Morgan Stanley

WEALTH MANAGEMENT

PRIMER

Global Investment Office | January 11, 2024

What to Expect When You're Expecting to Go Public



Steve Edwards, CFA Senior Investment Strategist

Patrick Gremban Investment Strategist

Helen K. Donnelly Investment Strategist

For start-up founders and executives, an impending exit can be both exciting and overwhelming. A successful exit provides the opportunity to reap the benefits of hard work, but founders may miss out on opportunities due to the inherent complexity of liquidity events. This primer offers a playbook on how to plan appropriately so as not to leave money on the table.

While intended for founders and other C-suite level executives, this guide may prove helpful for other employees as well. We will start by reviewing the different types of equity grants and critical equity compensation tax planning considerations; then tackle tax planning strategies prior to a potential initial public offering (IPO); and conclude with strategies for selling stock after the IPO.

The authors would like to acknowledge The Morgan Stanley WM Equity Planning and Education Center (EPEC) Team for their contributions to the primer.

Morgan Stanley Wealth Management is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer in the United States. This report is for educational purposes only. This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Past performance is not necessarily a guide to future performance. Please refer to important information, disclosures and qualifications at the end of this material.

Equity Grants 101

Outright shares represent the most straightforward type of equity compensation. Executives, insiders and employees typically acquire these shares through the vesting and settlement of restricted stock units (RSUs), restricted stock awards (RSAs) or stock appreciation rights (SARs). They may also acquire them through the exercise of stock options.

RSUs are units that represent the promise to deliver shares of company stock to the holder when vesting requirements are met. Recipients may meet vesting requirements through either the passage of time or performance-based metrics. To distinguish their character, performance-based RSUs are often named performance share units (PSUs). Upon vesting and settlement, the units are converted to shares, and the market value of the shares is considered ordinary income—and like other compensation, subject to FICA deductions. For private companies, however, recipients face restrictions on liquidating the shares and a potential cash crunch in covering the tax liability. As such, many private companies offer "doubletrigger" RSUs, which typically vest only after meeting both time- and performance-based conditions and after the company's initial public offering.

Upon selling the resulting shares, recipients will realize capital gains or losses based on the differential between sales price and the fair market value at the time of vesting, which is the cost basis of the shares. For transactions occurring after holding the shares more than a year, the resulting capital gains or losses will receive long-term capital gain tax treatment, while shorter holding periods will trigger shortterm capital gain tax treatment.

Meanwhile, restricted stock awards (RSAs) represent another popular type of restricted stock compensation typically issued by early-stage companies. RSAs are grants of company stock subject to vesting requirements. Recipients have a choice to make an 83(b) election, which allows them to pay ordinary income tax upfront based on the value of their shares on their grant date, establishing their cost basis. After vesting, recipients will be responsible for capital gain taxes upon sale of the shares for any gain above the cost basis, which is set at the time of the 83(b) election. If no 83(b) election is made, ordinary income taxes on the full value will be owed at the time of vesting.

Equity compensation in the form of employee stock options tends to carry complexity and risk. Options represent the right to purchase shares at a pre-established price, termed the "strike price" or "exercise price." After issuance, the difference between the prevailing stock price and the strike price is called the "bargain element" or "intrinsic value" of the options. Whenever the stock price exceeds the strike price, leading to a positive intrinsic value, the options are considered "in the money," meaning that, if exercised, the

holder could immediately realize a profit by selling the shares.

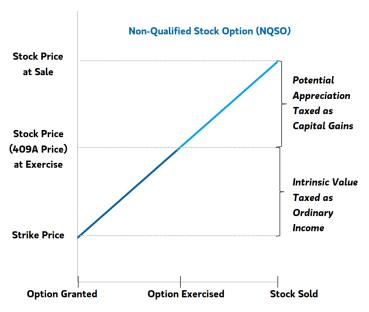
In most cases, private companies do not have readily available stock prices but instead have preferred valuations. The preferred valuation is typically what investors paid for one company share during the latest investment round. When recipients exercise employee stock options, however, they face tax consequences defined not by the preferred valuation, but rather the company's 409A valuation. The 409A valuation represents the fair market value of the company, and is typically 20% to 30% of the preferred valuation.

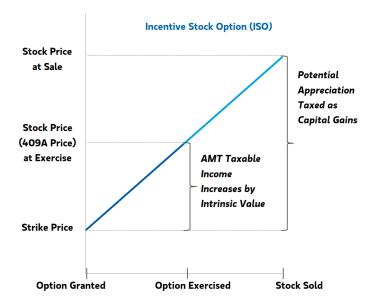
Recipients face two potential tax treatments for employee stock options, hinging on the type of options exercised:

- Non-qualified stock options (NQSOs): When recipients exercise NQSOs, they create an ordinary income tax liability based on the options' intrinsic value, defined as the 409A price less the strike price. Upon selling the shares that result from such an exercise, the seller creates a capital gain tax liability based on the differential between the sales price and the 409A price on the date of exercise, characterized as long- or short-term according to the shares' holding period.
- Incentive stock options (ISOs): Upon exercising incentive stock options, AMT Preference Income is created under the Alternative Minimum Tax (AMT) system based on the intrinsic value of the options: the 409A price less the strike price. Under IRS regulations, individuals must pay tax based on which tax calculation—the marginal tax calculation or AMT tax calculation—creates the larger tax liability. Whether an ISO exercise ultimately gives rise to an actual income tax cost to the recipient depends on their overall tax position. Upon selling the shares received from such an exercise, the seller may benefit from long-term capital gains treatment on the entire appreciation (sales price less strike price) if the shares are held for at least one year after the options are exercised, and two years have passed from the grant date. Please see Exhibit 1 for a visual.

As noted, recipients of ISOs may trigger the AMT depending on their options' intrinsic value and their regular taxable incomes. Importantly, AMT tax is generally due in April in the following calendar year. For those that do trigger AMT, they may receive a tax credit for the additional AMT paid. To use this tax credit, however, taxpayers cannot owe AMT in that specific year, and the credit may only lower their tax bill down to the AMT amount for that year. Notably, these credits do not expire.

Exhibit 1: Non-Qualified Stock Options and Incentive Stock Options Face Different Treatments





Source: Morgan Stanley Wealth Management Global Investment Office

Stock appreciation rights (SARs) are another type of equitybased compensation, with some similarities to employee stock options. They represent a promise to pay an amount based on the appreciation of company stock over the stated exercise price and may be settled in shares or cash. Since SARs, unlike options, do not require a cash outlay, they are considered more employee friendly. Like options, the intrinsic value at exercise, capturing the appreciation above the exercise price, is considered ordinary income.

Founders and other early-stage executives may benefit from the Qualified Small Business Stock (QSBS) exemption when eventually selling their shares. To qualify, the shares must meet the following criteria (additional criteria apply):

- Issued by a C corporation, with no more than \$50 million in assets at the time of issuance:
- Held for at least five years prior to sale; and
- Tied to a company where 80% of its assets fall into a "qualified" business, which may include manufacturing, technology, research and development, among others. Common excluded business types include agriculture, engineering, health, law, banking and service-oriented businesses.

After qualifying for this exemption, the seller may exclude the greater of \$10 million of capital gains or 10 times the original cost basis.

83(b) elections are another consideration. They apply to RSAs and ISOs and may offer the potential for tax savings. As discussed above, for RSAs, if holders make an 83(b) election within 30 days of the grant date, they pay ordinary income taxes based on the fair market value at the grant date rather than upon vesting. This setup offers the potential for future tax savings, assuming the stock's fair market value increases between the grant date and the vesting date. The disadvantage is that should the stock price materially fall or should the recipient leave the company prior to vesting, then they would have overpaid their taxes. If the company allows for option exercise prior to vesting, the option holders may file an 83(b) election within 30 days of the date of the exercise date. This tactic may allow the option holders to exercise when the strike price and the 409A price are identical, leading to no taxable intrinsic value for AMT purposes. The drawback of this strategy is the same as for 83(b) elections for RSAs: Should the stock price fall or the recipient leave the company prior to vesting, then they would have overpaid their taxes.

Pre-Liquidity Planning Strategies

Having covered multiple types of equity grants, we now address pre-liquidity planning. This involves weighing tax strategies well in advance of a possible liquidity event to potentially maximize value creation. Of course, companies that appear ready to go public may not ultimately do so, making it prudent to explore contingencies alongside these potential strategies.

Early Exercise

For those with bullish views on their own company stock, it may be beneficial from a tax perspective to pursue early exercise of stock options and hold the outright shares instead. To be clear, an early exercise, which may minimize the tax liability for ordinary income, means exercising the options prior to an IPO or liquidity event to "start the clock" on qualifying future appreciation as long-term capital gains, rather than pursuing an 83(b) election (discussed above). This strategy requires that the option holders have access to cash required to cover the exercise costs and the liability for any taxes triggered by the exercise.

Below, we present a case study that quantifies the risk-reward trade-off of an early exercise. In this example, we assume a model client, who, as an early employee at a start-up, received 100,000 NQSOs with a strike price of \$1. Here, the current 409A value has hit \$2. To pursue early exercise, we assume she will need \$150,000 in cash: \$100,000 to exercise the options and an additional \$50,000 to pay the ordinary income taxes upon exercise.

Exhibit 2: Early Options Exercise May Pay Off in Bull Scenarios but Could Be Costly in Bear Scenarios

	BULL SCENARIO	BEAR SCENARIO
Quantity of Shares Exercised	100,000	100,000
409A Price at Exercise	\$2	\$2
Stock Price at Sale	\$30	\$0
Net Proceeds From Early Exercise	\$1,800,917	-\$86,083
Net Proceeds From Same-Day Sale	\$1,373,150	\$0
Differential	\$427,767	-\$86,083

Source: Morgan Stanley Wealth Management Global Investment Office as of Jan. 1, 2024

In Exhibit 2, the bullish scenario considers a company IPO at \$30, under which the option holder may save over \$400,000 in taxes, compared with waiting until the IPO date and executing a same-day sale of her NQSOs. In the bearish scenario, in which the stock value falls to zero in the worstcase scenario, she will have deployed more than \$150,000 related to the exercise but received some offsetting benefit from the inherent capital loss, ultimately leading to a total loss of more than \$85,000. For the full analysis, please see

Exhibit 4 in the appendix.

Early exercise brings up two primary risks. First, should the stock price fall considerably following exercise, the investor may face exercise-triggered tax liabilities that may not be recoverable through selling the shares. Moreover, upon exercising the options, the investor faces a greater maximum loss in the event that the stock price falls to zero—that is, the total value of the stock as opposed to the option value.

In sum, exercising options early does involve significant embedded risks but may lead to favorable outcomes, should the stock price appreciate materially.

Legacy Planning

Tax optimization should be holistic and consider not just eventual income taxes, but also potential estate taxes. Legacy or estate planning seeks to strategize on how assets will pass upon an investor's death. Thoughtful approaches may save millions of dollars in eventual estate taxes. As of 2024, any assets above the federal exemption—\$13.61 million person or \$27.22 million for couples—are subject to federal estate taxes at a 40% rate.

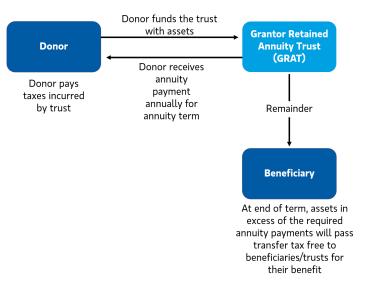
"Gifting early" is a simple but effective technique in which an investor gifts assets outside her estate well before her passing. In this scenario, any appreciation on those assets will not be subject to estate taxes. Specifically, gifting pre-IPO shares may allow an investor to take advantage of lower fair market values. For example, should a client gift a million shares of company stock with a 409A price of \$1, she will have used \$1 million of her exemption. In the event that the stock IPOs later at \$10, she will have gifted shares worth \$10 million to her beneficiaries but have exhausted only a fraction of her lifetime exemption.

For executives and founders, there may be limits on what to gift, as certain types of equity compensation may be less than ideal to gift or not transferrable. Owing to their inherent restrictions, RSUs and RSAs are not available for gifting; likewise, ISOs are not transferable. While some companies may allow holders to transfer NQSOs, the original holder will still hold the liability for any income taxes upon exercise, making the gifting of NSQOs uncommon. As such, the gifting of outright shares typically offers the cleanest path for legacy planning.

Legacy planning involves an alphabet soup of potential vehicles. For private company employees, the grantorretained annuity trust (GRAT) may hold particular value. A GRAT allows a grantor to transfer assets to a trust and then receive the value of those assets, plus interest, via annuity payments over time. Upon the end of the annuity payment term, any remaining trust assets flow to the trust's beneficiaries free of estate and gift taxes. Notably, the value of the grantor's annuity payments is based on the underlying assets' value at the time of funding the GRAT, meaning that

the trust will effectively maintain any material increase in the shares' value. The structure may work well with volatile underlying investments—such as start-up equity—as the volatility increases the potential of large estate tax-free transfers.

Exhibit 3: Grantor-Retained Annuity Trusts May Hold Value for Recipients of Pre-IPO Shares



Source: Morgan Stanley Wealth Management Global Investment Office

Liquidity Events 101

The months and weeks leading up to liquidity events may be among the most overwhelming in private company executives' careers. Ahead of that event, we recommend taking account of several items well in advance of an eventual IPO.

Many executives and other employees of start-ups encounter tender offers on the road to larger liquidity events, such as an IPO. During tender offers, which often accompany new rounds of corporate financing, investors or the company look to buy employee shares for cash. Tender offers may represent onetime events, or they may be part of annual liquidity programs that the company sponsors. Tender offers have their own eligibility requirements, indicating who may participate, which shares are eligible and the maximum number of shares that may be sold. Investors may consider a multitude of factors when choosing to participate in a tender offer, including the specific terms, the company's outlook and investors' specific liquidity needs. As such, we cannot cover that choice exhaustively here.

An IPO is the most well-known process for going public. In short, IPOs represent the first time that a private company sells shares to public investors. Importantly, employees typically face a lock-up period following an IPO, in which employees will be restricted from selling shares. This

limitation prevents employees from flooding the market with their shares, which could have the effect of dampening the stock price and diminishing IPO investors' profitability.

Companies may also go public through direct listings. While similar to IPOs, companies do not issue new equity for shares to the public; instead, existing shareholders may list their shares for sale on the stock exchange. With direct listing, employees may not face a lock-up period, but there may be other company-specific agreements that could restrict employee trading.

Finally, de-SPAC mergers have emerged as another common way for companies to become public. Special purpose acquisition vehicles (SPACs) are essentially shell companies designed to acquire or merge with private companies—and then take them public. A de-SPAC is the process whereby a SPAC merges with or acquires a private company.

Post-IPO Liquidation Strategy

Public market liquidity does not necessarily translate to an easy share-selling process. First, corporate executives can typically make share sales only during "open-window" periods —usually for four to six weeks after each quarterly earnings release. Even during those times, material nonpublic information provisions may prohibit executives from transacting in company stock. Additionally, company-specific agreements may further limit executive stock sales, spelling out the maximum numbers of shares that may be sold in a given period and imposing certain stock ownership requirements. For a more in-depth discussion of these topics, please see the Sept. 19, 2023 primer: "Diversification Strategies for Public Company Executives."

Before implementing any liquidity strategies, executives and other insiders may benefit from working with an equity planning specialist who can make tailored recommendations. In these cases, liquidity strategies will depend on the equity holders' company outlook, their companies' equity agreements and their liquidity needs, among other factors.

Conclusion

Managing the many variables leading up to an IPO or liquidity event can be complex, but Morgan Stanley Wealth Management can help. Not only have we built up a wealth of experience in guiding clients through the IPO process, we also have developed proprietary tools, exclusively for founders and executives, which can quantify the impact of pre-liquidity planning or an eventual sales strategy. With a comprehensive plan in place, we can help clients make complicated decisions with confidence. To discuss further, please reach out to your Morgan Stanley Financial Advisor.

Today

Appendix

Exhibit 4

BULL SCENARIO

Stock Price	\$2	\$30
	Exercise Options	Sell Shares
(Acquired Stock)	\$200,000	
Exercise Price	-100,000	
Ordinary Income Taxes	-52,650	
Total Outflow	-152,650	
Sale Price		\$3,000,000
Capital Gains Taxes		-1,038,800
Total Inflow		1,961,200
Net Proceeds		1,808,550
Cost of Capital		-7,633

(Acquired Stock)	Exercise Options & Sell Shares \$3,000,000
Exercise Price	-100,000
Ordinary Income Taxes	-1,526,850
Total Outflow	-1,626,850
Sale Price	3,000,000
Total Inflow	3,000,000
Net Proceeds	1,373,150
Net Impact of Exercising Early	\$427,768

BEAR SCENARIO

In One Year

Stock Price	Today \$2	In One Year \$0
(Acquired Stock)	Exercise Options \$200,000	Sell Shares
Exercise Price	-100,000	
Ordinary Income Taxes	-52,650	
Total Outflow	-152,650	
Sale Price		\$0
Capital Gains Taxes		0
Total Inflow		0
Net Proceeds		-152,650
Cost of Capital		-7,633
Worthless Stock Dedu	iction	-37,100

	Exercise Options & Sell Shares	
(Acquired Stock)	\$0	
Exercise Price	0	
Ordinary Income Taxes	0	
Total Outflow	0	
Sale Price	0	
Total Inflow	0	
Net Proceeds	o	
Net Impact of Exercising Early	-\$197,383	

Note: This table provides additional detail from the analysis shown in Exhibit 2. Tax rates used assume a California tax resident individual subject to the highest

Source: Morgan Stanley Wealth Management Global Investment office as of Jan. 1, 2024

Disclosure Section

Glossary

Illiquidity premium is the extra yield investors expect to earn for giving up control to liquidate their capital for a certain period of time.

Volatility is a statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security.

Risk Considerations

Investing in the market entails the risk of market volatility. The value of all types of securities may increase or decrease over varying time periods.

This analysis does not purport to recommend or implement an investment strategy. Financial forecasts, rates of return, risk, inflation, and other assumptions may be used as the basis for illustrations in this analysis. They should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. No analysis has the ability to accurately predict the future, eliminate risk, or guarantee investment results. As investment returns, inflation, taxes, and other economic conditions vary from the assumptions used in this analysis, your actual results will vary (perhaps significantly) from those presented in this analysis.

Any type of continuous or periodic investment plan does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels.

Active or frequent trading to effectuate a dynamic allocation strategy entails greater risk and is more speculative, but also entails the possibility for above-average returns, compared with a long-term investment strategy. It may also entail more costs and fees, as well as a larger and more immediate tax liability.

Equity securities may fluctuate in response to news on companies, industries, market conditions, and general economic environment.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally, the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

Ultrashort-term fixed income asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Because of their narrow focus, sector investments tend to be more volatile than investments that diversify across many sectors and companies. Technology stocks may be especially volatile. Health care sector stocks are subject to government regulation, as well as government approval of products and services, which can significantly impact price and availability, and which can also be significantly affected by rapid obsolescence and patent expirations.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

Alternative investments may be either traditional alternative investment vehicles, such as hedge funds, fund of hedge funds, private equity, private real estate and managed futures or, non-traditional products such as mutual funds and exchange-traded funds that also seek alternativelike exposure but have significant differences from traditional alternative investments. The risks of traditional alternative investments may include: can be highly illiquid, speculative and not appropriate for all investors, loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized, absence of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than open-end mutual funds, and risks associated with the operations, personnel and processes of the manager. Non-traditional alternative strategy products may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. These investments are subject to the risks normally associated with debt instruments and also carry substantial additional risks. Investors could lose all or a substantial amount of their investment. These investments typically have higher fees or expenses than traditional investments.

Participating in a new issue/syndicate is subject to availability. Initial public offerings (IPOs) are highly speculative and may not be appropriate

for all investors because they lack a stock-trading history and usually involve smaller and newer companies that tend to have limited operating histories, less experienced management teams, and fewer products or customers. Also, the offering price of an IPO reflects a negotiated estimate as to the value of the company, which may bear little relationship to the trading price of the securities, and it is not uncommon for the closing price of the shares shortly after the IPO to be well above or below the offering price.

Special purpose acquisition companies (SPACs) are companies that may be unseasoned and lack a trading or operational history, a track record of reporting to investors, and widely available research coverage. New issues are often subject to extreme price volatility and speculative trading. These stocks may have above-average price appreciation in connection with the new issue. In addition, new issues may share similar illiquidity risks of private equity and venture capital. The free float shares held by the public in a new issue are typically a small percentage of the market capitalization. The ownership of many new issues often includes large holdings by venture capital and private equity investors who seek to sell their shares in the public market in the months following a new issue when shares restricted by lock-up are released, causing greater volatility and possible downward pressure during the time that locked-up shares are released. Public stockholders of SPACs may not be afforded a meaningful opportunity to vote on a proposed initial business combination because certain stockholders, including stockholders affiliated with the management of the SPAC, may have sufficient voting power, and a financial incentive, to approve such a transaction without support from public stockholders. As a result, a SPAC may complete a business combination even though a majority of its public stockholders do not support such a combination.

Annuities

Annuities are long term tax-deferred retirement savings vehicles. Annuities are generally subject to surrender charges. A surrender charge is a penalty you have to pay if you sell or withdraw money from an annuity before it matures. The time before an annuity's maturity is called the surrender period and usually lasts for several years after purchase. Surrender charges reduce the value of your annuity and its returns. Early withdrawals will reduce the death benefit and cash surrender value.

Under current law, a nonqualified annuity that is owned by an individual is generally entitled to tax deferral. IRAs and qualified plans—such as 401(k)s and 403(b)s—are already tax-deferred. Therefore, a deferred annuity should be used only to fund an IRA or qualified plan to benefit from the annuity's features other than tax deferral. These include lifetime income and death benefit options.

Hyperlinks

This material may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the material refers to website material of Morgan Stanley Wealth Management, the firm has not reviewed the linked site. Equally, except to the extent to which the material refers to website material of Morgan Stanley Wealth Management, the firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of Morgan Stanley Wealth Management) is provided solely for your convenience and information and the content of the linked site does not in any way form part of this document. Accessing such website or following such link through the material or the website of the firm shall be at your own risk and we shall have no liability arising out of, or in connection with, any such referenced website.

By providing links to third-party websites or online publication(s) or article(s), Morgan Stanley Smith Barney LLC ("Morgan Stanley") is not implying an affiliation, sponsorship, endorsement, approval, investigation, verification with the third parties or that any monitoring is being done by Morgan Stanley of any information contained within the articles or websites. Morgan Stanley is not responsible for the information contained on the third-party websites or your use of or inability to use such site. Nor do we guarantee their accuracy and completeness. The terms, conditions, and privacy policy of any third-party website may be different from those applicable to your use of any Morgan Stanley website. The information and data provided by the third-party websites or publications are as of the date when they were written and subject to change without notice.

Disclosures

Morgan Stanley Wealth Management is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer in the United States. This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Past performance is not necessarily a guide to future performance.

The author(s) (if any authors are noted) principally responsible for the preparation of this material receive compensation based upon various factors, including quality and accuracy of their work, firm revenues (including trading and capital markets revenues), client feedback and competitive factors. Morgan Stanley Wealth Management is involved in many businesses that may relate to companies, securities or instruments mentioned in this material.

This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any security/instrument, or to participate in any trading strategy. Any such offer would be made only after a prospective investor had completed its own independent investigation of the securities, instruments or transactions, and received all information it required to make its own investment decision, including, where applicable, a review of any offering circular or memorandum describing such security or instrument. That information would contain material information not contained herein and to which prospective participants are referred. This material is based on public information as of the specified date, and may be stale thereafter. We have no obligation to tell you when information herein may change. We make no representation or warranty with respect to the accuracy or completeness of this material. Morgan Stanley Wealth Management has no obligation to provide updated information on the securities/instruments mentioned herein.

The securities/instruments discussed in this material may not be appropriate for all investors. The appropriateness of a particular investment or strategy will depend on an investor's individual circumstances and objectives. Morgan Stanley Wealth Management recommends that investors independently evaluate specific investments and strategies, and encourages investors to seek the advice of a financial advisor. The value of and income from investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies and other issuers or other factors. Estimates of future performance are based on assumptions that may not be realized. Actual events may differ from those assumed and changes to any assumptions may have a material impact on any projections or estimates. Other events not taken into account may occur and may significantly

affect the projections or estimates. Certain assumptions may have been made for modeling purposes only to simplify the presentation and/or calculation of any projections or estimates, and Morgan Stanley Wealth Management does not represent that any such assumptions will reflect actual future events. Accordingly, there can be no assurance that estimated returns or projections will be realized or that actual returns or performance results will not materially differ from those estimated herein.

This material should not be viewed as advice or recommendations with respect to asset allocation or any particular investment. This information is not intended to, and should not, form a primary basis for any investment decisions that you may make. Morgan Stanley Wealth Management is not acting as a fiduciary under either the Employee Retirement Income Security Act of 1974, as amended or under section 4975 of the Internal Revenue Code of 1986 as amended in providing this material except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol.

Morgan Stanley Smith Barney LLC, its affiliates and Morgan Stanley Financial Advisors do not provide legal or tax advice. Each client should always consult his/her personal tax and/or legal advisor for information concerning his/her individual situation and to learn about any potential tax or other implications that may result from acting on a particular recommendation.

This material is disseminated in Australia to "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813).

Morgan Stanley Wealth Management is not incorporated under the People's Republic of China ("PRC") law and the material in relation to this report is conducted outside the PRC. This report will be distributed only upon request of a specific recipient. This report does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors must have the relevant qualifications to invest in such securities and must be responsible for obtaining all relevant approvals, licenses, verifications and or registrations from PRC's relevant governmental authorities.

If your financial adviser is based in Australia, Switzerland or the United Kingdom, then please be aware that this report is being distributed by the Morgan Stanley entity where your financial adviser is located, as follows: Australia: Morgan Stanley Wealth Management Australia Pty Ltd (ABN 19 009 145 555, AFSL No. 240813); Switzerland: Morgan Stanley (Switzerland) AG regulated by the Swiss Financial Market Supervisory Authority; or United Kingdom: Morgan Stanley Private Wealth Management Ltd, authorized and regulated by the Financial Conduct Authority, approves for the purposes of section 21 of the Financial Services and Markets Act 2000 this material for distribution in the United Kingdom.

Morgan Stanley Wealth Management is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule") and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule.

This material is disseminated in the United States of America by Morgan Stanley Smith Barney LLC.

Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data.

This material, or any portion thereof, may not be reprinted, sold or redistributed without the written consent of Morgan Stanley Smith Barney

© 2024 Morgan Stanley Smith Barney LLC. Member SIPC.

RSI1704995650218 01/2024