



SECULAR  
OUTLOOK

JUNE 2022

# Reaching for Resilience

Volatility, inflation, and geopolitical strain have countries and businesses focusing on defense. We argue for building resilience in portfolios in this fragmenting world, and delve into risks and opportunities we foresee over the next five years.





**WRITTEN BY:**

**Joachim Fels**  
Global Economic Advisor

**Andrew Balls**  
Chief Investment Officer  
Global Fixed Income

**Dan Ivascyn**  
Group Chief Investment Officer

**SUMMARY**

- The war in Ukraine has widened global geopolitical fractures, and we see risks of deglobalization and more fragmented capital markets over the secular horizon.
- In this environment, we believe governments and corporate decision-makers will increasingly focus on searching for safety and reaching for resilience, including increasing defense spending and diversifying supply chains. These trends may augment economic inefficiencies and increase inflationary pressures. We also see an elevated risk of recession over the next two years.
- Our secular forecast for shorter business cycles and – given the changed inflation environment – diminished policy responses warrant a focus on reaching for portfolio resilience over reaching for yield. Fixed income investments, at higher yield levels, will play an important role in building resilience into diversified portfolios.
- Private credit strategies can be an attractive complement to public credit allocations, though we are seeing excesses in some parts of these markets. We expect to favor higher-quality corporate credit, and will seek to provide liquidity, not to demand liquidity, during periods of credit market stress.
- Amid higher inflationary pressures, we see U.S. Treasury Inflation-Protected Securities (TIPS), commodities, and select global inflation-linked investments as providing a reasonably priced hedge.



## 2022 Secular Forum Guest Speakers

### Dan Gallagher

Chief Legal, Compliance, and Corporate Affairs Officer, Robinhood

### Matteo Maggiori

Professor of Finance at Stanford Graduate School of Business

### Katherine Molnar

Chief Investment Officer, Fairfax County Police Officers Retirement System

### Neha Narula

Director, MIT Digital Currency Initiative

### Randal Quarles

Former Governor and Vice Chair for Supervision, U.S. Federal Reserve Board

### Yuval Rooz

Chief Executive Officer and Co-Founder, Digital Asset

### Alex C. Ruane

Research Physical Scientist and co-Director of the Climate Impacts Group at the NASA Goddard Institute for Space Studies

### Angela Stent

Professor Emerita and Director of the Center for Eurasian, Russian, and East European Studies, Georgetown University, and author of *Putin's World: Russia Against the West and With the Rest*

### Barbara F. Walter

Professor of Political Science at the University of California, San Diego, and author of *How Civil Wars Start*

The global macro environment remains anything but normal, and investors will have to navigate a volatile and challenging path over the next five years. Disruption and uncertainty are likely to persist, and deglobalization will widen rifts in the global economy. A thoughtful, long-term focus should help investors along that challenging path. These are some of the key takeaways from PIMCO's recent annual Secular Forum, with our investment professionals, guest speakers (see sidebar), and [Global Advisory Board](#) gathered in person for three days of intensive discussions.

## REALITY CHECK

Beginning with a thoughtful review of our priors, we felt that the themes we discussed in our 2021 *Secular Outlook*, "[Age of Transformation](#)," still very much resonate today. We anticipated a more uncertain and volatile macro landscape, and we identified green, digital, and social transformations as key drivers of disruption. We expected shorter growth and inflation cycles with larger amplitudes and more divergence across countries. All of these themes still ring true.

However, the obvious task at hand was to factor in the massive disruption that we did not anticipate last year: Russia's invasion of Ukraine in February and the horrific war that has been waging since, as well as the far-reaching economic and financial sanctions and other policy responses by most Western democracies. In thinking through the consequences of these events for our investment thesis, we found it useful to distinguish between our near-term cyclical horizon (six to 12 months), the medium-term horizon (one to two years), and our longer-term secular horizon of five years and potentially beyond.

## NEAR-TERM OUTLOOK: ANTI-GOLDILOCKS

We briefly discussed and confirmed our cyclical thesis, which we shared in our March 2022 *Cyclical Outlook*, "[Anti-Goldilocks](#)." Recent macro data underscore our view that the war and sanctions shock, along with the COVID-related lockdowns in China, is stagflationary: pushing inflation even higher in the near term and slowing economic growth in the major economies toward stall speed over the cyclical horizon. Also, with current headline inflation elevated across the globe, including around 8% in the U.S. and Europe at the time of this writing, major central banks seem determined to tame inflation first and worry about growth later, which brings us to our medium-term outlook.

## MEDIUM TERM: ELEVATED RECESSION RISKS

We see an elevated risk of recession over the next two years, reflecting greater potential for geopolitical tumult, stubbornly high inflation that reduces households' real disposable income, and central banks' intense focus on fighting inflation first, which raises the risk of financial accidents on top of the sharp tightening of financial conditions already seen.

Moreover, if and when the next recession arrives, we expect the monetary and fiscal responses to be more reserved and arrive later than in the last several recessions when inflation was not a concern and when government debt levels and central bank balance sheets were less bloated. Just as fiscal policymakers learned from the muted economic recovery following the global financial crisis and responded more forcefully to the pandemic recession, today's high inflation may make policymakers hesitate to revisit these tools, particularly in the U.S.

---

**We see an elevated risk of recession over the next two years, reflecting geopolitical tumult, stubbornly high inflation, and central banks' intense focus on fighting inflation first**

---

Thus, while for many reasons our view is that the next recession is unlikely to be as deep as the Great Recession of 2008 or the COVID sudden stop of 2020, it may well be more prolonged and/or the following recovery may well be more sluggish due to a less vigorous response by central banks and governments.

## SECULAR THEME: REACHING FOR RESILIENCE

A crucial longer-term consequence of the war in Ukraine and the responses to it is the widening of geopolitical fractures that could accelerate the move from a unipolar world to a bipolar or multipolar world. This fracturing had already been underway with the emergence of China as a major economic and geopolitical player and Western governments' skeptical stance toward China.

In a more fractured world, we believe governments and corporate decision-makers will increasingly focus on searching for safety and building resilience:

- With the risk of military conflict more real following Russian aggression toward Ukraine, many governments – especially in Europe but also elsewhere – have announced plans to increase defense spending and invest in both energy and food security.
- Many corporate decision-makers are focused on building more resilient supply chains through global diversification, near-shoring, and friend-shoring. These efforts were already underway in response to U.S.–China trade tensions and because the COVID pandemic demonstrated the fragility of elaborate value chains, and are likely to be intensified given the more insecure geopolitical environment.
- Moreover, in response to climate-related risks and the COVID crisis, most governments and many companies have already increased efforts to mitigate and adapt to global warming and to improve health security for their citizens and employees.



This reach for resilience and the search for security may often come at the expense of short-term economic efficiency. We see five major macroeconomic implications of this secular trend:

First, higher spending in many areas, including defense, health care, energy and food security, more resilient supply chains, and climate risk mitigation and adaptation, to the extent that it won't be matched by cuts in other areas, may well support aggregate demand over the secular horizon. However, much of this additional spending may not help long-term productivity growth, unless companies make additional efforts at increasing productivity growth through accelerated investment in technology. Also, the reach for resilience will likely be accompanied by more regulation and protectionism, which could weigh on long-term growth. Overall it thus seems unlikely to us that output growth will be materially higher over the secular horizon than in the pre-pandemic decade.

Second, the quest for resilience and security introduces some inflationary tailwinds as companies build redundancies into their supply chains and bring them closer to home. To the extent that governments become more restrictive on immigration, labor markets could become less competitive, potentially leading to higher wage pressures. Also, the green transition, which should eventually lead to lower energy prices from cheaper renewables, may well push energy prices higher for a while as the supply of brown energy may shrink faster than the supply of renewables expands. Ultimately, however, whether these factors lead to permanently higher inflation over the secular horizon will be a policy choice by fiscal and monetary authorities, in our view.

Third, given these inflationary tailwinds, central banks are facing a dilemma. Supporting aggregate demand and building resilience would come at the cost of higher inflation. Conversely, bringing inflation back down to target would be costly in terms of demand and employment. For now, given

---

## Central banks face a dilemma: fight inflation or support growth

---

how far inflation exceeds central banks' targets, most central banks are emphasizing the fight against inflation. The jury is out on whether they will still prioritize inflation once it has come back closer to target, or whether they will tolerate moderate overshoots. Our general view is that inflation risks over the secular horizon have shifted to the upside.

Fourth, we see a higher probability of private sector credit events and default cycles over the secular horizon. Public sector and corporate balance sheets will likely be under pressure from rising spending needs on security and resilience, debt service costs will likely be higher, and the risk of a recession is real. Elevated inflation implies central banks may be less willing or able to support private sector debtors. Governments may also be less willing to help due to a further surge in debt levels during the pandemic and the need to finance rising pension and health care costs given aging demographics.

Fifth but not least, we see a risk of financial deglobalization and more fragmented capital markets over the secular horizon – a “capital war,” according to one of our forum participants. The weaponization of financial sanctions and currency reserve holdings may well increase the home bias by public and private creditors in current account surplus countries and could lead to an ebbing of financial flows into the U.S. dollar over time. However, given the lack of good alternative currencies with deep and liquid capital markets to the dollar, any such shifts are likely to be glacial rather than abrupt and likely lie beyond our secular horizon.

# Investment conclusions

We believe that we have firmly moved beyond the world that we once characterized as the New Normal of subpar but stable growth and inflation stubbornly below central banks' targets. During that period, many investors were rewarded for "reaching for yield" and for "buying the dip," anticipating central bank action and – during the COVID pandemic – fiscal policy support for risk assets. However, over the secular horizon we believe that central banks may be less able to suppress market volatility and to support financial asset market returns.

## BUILDING RESILIENCE

Looking forward, rather than reaching for yield, we believe that investors will be reaching for resilience in their portfolio construction, looking to build more robust asset allocation in the face of a more uncertain environment for macro volatility, market volatility, and central bank support. For our part, we will look to build resilience into the portfolios we manage on behalf of clients and seek to benefit during periods of market volatility.

Diversification may warrant a closer look. Just as corporate decision-makers seek to diversify their supply chains, investors may seek to diversify portfolios in light of geopolitical factors and risks. There is the potential for surprise outcomes, as we have witnessed with Russia's rapid isolation from the global financial system. There is the potential that governments and companies will be under pressure to clarify whose side they are on along geopolitical divides, risking sanctions, capital controls, and ultimately confiscation. As well as diversification across asset classes, these geopolitical considerations may have implications for investment decisions and required risk premia.

## LOW RETURN WORLD

Starting valuations – even following the weakness we have seen in asset markets in recent months – and our expectations for a more volatile macroeconomic and market environment call for low and realistic expectations for asset market returns over the secular horizon. Our forecast for shorter cycles and more uncertain and – given the changed inflation environment – less all-encompassing policy responses also caution in favor of a focus on portfolio resilience over reaching for yield.



We see an elevated probability of a recession in the U.S. and in other advanced economies in the next two years; this similarly calls for a clear-eyed assessment of potential asset market returns and a focus on capital preservation.

That said, the yield on core bond benchmarks has recovered from COVID-era lows, and in our baseline outlook we think that forward markets either price in or are close to pricing in what is likely to be the secular high for policy rates across different countries. Central banks should have more room to make conventional monetary policy cuts in the event that inflation pressures are deemed manageable and market interest rates are above the lower bounds experienced in recent years, providing potential for attractive performance in bond markets in a recessionary environment.

---

## Fixed income should play an important role in building resilience into diversified portfolios

---

We anticipate positive returns on most bond benchmarks over the secular horizon, and for fixed income, at higher yield levels, to play an important role in building resilience into diversified portfolios.

### ANCHORED CENTRAL BANK RATES AND HIGHER BOND RISK PREMIUM

While we have moved beyond the New Normal period of this century's teen years, we believe that New Neutral low real policy rates are likely to endure beyond the cyclical fight against inflation. The secular factors that have driven neutral policy rates lower – including demographics, the global savings glut, and high debt levels – will likely continue to anchor policy rates at low levels, although at the margin we may see upward pressure from more inflationary factors including deglobalization and the focus on supply chain resilience.

Financial dominance – the impact of tighter monetary policy directly on financial markets, in addition to the impact via macroeconomic variables – will likely limit the extent to which policy rates will rise significantly above the level priced into forward markets, other than under the risk scenario of stubbornly overshooting inflation and rising inflation expectations that forces central banks to set high policy rates with recession as the target and not just the residual by-product.

In a world of greater uncertainty in the macroeconomic outlook and in particular with greater uncertainty over the forward path for inflation, we expect financial markets to demand more of a term premium – i.e., compensation for bond risk – for holding longer-dated bonds. We are likely past the period of compressed risk premia, when demand for protection against downside economic risks outweighed inflation concerns. Overall, we expect higher term premia ahead.

In the near term, curve flattening is possible as markets assess the incoming inflation data and the balance between inflation and recession risks. But over the full secular period we expect the re-establishment of steeper curves in an environment where inflation risk is two-way around central bank targets and where there is greater potential for lasting upside inflation pressures compared with the New Normal world.

Turning to market interest rates, we expect low central bank rates (low relative to the early 2000s, at least) to remain an important anchor. In our baseline outlook, using the U.S. 10-year Treasury yield as a benchmark, we expect a similar to slightly higher range than that which prevailed over the past decade – excluding the COVID period in 2020. This equates to a range estimate of about 1.5% to 4%. The higher end of the range implies the potential for some repricing higher compared with the experience over the past decade, in which the 10-year Treasury yield has only briefly exceeded 3%. This reflects our forecast for higher inflation than in the past decade when central banks undershot their targets – and higher upside risks to inflation both cyclically and secularly. And of course there are risk cases that could drive yields higher or lower than this baseline expectation.



## HIGHER EQUITY RISK PREMIUM

Shorter business cycles and more macro volatility could also drive equity risk premia higher (i.e., investors may demand more of a premium for owning stocks versus bonds). An environment of higher inflation would also tend to erode nominal earnings growth, reduce margins, and make them more volatile.

In addition to a long list of inflationary factors – higher inventory levels, less efficient supply chains, more expensive labor, and greater investment needs – margins may also see pressure from higher interest and tax payments. Over the past decade, a significant portion of corporate improvement in return on equity has derived from downward trends in below-the-line expenses (e.g., operating expenses, taxes, and interest payments). These downward trends in corporate expenses are unlikely to continue over the secular horizon.

Consequently, we expect equity markets to deliver lower prospective returns than investors have experienced since the global financial crisis. Given diminished visibility on growth and profitability, investors are likely to require higher equity risk premia and prioritize reliable earnings. This outlook reinforces our focus on quality and the importance of careful selection. Recognizing secular themes and identifying beneficiaries of the new environment will be integral to generating alpha in a world with less rewarding beta.

## SEEKING INFLATION PROTECTION

Given the potential for higher inflation pressures over the five-year secular horizon, we see U.S. Treasury Inflation-Protected Securities (TIPS) and select global inflation markets as providing a reasonably priced hedge against upside inflation surprises. U.S. TIPS currently are priced for inflation to return to the Fed's 2% target in 12 to 18 months. This is in line with our baseline forecast, but the outcome is by no means guaranteed.

Commodities markets may also provide a valuable inflation hedge, particularly against inflation surprises, with a historical beta (i.e., a high positive sensitivity) to surprise inflation that far exceeds that of TIPS. Heading into 2022, the commodity markets were broadly on a strengthening trajectory as demand recovery was colliding with several years of underinvestment in

supply, especially in the energy sector. Events in Ukraine have only accelerated this trend and exposed a market that needs to embark on a significant investment cycle to meet future energy needs as well as address climate and security concerns. As such, we expect higher sustained prices are needed to motivate capital and generate sufficient investments in energy markets, at least on the secular horizon.

Real estate can also serve as an inflation hedge, particularly in sectors such as multifamily and self-storage, where leases are generally shorter than one year. In Europe, even office and industrial leases are often linked to inflation indices. Further, fundamentals remain healthy in most sectors of real estate, as occupancy levels remain high and new supply is likely to remain constrained by higher construction costs.

## CAUTION ON CORPORATE CREDIT: FOCUS ON QUALITY

Generally poor liquidity in public credit markets, combined with our outlook for higher macroeconomic volatility, recession risk in the medium term, and less certain central bank and fiscal policy support, means that we expect to maintain an up-in-quality approach to corporate credit investments. There is the potential for more defaults and greater credit losses in a recession where there is less monetary and fiscal support compared with the buy-the-dip experience of the past decade. We do not believe that the extensive policy support provided for corporate issuers during the COVID emergency provides a new benchmark. Rather, central banks focused on inflation and governments focused on national security and environmental security considerations will likely be much less inclined to support companies outside of sectors deemed important to the targeted pursuit of resilience.

As always, we will rely on the insights of our global team of credit portfolio managers and credit research analysts in selecting corporate credit overweights and underweights. We expect to favor secured investments and will seek to obtain attractive terms and clear documentation on unsecured credit investments. We will look to avoid positions that would expose us to any significant default risk in a sustained credit default cycle and to position ourselves to provide liquidity, not to demand liquidity, during periods of credit market stress.



### PRIVATE CREDIT OPPORTUNITIES AND RISKS

Private credit strategies can complement public credit allocations, and in a more difficult environment for public credit, we expect to find good opportunities for portfolios that embed a long-term orientation and high risk tolerance.

That said, some of the same excesses we have seen in public credit have been on display in the private credit markets over the last several years, especially in the more fully levered corporate lending deals that have become common in recent years. Those excesses should create a rich opportunity set for selective private financing solutions as over-levered balance sheets adjust to a reality of more realistic valuations and growth assumptions. While we expect more difficult times for legacy private corporate credit exposures, we expect better relative performance potential in some of the less crowded areas of private lending. For example, private lending in consumer and residential credit should be particularly well positioned for attractive performance in the coming years, given household balance sheets that have been deleveraging for more than a decade (while corporates have been releveraging). Opportunities in other diversified segments of the private credit space such as aircraft finance, real estate lending, equipment leasing, and royalties financings all have potential to outperform the broader corporate private debt sector, in our view, given generally healthier initial conditions and valuations.

### EMERGING MARKETS: WINNERS AND LOSERS

We expect emerging markets (EM) to offer good opportunities, while we stress the importance of active investment to sort between the likely winners and losers in a difficult investment environment. Some countries should benefit from demand for capital goods, and commodity exporters may benefit from improved terms of trade. At the same time, other EM countries with weak fundamentals and policy frameworks may be further exposed in a world of shorter cycles and higher macro volatility. Commodity importers may also face significant challenges.

---

## A fractured world will create winners and losers in emerging markets, underscoring the need for active risk management and analysis

---

As mentioned above, in a fractured world where we need to pay close attention to military and strategic dividing lines, the focus on appropriate diversification and appropriate risk premia could be particularly important in EM investing. This reinforces the case for active management and active decision-making amid sanction and confiscation risk and the potential for surprises caused not just by domestic political volatility, but regional and global political factors.

### CURRENCIES: U.S. DOLLAR AS A PORT IN A STORM

While the U.S. dollar looks overvalued on standard valuation metrics, we expect – given medium-term recession risk and an expectation for higher macroeconomic volatility – that the dollar will continue to benefit as the port in a storm: a perceived source of relative safety during periods of macro and market volatility. One implication is that when looking for value, for example via relatively cheap EM currencies or via G-10 commodity currencies, it would make sense to consider a funding basket that is diversified across countries rather than emphasizing U.S. dollar crosses.

### GLOBAL OPPORTUNITIES

As well as lower asset class returns overall and more volatility in those returns over the secular horizon, we anticipate greater differentiation across countries in an environment of geopolitical instability and fatter tails to the distribution. Greater volatility and more differentiation in macro and market returns will bring both risks and opportunities. We will look to maintain resilient portfolios but will also pursue a global approach – looking to maximize the opportunity set and to take advantage of the best opportunities as well as mitigating the risks of weaker links. A world of greater home bias of market participants, greater deglobalization, and more fragmentation of capital markets may lead to opportunities for investors with a global mindset and the investment teams to seek out and take advantage of the opportunities.

## About Our Forums

Honed over more than 50 years and tested in virtually every market environment, PIMCO's investment process is anchored by our Secular and Cyclical Economic Forums. Four times a year, our investment professionals from around the world gather to discuss and debate the state of the global markets and economy and identify the trends that we believe will have important investment implications.

At the Secular Forum, held annually, we focus on the outlook for the next five years, allowing us to position portfolios to benefit from structural changes and trends in the global economy. Because we believe diverse ideas produce better investment results, we invite distinguished guest speakers – Nobel laureate economists, policymakers, investors, and historians – who bring valuable, multidimensional perspectives to our discussions. We also welcome the active participation of the PIMCO Global Advisory Board, a team of world-renowned experts on economic and political issues.

At the Cyclical Forum, held three times a year, we focus on the outlook for the next six to 12 months, analyzing business cycle dynamics across major developed and emerging market economies with an eye toward identifying potential changes in monetary and fiscal policies, market risk premiums, and relative valuations that drive portfolio positioning.



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

**All investments** contain risk and may lose value. Investing in the **bond market** is subject to risks, including market, interest rate, issuer, credit, inflation risk, and liquidity risk. The value of most bonds and bond strategies are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and volatile than those with shorter durations; bond prices generally fall as interest rates rise, and low interest rate environments increase this risk. Reductions in bond counterparty capacity may contribute to decreased market liquidity and increased price volatility. Bond investments may be worth more or less than the original cost when redeemed. **Inflation-linked bonds (ILBs)** issued by a government are fixed income securities whose principal value is periodically adjusted according to the rate of inflation; ILBs decline in value when real interest rates rise. **Treasury Inflation-Protected Securities (TIPS)** are ILBs issued by the U.S. government. **Commodities** contain heightened risk, including market, political, regulatory and natural conditions, and may not be appropriate for all investors. **Equities** may decline in value due to both real and perceived general market, economic and industry conditions. The **value of real estate** and portfolios that invest in real estate may fluctuate due to: losses from casualty or condemnation, changes in local and general economic conditions, supply and demand, interest rates, property tax rates, regulatory limitations on rents, zoning laws, and operating expenses. Investing in **foreign-denominated and/or -domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in **emerging markets**. **Currency rates** may fluctuate significantly over short periods of time and may reduce the returns of a portfolio. **Private credit** involves an investment in non-publicly traded securities which may be subject to illiquidity risk. Portfolios that invest in private credit may be leveraged and may engage in speculative investment practices that increase the risk of investment loss. **Diversification** does not ensure against loss. **Management risk** is the risk that the investment techniques and risk analyses applied by an investment manager will not produce the desired results, and that certain policies or developments may affect the investment techniques available to the manager in connection with managing the strategy.

Statements concerning financial market trends or portfolio strategies are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions or are appropriate for all investors and each investor should evaluate their ability to invest for the long term, especially during periods of downturn in the market. Investors should consult their investment professional prior to making an investment decision. Outlook and strategies are subject to change without notice.

Forecasts, estimates and certain information contained herein are based upon proprietary research and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. There is no guarantee that results will be achieved.

**Alpha** is a measure of performance on a risk-adjusted basis calculated by comparing the volatility (price risk) of a portfolio vs. its risk-adjusted performance to a benchmark index; the excess return relative to the benchmark is alpha. **Beta** is a measure of price sensitivity to market movements. Market beta is 1. **Correlation** is a statistical measure of how two securities move in relation to each other.

The terms "cheap" and "rich" as used herein generally refer to a security or asset class that is deemed to be substantially under- or overpriced compared to both its historical average as well as to the investment manager's future expectations. There is no guarantee of future results or that a security's valuation will ensure a profit or protect against a loss.

This material contains the opinions of the manager and such opinions are subject to change without notice. This material has been distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. Information contained herein has been obtained from sources believed to be reliable, but not guaranteed.

PIMCO as a general matter provides services to qualified institutions, financial intermediaries and institutional investors. Individual investors should contact their own financial professional to determine the most appropriate investment options for their financial situation. This is not an offer to any person in any jurisdiction where unlawful or unauthorized. | **Pacific Investment Management Company LLC**, 650 Newport Center Drive, Newport Beach, CA 92660 is regulated by the United States Securities and Exchange Commission. | **PIMCO Europe Ltd (Company No. 2604517)** is authorised and regulated by the Financial Conduct Authority (12 Endeavour Square, London E20 1JN) in the UK. The services provided by PIMCO Europe Ltd are not available to retail investors, who should not rely on this communication but contact their financial adviser. | **PIMCO Europe GmbH (Company No. 192083, Seidlstr. 24-24a, 80335 Munich, Germany)**, **PIMCO Europe GmbH Italian Branch (Company No. 10005170963)**, **PIMCO Europe GmbH Irish Branch (Company No. 909462)**, **PIMCO Europe GmbH UK Branch (Company No. 2604517)** and **PIMCO Europe GmbH Spanish Branch (N.I.F. W2765338E)** are authorised and regulated by the German Federal Financial Supervisory Authority (BaFin) (Marie-Curie-Str. 24-28, 60439 Frankfurt am Main) in Germany in accordance with Section 15 of the German Securities Institutions Act (WpIG). The Italian Branch, Irish Branch, UK Branch and Spanish Branch are additionally supervised by: (1) Italian Branch: the Commissione Nazionale per le Società e la Borsa (CONSOB) in accordance with Article 27 of the Italian Consolidated Financial Act; (2) Irish Branch: the Central Bank of Ireland in accordance with Regulation 43 of the European Union (Markets in Financial Instruments) Regulations 2017, as amended; (3) UK Branch: the Financial Conduct Authority; and (4) Spanish Branch: the Comisión Nacional del Mercado de Valores (CNMV) in accordance with obligations stipulated in articles 168 and 203 to 224, as well as obligations contained in Title V, Section I of the Law on the Securities Market (LSM) and in articles 111, 114 and 117 of Royal Decree 217/2008, respectively. The services provided by PIMCO Europe GmbH are available only to professional clients as defined in Section 67 para. 2 German Securities Trading Act (WpHG). They are not available to individual investors, who should not rely on this communication. | **PIMCO (Schweiz) GmbH (registered in Switzerland, Company No. CH-020.4.038.582-2)**. The services provided by PIMCO (Schweiz) GmbH are not available to retail investors, who should not rely on this communication but contact their financial adviser. | **PIMCO Asia Pte Ltd** (Registration No. 199804652K) is regulated by the Monetary Authority of Singapore as a holder of a capital markets services licence and an exempt financial adviser. The asset management services and investment products are not available to persons where provision of such services and products is unauthorised. | **PIMCO Asia Limited** is licensed by the Securities and Futures Commission for Types 1, 4 and 9 regulated activities under the Securities and Futures Ordinance. PIMCO Asia Limited is registered as a cross-border discretionary investment manager with the Financial Supervisory Commission of Korea (Registration No. 08-02-307). The asset management services and investment products are not available to persons where provision of such services and products is unauthorised. | **PIMCO Investment Management (Shanghai) Limited** Unit 3638-39, Phase II Shanghai IFC, 8 Century Avenue, Pilot Free Trade Zone, Shanghai, 200120, China (Unified social credit code: 91310115MA1K41MU72) is registered with Asset Management Association of China as Private Fund Manager (Registration No. P1071502, Type: Other) | **PIMCO Australia Pty Ltd** ABN 54 084 280 508, AFSL 246862. This publication has been prepared without taking into account the objectives, financial situation or needs of investors. Before making an investment decision, investors should obtain professional advice and consider whether the information contained herein is appropriate having regard to their objectives, financial situation and needs. | **PIMCO Japan Ltd**, Financial Instruments Business Registration Number is Director of Kanto Local Finance Bureau (Financial Instruments Firm) No. 382. PIMCO Japan Ltd is a member of Japan Investment Advisers Association, The Investment Trusts Association, Japan and Type II Financial Instruments Firms Association. All investments contain risk. There is no guarantee that the principal amount of the investment will be preserved, or that a certain return will be realized; the investment could suffer a loss. All profits and losses incur to the investor. The amounts, maximum amounts and calculation methodologies of each type of fee and expense and their total amounts will vary depending on the investment strategy, the status of investment performance, period of management and outstanding balance of assets and thus such fees and expenses cannot be set forth herein. | **PIMCO Taiwan Limited** is managed and operated independently. The reference number of business license of the company approved by the competent authority is (110) Jin Guan Tou Gu Xin Zi No. 020. 40F., No.68, Sec. 5, Zhongxiao E. Rd., Xinyi Dist., Taipei City 110, Taiwan (R.O.C.). Tel: +886 2 8729-5500. | **PIMCO Canada Corp.** (199 Bay Street, Suite 2050, Commerce Court Station, P.O. Box 363, Toronto, ON, M5L 1G2) services and products may only be available in certain provinces or territories of Canada and only through dealers authorized for that purpose. | **PIMCO Latin America** Av. Brigadeiro Faria Lima 3477, Torre A, 5º andar São Paulo, Brazil 04538-133. | No part of this material may be reproduced in any form, or referred to in any other publication, without express written permission. PIMCO is a trademark of Allianz Asset Management of America L.P. in the United States and throughout the world. THE NEW NEUTRAL is a trademark of Pacific Investment Management Company LLC in the United States and throughout the world. ©2022, PIMCO.