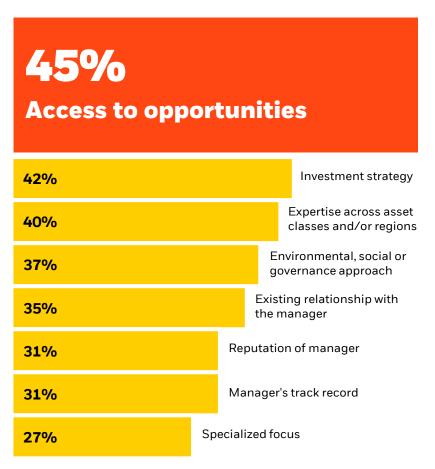
As the industry's dry powder – currently at about US\$3.5 trillion¹ – continues to grow, managers who can effectively source the best deals as they deploy capital will stand out from the rest.

"Good access to opportunities is also what enables managers to craft deals so they can negotiate better terms," said the family office executive. "That's where a lot of the art goes along with the science."

Having the right investment strategy is the next most-popular reason, with expertise across asset classes and/or regions next.

"Differentiated sourcing can drive excess returns or alpha," said the **head of private markets at a U.S.-based insurer**. "I also think that when selecting a third-party manager the real issue is having alignment – alignment of interests, expertise, reputation and character."

Q. When selecting a private markets manager, what are your priorities?



Note: Respondents selected multiple responses.

Source: 1. Pregin, June 2022.

The most important selection priority for respondents in the EMEA region is the approach to environmental, social and governance matters.

"One potential explanation why European investors focus more on these factors could be due to a more developed awareness of the risks and benefits of ESG investing," said the **Swiss pension fund portfolio manager**.

"The U.S. is an outlier in the sense that the awareness is arguably there but, in part, due to the political landscape the topic has become polarized."

While half our sovereign wealth respondents identify sourcing, a majority also say the investment strategies offered by money managers are a key criterion.

That response closely aligns with the approach of a **private** markets investor at a financial institution in Saudi Arabia.

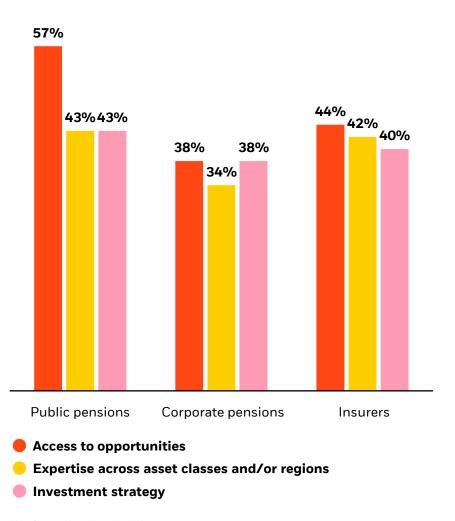
"Our priority is the fund's strategy," he said. "We choose managers where the fund is its core strategy."

These results illustrate how important it is for managers to maintain the best access to deal opportunities, said **Brent Patry**, Global Head of the BlackRock Capital Markets Group and Deputy Head of BlackRock Alternatives.

"While sourcing is essential for any manager, having the right strategy, proven expertise across all of the private markets and strength in multiple sourcing channels is collectively a meaningful differentiator," Patry said. "And the managers who can bring that experience and breadth of knowledge into genuine partnership with their investors are the ones most likely to succeed in this growing and increasingly competitive space."

Q. When selecting a private markets manager, what are your priorities?

By organization



FOR PROFESSIONAL, INSTITUTIONAL, WHOLESALE AND QUALIFIED INVESTORS/PROFESSIONAL, QUALIFIED AND PERMITTED CLIENT USE ONLY

RISKS

Capital at risk. The value of investments and the income from them can fall as well as rise and are not guaranteed. Investors 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.

IMPORTANT INFORMATION

This material is provided for educational purposes only and is not intended to be relied upon as a forecast, research or investment advice, and is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. The opinions expressed are subject to change. References to specific securities, asset classes and financial markets are for illustrative purposes only and are not intended to be and should not be interpreted as recommendations. Reliance upon information in this material is at the sole risk and discretion of the reader. The material was prepared without regard to specific objectives, financial situation or needs of any investor.

This material may contain "forward-looking" information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, and estimates of yields or returns. No representation is made that any performance presented will be achieved by any BlackRock Funds, or that every assumption made in achieving, calculating or presenting either the forward-looking information or any historical performance information herein has been considered or stated in preparing this material. Any changes to assumptions that may have been made in preparing this material could have a material impact on the investment returns that are presented herein. 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.

Diversification does not guarantee investment returns and does not eliminate the risk of loss.

The information and opinions contained in this material are derived from proprietary and non-proprietary sources deemed by BlackRock to be reliable, are not necessarily all-inclusive and are not guaranteed as to accuracy.

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.

For investors in the Caribbean, any funds mentioned or inferred in this material have not been registered under the provisions of the Investment Funds Act of 2003 of the Bahamas, nor have they been registered with the securities regulators of Bermuda, Dominica, the Cayman Islands, the British Virgin Islands, Grenada, Trinidad & Tobago or any jurisdiction in the Organisation of Eastern Caribbean States, and thus, may not be publicly offered in any such jurisdiction. The shares of any fund mentioned herein may only be marketed in Bermuda by or on behalf of the fund or fund manager only in compliance with the provision of the Investment Business Act 2003 of Bermuda and the Companies Act of 1981. Engaging in marketing, offering or selling any fund from within the Cayman Islands to persons or entities in the Cayman Islands may be deemed carrying on business in the Cayman Islands. As a non-Cayman Islands person, BlackRock may not carry on or engage in any trade or business unless it properly registers and obtains a license for such activities in accordance with the applicable Cayman Islands law.

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 material are strictly confidential and must not be passed to any third party.

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 now constitute an offer or solicitation of an offer to buy an 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. The materials that may be shared in this forum are 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 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.

For investors 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.

In Argentina, only for use with Qualified Investors under the definition as set by the Comisión Nacional de Valores (CNV).

In Brazil, this private offer does not constitute a public offer, and is not registered with the Brazilian Securities and Exchange Commission, for use only with professional investors as such term is defined by the Comissão de Valores Mobiliários.

In Chile, the sale of each 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 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. In Uruquay, the Securities are not and will not be registered with the Central Bank of Uruquay. The Securities are not and will not be offered publicly in or from Uruquay and are not and will not be traded on any Uruguayan stock exchange. This offer has not been and will not be announced to the public and offering materials will not be made available to the general public except in circumstances which do not constitute a public offering of securities in Uruguay, in compliance with the requirements of the Uruguayan Securities Market Law (Law No 18.627 and Decree 322/011).

For offshore investors. For Institutional investors and financial intermediaries only (not for public distribution). The information contained herein is for informational purposes only and is not intended to be relied upon as a forecast, research or investment advice, and is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. An assessment should be made as to whether the information is appropriate for you having regard to your objectives, financial situation, and needs. Reliance upon information in this material is at the sole discretion of the reader. Investment implies risk, including the possible loss of principal.

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.

This material is restricted to distribution to non-U.S. Persons outside the United States within the meaning of Regulation S under the U.S. Securities Act of 1933, as amended (the "Securities Act"). Any securities described herein may not be registered under the Securities Act or with any securities regulatory authority of any state or other jurisdiction and may not be offered, sold, pledged or otherwise transferred except to persons outside the U.S. in accordance with Regulation S under the Securities Act pursuant to the terms of such securities. In particular, any UCITS funds mentioned herein are not available to investors in the U.S. and this material cannot be construed as an offer of any UCITS fund to any investor in the U.S.In the EEA and UK, 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 is Issued by BlackRock (Netherlands) B.V. 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. For information on investor rights and how to raise complaints please go to https://www.blackrock.com/corporate/compliance/investor-right available in Italian.

For Qualified Investors in Switzerland: For Qualified Investors only. This document is marketing material.

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.

For investors in Israel: For Qualified Clients/Qualified Investors. 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. Qualified Clients/Qualified Investors.

In Saudi Arabia, Bahrain, Dubai (DIFC), Kuwait, Oman, Qatar and UAE, 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.

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.

Kingdom of Saudi Arabia: Issued by BlackRock Saudi Arabia, authorised and regulated by the Capital Market Authority (License Number 18-192-30). Registered office: 29th floor, Olaya Towers – Tower B, 3074 Prince Mohammed bin Abdulaziz St., Olaya District, Riyadh 12213 – 8022, 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.

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

Dubai (DIFC): 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).

The information contained in this document is intended strictly for Professional Clients as defined under the Dubai Financial Services Authority ("DFSA") Conduct of Business (COB) Rules.

Kuwait: The information contained in this document is intended strictly for sophisticated institutions that are 'Professional Clients' as defined under the Kuwait Capital Markets Law and its Executive Bylaws.

Oman: The information contained in this document is intended strictly for sophisticated institutions.

Qatar: The information contained in this document is intended strictly for sophisticated institutions.

UAE: The information contained in this document is intended strictly for non-natural Qualified Investors as defined in the UAE Securities and Commodities Authority's Board Decision No. 3/R.M of 2017 concerning Promoting and Introducing Regulations.

For investors 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 South Africa, please be advised that BlackRock Investment Management (UK) Limited is an authorised Financial Services provider with the South African Financial Services Conduct Authority, FSP No. 43288.

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.

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.

In Singapore, this document is provided by BlackRock (Singapore) Limited (company registration number:200010143N) for use only with 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.

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 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 Taiwan, independently operated by BlackRock Investment Management (Taiwan) Limited. Address: 28F., No. 100, Songren Rd., Xinyi Dist., Taipei City 110, Taiwan. Tel: (02)23261600.

In Australia and New Zealand, [MM3] 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.

This material provides general information 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 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 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.

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, Indonesia and Brunei). 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.

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 Professional Investors only (Professional Investor is defined in Financial Instruments and Exchange Act).

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 neither tax nor legal advice. Investors should speak to their tax professional for specific information regarding their tax situation. Investment involves 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.

FOR PROFESSIONAL, INSTITUTIONAL, WHOLESALE AND QUALIFIED INVESTORS/PROFESSIONAL, QUALIFIED AND PERMITTED CLIENT USE ONLY

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. 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. THE INFORMATION CONTAINED HEREIN, TOGETHER WITH THE PERFORMANCE RESULTS PRESENTED, IS PROPRIETARY IN NATURE AND HAS BEEN PROVIDED TO YOU ON A CONFIDENTIAL BASIS, AND MAY NOT BE REPRODUCED, COPIED OR DISTRIBUTED WITHOUT THE PRIOR CONSENT OF BLACKROCK.

© 2023 BlackRock, Inc. or its affiliates. All Rights Reserved. BLACKROCK is a registered trademark of BlackRock, Inc. or its affiliates. All other trademarks are those of their respective owners.