FOR PROFESSIONAL, QUALIFIED, INSTITUTIONAL AND WHOLESALE INVESTORS – NOT FOR PUBLIC DISTRIBUTION

BlackRock.

Inflation & Real Assets

Navigating an inflationary environment with real assets

The views expressed are as at July 2021 and are subject to change with market conditions. There is no guarantee that any forecasts made will come to pass.

ALTH0821U/M-1742271-1/11

Real asset investors have been increasingly focused on inflation. In this paper, we discuss our views on inflation, whether it is transitory and where it will go. More importantly, we will discuss the reasons why real assets may perform well in periods of higher inflation, and tools and strategies real assets investors should deploy in a higher inflationary environment.

Steven Cornet
Head, Americas Real Assets
Research & Strategy

Yasmine Kamaruddin
Americas Real Assets
Research & Strategy

Please contact:

Jane DiGiacomo
Real Assets Product Strategy

1 A powerful restart

In the U.S., core inflation spiked during the first half of 2021,[1] driven by supply constraints alongside surging demand and stockpiling. Current inflation data is erratic, but we expect a higher inflation regime in the medium term. Government bonds yields will likely remain lower than what was experienced in previous inflationary periods. While yields may move higher from current levels, the overall adjustment will be much more muted than one would have expected in the past, thus resulting in persistently negative real rates. This is currently a regional phenomena, mainly concentrated in the U.S., but may become more prominent globally as the restart broadens.

2 Keeping up with inflation

In previous inflationary periods, real estate and infrastructure outperformed other asset classes. This is due to several factors. First, leases and revenue streams are directly or indirectly linked to inflation. When inflation is accompanied by good economic growth, demand rises for real estate space and economic infrastructure. Meanwhile, there is often some form of expense pass through. Further, construction costs tend to rise in periods of inflation, resulting in higher replacement cost and limiting new supply to enter the market. Finally, paying down debt with inflated dollars is beneficial for levered real assets strategies.

3 Strategies during higher inflationary regimes

Inflation sensitivity will vary across real estate and infrastructure sectors, and for equity and debt investors. Assets with shorter-term leases or take-or-pay contracts tend to capture the upside in inflation well, and long-term leases and contracts (i.e. power purchase agreements) linked to inflation can provide some form of protection. Floating rate debt can be beneficial to debt investors, whereas fixed rate and longer-term debt benefits equity investors.

[1] U.S. core CPI, or CPI excluding food & energy, increased 4.5% y/y in June, according to the Labor Department.

Inflation view

Inflation: the bottom line

Higher, not runaway
Economic reopening, combined with record levels of fiscal and monetary stimulus, higher production costs and realignment of global supply chains is driving a robust outlook for economic growth and the highest inflation expectations in almost a decade. Inflation should build steadily over the medium term, well above the Fed's 2% target. Supply constraints and surging demand will likely keep short-term inflation more volatile. The BlackRock Investment Institute (BII) sees inflation near 3% in five years, above current breakeven rates, but well below 1970s levels of hyperinflation.

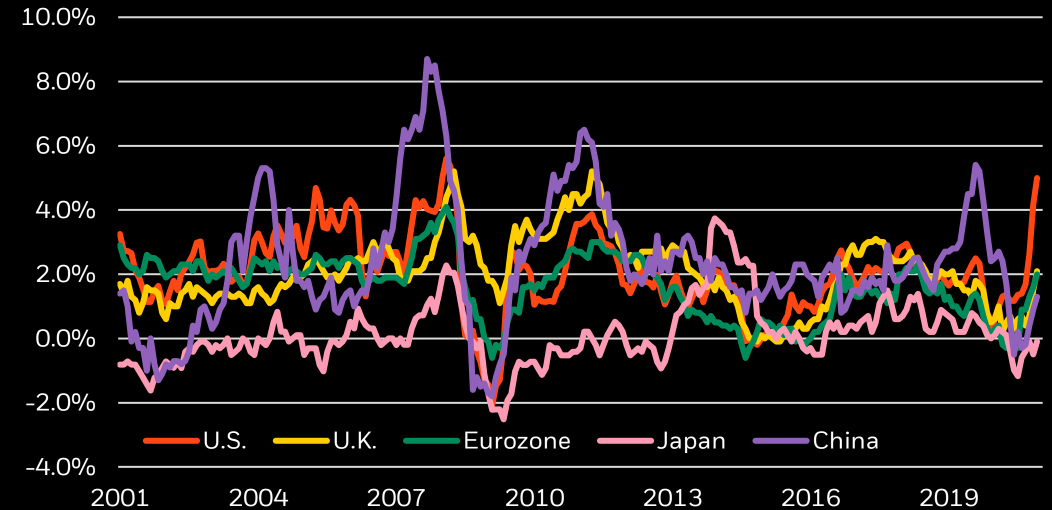
The "new nominal"
The economic restart will cause inflation pressures to build, but central banks' response will be more muted. This played out through the first half of the year in the United States, and to a lesser extent in Europe. Nominal long-term government bond yields have risen, but less than breakeven inflation rates.

New central bank frameworks aim to overshoot inflation targets to make up for past misses, resulting in a more muted monetary response to inflation pressures than in the past. We see any bond yield rises driven by inflation, rather than policy hikes, making the unique environment that we have called *the new nominal* constructive for equities. We still believe the direction for yields is to go higher, but the overall adjustment will be more muted than what would have been expected in the past based on growth dynamics. Therefore, we expect persistently negative real rates which is supportive for real assets.

The U.S. leads in growth (and inflation)
Inflation is so far a regional phenomenon, as vaccine rollout has been faster in the U.S. compared to other parts of the world, fueling a fast-paced economic recovery. Many countries are still at or below their inflation targets such as the European Union (1.9% inflation vs. <2% target), Japan (-0.4% vs. < 2% target) and Australia (1.1% vs. 2-3% target).

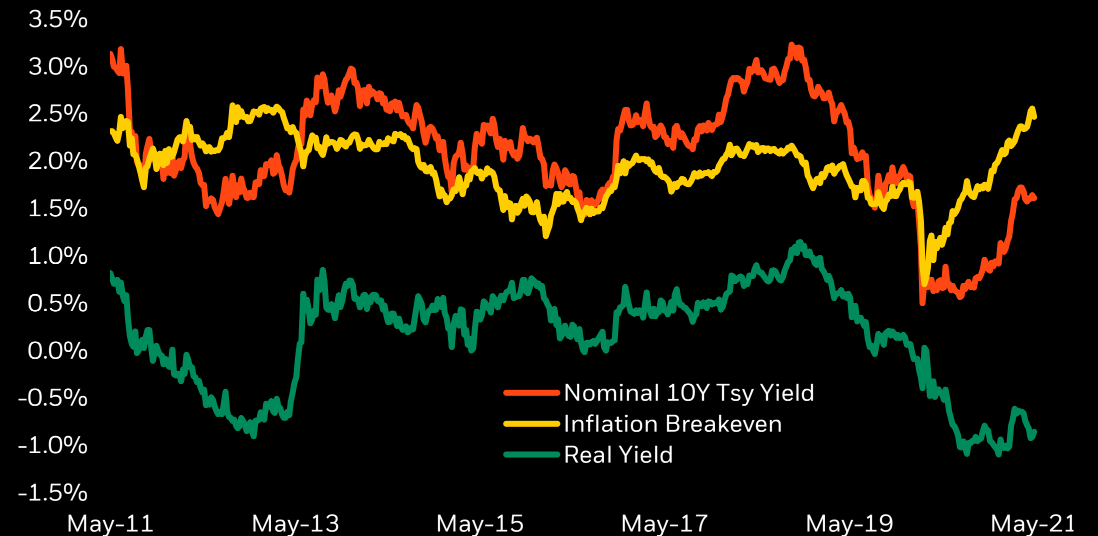
Further, shortages in the U.S. are not occurring in Asia as much. Supply bottlenecks are not present and factories and container ports are functioning well, partly thanks to healthy intra-regional trade. Thus, inflation appears more subdued and will likely continue to be so even as Asian economies reopen. In Europe, inflation has been rising due to supply shortages especially in the hospitality sector, but it is not expected to be persistent.

Figure 1: inflation is meaningfully higher in the U.S., moderately high in Europe, but still subdued in other economies



Source: Refinitiv Datastream and BlackRock, as of July 6, 2021

Figure 2: The "new nominal" accelerates



Source: BlackRock Investment Institute and Refinitiv Datastream. Data is for the U.S. As of May 24, 2021.

ALTH0821U/M-1742271-3/11

Inflation-linked

Returns from both real estate and infrastructure have positive correlation to inflation, especially when it is combined with high economic growth. Real assets are able to capture inflation through greater income growth due to higher rent growth, occupancy, and increased demand for the underlying good such as electricity. The risk of accelerated expense growth is primarily mitigated through (1) contractual adjustments in leases or contracts, (2) expense pass-throughs, (3) higher replacement costs, and (4) beneficial leverage.

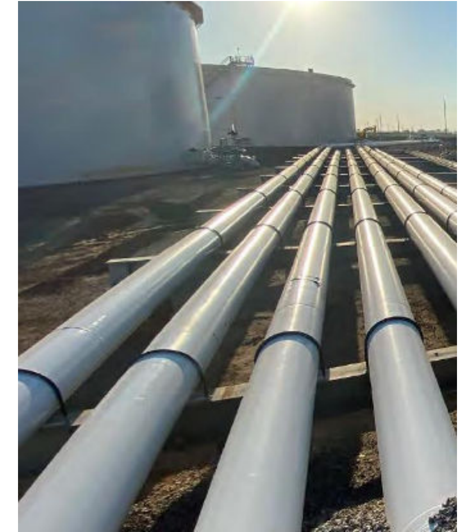
Annual adjustments in real estate leases
Real estate leases, especially long-term leases for office and industrial, include annual adjustments at a given rate, which is generally influenced by inflation. In Europe and increasingly in the UK, leases often have explicit links to inflation, usually with a cap and collar at 1-3%.

Hotel, self-storage, and (In the U.S.) apartment leases are short-term (daily, monthly and 12-14 months, respectively), which means rents mark-to-market often, keeping up with rising inflation.

Infrastructure assets' revenue streams explicitly linked to inflation
Many infrastructure assets, including the majority of contracted power and utility investments, have an explicit link to inflation through regulations, concession agreements or contracts, providing natural inflation protection. Infrastructure assets have long-term (10-20 years) revenue contracts that are derived from contracted or regulated pricing regimes and are based on subsidies or corporate power purchase agreements (PPA), which may be tied to inflation indicators such as CPI and PPI.

Higher economic growth = higher demand = price growth
In periods of higher economic growth, there is an implicit inflation linkage in energy and power infrastructure. Increased demand and increased construction costs result in rising price pressure for electricity and natural gas. Increasingly in the renewable energy space, contracts are either set at a fixed price with no inflation indexation or fixed volume. Upside to revenues in either scenario will come from higher volume (demand) or higher prices. Midstream oil and gas investments with take-or-pay contracts also benefit from stronger growth due to higher demand for the underlying commodity.

Renewable deployment—exception to the rule
Within the renewable energy space, demand for assets is so strong that development remains attractive even as construction costs rise. Production costs for wind and solar energy are falling due to economies of scale and technology improvements, and declining at an even faster rate for less mature technologies that still have lots of technological advancement ahead of them (energy storage, electric vehicle charging infrastructure and green hydrogen are some examples). Higher productivity from these assets may offset any rise in construction costs.



Images for illustrative purposes only.

There are some silver linings

Expense pass-throughs limit inflationary impacts
Some real estate leases are triple net, which means the tenant is responsible for utilities, real estate taxes and insurance, and maintenance, shielding real estate investors from inflationary impacts on these items. These leases are common in retail, industrial, and office in certain markets.

Infrastructure operating and maintenance contracts are typically fixed, so the rate remains the same throughout the life of the contract even when inflation rises—an implicit 'soft' protection on the cost side. Nevertheless, labor crunches may still cause operating and maintenance costs to rise for some infrastructure sectors which are more labor intensive.

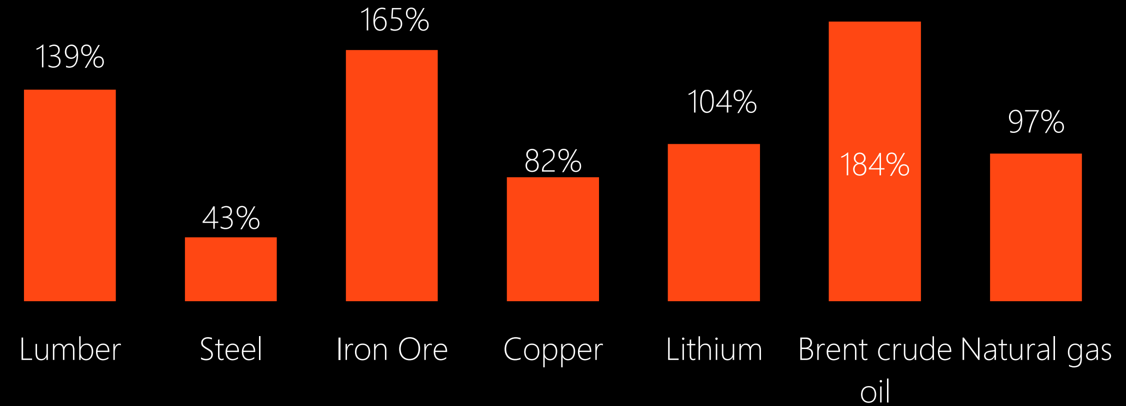
High commodity prices have contributed to higher replacement costs
The cost of new construction rises with inflation, increasing the value of existing stock. In real estate, higher lumber costs (+139% yoy as of June 28th) and a labor shortage has caused construction costs to increase, therefore making it more difficult for new supply to enter the market. Much of commercial real estate construction today is centered on industrial and multifamily.

Other construction input prices have skyrocketed, such as steel (+43%) and iron ore (+165% yoy), making construction for infrastructure assets more expensive as well. Anecdotally, the construction of new renewable projects (solar & wind) can be 10-15% higher with the increases in steel prices.

Unexpected inflation benefits the borrower
In an inflationary environment, debt, even floating rate debt, benefits the borrower at the expense of the lender. Paying down debt with inflated dollars is beneficial for levered real assets. Longer-term fixed rate debt would benefit borrowers the most during persistently higher inflationary environments. As NOI grows with inflation, debt gets paid down at the same interest rate, magnifying the impact of leverage to boost total returns. During periods of lower inflation, as we have seen in the decade post-GFC, floating rate typically benefits the borrower more.

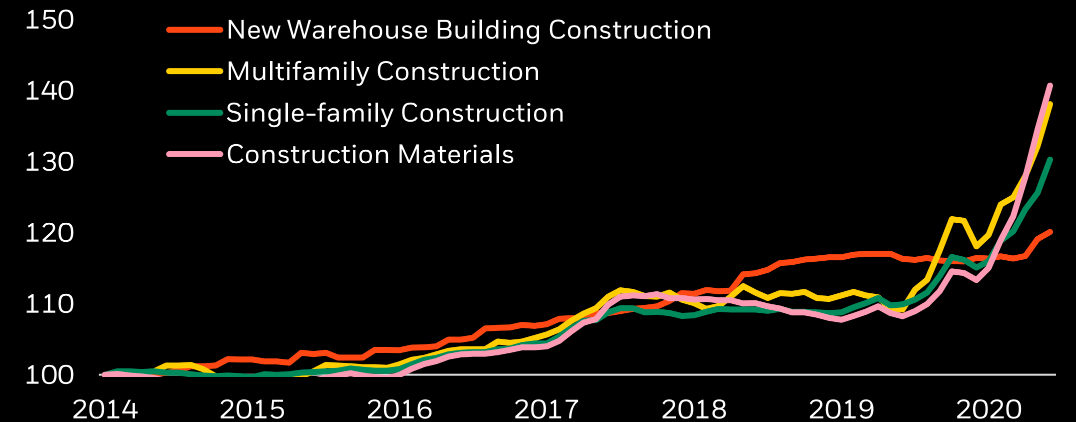
Recent feedback from our capital markets team indicate lending standards are loosening for the most desired sectors, even for construction projects. For debt investors, rising inflation (and rates) would mean investing in more floating rate debt and utilization of leverage.

Figure 3: Commodity prices – Year-on-Year Growth (USD)



Source: Trading economics and BlackRock. Year-over-year percent change as of June 28, 2021

Figure 4: Pricey construction inputs limit new supply (U.S. price indices)



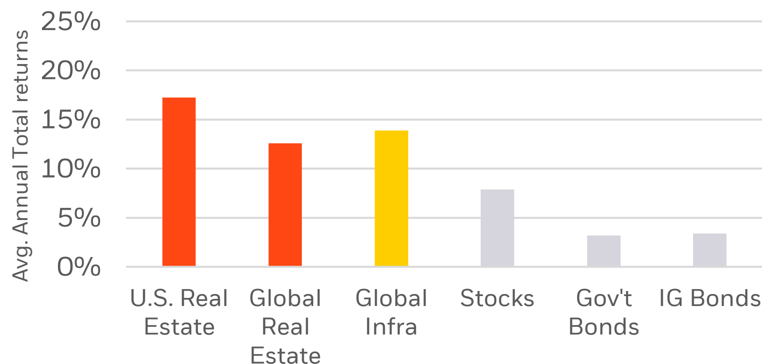
Source: BLS, Federal Reserve of St. Louis (FRED), and BlackRock, as of May 31, 2021. Indices used are a part of the Producer Price Index: (1) New Warehouse Building Construction Index, (2) Net Inputs to Multifamily Residential Construction, Excluding Capital Investment, Labor, and Imports, (3) Net Inputs to Single Family Residential Construction, Goods Less Foods and Energy, (4) Construction Materials

ALTH0821U/M-1742271-5/11

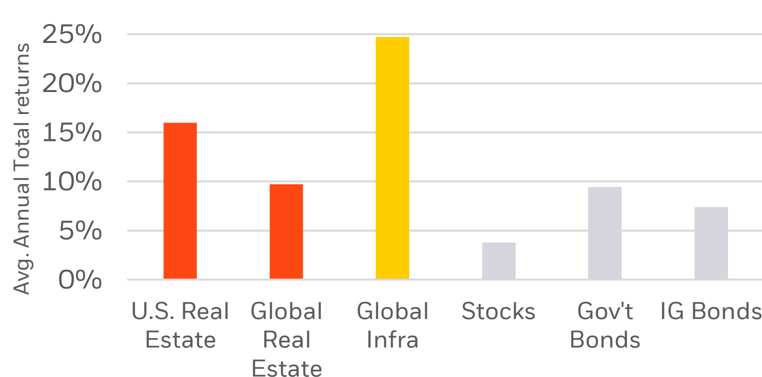
Keeping up with inflation

Real assets have historically outperformed in inflationary environments

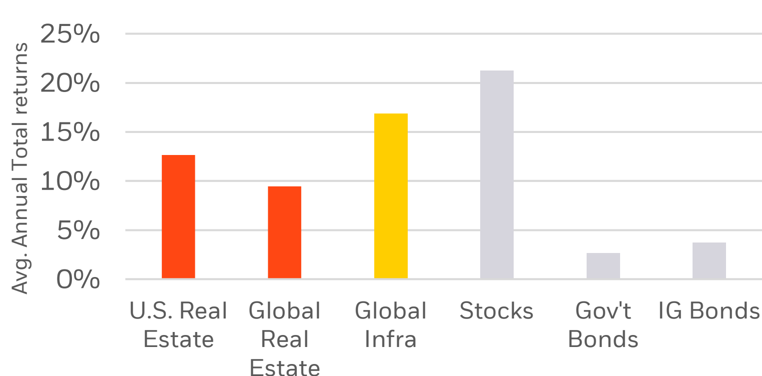
High growth / high inflation



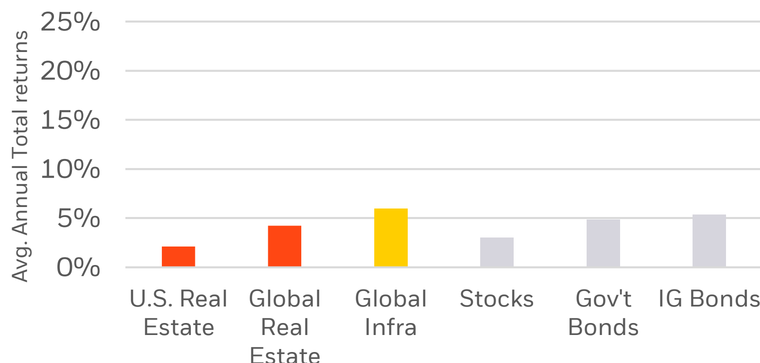
Low growth / high inflation



High growth / low inflation



Low growth / low inflation



Source: Bloomberg, Barclays (Investment grade: US Agg Bond; Gov't bonds: US Gov't Agg TR), NCREIF (U.S. Real Estate: NPI), MSCI (Global Real Estate); EDHEC (Infrastructure: All equity) and S&P (Stocks: S&P 500); as of December 31, 2020 (annual data since 2001). **Past performance is not indicative of future results.** You cannot invest directly in an unmanaged index. High growth periods are when U.S. GDP > 2.5% and high inflation periods are when U.S. CPI > 2.5%.

The charts show average returns in different regimes over the past 20 years.

The four regimes are based on GDP and inflation with hurdles at 2.5%; therefore, if GDP and inflation are both above 2.5%, the returns in that year is included in the upper left chart.

Both private real estate and infrastructure equity perform well during the three of four regimes. More importantly, both asset classes outperformed traditional asset classes during high inflation periods (top two charts)

The key takeaway here is that real assets outperform traditional asset classes during high inflation environments.

ALTH0821U/M-1742271-6/11

Strategies

Focus on what you can control

Inflation, interest rates and rents or rates are determined by the market and cannot be controlled by investors. Thus, it is best to focus on what one can control when structuring deals and building portfolios.

Term & structure

Shorten leases. Focus on sectors with shorter lease terms such as hotels, (US) apartments and self-storage. During periods of higher inflation, shorter lease terms would allow rents mark-to-market more often, thus benefitting the investor. While longer-term, take-or-pay contracts for midstream investments could also offer some degree of explicit inflation protection as revenues rise with higher demand driven by better economic growth (and inflation).

Annual bumps in-line with inflation. Long lease or contract terms with bumps in line with inflation are preferred. Most infrastructure assets have long-term contracts with annual bumps linked to inflation, making it a natural hedge (midstream and renewable power).

Expense pass throughs. Assets with triple net leases or some amount of expense pass throughs would be more attractive to keep up with inflation as investors are protected from rising expenses.

Infrastructure assets typically have fixed operating and maintenance contract, shielding investors from inflationary impacts on the cost side. Some examples include midstream and renewable power (wind and solar).

Asset characteristics

Low supply. Assets located in low supply markets will likely benefit from a high growth and inflationary environment given the lack of new competition to the market. Inflation should limit new supply overall, but the impact will be more meaningful in low supply markets.

Accelerating trends are more important. Many real estate property types and infrastructure sectors do well in inflationary environments, with some minor differences. However, what is more important than the inflation topic are the accelerating trends of e-commerce driving industrial real estate, migration to less dense areas boosting suburban apartments, and digitization driving data center demand. In addition, decarbonization continues to drive demand for renewable energy as carbon credit prices have increased (+61% YTD) in anticipation of EU regulations expanding to other sectors such as shipping and construction. ESG is a prevailing theme that will likely last for years to come, and therefore, asset selection would benefit from incorporating these considerations.

Debt term & structure

Fixed & long-term. Levered assets with longer-term fixed rate debt would benefit in an inflationary environment, as debt gets paid down with inflated dollars over time. As income catches up with inflation (through annual bumps linked to inflation, higher revenues from increased demand in the underlying commodity, or by marking up leases to market and occupancy gains), the amount of debt remains the same, which gets paid down with inflated dollars.

Higher LTV. Asset prices should continue to rise with inflation due to higher income and higher replacement cost as it gets more expensive to develop new assets. In this case, it would be beneficial to the owner to adopt higher levels of leverage to boost returns over time. However, higher LTV increases risk.

Floating for debt investors. Interest rates are expected to trend higher, although at a more muted pace compared to inflation. Investors of floating rate debt would benefit from rates trending higher.

ALTH0821U/M-1742271-7/11

Disclaimer:

Capital at risk. All financial investments involve an element of risk. Therefore, the value of the investment and the income from it will vary and the initial investment amount cannot be guaranteed.

The material is for information purposes only. It is not intended for and should not be distributed to, or relied upon by, members of the public.

It is not intended to be a forecast, research or investment advice, and is not a recommendation, or an 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.

Past performance is not a reliable indicator of current or future results.

Important Information

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

In Canada, this material is intended for institutional investors only, 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 Latin America, for Institutional Investors and Financial Intermediaries Only (Not for public distribution). This material is for educational 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 (nor shall any such shares be offered or sold to any person) in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction. It is possible that some or all of the funds mentioned in this document have not been registered with the securities regulator of Argentina, Brazil, Chile, Colombia, Mexico, Panama, Peru, Uruguay or any other securities regulator in any Latin American country and thus might not be publicly offered within any such country. The securities regulators of such countries have not confirmed the accuracy of any information contained herein. No information discussed herein can be provided to the general public in Latin America.

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

In Chile, the offer of each security not registered with the Comisión para el Mercado Financiero (“CMF”) is subject to General Rule No. 336 issued by the SVS (now the CMF). The subject matter of this offer 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 Colombia, the offer of each Fund is addressed to less than one hundred specifically identified investors, and such Fund 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.

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 material is for¬¬¬ the sole use of Institutional Investors, as such term is defined by the Superintendencia de Banca, Seguros y AFP.

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.

ALTH0821U/M-1742271-8/11

For investors in Central America, these securities have not been registered before 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 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, Trinidad & Tobago or any jurisdiction in the Eastern Caribbean, 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 Uruguay, the Securities are not and will not be registered with the Central Bank of Uruguay. The Securities are not and will not be offered publicly in or from Uruguay 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).

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.

Until 31 December 2020, 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.

From 1 January 2021, in the event the United Kingdom and the European Union do not enter into an arrangement which permits United Kingdom firms to offer and provide financial services into the European Economic Area, the issuer of this material is: (i) BlackRock Investment Management (UK) Limited for all outside of the European Economic Area; and (ii) BlackRock (Netherlands) B.V. for in the European Economic Area.

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 Qualified Investors in Switzerland: This document is marketing material. Until 31 December 2021, this document shall be exclusively made available to, and directed at, qualified investors as defined in the Swiss Collective Investment Schemes Act of 23 June 2006 ("CISA"), as amended. From 1 January 2022, 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 DIFC: This information is for Professional Clients as defined under the Dubai Financial Services Authority ("DFSA") Conduct of Business (COB) Rules only. It 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.

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.

In the Kingdom of Saudi Arabia: The information contained in this document is intended strictly for sophisticated institutions. 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.

In the United Arab Emirates: 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. 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.

For investors in Israel: BlackRock Investment Management (UK) Limited is not licensed 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 Bahrain: The information contained in this document is intended strictly for sophisticated institutions. 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.

In 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. 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.

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

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

In Singapore, this document is provided by BlackRock (Singapore) Limited (company registration number:200010143N）for use only with institutional 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: Issued by BlackRock Investment Management (Australia) Limited ABN 13 006 165 975, AFSL 230 523 (BIMAL) for the exclusive use of the recipient, which warrants by receipt of this material that it is a wholesale client as defined under the Australian Corporations Act 2001 (Cth).

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 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. 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, 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.

ALTH0821U/M-1742271-10/11

In China, this material may not be distributed to individuals resident in the People's Republic of China ("PRC", for such purposes, excluding 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 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 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 neither tax nor legal advice and should not be relied on as such. Investment involves risk including possible loss of principal.

All $ are USD.

FOR INSTITUTIONAL, FINANCIAL PROFESSIONAL, PERMITTED CLIENT AND PROFESSIONAL, INSTITUTIONAL AND WHOLESALE INVESTOR USE ONLY. THIS MATERIAL IS NOT TO BE REPRODUCED OR DISTRIBUTED TO PERSONS OTHER THAN THE RECIPIENT.

© 2021 BlackRock, Inc. All Rights Reserved. BLACKROCK

ALTH0821U/M-1742271-11/11