Key Principles of Effective Governance and Investment Management

Philanthropy Southwest Annual Conference 2016

J.P.Morgan

Agenda

Effective Governance

Governance trends

AS MORE INDIVIDUALS CREATE PRIVATE FOUNDATIONS, WE ARE SEEING…

1. Smaller boards and tighter governance structures
2. Family controls
3. Giving while living
4. Managing public exposure of family

…WHICH LEADS TO DISCUSSIONS ABOUT…

Family issues

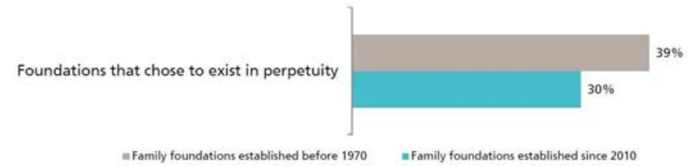
Engaging the next generation

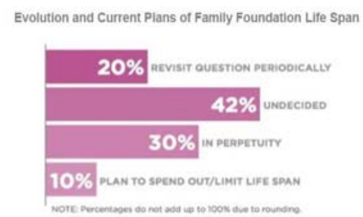
56% report they currently engage younger family members

Source: Urban Institute and National Center for Family Philanthropy 2015 National Survey of Family Foundations.

Current plans for family foundation life span

Perpetuity or a limited-life foundation





Source: Urban Institute and National Center for Family Philanthropy 2015 National Survey of Family Foundations.

Foundation lifespan

Factors for perpetuity	Factors for spend-down foundations
• Desire to leave a lasting legacy • Desire for family engagement across generations • Dedicated to addressing long-term philanthropic issues • Committed to continuing to fund grantees	• Want to give away funds during lifetime to see impact and results • Desire to make a greater impact on current issues in specific geographic region(s) • Concerned that next generations will have a different mission or interests or will fund projects that are contrary • Concerned that next generations will not be philanthropic or want to run a foundation • Worried about the on-going administrative burdens • Apprehensive that the foundation could be controlled by non-family members • No (suitable) heirs

Strategies for involving the next generation

- Develop next generation learning opportunities
- Establish a junior board
- Create smaller discretionary pools that enable family members to support their own causes
- Rotate where board meetings are held and/or hold "virtual" board meetings if family members are spread geographically

Current plans for family foundation life span (continued)

Regardless of the choice to exist in perpetuity…

FOUNDATIONS HAVE STRONG PAYOUT RATES

1 in 5

Family foundations established in the 1990s and 2000s give more than 10% of corpus as do foundations with an active donor

87%

of the oldest family foundations pay out 5-6% of corpus

Source: Urban Institute and National Center for Family Philanthropy 2015 National Survey of Family Foundations.

Boards and governance

What are family board members doing?

THREE MOST MENTIONED BOARD ACTIVITIES

LEAST MENTIONED BOARD ACTIVITIES

Source: Urban Institute and National Center for Family Philanthropy 2015 National Survey of Family Foundations.

Establishing governance structures: key steps

GOVERNING INSTRUMENTS	• Review and understand the foundation's governing documents (e.g. trust instruments, articles of incorporation, bylaws, etc.) • Ensure familiarity with the federal and state rules that govern the foundation's activities (e.g. guides on self dealing, unrelated business taxable income, jeopardizing investments, excess business holdings, etc.)
SET OR UPDATE POLICIES	• Administer family questionnaire to better understand your family's preference with respect to governance, time commitment, and succession • Confirm board member roles and responsibilities • Ensure that appropriate board policies are in place (e.g. conflict of interest policy, investment policy statement, etc.) • Specify qualifications for board membership • Communicate expectations and policies with board members; consider codifying giving philosophy and board processes in a board handbook • Create written guidelines on whether board members can be paid and at what compensation level, if applicable
DETERMINE BOARD RULES AND RESPONSIBILITIES	• Define family roles and clarify which roles will be filled by external staff • Develop staff position descriptions and hire full-time staff, if applicable • Create a compensation policy, taking into consideration appropriate salary benchmarks • Clarify how board members and full-time staff will be evaluated

Governing instruments: understanding fiduciary standards

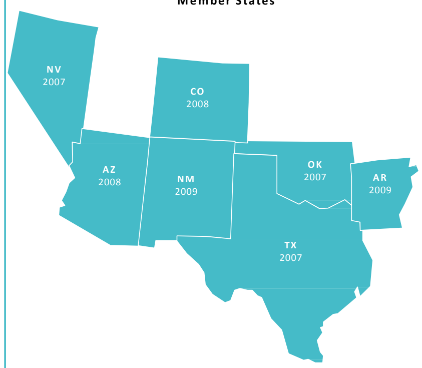
State rules

- **Duty of care**: act in good faith with the care an ordinary prudent person in a like position would exercise
- **Duty of loyalty**: act in good faith in a manner that is in the best interests of the organization
- **Duty of obedience**: act within the organization's purpose to forward the mission of the organization

  (the purpose for which the entity was incorporated and given not-for-profit status)
- **UPMIFA[2]:**
  - Invest with "good faith" and "with care that an ordinarily prudent person in a like position would exercise under similar circumstances"
  - Incur costs that are appropriate and reasonable
  - Factors to be considered in investing are expanded to include, for example, the effects of inflation

Above standards are monitored by **state attorneys general.**

UPMIFA enactments in Philanthropy Southwest Member States



1Disqualified Persons include substantial contributors, foundation managers, persons holding over a 20% interest in entities that are substantial contributors, family members of any persons described in the previous categories, or corporations, partnerships, and trusts of persons in previous categories that hold more than a 35% interest.

2 UPMIFA: Uniform Prudent Management of Institutional Funds Act.

Examples of documents that address governance

EXAMPLES OF DOCUMENTS THAT ADDRESS GOVERNANCE

- Articles of Incorporation or trust instrument
- Bylaws
- Board policies
- Conflict of interest policy and disclosure statement
- Mission, vision and values statements
- Trustee job description
- Board roster
- Committee roster and charters
- Board minutes
- Applicable state nonprofit law

QUESTIONS FOR CONSIDERATION

- Have you read and understand these governing documents?
- Do the foundation instruments reflect your intent and clearly outline the ultimate decision makers?
- Does the foundation have in place required or advisable policies (e.g. conflict of interest, travel and reimbursement, board membership, investment policy statement)?
- Is there a central location for the governing documents?
- Are you familiar with the federal and state laws and regulations that govern the foundations operations?
- Are the documents up to date and in adherence with federal and state laws and regulations?

Source: Council of Foundations; 10 Things Every New Foundation Board Member Should Know as of December 31, 2013.

Governing instruments: understanding board policies

Policy	Description
Conflict of interest policy	• Rules and procedures regarding transactions, both economic and non-economic, between the foundation and those who manage and/or govern the foundation • Typically includes definitions; procedures for disclosing, determining, addressing and remedying conflicts; and procedures for setting compensation • Should by signed annually by board members and periodically reviewed
Expense and travel policy	• Rules and procedures regarding payment and reimbursement of expenses and travel • Typically includes statement of good faith that expenses will be kept reasonable; expense process; type and level of covered expenses; guidelines on entertainment expenses permitted; and guidelines for handling of "non-foundation" travel expenses
Event and ticket policy	• Rules and procedures regarding accepting and using tickets and attending events • Typically includes general prohibition statement, definition of exception, process for requesting written approval and procedures for refusing tickets
Confidentiality policy	• Rules regarding confidentiality of information concerning grant applicants and other foundation activities • Typically includes statement prohibiting disclosure of information regarding foundation activities to third parties • Should by signed annually by board members
Investment policy	• Procedures and approach to foundation investments and guidelines for foundation managers to fulfill their respective fiduciary responsibilities and duties • Typically includes roles and duties; investment objectives and strategy; investment process; reporting procedure and conflicts • Should be reviewed regularly

Director or trustee roles and responsibilities: setting expectations

DIRECTOR OR TRUSTEE ROLES AND RESPONSIBILITIES

- **As a governing structure, the board:**
  - Sets the organization's basic purpose and oversees operations
  - Approves investment policies, reviews investment performance, and employs appropriate asset management
  - Develops budget and reviews/oversees compliance with the budget
  - Reviews audit and ensures internal controls are in place
  - Approves strategic plans, major contracts and expenditures
  - Addresses potential conflicts of interest
  - Ensures tax and regulatory reports are filed in a timely manner
  - Ensures board continuity including maintaining minutes and documentation of board business as well as recruiting new members
  - Determines employment and compensation of the chief executive and reviews his or her performance

QUESTIONS FOR CONSIDERATION

- Will the foundation be family directed and managed?
- What constitutes family – Direct descendants only? Marriage? Adoption?
  - Is family involvement an expectation or a choice?
  - What will the decision-making structure and process be?
- Are there qualifications or skills required to take on a leadership role within the foundation?
- How much of your personal time are you able to commit to the foundation?
- What role(s) will external advisors have in leadership and/or management?
- Should the founder retire from his or her leadership role at some point in the future? If so, when? What will his or her role be after a new leader is chosen?
- What does the family anticipate the foundation's needs for a leader will be? What are the roles and responsibilities of the leader?
- Will the foundation exist in perpetuity or sunset after a period of time?

Source: Council of Foundations; 10 Things Every New Foundation Board Member Should Know as of December 31, 2013.

Idea exchange: Effective Governance

How is your organization planning for the next generation?

What best practices can you share on how your organization approaches new board member orientation?

Key Takeaways:

Foundation Management

Redefining the role of the investment committee

Effective long-term investment oversight requires Board members to ask themselves…

Investment committee	Investment policy	Spending
• How are we overseeing our investment process? • Do we have the investment committee in place to ensure effective investment management? • Are we educating our stakeholders on the issues likely to impact the institution's assets? • Have we considered a collaborative approach to managing our portfolio?	• Do the policies that dictate our mission support our short-term and long-term goals? • Is our investment policy comprehensive and flexible? • Do we plan on using the fund for purposes other than those originally intended?	• Are we able to sustain our spending needs and portfolio value through a full market cycle? • How much spending is needed to operate our organization effectively? • What time horizon are we using to measure our investment and spending needs?

Taking a fresh approach to investment committee membership

Core functional Investment Committee roles

MEMBER(S) THAT REPRESENT:
- Ties to the donor community

MEMBER(S) THAT REPRESENT:
- Institutional goals, priorities, preferences and trade-off insights

MEMBER(S) THAT REPRESENT:
- Understanding of institutional cash dynamics; liquidity, long-term spending needs and potential constraints on portfolio construction
- Operational and administrative issues

MEMBER(S) THAT REPRESENT:
- The ability to communicate market conditions, portfolio characteristics, and performance to all stakeholders
- Knowledge of peer group; issues and practices related to governance, portfolio practice, and risk standards
- Understanding of forward-thinking agendas, such as impact investing, ESG (environmental, social and governance) issues, and SRI (socially responsible investing)

MEMBER(S) THAT REPRESENT:
- Financial market experience
- Exposure to markets over multiple market cycles and conditions
- Direct experience regarding alternative investment options, issues, and structure
- Due diligence exposure

For Illustrative Purposes Only.

Investment committee credentials

Average number of committee members: 8	Over $1 Billion	$501 Million - $1 Billion	$101-500 Million	$51-$100 Million	$25-$50 Million	Under $25 Million
Investment committee members who are investment professionals	6.8	6.3	4.8	3.5	3.0	2.7
Investment committee members with alternative strategies experience	5.1	4.5	2.9	2.1	1.9	1.3
Non-trustee voting members	2.5	1.8	1.2	1.0	0.7	1.2

Source: 2015 NACUBO-Commonfund Study of Endowments (NCSE) as of fiscal year ending June 30, 2015. The data is representative of 828 institutions representing $529B in endowment assets. The information contained herein comes from sources believed to be reliable but neither J.P. Morgan or any of its affiliates warrant its accuracy and accept no liability for any direct or consequential losses arising from its use.

Sample investment committee meeting agenda

Review at every quarterly meeting

- Market review and outlook
- Portfolio review and performance
- Current portfolio recommendations
- Deep-dive into a specific asset classes *(see below)*
- Review of a governance or fiduciary topic *(see below)*

Topics that may rotate on the agenda

Asset Classes

- Global equities
- Global fixed income
- Emerging markets
- Real assets
- Hedge funds
- Private equity

Rotation customized to needs of client and market environment

Governance & Fiduciary

- Investment policy
- Spending policy
- Risk tolerance
- Regulatory changes
- Peer benchmarking
- Custom educational topics

Every 18 – 24 months, extended committee meeting to review strategic asset allocation

Building an effective investment policy statement

An organization's investment policy statement should effectively guide the investment committee and investment advisor.

- Enable more than it restricts
- Defines guiding principles
- Delineates functional responsibility
- Outline processes and controls
- Define
  - Rate of return objectives
  - Variance bands
  - Spending policy
  - Rebalancing policy
  - Benchmarking
- Reviewed at least annually

IPS Table of Contents

- ✓ Purpose of the investment policy statement
- ✓ Mission of the organization
- ✓ Governance
- ✓ Responsibilities of the committee
- ✓ Investment objectives
- ✓ Legal considerations
- ✓ Asset allocation
- ✓ Asset classes
- ✓ Investment restrictions
- ✓ Performance/benchmarks
- ✓ Conflicts of interest

Sample framework for investment policy

GOVERNANCE	**Roles of the board, investment committee and staff** • Define responsibilities and authority, including fiduciary responsibilities and legal standards applicable to the governing bodies • Outline communication process for all stages of investment process • Instill the organization's mission and purpose to all involved parties
INVESTMENT POLICY	**Formulate policies** • Return objectives, risk tolerance, time horizon and liquidity • Spending policy • Permissible investments/suitability standards • Strategic asset allocation, tactical ranges • Performance & conflict of interest management • Annual review of investment policy statement • Request for Proposal cycle
INVESTMENT PROCESS	**Have an investment process** with risk management controls in place • Advisor and investment manager due diligence/transparency • Investment suitability • Diversification • Liquidity • Stress test and variability of returns analysis • Operational risk controls

Developing a structure for ongoing accountability

Defining roles and responsibilities

	Asset Allocation	Strategic Rebalancing	Tactical Rebalancing	Manager Selection & Monitoring	Investment Operations	Performance Reports
Investment Committee	Approves	Approves		Selects Investment Advisor(s)		Reviews monthly / quarterly
Investment Advisor	Advises	Implements within guidelines	Executes	Researches, selects, and implements investment vehicles	Implements, monitors and coordinates	Provides monthly snapshots / quarterly holistic review
Staff					Oversees	

Idea exchange: Foundation Management

How is your investment committee structured and how do you handle on-going committee education?

What resource(s) have you found valuable when it comes to education?

Key Takeaways:

Idea exchange: Investment Policy Statement

How often does your committee review the investment policy statement?

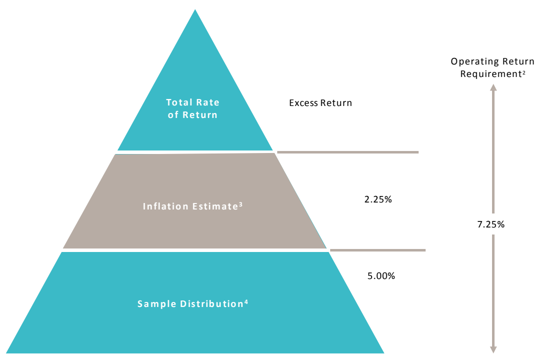
What internal or external catalysts would prompt an update or change in your policy?

Key Takeaways:

Best Practices in Investment Management

Defining Investment Objectives

Many organizations have an operating return requirement of over 7.25%[2]

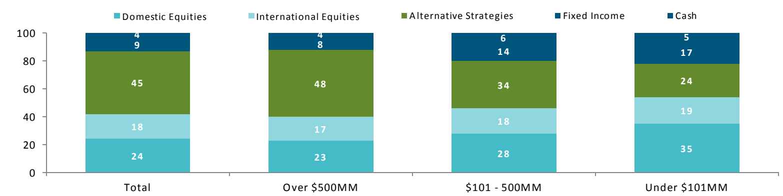


1Please see page titled "Understanding long-term estimates" for further detail
2 Amount necessary to generate rate of return in excess of distribution rate and inflation
3 J.P. Morgan Nominal Equilibrium Assumption for Inflation. Note: Bureau of Labor and Statistics (BLS) – Average headline inflation since 2000 = 3.00%
42014 Council on Foundations-Commonfund Study of Investment of Endowments for Private and Community Foundations as of fiscal year ending June 30, 2014. The data is representative of 244 institutions.

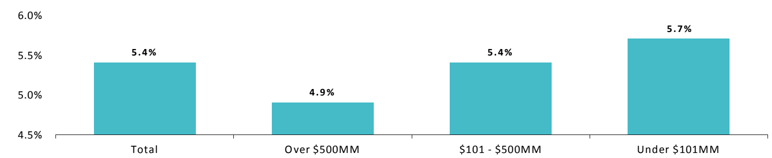
Performance and risk benchmarking

How do private foundations attempt to generate returns?

Asset Allocation for U.S. Private Foundations (%)



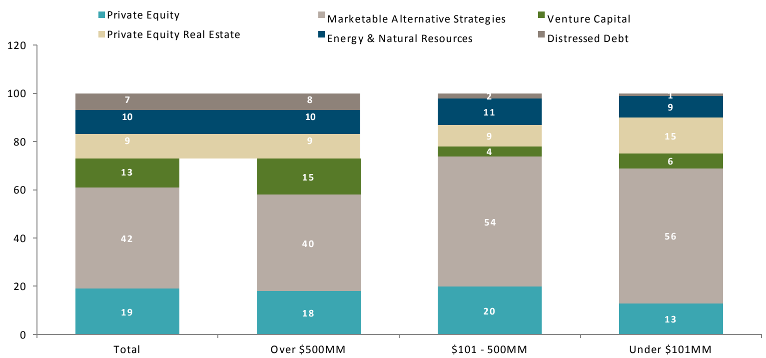
Spending Rates for U.S. Private Foundations



Source: 2015 Council on Foundations-Commonfund Study of Investment of Endowments for Private and Community Foundations as of the 2015 fiscal year (January 1-December 31, 2015). The data is representative of 228 institutions. The information contained herein is provided for illustrative purposes only and should not be relied upon in isolation for the purpose of making an investment decision. For more information on product profiles and trade ideas, which discusses risks, benefits, liquidity and other matters of interest, please contact your J.P. Morgan representative.

Alternative investment breakdown for private foundations

Alternative Strategies Mix (%)



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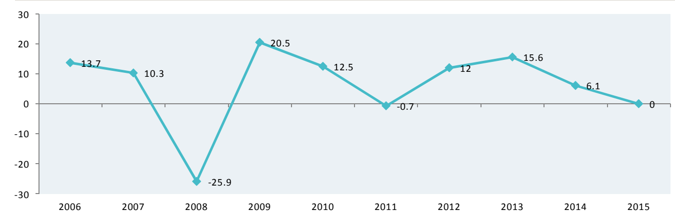
Private foundation investment returns

Average One-, Three-, Five- and 10-Year Net Returns (%) – Fiscal Year 2015

	Total	Over $500 MM	$101 - 500 MM	Under $101 MM
FY 2015 Total Net Return	0.0	1.1	-0.5	0.1
3-yr Net Return	6.9	7.8	6.7	6.8
5-yr Net Return	6.3	7.0	6.2	6.0
10-yr Net Return	5.5	5.8	5.4	5.5

Average Annual Total Net Returns for Total Institutions (%) – Fiscal Years 2006-2015



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Alternative investments can improve a portfolio's risk/return characteristics

As well as provide clients with the opportunity to invest in markets not easily accessible to traditional investors

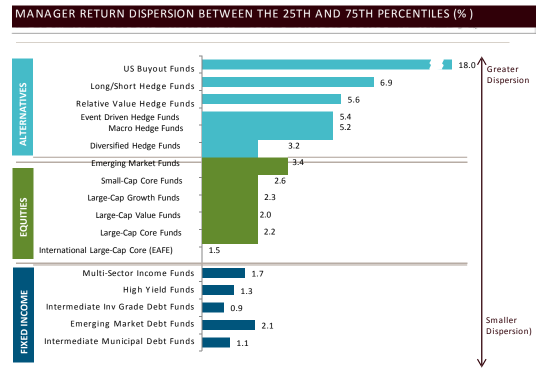
Annualized volatility and return 1990–3Q 2015

The addition of alternatives (a combination of hedge funds, private equity and real estate) to a traditional stock/bond portfolio can increase returns while reducing volatility

Sources: Cambridge Associates, HFRI, J.P. Morgan Asset Management; Barclays, FactSet, NCREIF, Standard & Poor's. The portfolios that do not contain alternatives are a mix of the S&P 500 and the Barclays U.S. Aggregate. The 20% allocation to alternatives reflects the following: 10% in hedge funds (HFR FW Comp.), 5% in private equity, and 5% in private real estate. The volatility and returns are based on data from 4Q90 to 3Q15, encompassing 25 years of data. Past performance is no guarantee of future results. It is not possible to invest directly in an index. The information contained herein is provided for illustrative purposes only and should not be relied upon in isolation for the purpose of making an investment decision. For more information on product profiles and trade ideas, which discusses risks, benefits, liquidity and other matters of interest, please contact your J.P. Morgan representative.

Additional alternative investments considerations

Manager dispersion highest among alternative investments



Manager evaluation framework

(sample criteria below)

PEOPLE
- Quality / experience / stability of team
- Key decision-makers
- Investment team's beliefs / values
- Compensation
- Personal investment in strategy

PHILOSOPHY
- Articulation of a clear investment philosophy across the organization
- Philosophy fully embraced by all team members
- Team actions follow its philosophy

PROCESS
- Competitive advantage of Strategy
- Advantage is repeatable over time
- Investment team works together
- Ultimate decision-maker defined
- Team view of and control for risk
- Potential causes for process to fail
- Potential cause for Team's focus to be diverted by new strategies

PERFORMANCE
- In line with expectations
- Commensurate with the amount of risk taken
- Performs in line with expectations in different market environments

Source: J.P. Morgan, as of September 2015.

Investment strategies presented here may not be suitable for all investors. Speak with your J.P. Morgan representative concerning your personal investment needs. For more information, turn to "Important Information" in the Appendix. The information contained herein is provided for illustrative purposes only and should not be relied upon in isolation for the purpose of making an investment decision. For more information on product profiles and trade ideas, which discusses risks, benefits, liquidity and other matters of interest, please contact your J.P. Morgan representative.

Primary types of alternative investments

	Description	Targeted Return	Common Strategies
Hedge Funds	• Open-ended funds that buy (long) or sell (short) investments • Use of hedging, arbitrage, and leverage • Involve portfolios of private securities • Redemptions are allowed but liquidity terms vary greatly	• Seek high absolute returns relative to the volatility (variability) of those returns	• Event driven • Equity long/short • Global macro • Relative value • Diversified
Private Equity	• Closed-end private investment funds • Generally invest capital over a 3-5 year period • Aim to harvest investments over a 2-5 year period (5-10 year total fund life) • Involve portfolios of investments that are not publicly traded • Generally illiquid; net cash flows back to the investor generally begin around year 5	• Fund managers seek returns well in excess of those available in public markets	• Leveraged buyouts • Growth equity • Venture capital • Private credit • Other private transactions
Private Real Estate / Infrastructure	• Private investment funds that make debt and equity investments in property over a 2-3 year period and aim to harvest investments over a 7-8 year period • Involve portfolios of real estate property • Generally illiquid, although some funds allow redemptions	• Seek high absolute returns as measured by cap rate (yield) and multiple of invested capital (MOIC)	• Core • Core Plus • Value Added • Opportunistic • Infrastructure

Hedge funds, private equity, private real estate, and infrastructure investments as described on this page are typically structured as limited partnerships ("LPs") which acquire, manage, and liquidate portfolios of various types of portfolios. The information contained herein is provided for illustrative purposes only and should not be relied upon in isolation for the purpose of making an investment decision. For more information on product profiles and trade ideas, which discusses risks, benefits, liquidity and other matters of interest, please contact your J.P. Morgan representative.

Key considerations in alternative investment portfolio construction

Consideration	Does the board have resources to…	Take-away
Control	• Approve every manager in the portfolio? • To take on fiduciary responsibility for investments?	• Full control requires substantial resources
Time commitment	• Devote time to ongoing investment decisions?	• Many alternative investments capitalize on temporary market dislocations
Idea generation	• Source thematic ideas complementary to the current portfolio?	• Flexibility around implementation vehicles makes thematic investing easier
Sourcing	• Identify opportunities in the alternative investments community? • Negotiate key terms with each manager?	• Sourcing and structuring investments are often functions of both network and size
Initial due diligence	• Conduct its own manager search? • Perform operational due diligence?	• Thorough vetting of managers goes beyond analysis of returns, especially for alternative investments
Ongoing due diligence	• Access to key decision makers on an ongoing basis? • Recognize in real time if a manager undergoes a material change? • Terminate managers in a timely manner?	• Size and scale command greater access to decision makers and information
Investment minimums	• Establish the optimal level of manager concentration?	• Over-diversification results in benchmark level returns
Reporting	• Consolidate reporting across investments? • Compile performance holistically?	• Housing investments on one platform can simplify analysis and decision making

Select risk factors of investing in hedge funds and private equity

INVESTMENT RISK	All investments risk the loss of capital. The nature of the securities purchased and traded by hedge funds and private equity funds and the investment techniques and strategies they employ may increase this risk. There can be no assurance that hedge funds will not incur losses. Investors may lose all or substantially all of their investment in hedge funds and private equity funds
LIMITED OPERATING HISTORY	Certain hedge funds and private equity funds may have limited or no operating history. The prior investment performance of other funds managed by a manager should not be relied upon as an indication of the future performance of the fund
LACK OF REGULATION	Hedge funds and private equity funds are not required to be registered as an investment company under the Investment Company Act, any other U.S. federal or state securities laws or the laws of any other jurisdiction. Accordingly, investors often may not have the benefit of the protections conferred by such laws
LIMITATIONS ON TRANSFER AND LIQUIDITY RISKS	Hedge funds and private equity funds generally offer limited liquidity terms and cannot be easily transferred. Hedge funds may invest in securities that are not readily marketable or become illiquid after investment. Private equity investments are intended for long term investors; an investor in such a fund may not freely transfer, assign, or sell any interest without the prior written consent of the fund manager. There is no liquid market for such interests and none is expected to develop
DEPENDENCE ON THE INVESTMENT MANAGER	The performance of a hedge fund and a private equity fund generally depends upon certain key personnel, and there can be no assurance that the individuals employed by the funds will remain willing or able to provide their services to the fund

Note: The above risk factors do not constitute a comprehensive list of risks associated with investing in hedge funds. For a more detailed description of these and other risk factors, please refer to the "Certain risk factors" section on pages 37-38 and to the risks described in each Fund's Offering Memorandum.

Definitions of hedge fund strategies

Type of Hedge Fund	Relative Value	Event Driven	Long/Short	Macro
Description	• Simultaneous purchase and sale of similar securities seeks to exploit pricing differentials. • Manager attempts to neutralize long and short positions to minimize the impact of general market movements.	• Special Situations: Investments in companies whose capital structure is undergoing change • Merger Arbitrage: Investments in securities of firms involved in mergers • Distressed: Investments in companies in reorganization or bankruptcy	• Long or short positions in equities or options deemed to be under or overvalued. • Manager may opt not to neutralize the value of long and short positions (i.e. may net long or net short).	• Analyze fundamental and economic data to capitalize on the relative economic strengths or weaknesses of countries, regions or currencies.
Return Drivers	• Volatility • Credit spreads • Shape of yield curve	• Corporative activity: mergers, divestitures, and reorganizations • Interest rates	• Security analysis and selection • Volatility • Valuation	• Macroeconomic factors (GDP growth, payroll, interest rates, etc.) • Geopolitical events • Global currency, equity, commodity and fixed income market movements
Examples	Invest in the U.S. Housing Recovery through Residential Mortgage-Backed Securities (RMBS)	Activist investing in Yahoo!	Capitalize on undervalued longs and overvalued shorts, often in the same sector (for example, long Coke and short Pepsi)	Tactically trading markets around central bank policy and weak economic growth

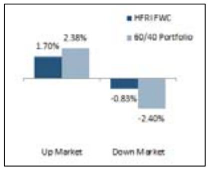
Note: These characteristics represent the characteristics typical of these types of alternative investment funds. There can be no assurance that any specific fund will possess these typical characteristics. This material is intended for illustrative purposes only. This document is not intended as an offer or solicitation for the purchase or sale of any financial instrument. To the extent that this material relates to investment activities, it is directed solely at persons to whom it may be lawfully directed, please see the important disclosures at the end of this document. Any discussion of specific investment opportunities may require the signature of certain additional documentation by such persons.

Long term risk-adjusted performance of hedge funds has been attractive vs. traditional asset classes

LONG TERM VALUE PROPOSITION (JAN 1990 – MAR 2016)

	Return	Volatility	Sharpe Ratio[1]	Maximum Drawdown
HFRI Fund Weighted Composite Index	**10.0%**	**6.8%**	**0.99**	**(21.4%)**
Barclays Aggregate Bond Index[2]	6.3%	3.6%	0.85	(5.2%)
MSCI World TR Index	6.0%	15.1%	0.26	(54.0%)
S&P 500 TR Index	9.3%	14.6%	0.47	(51.0%)

AVERAGE MONTHLY UP AND DOWN CAPTURE (JAN 1990 – MAR 2016)



Source: HFRI, PerTrac
Hedge fund allocations uses HFRI Fund Weighted Composite Index as a proxy for hedge funds. Hedge Fund Research Composite Index ("HFRI") is a widely used fund-weighted industry benchmark, although the exact composition of this index remains proprietary

1. Risk-free rate is based on Merrill Lynch 3-month T-Bills Index.
2. Formerly the Lehman Aggregate Bond Index. **It is not possible to invest directly in an index.** Please refer to "Definition of terms" and "Definition of Indices" for important information.

Past performance is no guarantee of future results.
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Overview of Private Equity

What is private equity and how does it work?

- Private equity funds are typically structured as limited partnerships which acquire, manage and liquidate portfolios of private securities
- The term "private equity" may also refer to private investments in real estate transactions and in private credit instruments
- Generally invest over a 3-5 year period and aim to exit investments after a 3-5 year holding period
- Investments may take the form of control equity, minority growth equity or private debt
- Capital is called as investments are identified and returned following disposition of investments; i.e. funds are not fully drawn up front
- Fund managers seek high absolute returns, both in terms of internal rate of return (IRR) and multiple of invested capital (MOIC)
- Investors generally receive a "preferred return" (6-8% per year), which defers the fund manager's performance compensation (which is typically 20% of profits) until the investor has achieved a minimum return

How do private equity managers generate returns?

- Source and negotiate attractive private transactions
- Seek to invest in profitable growth initiatives
- Ability to improve operating performance by influencing corporate strategy, upgrading management and/or improving operations
- May employ leverage to enhance returns[1]

Why do we use private equity in client portfolios?

- Historically, private equity has outperformed public equity markets over medium and longer time periods[2]
- Certain strategies permit investors to opportunistically deploy capital during market dislocations
- Potential to improve portfolio diversification through return drivers that are different from other asset classes

1 Note: These terms may vary across funds and are meant to demonstrate typical terms found in private equity funds.
2 Source: Cambridge Associates. Private Equity Index represents the Cambridge Associates Global Buyout & Growth Equity Fund Index, an end-to-end pooled return compared to Cambridge Associates Modified Public Market Equivalent Net to Limited Partners.

Private equity: pursues a wide variety of transactions to take advantage of market opportunities

Degree of ownership: Control ↔ Minority

Transaction type	Characteristics
Public-to-private	• Going-private transactions may provide an attractive alternative for undervalued public companies that wish to pursue a restructuring or reorganization • Target companies may present opportunities for operational improvements and value creation • Leverage is generally used to fund acquisitions in an effort to increase returns
Corporate divestiture	• Corporations seeking to divest non-core businesses may sell to private equity managers • Seller may retain a minority stake to participate in any equity appreciation • Leverage may be used
Balance sheet restructuring	• Distressed balance sheets may require a company to raise capital to meet near-term debt maturities or other funding requirements • Private equity investment may take the form of convertible preferred or common equity
Growth or acquisition capital	• Growth-stage businesses require additional equity capital to fund acquisitions and other initiatives • Typically non-control ownership positions • Private equity funds may provide operational or financial expertise in an effort to increase the value of the company
Distressed debt / Private lending	• Debt purchased in the secondary market can potentially take advantage of discounted trading prices or lack of market liquidity • New credit extended to distressed companies, generally on a senior secured basis, may receive premium yields as well as equity warrants • Includes new-issue private debt to finance small to mid-cap transactions or provide mezzanine financing for new leveraged buyouts

Note: The above chart discusses representative transactions employed by private equity funds portfolio. The chart is not intended to, and does not, describe representative transactions of each type of private investment fund may invest.. Source: J.P. Morgan

Private equity differs from traditional asset management

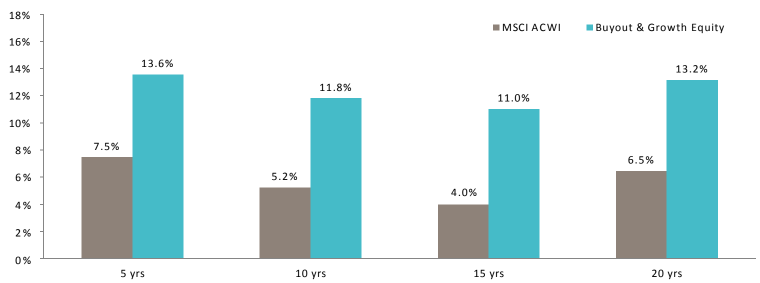
	Private equity[1]	Traditional asset management
Availability of company information	▪ Sponsors often have greater access to information	▪ Access is typically limited to public information
Pace of capital deployment	▪ Capital drawn as investments are made; capital called only as needed	▪ Fully drawn and invested upfront
Relationship with company management	▪ Typically active	▪ Typically passive
Tax treatment	▪ Often long-term capital gains for equity investments[2]	▪ Can be short- or long-term capital gains
Key driver of manager compensation	▪ Both assets under management and profitable realizations of portfolio companies	▪ Assets under management
Performance dispersion	▪ Wide – approximately 17% between top and bottom quartiles[3]	▪ Low – typically less than 4% between top and bottom quartiles[3]
Liquidity	▪ Illiquid, long-term commitment, 10-12 years	▪ Often daily
Investor access	▪ High minimums ▪ Limited fundraising period	▪ Low minimums depending on vehicle ▪ Continuous fundraising period
Fees and performance compensation	▪ Higher management fees ▪ Performance compensation (typically, 20% of profits)	▪ Lower management fees ▪ Generally no performance compensation

Note: This overview is general in nature and is for illustrative purposes only.
1 While typical of certain types of private investment funds, these factors are not representative of all the types of private investment funds
2 Distributions by private credit and private real estate funds often include distributions of current income that are taxed at applicable rates and that do not benefit from treatment as long-term capital gains.
3 Source: Cambridge Associates LLC, Lipper Inc. as of September 30, 2015. Traditional asset management categories represent the dispersion between top- and bottom-quartile managers utilizing five-year annualized data. Data for private equity performance represents the difference between net of fees pooled end-to-end returns of top- and bottom-quartile managers based on data compiled from 1,831 global (U.S. and ex U.S.) buyout and growth equity funds tracked by Cambridge Associates LLC. Please see "Important notes on performance data" on page 36, and "Certain risk factors" on pages 37-38. The data does not adjust for survivorship bias or delayed reporting. Past performance is no guarantee of future results.

Private equity has historically generated attractive returns

Global buyout/growth private equity has consistently outperformed public equities

Annualized return, %



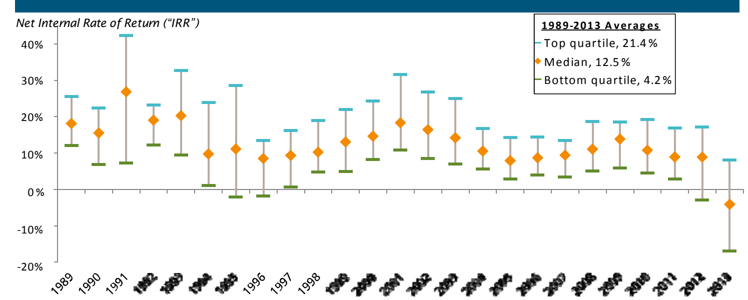
Source: Cambridge: Data as of 3Q 2015. Past performance is not indicative of future results. The Global Buyout & Growth Equity Index is based on data compiled from 1,831 global (U.S. & ex – U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2015. Internal rates of return are net of fees, expenses and carried interest. The historical returns reflected above are included solely for the purpose of contrasting returns of buyout and growth equity funds with the MSCI ACWI index over certain time periods. The historical returns are not intended to, and do not, reflect the historical performance of investment opportunities in private equity, private credit and private real asset funds made available to eligible clients of J.P. Morgan Private Bank. See "Important notes on performance data" for important information regarding performance data and "Key risks of investing in alternatives". **Past performance is no guarantee of future results.** It is not possible to invest directly in an index. The information contained herein is provided for illustrative purposes only and should not be relied upon in isolation for the purpose of making an investment decision. For more information on product profiles and trade ideas, which discusses risks, benefits, liquidity and other matters of interest, please contact your J.P. Morgan representative.

Manager selection is particularly critical in private markets

- Private equity generally represents 5-15% of diversified portfolios and may generate returns greater than public equities in exchange for a significantly longer illiquidity profile[1]
- Over the past 25 years, the average difference between top quartile and bottom quartile private equity managers has been 17.2%[2]
- Diversification by vintage year, style, industry sector and geography helps mitigate risks and provide more stable returns

Historically strong median performance, but dispersion between top and bottom quartiles can be significant[1,2]

Net Internal Rate of Return ("IRR")



1 Source: J.P. Morgan Private Bank as of January 2016. Past performance is no guarantee of future results.
2 Source: Cambridge Associates LLC, Bloomberg as of September 30, 2015. "Private equity" consists of 1,831 global buyout & growth equity funds tracked by Cambridge Associates LLC and does not include private credit, real estate or real asset funds. Indices are for illustrative purposes only, are not investment products and may not be considered for direct investment. Data for 2014 and through Q3 2015 is too recent to provide meaningful representation of quartile dispersion. See "Important Notes on Performance Data". The information contained herein is provided for illustrative purposes only and should not be relied upon in isolation for the purpose of making an investment decision. For more information on product profiles and trade ideas, which discusses risks, benefits, liquidity and other matters of interest, please contact your J.P. Morgan representative.

Idea exchange: Alternatives

What view does your organization have with respect to alternative investment strategies?

Please describe your experience with alternative investments, if applicable.

- ***Hedge Funds:*** *What role do hedge funds play in your portfolio and what results have you seen?*
- ***Private Equity:*** *Are you adding to, maintaining, or reducing the private equity allocation in your portfolio? Why?*

Key Takeaways:

Next Steps

Next Steps: Start with a health check

Thank you for your time today!

Broad Foundation Governance

- ❑ Establish a mission and purpose
- ❑ Select the Executive Director
- ❑ Support and evaluate the Executive Director
- ❑ Set policies and ensuring effective planning
- ❑ Monitor and strengthen programs and services
- ❑ Ensure adequate financial resources
- ❑ Protect assets and provide proper financial oversight
- ❑ Building a competent Board
- ❑ Ensure legal and ethical integrity
- ❑ Enhance the organization's brand image and standing in the community
- ❑ Monitor the performance of its programs, products and services
- ❑ Respond to major issues that can or will impact the NFP and the communities it serves
- ❑ Provide fiduciary oversight, and take responsibility for the prudent and appropriate delivery of human resources, legal and administrative services

Key Responsibilities of Nonprofit Boards

Determine mission and purpose

- It is the board's responsibility to create and review a statement of mission and purpose that articulates the organization's goals, means, and primary constituents served

Select the chief executive

- Boards must reach consensus on the chief executive's responsibilities, undertake a careful search to find the most qualified individual for the position and approve annual compensation package

Support and evaluate the chief executive

- The board should ensure that the chief executive has the moral and professional support he or she needs to further the goals of the organization

Ensure effective planning

- Boards must actively participate in an overall planning process and assist in implementing and monitoring the plan's goals

Monitor, and strengthen programs and services

- The board's responsibility is to determine which programs are consistent with the organization's mission and monitor their effectiveness

Ensure adequate financial resources

- One of the board's foremost responsibilities is to secure adequate resources for the organization to fulfill its mission

Protect assets and provide proper financial oversight

- The board must assist in developing the annual budget and ensuring that proper financial controls are in place

Build a competent board

- All boards have a responsibility to articulate prerequisites for candidates, orient new members, and periodically and comprehensively evaluate their own performance

Ensure legal and ethical integrity

- The board is ultimately responsible for adherence to legal standards and ethical norms

Source: BoardSource, as of December 31, 2015.

Mission Statement: Checklist and Guiding Principles

Why develop a mission? The mission…

- **Clarifies** what the family hopes to accomplish through their grantmaking, and in what areas it will make grants to get there
- Helps the family **set a course** that transcends generations
- Enables the foundation to see where it is deviating from its expectations and goals so it can **make course corrections**
- **Identifies gaps** that the foundation or fund can fill
- Enables the organization to be more **strategic**
- Ensures that the family members are truly **in sync**
- **Strengthens** the role of the family in the foundation

TOPICS TO CONSIDER:

- **Values:** What is important to the family?
- **History:** What was the impetus for creating the foundation?
- **Interests:** What fields or issues interest the family? How many issues should you support?
- **Context:** What is happening in targeted community or field?
- **Impact:** What is the desired level of impact?
- **Language:** How much flexibility do you require? How much future interpretation is desired?
- **Geography:** Are there limits to where funding will go?

Source: Foundation in a Box, *Grantmaking with a Purpose: Mission and Guidelines.*

Mission Statement: Checklist and Guiding Principles (Part II)

Trustee Questionnaire

1. What social issues and/or geographies are you most passionate about? Are there any issues and/or geographies you do not wish to support?
2. What has been your philanthropic involvement to date?
3. What interests/concerns you – (e.g. which stories do you read first in the newspaper?)
4. What makes you angry about the way the world is now?
5. What positive things do you see in the world that you would like to support/encourage?
6. What change would you like to see happen in the world in your lifetime?
7. What motivates you to give?
8. What values have your family and other role models passed on to you that influence your philanthropic decision making?
9. If you could fast forward by 5 years, or 10 years, and the family giving could achieve one thing, what kind of thing might that be?
10. What do you believe was the impetus behind creating the Cain Family Foundation? What was most important to the founders – what did they want the Foundation to achieve?
11. Are there issue areas, programs, populations, or geographies the Foundation has not focused on in the past that you are interested in exploring further?
12. How much of your personal time are you willing to commit to a family philanthropy initiative?

SAMPLE

Mission Statements

Health Check

Single issue, broad focus (example: health)

The _________Foundation seeks to improve the health and well-being of all _________. To achieve the most impact we focus on four broad areas: (1) Access to quality health care at reasonable cost; (2) access to quality care and support for people with chronic health conditions; (3) healthy communities and lifestyles; and (4) reduction of substance abuse.

Single issue, narrow focus (example: women)

The ____________is a family foundation, established in 1990 to expand women's educational opportunities and advance scholarship by and about women. Foundation grants promote curriculum development and research in women's studies and support projects that prepare girls and women to meet the professional and personal challenges in their lives.

Multiple issues, broad focus

The _____________Foundation is committed to democratic values, including fairness, diversity, and community. We seek to build a society that values nature and protects ecological balance for future generations; promotes humane health care; and fosters arts to enrich communities.

Multiple issues, narrow focus

The mission of the _________________Foundation is to support and encourage educational, cultural, social, and environmental values that contribute to making our society and our world more livable. To that end the Foundation focuses on efforts that support artists at early stages of their careers, educational efforts that improve the teaching profession and strengthen educational resources for K-12 education and environmental causes that result in protection of land and species.

Investment Committee Skillsets

Health Check

<u>Have the current members of the IC mastered the micro issues of investing well enough to:</u>

- ❑ Develop multi-asset-class investment policy?
- ❑ Meaningfully critique overall risk-adjusted investment performance?
- ❑ Evaluate active managers, and especially alternative strategies?

<u>Can the IC's membership, within the context of quarterly meetings, adequately:</u>

- ❑ Create and monitor policy decisions?
- ❑ Assess changing market conditions?
- ❑ Consider legacy fixed assets, such as real estate?
- ❑ Select and/or evaluate investment managers?
- ❑ Address regulatory and compliance issues?
- ❑ Evaluate the impact of distribution policy?
- ❑ Manage administrative issues?

Investment Policy Statement Checklist

An organization's investment policy statement should effectively guide the investment committee and investment advisor.

- ❑ Does the policy enable more than it restricts?
- ❑ Are the objectives measurable?
- ❑ Does the policy define functional responsibilities?
- ❑ Are the processes and controls clear?
- ❑ Does the asset allocation include a 'target' and variance bands?
- ❑ Is the spending policy clearly defined and in is it in alignment with the return and risk targets?
- ❑ Are risk metrics defined alongside return expectations?
- ❑ Does the committee review the policy at least annually?

Sample Table of Contents

- ✓ Purpose of the investment policy statement
- ✓ Mission of the organization
- ✓ Governance
- ✓ Responsibilities of the committee
- ✓ Investment objectives
- ✓ Legal considerations
- ✓ Asset allocation
- ✓ Asset classes
- ✓ Investment restrictions
- ✓ Performance/benchmarks
- ✓ Conflicts of interest

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Questions often raised by funders when considering grants

Fit:

- ❑ Does the request fit with the foundation/trust's mission, guidelines and strategy as determined by donor intent and/or trustees direction?

Effectiveness:

- ❑ Does the organization know what it wants to accomplish and does its strategy reflect a deep understanding of the problem it seeks to address?
- ❑ Does the organization have strong collegial or collaborative relationships with partner organizations?
- ❑ Is the organization using an effective model?
- ❑ Does the organization have a track record of success and is there evidence that it is more than (or as effective as) other organizations working in a similar issue area?
- ❑ Is the program effective and does it make sense (if the request is for a specific program within an organization)?
- ❑ Is the request ambitious and achievable?
- ❑ Does the organization have a reasonable plan for sustaining the program/project beyond the grant period (if the request is for a specific new program/project within an organization)?

Impact:

- ❑ Has the organization made a significant impact with the people served/in the area it seeks to make a difference?
- ❑ Has the organization made a significant impact on the larger community beyond the specific people served?
- ❑ Is the organization able to demonstrate impact through evaluation and measurable results?
- ❑ Is the program able to demonstrate impact through evaluation (if the request is for a specific program within an organization)?

Leadership:

- ❑ Does the organization have strong and skilled staff leadership?
- ❑ Does the organization have a positive reputation? Is the organization recognized as a leader in its field by peer organizations and other funders?
- ❑ Does the organization have strong and engaged governing board?

Efficacy:

- ❑ Does the organization have sound internal operations and procedures?
- ❑ Is the organization in strong financial health and does it spend money wisely?
- ❑ Does the organization have a sound financial management system, which includes independent auditors?
- ❑ Does the organization have a robust and diversified revenue base?
- ❑ Does the organization have the infrastructure, staff and funds to achieve its goals?
- ❑ Does the organization have a strategic plan and reasonable growth trajectory?

For General Consideration:

- ❑ What are the strongest aspects of the organization and request?
- ❑ What are the weakest aspects of the organization and request?
- ❑ Are there any red flags or deal breakers?

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Appendix

Biography

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CRISSIE T. FORTMEYER

EXECUTIVE DIRECTOR, J.P. MORGAN ENDOWMENTS & FOUNDATIONS GROUP

Crissie Fortmeyer is an Executive Director for J.P. Morgan in the Endowments & Foundations Group. She joined J.P. Morgan in 2014 and brings more than twenty-five years of experience in the non-profit investment management industry advising foundations, endowments, charities and healthcare organizations.

Prior to joining J.P. Morgan, Crissie worked for Russell Investments as a senior member in the non-profit practice focusing on outsourcing solutions. Prior to Russell, Crissie served in numerous roles during her 19 years at Commonfund. During her tenure at Commonfund, she was responsible for advising foundation and endowment clients on investment policy, governance, asset allocation, spending policy, risk management and best practices.

As a thought-leader in the non-profit industry, Crissie is a frequent speaker at industry conferences on issues pertaining to managing non-profit investment portfolios and industry best practices. In her philanthropic work, Crissie serves on the investment committee of the North Texas Community Foundation. Crissie has previously served on other nonprofit boards.

Crissie holds a Bachelor of Arts in Business Administration from Baylor University and a Masters of Business Administration from the University of Redlands. She holds her Series 7, 63 and 24 licenses.

Crissie lives in Colleyville, Texas with her husband and son.

Biography

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JULIA CHU

EXECUTIVE DIRECTOR, J.P. MORGAN PHILANTHROPY CENTRE

Julia Chu, Executive Director, serves as a Philanthropic Advisor at J.P. Morgan Private Bank based in New York.

As a formerly practicing tax attorney, Julia plans the optimal timing and combination of charitable strategies, according to each client's goals and assets. She also heightens the impact of the client's philanthropy, through strategic alliances, evaluation, global forums, and the publication of thought leadership. In addition, Julia integrates multiple generations in creating a common family philanthropic legacy.

Julia also guides non-profit institutions in Mission Communication, Board Governance, and Planned Giving, and regularly facilitates board meetings in these areas. She has led board training sessions in conjunction with the firm's partnership with Robin Hood. She previously served at the National Endowment for the Arts' Literature Program, and in the Foundation Relations and Planned Giving offices of the New York University School of Law, and the Fashion Institute of Technology respectively.

Julia develops the family governance system for families across the nation, by documenting their history, distilling their common values, and understanding their unique attributes, a process that culminates in a values statement and family constitution. Julia also empowers younger generation family members in identifying and strengthening their core passions and capabilities.

Julia advises art collectors on the factors to consider in acquiring and maintaining art. She also counsels them on the optimal succession of art, both to family members and museums, to align with the collector's goals and tax profile.

Julia serves on the editorial board of the philanthropy section of Trusts and Estates magazine, and regularly lectures on charitable planning. She teaches at NYU's George H. Heyman, Jr., Center for Philanthropy and Fundraising (Master's level course in Ethics, Law and Board Governance in Philanthropic Organizations). She also periodically shares philanthropy developments as an interviewee of the New York Times. In addition, Julia evaluates fellowship candidates for the social entrepreneurship organization Echoing Green.

Julia currently serves on the audit and development committees of the Brooklyn Arts Council board, and formerly the Non-Profit and Art Law Committees of the NYC Bar. Julia received her LL.M. in Taxation from NYU School of Law, J.D. from Boston University and B.A. from Cornell University.

Definitions of terms

An **annualized return** is an investment return, discounted retroactively from a cumulative figure, at which money, compounded annually, would reach the cumulative total.

Beta is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

Buyout: An investment transaction by which the ownership equity of a company, or a majority share of the stock of the company is acquired. The acquirer thereby "buys out" control of the target company. A buyout can take the form of a leveraged buyout, a venture capital buyout or a management buyout.

Carried Interest: In a limited partnership, the percentage of the profit that is allocated to the general partner, investment manager or affiliate thereof. For example, if a fund is structured as a limited partnership, the limited partners receive a certain return on their investments and the general partner, who is, or is affiliated with, the fund manager, receives the carried interest. It is intended to incentivize the recipient to make profitable investment decisions for the partnership.

CDS (Credit Default Swap) is a swap contract in which the buyer of the CDS makes a series of payments to the seller and, in exchange, receives a payoff if a credit instrument (typically a bond or loan) undergoes a defined 'Credit Event', often described as a default (fails to pay). However the contract typically construes a Credit Event as being not only 'Failure to Pay' but also can be triggered by the 'Reference Credit' undergoing restructuring, bankruptcy, or even (much less common) by having its credit rating downgraded.

Collateralized debt obligations (CDOs) are a type of structured asset-backed security whose value and payments are derived from a portfolio of fixed-income underlying assets. Correlation is a statistical measure of the degree to which the movements of two variables are randomly related. Correlation can range from -1.0 to 1.0 with 1.0 indicating a perfect positive correlation and -1.0 indicating a perfect negative correlation.

Collateralized loan obligations (CLOs) are a form of securitization where payments from multiple middle sized and large business loans are pooled together and passed on to different classes of owners in various tranches. A CLO is a type of collateralized debt obligation.

CMBS: Commercial Mortgage-Backed Security; a security whose payments are derived from payments on commercial mortgages.

A **debtor-in-possession ("DIP")** loan is a super-priority secured financing that provides operating capital to a U.S. company after it has filed for bankruptcy.

Dividend Recapitalization: When a company incurs new debt in order to pay a special dividend to private investors or shareholders. This usually involves a company owned by a private investment firm, which can authorize a dividend recapitalization as an alternative to selling its equity stake in the company.

Efficient Frontier: Every possible asset combination can be plotted in risk-return space, and the collection of all such possible portfolios defines a region in this space. The line along the upper edge of this region is known as the efficient frontier (sometimes "the Markowitz frontier"). Combinations along this line represent portfolios (explicitly excluding the risk-free alternative) for which there is lowest risk for a given level of return. Conversely, for a given amount of risk, the portfolio lying on the efficient frontier represents the combination offering the best possible return.

Exit (or realization or monetization): An exit is the means by which a fund is able to realize or liquidate its investment in a company. Exit strategies can include selling or distributing the portfolio company's shares after an initial public offering (IPO), a dividend recapitalization, or a sale of the portfolio company to another private equity firm or a strategic buyer.

General Partner (GP): The partner of a fund organized as a limited partnership that has management rights and liabilities for the partnership.

Growth equity: Growth equity refers to equity investments, most often minority investments, in relatively mature companies that are looking for capital to expand or restructure operations, enter new markets or finance a major acquisition without a change of control of the business.

Initial Public Offering (IPO): The sale or distribution of a stock of a portfolio company to the public for the first time. IPOs are often an opportunity for the existing investors (often venture capitalists or private equity firms) to receive returns on their original investment.

IRR (Internal Rate of Return) is the discount rate often used in capital budgeting that makes the net present value of all cash flows from a particular project equal to zero. Generally speaking, the higher a project's internal rate of return, the more desirable it is to undertake the project. As such, IRR can be used to rank several prospective projects a firm is considering. Assuming all other factors are equal among the various projects, the project with the highest IRR would probably be considered the best and undertaken first. IRR is sometimes referred to as "economic rate of return (ERR)".

ISDA® (International Swaps and Derivatives Association, Inc.), an association created by the private negotiated derivatives market that represents participating parties. This association helps to improve the private negotiated derivatives market by identifying and reducing risks in the market. Created in 1985, the ISDA has members from institutions around the world.

Leverage Buyout (LBO): A leveraged buyout transaction occurs when an investor acquires a controlling interest in a company's equity and where a significant percentage of the purchase price is financed through leverage. The assets of the acquired company are used as collateral for the borrowed capital, sometimes with assets of the acquiring company.

Leveraged loans are loans to non-investment grade companies. Purposes include: refinancing, leveraged buy-out, leveraged re-capitalization, corporate acquisition, stock buyback and working capital. M&A and refinancing usually the biggest categories, although recently LBOs picked up to around 1/3.

LIBOR (London Interbank Offered Rate) is an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market. The LIBOR is fixed on a daily basis by the British Bankers' Association. The LIBOR is derived from a filtered average of the world's most creditworthy banks' interbank deposit rates for larger loans with maturities between overnight and one full year.

Definitions of terms

Limited Partner (LP): Institutions or individuals that contribute capital to a private equity fund organized as a limited partnership. LPs have limited liability. LPs typically include pension funds, insurance companies, asset management firms, fund of fund investors as well as high net worth individuals.

LTM EBITDA: Earnings before interest expense, income taxes, depreciation and amortization over the last twelve months.

Maximum drawdown is the maximum peak to trough decline during a specific record period of an investment or fund. It is usually quoted as the percentage between the peak to the trough.

Multiple on invested capital (MOIC): The amount, expressed as a multiple, that is earned on an investment made by a private equity or venture capital firm. It is calculated by dividing the total capital received by the total capital paid.

OTC (Over the Counter) is a security traded in some context other than on a formal exchange such as the NYSE, TSX, AMEX, etc. The phrase "over-the-counter" can be used to refer to stocks that trade via a dealer network as opposed to on a centralized exchange. It also refers to debt securities and other financial instruments such as derivatives, which are traded through a dealer network.

Preferred Return: Private equity fund return that limited partners receive prior to the general partner's carried interest. General partners begin to receive the carried interest once limited partners receive their preferred return.

Recovery period is the period of time required to reach the original peak from a trough formed by a drawdown.

RMBS: Residential Mortgage-Backed Security; a security whose payments are derived from payments on residential mortgages.

The **Sharpe** ratio is a return/risk measure, where the return (the numerator) is defined as the incremental average monthly return of an investment over the risk free rate. Risk (the denominator) is defined as the standard deviation of the monthly investment returns less the risk free rate. A risk free rate of 4% was used to calculate the Sharpe ratio. Values are presented in annualized terms; annualized Sharpe ratios are calculated by multiplying the monthly Sharpe ratio by the square root of twelve.

Sponsor-Backed Issuance: An initial public offering that is backed by a private equity or venture capital firm.

SPV (special purpose vehicle) is a legal entity created solely to serve a particular function, such as facilitation of a financial arrangement or creation of a financial instrument. See also special purpose corporation.

Standard deviation measures the dispersion or uncertainty in a random variable (in this case, investment returns.) It measures the degree of variation (in this case) of monthly net returns around the average monthly net return. The higher the volatility of the investment returns, the higher will be the standard deviation. For this reason, standard deviation is often used as a measure of investment risk.

Vintage Year: The year in which a private equity fund makes its first investment.

Definitions of indices

All index performance information has been obtained from third parties and should not be relied upon as being complete or accurate. **Indices are shown for comparison purposes only. They are not investment products available for purchase. Indices are unmanaged and generally do not take into account fees or expenses or employ special investment techniques such as leveraging or short selling**. Furthermore, while some hedge fund indices may provide useful indications of the general performance of the hedge fund industry or particular hedge fund strategies, all hedge fund indices are subject to selection, valuation, survivorship and entry biases, and lack transparency with respect to their proprietary computations.

The **S&P 500 Index** ("S&P 500") consists of 500 stocks chosen for market size, liquidity and industry group representation. It is a market-value weighted index (stock price times number of shares outstanding), with each stock's weight in the Index proportionate to its market value. All returns include reinvested dividends except where indicated otherwise. The **S&P Total Return Index** also includes dividends reinvested.

The **Barclays Aggregate Bond Index** represents securities that are U.S. domestic, taxable and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. This index was formerly the Lehman Aggregate Bond Index.

The **Cambridge Associates LLC U.S. Private Equity Index** is an end-to-end calculation based on data compiled from 887 U.S. private equity funds (buyout, growth equity, private equity energy and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2010. The return represents the pooled end-to-end return, net of fees, expenses, and carried interest.

The **MSCI World Index** is a free float-adjusted market capitalization index that is designed to measure global developed market equity performance. The MSCI World Index consists of the following 23 developed market country indices: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States.

The **J.P. Morgan Global High Yield Index** is designed to mirror the investible universe of the US$ global high yield corporate debt market including domestic and international issues. CSSWHYI is the Bloomberg ticker. It is not possible to invest directly in an index.

HFRI Event Driven Index: Investment Managers who maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including but not limited to mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Security types can range from most senior in the capital structure to most junior or subordinated, and frequently involve additional derivative securities. Event Driven exposure includes a combination of sensitivities to equity markets, credit markets and idiosyncratic, company specific developments. Investment theses are typically predicated on fundamental characteristics (as opposed to quantitative), with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

HFRI Equity Hedge Index - Equity Hedge investing consists of a core holding of long equities hedged at all times with short sales of stocks and/or stock index options. Some managers maintain a substantial portion of assets within a hedged structure and commonly employ leverage. Where short sales are used, hedged assets may be comprised of an equal dollar value of long and short stock positions. Other variations use short sales unrelated to long holdings and/or puts on the S&P 500 index and put spreads. Conservative funds mitigate market risk by maintaining market exposure from zero to 100 percent. Aggressive funds may magnify market risk by exceeding 100 percent exposure and, in some instances, maintain a short exposure. In addition to equities, some funds may have limited assets invested in other types of securities.

HFRI Macro Index: Investment Managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top down and bottom up theses, quantitative and fundamental approaches and long and short term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments, rather than realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposes to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

HFRI Relative Value Index: Investment Managers who maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative or other security types. Fixed income strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

HFRX Convertible Arbitrage Index - Convertible Arbitrage involves taking long positions in convertible securities and hedging those positions by selling short the underlying common stock. A manager will, in an effort to capitalize on relative pricing inefficiencies, purchase long positions in convertible securities, generally convertible bonds, convertible preferred stock or warrants, and hedge a portion of the equity risk by selling short the underlying common stock. Timing may be linked to a specific event relative to the underlying company, or a belief that a relative mispricing exists between the corresponding securities. Convertible securities and warrants are priced as a function of the price of the underlying stock, expected future volatility of returns, risk free interest rates, call provisions, supply and demand for specific issues and, in the case of convertible bonds, the issue-specific corporate/Treasury yield spread. Thus, there is ample room for relative misvaluations.

HFRI Fund Weighted Composite Index – Includes both domestic and offshore funds. The index is equal-weighted and does not include fund of funds. All funds report assets in USD. All funds report net of all fees. Returns of all funds are reported on a monthly basis. All funds have at least $50 million under management or have been actively trading for at least twelve (12) months.

The **S&P/LSTA Leveraged Loan Index** daily total return index that tracks the current outstanding balance and spread over LIBOR for fully funded term loans, representing a broad cross section of leveraged loans syndicated in the United States, including dollar-denominated loans to overseas issuers.

VIX shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. This volatility is meant to be forward looking and is calculated from both calls and puts. The VIX is a widely used measure of market risk and is often referred to as the "investor fear gauge".

Understanding long-term estimates

Our investment management research incorporates our proprietary projections of the expected returns and volatility of each asset class over the long term, as well as estimates of the correlations among asset classes. Clearly, financial firms cannot predict how markets will perform in the future. But we do believe that by analyzing current economic and market conditions and historical market trends, and then, most critically, making projections of future economic growth, inflation, and real yields for each country, we can estimate the long-term performance for an entire asset class, given current and our estimated equilibrium levels. The "equilibrium" level shows the average or central tendency of a market or macroeconomic variable such as yield or credit spread that is expected to prevail over the long-term, because the level represents the value inherent in a given market. The return assumptions are based on our proprietary process of using a building block approach for each of the asset classes. For instance, the building blocks for equity consist of our projections on inflation, real earnings growth, dividend yield and the impact of valuations. The building blocks for fixed income consist of our projections for future yields and the change in bond prices. The estimates for alternatives are driven by our historical analysis and judgment about the relationship to public markets. It is possible – indeed, probable – that actual returns will vary considerably from this expectation, even for a number of years. But we believe that market returns will always at some point return to the equilibrium trend. We further believe that these kinds of forward-looking assessments are far more accurate than historical trends in deciding what asset class performance will be, and how best to determine an optimal asset mix.

In reviewing this material, please understand that all references to expected return are not promises, or even estimates, of actual returns one may achieve. The assumptions are not based on specific products and do not reflect fees, such as investment management fees, oversight fees, transaction costs or other expenses that could reduce return. They simply show what the long-term return should be, according to our best estimates of current and equilibrium conditions. Also note that actual performance may be affected by the expertise of the person who actually manages these investments, both in picking individual securities and possibly adjusting the mix periodically to take advantage of asset class undervaluations and overvaluations caused by market trends.

For the purpose of this analysis volatility is defined as a statistical measure of the dispersion of return for a given allocation and is measured as the standard deviation of the allocation's arithmetic return. The Sharpe ratio is a return/risk measure, where the return (the numerator) is defined as the incremental annual return of an investment over the risk free rate. Risk (the denominator) is defined as the standard deviation (volatility) of the allocation's return less the risk free rate. The risk free rate utilized is J.P. Morgan's long-term assumption for Cash. Correlation is a statistical measure of the degree to which the movements of two variables, in this case asset class returns, are related. Correlation can range from -1 to 1 with 1 indicating that the returns of two assets move directionally in concert with one another, i.e. they behave in the same way during the same time. A correlation of 0 indicates that the returns move independently of each other and -1 indicates that they move in the opposite direction.

Important notes on performance data

Definition of indices:

Benchmarks are provided for illustrative purposes only. Comparisons to benchmarks have limitations because benchmarks have volatility and other material characteristics that may differ from the Fund. Because of these differences, benchmarks should not be relied upon as an accurate measure of comparison. The following benchmark is used:

The **Global Buyout & Growth Equity Index** is an end-to-end calculation based on data compiled by Cambridge Associates LLC as of September 30, 2015 from 1,831 global (U.S. and ex U.S.) buyout and growth equity funds including fully liquidated partnerships, formed between 1986 and 2015. This does not necessarily include all private equity funds formed during this time period. Further, it does not include data with respect to credit or real estate funds. The returns shown do not take into account the origination fees, management fees and other fees and expenses of the type incurred by "fund-of-funds" vehicles that invest in private equity funds. These fees and expenses may be material and will reduce returns.

The data represents the 'pooled horizon returns' report for all private equity funds included in the data. Horizon returns are different than 'since inception returns', but still reflect Internal Rates of Return ("IRRs"). Pooled horizon returns look at IRRs over a series of specific time periods beginning at the report end date. They include pooled averages only and all returns are annualized. Pooled horizon returns are calculated using the net asset value (NAV) at the start of the horizon period as the first negative cash flow, including all distributions and takedowns in between, and then concluding with the NAV of the most recent quarter end date. Note that the time period reflects a period of time and does not reflect the age of the funds included in the sample. Pooled horizon returns are often used to compare returns between types of funds or between private equity funds and public markets. The 5 year and greater returns include all funds that meet the selected report criteria. Any funds liquidated historically are included in the 5 year sample size, even if liquidated prior to this time period, although they do not affect the reported pooled horizon return, as their value was 0 from start to finish during that time period, and the average displayed is a pooled average. For example, the 20-year returns include all private equity funds with cash flow movements within the past 20 years (i.e., private equity funds that were active between September 30, 1995 to September 30, 2015) and 5-year returns include all private equity funds with cash flow movements within the past 5 years (i.e., private equity funds that were active between September 30, 2010 to September 30, 2015).

The pooled horizon return is calculated by treating all private equity funds as a single "fund" by summing their monthly cash flows together. This cash flow series is then used to calculate a rate of return. This method implicitly creates an investment-weighted return and most closely matches the method typically used by investors in measuring the return on their portfolio. Rather than calculating individual returns for each private equity fund and aggregating those returns by an average, the pooled horizon return aggregates the cash flows for a group of private equity funds into a portfolio and then calculates the rate of return on that portfolio of cash flows - thus treating the cash flows as if they were one fund.

The **MSCI All Country World Index** captures large and mid-cap representation across 23 Developed Markets ("DM") and 23 Emerging Markets ("EM") countries. With 2,480 constituents, the index covers approximately 85% of the global investable equity opportunity set. The index is based on the MSCI Global Investable Indexes ("GIMI") Methodology—a comprehensive and consistent approach to index construction that allows for meaningful global views and cross regional comparisons across all market capitalization size, sector and style segments and combinations. This methodology aims to provide exhaustive coverage of the relevant investment opportunity set with a strong emphasis on index liquidity, investability and replicability. The index is reviewed quarterly—in February, May, August and November—with the objective of reflecting change in the underlying equity markets in a timely manner, while limiting undue index turnover. During the May and November semi-annual index reviews, the index is rebalanced and the large and mid-capitalization cutoff points are recalculated.

It is not possible to invest directly in an index.

Definition of data:

Top and bottom quartile: Top quartile and bottom quartile private equity fund returns represent the 75% and 25% marks in a given sample, respectively. This is established based on a distribution of the individual funds and their IRRs and the number of funds in a given sample group. These quartile marks are not the average of each quartile, but are the actual threshold marks. For example, 'Top' is the 75% mark, with 25% of the sample having an IRR higher, and 75% an IRR less than the top quartile mark.

The **J-curve effect** refers to the cumulative net cash flow experience of investors in a typical private equity fund. The early years of a private equity fund are characterized by negative cash flows, and therefore negative returns, due to capital calls, management fees and the cost of investments. In later years, as distributions are made from investments and the fund stops calling capital, the cumulative net cash flows of investors become positive. This transition in cumulative net cash flows from negative to positive over the life of the fund is known as the J-curve effect. Please note that the J-curve effect is only a generalization of the cumulative net cash flows experienced by investors in many private equity funds, and there can be no guarantee that either the Fund or any of the Underlying Funds will experience this effect.

Key risks of investing in alternatives

General/Loss of capital. An investment in private equity funds involves a high degree of risk. There can be no assurance that (i) a private equity fund will be able to choose, make and realize investments in any particular company or portfolio of companies, (ii) the private equity fund will be able to generate returns for its investors or that the returns will be commensurate with the risks of investing in the type of companies and transactions that constitute the fund's investment strategy or (iii) an investor will receive any distributions from the private equity fund. Accordingly, an investment in a private equity fund should only be considered by persons who can afford a loss of their entire investment due to its high degree of risk. Investors in the private equity fund could lose up to the full amount of their invested capital. The private equity fund's fees and expenses may offset the private equity fund's profits. **Past performance is not indicative of future results.**

Lack of information. The industry is largely unregistered and loosely regulated with little or no public market coverage. Investors are reliant on the manager for the availability, quality and quantity of information. Information regarding investment strategies and performance may not be readily available to investors.

Limited liquidity generally. Interests are not publicly listed or traded on an exchange or automated quotation system. There is not a secondary market for interests, and as a result, invested capital is less accessible than that of traditional asset classes. Also, withdrawals and transfers are generally restricted.

Limited liquidity for Private Equity. Investments in private equity funds are intended for long term investors who have the financial ability and willingness to accept the risks associated with making speculative and primarily illiquid investments. Interests in the private equity funds are generally not redeemable. An investor in such a fund may not freely transfer, assign or sell any interest without the prior written consent of the fund manager. An investor may not, save in particular circumstances, withdraw from a private equity fund. Interests in private equity funds will not be registered under the U.S. Securities Act of 1933, as amended or any other securities laws in any jurisdiction. There is no liquid market for such interests and none is expected to develop. Consequently, a commitment may be difficult to sell or realize.

Dependence on Manager. Performance is more dependent on manager-specific skills, rather than broad exposure to a particular market.

Event risk. Given certain funds' niche specialization (e.g., in an industry or a region), market dislocations can affect some strategies more adversely than others.

Speculation. Alternative investments often employ leverage, sometimes at significant levels, to enhance potential returns. Investment techniques may include the use of derivative instruments such as futures, options and short sales, which amplify the possibilities for both profits and losses and may add volatility to the alternative investment fund's performance.

Potential conflicts of interest. Investors should be aware that there will be occasions when a private equity fund's general partner and its officers and affiliates may encounter potential conflicts of interest in connection with the fund. Fund professionals may work on other matters and, therefore, conflicts may arise in the allocation of management resources. The payment of carried interest to the general partner may create an incentive for the general partner to cause the private equity fund to make riskier or more speculative investments than it would in the absence of such incentive.

Valuation. Because of overall size or concentration in particular markets of positions held by the alternative investment fund or other reasons, the value at which its investments can be liquidated may differ, sometimes significantly, from the interim valuations arrived at by the alternative investment fund.

Leverage. The capital structures of many portfolio companies typically include substantial leverage. In addition, investments may be consummated through the use of significant leverage. Leveraged capital structures and the use of leverage in financing investments increase the exposure of a company to adverse economic factors such as rising interest rates, downturns in the economy or deteriorations in the condition of the company or its industry and make the company more sensitive to declines in revenues and to increases in expenses.

Currency risks and Non-United States investments. Investments may be denominated in non-U.S. currencies. Accordingly, changes in currency exchange rates, costs of conversion and exchange control regulations may adversely affect the dollar value of investments.

J.P. Morgan's Role. J.P. Morgan may act as a placement agent to the funds. The investment managers or general partners (or the equivalent) may pay (or cause the fund to pay) J.P. Morgan Securities LLC and/or its affiliates an initial fee and/or an ongoing servicing fee in connection with its services.

Key risks of investing in alternatives (continued)

Financial services industry risk factors. Financial services institutions have asset and liability structures that are essentially monetary in nature and are directly affected by many factors, including domestic and international economic and political conditions, broad trends in business and finance, legislation and regulation affecting the national and international business and financial communities, monetary and fiscal policies, interest rates, inflation, currency values, market conditions, the availability and cost of short-term or long-term funding and capital, the credit capacity or perceived creditworthiness of customers and counterparties, and the volatility of trading markets. Financial services institutions operate in a highly regulated environment and are subject to extensive legal and regulatory restrictions and limitations and to supervision, examination and enforcement by regulatory authorities. Failure to comply with any of these laws, rules or regulations, some of which are subject to interpretation and may be subject to change, could result in a variety of adverse consequences, including civil penalties, fines, suspension or expulsion, and termination of deposit insurance, which may have material adverse effects.

Risks of certain investments. The securities of portfolio companies and the ability of such companies to pay debts could be adversely affected by interest rate movements, changes in the general economic or political climate, or the economic factors affecting a particular industry, changes in tax law or specific developments within such companies. The securities in which a private equity fund will invest generally will be among the most junior in the portfolio company's capital structure, and thus may be subject to the greatest risk of loss. Most of a private equity fund's investments will not have a readily available public market, and disposition of such investments may require a lengthy time period or may result in distributions in kind to investors. A private equity fund's manager generally has a limited ability to extend the term of the fund, therefore the fund may have to sell, distribute or otherwise dispose of investments at a disadvantageous time as a result of dissolution.

Risks associated with infrastructure investments generally. An infrastructure investment is subject to certain risks associated with the ownership of infrastructure and infrastructure-related assets in general, including: the burdens of ownership of infrastructure assets; local, national and international economic conditions; the supply and demand for services from and access to infrastructure; the financial condition of users and suppliers of infrastructure assets; changes in interest rates and the availability of funds which may render the purchase, sale or refinancing of infrastructure assets difficult or impracticable; changes in environmental laws and regulations, and planning laws and other governmental rules; environmental claims arising in respect of infrastructure assets acquired with undisclosed or unknown environmental problems or as to which inadequate reserves have been established; changes in the price of energy, raw materials and labor; changes in fiscal and monetary policies; negative developments in the economy that depress travel; uninsured casualties; force majeure acts, terrorist events, under-insured or uninsurable losses; sovereign and sub-sovereign risks; contract counterparty default risk.

Taxation considerations. An investment in a private equity fund or hedge fund may involve complex tax considerations which may differ for each investor. Each investor is advised to consult its own tax advisers. Changes in applicable tax laws could affect, perhaps adversely, the tax consequences of an investment.

Additional risks. There may be additional risks inherent in the underlying investments within funds.

Important information about your investments and potential conflicts of interest

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Investment strategies are selected from both J.P. Morgan and third-party asset managers and are subject to a review process by our manager research teams. From this pool of strategies, our portfolio construction teams select those strategies we believe fit our asset allocation goals and forward looking views in order to meet the portfolio's investment objective.

As a general matter, we prefer J.P. Morgan managed strategies. We expect the proportion of J.P. Morgan managed strategies will be high (in fact, up to I00 percent) in strategies such as, for example, cash and high-quality fixed income, subject to applicable law and any account-specific considerations.

While our internally managed strategies generally align well with our forward looking views, and we are familiar with the investment processes as well as the risk and compliance philosophy of the firm, it is important to note that J.P. Morgan receives more overall fees when internally managed strategies are included. We offer the option of choosing to exclude J.P. Morgan managed strategies (other than cash and liquidity products) in certain portfolios.

Important information

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