Morgan Stanley



The Sweeney Group at Morgan Stanley 120 Albany Street, Suite 400, New Brunswick NJ 08901 April 20th, 2021

Introduction to Investing & Financial Planning



Kate Sweeney, CFP®, CIMA® Senior Vice President, Senior Portfolio Management Director, Financial Advisor

Phone: (732) 435-2248

kate.sweeney@morganstansley.com



Michael McCormick Portfolio Management Associate, Financial Planning Associate Phone: (732) 435-2278

michael.mccormick@morganstanley.com

Follow us on Facebook! The Sweeney Group



What's the Hardest Thing to Talk About?

44% of Americans claim that personal finance is the hardest thing to discuss (1), but silence can be harmful—ignoring these difficult conversations can have detrimental outcomes.



PASSING ON BAD HABITS

Let's face it, we learn from our parents and our children, in turn, learn from us.



LOST OPPORTUNITY

You could be sacrificing the chance to help secure your retirement or the possibility of providing a quality education for your children.



PROCRASTINATION

Since when has ignoring something ever made it better?

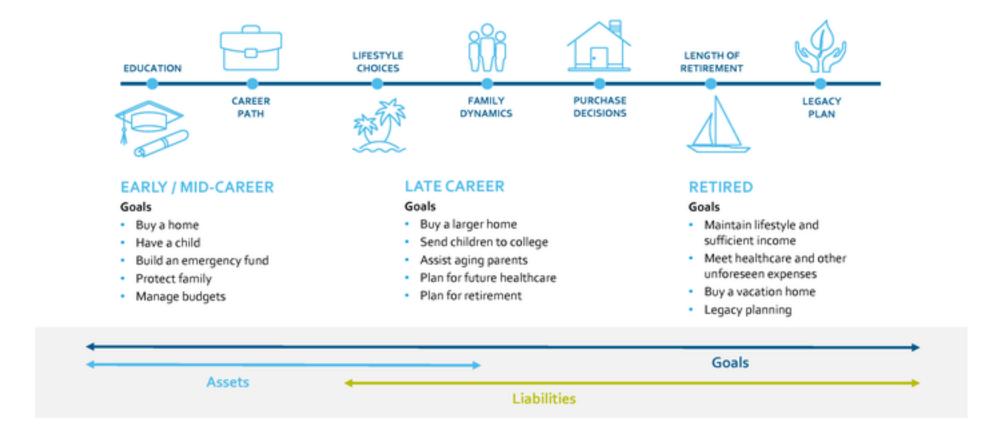
^{1.} Source: https://blogs.scientificamerican.com/observations/why-is-it-so-hard-to-talk-about-money/ 3/22/18

Retirement: A Journey that Triggers Lots of Questions



Setting Goals According to Your Needs

As your life stage changes, so do your goals – our platform allows you to look across your assets and liabilities to help you adapt your strategy to meet those changing demands



Leverage the Power of Compound Interest

If you haven't started saving already, it's never too late. However, the earlier you start saving, the better off you may be.

Nate, the Late Saver: Starts saving at age 40 and stops at age 65

\$250,000 \$581,563.

amount saved

account balance at 65

Pearlie, the Early Saver: Starts saving at age 25 and stops at age 50

\$250,000 \$1,393,751

amount saved

account balance

at 65

Compound Interest While both saved \$250,000 over 25 years, the early saver has \$812,188 more at retirement

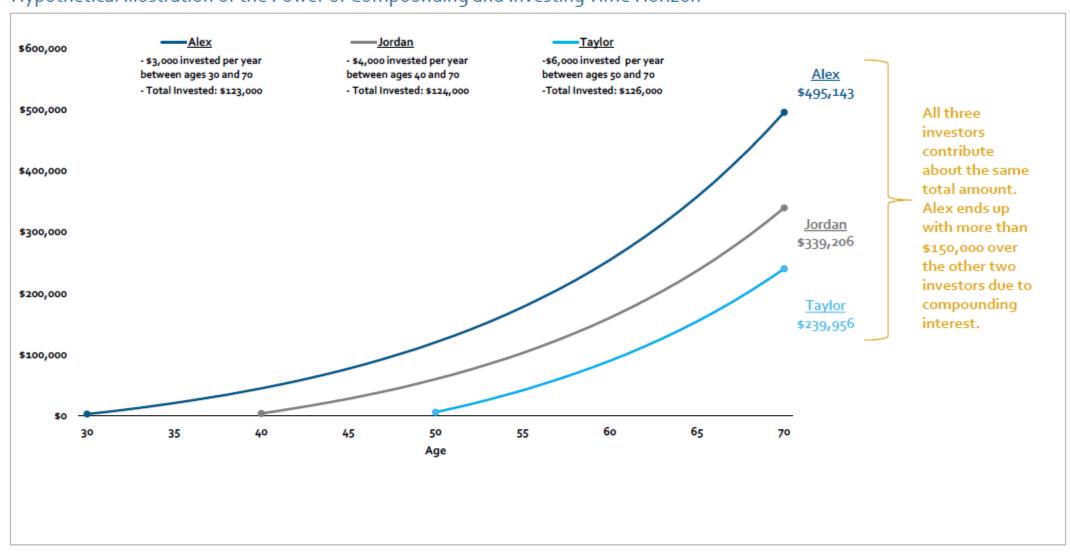
To have something to compound, you will need to focus on saving; compounding cannot work on its own.

FOR ILLUSTRATIVE PURPOSES ONLY

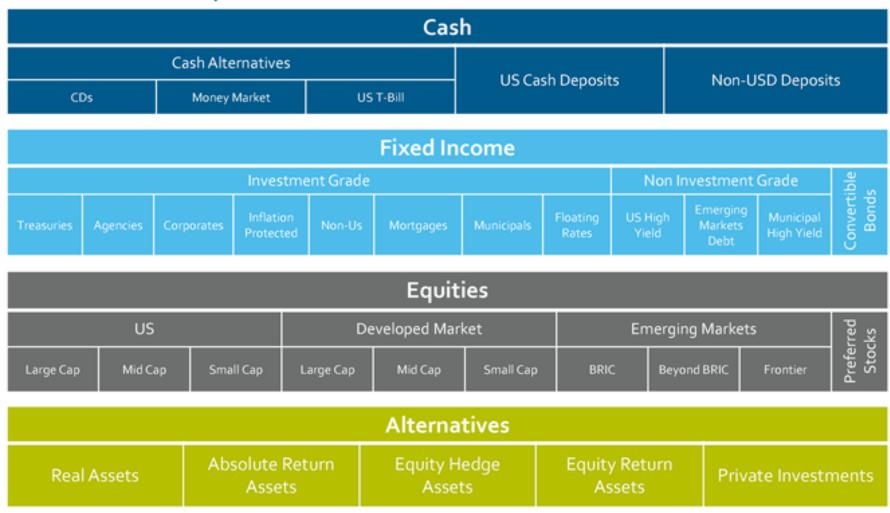
Assumptions: Both save \$10,000/year for 25 years with 6% average return on investment.

Need to Save Early: Time Is Money

Hypothetical Illustration of the Power of Compounding and Investing Time Horizon1



Asset Class Map



Source: Bloomberg, Morgan Stanley Wealth Management GIC. Beyond BRIC- emerging market: countries besides Brazil, Russia, India, and China. Frontier - frontier countries are typically less developed than EM nations. MSCI currently defines 32 nations as frontier markets. These markets tend to be the riskiest markets in the world.

Morgan Stanley

One of the Most Important Parts of Investing Is Selecting Appropriate Asset Classes for Your Goals

Major Asset Classes

Asset Class		Description	Uses	
	Cash & Cash Alternatives	Matures <1 yearHighly liquid securities	Capital Preservation	
	Fixed Income	 Potential periodic income at regular intervals Varied maturity 	Capital PreservationStable Income Stream	
	Equity	Company ownership	Capital AppreciationIncome	
	Alternatives	Lower correlation to the market/other asset classes	Capital AppreciationDiversification	

Source: Morgan Stanley Wealth Management Global Investment Office

Mutual Funds (MFs) and Exchange Traded Funds (ETFs) Basics

- A Mutual Fund is an investment vehicle funded by shareholders for the purpose of investing in stocks, bonds, money market instruments and other assets
- Mutual Funds are typically actively managed by professional money managers who make security selection decisions that can lead to higher fees than ETFs
- Mutual Funds enable investment across asset classes that might otherwise be out of reach due to minimum account sizes or high cost



- An ETF is an investment vehicle designed to mimic the daily movement of a market index or other benchmark
- ETFs are typically passively managed and do not involve security selection.
 This tracking of the market may not offer the same level of potential dividend returns as owning the stock
- ETFs enable you to gain market exposure at a lower cost, and with more transparency than comparable investment products

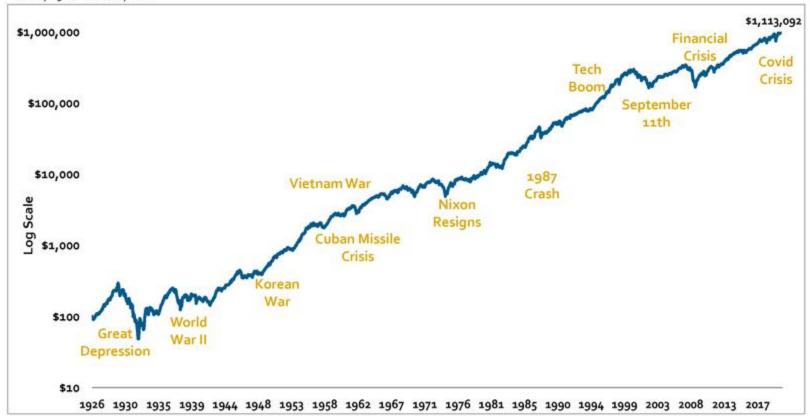


Source: Morgan Stanley Wealth Management GIC. Equity securities shown as constituents of the S&P 500 as well as the S&P 500 ETF are for illustrative purposes only.

Over the Long Term, S&P 500 Has Grown Despite Negative Events

S&P 500: Growth of \$100

January 1926 - February 2021

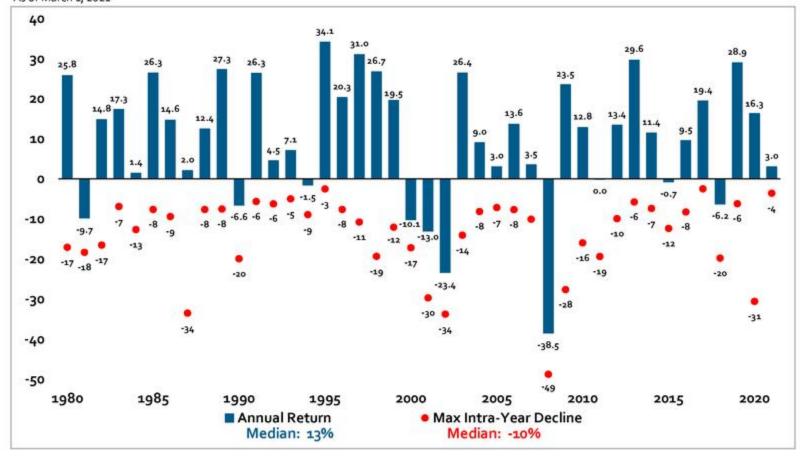


Source: Bloomber

Intra-Year Declines

S&P 500 Annual Returns and Intra-Year Declines





Source: Bloomberg, Morgan Stanley Wealth Management GIC. Intra-year declines are defined as the peak-to-trough decline during the year based on price return.

Tax Implication for Retirement Savings by Account Type

Contribution, Growth, Distribution

	Tax-Deductible Contributions/Investments	Tax-Deferred Account Growth	Tax-Free Withdrawals	
Pre-Tax 401(k) / Traditional IRA			Taxable (income tax)	
Roth 401(k) / IRA			For qualified withdrawals	
After-tax 401(k) / Non-deductible Traditional IRA			Taxable investment returns (income tax)	
Health Savings Account (HSAs)			For qualified health care expenses	

Source: Morgan Stanley Wealth Management GIC

Which IRA Is Right for You?



PERSONAL IRAs

Traditional and Roth IRAs have various (and differing) contribution eligibility requirements such as earned income limits, modified adjusted gross income (MAGI) limits (based on filing status) for Roth IRA contributions, and Traditional IRA contribution tax deduction limits (based on filing status and MAGI) if IRA owner or spouse is a participant in an employer plan.



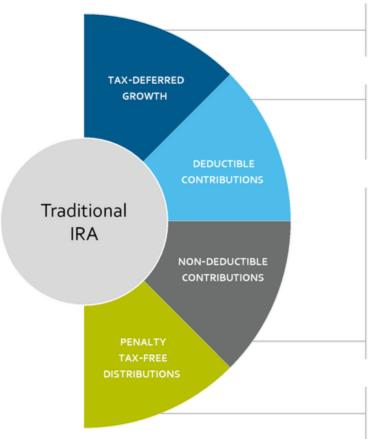
SMALL BUSINESS IRAs

SEP, SIMPLE or SAR-SEP IRAs³ are plans established by an employer. The employer sets the eligibility requirements and annual contribution limits according to the IRA plan rules. These plans may be appropriate for small businesses such as a sole proprietor.

A SAR-SEP IRA is a type of SEP IRA that employers established before December 31, 1996. The Internal Revenue Service (IRS) no longer allows establishment of new SAR-SEP plans. However, Morgan Stanley opens accounts for clients who are participants in an existing SAR-SEP plans that was adopted by the employer/plan sponsor prior to January 1, 1997.

Personal IRAs and Small Business IRAs are subject to IRS rules and regulations.

Key Features of a Traditional IRA



Contributions, earnings and any rollovers have the potential to reach considerable amounts over time through tax-deferred growth.

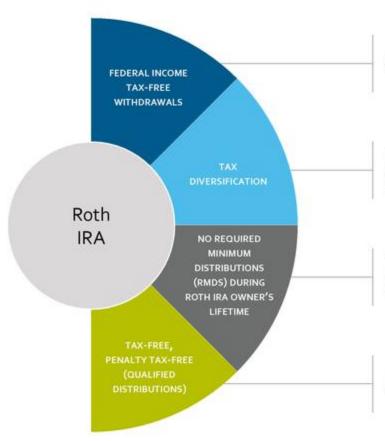
A contribution to a Traditional IRA may be deductible on your tax return, but your deduction may be reduced or phased out if you or your spouse is a participant in an employer sponsored retirement plan and your modified adjusted gross income exceeds certain thresholds based on your tax return filing status.

Savings can grow tax-deferred. If converted to a Roth IRA, you won't owe taxes on the original nondeductible contributions¹, although the earnings on those contributions, along with any other pre-tax amounts (e.g., deductible contributions) will be taxable as ordinary income. Further, if you have an existing balance in any Traditional IRAs that you hold as owner, those balances must be taken into account when performing the calculation to determine the taxable portion of your conversion, using the pro-rata rule. Under the pro-rata rule, your distributions (including conversions) are treated as including a pro-rated portion of the taxable (i.e., pre-tax amounts) and nontaxable (i.e., after-tax amounts, such as non-deductible contributions) amount in all your non-Roth IRAs. See your tax advisor for more information.

Starting at age 59½, you can begin taking money out of your retirement accounts without penalty tax. Keep in mind that you'll have to pay any federal and state taxes that might be due.

^{1.} Deductible contributions may also be converted to a Roth IRA as well as the earnings on those contributions. They will be taxed as ordinary income.

Key Features of a Roth IRA



After-tax contributions have the potential to grow tax-deferred², and withdrawals are typically income tax-free if minimum holding periods² and certain conditions are met³.

Holding a potentially tax-free account like a Roth IRA, in addition to a taxable and taxdeferred account (e.g., Traditional IRA), provides flexibility to take income from different sources to potentially keep taxes low in retirement.

There are no required minimum distributions from a Roth IRA for the owner, i.e., no rule that you must begin tapping your account at age 72.

(Note, however, the post-death required minimum distribution rules generally apply.)

In general, contributions may be withdrawn tax-free at any time. Earnings are tax-free if withdrawn after the five-tax-year holding period² and certain conditions are met.

- Traditional IRA assets may also be converted to a Roth IRA, but the pre-tax contributions and tax deferred earnings will be taxed as ordinary income upon conversion. Note, however, a Roth IRA conversion isn't right for everyone. Before converting to a Roth IRA, you should consult with your own independent legal and tax advisor.
- The 5-tax-year holding period begins the first day of the first year for which a regular contribution (or in which a rollover or conversion contribution) is made to any Roth IRA established for the individual as owner.
- Note, however, the state and local income tax treatment of your Roth IRA and the distributions from it may vary based
 on your state of residence. You should consult with and rely on your own independent tax advisor with respect to such.

Let's Get Started: Choose Your Target Retirement Year

Select the Pathway Target Date Portfolio based on your preferred retirement date.



2 Continue the retirement conversation by discussing additional products and services that can help you reach your goals:



Prioritizing Long-Term Retirement Savings

Where to put your savings is almost as important as how much you save. The hierarchy below is a good rule of thumb to set your saving priorities.

6 3 1 2 4 Defined Additional Additional Health Savings Individual **Taxable** Emergency Defined Reserve (3-6 Account (HSA) Contribution Retirement Account payments on months of if eligible for revolving debt savings to Contribution/ Accounts (IRA) living expenses) match maximize Health Savings Account employer match (if savings (up to available) max contribution)

Retirement Saving Checkpoint by Age and Income

The checkpoint table below can help determine the ideal level of accumulated savings by age and household income (assumes a pre-retirement investment return of 5.9% and a post-retirement investment return of 4%, with inflation of 1.9%).

Savings Amount Today by Age and Household Income <\$100,000 Assuming a 5% Annual Savings Rate

For illustrative purposes only

	HH Income						
(4)	30,000	40,000	50,000	60,000	70,000	80,000	90,000
Age							
25		14,940	28,805	44,300	55,717	70,397	82,222
30	6,025	28,836	47,302	67,941	83,148	102,700	118,451
35	16,962	47,344	71,940	99,428	119,683	145,726	166,704
40	31,528	71,996	104,755	141,368	168,346	203,032	230,974
45	50,930	104,829	148,462	197,228	233,161	279,360	316,577
50	76,772	148,562	206,677	271,630	319,490	381,024	430,593
55	111,191	206,810	284,215	370,727	434,473	516,432	582,454
60	157,035	284,392	387,490	502,718	587,622	696,785	784,722
65	218,095	387,725	525,044	678,519	791,605	937,002	1,054,128

Savings Amount Today by Age and Household Income ≥\$100,000 Assuming a 10% Annual Savings Rate For illustrative purposes only

71-	HH Income						
	100,000	125,000	150,000	175,000	200,000	250,000	300,000
Age		C 180		200	707	200	- 12. 12. ·
25	65,764	109,600	147,318	187,076	237,027	349,164	489,844
30	105,467	163,852	214,090	267,044	333,576	482,934	670,309
35	158,347	236,112	303,025	373,556	462,172	661,105	910,675
40	228,780	332,356	421,481	515,422	633,452	898,415	1,230,824
45	322,591	460,547	579,254	704,377	861,583	1,214,495	1,657,239
50	447,540	631,288	789,396	956,051	1,165,438	1,635,490	2,225,191
55	613,963	858,701	1,069,290	1,291,261	1,570,149	2,196,223	2,981,662
60	835,626	1,161,599	1,442,087	1,737,737	2,109,194	2,943,078	3,989,223
65	1,130,865	1,565,036	1,938,625	2,332,409	2,827,162	3,937,833	5,331,220

Source: Morgan Stanley Wealth Management GIC

Morgan Stanley WEALTH MANAGEMENT

Morgan Stanley Wealth Management is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer in the United States.

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be appropriate for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents. Morgan Stanley Wealth Management has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund(s). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance. Morgan Stanley Smith Barney LLC offers financial planning service. A financial p investment program services through a variety of investment programs, which are opened pursuant to written client agreements. Each program offers investment managers, funds and features that estate planning, and investments, takir are not available in other programs; conversely, some investment managers, funds or investment strategies may be available in more than one program.

consult with a Morgan Stanley Financia Morgan Stanley's investment advisory programs may require a minimum asset level and, depending on your specific investment objectives and financial position, may not be appropriate for you. Please see the Morgan Stanley Smith Barney LLC program disclosure brochure (the "Morgan Stanley ADV") for more information in the investment advisory programs available. The Morgan Stanley Relationships brochure available at www.morganstanley.com/ADV. Sources of Data. Information in this material in this report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third-party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not Morgan Stanley's GPS Platform provide liable for any damages relating to this data. All opinions included in this material constitute the Firm's judgment as of the date of this material and are subject to change without notice. This material closer toward meeting your goals. Ever was not prepared by the research departments of Morgan Stanley & Co. LLC or Morgan Stanley Smith Barney LLC. Some historical figures may be revised due to newly identified programs, firm

delivers your report to you, if you so de Global Investment Manager Analysis (GIMA) Focus List, Approved List and Tactical Opportunities List; Watch Policy. GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List Financial forecasts, rates of return, risk process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status). GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation You should note that investing in finan and for the investment manager or fund to address any concerns. Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities aspirations are not guaranteed and are List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time. For more information on the Focus List, Approved List, which could be equal to the amount in Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "Manager Selection Process."

> The Global Investment Committee is a group of seasoned investment professionals who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

The GIC Asset Allocation Models are not available to be directly implemented as part of an investment advisory service and should not be regarded as a recommendation of any Morgan Stanley investment advisory service. The GIC Asset Allocation Models do not represent actual trading or any type of account or any type of investment strategies and none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees, fund expenses) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models which, when compounded over a period of years, would decrease returns.

Adverse Active AlphaSM 2.0 is a patented screening and scoring process designed to help identify high-quality equity and fixed income managers with characteristics that may lead to future outperformance relative to index and peers. While highly ranked managers performed well as a group in our Adverse Active Alpha model back tests, not all of the managers will outperform. Please note that this data may be derived from back-testing, which has the benefit of hindsight. In addition, highly ranked managers can have differing risk profiles that might not be appropriate for all investors. Our view is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management's qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be

Morgan Stanley Goals Planning System Platform). While securities held in your Stanley") will only prepare a financial r

To understand the differences between

estimates, and assumptions, as describ restatements, etc. differences in potential future results. that an individual's investment objective Morgan Stanley.

a guarantee of future performance or a future, eliminate risk or guarantee inve Platform, your actual results will vary (

appropriate for all investors.

The proprietary Value Score methodology considers an active investment strategies' value proposition relative to its costs. From a historical quantitative study of several quantitative markers, Value Score measures perceived forward-looking benefit and computes (1) "fair value" expense ratios for most traditional investment managers across 40 categories and (2) managers' perceived "excess value" by comparing the fair value expense ratios to actual expense ratios. Managers are then ranked within each category by their excess value to assign a Value Score. Our analysis suggests that greater levels of excess value have historically corresponded to attractive subsequent performance.

IMPORTANT: The projections or other and income) are hypothetical in natur returns or income will or can be attain

before establishing a retirement plan

For more information on the ranking models, please see Adverse Active AlphaSM 2.0: Scoring Active Managers According to Potential Alpha and Value Score: Scoring Fee Efficiency by Comparing Managers' "Fair Value" and Actual Expense Ratios. The whitepapers are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

Tax laws are complex and subject to c Additionally, highly ranked managers can have differing risk profiles that might not be appropriate for all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model tax or legal advice and are not "fiducia and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service except as otherwise provided in writin mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

> The Global Investment Manager Analysis (GIMA) Services Only Apply to Certain Investment Advisory Programs GIMA evaluates certain investment products for the purposes of some - but not all - of Morgan Stanley Smith Barney LLC's investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs. Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA Status changes even though it may give notice to clients in other programs.

Strategy May Be Available as a Separately Managed Account or Mutual Fund Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program. In most Morgan Stanley Wealth Management investment advisory accounts, fees are deducted quarterly and have a compounding effect on performance. For example, on an advisory account with a 3% annual fee, if the gross annual performance is 6.00%, the compounding effect of the fees will result in a net performance of approximately 3,93% after one year, 1 after three years, and 21,23% after five years. Conflicts of Interest: GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an investment manager or fund in which a portion of his or her clients' assets are already invested. While such a recommendation is permissible. GIMA is responsible for the opinions expressed by GIMA. See the conflicts of interest section in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management for a discussion of other types of conflicts that may be relevant to GIMA's evaluation of managers and funds. In addition, Morgan Stanley Wealth Management, MS & Co., managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs. Morgan Stanley Wealth Management, managers, MS & Co., and their affiliates receive compensation and fees in connection with these services. Morgan Stanley Wealth Management believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all of these companies from an account.

Morgan Stanley charges each fund family we offer a mutual fund support fee, also called a "revenue-sharing payment," on client account holdings in fund families according to a tiered rate that increases along with the management fee of the fund so that lower management fee funds pay lower rates than those with higher management fees.

Overlay Managers or Executing Sub-Managers ("managers") in some of Morgan Stanley's Separately Managed Account ("SMA") programs may affect transactions through broker-dealers other than Morgan Stanley or our affiliates. If your manager trades with another firm, you may be assessed costs by the other firm in addition to Morgan Stanley's fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain managers have historically directed most, if not all, of their trades to outside firms. Information provided by managers concerning trade execution away from Morgan Stanley is summarized at: www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf. For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at www.morganstanlev.com/ADV, or contact your Financial Advisor/Private Wealth Advisor.

Consider Your Own Investment Needs: The model portfolios and strategies discussed in the material are formulated based on general client characteristics including risk tolerance. This material is not intended to be an analysis of whether particular investments or strategies are appropriate for you or a recommendation, or an offer to participate in any investment. Therefore, clients should not use this profile as the sole basis for investment decisions. They should consider all relevant information, including their existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon. Such a determination may lead to asset allocation results that are materially different from the asset allocation shown in this profile. Talk to your Financial Advisor about what would be an appropriate asset allocation for you, whether CGCM is an appropriate program for you.

No obligation to notify - Morgan Stanley Wealth Management has no obligation to notify you when the model portfolios, strategies, or any other information, in this material changes.

Please consider the investment objectives, risks, fees, and charges and expenses of mutual funds, ETFs, closed end funds, unit investment trusts, and variable insurance products carefully before investing. The prospectus contains this and other information about each fund. To obtain a prospectus, contact your Financial Advisor or Private Wealth Advisor or visit the Morgan Stanley website at www.morganstanlev.com. Please read it carefully before investing.

An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in the fund.

The type of mutual funds and ETFs discussed in this presentation utilizes nontraditional or complex investment strategies and/or derivatives. Examples of these types of funds include those that utilize one or more of the below noted investment strategies or categories or which seek exposure to the following markets: (1) commodities (e.g., agricultural, energy and metals), currency, precious metals; (2) managed futures; (3) leveraged, inverse or inverse leveraged; (4) bear market, hedging, long-short equity, market neutral; (5) real estate; (6) volatility (seeking exposure to the CBOE VIX Index). Investors should keep in mind that while mutual funds and ETFs may, at times, utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long "lock-up" periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual fund or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund's investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund's essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or "leverage."

The Morgan Stanley Mobile App is currently available for iPhone® and iPad® from the App Store® and Android™ on Google Play™. Standard messaging and data rates from your provider may apply. Subject to device connectivity.

Apple®, the Apple logo, iPhone®, iPad®, and iPad Air® are trademarks of Apple Inc., registered in the US and other countries. Apple Pay™ and iPad mini™ are trademarks of Apple Inc. App Store is a service mark of Apple Inc. Android and Google Play are trademarks of Google Inc.

The Morgan Stanley Digital Vault ("Digital Vault") is accessible to clients with dedicated Financial Advisors. Documents shared via the Digital Vault should be limited to those relevant to your Morgan Stanley account relationship. Uploading a document to the Digital Vault does not obligate us to review or take any action on it, and we will not be liable for any failure to act upon the contents of such document. Please contact your Financial Advisor or Branch Management to discuss the appropriate process for providing the document to us for review. If you maintain a Trust or entity account with us, only our certification form will govern our obligations for such account. Please refer to the Morgan Stanley Digital Vault terms and conditions for more information.

Information related to your external accounts is provided for informational purposes only. It is provided by third parties, including the financial institutions where your external accounts are held.

Morgan Stanley does not verify that the information is accurate and makes no representation or warranty as to its accuracy, timeliness, or completeness. Additional information about the features and services offered through Total Wealth View are available on the Total Wealth View site on Morgan Stanley Online and also in the Total Wealth View Terms and Conditions of Use.

Mobile check deposits are subject to certain terms and conditions. Checks must be drawn on a U.S. Bank.

Send Money with Zelle® is available on the Morgan Stanley Mobile App for iPhone and Android and on Morgan Stanley Online. Enrollment is required and dollar and frequency limits may apply. Domestic fund transfers must be made from an eligible account at Morgan Stanley Smith Barney LLC (Morgan Stanley) to a US-based account at another financial institution. Morgan Stanley maintains arrangements with JP Morgan Chase Bank, N.A. and UMB Bank, N.A. as NACHA-participating depository financial institutions for the processing of transfers on Zelle®. Data connection required, and message and data rates may apply, including those from your communications service provider. Must have an eligible account in the U.S. to use Zelle®. Transactions typically occur in minutes when the recipient's email address or U.S. mobile number is already enrolled with Zelle. See the Morgan Stanley Send Money with Zelle® terms for details.

Zelle and the Zelle related marks are wholly owned by Early Warning Services, LLC and are used herein under license. Morgan Stanley is not affiliated with Zelle®.

Electronic payments arrive to the payee within 1-2 business days, check payments arrive to the payee within 5 business days. Same-day and overnight payments are available for an additional fee within the available payment timeframes.

KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent international securities, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets and frontier markets. Small- and mid-capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of fixed income securities will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of municipal bonds, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. Treasury Inflation Protection Securities' (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of environmental, social, and governance-aware investments ("ESG") may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. Options and margin trading involve substantial risk and are not appropriate for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, closed-end funds may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. Shares of closed-end funds frequently trade at a discount from their NAV which may increase investors' risk of loss. The risk of loss due to this discount may be greater for investors expecting to sell their shares in a relatively short period after completion of the public offering. This characteristic is a risk separate and distinct from the risk that a closed-end fund's net asset value may decrease as a result of investment activities. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are appropriate only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; 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 mutual funds; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. As a diversified global financial services firm,

Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by FINRA Rule 2241 or a "debt research report" as defined by FINRA Rule 2242 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley. Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. This material is not to be reproduced or distributed to any other persons (other than professional advisors of the investors or prospective investors, as applicable, receiving this material) and is intended solely for the use of the persons to whom it has been delivered. This material is not for distribution to the general public. Past performance is no guarantee of future results. Actual results may vary. SIPC insurance does not apply to precious metals, other commodities, or traditional alternative investments. In Consulting Group's advisory programs, alternative investments are limited to US-registered mutual funds, separate account strategies and exchange-traded funds (ETFs) that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category 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. Alternative investments are not appropriate for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities, in the ordinary course of its business. Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

A majority of Alternative Investment managers reviewed and selected by GIMA pay or cause to be paid an ongoing fee for distribution from their management fees to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase an interest in an Alternative Investment and in some instances pay these fees on the investments held by advisory clients. Morgan Stanley Wealth Management rebates such fees that are received and attributable to an investment held by an advisory client and retains the fees paid in connection with investments held by brokerage clients. Morgan Stanley Wealth Management has a conflict of interest in offering alternative investments because Morgan Stanley Wealth Management or our affiliates, in most instances, earn more money in your account from your investments in alternative investments than from other investment options.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper.

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements,

hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, "blow ups," or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial "lift" or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an exchange-traded fund involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a target date portfolio is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor's goals by the pre-established year or "target date." A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. Managed futures investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid,

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

Tax laws are complex and subject to change. Morgan Stanley Smith Barney LLC ("Morgan Stanley"), its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors do not provide tax or legal advice and are not "fiduciaries" (under ERISA, the Internal Revenue Code or otherwise) with respect to the services or activities described herein except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol. Individuals are encouraged to consult their tax and legal advisors (a) before establishing a retirement plan or account, and (b) regarding any potential tax, ERISA and related consequences of any investments made under such plan or account.

Annuities and insurance products are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates.

Indices are unmanaged and investors cannot directly invest in them. They are not subject to expenses or fees and are often comprised of securities and other investment instruments the liquidity of which is not restricted. A particular investment product may consist of securities significantly different than those in any index referred to herein. Composite index results are shown for illustrative purposes only, generally do not represent the performance of a specific investment, may not, for a variety of reasons, be an appropriate comparison or benchmark for a particular investment and may not necessarily reflect the actual investment strategy or objective of a particular investment. Consequently, comparing an investment to a particular index may be of limited use.

This material is not a financial plan and does not create an investment advisory relationship between you and your Morgan Stanley Financial Advisor. We are not your fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information in this report is not intended to form the primary basis for any investment decision by you, or an investment advice or recommendation for either ERISA or Internal Revenue Code purposes. Morgan Stanley Private Wealth Management will only prepare a financial plan at your specific request using Private Wealth Management approved financial planning signature.

We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

Investment and services offered through Morgan Stanley Private Wealth Management, a division of Morgan Stanley Smith Barney LLC, Member SIPC.

For index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS: The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC.

HYPOTHETICAL MODEL PERFORMANCE (GROSS): Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS: None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

Variable annuities are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a variable annuity through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.

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

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV, and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely

tracked.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. Physical precious metals are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be appropriate for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of private real estate include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a mortgage-backed security. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Asset-backed securities generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. Credit ratings are subject to change. Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. The majority of \$25 and \$2000 par preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 20 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per \$25 or \$1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a floating-rate security may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of convertible bonds and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity, additional call features m

Nondiversification: For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. The indices selected by Morgan Stanley Wealth Management to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, sector investments tend to be more volatile than investments that diversify across many sectors and companies.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected. 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.

This material is disseminated in the United States of America by Morgan Stanley Smith Barney LLC. 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, or any portion thereof, may not be reprinted, sold or redistributed without the written consent of Morgan Stanley Smith Barney LLC.

© 2021 Morgan Stanley Smith Barney LLC. Member SIPC.

The Consulting Group Capital Markets Funds, Firm Discretionary UMA Model Portfolios, and other asset allocation or any other model portfolios discussed in this material are available only to investors participating in Morgan Stanley Consulting Group advisory programs. Depending upon which advisory program you choose, you will pay an asset-based wrap fee every quarter ("the Fee"), which may be up to 2.0% annually. In general, the Fee covers investment advisory services, the execution of transactions through Morgan Stanley, custody of the client's assets with Morgan Stanley, and reporting. In addition to the Fee, you will pay the fees and expenses of any funds in which your account is invested. Fund fees and expenses are charges directly to the pool of assets the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and will not be included in the Fee amount in your account statements. For additional information on the Morgan Stanley Consulting Group advisory programs, see the applicable ADV brochure, available at www.morganstanley.com/cgcm. Consulting Group is a business of Morgan Stanley.

Morgan Stanley Pathway Program Asset Allocation Models There are model portfolios corresponding to five risk-tolerance levels available in the Pathway program. Model 1 is the least aggressive portfolio and consists mostly of bonds. As the model numbers increase, the models have higher allocations to equities and become more aggressive. Pathway is a mutual fund asset allocation program. In constructing the Pathway Program Model Portfolios, Morgan Stanley Wealth Management uses, among other things, model asset allocations produced by Morgan Wealth Management's Global Investment Committee (the "GIC"). The Pathway Program Model Portfolios are specific to the Pathway program (based on program features and parameters, and any other requirements of Morgan Stanley Wealth Management's Consulting Group). The Pathway Program Model Portfolios may therefore differ in some respects from model portfolios available in other Morgan Stanley Wealth Management programs or from asset allocation models published by the Global Investment Committee.

529 Plans - Investors should carefully read the Program Disclosure statement, which contains more information on investment options, risk factors, fees and expenses, and possible tax consequences before purchasing a 529 plan. You can obtain a copy of the Program Disclosure Statement from the 529 plan sponsor or your Financial Advisor. Assets can accumulate and be withdrawn federally tax-free only if they are used to pay for qualified expenses. Earnings on nonqualified distributions will be subject to income tax and a 10% federal income tax penalty. Contribution limits vary by state. Refer to the individual plan for specific contribution guidelines. Before investing, investors should consider whether tax or other benefits are only available for investments in the investor's home state 529 college savings plan. If an account owner or the beneficiary resides in or pays income taxes to a state that offers its own 529 college savings or pre-paid tuition plan (an "In-State Plan"), that state may offer state or local tax benefits. These tax benefits may include deductible contributions, deferral of taxes on earnings and/or tax-free withdrawals. In addition, some states waive or discount fees or offer other benefits for state residents or taxpayers who participate in the In-State Plan. An account owner may be denied any or all state or local tax benefits (by assessing income or expense reductions by investing in another state's plan (an "Out-of-State Plan"). In addition, an account owner's state or locality may seek to recover the value of tax benefits (by assessing income or penalty taxes) should an account owner rollover or transfer assets from an In-State Plan to an Out-of-State Plan. While state and local tax consequences and plan expenses are not the only factors to consider when investing in a 529 Plan, they are important to an account owner's investment return and should be taken into account when selecting a 529 plan.

Lifestyle Advisory Services: Products and services are provided by third party service providers, not Morgan Stanley Smith Barney LLC ("Morgan Stanley"). Morgan Stanley may not receive a referral fee or have any input concerning such products or services. There may be additional service providers for comparative purposes. Please perform a thorough due diligence and make your own independent decision.

To obtain Tax-Management Services, a client must complete the Tax-Management Form, and deliver the signed form to Morgan Stanley. For more information on Tax-Management Services, including its features and limitations, please ask your Financial Advisor for the Tax Management Form. Review the form carefully with your tax advisor. Tax-Management Services: (a) apply only to equity investments in separate account sleeves of client accounts; (b) are not available for all accounts or clients; and (c) may adversely impact account performance. Tax-management services do not constitute tax advice or a complete tax-sensitive investment management program. There is no guarantee that tax-management services will produce the desired tax results.

Morgan Stanley Smith Barney LLC does not accept appointments nor will it act as a trustee but it will provide access to trust services through an appropriate third -party corporate trustee.

A LifeView Financial Goal Analysis or LifeView Financial Plan ("Financial Plan") is based on the methodology, estimates, and assumptions, as described in your report, as well as personal data provided by you. It should be considered a working document that can assist you with your objectives. Morgan Stanley Smith Barney LLC ("Morgan Stanley") makes no guarantees as to future results or that an individual's investment objectives will be achieved. The responsibility for implementing, monitoring and adjusting your financial goal analysis or financial plan rests with you. After your Financial Advisor delivers your report to you, if you so desire, your Financial Advisor can help you implement any part that you choose; however, you are not obligated to work with your Financial Advisor or Morgan Stanley.

Since life and long-term care insurance are medically underwritten, you should not cancel your current policy until your new policy is in force. A change to your current policy may incur charges, fees

and costs. A new policy will require a medical exam. Surrender charges may be imposed and the period of time for which the surrender charges apply may increase with a new policy. You should consult with your own tax advisors regarding your potential tax liability on surrenders.

The Morgan Stanley Global Impact Funding Trust, Inc. ("MS GIFT, Inc.") is an organization described in Section 501(c) (3) of the Internal Revenue Code of 1986, as amended. MS Global Impact Funding Trust ("MS GIFT") is a donor-advised fund. Morgan Stanley Smith Barney LLC provides investment management and administrative services to MS GIFT. Back office administration provided by RenPSG, an unaffiliated charitable gift administrator.

Important Risk Information for Securities Based Lending: You need to understand that: (1) Sufficient collateral must be maintained to support your loan(s) and to take future advances; (2) You may have to deposit additional cash or eligible securities on short notice; (3) Some or all of your securities may be sold without prior notice in order to maintain account equity at required maintenance levels. You will not be entitled to choose the securities that will be sold. These actions may interrupt your long-term investment strategy and may result in adverse tax consequences or in additional fees being assessed; (4) Morgan Stanley Bank, N.A., Morgan Stanley Private Bank, National Association or Morgan Stanley Smith Barney LLC (collectively referred to as "Morgan Stanley") reserves the right not to fund any advance request due to insufficient collateral or for any other reason except for any portion of a securities based loan that is identified as a committed facility; (5) Morgan Stanley reserves the right to increase your collateral maintenance requirements at any time without notice; and (6) Morgan Stanley reserves the right to call securities based loans at any time and for any reason.

With the exception of a margin loan, the proceeds from securities based loan products may not be used to purchase, trade, or carry margin stock (or securities, with respect to Express CreditLine); repay margin debt that was used to purchase, trade or carry margin stock (or securities, with respect to Express CreditLine); and cannot be deposited into a Morgan Stanley Smith Barney LLC or other brokerage account.

To be eligible for a securities based loan, a client must have a brokerage account at Morgan Stanley Smith Barney LLC that contains eligible securities, which shall serve as collateral for the securities based loan.

Securities based loans are provided by Morgan Stanley Smith Barney LLC, Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A. as applicable.

Liquidity Access Line ("LAL") is a securities based loan/line of credit product, the lender of which is either Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A., as applicable, each an affiliate of Morgan Stanley Smith Barney LLC. All LAL loans/lines of credit are subject to the underwriting standards and independent approval of Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A., as applicable. LAL loans/lines of credit may not be available in all locations. Rates, terms and conditions are subject to change without notice. To be eligible for an LAL loan/line of credit, a client must have a brokerage account at Morgan Stanley Smith Barney LLC that contains eligible securities, which shall serve as collateral for the LAL. In conjunction with establishing an LAL loan/line of credit, an LAL facilitation account will also be opened in the client's name at Morgan Stanley Smith Barney LLC at no charge. Other restrictions may apply. The information contained herein should not be construed as a commitment to lend. Morgan Stanley Private Bank, National Association and Morgan Stanley Bank, N.A. are Members FDIC that are primarily regulated by the Office of the Comptroller of the Currency. The proceeds from a non-purpose LAL loan/line of credit (including draws and other advances) may not be used to purchase, trade, or carry margin stock; repay margin debt that was used to purchase, trade, or carry margin stock; and cannot be deposited into a Morgan Stanley Smith Barney LLC or other brokerage account.

Residential mortgage loans/home equity lines of credit are offered by Morgan Stanley Private Bank, National Association, an affiliate of Morgan Stanley Smith Barney LLC. With the exception of the pledged-asset feature, an investment relationship with Morgan Stanley Smith Barney LLC does not have to be established or maintained to obtain the residential mortgage products offered by Morgan Stanley Private Bank, National Association. All residential mortgage loans/home equity lines of credit are subject to the underwriting standards and independent approval of Morgan Stanley Private Bank, National Association. Rates, terms, and programs are subject to change without notice. Residential mortgage loans/home equity lines of credit may not be available in all states; not available in Guam, Puerto Rico and the U.S. Virgin Islands. Other restrictions may apply. The information contained herein should not be construed as a commitment to lend. Morgan Stanley Private Bank, National Association is an Equal Housing Lender and Member FDIC that is primarily regulated by the Office of the Comptroller of the Currency. Nationwide Mortgage Licensing System Unique Identifier #663185. The proceeds from a residential mortgage loan (including draws and advances from a home equity line of credit) are not permitted to be used to purchase, trade, or carry eligible margin stock; repay margin debt that was used to purchase, trade, or carry margin stock; or to make payments on any amounts owed under the note, loan agreement, or loan security agreement; and cannot be deposited into a Morgan Stanley Smith Barney LLC or other brokerage account.

Through the pledged-asset feature offered by Morgan Stanley Private Bank, National Association, the applicant(s) or third party pledgor (collectively "Client") may be able to pledge eligible securities

in lieu of a full or partial cash down payment or in connection with a refinance mortgage loan. To be eligible for the pledged-asset feature a Client must have a brokerage account at Morgan Stanley Smith Barney LLC. If the value of the pledged securities in the account drops below the agreed-upon level stated in the loan documents, a Client may be required to deposit additional securities or other collateral (such as cash) to stay in compliance with the terms of the mortgage loan. If a Client does not deposit additional securities or other collateral, the Client's pledged securities may be sold to satisfy the Client's obligation, and the Client will not be entitled to choose which assets will be sold. Borrowing against securities may not be appropriate for everyone. In deciding whether the pledged-asset feature is appropriate, a Client should consider, among other things, the degree to which he or she is comfortable subjecting his or her investment in a home to the fluctuations of the securities market. The pledged-asset feature is not available in all states. Other restrictions may apply.

Interest-only loans enable borrowers to make monthly payments of only the accrued monthly interest on the loan during the introductory interest-only period. Once that period ends, borrowers must make monthly payments of principal and interest for the remaining loan term, and payments will be substantially higher than the interest-only payments. During the interest-only period, the total interest that the borrower will be obligated to pay will vary based on the amount of principal paid down, if any. If a borrower makes just an interest-only payment, and no payment of principal, the total interest payable by the borrower during the interest-only period will be greater than the total interest that a borrower would be obligated to pay on a traditional loan of the same interest rate having principal-and-interest payments. In making comparisons between an interest-only loan and a traditional loan, borrowers should carefully review the terms and conditions of the various loan products available and weigh the relative merits of each type of loan product appropriately.

3/1, 5/1, 7/1, 10/1 adjustable rate mortgage ("ARM") loans are based on the 1-Year London Interbank Offered Rate ("LIBOR") with various loan term options.

Relationship-based pricing offered by Morgan Stanley Private Bank, National Association is based on the value of clients', or their immediate family members' (i.e., grandparents, parents, and children) eligible assets (collectively "Household Assets") held within accounts at Morgan Stanley Smith Barney LLC. To be eligible for relationship-based pricing, Household Assets must be maintained within appropriate eligible accounts prior to the closing date of the residential mortgage loan. Relationship-based pricing is not available on conforming loans.

The Morgan Stanley Debit Card is issued by Morgan Stanley Private Bank, National Association pursuant to a license from Mastercard International Incorporated. Mastercard and Maestro are registered trademarks of Mastercard International Incorporated. The third-party trademarks and service marks contained herein are the property of their respective owners. Investments and services offered through Morgan Stanley Smith Barney LLC, Member SIPC.

Cash management and lending products and services are provided by Morgan Stanley Smith Barney LLC, Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A, as applicable.

Morgan Stanley Private Bank, National Association or Morgan Stanley Bank, N.A, each a national bank, Member FDIC.

Morgan Stanley Smith Barney LLC is a registered Broker/Dealer, Member SIPC, and not a bank. Where appropriate, Morgan Stanley Smith Barney LLC has entered into arrangements with banks and other third parties to assist in offering certain banking related products and services.

The information provided herein is not intended to address any particular matter and may not apply depending on the context, as all clients' circumstances are unique. The strategies discussed in this material are meant for clients with a specific need and may not be appropriate for all clients. No legal, tax or other advice is being offered herein.

Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY

© 2021 Morgan Stanley Smith Barney LLC. Member SIPC. Alternative investment securities discussed herein are not covered by the protections provided by the Securities Investor Protection Corporation, unless such securities are registered under the Securities Act of 1933, as amended, and are held in a Morgan Stanley Wealth Management Individual Retirement Account.