

Helping Ultra High Net Worth Families Address Their Human Capital Challenges

- For many UHNW clients, the most difficult wealth planning challenge they face relates not to their financial capital, but to their human capital.
- For these clients, their most daunting challenge involves managing the complex mix of issues relating to the impact that wealth has on their families.

THE HUMAN CAPITAL CHALLENGE

Many UHNW clients worry that their wealth will diminish, not enhance, the quality of their descendants' lives by stifling ambition, initiative and accomplishment

The UHNW client may fear that:

- Their family will become overly dependent on wealth created by others
- Their family business will be damaged by family conflict
- The wealth management structures they created will be dismantled by beneficiaries
- **Gaps in financial knowledge will undermine understanding, communication and responsible financial behavior**
- Their philanthropic vision or other legacy will not be fulfilled
- Family members will fight over wealth, power or control
- Their wealth will lead descendants to engage in self-destructive behaviors

Addressing the Challenge

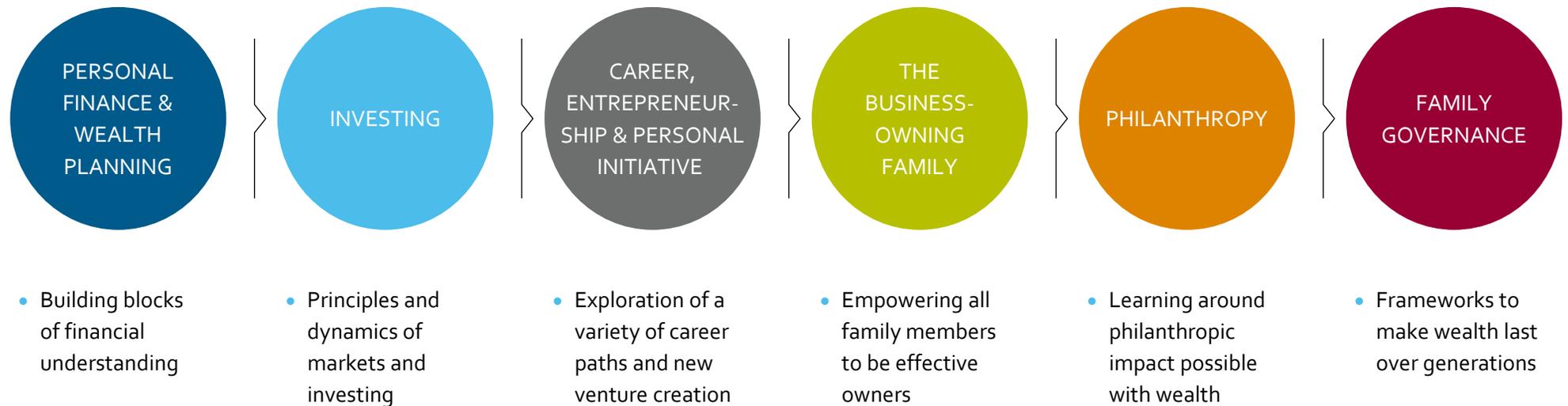
- Family Governance & Dynamics Services is a comprehensive, family-focused offering designed to help UHNW families make it more likely that their wealth will have the beneficial impact they desire
- Because every family is different, the strategies, structures, and education we employ are perfectly suited to each family's particular challenges and opportunities

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Family Wealth Education

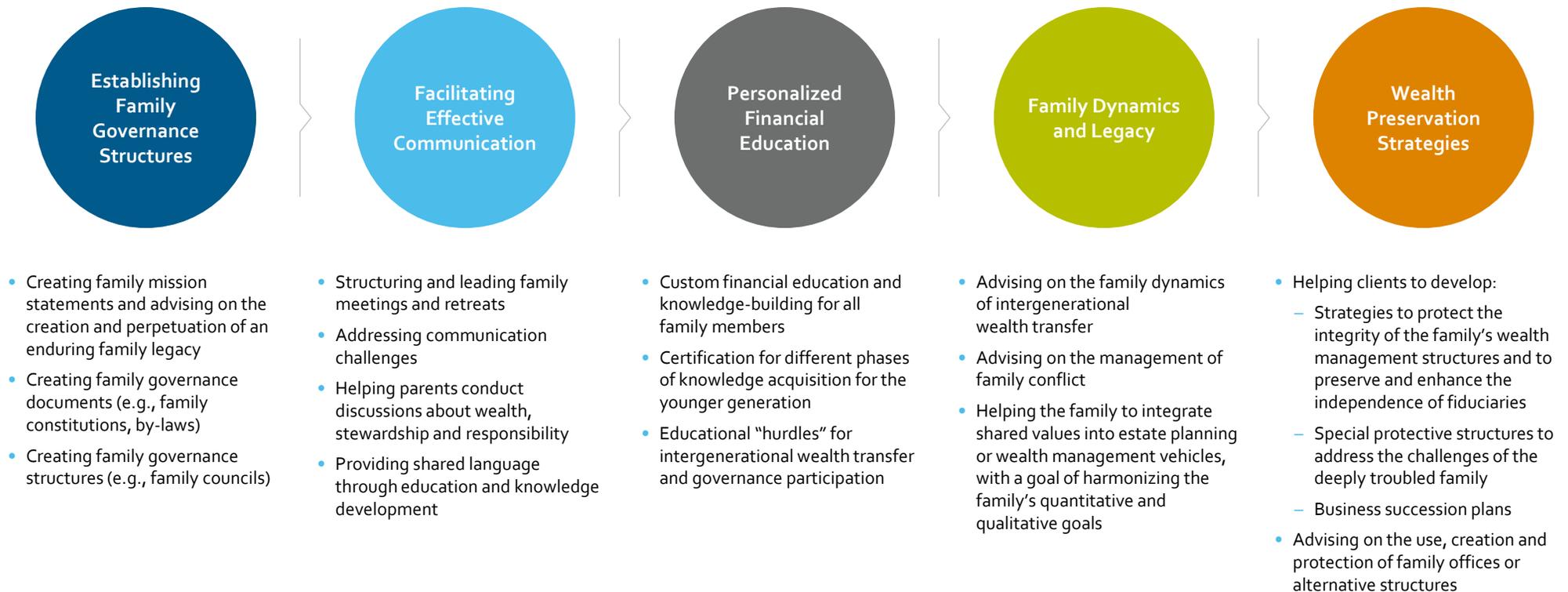
The Family Governance & Wealth Education group helps ultra high net worth families strive to maximize the value of their human capital by driving family wealth education, making it more likely that all members of the family will have the foundation they need to lead meaningful, fulfilled and engaged lives.



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Creating a Purposeful Family Environment

The FG&D group helps UHNW families strive to maximize the value of their human capital by preserving their shared values and creating an enduring family legacy, making it more likely that descendants will lead meaningful, fulfilled and engaged lives.



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Leveraging Wealth Education

Customized wealth education programs serve as an extremely effective tool for fostering successful stewardship of multigenerational family wealth. Wealth Education is a powerful way to broaden and deepen the financial knowledge of the family, while offering a compelling way to get the family engaged in the family's wealth, together.

Our wealth education specialists can work with you to develop and deliver high-touch programs personalized to the specific needs of your family.

Customized wealth education programs may be beneficial to your family in multiple ways:

MAXIMIZING THE VALUE OF YOUR HUMAN CAPITAL

- Wealth Education helps ultra-high net worth families strive to maximize the value of their human capital by driving family wealth education, making it more likely that all members of the family will have the foundation they need to lead meaningful, fulfilled and engaged lives.

LEGACY PRESERVATION

- Wealth education can help build confidence, understanding, and ultimately, empowerment and connection, vis-à-vis the family wealth, and lead to greater development and preservation of family assets.

A BETTER UNDERSTANDING

- With a better understanding of the language of finance, markets and related areas like tax efficiency and philanthropy, you will be able to collaborate more effectively with your advisor, making better choices and forming a deeper appreciation for your financial planning decisions.

NEXTGEN CONNECTION

- Engaging the Next Generation through wealth education is an effective way to start forging productive relationships that can exist through and beyond the transition of wealth from one generation to the next.

ONGOING ENGAGEMENT

- Wealth education provides a valuable opportunity to stay in touch and develop a relationship with the entire family while assisting with successful stewardship of generational family wealth.

COMPETITIVE ADVANTAGE

- As most of our direct competitors do not have extensive wealth education programs, especially those customized specifically for each family, we have the unique opportunity to demonstrate our commitment to your entire family for which the wealth may impact today and in the coming years.

Family Wealth Education Strategy

The teaching strategy relies on a diverse set of methods to engage the student and promote mastery.

Assessments

- A pre-test defines learning needs and existing understanding. A post-test helps gauge knowledge acquisition

Discussion

- Every module begins with a “why” and a “what” conversation. We explain the topic and its relevance, and provide a foundation for understanding how it fits into the wealth management whole

Experiential Learning

- These exercises provide the opportunity to “learn by doing,” which is critical with financial learning. For adults, exercises utilize their actual financial life. For youth, we use model examples

Workbook

- A workbook provides textual explanation of concepts, as well as exercises to further develop mastery

Digital

- An online component of the program provides an opportunity to reinforce and fortify learning

Individualized education with a variety of learning connections leads to engagement, and understanding.

With understanding comes confidence and success in managing, growing and preserving financial and human capital

Family Governance & Wealth Education

The Family Governance & Wealth Education Offering

- Creating family mission statements
 - Creating family governance structures and family governance documents
 - Structuring and leading family meetings and family retreats
 - Establishing or enhancing models of communication and decision-making
 - Creating business succession plans
 - Advising on family offices or alternative structures
- Integrating the family's shared values into its estate planning or wealth management vehicles
 - Creating strategies to help address the unique challenges a troubled family may face
 - Creating strategies to enhance the integrity of the family's wealth management structures, and to help preserve and enhance the independence and protection of fiduciaries
 - Creating family wealth education plans

Family Wealth Education Curriculum

The content includes subject matter that family members must understand if they are to manage generational wealth and become effective stewards.

PERSONAL FINANCE – Building blocks of financial education that provide a foundational understanding. These concepts provide a basis for learning about more complex financial ideas and instruments.

Goal Setting • Saving • Credit and Debt • Taxes • Risk Management • Home Buying • Wealth Transfer

INVESTING – Learning about markets and investing, as well as risk, which is critical throughout financial management. Emphasis on understanding what an “investment” means in all areas of life. Given the need for smart investing in wealth management, greater proficiency matters.

Working With a Financial Advisor • Market Dynamics • Risk and Return • Diversification • Asset Allocation • Alternative Investments

CAREER, ENTREPRENEURSHIP & PERSONAL INITIATIVE – Articulating your value, acknowledging strengths and weaknesses, discovering what you love to do, and pursuing educational and personal development. Financial learning occurs with the exploration of income potential and maximization, and salary negotiation coaching. Entrepreneurship learning helps the younger generation understand the challenges, risks, and courage that new business development entails, and how hard earlier generations worked to create family wealth.

Self-Assessment • Skills and Interests • Educational Development • Career Paths • Salary Negotiations • Entrepreneurial Process

FAMILY BUSINESS OWNERSHIP – Provides information for business-owning families that will help them become more effective owners. Learning about business in general and the family’s business in particular.

Business Management • Communication • Conflict Resolution • Performance Evaluation

PHILANTHROPY – Applies financial learning to enhancing the family’s philanthropic impact. Philanthropy is an area of interest and engagement for younger generations, and provides another powerful and compelling context for learning about financial management.

Philanthropic Mission • Impactful Grant-making • Trends in Modern Philanthropy • Philanthropic Vehicles

FAMILY GOVERNANCE – Rooted in the family’s unique circumstances, and tailored to the family governance advice provided to the family.

Articulating and Aligning Values • Managing Family Conflict • Stewardship • Communication • Decision-making • How to Be a Trust Beneficiary

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Case Study: Planning for Three Generations

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THE CIRCUMSTANCE

- An advisor team created a wealth management plan for a client that owned and ran a \$75 million business
- There are three generations of family to protect, some of whom work in the business
- The client did not have a succession plan or buy-sell agreement in place

THE ENGAGEMENT

- With the help of Strategic Estate & Financial Planning, the advisor assembled a cohesive team including a business attorney, an estate planning attorney, a CPA and a Morgan Stanley insurance specialist to address the client's personal, business and generational planning needs
- The team worked to clarify the family's goals:
 - Ensuring the business could continue to operate in the event of the death or disability of a key owner or employee
 - Protecting the business from an untimely liquidation due to the estate tax liability created by the passing of the owner
 - Positioning the estate so that it would be protected generationally from estate taxes, creditors and "domestic predators"
- The team spent several months restructuring the business and developing:
 - New estate planning documents
 - A comprehensive gifting strategy using dynasty trusts as well as an LLC
 - A buy-sell agreement governing the voting and no-voting shares and a comprehensive life insurance plan
- After structuring the insurance plan and overcoming underwriting challenges, the Morgan Stanley insurance specialist placed coverage for the family's income replacement needs, generational tax planning and the funding of a \$30 million buy-sell agreement

THE FOLLOW-UP

- Comprehensive planning documents created for three generations
- Lines of credit established for each of the entities
- Guaranteed insurance provided the liquidity to execute the buy-sell agreement and pay estate taxes
- Established working relationships among key partners, the business and the families

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Case Study: Protecting Future Generations of Family Members

THE CIRCUMSTANCE

- An advisor team contacted their regional Advanced Planning Director to discuss a new high net worth family prospect
- The director met with the patriarch to review existing trust documents, established to benefit children and grandchildren
- The client's existing will named the law firm as the executor, trustee and trust protector
- The will contained no checks and balances to protect future generations of beneficiaries

THE ENGAGEMENT

- The Advanced Planning Director brought in a Trust Specialist to provide an overview of the Morgan Stanley open architecture trustee platform. The platform consists of an array of third-party bank trust companies who can serve as trustee of client accounts
- We recommended several planning ideas, including the use of a corporate trustee
- We introduced a trust officer from one of the trust partner firms, who worked to develop a solid team relationship

THE FOLLOW-UP

- The client was impressed with the analysis and how it dovetailed into Trust Services available through Morgan Stanley
- The client moved five trusts totaling \$46 million to the firm. One of our third-party corporate trustee partners was named as the new trustee
- The trusts are sub-custodied in the Morgan Stanley Financial Advisor team's branch, which provides investment management services
- The client also created several new trusts. The client serves as a current trustee and the corporate trustee partner is named as a successor trustee. These trusts are also utilizing the Morgan Stanley investment platform and receive oversight by the Morgan Stanley advisor team

Case Study: The Third Generation And the Family Business

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THE CIRCUMSTANCE

- An advisor team had a long relationship with a prominent real estate family on the West Coast, managing \$70 million
- The family real estate business, worth several hundred million dollars, was established by the patriarch
- The patriarch had a son and a daughter. The son and the daughter's husband managed the business successfully and harmoniously for over 20 years. They were beginning to think of succession
- The son had three children, two of whom were working in the business. One son was his obvious successor
- The daughter had a son and a daughter. Her son would succeed her husband
- The relationship between the expected successors was as dysfunctional as the bond between their fathers was strong
- None thought the business could continue under the leadership of the sons, but they saw no other choice

THE ENGAGEMENT

- Family Governance & Wealth Education met with the family numerous times over four months, jointly and individually, committing dozens of hours to family meetings and discovery sessions
- Family Governance & Wealth Education proposed a plan that would allow the family business to continue, and created the potential to preserve family ties
- The family saw the strength of the plan and was relieved to find a strategy that held the promise of success

THE FOLLOW-UP

- Family Governance & Wealth Education introduced the family to an attorney to document the plan, which has been successfully implemented
- Strategic Estate & Financial Planning came to help younger family members begin to address their individual estate planning
- Philanthropy Management was brought in to counsel the patriarch's daughter and daughter-in-law in creating a suitable family giving program in honor of the patriarch while he was still living
- Philanthropy Management also suggested ways in which the giving program could help heal some of the recent wounds the family dynamic had suffered and possibly knit the family together more closely

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Case Study: Formalizing Processes in a Family Foundation

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THE CIRCUMSTANCE

- An advisor team was engaged by a family foundation overseeing more than \$2 billion
- The mother and daughter who led the foundation faced family dynamic issues with every management decision
- The broader family could not agree on the foundation's mission or purpose
- The mother and daughter wanted to continue the family's legacy of innovative grant-making and entrepreneurship, but lacked strategic expertise
- Lack of coordination between the foundation's interested parties made grant-making disorganized and inefficient

THE ENGAGEMENT

- Philanthropy Management conducted grantee due diligence, including financial analysis, onsite visits, and primary and secondary research to ensure that applicants were highly qualified and embodied the foundation's mission
- Philanthropy Management helped draft a grant-making policy to address family and employee dynamics, communication across different constituents and step by step processing of grants to help the foundation make efficient, innovative and strategic grants
- Philanthropy Management maintained bi-weekly teleconferences and monthly in-person meetings with the mother and daughter to assist with the implementation of the recommended grant-making policy

THE FOLLOW-UP

- Philanthropy Management worked with Advanced Resources Center's Family Governance & Wealth Education team to initiate conversations with younger generations about involvement in philanthropic giving, multigenerational charitable interests and how to best apply other Advanced Resources Center services to the next generation of family leaders

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Biography



Glenn Kurlander

Managing Director

Glenn Kurlander is the Head of Morgan Stanley's Family Governance & Wealth Education unit, and has helped ultra high net worth clients address matters of family governance, complex estate planning and wealth education for over 30 years.

Prior to joining Morgan Stanley, Glenn was a nationally recognized trusts and estates attorney, with over 18 years experience advising wealthy families and individuals in connection with the management, protection and transfer of global wealth, including the creation of family governance systems; the management of family dynamics related to the possession of significant wealth; the succession of closely-held businesses; the resolution of family disputes; the management of family offices; the creation of tax-efficient transfers during life and at death; and the structuring of public and private philanthropy. Glenn was a partner of Kirkland & Ellis, where he led that firm's trusts and estates group.

Glenn has written in leading professional journals and has lectured extensively on topics such as family governance, managing family conflict, the dynamics of family wealth and family offices, and has been quoted in Time, The Wall Street Journal, Barron's, Dow Jones News Wire and Worth Magazine, among others. He is a former president of Morgan Stanley's Global Impact Funding Trust, Inc., the charity that operates the firm's donor-advised fund.

Glenn received his law degree, cum laude, from the Cornell University Law School in 1984, where he was an editor of the Cornell Law Review. He also holds an M.A. degree in English literature from Columbia University and is a cum laude and Phi Beta Kappa graduate of Franklin & Marshall College.

Glenn lives in West Palm Beach, Florida with his wife and four children, and their goofy dog, Dizzy. Glenn is a past president of his synagogue and is passionate about fast cars and Harley Davidsons.

Team Biography



Melissa Donohue

Vice President

Melissa Donohue is the Senior Wealth Education Specialist in Morgan Stanley's Family Governance & Wealth Education unit. In this role, she develops, coordinates, curates and teaches financial education programs for financial advisors and their clients.

Melissa has a passion for financial education, and has considerable experience in financial education instruction, curriculum and content development for a variety of platforms, and textbook editing. Prior to joining Morgan Stanley, Melissa was the founder of Financial Nutrition, Inc., a financial education company focused on girls' and women's financial education. She has created numerous programs for independent schools and consulted for financial education companies and PBS. Melissa previously worked in financial journalism at Bloomberg LP, and in finance at Swiss Bank Corporation and Wasserstein Perella. Melissa has authored several articles on financial education and the financial markets, and speaks frequently on the topic of financial education and literacy.

Melissa graduated from Oberlin College, and received a Masters degree in International Banking and Finance from Columbia University's School of International and Public Affairs. She also received a Doctoral degree in Education from the University of Massachusetts, Amherst.

Melissa is the Treasurer on the Board of The Parents League of New York, and is also on the Board of CISV-New York, a multicultural education NGO. She was selected to participate in a nascent, university-wide effort connecting alumnae of Columbia University, and is a class agent at Oberlin College. Melissa is a member of the professional associations 100 Women in Hedge Funds, and the Financial Women's Association.

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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.

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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

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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 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.”

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 suitable 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. 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 suitable 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; and Risks associated with the operations, personnel, and processes of the manager. 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 regarding Alternative Investments 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 NASD Conduct Rule 2711 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 Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC 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. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank. 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 suitable 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.

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.

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 and 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, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor's portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. **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.

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

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustration purposes only and do not show the performance of any specific investment. Reference to an index does not imply that the portfolio will achieve return, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility, or tracking error target, all of which are subject to change over time.

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.

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

For index, indicator and survey definitions referenced in this report please visit the following: <http://www.morganstanleyfa.com/public/projectfiles/id.pdf>

Adverse Active Alpha (AAA) is a patented screening and scoring process designed to help identify strong stock picking equity 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 suitable 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 suitable for

all investors. For more information on AAA, please see the Adverse Active Alpha Ranking Model 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 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 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 2.5%. 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 pools 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/ADV or from your Morgan Stanley Financial Advisor or Private Wealth Advisor. To learn more about the Consulting Group Capital Markets Funds, visit the Funds' website at www.morganstanley.com/cgcm. Consulting Group is a business of Morgan Stanley.

TRAK CGCM Program Asset Allocation Models There are model portfolios corresponding to five risk-tolerance levels available in the TRAK CGCM 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. **TRAK CGCM** is a mutual fund asset allocation program. In constructing the TRAK CGCM 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 TRAK CGCM Program Model Portfolios are specific to the TRAK CGCM program (based on program features and parameters, and any other requirements of Morgan Stanley Wealth Management's Consulting Group). The TRAK CGCM 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 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.

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.

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.

Margin Loans are investment products offered through Morgan Stanley Smith Barney LLC. Margin Loans are securities based loans, which can be risky, and are not suitable for all investors. **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. **Tailored Lending** is a loan/line of credit product offered by Morgan Stanley Private Bank, National Association, an affiliate of Morgan Stanley Smith Barney LLC.

Express CreditLine ("ECL") is a securities based loan/line of credit product offered by Morgan Stanley Smith Barney LLC. A Tailored Lending credit facility may be a committed or demand loan/line of credit. All LAL and Tailored Lending loans/lines of credit are subject to the underwriting standards and independent approval of Morgan Stanley Private Bank, National Association (or, for LAL, Morgan Stanley Bank, N.A., as applicable). All ECL loans/lines of credit are subject to the underwriting standards and independent approval of Morgan Stanley Smith Barney LLC. LAL, Tailored Lending and ECL loans/lines of credit may not be available in all locations. Rates, terms, and programs are subject to change without notice. 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.

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.

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.

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. A **conforming loan** means a residential mortgage loan offered by Morgan Stanley Private Bank, National Association that is saleable to Fannie Mae or Freddie Mac because it conforms to these entities' guidelines, including, for example, loan amount limits that range from \$424,000 to \$636,150 for one unit properties, depending on location (and even higher in Hawaii). 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. Thus in deciding whether the pledged-asset feature is appropriate, a Client should consider 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.

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. **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.

1-Month Interest only ARM loan is based on 1-Month LIBOR. 1-Month Interest only ARM loan is not available in Maine. The Active Assets Account is a brokerage account offered through Morgan Stanley Smith Barney LLC. The **Morgan Stanley Mobile App** is currently available for iPhone® and iPad® from the App StoreSM and AndroidTM on Google PlayTM. Standard messaging and data rates from your provider may apply. The **Morgan Stanley Credit Card** from American Express or the Platinum Card® from American Express exclusively for Morgan Stanley is only available for clients who have an eligible Morgan Stanley Smith Barney LLC brokerage account ("eligible account"). Eligible account means a Morgan Stanley Smith Barney LLC brokerage account held in your name or in the name of a revocable trust where the client is the grantor and trustee, except for the **following** accounts: Charitable Remainder Annuity Trusts, Charitable Remainder Unitrusts, irrevocable trusts and employer-sponsored accounts. Eligibility is subject to change. American Express may cancel your Card Account and participation in this program, if you do not maintain an eligible account. Morgan Stanley Smith Barney LLC may compensate your Financial Advisor and other employees in connection with your acquisition or use of either the Morgan Stanley Credit Card from American Express or the Platinum Card® from American Express exclusively for Morgan Stanley. The **Morgan Stanley Cards from American Express** are issued by American Express Bank, FSB, not Morgan Stanley Smith Barney LLC. Services and rewards for the Cards are provided by Morgan Stanley Smith Barney LLC, American Express or other third parties. Restrictions and other limitations apply. See the terms and conditions for the Cards for details. Clients are urged to review fully before applying. The **Morgan Stanley Debit Card** is currently issued by UMB Bank, n.a., 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.

Premier Cash Management is an incentive program that recognizes and rewards clients for choosing Morgan Stanley for their everyday cash management needs. Clients must meet certain criteria in order to qualify for the Premier Cash Management program, and Morgan Stanley Smith Barney LLC reserves the right to change or terminate the program at any time and without notice. Where appropriate, Morgan Stanley Smith Barney LLC has entered into arrangements with affiliated and non-affiliated parties to assist in offering certain products and services related to Premier Cash Management. Please refer to the Premier Cash Management Terms and Conditions for further details. 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.

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