



ALLIANCEBERNSTEIN®

MARCH 2025

What is a Defensive Trade Today? Low Vol vs. Quality vs. Bonds vs. Gold

With more investors looking for defensive trades, what counts as a defensive trade in today's environment? Differences in valuation—and different interpretations of what counts as defensive—mean that not all such trades are equal.

To be clear, we are not bearish. We think that global equities will still deliver positive returns over the course of 2025, and strategically an overweight position in equities is needed as a source of positive real returns. This is the case even if equity returns are set to be muted versus investors' past experiences. Nevertheless, we think volatility will remain high, and the policy environment is highly uncertain.

We suggest that the low-volatility factor in equities, short-duration inflation-protected bonds, precious metals and some private assets are attractive defensive trades today. However, the quality factor, both in equities and credit, is more expensive than it usually is and may prove to be less defensive this time.

We discuss the differences between defensive trades designed to protect against drawdowns and longer-term sources of diversification for those blessed with more extended horizons.

Additional Contributors: Alla Harmsworth
Robertas Stancikas, Harjaspreet Mand and
Maureen Hughes

Inigo Fraser Jenkins

With the selloff in risk assets over the last month, the jump in volatility and a highly uncertain policy environment, hunting for defensive trades has acquired a degree of urgency. We recently [made the point](#) that while the geopolitical magnitude of recent policy announcements is momentous, from a financial market perspective we view the recent bearish turn as tactical rather than structural. This in part reflects an unusually strong degree of consensus in the US-growth trade post election. We do think that equities will eke out a positive return for the year, but we do expect volatility to remain high.

Strategically, investors who need to generate a positive real return over inflation must maintain a high level of risk in their portfolios. Thus, our strategic asset allocation remains heavily overweight public equities, illiquid assets and active strategies. But alongside that core allocation, what is the hedging asset to counteract this position in the current environment? What trade counts as defensive changes over time and depends on what a given investor wants to achieve.

In this note, we compare multiple possible trades that could be considered defensive in the current environment. However, we show significant differences between them. In particular, quality (both in equities and credit) is more expensive than normal today. Specifically, the premium in valuations between high- and low-profitability equities is unusually large and the spread of investment-grade credit over government bonds is tight. This raises the risk that quality will not be as defensive as it has been historically, and to some extent that risk has shown up in recent performance (*Display 1*).

For different reasons, the defensiveness of nominal bonds also needs to be considered. Mainly, this depends on what investors are trying to achieve. US government bonds (although not German bonds, given the recent momentous change in fiscal stance) have indeed been effective at offsetting the sharp drawdown of the last month, and if investors are focused on short-term drawdown protection, the role of bonds is important. However, we think such assets are less useful for longer-run diversification of equity beta in a higher-inflation regime.

Given historical efficacy and a view on current valuations, the low-volatility factor in equities, short-duration inflation-protected bonds, precious metals and some private assets are defensive trades. This list might look eclectic, but it just reflects our long-running belief that an approach to multi-asset investing predicated on asset-class building blocks is not optimal in today's world. We would prefer a total-portfolio approach that makes the portfolio-design task one of blending return streams that can span public and private spheres, passive and active approaches and asset classes.

DISPLAY 1: SINCE THE END OF JANUARY, “QUALITY” HAS FAILED TO BE DEFENSIVE

	Asset	Performance Since January 31, 2025
Quality Equities	MSCI World Quality (Relative)	-0.84
	World ROE (L/S)	-2.01
	World ROE (SN) (L/S)	-2.44
Low-Volatility Equities	World Low Volatility (SN) (L/S)	8.33
	MSCI World Minimum Volatility (Relative)	6.78
	World Low Volatility (L/S)	4.97
High FCF Equities	World FCF Yield (L/S)	10.28
	World FCF Yield (SN) (L/S)	9.16
Other Assets	Gold	6.36
	JPYUSD	4.22
	Global Agg Corporate (relative)	0.04
	Global Aggregate	1.75
	iShares Short-Term TIPS	1.09
	iShares Short-Term US Government Bonds	0.49

Past performance does not guarantee future results.

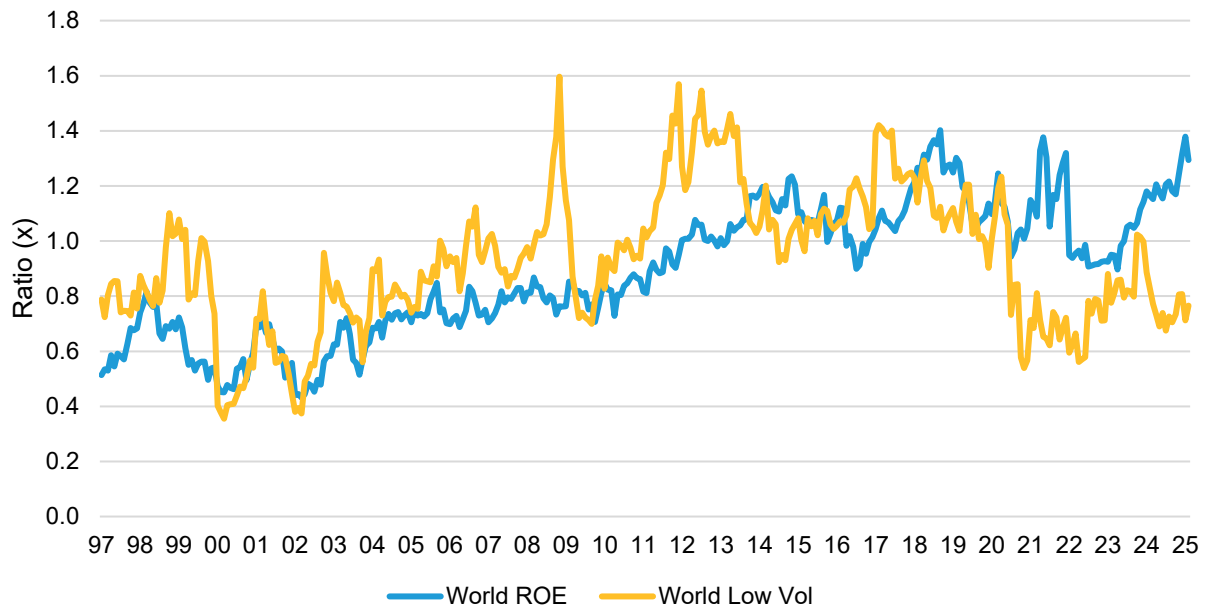
Returns are calculated on a total-return basis in USD. MSCI World Quality and Minimum Volatility factors are market-capitalization-weighted, and the performance is measured relative to the MSCI World index. The other quality, low-volatility and high free-cash-flow (FCF) yield factors are constructed by dividing the MSCI into quintiles based on a given factor (or a blend of factors for a “composite” style), and long-short (L/S) portfolios of stocks that are in the top and bottom quintiles, respectively, are formed. The stocks in these portfolios are equally weighted and portfolios are rebalanced quarterly. The sector-neutral (SN) factors are constructed in a way that ensures an equal representation of each sector in the factor portfolios. ROE denotes return on equity.

As of March 17, 2025

Source: Bloomberg, Factset, LSEG Datastream, MSCI and AllianceBernstein (AB)

Some of this performance difference reflects valuations. For example, while quality and low-volatility factors have historically tended to co-move over the business cycle, a large gap has opened between them in valuation, with quality becoming more expensive relative to low volatility than has been the case before (*Display 2*). Some of this gap comes down to differences between the US and the rest of the world, and between tech and other sectors. However, this difference also holds on a sector-neutral basis and within regions.

**DISPLAY 2: QUALITY HAS BECOME EXPENSIVE RELATIVE TO LOW VOLATILITY
(RELATIVE PRICE/EARNINGS RATIO OF TOP/BOTTOM QUARTILE (GLOBAL))**



Current analysis does not guarantee future results.

As of February 28, 2025

Source: Factset and AB

To summarize where valuations stand today for possible defensive trades across asset classes, we show the valuations of contenders for a defensive trade as a Z score relative to their own history (since 2005) in *Display 3*. Quality, both in equities and credit, remains expensive compared to relative history, whereas the low-volatility factor (short-duration TIPS, cash, etc.) is cheaper than normal. Here, we use return on equity (ROE) as the determining factor for “quality” in equities, and we show that the conclusion applies even in different contexts (long-only vs. long/short and cross-market vs. sector-neutral definitions). For quality in credit, here we are observing the credit spread for investment-grade instruments.

DISPLAY 3: VALUATION OF POSSIBLE DEFENSIVE TRADES (Z-SCORE VALUATIONS VS. HISTORY)

	Asset	Z-score (Since 2005)
Quality Equities	World ROE (SN) (L/S)	2.39
	World ROE (L/S)	1.67
	MSCI World Quality (Relative)	0.83
Low Volatility Equities	World Low Vol (SN) (L/S)	-0.28
	World Low Vol (L/S)	-1.08
	MSCI World Min Vol (Relative)	-1.33
High FCF Equities	World FCF Yield (SN) (L/S)	-0.46
	World FCF Yield (L/S)	-1.17
Other Assets	Global Corporate Aggregate (OAS)	0.66
	Global Aggregate Yield to Maturity	-0.77
	US TIPS (5 Year)	-0.83
	US 3-Month Deposit Rate	-1.21

Current analysis does not guarantee future results.

Note: Smaller (or more negative) values indicate a greater discount to historical average. MSCI World Quality and Minimum Volatility factors are market-capitalization-weighted factors, and their valuation is measured as the relative 12-month-forward price/earnings (PE) multiple relative to the MSCI World Index. The other quality, low-volatility and high-free-cash-flow (FCF) yield factors are constructed by dividing the MSCI into quintiles based on a given factor (or a blend of factors for a “composite” style), and long-short (L/S) portfolios of stocks that are in the top and bottom quintiles, respectively, are formed. Factor valuation is calculated as the ratio of the median 12-month forward PE multiple of the long-short portfolios. For the Global Aggregate index, US TIPS and US 3-month deposit rate, valuation is measured as the yield to maturity. For the Global Corporate Aggregate Index, valuation is measured by the option-adjusted spread (OAS). The sector-neutral (SN) factors are constructed in a way that ensures an equal representation of each sector in the factor portfolios. ROE denotes return on equity. As of March 17, 2025

Source: Bloomberg, Factset, LSEG Datastream, MSCI and AB

The valuation of assets is key to how defensive they might be in a prolonged period of elevated volatility. However, some assets are hard to put into an equivalent context. One such asset is gold. We have a positive view on it in our recommended allocation, but is it defensive? A simple Z score of its price compared with history would imply that it is expensive. But then, that’s not a very fair comparison, as we are not valuing any other asset by simply comparing the nominal price today versus its longer-run history. Comparing it with the valuation of other assets, we conclude that gold’s forward return [is not likely to be a drag or to outperform a 60:40 strategy](#), which seems acceptable as the starting position for an asset whose role is to provide diversification. Moreover, ongoing attempts to de-dollarize (e.g., in China) provide some upside to gold above this. For those who are sensitive to historical relative price movements, we note that the silver-gold and platinum-gold crosses are at more attractive levels.

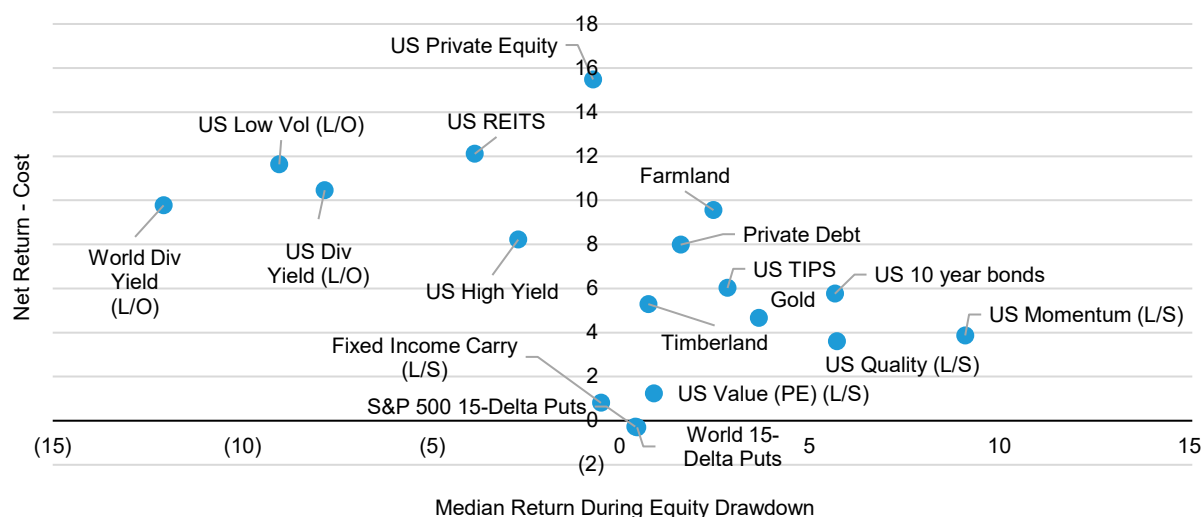
Illiquid assets could also form a part of a defensive trade. But investors need to be very careful that they are defining “defensive” in a defensible way. The key distinction is between stale prices and actual diversification. Just because an asset does not see its price marked-to-market does not make it defensive. The point should be obvious, but we think it is worth stressing. However, some illiquid assets are genuinely potentially diversifying. For example, we would cite private debt and infrastructure as diversifying in the sense that they offer return streams that, either by virtue of their sector exposure or underlying legal structure, are not available in public markets. Albeit they clearly do carry business cycle risks in a prolonged downturn. We would also cite farmland and timberland in this context as being economically insensitive and having a longer-term important role in protecting against inflation.

What constitutes a defensive trade is also in the eye of the beholder. For some investors, a defensive trade might be one that protects against abrupt drawdowns of risk assets; other investors blessed with a longer time horizon (and an appropriate governance structure to match) might instead be drawn to assets that offer longer-term diversification over the business cycle.

To address the former point, we look at the trade-off between long-run net return and performance during historical drawdowns for a range of assets (*Display 4*). Unless one is furnished with perfect foresight, one does not know when a drawdown-protection trade is needed, hence the trade-off between its long-run net return and its ability to work when risk

assets fail is important. Thus, if historical drawdowns are a guide, then a mix of bonds, gold and factor strategies offer a potentially attractive trade-off.

DISPLAY 4: DRAWDOWN PROTECTION AND NET RETURN (IN HISTORICAL STRESSED PERIODS)



Past performance does not guarantee future results.

Note: The chart uses monthly data since 1990. Private Equity, Private Debt, Farmland and Timberland series are quarterly, and we match the drawdown periods to the nearest quarter. We assume a 10bps fee for US 10-year bonds, gold, REITS, TIPS and high-yield bonds, a 20 bps fee for long-only (L/O) factors and a 50 bps fee for long/short (L/S) factors. For timberland, farmland and private debt, we assume a 150bps fee. The option strategies are shown for one-year 15-delta puts, market-cap weighted and delta-hedged daily.

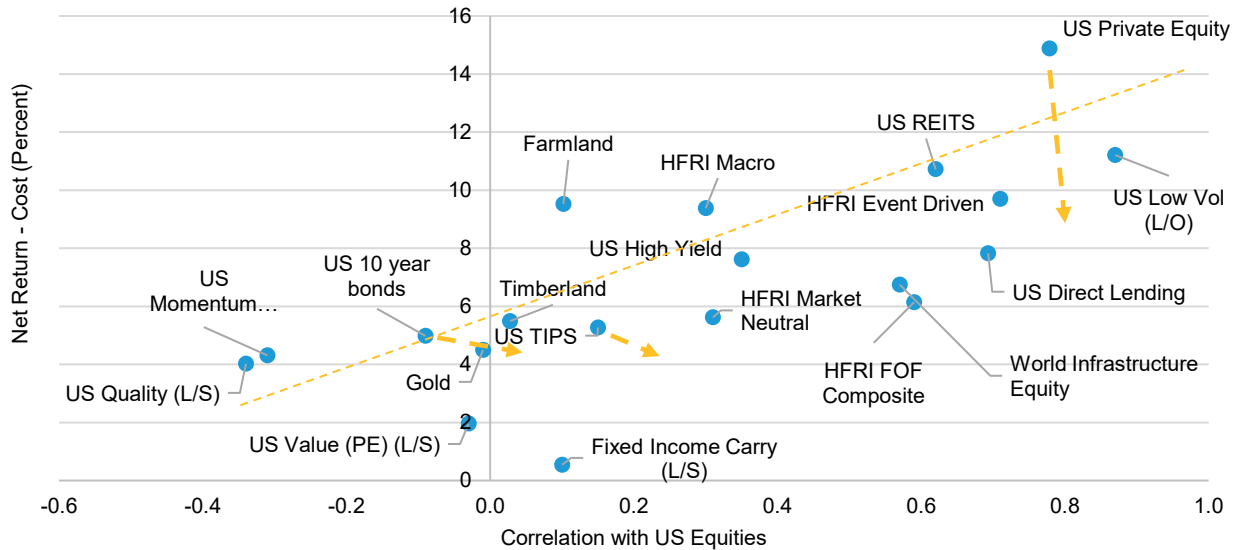
As of March 31, 2022

Source: Bloomberg, Cambridge Associates, Cliffwater, Global Financial data, NCREIF, LSEG Datastream and AB

Defensiveness for longer-horizon investors

Taking the longer-term view of what constitutes a defensive asset, *Display 5* plots long-run net return against correlation with equities. On this basis, nominal 10-year bonds were the no-brainer diversifying asset, delivering positive real returns and achieving a negative correlation with equities. Even after the increase in yields over the last three years, we think that real return will now be lower and [that the correlation of stock and bond returns will be positive](#). So, how should investors future-proof this longer-run approach to diversification? Well, we think there is no single strategy that now occupies the space that bonds inhabited in recent decades. Instead, investors need to invest in a whole range of assets indicated by the sloping dotted yellow line in the display. If it is possible given the governance structure an investor has, then the long-term diversifying assets alongside a large core equity position would include factor strategies, TIPS, gold, private physical assets (e.g., farmland, infrastructure), private financial assets (private debt) and long-short alpha strategies.

DISPLAY 5: DIVERSIFICATION ABILITY VS. NET RETURN



Past performance does not guarantee future results.

The chart uses monthly data from January 1990 (or the longest available history) through December 2022. Private equity, direct lending, farmland and timberland series are quarterly. We assume a 10bps fee for US 10-year bonds, gold, REITS, TIPS and high-yield bonds. We assume a 20 bps fee for long-only (L/O) factors and a 50 bps fee for long/short (L/S) factors. For timberland and farmland, we assume a 150bps fee. For direct lending, we assume a 150bps fee. FOF denotes fund of funds.

As of September 29, 2023

Source: Bloomberg, Cambridge Associates, Cliffwater, Global Financial data, NCREIF, LSEG Datastream and AB

Conclusions

As investors seek to protect portfolios and want trades to complement a pro-risk core position, there are important differences between the various kinds of possibly defensive trades:

1. Within equities, low-volatility trades have been defensive in the recent downturn and remain inexpensive compared with normal. We would also cite defensive value factors, such as the free-cash-flow-yield factor, as being in a similar position.
2. Traditional quality trades have been less effective over the last month and remain more expensive than usual. Thus, we worry about their ability to be defensive.
3. Short-duration fixed-income instruments, especially TIPS, are an effective defensive trade. Longer-duration nominal bonds can protect against sharp drawdowns (although that didn't work in 2022) but are potentially less effective if the desire is a longer-horizon wish to diversify equity risk in a higher-inflation world.
4. We continue to like precious metals, especially gold. Yes, gold has rallied considerably, but we are not convinced that counts as it being "expensive." After all, the nominal prices of most asset classes are high compared with history. For us, gold has a good track record of protecting against sharp drawdowns, the last month being a case in point, and in the longer term its lack of correlation with equities remains invariant at higher inflation levels. Central bank buying, in an attempt to de-dollarize, provides additional support. For those who worry about recent price movements, the silver-gold and platinum-gold cross rates imply broader precious-metals opportunities.

The recent run of US economic policy announcements brings forward the time frame in which we expect a lower-growth and higher-inflation world. Meanwhile, the geopolitical-policy changes are momentous but are not the kinds of things that markets, in the short term at least, tend to price. Nevertheless, we think that much of the scale of recent moves reflects the degree of bullish, pro-US, pro-growth consensus that built up after the US election and was expressed in the huge divergence in fund flows (e.g., \$600Bn into US equities and \$60Bn out of European equities in the 12 months leading up to the recent sell-off).

Thus, at the market level we argue this is tactical, not structurally bearish so our discussion of defensive trades is alongside a pro-equity portfolio core, albeit one that needs protection from a higher level of volatility.

Nashville 501 Commerce Street Nashville, TN 37203 United States (615) 622 0000	New York 66 Hudson Boulevard East New York, NY 10001 United States (212) 969 1000	London 60 London Wall London EC2M 5SJ United Kingdom +44 20 7470 0100	Singapore One Raffles Quay #27-11 South Tower Singapore 048583 +65 6230 4600
Tokyo Hibiya Parkfront 14F 2-1-6 Uchisaiwaicho, Chiyoda-ku Tokyo, 100-0011, Japan +81 3 5962 9000	Toronto 200 Bay Street, North Tower Suite 1203 Toronto, Ontario M5J 2J2, Canada (647) 375 2803	Sydney Level 32, Aurora Place 88 Phillip Street Sydney NSW 2000 Australia +61 02 9255 1200	Hong Kong 39th Floor, One Island East, Taikoo Place 18 Westlands Road Quarry Bay, Hong Kong +852 2918 7888

For Investment Professional use only. Not for inspection by, distribution or quotation to, the general public.

The value of an investment can go down as well as up, and investors may not get back the full amount they invested. Capital is at risk. Past performance does not guarantee future results.

Important Information

The information contained herein reflects the views of AllianceBernstein L.P. or its affiliates and sources it believes are reliable as of the date of this publication. AllianceBernstein L.P. makes no representations or warranties concerning the accuracy of any data. There is no guarantee that any projection, forecast or opinion in this material will be realized.

The views expressed herein may change at any time after the date of this publication. AllianceBernstein L.P. does not provide tax, legal or accounting advice. It does not take an investor's personal investment objectives or financial situation into account; investors should discuss their individual circumstances with appropriate professionals before making any decisions.

References to specific securities are provided solely in the context of the analysis presented and are not to be considered recommendations by AllianceBernstein. AllianceBernstein and its affiliates may have positions in, and may effect transactions in, the markets, industry sectors and companies described herein.

MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed or produced by MSCI.

Note to All Readers: The information contained here reflects the views of AllianceBernstein L.P. or its affiliates and sources it believes are reliable as of the date of this publication. AllianceBernstein L.P. makes no representations or warranties concerning the accuracy of any data. There is no guarantee that any projection, forecast or opinion in this material will be realized.

Note to Readers in Canada: AllianceBernstein provides its investment-management services in Canada through its affiliates Sanford C. Bernstein & Co. LLC and AllianceBernstein Canada, Inc. It should not be construed as advice as to the investing in or the buying or selling of securities, or as an activity in furtherance of a trade in securities. **Note to Readers in the United Kingdom:** Issued by AllianceBernstein Limited, 60 London Wall, London EC2M 5SJ, registered in England, No. 2551144. AllianceBernstein Limited is authorised and regulated in the UK by the Financial Conduct Authority (FCA). **Note to Readers in Europe:** This information is issued by AllianceBernstein (Luxembourg) S.à r.l. Société à responsabilité limitée, R.C.S. Luxembourg B 34 305, 2-4, rue Eugène Ruppert, L-2453 Luxembourg. Authorised in Luxembourg and regulated by the Commission de Surveillance du Secteur Financier (CSSF). **Note to Readers in Switzerland:** This information is directed at Qualified Investors only. Issued by AllianceBernstein Schweiz AG, Zürich, a company registered in Switzerland under company number CHE-306.220.501. AllianceBernstein Schweiz AG is a financial service provider within the meaning of the Financial Services Act (FinSA) and is not subject to any prudential supervision in Switzerland. Further information on the company, its services and products, in accordance with Art. 8 FinSA can be found on the Important Disclosures page at AllianceBernstein.com. **Note to Readers in Australia and New Zealand:** For Institutional Investor use only. Not for inspection by, distribution or quotation to, the general public. This document has been issued by AllianceBernstein Australia Limited (ABN 53 095 022 718 and AFSL 230698). Information in this document is intended only for persons who qualify as "wholesale clients," as defined in the Corporations Act 2001 (Cth of Australia) or the Financial Advisers Act 2008 (New Zealand), and should not be construed as advice. **Note to Readers in Hong Kong:** For Institutional Investor use only. Not for inspection by, distribution or quotation to, the general public. The issuer of this document is AllianceBernstein Hong Kong Limited (聯博香港有限公司). This document has not been reviewed by the Securities and Futures Commission. **Note to Readers in Japan:** For Institutional Investor use only. Not for inspection by, distribution or quotation to, the general public. This document has been provided by AllianceBernstein Japan Ltd. AllianceBernstein Japan Ltd. is a registered investment-management company (registration number: Kanto Local Financial Bureau no. 303). It is also a member of the Japan Investment Advisers Association; the Investment Trusts Association, Japan; the Japan Securities Dealers Association; and the Type II Financial Instruments Firms Association. The product/service may not be offered or sold in Japan; this document is not made to solicit investment. **Note to Readers in Singapore:** For Institutional Investor use only. Not for inspection by, distribution or quotation to, the general public. This document has been issued by AllianceBernstein (Singapore) Ltd. ("ABSL", Company Registration No. 199703364C). AllianceBernstein (Luxembourg) S.à r.l. is the management company of the Portfolio and has appointed ABSL as its agent for service of process and as its Singapore representative. AllianceBernstein (Singapore) Ltd. is regulated by the Monetary Authority of Singapore. This advertisement has not been reviewed by the Monetary Authority of Singapore. **Note to Readers in Taiwan:** For Institutional Investor use only. Not for inspection by, distribution or quotation to, the general public. This document is provided solely for informational purposes and is not investment advice, nor is it intended to be an offer or solicitation, and does not pertain to the specific investment

For Investment Professional use only. Not for inspection by, distribution or quotation to, the general public.

objectives, financial situation or particular needs of any person to whom it is sent. This document is not an advertisement. AllianceBernstein L.P. is not licensed to, and does not purport to, conduct any business or offer any services in Taiwan. **Note to Readers in China:** This information contained here reflects AllianceBernstein Hong Kong Limited ("AB") or its affiliates and sources it believes are reliable as of the date of this publication. This presentation has been provided to you for the sole use in a private and confidential meeting. AB makes no representations or warranties concerning the accuracy of any data. There is no guarantee that any projection, forecast or opinion in this material will be realized. Past performance does not guarantee future results. The views expressed here may change at any time after the date of this publication. This presentation is for informational purposes only and does not constitute investment advice. AB does not provide tax, legal or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions. This presentation or any information contained or incorporated by reference herein does not constitute an offer to sell or the solicitation of an offer to purchase any financial instrument, product or service sponsored by AB or its affiliates within the People's Republic of China ("PRC", for such purposes, excluding Hong Kong, Macao and Taiwan). **Note to Readers in Vietnam, the Philippines, Brunei, Thailand, Indonesia and India:** This document is provided solely for the informational purposes of institutional investors and is not investment advice, nor is it intended to be an offer or solicitation, and does not pertain to the specific investment objectives, financial situation or particular needs of any person to whom it is sent. This document is not an advertisement and is not intended for public use or additional distribution. AllianceBernstein is not licensed to, and does not purport to, conduct any business or offer any services in any of the above countries. **Note to Readers in the United Arab Emirates, Kuwait, Kingdom of Saudi Arabia, Kingdom of Bahrain, Qatar and Oman:** AllianceBernstein Limited has established a subsidiary in the Dubai International Financial Centre (DIFC) with number 6639, which is regulated by the Dubai Financial Services Authority (DFSA). The registered office is Unit GD-GB-00-15-BC-29-0, Level 15, Gate District Gate Building, Dubai International Financial Centre, Dubai, United Arab Emirates. Promotions of financial information made by AllianceBernstein (DIFC) Limited are carried out on behalf of its group entities. This document is intended for Professional Clients or Market Counterparties only as defined by the DFSA and no other person should act upon it. The information contained herein does not constitute, and is not intended to constitute, a public offer of securities in the United Arab Emirates, Kuwait, the Kingdom of Saudi Arabia, the Kingdom of Bahrain, the State of Qatar, or Oman, and accordingly should not be construed as such. The strategies have not been approved by or licensed or registered with the Dubai Financial Services Authority, the Financial Services Regulatory Authority, the Kuwait Capital Markets Authority, the Saudi Arabian Capital Market Authority, the Central Bank of Bahrain, the Qatar Financial Markets Authority, the Oman Regulatory Authority, or any other relevant licensing authorities or governmental agencies in these jurisdictions (the "Authorities"). The Authorities assume no responsibility for the contents of this document. No offer will be made in the following jurisdictions: Kuwait, Kingdom of Saudi Arabia, Kingdom of Bahrain or Qatar. This document is intended to be read by the named addressee only and must not be passed to, issued to, or shown to the public generally (other than employees, agents, or consultants in connection with the addressee's consideration thereof). **Note to Readers in Oman:** The information contained herein does not constitute, and is not intended to constitute, a public offer of securities in Oman and accordingly should not be construed as such. The strategies have not been approved by or licensed or registered with the Oman Regulatory Authority or any other relevant licensing authorities or governmental agencies in Oman (the "Authorities"). The Authorities assume no liability for any investment that the named addressee makes as a non-natural Qualified Investor. This information is for the use of the named addressee only and should not be given or shown to any other person (other than employees, agents or consultants in connection with the addressee's consideration thereof). **Note to Readers in United Arab Emirates:** The information contained herein does not constitute, and is not intended to constitute, a public offer of securities in the United Arab Emirates and accordingly should not be construed as such. The strategies have not been approved by or licensed or registered with the UAE Central Bank, the Securities and Commodities Authority, the Dubai Financial Services Authority, the Financial Services Regulatory Authority or any other relevant licensing authorities or governmental agencies in the UAE (the "Authorities"). The Authorities assume no liability for any investment that the named addressee makes as a non-natural Qualified Investor. This information is for the use of the named addressee only and should not be given or shown to any other person (other than employees, agents or consultants in connection with the addressee's consideration thereof). **Note to Readers in the Kingdom of Bahrain:** The information contained herein does not constitute, and is not intended to constitute, a public offer of securities in the Kingdom of Bahrain and accordingly should not be construed as such. This information has not been approved by the Central Bank of Bahrain, which takes no responsibility for its contents. No offer will be made in the Kingdom of Bahrain and this information is intended to be read by the addressee only and must not be passed to, issued to or shown to the public generally. **Note to Readers in the Kingdom of Saudi Arabia:** The information contained herein does not constitute, and is not intended to constitute, a public offer of securities in the Kingdom of Saudi Arabia and accordingly should not be construed as such. This information has not been approved by the Saudi Arabian Capital Market Authority, which takes no responsibility for its contents. No offer will be made in the Kingdom of Saudi Arabia, and this information is intended to be read by the addressee only and must not be passed to, issued to or shown to the public generally. **Note to Readers in Qatar:** The information contained herein does not constitute, and is not intended to constitute, a public offer of securities in the State of Qatar and accordingly should not be construed as such. This information has not been approved by the Qatar Financial Markets. **Note to Readers in Kuwait:** The information contained herein does not constitute, and is not intended to constitute, a public offer of securities in Kuwait and accordingly should not be construed as such. This information has not been approved by Kuwait Capital Markets Authority, or any other relevant Kuwaiti government agency, which takes no responsibility for its contents. No offer will be made in Kuwait, and this information is intended to be read by the addressee only and must not be passed to, issued to or shown to the public generally.

The [A/B] logo is a registered service mark of AllianceBernstein and AllianceBernstein® is a registered service mark used by permission of the owner, AllianceBernstein L.P.

© 2025 AllianceBernstein L.P., 501 Commerce St., Nashville, TN 37203

ICN20250446