MICHIGAN COUNTY
ROAD COMMISSION
SELF-INSURANCE POOL

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MCRCSIP Investment Committee Meeting Agenda
June 22, 2017
Tullymore Golf Resort

8:00 a.m. Tullymore Ballroom
Brian Brice, The Brice Group – Graystone Consulting

I. Investment Performance through May 31, 2017

II. Investment Managers on Watch

a. AMI Asset Management
b. Invesco
c. Lazard Asset Management

III. Market Value and Asset Allocation through June 16, 2017

IV. Short Term Investment

V. Adjournment

MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

Asset Allocation and Performance

As of May 31, 2017

	Allocation		Performance(%)														
	Market Value ($)	%	1 Month	YTD	Fiscal YTD 4/1 - 5/31	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incept.	2016	2015	2014	2013	2012	Inception Date
TOTAL POOL																	
Composite	**65,006,324**	**100.0**	**1.4**	**7.2**	**2.8**	**9.8**	**6.2**	**9.2**	**9.0**	**5.6**	**8.0**	**5.6**	**0.9**	**7.6**	**16.7**	**11.9**	**31-Mar-87**
Benchmark: Policy Index			*1.1*	*6.4*	*2.4*	*11.5*	*6.3*	*9.7*	*9.5*	*5.8*	*8.1*	*7.7*	*0.8*	*7.7*	*17.6*	*11.7*	
Ranking: IM U.S. Balanced			-	-	-	-	-	-	-	-	-	*86*	*24*	*41*	*71*	*47*	
DOMESTIC TAXABLE FIXED INCOME																	
Total Pool	**24,476,574**	**37.7**	**0.9**	**3.1**	**1.8**	**3.3**	**4.2**	**3.4**	**4.4**	**5.5**	**5.0**	**4.2**	**1.1**	**8.6**	**-2.2**	**5.0**	**1-Nov-04**
Benchmark: BC Aggregate			*0.8*	*2.4*	*1.5*	*1.6*	*2.5*	*2.2*	*3.4*	*4.5*	*4.2*	*2.6*	*0.5*	*6.0*	*-2.0*	*4.2*	
Wedge Capital Management	**12,048,430**	**18.5**	**0.8**	**2.8**	**1.7**	**2.1**	**-**	**-**	**-**	**-**	**4.0**	**3.5**	**1.1**	**-**	**-**	**-**	**1-Aug-14**
Benchmark: BC Aggregate			*0.8*	*2.4*	*1.5*	*1.6*	-	-	-	-	*2.8*	*2.6*	*0.5*	-	-	-	
Ranking: IM U.S. Broad Market Fixed			-	-	-	-	-	-	-	-	-	*57*	*22*	-	-	-	
Western Asset - Core Plus -SMASH	**12,428,144**	**19.1**	**1.1**	**3.5**	**2.0**	**4.6**	**-**	**-**	**-**	**-**	**4.0**	**4.9**	**1.2**	**-**	**-**	**-**	**1-Jan-15**
Benchmark: BC Aggregate			*0.8*	*2.4*	*1.5*	*1.6*	-	-	-	-	*2.3*	*2.6*	*0.5*	-	-	-	
Ranking: IM U.S. Broad Market Fixed			-	-	-	-	-	-	-	-	-	*24*	*16*	-	-	-	
EQUITY - TOTAL POOL																	
Total Pool	**40,529,750**	**62.3**	**1.6**	**9.7**	**3.4**	**13.7**	**7.2**	**13.3**	**12.2**	**5.4**	**7.1**	**6.1**	**0.8**	**8.7**	**31.0**	**16.7**	**1-Nov-04**
Benchmark: MSCI World Gross			*2.2*	*10.5*	*3.8*	*17.1*	*6.3*	*13.0*	*11.4*	*4.4*	*7.4*	*8.2*	*-0.3*	*5.5*	*27.4*	*16.5*	
DOMESTIC LARGE CAP EQUITY																	
Total Pool	**27,821,542**	**42.8**	**1.9**	**10.0**	**3.6**	**12.9**	**8.1**	**13.8**	**12.7**	**-**	**12.3**	**5.1**	**2.3**	**12.4**	**31.8**	**15.4**	**1-Nov-09**
Benchmark: S&P 500			*1.4*	*8.7*	*2.4*	*17.5*	*10.1*	*15.4*	*14.4*	-	*14.2*	*12.0*	*1.4*	*13.7*	*32.4*	*16.0*	
DOMESTIC LARGE CAP VALUE EQUITY																	
Delaware	**6,413,953**	**9.9**	**-0.5**	**2.3**	**-1.0**	**-**	**-**	**-**	**-**	**-**	**8.1**	**-**	**-**	**-**	**-**	**-**	**1-Nov-16**
Benchmark: Russell 1000 Value			*-0.1*	*3.0*	*-0.3*	-	-	-	-	-	*11.6*	-	-	-	-	-	
Ranking: IM U.S. Large Cap Value Equity			-	-	-	-	-	-	-	-	-	-	-	-	-	-	

As of 2/28/13 the policy index is comprised of the S&P 500, Russell 1000 Growth, Russell 1000 Value, Russell 2000 Growth, Russell 2000 Value, MSCI EAFE Net, and the Barclays Aggregate Bond indices.

Historical performance prior to the transition to Morgan Stanley has been provided by the previous financial services provider.

MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

Asset Allocation and Performance

As of May 31, 2017

	Allocation		Performance(%)															
	Market Value ($)	%	1 Month	YTD	Fiscal YTD 4/1 - 5/31	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incept.	2016	2015	2014	2013	2012	Inception Date
DOMESTIC LARGE CAP CORE EQUITY																	
The London Company	**6,371,278**	**9.8**	**1.1**	**6.1**	**1.5**	**-**	**-**	**-**	**-**	**-**	**7.7**	**-**	**-**	**-**	**-**	**-**	**1-Aug-16**
Benchmark: S&P 500			*1.4*	*8.7*	*2.4*	*-*	*-*	*-*	*-*	*-*	*13.0*	*-*	*-*	*-*	*-*	*-*	
Ranking: IM U.S. Large Cap Core Equity			*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	
DOMESTIC LARGE CAP GROWTH EQUITY																	
Loomis Sayles/Natixis	**8,242,217**	**12.7**	**4.6**	**17.2**	**7.5**	**20.7**	**14.6**	**-**	**-**	**-**	**16.4**	**6.4**	**10.8**	**11.8**	**-**	**-**	**1-Mar-13**
Benchmark: Russell 1000 Growth			*2.6*	*14.3*	*4.9*	*20.3*	*11.9*	*-*	*-*	*-*	*15.5*	*7.1*	*5.7*	*13.1*	*-*	*-*	
Ranking: IM U.S. Large Cap Growth Equity			*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*34*	*12*	*54*	*-*	*-*	
AMI	**6,794,094**	**10.5**	**1.9**	**13.3**	**5.5**	**12.7**	**-**	**-**	**-**	**-**	**5.3**	**0.5**	**-**	**-**	**-**	**-**	**1-Jul-15**
Benchmark: Russell 1000 Growth			*2.6*	*14.3*	*4.9*	*20.3*	*-*	*-*	*-*	*-*	*12.0*	*7.1*	*-*	*-*	*-*	*-*	
Ranking: IM U.S. Large Cap Growth Equity			*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*85*	*-*	*-*	*-*	*-*	
DOMESTIC SMALL CAP EQUITY																	
Total Pool	**6,901,310**	**10.6**	**-1.2**	**4.9**	**0.6**	**19.2**	**9.7**	**15.4**	**14.8**	**-**	**6.7**	**16.6**	**-2.4**	**7.0**	**40.0**	**18.3**	**1-Nov-07**
Benchmark: Russell 2000			*-2.0*	*1.5*	*-1.0*	*20.4*	*8.0*	*14.0*	*12.5*	*-*	*6.9*	*21.3*	*-4.4*	*4.9*	*38.8*	*16.3*	
DOMESTIC SMALL CAP VALUE EQUITY																	
NWQ Investment Management	**3,615,781**	**5.6**	**-2.9**	**0.7**	**-1.5**	**19.2**	**9.5**	**16.6**	**15.1**	**6.6**	**9.1**	**22.4**	**-2.6**	**8.2**	**42.3**	**18.7**	**1-Apr-05**
Benchmark: Russell 2000 Value			*-3.1*	*-2.9*	*-2.7*	*21.0*	*7.3*	*13.7*	*11.5*	*5.3*	*7.5*	*31.7*	*-7.5*	*4.2*	*34.5*	*18.0*	
Ranking: IM U.S. Small Cap Value Equity			*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*70*	*36*	*23*	*25*	*42*	
DOMESTIC SMALL CAP GROWTH EQUITY																	
Henderson Geneva	**3,285,529**	**5.1**	**0.9**	**9.8**	**3.0**	**-**	**-**	**-**	**-**	**-**	**17.3**	**-**	**-**	**-**	**-**	**-**	**1-Aug-16**
Benchmark: Russell 2000 Growth			*-0.9*	*6.3*	*0.9*	*-*	*-*	*-*	*-*	*-*	*12.9*	*-*	*-*	*-*	*-*	*-*	
Ranking: IM U.S. Small Cap Growth Equity			*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	
INTERNATIONAL EQUITY																	
Total Pool	**5,806,898**	**8.9**	**3.4**	**14.3**	**6.2**	**11.1**	**0.5**	**9.2**	**7.3**	**-**	**6.0**	**-1.4**	**-2.7**	**-4.4**	**19.2**	**21.7**	**1-Nov-09**
Benchmark: MSCI AC World x US Net			*3.2*	*13.7*	*5.5*	*18.0*	*1.3*	*8.4*	*6.4*	*-*	*5.1*	*4.5*	*-5.7*	*-3.9*	*15.3*	*16.8*	

As of 2/28/13 the policy index is conprised of the S&P 500, Russell 1000 Growth, Russell 1000 Value, Russell 2000 Growth, Russell 2000 Value, MSCI EAFE Net, and the Barclays Aggregate Bond indices.

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Graystone Consulting℠

MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

Asset Allocation and Performance

As of May 31, 2017

	Allocation		Performance(%)														
	Market Value ($)	%	1 Month	YTD	Fiscal YTD 4/1 - 5/31	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incept.	2016	2015	2014	2013	2012	Inception Date
INTERNATIONAL GROWTH EQUITY																	
Invesco	**2,851,480**	**4.4**	**2.8**	**12.9**	**5.1**	**9.5**	**-**	**-**	**-**	**-**	**1.8**	**-2.1**	**-2.6**	**-**	**-**	**-**	**1-Dec-14**
Benchmark: MSCI AC World x US Net			*3.2*	*13.7*	*5.5*	*18.0*	*-*	*-*	*-*	*-*	*3.1*	*4.5*	*-5.7*	*-*	*-*	*-*	
Ranking: IM International Equity Developed Mkts			*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*83*	*76*	*-*	*-*	*-*	
INTERNATIONAL VALUE EQUITY																	
Lazard	**2,955,418**	**4.5**	**3.9**	**15.7**	**7.4**	**12.7**	**1.0**	**9.0**	**-**	**-**	**8.4**	**-0.6**	**-2.8**	**-4.2**	**16.4**	**24.0**	**1-Jan-12**
Benchmark: MSCI AC World x US Net			*3.2*	*13.7*	*5.5*	*18.0*	*1.3*	*8.4*	*-*	*-*	*7.1*	*4.5*	*-5.7*	*-3.9*	*15.3*	*16.8*	
Ranking: IM International Equity Developed Mkts			*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*74*	*77*	*59*	*83*	*18*	

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Performance Appendix

Portfolio Name	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
AMI	5.11	12.45	11.20	--	--	--	4.34	11/01/2014
Delaware	-1.29	1.59	--	--	--	--	4.58	10/01/2016
Henderson Geneva	2.58	8.91	17.43	--	--	--	7.24	11/01/2014
Invesco	4.67	12.13	8.13	--	--	--	0.48	11/01/2014
Lazard	7.00	14.83	11.30	--	--	--	1.43	11/01/2014
London Company	1.17	5.31	8.06	--	--	--	2.65	11/01/2014
Loomis Sayles/Natixis	7.40	17.02	20.22	--	--	--	14.11	11/01/2014
NWQ Investment Management	-1.64	0.50	18.71	--	--	--	8.41	11/01/2014
Wedge Capital Management	1.61	2.57	1.71	--	--	--	3.07	10/01/2014
Western Asset - Core Plus -SMASH	1.59	2.76	3.26	--	--	--	3.17	11/01/2014

Glossary of Terms

Active Contribution Return: The gain or loss percentage of an investment relative to the performance of the investment benchmark.

Active Exposure: The percentage difference in weight of the portfolio compared to its policy benchmark.

Active Return: Arithmetic difference between the manager's return and the benchmark's return over a specified time period.

Actual Correlation: A measure of the correlation (linear dependence) between two variables X and Y, with a value between +1 and -1 inclusive. This is also referred to as coefficient of correlation.

Alpha: A measure of a portfolio's time weighted return in excess of the market's return, both adjusted for risk. A positive alpha indicates that the portfolio outperformed the market on a risk-adjusted basis, and a negative alpha indicates the portfolio did worse than the market.

Best Quarter: The highest quarterly return for a certain time period.

Beta: A measure of the sensitivity of a portfolio's time weighted return (net of fees) against that of the market. A beta greater than 1.00 indicates volatility greater than the market.

Consistency: The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

Core: Refers to an investment strategy mandate that is blend of growth and value styles without a pronounced tilt toward either style.

Cumulative Selection Return (*Cumulative Return*): Cumulative investment performance over a specified period of time.

Distribution Rate: The most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital.

Down Market Capture: The ratio of average portfolio returns over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

Downside Risk: A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the value, the more risk the product has.

Downside Semi Deviation: A statistical calculation that measures the volatility of returns below a minimum acceptable return. This return measure isolates the negative portion of volatility: the larger the number, the greater the volatility.

Drawdown: A drawdown is the peak-to-trough decline during a specific period of an investment, fund or commodity.

Excess over Benchmark: The percentage gain or loss of an investment relative to the investment's benchmark.

Excess Return: Arithmetic difference between the manager's return and the risk-free return over a specified time period.

Growth: A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

Growth of Dollar: The aggregate amount an investment has gained or lost over a certain time period, also referred to as Cumulative Return, stated in terms of the amount to which an initial dollar investment would have grown over the given time period.

Investment Decision Process (IDP): A model for structuring the investment process and implementing the correct attribution methodologies. The IDP includes every decision made concerning the division of the assets under management over the various asset categories. To analyze each decision's contribution to the total return, a modeling approach must measure the marginal value of every individual decision. In this respect, the hierarchy of the decisions becomes very important. We therefore use the IDP model, which serves as a proper foundation for registering the decisions and relating them to each other.

Information Ratio: Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

Jensen's Alpha: The Jensen's alpha measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment above or below that predicted by the capital asset pricing model (CAPM) given the portfolio's or investment's beta and the average market return. This metric is also commonly referred to as alpha..

Kurtosis: A statistical measure that is used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

Maximum Drawdown: The drawdown is defined as the percent retrenchment from a fund's peak to the fund's trough value. It is in effect from the time the fund's retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund's peak to the fund's valley (length), and the time from the fund's valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund's data record.

Modern Portfolio Theory (MPT): An investment analysis theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

Mutual Fund (MF): An investment program funded by shareholders that trade in diversified holdings and is professionally managed.

Peer Group: A combination of funds that share the same investment style combined as a group for comparison purposes.

Peer/ Plan Sponsor Universe: A combination of asset pools of total plan investments by specific sponsor and plan types for comparison purposes.

Performance Ineligible Assets: Performance returns are not calculated for certain assets because accurate valuations and transaction data for these assets are not processed or mai these include life insurance, some annuities and some assets held externally.

Performance Statistics: A generic term for various measures of investment performance measurement terms.

Portfolio Characteristics: A generic term for various measures of investment portfolio characteristics.

Preferred Return: A term used in the private equity (PE) world, and also referred to as a "Hurdle Rate." It refers to the threshold return that the limited partners of a private equity fund must receive, prior to the PE firm receiving its carried interest or "carry."

Ratio of Cumulative Wealth: A defined ratio of the Cumulative Return of the portfolio divided by the Cumulative Return of the benchmark for a certain time period.

Regression Based Analysis: A statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables

Residual Correlation: Within returns-based style analysis, residual correlation refers to the portion of a strategy's return pattern that cannot be explained by its correlation to the asset-class benchmarks to which it is being compared.

Return: A rate of investment performance for the specified period.

Rolling Percentile Ranking: A measure of an investment portfolio's ranking versus a peer group for a specific rolling time period (i.e. Last 3 Years, Last 5 years, etc.).

R-Squared: The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

SA/CF (Separate Account/Comingled Fund): Represents an acronym for Separate Account and Commingled Fund investment vehicles.

Sector Benchmark: A market index that serves as a proxy for a sector within an asset class.

Sharpe Ratio: Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance results in.

Standard Deviation: A statistical measure of the range of a portfolio's performance; the variability of a return around its average return over a specified time period.

Total Fund Benchmark: The policy benchmark for a complete asset pool that could consist of multiple investment mandates.

Total Fund Composite: The aggregate of multiple portfolios within an asset pool or household.

Tracking Error: A measure of standard deviation for a portfolio's investment performance, relative to the performance of an appropriate market benchmark.

Treynor Ratio: A ratio that divides the excess return (above the risk free rate) by the portfolio's beta to arrive at a unified measure of risk adjusted return. It is generally used to rank portfolios, funds and benchmarks. A higher ratio is indicative of higher returns per unit of market risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing market risk.

Up Market Capture: The ratio of average portfolio returns over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.

Upside Semi Deviation: A statistical calculation that measures the volatility of returns above an acceptable return. This return measure isolates the positive portion of volatility: the larger the number, the greater the volatility.

Value: A diversified investment strategy that includes investment selections which tend to trade at a lower price relative to its dividends, earnings, and sales. Common attributes are stocks that include high dividend, low price-to-book ratio, and/or low price-to-earnings ratio.

Worst Quarter: The lowest rolling quarterly return for a certain time period.

Information Disclosures

The performance data shown reflects past performance, which does not guarantee future results. Investment return and principal will fluctuate so that an investor's shares when redeemed may be worth more or less than original cost. Please note, current performance may be higher or lower than the performance data shown. For up to date month-end performance information, please contact your Financial Advisor or visit the funds' company website.

Investors should carefully consider the fund's investment objectives, risks, charges and expenses before investing. The prospectus and, if available the summary prospectus, contains this and other information that should be read carefully before investing. Investors should review the information in the prospectus carefully. To obtain a prospectus, please contact your Financial Advisor or visit the funds' company website.

Past performance is no guarantee of future results.

Investing involves market risk, including possible loss of principal. **Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. **Small and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than those of larger, more established companies. **Bond funds** and bond holdings have the same interest rate, inflation and credit risks that are associated with the underlying bonds owned by the funds. The return of principal in bond funds, and in funds with significant bond holdings, is not guaranteed. **International securities'** prices may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in emerging markets. **Alternative investments**, including private equity funds, real estate funds, hedge funds, managed futures funds, and funds of hedge funds, private equity, and managed futures funds, are speculative and entail significant risks that can include losses due to leveraging or\other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor. **Master Limited Partnerships** (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk; and MLP interests in the real estate sector are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Because of their narrow focus, MLPs maintain exposure to price volatility of commodities and/or underlying assets and tend to be more volatile than investments that diversify across many sectors and companies. MLPs are also subject to additional risks including: investors having limited control and rights to vote on matters affecting the MLP, limited access to capital, cash flow risk, lack of liquidity, dilution risk, conflict of interests, and limited call rights related to acquisitions.

Mortgage backed securities also involve prepayment risk, in that faster or slower prepayments than expected on underlying mortgage loans can dramatically alter the yield-to-maturity of a mortgage-backed security and prepayment risk includes the possibility that a fund may invest the proceeds at generally lower interest rates.

Tax managed funds may not meet their objective of being tax-efficient.

Real estate investments are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. **High yield** fixed income securities, also known as "junk bonds", are considered speculative, involve greater risk of default and tend to be more volatile than investment grade fixed income securities.

Credit quality is a measure of a bond issuer's creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on security rating as provided by Standard & Poor's, Moody's and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch's classification (the equivalent of Aaa and C, respectively, by Moody(s). Ratings of BBB or higher by S&P and Fitch (Baa or higher by Moody's) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as "NR".

"**Alpha tilt strategies** comprise a core holding of stocks that mimic a benchmark type index such as the S&P 500 to which additional securities are added to help tilt the fund toward potentially outperforming the market in an effort to enhance overall investment returns. Tilt strategies are subject to significant timing risk and could potentially expose investors to extended periods of underperformance."

Custom Account Index: The Custom Account Index is an investment benchmark based on your historical target allocations and/or manager selection that you may use to evaluate the performance of your account. The Custom Account index does take into consideration certain changes that may have occurred in your portfolio since the inception of your account, i.e., asset class and/or manager changes. However, in some circumstances, it may not be an appropriate benchmark for use with your specific account composition. For detailed report of the historical composition of this blend please contact your Financial Advisor.

Peer Groups

Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a clients investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the actual investment can be ranked versus its peer across various quantitative metrics.

All Peer Group data are provided by Investment Metrics, LLC.

The URL below provides all the definitions and methodology about the various Peer Groups

https://www.invmetrics.com/style-peer-groups

Peer Group Ranking Methodology

A percentile rank denotes the value of a product in which a certain percent of observations fall within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value.

The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

Alternatives

Graystone Consulting is a business of Morgan Stanley Smith Barney LLC. ("Morgan Stanley")

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Alternative Investments are illiquid and may not be valued daily. The estimated valuation provided will be as of the most recent date available and will be included in summaries of your assets. Such valuation may not be the most recent provided by the fund in which you are invested. No representation is made that the valuation is a market value or that the interest could be liquidated at this value. We are not required to take any action with respect to your investment unless valid instructions are received from you in a timely manner. Some positions reflected herein may not represent interests in the fund, but rather redemption proceeds withheld by the issuer pending final valuations which are not subject to the investment performance of the fund and may or may not accrue interest for the length of the withholding.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to:• Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices;• Lack of liquidity in that there may be no secondary market for a fund;• Volatility of returns;• Restrictions on transferring interests in a fund;• Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized;• Absence of information regarding valuations and pricing;• Complex tax structures and delays in tax reporting;• Less regulation and higher fees than mutual funds; and• Risks associated with the operations, personnel, and processes of the manager.As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management’s interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund.

Indices are unmanaged and investors cannot directly invest in them. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment.

Past performance is no guarantee of future results. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market.

Any performance or related information presented has not been adjusted to reflect the impact of the additional fees paid to a placement agent by an investor (for Morgan Stanley placement clients, a one-time upfront Placement Fee of up to 3%, and for Morgan Stanley investment advisory clients, an annual advisory fee of up to 2.5%), which would result in a substantial reduction in the returns if such fees were incorporated.

For most investment advisory clients, the program account will be charged an asset-based wrap fee every quarter (“the Fee”). In general, the Fee covers investment advisory services and reporting. In addition to the Fee, clients will pay the fees and expenses of any funds in which their account is invested. Fund fees and expenses are charged directly to the pool of assets the fund invests in and impact the valuations. Clients must understand that these fees and expenses are an additional cost and will not be included in the Fee amount in the account statements.

As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, for an account with an initial value of $100,000 and a 2.5% annual fee, if the gross performance is 5% per year over a three year period, the compounding effect of the fees will result in a net annual compound rate of return of approximately 2.40% per year over a three year period, and the total value of the client’s portfolio at the end of the three year period would be approximately $115,762.50 without the fees and $107,372.63 with the fees.

Please see the applicable Morgan Stanley Smith Barney LLC Form ADV Part 2A for more information including a description of the fee schedule. It is available at www.morganstanley.com/ADV <http://www.morganstanley.com/ADV> or from your Financial Advisor/Private Wealth Advisor.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

SIPC insurance does not apply to precious metals, other commodities, or traditional alternative investments.

MICHIGAN
COUNTY
ROAD
COMMISSION
SELF-INSURANCE
POOL

417 N. Seymour Ave.
Suite 2
Lansing, MI 48933

www.mcrcsip.org
(517) 482-9166
(800) 842-4971
Fax: (517) 485-4809

June 7, 2016

Mr. Matt Dorband
AMI Asset Management
10866 Wilshire Blvd
Suite 770
Los Angeles, CA 90024

Re: Michigan County Road Commission Self-Insurance Pool

Dear Mr. Dorband:

I have been directed to inform you that, during their meeting on May 12, 2016, the Board of Directors for the Michigan County Road Commission Self-Insurance Pool agreed to place the AMI Asset Management Domestic Large Cap Growth Equity portfolio on watch.

It was determined that a reasonable period of time, not to exceed the 3rd quarter of 2016 be given to AMI Asset Management Domestic Large Cap Growth Equity in order to provide more consistent results in comparison to the appropriate benchmark - Russell 1000 Growth and the Domestic U.S. Large Cap Growth Equity Sample.
Should you have any questions regarding this correspondence, please contact Brian P. Brice at 248-593-2474.

Sincerely,

Gayle A Cummings

Gayle Cummings
Administrator

Cc: B. Brice, The Brice Group –
Morgan Stanley Graystone Consulting

MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

417 N Seymour Ave
Suite 2
Lansing MI 48933

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Fax: (517) 485-4809

June 6, 2017

Mr. Chip Getz
Invesco
11 Greenway Plaza
Suite 1000
Houston TX 77046

Re: Michigan County Road Commission Self-Insurance Pool

Dear Mr. Getz:

I have been directed to inform you that, during their meeting on June 1, 2017, the Investment Committee for the Michigan County Road Commission Self-Insurance Pool passed a resolution which placed the Invesco - International Equity portfolio on watch.

It was determined that a reasonable period of time be given to Invesco - International Equity in order to provide more consistent results in comparison to the appropriate benchmark – MSCI AC World x US Net and international equity peer group rankings.

Should you have any questions regarding this correspondence, please contact Brian P. Brice at 248-593-2474.

Sincerely,

Gayle A Cummings

Gayle A Cummings

cc: B. Brice, The Brice Group - Morgan Stanley Graystone Consulting

MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

417 N Seymour Ave
Suite 2
Lansing MI 48933

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(800) 842-4971
Fax: (517) 485-4809

June 6, 2017

Mr. Michael Schramm
Lazard Asset Management, LLC
30 Rockefeller Plaza
New York NY 10112

Re: Michigan County Road Commission Self-Insurance Pool

Dear Mr. Schramm:

I have been directed to inform you that, during their meeting on June 1, 2017, the Investment Committee for the Michigan County Road Commission Self-Insurance Pool passed a resolution which placed the Lazard Asset Management - International Equity portfolio on watch.

It was determined that a reasonable period of time be given to Lazard Asset Management - International Equity in order to provide more consistent results in comparison to the appropriate benchmark – MSCI AC World x US Net and international equity peer group rankings.

Should you have any questions regarding this correspondence, please contact Brian P. Brice at 248-593-2474.

Sincerely,

Gayle A Cummings

Gayle A Cummings

cc: B. Brice, The Brice Group - Morgan Stanley Graystone Consulting

MORGAN STANLEY GRAYSTONE CONSULTING
THE BRICE GROUP

MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL
MARKET VALUES AS OF JUNE 16, 2017

CURRENT MANAGER		CURRENT MARKET VALUE	CURRENT PORTFOLIO ALLOCATION %	IPS TARGET ALLOCATION %		TARGET MARKET VALUE
EQUITY:						
THE LONDON COMPANY - LARGE CAP CORE	$	6,464,678.24	9.85%	10.00%	$	6,564,922.68
LOOMIS SAYLES - LARGE CAP GROWTH	$	8,397,649.12	12.79%	10.00%	$	6,564,922.68
AMI ASSET - LARGE CAP GROWTH	$	6,830,752.66	10.40%	10.00%	$	6,564,922.68
DELAWARE CAPITAL - LARGE CAP VALUE	$	6,524,760.43	9.94%	10.00%	$	6,564,922.68
HENDERSON GENEVA - SMALL CAP GROWTH	$	3,382,778.39	5.15%	5.00%	$	3,282,461.34
NWQ - SMALL CAP VALUE	$	3,678,798.80	5.60%	5.00%	$	3,282,461.34
INVESCO- INTERNATIONAL GROWTH	$	2,859,074.23	4.36%	5.00%	$	3,282,461.34
LAZARD W/EMERGING MARKETS - INTL VALUE	$	2,970,555.92	4.52%	5.00%	$	3,282,461.34
SUB-TOTAL EQUITIES	**$**	**41,109,047.79**	**62.62%**	**60.00%**	**$**	**39,389,536.06**
FIXED INCOME:						
WEDGE - FIXED INCOME	$	12,093,837.56	18.42%	20.00%	$	13,129,845.35
WAMCO - FIXED INCOME	$	12,446,336.77	18.96%	20.00%	$	13,129,845.35
SUB-TOTAL FIXED INCOME	**$**	**24,540,174.33**	**37.38%**	**40.00%**	**$**	**26,259,690.70**
CASH:						
Cash	**$**	**4.64**		**0.00%**		
TOTAL PORTFOLIO: [1]	**$**	**65,649,226.76**	**100.00%**	**100.00%**	**$**	**65,649,226.76**

TOTAL PORTFOLIO		CURRENT MARKET VALUE	CURRENT PORTFOLIO ALLOCATION %	IPS TARGET ALLOCATION MINIMUM %	IPS TARGET ALLOCATION %	IPS TARGET ALLOCATION MAXIMUM %
EQUITY:						
LARGE CAP EQUITY	$	6,464,678.24	9.85%	5.00%	10.00%	15.00%
LARGE CAP GROWTH EQUITY	$	15,228,401.78	23.20%	15.00%	20.00%	25.00%
LARGE CAP VALUE EQUITY	$	6,524,760.43	9.94%	5.00%	10.00%	15.00%
SMALL CAP GROWTH EQUITY	$	3,382,778.39	5.15%	0.00%	5.00%	10.00%
SMALL CAP VALUE EQUITY	$	3,678,798.80	5.60%	0.00%	5.00%	10.00%
INTERNATIONAL GROWTH EQUITY	$	2,859,074.23	4.36%	0.00%	5.00%	10.00%
INTERNATION VALUE EQUITY	$	2,970,555.92	4.52%	0.00%	5.00%	10.00%
SUB-TOTAL EQUITY	***$***	***41,109,047.79***	62.62%		***60.00%***	
FIXED INCOME:	$	24,540,174.33	37.38%	30.00%	40.00%	60.00%
CASH:	$	4.64	0.00%		0.00%	
TOTAL PORTFOLIO:[1]	**$**	**65,649,226.76**	**100.00%**		**100.00%**	

MSSB ACCT NUMBER	ALLOCATION BY INVESTMENT MANAGER		CURRENT MARKET VALUE	%		CURRENT CASH	%		CURRENT EQUITY	%		CURRENT FIXED INCOME	%		CURRENT ACCRUED INTEREST	%	CURRENT TOTAL
	EQUITY:																
129157	THE LONDON COMPANY - LARGE CAP CORE	$	6,464,678.24	9.85%	$	78,547.38	1.22%	$	6,386,130.86	98.78%	$	-	0.00%	$	-	0.00%	$ 6,464,678.24
129158	LOOMIS SAYLES - LARGE CAP GROWTH	$	8,397,649.12	12.79%	$	100,033.51	1.19%	$	8,297,615.20	98.81%	$	-	0.00%	$	0.41	0.00%	$ 8,397,649.12
129159	AMI ASSET - LARGE CAP GROWTH	$	6,830,752.66	10.40%	$	216,646.42	3.17%	$	6,614,106.24	96.83%	$	-	0.00%	$	-	0.00%	$ 6,830,752.66
73691	DELAWARE CAPITAL - LARGE CAP VALUE	$	6,524,760.43	9.94%	$	90,594.42	1.39%	$	6,434,166.01	98.61%	$	-	0.00%	$	-	0.00%	$ 6,524,760.43
129161	HENDERSON GENEVA - SMALL CAP GROWTH	$	3,382,778.39	5.15%	$	17,249.52	0.51%	$	3,365,528.87	99.49%	$	-	0.00%	$	-	0.00%	$ 3,382,778.39
129160	NWQ - SMALL CAP VALUE	$	3,678,798.80	5.60%	$	272,754.91	7.41%	$	3,406,042.85	92.59%	$	-	0.00%	$	1.04	0.00%	$ 3,678,798.80
129162	INVESCO - INTERNATIONAL GROWTH	$	2,859,074.23	4.36%	$	213,856.60	7.48%	$	2,645,217.63	92.52%	$	-	0.00%	$	-	0.00%	$ 2,859,074.23
129166	LAZARD W/EMERGING MARKETS INTL VALUE	$	2,970,555.92	4.52%	$	63,115.45	2.12%	$	2,907,440.47	97.88%	$	-	0.00%	$	-	0.00%	$ 2,970,555.92
	FIXED INCOME:																
129154	WEDGE CAPITAL - FIXED INCOME	$	12,093,837.56	18.42%	$	39,481.46	0.33%	$	-	0.00%		$11,965,338.23	98.94%	$	89,017.87	0.74%	$12,093,837.56
129155	WESTERN ASSET - FIXED INCOME	$	12,446,336.77	18.96%	$	46,904.35	0.38%	$	-	0.00%		$12,359,782.97	99.30%	$	39,649.45	0.32%	$12,446,336.77
	CASH:																
131789	CASH	$	4.64	0.00%	$	4.64	100.00%	$	-	0.00%	$	-	0.00%	$	-	0.00%	$ 4.64
	TOTAL PORTFOLIO:	**$**	**65,649,226.76**	**100.00%**		**$1,139,188.66**	**1.74%**	**$**	**40,056,248.13**	**61.02%**		**$24,325,121.20**	**37.05%**	**$**	**128,668.77**	**0.20%**	**$65,649,226.76**

[1] Distribution from portfolio occurred February 2016 in the amount of $3,000,000, February 2017 for $4,000,000

Graystone Consulting
A business of Morgan Stanley

Wealth Management Perspectives

Summary of GIC Tactical Advice: Global Equities

As of May 31, 2017

Global Equities	Relative Weight Within Equities	Rationale
US	Overweight	While US equities have done exceptionally well since the global financial crisis, they are now in the latter stages of a cyclical bull market. This bull market was challenged during the past year by fears of recession and political events. With the recent Trump/Republican win, it appears investors are getting more excited about potential growth and “animal spirits” are on the rise. This is likely to lead to the final euphoric stage of this cyclical bull market, which could be quite powerful in 2017’s first half.
International Equities (Developed Markets)	Equal-Weight	We maintain a positive bias for Japanese and European equity markets despite the political challenges that both markets faced in the past year. Ironically, the populist movement around the world is likely to drive more fiscal policy action in both regions, which is needed to make the extraordinary monetary policy offered in both regions more effective. Both are still at record levels of cheapness. We continue to recommend hedging currency risk for 50% of European and Japanese positions.
Emerging Markets	Overweight	Emerging market (EM) equities have been much better performers during 2016 than in the prior three years. However, new concerns have arisen with the recent strength in the US dollar and the rise in interest rates. With global growth and earnings accelerating and financial conditions remaining loose, we think EM equities will perform well again in 2017.

Source: Morgan Stanley Wealth Management GIC

Summary of GIC Tactical Advice: Global Fixed Income

As of May 31, 2017

Global Fixed Income	Relative Weight Within Bonds	Rationale
US Fixed Income (Investment Grade)	Underweight	We have recommended shorter-duration* (maturities) since March 2013 given the extremely low yields and potential capital losses associated with rising interest rates from such low levels. The Trump election win has inspired markets to think about inflation again. This has caused a meaningful rise in longer-term interest rates, a move that is likely 75% of the way done and should abate as the Fed raises rates this year. Within investment grade, we prefer BBB-rated corporates and A-rated municipals to US Treasuries.
International Investment Grade	Underweight	Yields are even lower outside the US, leaving very little value in international fixed income, particularly as the global economy begins to recover more broadly. While interest rates are likely to stay low, the offsetting diversification benefits do not warrant much, if any, position, in our view.
Inflation-Protected Securities	Overweight	With deflationary fears having become extreme in 2015 and early 2016, these securities still offer relative value in the context of our forecasted acceleration in global growth, and expectations for oil prices and the US dollar’s year-over-year rate of change to revert back toward 0%. That view played out in 2016 but has not yet run its course.
US High Yield	Overweight	The sharp decline in oil prices created significant dislocations in the US high yield market in 2015. Broadly speaking, we believe default rates are likely to remain contained as the economy avoids recession, while corporate and consumer behavior remains conservative. This has led to better performance in 2016, along with lower volatility than equities. We think this can continue but we are getting closer to fully valued.

For more information about the risks to Duration please refer to the Risk Considerations section at the end of this material.

Summary of GIC Tactical Advice: Alternative Investments

As of May 31, 2017

Alternative Investments	Relative Weight Within Alts	Rationale
REITs	Underweight	Real estate investment trusts (REITs) underperformed in 2016, but it is still too early to reconsider our underweight zero allocation given the further rise in rates we expect and deteriorating fundamentals for the industry. Non-US REITs should be favored relative to domestic REITs.
Master Limited Partnerships*	Overweight	Master limited partnerships (MLPs) were devastated during the oil-price collapse and have rebounded sharply. As long as oil remains above $40 per barrel, MLPs may provide a reliable and attractive yield. A Trump presidency should also be supportive for fracking activity and pipeline construction, both of which could lead to an acceleration in dividend growth. MLPs should be one of the strongest asset categories in the first half of 2017.
Hedged Strategies (Hedge Funds and Managed Futures)	Equal Weight	This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth scares and/or interest rate volatility spikes. As volatility becomes more persistent in 2017, these strategies should do better than in recent years.

For more information about the risks to Master Limited Partnerships (MLPs) please refer to the Risk Considerations section at the end of this material.

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The **Global Investment Committee** is a group of seasoned investment professionals who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.
The Global Investment Manager Analysis (GIMA) Services Only Apply to Certain Investment Advisory Programs GIMA evaluates certain investment products for the purposes of some – but not all – of Morgan Stanley Smith Barney LLC's investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs, Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA Status changes even though it may give notice to clients in other programs.
Strategy May Be Available as a Separately Managed Account or Mutual Fund Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program. In most Morgan Stanley Wealth Management investment advisory accounts, fees are deducted quarterly and have a compounding effect on performance. For example, on an advisory account with a 3% annual fee, if the gross annual performance is 6.00%, the compounding effect of the fees will result in a net performance of approximately 3.93% after one year, 1 after three years, and 21.23% after five years. **Conflicts of Interest:** GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an investment manager or fund in which a portion of his or her clients' assets are already invested. While such a recommendation is permissible, GIMA is responsible for the opinions expressed by GIMA. See the conflicts of interest section in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management for a discussion of other types of conflicts that may be relevant to GIMA's evaluation of managers and funds. In addition, Morgan Stanley Wealth Management, MS & Co., managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking

services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs. Morgan Stanley Wealth Management, managers, MS & Co., and their affiliates receive compensation and fees in connection with these services. Morgan Stanley Wealth Management believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all of these companies from an account.

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

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

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

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

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

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

KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. **Options** and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. **Alternative investments** often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by NASD Conduct Rule 2711 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank. 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Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank. In Consulting Group's advisory programs, alternative investments are limited to US-registered mutual funds, separate account strategies and exchange-traded funds (ETFs) that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not suitable for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper. Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns. Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, "blow ups," or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial "lift" or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor's goals by the pre-established year or "target date." A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor's portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. **Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

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

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

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

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

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

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

Global Investment Committee (GIC) Asset Allocation Models: The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC. **HYPOTHETICAL MODEL PERFORMANCE (GROSS):** Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk /return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date. **FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS:** None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material. **insurance products disclosures: Variable annuities** are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value. **Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk. **Master Limited Partnerships (MLPs): I**ndividual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. **Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. **REITs** investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments. **Yields** are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. The majority of $25 and $1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some $25 or $1000 **par preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date. Companies paying **dividends** can reduce or cut payouts at any time. **Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors. The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies. **Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected. Any type of **continuous or periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels. **Duration**, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. This material is disseminated in the United States of America by Morgan Stanley Smith Barney LLC. Morgan Stanley Wealth Management is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule") and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. 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Asset Allocation Review

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Michigan County Road Commission Self-Insurance Pool – Custom

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EXECUTIVE SUMMARY

The investment process consists of three stages: strategic asset allocation, tactical asset allocation, and investment selection. Strategic asset allocation, which is the primary concern of this presentation, is the first and most critical step in the investment process. The professionals in the groups noted in the boxes below provide guidance on asset allocation.

This presentation has been prepared with a tool of Morgan Stanley Wealth Management's Global Investment Committee (hereafter, "Global Investment Committee" or "GIC"), known as the Asset Allocation Center, which utilizes a proprietary asset allocation framework. The presentation has been designed to illustrate and compare the risk and return characteristics of one or more strategic asset allocations optionally including your current strategic asset allocation and alternative strategic asset allocations that we would propose based on our asset allocation framework and your specific investment objectives and preferences.

Please note: the analyses presented here depend on assumptions of the future risk and return of asset classes (detailed on pages 4-6 of the Appendix) forecasted by the GIC as of March 31, 2017. There are inherent limitations for any analysis predicated on probabilistic forecasts of the future, as future potentialities are not guaranteed, often not well understood, and the models used to assess them are inherently fallible. There are also limitations that arise from any particular approach to creating advice. One that is relevant to this presentation is the use, in our asset allocation framework, of the GIC's model allocations as inputs in the portfolio construction process. To the extent that the GIC has unwittingly biased these allocations for or against individual asset classes due to flaws in the quantitative and qualitative research that accounts for them, those biases are likely to be 'passed through' to the proposals shown in this presentation. Please note that the GIC model allocations (Model Portfolios) are disclosed on page 3 of the Appendix.

All of which is to say that no single analysis can precisely and comprehensively describe the risk and return characteristics of a given investment portfolio. You should bear in mind the assumptions underlying any analysis, as well as the potential for error of the analysis, when evaluating its pertinence to any investment decisions you plan to make.

Morgan Stanley Wealth Management Global Investment Committee	Graystone Consulting
• The Global Investment Committee is made up of senior professionals from Morgan Stanley & Co. Research, Morgan Stanley Smith Barney LLC and outside financial market experts. • The Global Investment Committee provides general guidance for investment decisions through its establishment of a proprietary asset allocation framework that supports the investment process. The framework incorporates risk and returns forecasting, portfolio construction and model portfolios, each of which have been applied to create the following analysis.	• Your Graystone Consultant has applied the Global Investment Committee's asset allocation framework, customized to your investment circumstances, using the Asset Allocation Center investment analytics tool. • Graystone Consulting leverages the capabilities of the Global Investment Committee and other Morgan Stanley professionals to create cutting edge solutions for its clients. • Should you have questions about this analysis or otherwise, please contact your Graystone Consultant.

INVESTMENT PROFILE

Report Prepared for Michigan County Road Commission Self-Insurance Pool

OVERVIEW

The following profile reflects our current understanding of your situation based upon information provided to us on May 19, 2017, as does your current portfolio allocation depicted on slide 4 and the fee assumptions most appropriate for your circumstances depicted on page 5 of the Appendix. The Current Portfolio is also depicted on page 1 of the Appendix, broken into more granular asset classes

Portfolio Value	$64,163,637 (as of May 19, 2017)
Investment Objectives[1]:	Income and Growth investment objectives
Risk Tolerance:	N/A
Spending Policy:	N/A

[1]This statement of Investment Objectives should not be construed as a guarantee of any specific investment outcomes.

Please see the Appendix for important disclosures about this presentation.

STRATEGIC ASSET ALLOCATION - SUMMARY

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ASSET ALLOCATION SUMMARY	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Investment Grade Bonds	36.6%	40.0%	42.0%	36.6%	28.0%
High Yield Bonds	1.2%		4.0%	1.2%	3.0%
Emerging Market Bonds			1.0%		1.0%
Total Bonds	**37.8%**	**40.0%**	**47.0%**	**37.8%**	**32.0%**
US Equity	53.2%	50.0%	26.0%	39.7%	32.0%
International Equity	7.4%	10.0%	21.0%	13.5%	28.0%
Emerging Markets Equity	1.6%		6.0%	4.0%	8.0%
Total Equities	**62.2%**	**60.0%**	**53.0%**	**57.2%**	**68.0%**
Real Assets				5.0%	
Total Real Assest				**5.0%**	
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

FORECASTED STATISTICS	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Return	7.3%	7.1%	6.7%	7.4%	7.5%
Volatility	9.8%	9.4%	8.3%	9.7%	10.3%
Sharpe Ratio	0.45	0.45	0.45	0.47	0.45
Probability < 0%	22.6%	22.2%	21.0%	21.9%	23.0%
Yield	2.9%	2.9%	3.1%	3.2%	2.9%

Please refer to page 1 of the Appendix for a breakdown of the above portfolios into more granular asset classes. The Model Portfolios on page 3 of the Appendix are disclosed for comparison with the above and vary by risk profile from lowest (Model 1) to highest (Model 5). The forecasts of risk and return used in this analysis are detailed in pages 4-6 of the Appendix. **Please see the Glossary in the Appendix for definitions of the risk and return metrics depicted throughout this presentation.** Please see the Appendix for important disclosures about this presentation.

STRATEGIC ASSET ALLOCATION - RISK ALLOCATION[1] SUMMARY

Report Prepared for Michigan County Road Commission Self-Insurance Pool

RISK ALLOCATION[1] SUMMARY	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Investment Grade Bonds	6.6%	8.1%	5.1%	6.1%	2.1%
High Yield Bonds	0.8%		3.0%	0.8%	1.8%
Emerging Market Bonds			1.0%		0.8%
Total Bonds	**7.3%**	**8.1%**	**9.1%**	**6.9%**	**4.7%**
US Equity	79.3%	76.9%	41.9%	58.5%	41.6%
International Equity	10.7%	15.0%	36.5%	20.4%	39.9%
Emerging Markets Equity	2.7%		12.5%	7.1%	13.7%
Total Equities	**92.7%**	**91.9%**	**90.9%**	**86.0%**	**95.3%**
Real Assets				7.1%	
Total Real Assest	**0.0%**	**0.0%**	**0.0%**	**7.1%**	**0.0%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

[1] "Risk Allocation" is the forecasted *percentage* contribution of each asset class in the portfolio to the portfolio's forecasted volatility; more volatile asset classes typically contribute more volatility for each dollar invested. Where an investor allocates risk should correspond to where their conviction is greatest. The forecasts of risk and return used in this analysis are detailed in pages 4-6 of the Appendix.**Please see the Glossary in the Appendix for definitions of the risk and return metrics depicted throughout this presentation.** Please see the Appendix for important disclosures about this presentation.

STATISTICAL COMPARISON - PURPOSE AND METHODOLOGY

Report Prepared for Michigan County Road Commission Self-Insurance Pool

A 'Statistical Comparison' of two or more asset allocations[1] is a comparison of their relative 'riskiness' and potential for reward. The term 'Statistical Comparison' arises from the fact that future returns are uncertain, and statistics is the language in which information and evidence about things that are uncertain can be expressed, in particular using the language of relative likelihood, or probability.

The purpose of the following analysis is to gauge the appropriateness of each of the asset allocations presented on the Strategic Asset Allocation Summary slide from a risk tolerance and investment objective perspective, as well as their efficiency in achieving reward relative to the degree of risk they impart. 'Risk' and 'Reward', however, are abstract concepts that can mean different things to different investors. As to risk, some investors' primary concern might be the eventuality of large, negative returns, also known as downside risk or event risk[2]. For others, 'risk' might mean aversion to losses in general or more simply the degree of projected volatility in the return streams. While these metrics tend to be related, they can also yield different pictures of risk for a given asset allocation comparison.

Likewise, regarding reward, many investors' primary objective can be thought of simply as wealth maximization. Others, however, most commonly institutional investors, are more narrowly focused on a specific return target or a portfolio spending policy objective. For this reason, a range of risk and return metrics can be utilized in the following analysis. This report has been prepared using those metrics[3] that speak most directly to your objectives and preferences.

There are two reports in the Statistical Comparison:

- The first report, *Hypothetical Efficiency Analysis*, plots a portfolio along two dimensions, depicting the degree to which an investor's asset mix may reduce the chosen risk metric for a given level of reward, (expressed either as 'annual return', or expected return, or as probability of achieving a target return). Risk-adjusted, hypothetically more 'efficient' portfolios will appear above less efficient ones in these reports. As noted previously, however, 'risk' is an abstract concept that can be measured in different ways, and different measures of risk can yield different accounts of portfolio efficiency.
- The second report, '*Hypothetical Range of Returns at 3 Horizons*', depicts the hypothetically most-likely range of returns for each of the asset allocation portfolios in this analysis, for three separate investment horizons as listed on the horizontal axis. The bars in the 'Hypothetical Range of Returns at Three Horizons' chart represent the range of returns per portfolio, and are defined as ranging between the forecast 5th percentile return and the forecast 95th percentile return, annualized, for each horizon. The dash in the bars represent the median forecasted return per portfolio, per horizon. In certain cases, the probability of achieving a given return target will also be shown.

The forecasts of risk and return presented in the 'Statistical Comparison' are based on assumptions of risk and return detailedon pages 4-6of the Appendix.

[1] Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. Return forecast figures are for illustration only; actual results will vary. Hypothetical performance is no guarantee of future results. [2] Event risk is measured in this presentation using Value-at-Risk or Conditional-Value-at-Risk, the latter of which can be thought of as the expected loss in the case of an extreme event (where extreme is defined as an event with 5% probability or less in any given year). [3] Each of these metrics are defined in the Glossary in the Appendix.

STATISTICAL COMPARISON - HYPOTHETICAL EFFICIENCY ANALYSIS*

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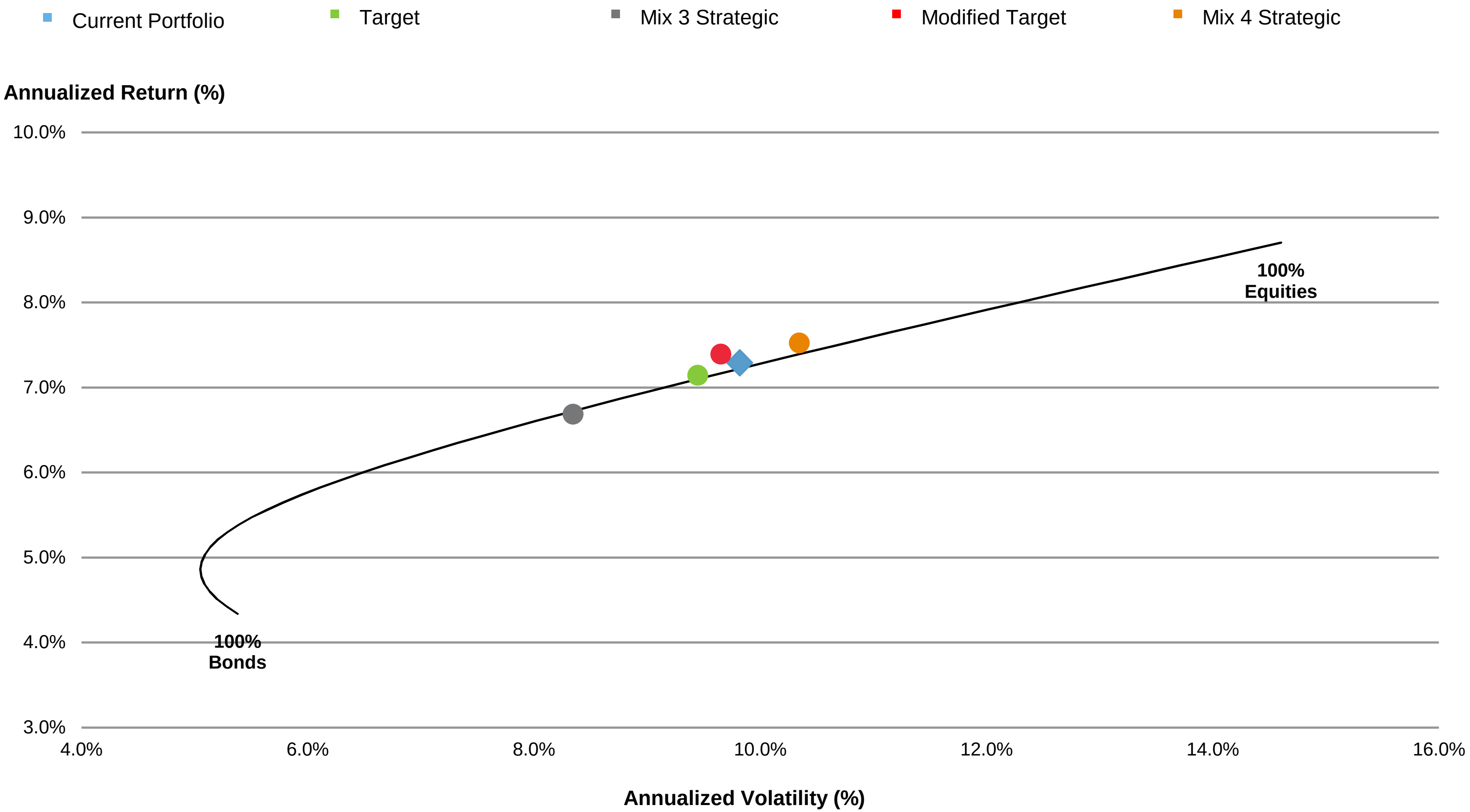
EFFICIENCY RELATIVE TO THE EQUITY-BOND FRONTIER



Notes: The 'Equity-Bond Frontier', plotted here for comparison, represents the efficiency of a full spectrum of bond and equity portfolios that vary by their proportion of each from 100% bonds to 100% equities. *All figures based on assumptions of risk and return detailed on pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of certain terms used above.

IMPORTANT: The projections or other information generated by the Asset Allocation Center, the investment analysis tool used to compile this report, regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect any actual investment results, and are not guarantees of future results. Results generated using this simulation analysis will vary with each use and over time. Please see the Appendix for important disclosures about this presentation.

STATISTICAL COMPARISON - HYPOTHETICAL RANGE OF RETURNS AT 3 HORIZONS

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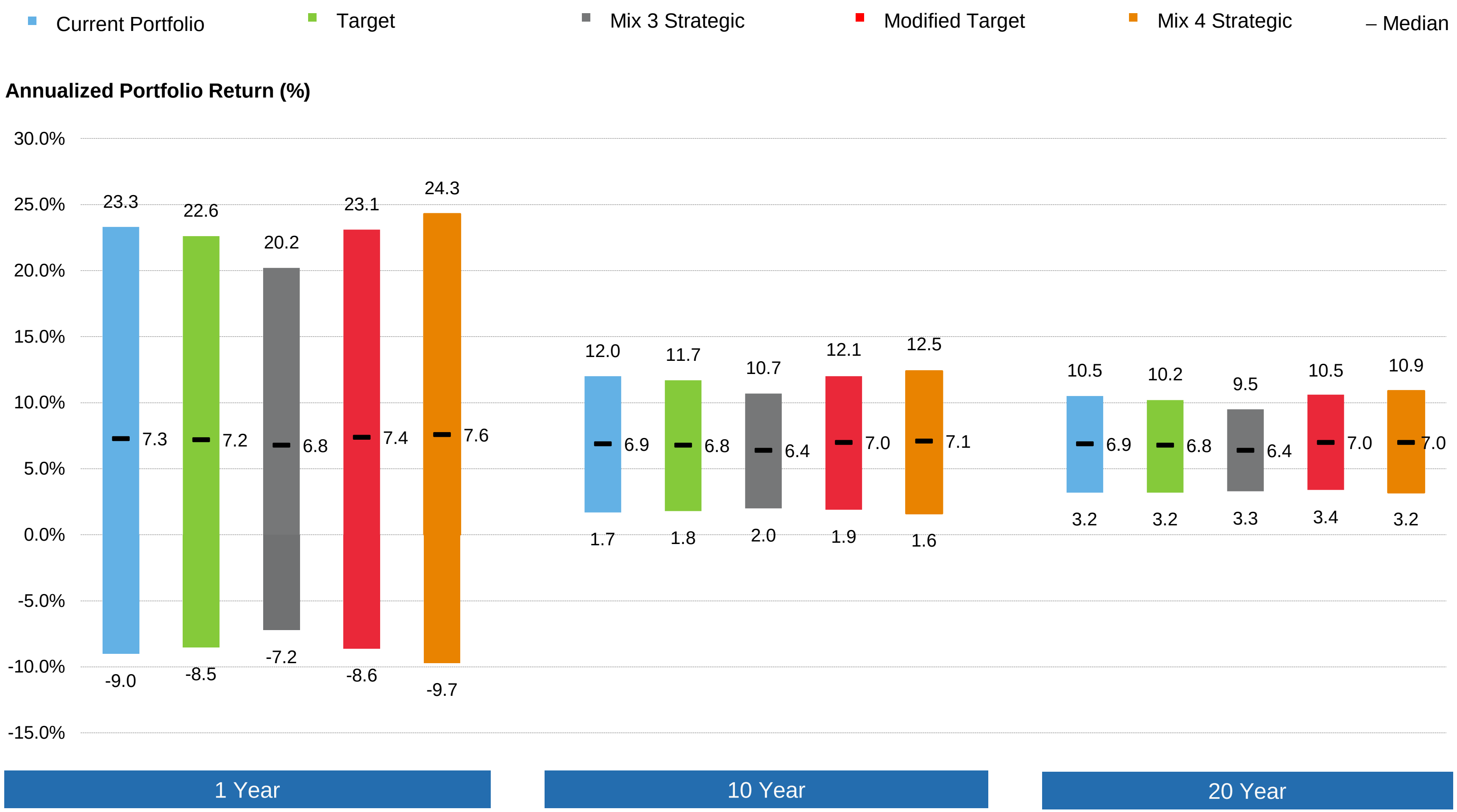
RANGE OF RETURNS



Source: Global Investment Committee

All figures above arebased on assumptions of risk and return detailed on pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of certain terms used above.

IMPORTANT: The projections or other information generated by the Asset Allocation Center, the investment analysis tool used to compile this report, regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect any actual investment results, and are not guarantees of future results. Results generated using this simulation analysis will vary with each use and over time. Please see the Appendix for important disclosures about this presentation.

APPENDIX

GRANULAR PORTFOLIO ALLOCATIONS

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GRANULAR ALLOCATIONS	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Short Term Fixed Income			22.0%		13.0%
US Fixed Income	36.6%	40.0%	18.0%	36.6%	13.0%
International Fixed Income			2.0%		2.0%
High Yield	1.2%		4.0%	1.2%	3.0%
Emerging Markets Fixed Income			1.0%		1.0%
Total Bonds	**37.8%**	**40.0%**	**47.0%**	**37.8%**	**32.0%**
US Large Cap Growth Equity	27.8%	25.0%	9.0%	18.0%	12.0%
US Large Cap Value Equity	14.8%	15.0%	9.0%	13.8%	12.0%
US Mid Cap Growth Equity			2.0%		2.0%
US Mid Cap Value Equity			2.0%		2.0%
US Small Cap Growth Equity	5.1%	5.0%	2.0%	4.0%	2.0%
US Small Cap Value Equity	5.6%	5.0%	2.0%	4.0%	2.0%
Europe Equity	4.8%	6.6%	13.0%	8.8%	17.6%
Japan Equity	1.7%	2.2%	5.5%	3.0%	7.0%
Asia Pacific ex Japan Equity	0.9%	1.2%	2.5%	1.7%	3.4%
Emerging Markets Equity	1.6%		6.0%	4.0%	8.0%
Total Equities	**62.2%**	**60.0%**	**53.0%**	**57.2%**	**68.0%**
Master Limited Partnerships				5.0%	
Total Real Assest				**5.0%**	
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table depicts assumed allocations to *granular asset classes* for the Current and Proposed Portfolios presented on page . The preceding analysis was based on the allocations listed above and the risk and return assumptions to follow on Pages 4-6 of the Appendix.

ASSET CLASS TO GRANULAR ASSET CLASS MAPPING

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ASSET CLASS MAPPING		
BROAD ASSET CLASSES	**ASSET CLASSES**	**GRANULAR ASSET CLASSES**
Cash	Cash & Cash Equivalents	*Ultra-Short Fixed Income*
Bonds	Investment Grade Bonds	*Short Term Fixed Income*
		US Fixed Income
		International Fixed Income
		Inflation-Linked Securities
	High Yield Bonds	*High Yield*
	Emerging Market Bonds	*Emerging Markets Fixed Income*
Equities	US Equity	*US Large Cap Growth Equity*
		US Large Cap Value Equity
		US Mid Cap Growth Equity
		US Mid Cap Value Equity
		US Small Cap Growth Equity
		US Small Cap Value Equity
	International Equity	*Europe Equity*
		Japan Equity
		Asia Pacific ex Japan Equity
	Emerging Markets Equity	*Emerging Markets Equity*
Alternatives	Absolute Return Assets	*Absolute Return Assets*
	Equity Hedge Assets	*Equity Hedge Assets*
	Equity Return Assets	*Equity Return Assets*
	Private Equity	*Private Credit*
		Private Equity
Real Assest	Real Assets	*Real Estate Investment Trusts*
		Commodities
		Master Limited Partnerships
	Private Real Estate	*Private Real Estate Funds*

GIC STRATEGIC MODEL ALLOCATIONS

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Level 2 Strategic Model Allocations	Model 1	Model 2	Model 3	Model 4	Model 5
Ultra-Short Fixed Income	13.0%	9.0%	5.0%	2.0%	
Total Cash	**13.0%**	**9.0%**	**5.0%**	**2.0%**	
Short Term Fixed Income	20.0%	16.0%	10.0%	5.0%	
US Fixed Income	24.0%	19.0%	14.0%	8.0%	
International Fixed Income	2.0%	2.0%	2.0%	1.0%	
High Yield	6.0%	4.0%	4.0%	2.0%	
Emerging Markets Fixed Income	1.0%	1.0%	1.0%		
Total Bonds	**53.0%**	**42.0%**	**31.0%**	**16.0%**	
US Large Cap Growth Equity	3.0%	5.0%	7.0%	9.0%	12.0%
US Large Cap Value Equity	3.0%	5.0%	7.0%	9.0%	12.0%
US Mid Cap Growth Equity	1.0%	1.0%	1.0%	2.0%	2.0%
US Mid Cap Value Equity	1.0%	1.0%	1.0%	2.0%	2.0%
US Small Cap Growth Equity	1.0%	1.0%	1.0%	2.0%	2.0%
US Small Cap Value Equity	1.0%	1.0%	1.0%	2.0%	2.0%
Europe Equity	6.0%	8.0%	12.0%	15.0%	21.0%
Japan Equity	3.0%	4.0%	4.0%	6.0%	7.0%
Asia Pacific ex Japan Equity		1.0%	2.0%	2.0%	3.0%
Emerging Markets Equity	3.0%	4.0%	5.0%	6.0%	8.0%
Total Equities	**22.0%**	**31.0%**	**41.0%**	**55.0%**	**71.0%**
Absolute Return Assets	2.0%	4.0%	2.0%	1.0%	
Equity Hedge Assets			4.0%	4.0%	4.0%
Equity Return Assets				3.0%	6.0%
Private Credit	1.0%	2.0%	2.0%	3.0%	3.0%
Private Equity	1.0%	3.0%	6.0%	6.0%	6.0%
Total Alternatives	**4.0%**	**9.0%**	**14.0%**	**17.0%**	**19.0%**
Real Estate Investment Trusts	1.0%	2.0%	2.0%	2.0%	2.0%
Master Limited Partnerships	3.0%	4.0%	4.0%	4.0%	4.0%
Private Real Estate Funds	4.0%	3.0%	3.0%	4.0%	4.0%
Total Real Assest	**8.0%**	**9.0%**	**9.0%**	**10.0%**	**10.0%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Model Portfolios are globally diversified balanced portfolios that reflect the best thinking of the Global Investment Committee for specific client circumstances, and range in market risk exposure from lowest (Model 1) to highest (Model 5). Level 1 Model Portfolios are recommended for clients with fewer than $25mm in investable assets. Level 2 Model Portfolios are recommended for clients with more than $25mm in investable assets. The difference between Level 1 and Level 2 is owed to the higher account minimums and lesser liquidity of Private Equity and Private Real Estate. The model allocations above are current as of the date of this Presentation, but are subject to change. Morgan Stanley has no obligation to notify you when they may change. Please refer to the end of this Appendix for important disclosures about this presentation.

GIC RISK AND RETURN ASSUMPTIONS

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	STRATEGIC FORECASTS (Year 1-7)				SECULAR FORECASTS (Year 8+)			
	Return	Volatility	Skewness	Kurtosis	Return	Volatility	Skewness	Kurtosis
Cash & Bonds								
Ultra-Short Fixed Income	2.0%	0.9%	0.21	2.98	3.4%	0.9%	0.21	2.98
Short Term Fixed Income	2.0%	2.7%	0.06	3.04	3.7%	2.7%	0.06	3.04
US Fixed Income	3.1%	5.4%	-0.13	3.05	5.0%	5.4%	0.21	3.59
International Fixed Income	2.2%	4.2%	-0.06	2.99	4.6%	4.2%	-0.04	3.01
Inflation-Linked Securities	2.5%	7.6%	-0.17	3.02	5.6%	7.6%	-0.27	3.42
High Yield	3.4%	9.8%	-0.07	3.04	8.9%	9.8%	-0.42	3.80
Emerging Markets Fixed Income	5.4%	12.6%	0.03	3.08	6.6%	12.6%	-0.11	3.17
Equities								
US Large Cap Growth Equity	5.8%	16.2%	-0.01	3.03	10.3%	17.0%	-0.18	3.16
US Large Cap Value Equity	6.2%	14.2%	-0.05	3.02	10.0%	14.5%	-0.20	3.22
US Mid Cap Growth Equity	6.6%	19.1%	-0.02	3.05	11.3%	20.2%	-0.20	3.25
US Mid Cap Value Equity	6.4%	15.4%	-0.03	3.04	10.6%	15.8%	-0.28	3.34
US Small Cap Growth Equity	7.7%	21.7%	-0.04	3.02	12.2%	22.6%	-0.17	3.17
US Small Cap Value Equity	8.0%	17.3%	-0.02	3.02	11.4%	17.4%	-0.28	3.30
Europe Equity	7.7%	16.7%	-0.03	3.02	8.9%	17.4%	-0.11	3.17
Japan Equity	8.0%	20.4%	-0.13	3.02	9.4%	20.9%	0.06	3.06
Asia Pacific ex Japan Equity	8.1%	22.5%	-0.09	3.08	11.7%	23.2%	-0.18	3.42
Emerging Markets Equity	9.6%	22.1%	0.00	3.05	12.8%	23.0%	-0.15	3.14
Non-Traditional Asset Classes*								
Absolute Return Assets	3.5%	4.0%	-0.20	3.11	5.8%	4.0%	-0.44	3.66
Equity Hedge Assets	4.4%	8.3%	0.01	2.95	5.8%	8.3%	0.06	3.00
Equity Return Assets	4.9%	8.3%	-0.12	3.04	7.6%	8.3%	-0.19	3.18
Real Estate Investment Trusts	6.3%	17.0%	-0.04	3.05	9.0%	18.1%	-0.17	3.30
Commodities	4.1%	14.8%	-0.08	3.07	6.4%	15.3%	-0.14	3.19
Master Limited Partnerships	11.7%	20.9%	-0.02	3.05	9.2%	16.3%	-0.22	3.13
Private Real Estate Funds	8.1%	18.0%	-0.75	4.05	10.4%	18.0%	-0.75	4.05
Private Credit	4.5%	8.2%	-0.36	3.52	8.2%	8.2%	-0.81	5.52
Private Equity	9.1%	18.4%	-1.00	4.37	13.0%	18.4%	-1.00	4.37

Source: Global Investment Committee as of March 31, 2017. Annual return is the forecasted arithmetic average annual return. Annualized volatility, skewness and kurtosis estimates are based on the longest available data through March 31, 2017. Strategic Forecasts are calibrated to a 7 year investment horizon. Secular Forecasts are calibrated to a 20+ year horizon.

Forecast estimates are for illustrative purposes only, are based on proprietary models and are not indicative of the future performance of any specific investment, index or asset class. Actual performance may be more or less than the estimates shown in this table. Estimates of future performance are based on assumptions that may not be realized.

* The GIC applies significant statistical adjustments to correct for distortions typically associated with hedge fund, private equity and private real estate index returns. For more information, see the 'Return Series Adjustments' section on Appendix page 18.

Investor Suitability: Morgan Stanley recommends that investors independently evaluate each asset class, investment style, issuer, security, instrument or strategy discussed. Legal, accounting and tax restrictions, transaction costs and changes to any assumptions may significantly affect the economics and results of any investment. Investors should consult their own tax, legal or other advisors to determine suitability for their specific circumstances. Investments in private funds (including hedge funds, managed-futures funds and private-equity funds) are speculative and include a high degree of risk.

All figures annualized. Asset class returns are assumed to be serially independent. In some cases, the asset classes in the forgoing presentation are aggregations of the asset classes listed above, as per the mapping detailed on page 2 of the Appendix. Assumptions for aggregated asset class are simply aggregates of the above assumptions with weights as per the Granular Portfolio Allocations on Page 1 of the Appendix and Model Allocations on page 3 of the Appendix respectively. Please refer to the end of this Appendix for important disclosures about this presentation.

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CLIENT FEE ASSUMPTIONS

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FEE ASSUMPTIONS	Strategic Gross Return Forecast	Secular Gross Return Forecast	Annual Fees*	Strategic Yield	Secular Yield	After-Fee Strategic Return	After-Fee Secular Return
Ultra-Short Fixed Income	2.0%	3.4%	0.0%	1.8%	3.3%	2.0%	3.4%
Short Term Fixed Income	2.0%	3.7%	0.0%	1.6%	3.9%	2.0%	3.7%
US Fixed Income	3.1%	5.0%	0.0%	2.2%	5.0%	3.1%	5.0%
International Fixed Income	3.1%	5.0%	0.0%	1.2%	5.5%	3.1%	5.0%
Inflation-Linked Securities	2.5%	5.6%	0.0%	1.2%	2.6%	2.5%	5.6%
High Yield	2.3%	4.9%	0.0%	7.7%	8.8%	2.3%	4.9%
Emerging Markets Fixed Income	5.5%	6.6%	0.0%	5.6%	6.5%	5.5%	6.6%
US Large Cap Growth Equity	5.8%	10.3%	0.0%	1.7%	1.7%	5.8%	10.3%
US Large Cap Value Equity	6.2%	10.0%	0.0%	2.7%	2.7%	6.2%	10.0%
US Mid Cap Growth Equity	6.6%	11.3%	0.0%	1.5%	1.5%	6.6%	11.3%
US Mid Cap Value Equity	6.4%	10.7%	0.0%	2.9%	2.9%	6.4%	10.7%
US Small Cap Growth Equity	7.7%	12.2%	0.0%	1.7%	1.7%	7.7%	12.2%
US Small Cap Value Equity	8.0%	11.4%	0.0%	3.5%	3.5%	8.0%	11.4%
Europe Equity	7.7%	8.9%	0.0%	2.5%	2.5%	7.7%	8.9%
Japan Equity	8.0%	9.4%	0.0%	1.5%	1.5%	8.0%	9.4%
Asia Pacific ex Japan Equity	8.1%	11.7%	0.0%	2.8%	2.8%	8.1%	11.7%
Emerging Markets Equity	9.6%	12.8%	0.0%	2.8%	2.8%	9.6%	12.8%
Absolute Return Assets	3.5%	5.8%	0.0%	0.0%	0.0%	3.5%	5.8%
Equity Hedge Assets	4.4%	5.8%	0.0%	0.0%	0.0%	4.4%	5.8%
Equity Return Assets	4.9%	7.6%	0.0%	0.0%	0.0%	4.9%	7.6%
Real Estate Investment Trusts	6.3%	9.0%	0.0%	4.0%	4.0%	6.3%	9.0%
Commodities	4.1%	6.4%	0.0%	1.8%	3.3%	4.1%	6.4%
Master Limited Partnerships	11.7%	9.2%	0.0%	6.1%	6.1%	11.7%	9.2%
Private Real Estate Funds	8.1%	10.4%	0.0%	0.0%	0.0%	8.1%	10.4%
Private Credit	4.5%	8.2%	0.0%	0.0%	0.0%	4.5%	8.2%
Private Equity	9.1%	13.0%	0.0%	0.0%	0.0%	9.1%	13.0%
PORTFOLIO LEVEL FEES			0.00%				

Gross Return Forecasts Source: Global Investment Committee. Strategic Forecasts are calibrated to a 7year investment horizon. Secular Forecasts are calibrated to a 20+ year horizon.

NOTE: The foregoing hypothetical analysis has been prepared on a 'before-tax basis', i.e. it assumes that no tax liability is applicable to any dividends, income or capital gains generated by the investment portfolio. Morgan Stanley, its affiliates, and its Financial Advisors or Private Wealth Advisors do not provide legal or tax advice.

* If included in this analysis, Portfolio and Asset Class Level fees are hypothetical in nature, and do not reflect any specific expenses or fees that might actually be incurred in your portfolio. We include them here to reflect our cognizance of the capacity for expenses and fees to reduce the returns investors ultimately realize, not by way of forecasting their potential magnitude at the portfolio or asset class level.

Please note that return forecasts for alternative asset classes, with the exception of Commodities, TIPS, REITS, MLPs, Infrastructure and Natural Resources, already incorporate an estimate of the fund-level fees. Fee inputs here are used either to control for higher than average fees, or to add the layer of fees associated with fund-of-fund products or other vehicles that carry additional fees.

Please refer to the end of this Appendix for important disclosures about this presentation.

GIC CORRELATION ASSUMPTIONS

Report Prepared for Michigan County Road Commission Self-Insurance Pool

CORRELATION MATRIX

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1 Ultra-Short Fixed Income	1.00																									
2 Short Term Fixed Income	0.29	1.00																								
3 US Fixed Income	0.07	0.90	1.00																							
4 International Fixed Income	0.17	0.58	0.71	1.00																						
5 Inflation-Linked Securities	0.04	0.47	0.60	0.39	1.00																					
6 High Yield	0.02	0.12	0.24	0.15	0.45	1.00																				
7 Emerging Markets Fixed Income	0.10	0.33	0.38	0.18	0.78	0.69	1.00																			
8 US Large Cap Growth Equity	0.02	0.11	0.17	0.03	0.26	0.61	0.61	1.00																		
9 US Large Cap Value Equity	0.03	0.15	0.21	0.08	0.32	0.64	0.63	0.93	1.00																	
10 US Mid Cap Growth Equity	0.03	0.03	0.05	0.01	0.26	0.62	0.60	0.97	0.91	1.00																
11 US Mid Cap Value Equity	0.01	0.02	0.13	0.08	0.37	0.67	0.63	0.93	0.97	0.95	1.00															
12 US Small Cap Growth Equity	0.01	0.03	0.07	0.04	0.22	0.61	0.55	0.91	0.89	0.95	0.93	1.00														
13 US Small Cap Value Equity	0.01	0.09	0.13	0.01	0.29	0.64	0.56	0.85	0.93	0.88	0.95	0.94	1.00													
14 Europe Equity	0.01	0.14	0.17	0.06	0.47	0.63	0.70	0.88	0.86	0.86	0.85	0.79	0.75	1.00												
15 Japan Equity	0.01	0.08	0.09	0.00	0.27	0.33	0.46	0.63	0.60	0.61	0.60	0.57	0.54	0.70	1.00											
16 Asia Pacific ex Japan Equity	0.03	0.04	0.07	0.11	0.49	0.69	0.82	0.84	0.79	0.84	0.80	0.75	0.69	0.87	0.63	1.00										
17 Emerging Markets Equity	0.03	0.01	0.03	0.01	0.41	0.71	0.80	0.81	0.75	0.81	0.76	0.73	0.66	0.85	0.63	0.94	1.00									
18 Absolute Return Assets	0.17	0.14	0.18	0.09	0.44	0.80	0.63	0.59	0.62	0.61	0.66	0.61	0.64	0.62	0.33	0.62	0.63	1.00								
19 Equity Hedge Assets	0.10	0.32	0.32	0.36	0.35	0.09	0.25	0.06	0.08	0.07	0.10	0.04	0.06	0.12	0.02	0.16	0.14	0.18	1.00							
20 Equity Return Assets	0.18	0.06	0.07	0.05	0.38	0.72	0.67	0.78	0.71	0.85	0.73	0.85	0.76	0.75	0.44	0.73	0.74	0.80	0.19	1.00						
21 Real Estate Investment Trusts	0.04	0.10	0.22	0.22	0.54	0.65	0.75	0.58	0.70	0.59	0.74	0.57	0.68	0.73	0.53	0.83	0.71	0.56	0.14	0.60	1.00					
22 Commodities	0.10	0.08	0.04	0.08	0.49	0.36	0.50	0.26	0.32	0.32	0.35	0.29	0.31	0.40	0.30	0.46	0.43	0.45	0.23	0.45	0.39	1.00				
23 Master Limited Partnerships	0.08	0.19	0.11	0.09	0.14	0.61	0.44	0.65	0.65	0.66	0.67	0.63	0.64	0.75	0.43	0.58	0.65	0.64	0.10	0.70	0.56	0.21	1.00			
24 Private Real Estate Funds	0.22	0.09	0.09	0.06	0.22	0.27	0.34	0.34	0.50	0.31	0.49	0.34	0.48	0.40	0.21	0.34	0.27	0.37	0.07	0.39	0.46	0.32	0.41	1.00		
25 Private Credit	0.02	0.23	0.21	0.06	0.02	0.33	0.29	0.69	0.50	0.71	0.46	0.69	0.45	0.49	0.39	0.44	0.46	0.32	0.10	0.56	0.36	0.06	0.45	0.29	1.00	
26 Private Equity	0.11	0.14	0.13	0.02	0.19	0.51	0.44	0.75	0.68	0.72	0.64	0.70	0.58	0.63	0.39	0.55	0.53	0.51	0.05	0.66	0.52	0.21	0.58	0.42	0.57	1.00

Source: Global Investment Committee as of March 31, 2017. Based on the longest available data through March 31, 2017. Correlation is a statistical method of measuring the strength of a linear relationship between two variables. The correlation between two variables can assume any value from -1.00 to +1.00, inclusive. Past performance is not indicative of future results. We apply significant statistical adjustments to correct for distortions typically associated with index returns for hedge funds, private equity and private real estate. Correlation assumptions are the same for the strategic and intermediate-term horizons. All figures expressed annually. Asset class returns are assumed to be serially independent. Note that while the asset classes in the foregoing presentation are in certain cases aggregations of the asset classes listed above, their assumptions are aggregations of the above.

GLOSSARY

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- **Beta:** A measure of the linear relationship between an asset or asset class and the asset or asset class it is being compared to, most typically that between an individual stock and a market index. In the context of a stock to a market index, a stock's beta dictates the average degree to which its historical returns coincided with the returns to the index. A beta of 2, for example, implies that a stock has, on average, moved in the same direction as the index, (given that the beta is positive), but with double its magnitude (i.e. a market increase of 5% would, on average, portend a stock increase of 10%, while a market decrease of 5% would, on average, portend a stock decrease of 10%). In this presentation, beta is used to model the relationship between a stock and a proxy index, in conjunction with the stock's overall volatility (defined subsequently here).
- **Conditional Value-at-Risk (Annual):** A measure of the downside risk of an investment portfolio, Conditional Value-at-Risk is the *expected (*annual) loss in the event the portfolio experiences a 'one year in twenty' downside event, i.e. a downside returns event so severe one might probabilistically expect it to occur, on average, once every 20 years. In other words, Conditional Value-at-Risk is the average portfolio loss *conditional* on the portfolio experiencing particularly adverse circumstances. As contrasts with Value-at-Risk, (defined subsequently), the metric is affected not just by the dispersion across all downside extremes, but by the dispersion within downside extremes.
- **Correlation**: Correlation, or correlation coefficient, is a mathematical representation of the relationship between two asset classes and ranges between -1 and +1. Perfect positive correlation (a correlation co-efficient of 1) implies that as a security moves, either up or down, the correlated security moves in lockstep. Perfect negative correlation, alternatively, means that if one security moves in either direction the security that is perfectly negatively correlated will move by an equal degree in the opposite direction. If the correlation is 0, the movements of the securities or asset classes are independent, meaning one's moving does not increase or decrease the likelihood of the other's moving.
- **Efficiency Analysis**: Efficiency analysis plots portfolios along two dimensions, one corresponding to an investment objective, most typically forecasted return, and the second to risk, most typically forecasted volatility, so as to evaluate the *efficiency* by which one is achieved at the expense of the other. Graphically speaking, more 'efficient' portfolios appear in an efficiency analysis chart above less efficient ones controlled for forecasted risk, i.e. at the same point along the horizontal axis. Research suggests that skillful blending of asset classes can maximize the tradeoff between objective and risk, and thus 'efficiency' is relevant to the determination of an appropriate strategic asset allocation.
- **Fat-Tailed Return Distribution**: A probability distribution implying that large deviations from the average are materially more probable than what so-called 'normal' probability distributions imply is commonly referred to as being 'fat tailed'. For further on this property of distributions, please see the '**Skewness'** and '**Kurtosis**' entries further in this Glossary.
- **Kurtosis**: A statistical measure of the "peakedness" of a distribution. In a return series that is leptokurtic, i.e. one that exhibits higher kurtosis than the normal distribution, risk is manifested through low frequency high impact 'events', both positive and negative, measured as returns several standard deviations away from the average. These distributions are called 'fat tailed' because their extremes are *thick* with probability (the normal distribution is 'thin tailed' such that returns 3 or more standard deviations away from the average are exceedingly rare). In 'low kurtosis' return series, i.e. kurtosis less than or equal to normal, risk is manifested through high frequency deviations close to the average. The vast majority of financial return series are leptokurtic, however some investments, e.g. hedge funds, are significantly more so than other investments, which is an unfavorable attribute of their profile.
- **Percentile Return**: a measure of uncertainty based upon the forecast likelihood of events. For example, 5th percentile return is defined as the portfolio return that only 5% of potential returns are less than (and by implication 95% of returns are greater than), a number which will vary greatly with the forecast frequency of adverse return events.
- **Probability of Return**: In simple terms, the likelihood of a given return threshold being passed. Specifically, in the context of a model of capital market dynamics, risk and return forecasts can be used to infer the likelihood that a given portfolio's return will be above or below any nominal threshold at any specific future point in time.
  - **Probability < 0% or Probability of Loss** is the probability that portfolio return will be *less than or equal to* zero.
  - **Probability > Target Return or Probability > 7520 Rate** is the probability that portfolio return will be *greater than or equal to* the supplied target or 7520 rate. As with other such figures, the accuracy of those predictions are based on the accuracy of the risk, return and distributional assumptions applied to the calculation.

GLOSSARY (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

- **Probability Density:** one way to express the likelihood of a particular event is to display its probability density. The more a given event is 'dense with probability' the more likely it is. In this analysis, probability density is used to elaborate the relative likelihood of a portfolio's achieving a specified value at a specified time in the investment horizon.

- **Probability of Return**: In the context of an internally consistent model, risk and return forecasts can be used to infer the likelihood that a given portfolio's return will be above or below any nominal threshold.
  - **Probability < 0% or Probability of Loss** is the probability that portfolio return will be *less than or equal to* zero.
  - **Probability of Target Return** is the probability that portfolio return will be *greater than or equal to* the supplied target. As with the other figures in this analysis, the accuracy of those predictions are based on the accuracy of the risk, return and distributional assumptions applied to the calculation.

- **Return Forecast**: Projected annual rate of change in the price of an asset class or portfolio. In the foregoing analysis, Portfolio Return Forecasts are based on a weighted average of the return assumptions for granular asset classes, detailed Appendix 4, where the weights are equal to the portfolio itself.

- **Scenario Analysis**: An examination of the effect of a specified event- historical, hypothetical or some combination of the two (here conditional)- on a portfolio's return. Another name for 'what if' analysis.

- **Sharpe Ratio**: Developed by William F. Sharpe, this calculation measures the risk-adjusted return, or 'efficiency', of a portfolio. The Sharpe Ratio is calculated as the *excess* expected return an investment or portfolio delivers divided by its expected volatility, i.e. standard deviation, where excess means expected return minus the risk free rate of return. One criticism of Sharpe ratios is that the measure of risk, portfolio standard deviation, penalizes all forms of dispersion equally, upside and downside, and does not sufficiently control for downside event risk.

- **Skewness**: A statistical measure of asymmetry of an asset class or portfolio return distribution. Negative skew is an undesirable characteristic of some investments, e.g. private real estate, indicating that left hand tail of a return distribution (representing the likelihood of downside deviation from average) is 'longer' than the right hand, i.e. that downside events are bigger than their reciprocally plausible upside ones. By corollary, the bulk of the values of negatively skewed distributions lie above the average. Positive skewed distributions, such as private equity and managed futures, exhibit the opposite behavior, and distributions with zero skew are balanced about the average.

- **Standard Deviation**: A statistical measure of the dispersion of data (in the context of this report, return data). Standard deviation can be thought of as the *average* difference between an individual data point and the average value of all data points under consideration. All else equal, more broadly distributed returns will have a higher standard deviation than more narrowly distributed returns.

- **Turnover**: A measure of the average holding period of an investment in a client's portfolio. Portfolio turnover is calculated by taking either the total value of securities bought or sold – whichever is less – over a 12-month time period, divided by net asset value. The GIC's assumptions of asset class turnover are based on the average turnover values of managers in that category.

- **Value-at-Risk (Annual)**: A measure of the downside risk of an investment portfolio, it is defined in this presentation as the portfolio loss that is less than 95% of projected one year returns. One way to interpret the statistic is that drawdowns of this magnitude or greater would be, on average, anticipated in one out of every twenty years, subject to the accuracy of the risk, return and distributional assumptions applied to the calculation.

- **Volatility**: A measure of the magnitude of variability of the returns of an asset class or security, measured statistically as the forecasted standard deviation of those returns (see above). It is generally the case that a larger dispersion of return implies greater risk, as this implies more substantially adverse outcomes for a given level of likelihood of their occurrence.

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ASSET CLASS DEFINITIONS

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- **Cash**: Representative Index- Bloomberg US Generic Government 3M Yield (1954 – March 18, 2017)
  - Treasury bills and other money markets debt securities with very short-term maturities are called cash or cash equivalents. They earn interest based on agreed upon rates that are in practice heavily influenced Federal Reserve overnight policy interest rates.
- **Short Duration**: Representative Index- Barclays U.S. Government/Credit 1-3 Year Bond Index (1976 – March 18, 2017)
  - Fixed-rate, short-term debt of developed-market countries. Currency exposure is hedged to the US dollar.
- **US Investment Grade Fixed Income**: Representative Index- Barclays Capital US Aggregate Bond Index (hedged) (1976 – March 18, 2017)
  - US investment grade (treasury, government agency, investment grade corporate, agency mortgage-backed security, etc.) debt securities with a maturity of 1 year or greater.
- **International Investment Grade Fixed Income**: Representative Index- Barclays Capital Non-USD Aggregate Bond Index (hedged) (1990 – March 18, 2017)
  - Global investment-grade, fixed-rate corporate debt securities as well as the securitized component that includes mortgage-backed securities, asset-backed securities, and commercial mortgage-backed securities. Currency exposure is hedged to the US dollar.
- **Municipal Bonds**: Representative Index- Barclays Capital Municipal Bond Index, (1980 - March 18, 2017)
  - Bonds issued by US state and local governments or their agencies which are tax advantaged for investors subject to federal (and sometimes state) US income tax liability.
- **Floating Rate Notes**: Representative Index- Barclays Capital US Floating Rate Note Index (2003 – March 18, 2017)
  - Bonds whose coupon payments are reset periodically based on a reference index, most commonly a money market interest rate such as LIBOR, plus an explicit spread to the reference rate contractually specified at issuance. Floating Rate Notes have low interest rate risk due to the fact that their baseline interest rate 'floats' on prevailing interest rates, however, they have the same exposure to credit and credit spread risk as other corporate bonds with similar risk factors and spread duration.
- **High Yield**: Representative Index- Barclays Capital Global High Yield Index (hedged) (1990 – March 18, 2017)
  - Globally issued speculative grade corporate and securitized bonds, typically without a long track record of sales or of questionable credit quality, and generally rated BB+ (S&P/Fitch) or Ba+ (Moody's) or lower. High yield bonds trade at a premium yield to investment grade bonds to compensate investors for their higher risk (which accounts for their name). Currency exposure is hedged to the US dollar.
- **High Yield Municipal Bonds**: Representative Index- Barclays Capital Municipal High Yield Index, (2003-March 18, 2017)
  - Bonds issued by financially distressed US state and local governments or their agencies which, like investment grade Municipal Bonds, are tax advantaged for investors subject to federal (and sometimes state) US income tax liability. High Yield Municipal Bonds, like the corporate variety, are typically rated speculative grade by the credit rating agencies- BB+ (S&P/Fitch) or Ba+ (Moody's) or lower. They also trade at a premium yield to investment grade bonds to compensate investors for their higher risk.
- **Emerging Market Bonds**: Representative Index- JP Morgan Government Bond Index, Emerging Markets Global Diversified Composite (local currency, unhedged) (2003 – March 18, 2017)
  - Debt instruments issued by emerging market sovereigns and corporations and denominated in the currency of their domicile. Securities issued by foreign corporations or governments may be subject to market, economic, political or other conditions affecting the respective government, company, industry or country.
- **Emerging Market Corporate Bonds**: Representative Indices- JP Morgan Corporate Emerging Markets Bond Index, US dollar (2007 – March 18, 2017), JP Morgan Emerging Market Bond Index, US Dollar (1994 – 2007)
  - Debt instruments issued by emerging market corporations and quasi-sovereign corporations (more than 50% government ownership) domiciled in the emerging markets of Latin American, Eastern Europe, the Middle East/Africa, and Asia and denominated in US dollars. Securities issued by foreign corporations may be subject to market, economic, political or other conditions affecting the respective government, company, industry or country.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

- **Inflation-Linked Securities**: Representative Index- Barclays Capital Universal Government Inflation-Linked Bond Index (1997 – March 18, 2017)
  - A special type of government bond whose principal and coupon payments are reset based on changes in a reference measure of retail inflation, (e.g. the Bureau of Economic Analysis's Consumer Price Index in the US), thereby attempting to reduce its exposure to the potentially deleterious effects of inflation on bond investments.
- **Preferred Stock** : Representative Index- The BofA Merrill Lynch Fixed Rate Preferred Securities Total Return Index (1989 – March 18, 2017)
  - Ownership in a corporation with a higher claim on the assets and earnings than common stock, but no residual claim on earnings beyond the contractually specified dividends, and usually no voting rights. Preferred stock is generally junior to the secured, unsecured and subordinated debt of an issuing company in the corporation's capital structure, which implies greater credit and cash flow risks than traditional debt and debentures. As a result, preferred stocks tend to trade at higher yields than similar cash flow/issuer credit quality bonds to compensate investors (preferred stock pays a contractually formalized dividend that in practice functions like a coupon).
- **Convertible Bonds :** Representative Index- Merrill Lynch Convertible Bond Index (2003 – March 18, 2017)
  - Convertible bonds are corporate bonds embedded with equity warrants that give the owner the right to 'convert' the bond security into common stock, ADRs, or a cash equivalent at a contractually specified conversion ratio. Depending on the ratio and the performance of the reference equity security, convertible bonds can trade like equities, like bonds, or as a hybrid of the two. Convertible bonds are also considered to be exposed to equity volatility via the embedded warrant, and the spread on the baseline bond security.
- **US Large-Cap Growth Equities**: Representative Index- Russell 1000 Growth Index (1979 – March 18, 2017)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in the approximately 1000 largest securities on a combination of market and current index membership in the US equity universe.
- **US Large-Cap Value Equities**: Representative Index- Russell 1000 Value Index (1979 – March 18, 2017)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in the approximately 1000 largest securities on a combination of market and current index membership in the US equity universe.
- **US Mid-Cap Growth Equities**: Representative Index- Russell Midcap Growth Index (1986 – March 18, 2017)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in medium capitalization companies in the US equity universe.
- **US Mid-Cap Value Equities**: Representative Index- Russell Midcap Value Index (1986 – March 18, 2017)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in medium capitalization companies in the US equity universe.
- **US Small-Cap Growth Equities**: Representative Index- Russell 2000 Growth Index (1979 – March 18, 2017)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in the approximately 2000 smallest securities on a combination of market and current index membership in the US equity universe.
- **US Small-Cap Value Equities**: Representative Index- Russell 2000 Value Index (1979 – March 18, 2017)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in the approximately 2000 smallest securities on a combination of market and current index membership in the US equity universe.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

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- **International Developed Market Equities:** Representative Index- MSCI Europe Asia Far East IMI Index (1970 – March 18, 2017).
  - Stocks traded in developed markets outside the United States. Investing in the securities of such companies and countries adds foreign exchange rate risk for US based investors, however can also provide diversification.
    - **Canada Equities:** Representative Index- MSCI Canada IMI Index (1970 – March 18, 2017)
      - Stocks traded in Canada.
    - **Europe Equities:** Representative Index- MSCI Europe IMI Index (1970 – March 18, 2017)
      - Stocks traded in Developed Europe.
    - **UK Equities**: Representative Index- MSCI UK IMI Index (1970 – March 18, 2017)
      - Stocks traded in the United Kingdom.
    - **Japan Equities**: Representative Index- MSCI Japan IMI Index (1970 – March 18, 2017)
      - Stocks traded in Japan.
    - **Pacific ex Japan Equities**: Representative Index- MSCI Pacific ex Japan IMI Index (1970 – March 18, 2017)
      - Stocks traded in the developed markets of the Pacific region excluding Japan (i.e., primarily Australia, Hong Kong, New Zealand and Singapore).
    - **World ex US Small-Cap Equities**: Representative Index- MSCI World ex US Small Cap IMI Index (1995 – March 18, 2017)
      - Small capitalization stocks traded throughout the developed markets outside the US.
- **Emerging Market Equities**: Representative Index- MSCI Emerging Markets IMI Index (1988 – March 18, 2017)
  - Stock issued by companies domiciled in emerging markets. Investing in the securities of such companies and countries involves certain consideration not usually associated with investing in developed countries, including political and economic situations and instability, adverse diplomatic developments, price volatility, lack of liquidity and fluctuations in the currency exchange.
- **Frontier Emerging Market Equities**: Representative Index- MSCI Frontier Markets Index (2002 – March 18, 2017)
  - Stock issued by companies domiciled in frontier emerging markets, which are the least developed emerging market countries. Investing in the securities of such companies and countries exacerbates the considerations associated with investing in emerging market countries, including political and economic situations and instability, adverse diplomatic developments, price volatility, lack of liquidity and fluctuations in the currency exchange.
- **US & Global Equity Market Sector, Style and Capitalization Segments**: Representative Indices as per the relevant component of the MSCI World IMI Index (1988 – March 18, 2017)
  - Under certain circumstances, it may be necessary to capture the sector and/or capitalization specifics of an underlying client holding. In these cases, the GIC will model the exposure according to the component of the MSCI All Country World IMI Index which it best matches. For example, a position in a global energy sector fund would be modeled as the MSCI World Energy Sector Index.
- **Real Estate Investment Trusts (REITS)**: Representative Index- FTSE EPRA NAREIT Global Total Return Index (1990 – March 18, 2017)
  - A security that is usually traded like a stock on the major exchanges and invests in real estate directly, either through properties or mortgage loans and securities and 'pas through' the income generated by its investments to shareholders.
- **Master Limited Partnerships (MLPs)**: Representative Index- Alerian MLP Total Return Index (1996 – March 18, 2017)
  - MLPs are limited partnerships that are publicly traded on a securities exchange. MLPs invest in the cash flow generating assets of qualifying commercial enterprises, commonly energy infrastructure (e.g. pipelines). Similarly to REITs, MLPs pass through the vast majority of its earnings to investors as dividend distributions.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

- **Commodities:** Representative Index- Dow Jones / UBS Commodity Total Return Index (1970 – March 18, 2017)
  - Commodities are distinguished from financial investments in that they are tangible or 'real' assets, such Precious Metals, Cereals, Oil, Copper, Timber, etc. The prices of real assets tend to fluctuate widely and to a large extent unpredictably, due to their high exposure to idiosyncratic factors (e.g. weather). Moreover, commodity prices are affected by a broad range factors including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.
- **Precious Metals:** Representative Index- Dow Jones / UBS Precious Metals Total Return Index (1973 – March 18, 2017)
  - Subset of the larger commodity asset class consisting only of precious metals, including gold, silver, platinum, and palladium, whose low storage costs yield them substantial demand as a monetary store of value/inflation hedge. Precious metals demand is derived largely from jewelry and investors/central banks, with lesser industrial applications compared with base metals and other commodities. Precious metals have high historical volatility and attendant risks, and low historical returns relative to other risk assets, however their reputation for maintaining value in highly adverse geopolitical circumstances ensures a substantial and dedicated investor base. **Note**: The representative index for Precious Metals, S&P GSCI Precious Metals Total Return Index, includes only gold and silver, and assumes they are an effective proxy for precious metals as a whole. Precious metals are more appropriate for the risk capital portion of your portfolio and for investors who have speculative investment objectives.
- **Managed Futures and Managed Futures Sectors**: Representative Indices- Barclay BTop50 Index, Barclay Currency Traders Index, Barclay Agricultural Traders Index, Barclay Discretionary Traders Index, Barclay Diversified Traders Index, Barclay Financial & Metals Traders Index, Barclay Systematic Traders Index, (1980 – March 18, 2017)
  - Managed Futures are alternative investment vehicles that trade financial and commodity futures, forwards and options on such futures and forwards. Assets in managed futures are managed by professional trading managers called Commodity Trading Advisors or CTAs. The BTOP50 Index seeks to replicate the overall composition of the managed futures industry with regard to trading style and overall market exposure and includes the largest investable trading advisor programs, as measured by assets under management, provided the program is open for investment, willing to furnish daily returns, has at least two years of trading activity and its advisor has at least three years of operating history. The BTOP50's portfolio is equally weighted among the selected programs at the beginning of each calendar year and is rebalanced annually. Barclay CTA Sub-Indices group specific managers within the Barclay estimation universe according to their investment strategy (e.g. which markets they invest in, whether they generate their signals through quantitative or qualitative means, etc.).
- **Hedged Strategies and Hedged Strategy Sectors**: Representative Indices- HFRI Fund of Funds Composite Index, HFRI Relative Value Index , HFRI Event-Driven Index, HFRI Equity Hedge Index, HFRI Macro Index, (1990 – March 18, 2017)
  - A private and unregistered investment pool that may employ sophisticated hedging and arbitrage techniques, using long and short positions, leverage and derivatives and investments in many markets. The HFRI Monthly Indices (HFRI) are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. Fund of Funds invest with multiple managers, creating a diversified portfolio of managers with the intent to lower the risk of investing with individual managers. Hedge Fund Research, Inc. ("HFRI"), Funds of Funds Indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.
- **Natural Resources**: Representative Index- MSCI All Country World Infrastructure Utility Total Return Index (1999 – March 18, 2017)
  - Natural resource investments are investment in private and publicly listed enterprises that procure basic resources like timber, water and energy. Private natural energy investments are illiquid and often bear both substantial risks and opportunities for their investors.
- **Leveraged Loans**: Representative Index- S&P/LSTA Leveraged Loan Index (1997 – March 18, 2017)
  - A leveraged loan is a loan, most commonly of low credit quality (often to relatively highly leveraged/speculative entities) that is underwritten, securitized and administered by a financial intermediary, most typically an investment bank, and then syndicated/sold on to ultimate investors. Leveraged loans are often though not always illiquid, concentrated and high risk/return securities.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

- **Private Equity:** Representative Indexes- Venture Economics Private Equity Index/Venture Economics LBO Index/Venture Economics Venture Capital Index/Venture Economics Mezzanine Funds Index (1988 – March 18, 2017), Venture Economics European LBO Index (1988 – March 18, 2017) , MSCI World Infrastructure Total Return Index (1999 – March 18, 2017)
  - Private equity firms that provide equity, debt and debt equity hybrid capital (mezzanine debt) to a wide variety of firms, from start-ups to small, medium and, in certain cases, large capitalization firms, both public and private. Private equity interests are typically highly illiquid, involve a high degree of risk and leverage on the underlying portfolio of companies and can be subject to transfer restrictions. Venture Economics collects quarterly information on individual private equity funds across the private equity sub-strategies listed below. The Venture Economics data set is based on voluntary reporting of fund returns by private equity firms and their limited partners.
    - **Leveraged Buyouts**: Ownership, equity or interest in funds that primarily conduct leveraged buyouts of public and private firms for the purposes of enhancing their efficiency and most typically, resale onto the public market or private entities after several years.
    - **Venture Capital**: Venture Capital funds provide equity capital and other services to enterprises in the early stages of their development for the primary objective of ushering the company through its preliminary development and ultimately selling the company, most commonly through initial public offerings.
    - **Mezzanine Debt**: Private equity transactions often create hybrid capital instruments with both debt and equity features, whether through their speculative nature, their optionality, etc. Mezzanine Debt funds invest in these securities and pass their typically high yield, illiquidity and risk onto their ultimate investors.
    - **European Leveraged Buyouts**: Ownership, equity or interest in funds that primarily conduct leveraged buyouts of public and private firms in Europe for the purposes of enhancing their efficiency and most typically, resale onto the public market or private entities after several years.
    - **Infrastructure**: Ownership interest in infrastructure projects that typically generate reliable cash flows with lesser volatility and upside than other private equity types.
    - **Partnership Interests**: Ownership interests in professional partnerships (e.g. law firms, etc.). There are no indices nor financial returns series that directly measure returns to partnership stakes, but they are often a highly significant component of their owner's net worth. As such, the GIC proxies Partnership Interests with Private Equity, (as per the above), with adjustments to take account of their unique risks, (i.e. lesser leverage and greater exposure to the specific risks of a single enterprise).

- **Private Real Estate**: Representative Indexes- NCREIF Property Index (1980 – March 18, 2017), Investment Property Databank Global Property Index (1980 – March 18, 2017), NCREIF Townsend Fund Index (1988 – March 18, 2017)
  - Commercial real estate properties or funds from all market sectors, unleveraged in the case of property exposure, and varying in the case of real estate funds in their degree of leverage and speculative nature, acquired and held in the private market for investment purpose. Real estate investments are subject to special risks, including interest rate and property value fluctuations, as well as risk related to general and economic conditions.
    - **US Real Estate**: Private Real Estate domiciled within the United States.
    - **Canada Real Estate**: Private Real Estate domiciled within Canada.
    - **UK Real Estate**: Private Real Estate domiciled within the United Kingdom.
    - **Europe ex UK Real Estate**: Private Real Estate domiciled within the developed markets of Europe excluding the United Kingdom.
    - **Japan Real Estate**: Private Real Estate domiciled within Japan.
    - **Dev AP ex Japan Real Estate**: Private Real Estate domiciled within the Pacific Region's developed markets excluding Japan.
    - **Latin America Real Estate**: Private Real Estate domiciled within Latin America.
    - **Emerging Asia Real Estate**: Private Real Estate domiciled within the emerging markets of Asia
    - **Real Estate Funds**: Private Equity Real Estate funds domiciled in the United States, including Core, Value-Added and Opportunistic investments/funds.
    - **Core Real Estate Funds**: Core Private Equity Real Estate funds domiciled in the United States.
    - **Value-Added Real Estate Funds**: Value-Added Private Equity Real Estate funds domiciled in the United States.
    - **Opportunistic Real Estate Funds**: Opportunistic Private Equity Real Estate funds domiciled in the United States.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

Graystone Consulting
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ASSET CLASS RISK CONSIDERATIONS

Report Prepared for Michigan County Road Commission Self-Insurance Pool

There are risks associated with different investment options. For example, **Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate. Bonds are also subject to secondary market risk, as there is no guarantee that a secondary market will exist for a particular fixed income security.

Asset-backed Securities generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments

Interest on **Municipal Bonds** and is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence The tax-exempt status of municipal securities may be changed by legislative process, which could affect their value and marketability. Insurance does not pertain to market values which will fluctuate over the life of the bonds; it covers only the timely payment of interest and principal. Credit quality varies depending on the specific issuer and insurer. Credit ratings shown may be the higher of the 'underlying' rating of the issuer or the rating of any insurer providing credit enhancement to the bonds.

High Yield Municipal Bonds are often but not always exempt from federal tax, and are subject to many of the same risks as Municipal Bonds. In addition, High Yield Municipals, which often do not have recourse to the credit of the governmental issuer, have a substantial risk of default relative to investment grade Municipal Bonds. In this, they are analogous to **Corporate and Securitized High Yield Bonds**, which have speculative characteristics and present significant risks beyond those of other securities, including substantially greater credit risk, price volatility, call option risk and limited liquidity in the secondary market, the latter of which can be substantially exacerbated during periods of market duress. High Yield debt across all sectors should comprise only a limited portion of a balanced portfolio.

Investing in the bonds of foreign **Emerging Markets** entail greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance. Emerging market debt should comprise only a limited portion of a balanced portfolio.

Convertible Bonds and **Preferred Stocks** are subject to market risk including interest risk, credit (default) risk, liquidity risk, and equity risk of the underlying common stocks. They are also subject to dividend risk that the underlying company increases its common stock dividend without similarly adjusting the convertible bond's yield or preferred stock's dividend. This may reduce or even negate the yield advantage over the common stock. The majority of convertible bonds and preferred stocks are 'callable' meaning that the issuer may retire the securities at specific prices and dates prior to maturity, and/or at a lower price than the purchase price. Interest/dividend payments on certain preferred issues maybe deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received.

Treasury Inflation Protected Securities (TIPS) coupon payments and underlying principal are automatically increased, or if above par, decreased, to compensate for inflation as measured by the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low initial interest. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional US Treasuries in times of low inflation or deflation. Some inflation-linked securities may be subject to call risk.

Floating Rate Notes may have lower initial rate than fixed-rate securities of the same maturity because investors expect to receive additional income due to future increases in the floating/linked index. However, there can be no assurance that these increases will occur. Furthermore, floating rate notes expose their issuers to substantial interest rate risk, which can lead to financial duress and potential credit events.

ASSET CLASS RISK CONSIDERATIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Publicly traded **Equity** securities may fluctuate in response to news on companies, industries, market conditions and the general economic environment. There are additional risks associated with **international investing**, including foreign economic, political, monetary, and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. In addition, the securities markets of many of the **emerging markets** are substantially smaller, less liquid and more volatile than the securities of the US and other developed market countries, and historically have been subject to a greater degree of geopolitical and other specific 'country' risk than have developed market securities. All of these risks are even more acute in the context of investing in equity securities traded in **Frontier Emerging Markets**.

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

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Stocks of medium-sized companies entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies.

Investing in **Commodities**, including commodity futures contracts, and physical **Precious Metals**, entails significant risks. Commodity and Precious Metal prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, (vii) the price volatility of a commodity and (viii) changes in inflationary and other monetary conditions. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. Commodities and Precious Metals are more appropriate for the risk capital portion of your portfolio and for investors who have speculative investment objectives.

Real Estate Investment Trusts, (REITs) investing risks include property value fluctuations, lack of liquidity, limited diversification and sensitivity to several economic and financial factors including but not limited to interest rate changes, equity market drawdowns and economic recessions.

Master Limited Partnerships (MLPs) investing risks include financial leverage, energy demand destruction, lack of liquidity, limited diversification, and sensitivity to several economic and financial factors including but not limited to interest rate changes, equity market drawdowns, credit freezes and economic recessions. MLPs are also exposed to changes in tax and regulatory policy and are subject to complex tax reporting requirements.

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

The potential tax benefits from investing in **MLPs** depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

ASSET CLASS RISK CONSIDERATIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Alternative Investments which may be referenced in this report, including Private Equity funds (including Venture Capital, Leveraged Buyouts and Mezzanine Debt funds), Private Real Estate funds, Hedged Strategies, Managed Futures funds, Funds of Hedge Funds, Infrastructure funds, Leveraged Loan funds and Natural Resource funds, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor.

Managed futures investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually suitable only for the risk capital portion of an investor's portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

Private Real Estate investing risks include those applicable to publicly traded real estate, like REITs, including exposure to economic developments, however in practice private real estate entails substantially greater concentrations (less diversification) and far less liquidity than public real estate (the secondary market for private real estate is limited and transaction and market impact costs can be prohibitive, especially during market dislocations). As a consequence, Private Real Estate investments are exposed to high levels of asymmetric downside risk. The risk of Private Real Estate increases on an increasing basis (i.e. non-linearly) with the degree to which the underlying properties are leveraged.

Private Equity investing risks includes those applicable to publically traded equities, however in practice private equity entails substantially greater concentrations and risk, and far less liquidity than public real estate (the secondary market for private equity is limited and transaction and market impact costs can be prohibitive, especially during market dislocations). In addition, Private Equity investing often exposes investors to high levels of leverage and strategy specific risk, both of which can contribute to adverse events. Though Private Equity Infrastructure generates high yields, it is not a bond substitute tends to be highly illiquid and carries a host of specific risks relating to the inherent concentrations of any given investment.

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

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

ASSET ALLOCATION METHODOLOGY

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Morgan Stanley Wealth Management Global Investment Committee Expected Return Estimates Methodology

This tool incorporates a methodology for making hypothetical financial projections approved by the Global Investment Committee. Opinions expressed in this presentation may differ materially from those expressed by other departments or divisions or affiliates of Morgan Stanley Wealth Management.

About Expected Return Estimates, Rate of Return, Standard Deviation, and Asset Class Indices

Expected Return Estimates (EREs)

What are EREs?

Expected Return Estimates (EREs) represent one set of assumptions regarding rates of return for specific asset classes approved by the Global Investment Committee.

How are EREs derived?

EREs are derived using a proprietary methodology using a building block approach. Our EREs reflect expectations for a number of long-term economic and market-related factors we expect to influence capital market returns, such as population growth, productivity, earnings expectations, etc.

Index returns are used for calculation of volatility and correlations. For most indices, we use data since 1994. Regarding several types of alternative investments such as hedged strategies, private equity and real estate, we apply significant statistical adjustments to historical returns in order to correct for distortions such as survivorship biases, selection biases, and returns measurement error (e.g. by consequence of stale prices in the illiquid asset classes).

What else is important to know?

It is important to remember that future rates of return can't be predicted with certainty and that investments that may provide higher rates of return are generally subject to higher risk and volatility. The actual rate of return on investments can vary widely over time. This includes the potential loss of principal on your investment.

Investors should carefully consider several important factors when making asset allocation decisions using projected investment performance data based on assumed rates of return on indices:

Indices illustrate the investment performance of instruments that have certain similar characteristics and are intended to reflect broad segments of an asset class. Indices do not represent the actual or hypothetical performance of any specific investment, including any individual security within an index. Although some indices can be replicated, it is not possible to directly invest in an index. It is important to remember the investment performance of an index does not reflect deductions for investment charges, expenses, or fees that may apply when investing in securities and financial instruments such as commissions, sales loads, or other applicable fees. Also, the stated investment performance assumes the reinvestment of interest and dividends at net asset value without taxes, and also assumes that the portfolio is consistently "rebalanced" to the initial target weightings. Asset allocations which deviate significantly from the initial weightings can significantly affect the likelihood of achieving the projected investment performance.

Another important factor to keep in mind when considering the historical and projected returns of indices is that the risk of loss in value of a specific asset, such as a stock, a bond or a share of a mutual fund, is not the same as, and does not match, the risk of loss in a broad asset class index. As a result, the investment performance of an index will not be the same as the investment performance of a specific instrument, including one that is contained in the index. Such a possible lack of "investment performance correlation" may also apply to the future of a specific instrument relative to an index.

For these reasons, the ultimate decision to invest in specific instruments should not be premised on expectations that the historical or projected returns of indices will be the same as those for specific investments made.

ASSET ALLOCATION METHODOLOGY (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Rates of Return, Standard Deviation and Asset Class Indices

Standard deviation is a common risk measurement that estimates how much an investment's return will vary from its predicted average. Generally, the higher an investment's standard deviation, the more widely its returns will fluctuate, implying greater volatility. In the past, asset classes that have typically provided the highest returns have also carried greater risk. For purposes of this Presentation, the standard deviation for the asset classes shown below are calculated using data going back to 1994.

It is important to note that the rates of return of the listed indices may be significantly different than the ERE or your own assumptions about the rates of return used in the Presentation. As always, keep in mind that past performance is no guarantee of future results. EREs are for illustrative purposes only and are not indicative of the future performance of any specific investment.

Performance of an asset class within a portfolio is dependent upon the allocation of securities within the asset class and the weighting or the percentage of the asset class within that portfolio. Potential for a portfolio's loss is exacerbated in a downward trending market. A well-diversified portfolio is less vulnerable in a falling market. Asset allocation and diversification, however, do not assure a profit or protect against loss in a declining market.

Asset class returns and standard deviations of returns projections are based on reasoned estimates of drivers of capital market returns and historical relationships. As with any return estimation discipline, the assumptions and inputs underlying the GIC's EREs may or may not reconcile with, or reflect, each investor's individual investment horizon, risk tolerance, capital markets outlook, and world view. For these reasons, and because return estimation methods are complicated, investors are encouraged to discuss returns estimation with a Morgan Stanley Financial Advisor/Private Wealth Advisor.

As described, financial returns estimation involves developing a methodology for extracting expected returns and standard deviations of returns from historical data. Each returns estimation methodology is developed by selecting objective and subjective factors that vary among those developing the returns estimation model. The GIC has formulated several different methodologies and makes its return estimates available to Morgan Stanley customers. Differences exist between the various methodologies because different objective and subjective factors are incorporated into each methodology. These differences can include: the indices used as proxies for various asset categories and classes, the length of time historical index data is input into the calculations, and the resulting expected returns and volatility for each asset class. Each model may cover a greater or lesser number of asset classes than other models, the indices used to represent asset classes may be different for certain classes of assets in the models, and the GIC has more asset classes in the Alternative Investments asset category than are available in other models. Additionally, other differences may develop in the future as these methodologies are dynamic in nature and are likely to change over time.

While Morgan Stanley Smith Barney LLC has not designed its returns estimation methodologies to match or address its inventory as a broker-dealer of financial products, an appearance of a conflict of interest could exist in which the GIC's EREs, if followed, guide investors in directions that support Morgan Stanley Smith Barney LLC's inventory. To the extent this is a concern to customers, they should request that a return estimation be prepared using a different third party methodology, either alone or in conjunction with a GIC model for comparison purposes. Your Financial Advisor/Private Wealth Advisor is available to explain the different returns estimation methodologies and can compare and contrast different models upon request.

Return Series Adjustments

A common way to forecast standard deviation, correlation and other risk metrics is to observe their average magnitude in historical return series data. We agree this is appropriate for traditional asset classes- cash, bonds and equities- and for 'alternative or absolute return' asset classes that are priced in liquid public markets and have consistent, transparent reporting requirements. However, we believe this approach dramatically understates the risk of hedged strategies and private investments, such as private equity and private real estate, while overstating their potential to diversify other risks in the portfolio. These asset classes have several pronounced biases due to voluntary reporting of performance to index providers and lack of liquidity in the underlying investments. The biases that arise include return smoothing, survivorship bias, selection bias, stale pricing and appraisal bias each of which has implications for reported risk, return and correlation of the investments (foremost amongst which is the artificial reduction of their actual risks).

To address these challenges, the Global Investment Committee use econometric models to estimate the impact of each of these biases to create synthetic 'true' return series, based on the reported returns, from which we glean forecasts of the risk, return and correlation of these investments. The adjustments made are on balance conservative. They substantially increase forecasted risk, reduce forecasted return and decrease the diversification properties compared to what the historical averages of reported index returns suggest. Your Financial Advisor/Private Wealth Advisor is available to explain these methodological choices in greater detail upon request.

DISCLOSURES

Report Prepared for Michigan County Road Commission Self-Insurance Pool

IMPORTANT INFORMATION

The Global Investment Committee (GIC) Asset Allocation Models represent asset allocation recommendations made by the GIC based on general client characteristics such as investable assets and risk tolerance. The GIC Asset Allocation Models are not representations of actual trading or any type of account, or any type of investment strategies and none of the fees or other expenses (e.g., commissions, mark-ups, mark-downs, advisory fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models are not intended to represent a client-specific suitability analysis or recommendation. The suitability of an asset allocation for a particular client must be based on the client's existing portfolio, investment objectives, risk profile and liquidity needs. Any such suitability determination could lead to asset allocation results that may differ materially from those presented herein. Each client should consult with his or her Financial Advisor/Private Wealth Advisor to determine whether the GIC Asset Allocation Models are relevant to the client's investment objectives.

Every client's financial circumstances, needs and risk tolerances are different. This Presentation ("Asset Allocation Review") is based on the information you provided to us, the assumptions you have asked us to make and the other assumptions indicated herein as of the date of the Presentation. This Presentation should be considered a working document that can assist you in achieving your investment objectives. You should carefully review the information and suggestions found in this Presentation and then decide on future steps.

This Presentation does not constitute an offer to buy, sell, or recommend any particular investment or asset, nor does it recommend that you engage in any particular investment, manager or trading strategy. It reflects only allocations among broad asset classes. All investments have risks. The decisions as to when and how to invest are solely your responsibility.

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

The assumed return rates in this Presentation are not reflective of any specific investment and do not include any transaction costs, management fees or expenses that may be incurred by investing in specific products. Such fees would reduce a client's returns. The actual returns of a specific investment may be more or less than the returns used in this Presentation. The return assumptions are based on historic rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

The return assumptions used in this are estimates based on models that employ fundamental macroeconomic and econometric data together with average annual returns for the index used as a proxy for each asset class to forecast returns prospectively. The portfolio returns are calculated by weighting the individual return assumptions disclosed herein for each asset class according to your portfolio allocation. During the preparation of this Presentation, your Financial Advisor/Private Wealth Advisor may have refined the asset allocation strategy to develop a strategy that optimizes the potential returns that could be achieved with the appropriate level of risk that you would be willing to assume.

Morgan Stanley cannot give any assurances that any estimates, assumptions or other aspects of the Presentation will prove correct. It is subject to actual known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those shown.

This Presentation speaks only as of the date of this Presentation. Morgan Stanley Smith Barney expressly disclaims any obligation or undertaking to update or revise any statement or other information contained herein to reflect any change in past results, future expectations or circumstances upon which that statement or other information is based.

DISCLOSURES (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Hypothetical Portfolio Returns

The proposed asset allocations (also referred to herein as Hypothetical Portfolios) in this report are hypothetical and do not reflect actual portfolios but simply reflect selected indices that are representative for asset classes in the GIC's current strategic allocations. Hypothetical performance results have inherent limitations. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC asset allocation, idea or strategy for the periods indicated.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs. The hypothetical returns are not intended to forecast potential returns but rather to help identify relative patterns of behavior among asset classes which, when put in different combinations, assume various levels of risk. Each analysis in this report contains simulations of performance. The calculation of the performance of these Hypothetical Portfolios begins with the applicable GIC Asset Allocation Model for a particular risk profile. The GIC has established eight model portfolios conforming to various risk tolerance levels. The least risky model corresponds to risk profile 1 with the most risky being risk profile 8. Thus, as the risk profile increases, so does the level of risk.

Once the appropriate risk profile levels have been determined, your Financial Advisor/Private Wealth Advisor then customizes the GIC model based on each client's circumstances. The GIC models reflect historical performance of the indices used as proxies.

The calculation of the Hypothetical Portfolio returns assumes reinvestment of dividends, capital gains and interest but do not reflect any transaction costs, such as taxes, fees or charges, that would apply to actual investments. Such fees and charges would reduce performance.

Hypothetical performance is shown for illustration purposes only, has inherent limitations and does not reflect actual performance, trading or decision making. The results may vary and reflect economic or market factors such as liquidity constraints or volatility, which have an important impact on decision making and actual performance. This hypothetical performance is likely to differ from actual practice in client accounts.

Fees reduce the performance of actual accounts: Unless specified in the Client Fee Assumptions portion of this Appendix, none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees) associated with actual trading or accounts are reflected in the GIC asset allocation strategy or ideas. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

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

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

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Asset Allocation Review

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Michigan County Road Commission Self-Insurance Pool – Strategic

June 1, 2017

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EXECUTIVE SUMMARY

The investment process consists of three stages: strategic asset allocation, tactical asset allocation, and investment selection. Strategic asset allocation, which is the primary concern of this presentation, is the first and most critical step in the investment process. The professionals in the groups noted in the boxes below provide guidance on asset allocation.

This presentation has been prepared with a tool of Morgan Stanley Wealth Management's Global Investment Committee (hereafter, "Global Investment Committee" or "GIC"), known as the Asset Allocation Center, which utilizes a proprietary asset allocation framework. The presentation has been designed to illustrate and compare the risk and return characteristics of one or more strategic asset allocations optionally including your current strategic asset allocation and alternative strategic asset allocations that we would propose based on our asset allocation framework and your specific investment objectives and preferences.

Please note: the analyses presented here depend on assumptions of the future risk and return of asset classes (detailed on pages 4-6 of the Appendix) forecasted by the GIC as of March 31, 2017. There are inherent limitations for any analysis predicated on probabilistic forecasts of the future, as future potentialities are not guaranteed, often not well understood, and the models used to assess them are inherently fallible. There are also limitations that arise from any particular approach to creating advice. One that is relevant to this presentation is the use, in our asset allocation framework, of the GIC's model allocations as inputs in the portfolio construction process. To the extent that the GIC has unwittingly biased these allocations for or against individual asset classes due to flaws in the quantitative and qualitative research that accounts for them, those biases are likely to be 'passed through' to the proposals shown in this presentation. Please note that the GIC model allocations (Model Portfolios) are disclosed on page 3 of the Appendix.

All of which is to say that no single analysis can precisely and comprehensively describe the risk and return characteristics of a given investment portfolio. You should bear in mind the assumptions underlying any analysis, as well as the potential for error of the analysis, when evaluating its pertinence to any investment decisions you plan to make.

Morgan Stanley Wealth Management Global Investment Committee	Graystone Consulting
• The Global Investment Committee is made up of senior professionals from Morgan Stanley & Co. Research, Morgan Stanley Smith Barney LLC and outside financial market experts. • The Global Investment Committee provides general guidance for investment decisions through its establishment of a proprietary asset allocation framework that supports the investment process. The framework incorporates risk and returns forecasting, portfolio construction and model portfolios, each of which have been applied to create the following analysis.	• Your Graystone Consultant has applied the Global Investment Committee's asset allocation framework, customized to your investment circumstances, using the Asset Allocation Center investment analytics tool. • Graystone Consulting leverages the capabilities of the Global Investment Committee and other Morgan Stanley professionals to create cutting edge solutions for its clients. • Should you have questions about this analysis or otherwise, please contact your Graystone Consultant.

INVESTMENT PROFILE

Report Prepared for Michigan County Road Commission Self-Insurance Pool

OVERVIEW

The following profile reflects our current understanding of your situation based upon information provided to us on May 19, 2017, as does your current portfolio allocation depicted on slide 4 and the fee assumptions most appropriate for your circumstances depicted on page 5 of the Appendix. The Current Portfolio is also depicted on page 1 of the Appendix, broken into more granular asset classes

Portfolio Value	$64,163,637 (as of May 19, 2017)
Investment Objectives[1]:	Income and Growth investment objectives
Risk Tolerance:	N/A
Spending Policy:	N/A

[1]This statement of Investment Objectives should not be construed as a guarantee of any specific investment outcomes.

Please see the Appendix for important disclosures about this presentation.

STRATEGIC ASSET ALLOCATION - SUMMARY

Report Prepared for Michigan County Road Commission Self-Insurance Pool

ASSET ALLOCATION SUMMARY	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Investment Grade Bonds	36.6%	40.0%	42.0%	36.6%	28.0%
High Yield Bonds	1.2%		4.0%	1.2%	3.0%
Emerging Market Bonds			1.0%		1.0%
Total Bonds	**37.8%**	**40.0%**	**47.0%**	**37.8%**	**32.0%**
US Equity	53.2%	50.0%	26.0%	39.7%	32.0%
International Equity	7.4%	10.0%	21.0%	13.5%	28.0%
Emerging Markets Equity	1.6%		6.0%	4.0%	8.0%
Total Equities	**62.2%**	**60.0%**	**53.0%**	**57.2%**	**68.0%**
Real Assets				5.0%	
Total Real Assest				**5.0%**	
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

FORECASTED STATISTICS	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Return	5.3%	5.2%	5.1%	5.7%	5.8%
Volatility	9.8%	9.4%	8.3%	9.7%	10.3%
Sharpe Ratio	0.33	0.34	0.37	0.39	0.37
Probability < 0%	29.3%	28.9%	26.9%	27.5%	28.4%
Yield	2.3%	2.2%	2.4%	2.5%	2.4%

Please refer to page 1 of the Appendix for a breakdown of the above portfolios into more granular asset classes. The Model Portfolios on page 3 of the Appendix are disclosed for comparison with the above and vary by risk profile from lowest (Model 1) to highest (Model 5). The forecasts of risk and return used in this analysis are detailed in pages 4-6 of the Appendix. **Please see the Glossary in the Appendix for definitions of the risk and return metrics depicted throughout this presentation.** Please see the Appendix for important disclosures about this presentation.

STRATEGIC ASSET ALLOCATION - RISK ALLOCATION[1] SUMMARY

Report Prepared for Michigan County Road Commission Self-Insurance Pool

RISK ALLOCATION[1] SUMMARY	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Investment Grade Bonds	6.6%	8.1%	5.1%	6.1%	2.1%
High Yield Bonds	0.8%		3.0%	0.8%	1.8%
Emerging Market Bonds			1.0%		0.8%
Total Bonds	**7.3%**	**8.1%**	**9.1%**	**6.9%**	**4.7%**
US Equity	79.3%	76.9%	41.9%	58.5%	41.6%
International Equity	10.7%	15.0%	36.5%	20.4%	39.9%
Emerging Markets Equity	2.7%		12.5%	7.1%	13.7%
Total Equities	**92.7%**	**91.9%**	**90.9%**	**86.0%**	**95.3%**
Real Assets				7.1%	
Total Real Assest	**0.0%**	**0.0%**	**0.0%**	**7.1%**	**0.0%**
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

[1] "Risk Allocation" is the forecasted *percentage* contribution of each asset class in the portfolio to the portfolio's forecasted volatility; more volatile asset classes typically contribute more volatility for each dollar invested. Where an investor allocates risk should correspond to where their conviction is greatest. The forecasts of risk and return used in this analysis are detailed in pages 4-6 of the Appendix.**Please see the Glossary in the Appendix for definitions of the risk and return metrics depicted throughout this presentation.** Please see the Appendix for important disclosures about this presentation.

STATISTICAL COMPARISON - PURPOSE AND METHODOLOGY

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A 'Statistical Comparison' of two or more asset allocations[1] is a comparison of their relative 'riskiness' and potential for reward. The term 'Statistical Comparison' arises from the fact that future returns are uncertain, and statistics is the language in which information and evidence about things that are uncertain can be expressed, in particular using the language of relative likelihood, or probability.

The purpose of the following analysis is to gauge the appropriateness of each of the asset allocations presented on the Strategic Asset Allocation Summary slide from a risk tolerance and investment objective perspective, as well as their efficiency in achieving reward relative to the degree of risk they impart. 'Risk' and 'Reward', however, are abstract concepts that can mean different things to different investors. As to risk, some investors' primary concern might be the eventuality of large, negative returns, also known as downside risk or event risk[2]. For others, 'risk' might mean aversion to losses in general or more simply the degree of projected volatility in the return streams. While these metrics tend to be related, they can also yield different pictures of risk for a given asset allocation comparison.

Likewise, regarding reward, many investors' primary objective can be thought of simply as wealth maximization. Others, however, most commonly institutional investors, are more narrowly focused on a specific return target or a portfolio spending policy objective. For this reason, a range of risk and return metrics can be utilized in the following analysis. This report has been prepared using those metrics[3] that speak most directly to your objectives and preferences.

There are two reports in the Statistical Comparison:

- The first report, *Hypothetical Efficiency Analysis*, plots a portfolio along two dimensions, depicting the degree to which an investor's asset mix may reduce the chosen risk metric for a given level of reward, (expressed either as 'annual return', or expected return, or as probability of achieving a target return). Risk-adjusted, hypothetically more 'efficient' portfolios will appear above less efficient ones in these reports. As noted previously, however, 'risk' is an abstract concept that can be measured in different ways, and different measures of risk can yield different accounts of portfolio efficiency.
- The second report, '*Hypothetical Range of Returns at 3 Horizons*', depicts the hypothetically most-likely range of returns for each of the asset allocation portfolios in this analysis, for three separate investment horizons as listed on the horizontal axis. The bars in the 'Hypothetical Range of Returns at Three Horizons' chart represent the range of returns per portfolio, and are defined as ranging between the forecast 5th percentile return and the forecast 95th percentile return, annualized, for each horizon. The dash in the bars represent the median forecasted return per portfolio, per horizon. In certain cases, the probability of achieving a given return target will also be shown.

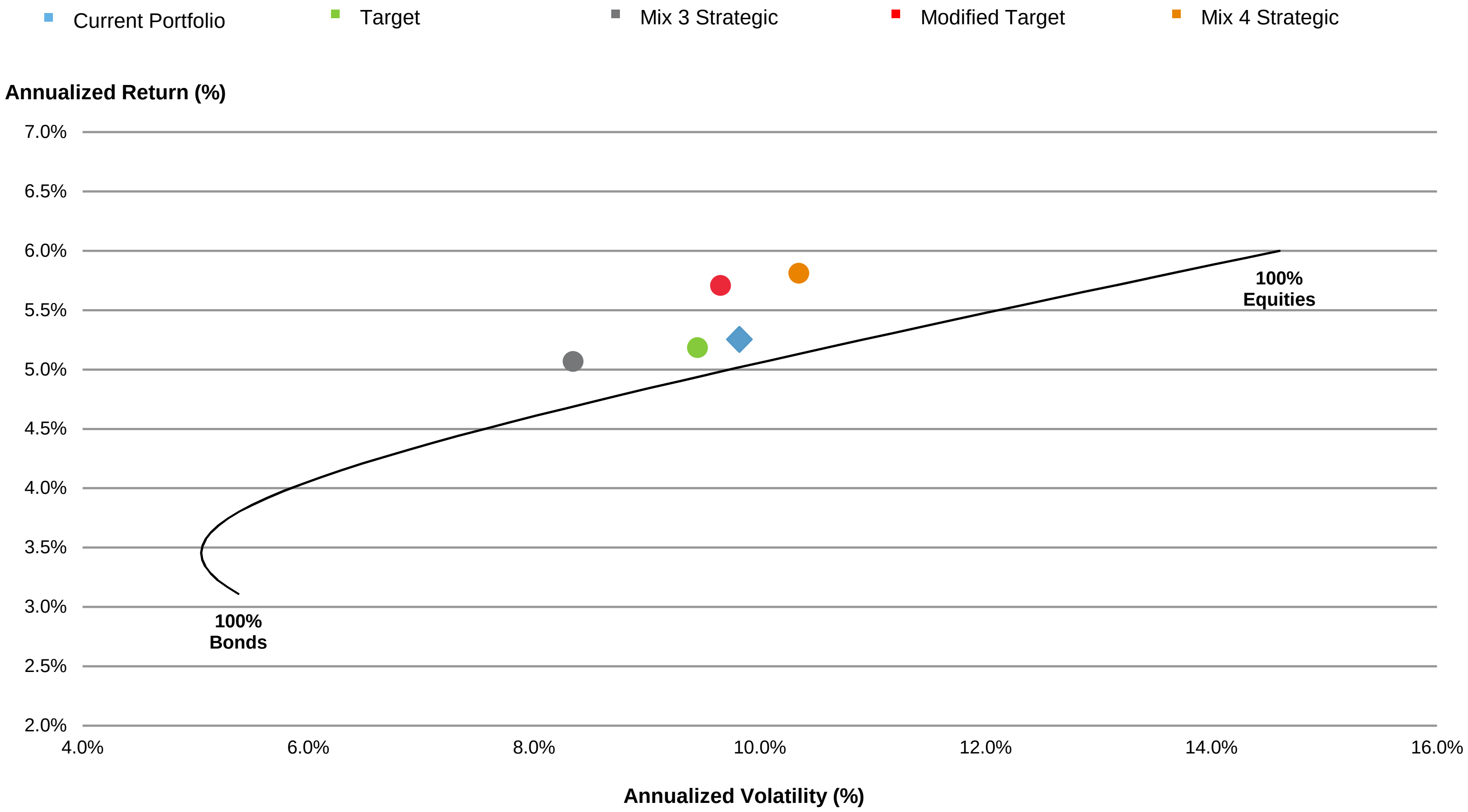
The forecasts of risk and return presented in the 'Statistical Comparison' are based on assumptions of risk and return detailedon pages 4-6of the Appendix.

[1] Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. Return forecast figures are for illustration only; actual results will vary. Hypothetical performance is no guarantee of future results. [2] Event risk is measured in this presentation using Value-at-Risk or Conditional-Value-at-Risk, the latter of which can be thought of as the expected loss in the case of an extreme event (where extreme is defined as an event with 5% probability or less in any given year). [3] Each of these metrics are defined in the Glossary in the Appendix.

STATISTICAL COMPARISON - HYPOTHETICAL EFFICIENCY ANALYSIS*

Report Prepared for Michigan County Road Commission Self-Insurance Pool

EFFICIENCY RELATIVE TO THE EQUITY-BOND FRONTIER



Notes: The 'Equity-Bond Frontier', plotted here for comparison, represents the efficiency of a full spectrum of bond and equity portfolios that vary by their proportion of each from 100% bonds to 100% equities. *All figures based on assumptions of risk and return detailed on pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of certain terms used above.

IMPORTANT: The projections or other information generated by the Asset Allocation Center, the investment analysis tool used to compile this report, regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect any actual investment results, and are not guarantees of future results. Results generated using this simulation analysis will vary with each use and over time. Please see the Appendix for important disclosures about this presentation.

STATISTICAL COMPARISON - HYPOTHETICAL RANGE OF RETURNS AT 3 HORIZONS

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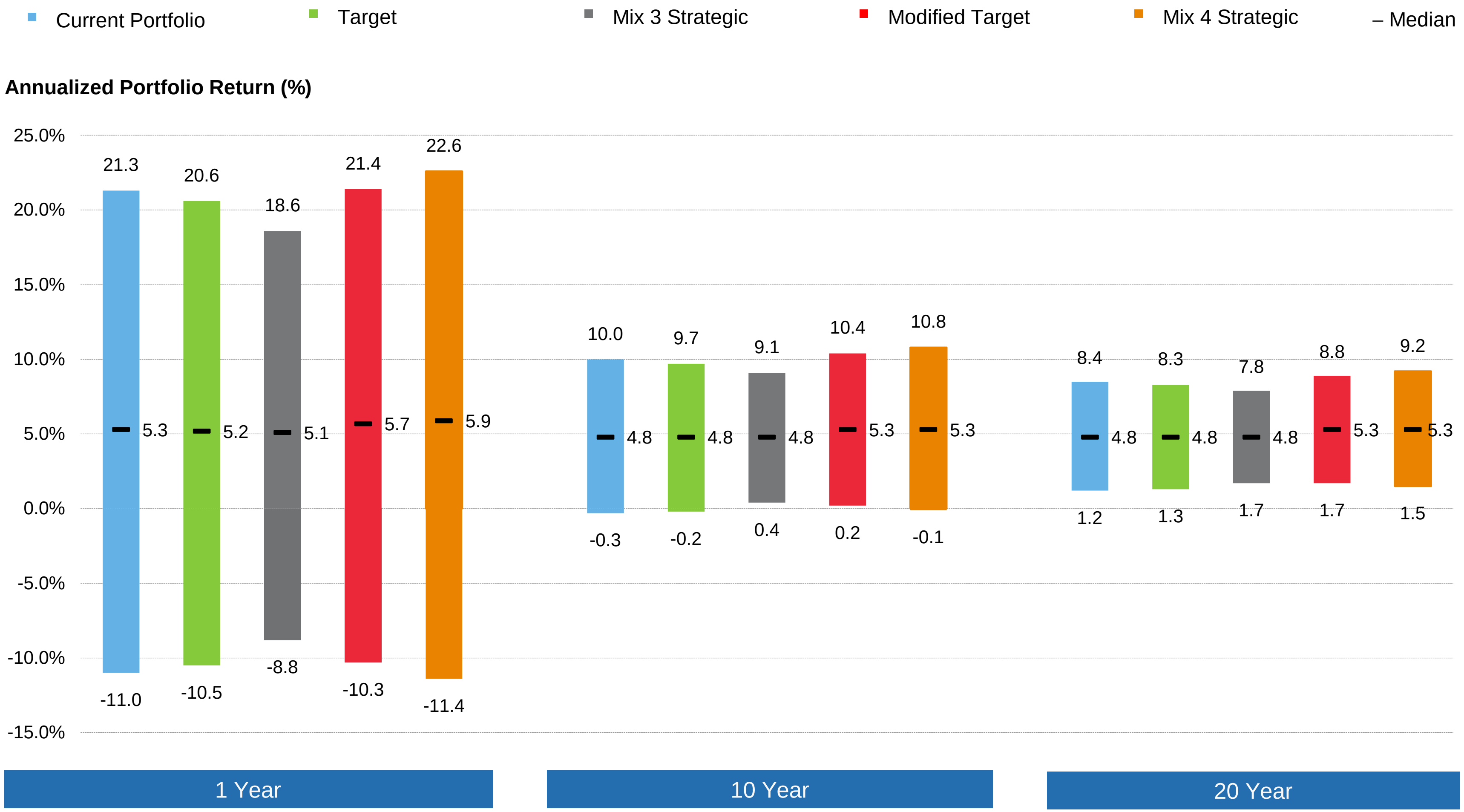
RANGE OF RETURNS



Source: Global Investment Committee

All figures above arebased on assumptions of risk and return detailed on pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of certain terms used above.

IMPORTANT: The projections or other information generated by the Asset Allocation Center, the investment analysis tool used to compile this report, regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect any actual investment results, and are not guarantees of future results. Results generated using this simulation analysis will vary with each use and over time. Please see the Appendix for important disclosures about this presentation.

APPENDIX

GRANULAR PORTFOLIO ALLOCATIONS

Report Prepared for Michigan County Road Commission Self-Insurance Pool

GRANULAR ALLOCATIONS	Current Portfolio	Target	Mix 3 Strategic	Modified Target	Mix 4 Strategic
Short Term Fixed Income			22.0%		13.0%
US Fixed Income	36.6%	40.0%	18.0%	36.6%	13.0%
International Fixed Income			2.0%		2.0%
High Yield	1.2%		4.0%	1.2%	3.0%
Emerging Markets Fixed Income			1.0%		1.0%
Total Bonds	**37.8%**	**40.0%**	**47.0%**	**37.8%**	**32.0%**
US Large Cap Growth Equity	27.8%	25.0%	9.0%	18.0%	12.0%
US Large Cap Value Equity	14.8%	15.0%	9.0%	13.8%	12.0%
US Mid Cap Growth Equity			2.0%		2.0%
US Mid Cap Value Equity			2.0%		2.0%
US Small Cap Growth Equity	5.1%	5.0%	2.0%	4.0%	2.0%
US Small Cap Value Equity	5.6%	5.0%	2.0%	4.0%	2.0%
Europe Equity	4.8%	6.6%	13.0%	8.8%	17.6%
Japan Equity	1.7%	2.2%	5.5%	3.0%	7.0%
Asia Pacific ex Japan Equity	0.9%	1.2%	2.5%	1.7%	3.4%
Emerging Markets Equity	1.6%		6.0%	4.0%	8.0%
Total Equities	**62.2%**	**60.0%**	**53.0%**	**57.2%**	**68.0%**
Master Limited Partnerships				5.0%	
Total Real Assest				**5.0%**	
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table depicts assumed allocations to *granular asset classes* for the Current and Proposed Portfolios presented on page . The preceding analysis was based on the allocations listed above and the risk and return assumptions to follow on Pages 4-6 of the Appendix.

ASSET CLASS TO GRANULAR ASSET CLASS MAPPING

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ASSET CLASS MAPPING		
BROAD ASSET CLASSES	**ASSET CLASSES**	**GRANULAR ASSET CLASSES**
Cash	Cash & Cash Equivalents	*Ultra-Short Fixed Income*
Bonds	Investment Grade Bonds	*Short Term Fixed Income*
		US Fixed Income
		International Fixed Income
		Inflation-Linked Securities
	High Yield Bonds	*High Yield*
	Emerging Market Bonds	*Emerging Markets Fixed Income*
Equities	US Equity	*US Large Cap Growth Equity*
		US Large Cap Value Equity
		US Mid Cap Growth Equity
		US Mid Cap Value Equity
		US Small Cap Growth Equity
		US Small Cap Value Equity
	International Equity	*Europe Equity*
		Japan Equity
		Asia Pacific ex Japan Equity
	Emerging Markets Equity	*Emerging Markets Equity*
Alternatives	Absolute Return Assets	*Absolute Return Assets*
	Equity Hedge Assets	*Equity Hedge Assets*
	Equity Return Assets	*Equity Return Assets*
	Private Equity	*Private Credit*
		Private Equity
Real Assest	Real Assets	*Real Estate Investment Trusts*
		Commodities
		Master Limited Partnerships
	Private Real Estate	*Private Real Estate Funds*

GIC STRATEGIC MODEL ALLOCATIONS

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Level 2 Strategic Model Allocations	Model 1	Model 2	Model 3	Model 4	Model 5
Ultra-Short Fixed Income	13.0%	9.0%	5.0%	2.0%	
Total Cash	**13.0%**	**9.0%**	**5.0%**	**2.0%**	
Short Term Fixed Income	20.0%	16.0%	10.0%	5.0%	
US Fixed Income	24.0%	19.0%	14.0%	8.0%	
International Fixed Income	2.0%	2.0%	2.0%	1.0%	
High Yield	6.0%	4.0%	4.0%	2.0%	
Emerging Markets Fixed Income	1.0%	1.0%	1.0%		
Total Bonds	**53.0%**	**42.0%**	**31.0%**	**16.0%**	
US Large Cap Growth Equity	3.0%	5.0%	7.0%	9.0%	12.0%
US Large Cap Value Equity	3.0%	5.0%	7.0%	9.0%	12.0%
US Mid Cap Growth Equity	1.0%	1.0%	1.0%	2.0%	2.0%
US Mid Cap Value Equity	1.0%	1.0%	1.0%	2.0%	2.0%
US Small Cap Growth Equity	1.0%	1.0%	1.0%	2.0%	2.0%
US Small Cap Value Equity	1.0%	1.0%	1.0%	2.0%	2.0%
Europe Equity	6.0%	8.0%	12.0%	15.0%	21.0%
Japan Equity	3.0%	4.0%	4.0%	6.0%	7.0%
Asia Pacific ex Japan Equity		1.0%	2.0%	2.0%	3.0%
Emerging Markets Equity	3.0%	4.0%	5.0%	6.0%	8.0%
Total Equities	**22.0%**	**31.0%**	**41.0%**	**55.0%**	**71.0%**
Absolute Return Assets	2.0%	4.0%	2.0%	1.0%	
Equity Hedge Assets			4.0%	4.0%	4.0%
Equity Return Assets				3.0%	6.0%
Private Credit	1.0%	2.0%	2.0%	3.0%	3.0%
Private Equity	1.0%	3.0%	6.0%	6.0%	6.0%
Total Alternatives	**4.0%**	**9.0%**	**14.0%**	**17.0%**	**19.0%**
Real Estate Investment Trusts	1.0%	2.0%	2.0%	2.0%	2.0%
Master Limited Partnerships	3.0%	4.0%	4.0%	4.0%	4.0%
Private Real Estate Funds	4.0%	3.0%	3.0%	4.0%	4.0%
Total Real Assest	**8.0%**	**9.0%**	**9.0%**	**10.0%**	**10.0%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Model Portfolios are globally diversified balanced portfolios that reflect the best thinking of the Global Investment Committee for specific client circumstances, and range in market risk exposure from lowest (Model 1) to highest (Model 5). Level 1 Model Portfolios are recommended for clients with fewer than $25mm in investable assets. Level 2 Model Portfolios are recommended for clients with more than $25mm in investable assets. The difference between Level 1 and Level 2 is owed to the higher account minimums and lesser liquidity of Private Equity and Private Real Estate. The model allocations above are current as of the date of this Presentation, but are subject to change. Morgan Stanley has no obligation to notify you when they may change. Please refer to the end of this Appendix for important disclosures about this presentation.

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GIC RISK AND RETURN ASSUMPTIONS

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	Strategic Forecasts			
	Return	Volatility	Skewness	Kurtosis
Cash & Bonds				
Ultra-Short Fixed Income	2.0%	0.9%	0.21	2.98
Short Term Fixed Income	2.0%	2.7%	0.06	3.04
US Fixed Income	3.1%	5.4%	-0.13	3.05
International Fixed Income	2.2%	4.2%	-0.06	2.99
Inflation-Linked Securities	2.5%	7.6%	-0.17	3.02
High Yield	3.4%	9.8%	-0.07	3.04
Emerging Markets Fixed Income	5.4%	12.6%	0.03	3.08
Equities				
US Large Cap Growth Equity	5.8%	16.2%	-0.01	3.03
US Large Cap Value Equity	6.2%	14.2%	-0.05	3.02
US Mid Cap Growth Equity	6.6%	19.1%	-0.02	3.05
US Mid Cap Value Equity	6.4%	15.4%	-0.03	3.04
US Small Cap Growth Equity	7.7%	21.7%	-0.04	3.02
US Small Cap Value Equity	8.0%	17.3%	-0.02	3.02
Europe Equity	7.7%	16.7%	-0.03	3.02
Japan Equity	8.0%	20.4%	-0.13	3.02
Asia Pacific ex Japan Equity	8.1%	22.5%	-0.09	3.08
Emerging Markets Equity	9.6%	22.1%	0.00	3.05
Non-Traditional Asset Classes*				
Absolute Return Assets	3.5%	4.0%	-0.20	3.11
Equity Hedge Assets	4.4%	8.3%	0.01	2.95
Equity Return Assets	4.9%	8.3%	-0.12	3.04
Real Estate Investment Trusts	6.3%	17.0%	-0.04	3.05
Commodities	4.1%	14.8%	-0.08	3.07
Master Limited Partnerships	11.7%	20.9%	-0.02	3.05
Private Real Estate Funds	8.1%	18.0%	-0.75	4.05
Private Credit	4.5%	8.2%	-0.36	3.52
Private Equity	9.1%	18.4%	-1.00	4.37

Source: Global Investment Committee as of March 31, 2017. Annual return is the forecasted arithmetic average annual return. Annualized volatility, skewness and kurtosis estimates are based on the longest available data through March 31, 2017. Strategic Forecasts are calibrated to a 7 year investment horizon. Secular Forecasts are calibrated to a 20+ year horizon.

Forecast estimates are for illustrative purposes only, are based on proprietary models and are not indicative of the future performance of any specific investment, index or asset class. Actual performance may be more or less than the estimates shown in this table. Estimates of future performance are based on assumptions that may not be realized.

* The GIC applies significant statistical adjustments to correct for distortions typically associated with hedge fund, private equity and private real estate index returns. For more information, see the 'Return Series Adjustments' section on Appendix page 18.

Investor Suitability: Morgan Stanley recommends that investors independently evaluate each asset class, investment style, issuer, security, instrument or strategy discussed. Legal, accounting and tax restrictions, transaction costs and changes to any assumptions may significantly affect the economics and results of any investment. Investors should consult their own tax, legal or other advisors to determine suitability for their specific circumstances. Investments in private funds (including hedge funds, managed-futures funds and private-equity funds) are speculative and include a high degree of risk.

All figures annualized. Asset class returns are assumed to be serially independent. In some cases, the asset classes in the forgoing presentation are aggregations of the asset classes listed above, as per the mapping detailed on page 2 of the Appendix. Assumptions for aggregated asset class are simply aggregates of the above assumptions with weights as per the Granular Portfolio Allocations on Page 1 of the Appendix and Model Allocations on page 3 of the Appendix respectively. Please refer to the end of this Appendix for important disclosures about this presentation.

CLIENT FEE ASSUMPTIONS

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FEE ASSUMPTIONS	Strategic Gross Return Forecast	Annual Fees*	Strategic Yield	After-Fee Strategic Return
Ultra-Short Fixed Income	2.0%	0.0%	1.8%	2.0%
Short Term Fixed Income	2.0%	0.0%	1.6%	2.0%
US Fixed Income	3.1%	0.0%	2.2%	3.1%
International Fixed Income	3.1%	0.0%	1.2%	3.1%
Inflation-Linked Securities	2.5%	0.0%	1.2%	2.5%
High Yield	2.3%	0.0%	7.7%	2.3%
Emerging Markets Fixed Income	5.5%	0.0%	5.6%	5.5%
US Large Cap Growth Equity	5.8%	0.0%	1.7%	5.8%
US Large Cap Value Equity	6.2%	0.0%	2.7%	6.2%
US Mid Cap Growth Equity	6.6%	0.0%	1.5%	6.6%
US Mid Cap Value Equity	6.4%	0.0%	2.9%	6.4%
US Small Cap Growth Equity	7.7%	0.0%	1.7%	7.7%
US Small Cap Value Equity	8.0%	0.0%	3.5%	8.0%
Europe Equity	7.7%	0.0%	2.5%	7.7%
Japan Equity	8.0%	0.0%	1.5%	8.0%
Asia Pacific ex Japan Equity	8.1%	0.0%	2.8%	8.1%
Emerging Markets Equity	9.6%	0.0%	2.8%	9.6%
Absolute Return Assets	3.5%	0.0%	0.0%	3.5%
Equity Hedge Assets	4.4%	0.0%	0.0%	4.4%
Equity Return Assets	4.9%	0.0%	0.0%	4.9%
Real Estate Investment Trusts	6.3%	0.0%	4.0%	6.3%
Commodities	4.1%	0.0%	1.8%	4.1%
Master Limited Partnerships	11.7%	0.0%	6.1%	11.7%
Private Real Estate Funds	8.1%	0.0%	0.0%	8.1%
Private Credit	4.5%	0.0%	0.0%	4.5%
Private Equity	9.1%	0.0%	0.0%	9.1%
PORTFOLIO LEVEL FEES		0.00%		

Gross Return Forecasts Source: Global Investment Committee. Strategic Forecasts are calibrated to a 7 year investment horizon. Secular Forecasts are calibrated to a 20+ year horizon.

NOTE: The foregoing hypothetical analysis has been prepared on a 'before-tax basis', i.e. it assumes that no tax liability is applicable to any dividends, income or capital gains generated by the investment portfolio. Morgan Stanley, its affiliates, and its Financial Advisors or Private Wealth Advisors do not provide legal or tax advice.

* If included in this analysis, Portfolio and Asset Class Level fees are hypothetical in nature, and do not reflect any specific expenses or fees that might actually be incurred in your portfolio. We include them here to reflect our cognizance of the capacity for expenses and fees to reduce the returns investors ultimately realize, not by way of forecasting their potential magnitude at the portfolio or asset class level.

Please note that return forecasts for alternative asset classes, with the exception of Commodities, TIPS, REITS, MLPs, Infrastructure and Natural Resources, already incorporate an estimate of the fund-level fees. Fee inputs here are used either to control for higher than average fees, or to add the layer of fees associated with fund-of-fund products or other vehicles that carry additional fees.

Please refer to the end of this Appendix for important disclosures about this presentation.

Graystone Consulting
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GIC CORRELATION ASSUMPTIONS

Report Prepared for Michigan County Road Commission Self-Insurance Pool

CORRELATION MATRIX

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1 Ultra-Short Fixed Income	1.00																									
2 Short Term Fixed Income	0.29	1.00																								
3 US Fixed Income	0.07	0.90	1.00																							
4 International Fixed Income	0.17	0.58	0.71	1.00																						
5 Inflation-Linked Securities	0.04	0.47	0.60	0.39	1.00																					
6 High Yield	0.02	0.12	0.24	0.15	0.45	1.00																				
7 Emerging Markets Fixed Income	0.10	0.33	0.38	0.18	0.78	0.69	1.00																			
8 US Large Cap Growth Equity	0.02	0.11	0.17	0.03	0.26	0.61	0.61	1.00																		
9 US Large Cap Value Equity	0.03	0.15	0.21	0.08	0.32	0.64	0.63	0.93	1.00																	
10 US Mid Cap Growth Equity	0.03	0.03	0.05	0.01	0.26	0.62	0.60	0.97	0.91	1.00																
11 US Mid Cap Value Equity	0.01	0.02	0.13	0.08	0.37	0.67	0.63	0.93	0.97	0.95	1.00															
12 US Small Cap Growth Equity	0.01	0.03	0.07	0.04	0.22	0.61	0.55	0.91	0.89	0.95	0.93	1.00														
13 US Small Cap Value Equity	0.01	0.09	0.13	0.01	0.29	0.64	0.56	0.85	0.93	0.88	0.95	0.94	1.00													
14 Europe Equity	0.01	0.14	0.17	0.06	0.47	0.63	0.70	0.88	0.86	0.86	0.85	0.79	0.75	1.00												
15 Japan Equity	0.01	0.08	0.09	0.00	0.27	0.33	0.46	0.63	0.60	0.61	0.60	0.57	0.54	0.70	1.00											
16 Asia Pacific ex Japan Equity	0.03	0.04	0.07	0.11	0.49	0.69	0.82	0.84	0.79	0.84	0.80	0.75	0.69	0.87	0.63	1.00										
17 Emerging Markets Equity	0.03	0.01	0.03	0.01	0.41	0.71	0.80	0.81	0.75	0.81	0.76	0.73	0.66	0.85	0.63	0.94	1.00									
18 Absolute Return Assets	0.17	0.14	0.18	0.09	0.44	0.80	0.63	0.59	0.62	0.61	0.66	0.61	0.64	0.62	0.33	0.62	0.63	1.00								
19 Equity Hedge Assets	0.10	0.32	0.32	0.36	0.35	0.09	0.25	0.06	0.08	0.07	0.10	0.04	0.06	0.12	0.02	0.16	0.14	0.18	1.00							
20 Equity Return Assets	0.18	0.06	0.07	0.05	0.38	0.72	0.67	0.78	0.71	0.85	0.73	0.85	0.76	0.75	0.44	0.73	0.74	0.80	0.19	1.00						
21 Real Estate Investment Trusts	0.04	0.10	0.22	0.22	0.54	0.65	0.75	0.58	0.70	0.59	0.74	0.57	0.68	0.73	0.53	0.83	0.71	0.56	0.14	0.60	1.00					
22 Commodities	0.10	0.08	0.04	0.08	0.49	0.36	0.50	0.26	0.32	0.32	0.35	0.29	0.31	0.40	0.30	0.46	0.43	0.45	0.23	0.45	0.39	1.00				
23 Master Limited Partnerships	0.08	0.19	0.11	0.09	0.14	0.61	0.44	0.65	0.65	0.66	0.67	0.63	0.64	0.75	0.43	0.58	0.65	0.64	0.10	0.70	0.56	0.21	1.00			
24 Private Real Estate Funds	0.22	0.09	0.09	0.06	0.22	0.27	0.34	0.34	0.50	0.31	0.49	0.34	0.48	0.40	0.21	0.34	0.27	0.37	0.07	0.39	0.46	0.32	0.41	1.00		
25 Private Credit	0.02	0.23	0.21	0.06	0.02	0.33	0.29	0.69	0.50	0.71	0.46	0.69	0.45	0.49	0.39	0.44	0.46	0.32	0.10	0.56	0.36	0.06	0.45	0.29	1.00	
26 Private Equity	0.11	0.14	0.13	0.02	0.19	0.51	0.44	0.75	0.68	0.72	0.64	0.70	0.58	0.63	0.39	0.55	0.53	0.51	0.05	0.66	0.52	0.21	0.58	0.42	0.57	1.00

Source: Global Investment Committee as of March 31, 2017. Based on the longest available data through March 31, 2017. Correlation is a statistical method of measuring the strength of a linear relationship between two variables. The correlation between two variables can assume any value from -1.00 to +1.00, inclusive. Past performance is not indicative of future results. We apply significant statistical adjustments to correct for distortions typically associated with index returns for hedge funds, private equity and private real estate. Correlation assumptions are the same for the strategic and intermediate-term horizons. All figures expressed annually. Asset class returns are assumed to be serially independent. Note that while the asset classes in the foregoing presentation are in certain cases aggregations of the asset classes listed above, their assumptions are aggregations of the above.

GLOSSARY

- **Beta:** A measure of the linear relationship between an asset or asset class and the asset or asset class it is being compared to, most typically that between an individual stock and a market index. In the context of a stock to a market index, a stock's beta dictates the average degree to which its historical returns coincided with the returns to the index. A beta of 2, for example, implies that a stock has, on average, moved in the same direction as the index, (given that the beta is positive), but with double its magnitude (i.e. a market increase of 5% would, on average, portend a stock increase of 10%, while a market decrease of 5% would, on average, portend a stock decrease of 10%). In this presentation, beta is used to model the relationship between a stock and a proxy index, in conjunction with the stock's overall volatility (defined subsequently here).
- **Conditional Value-at-Risk (Annual):** A measure of the downside risk of an investment portfolio, Conditional Value-at-Risk is the *expected (*annual) loss in the event the portfolio experiences a 'one year in twenty' downside event, i.e. a downside returns event so severe one might probabilistically expect it to occur, on average, once every 20 years. In other words, Conditional Value-at-Risk is the average portfolio loss *conditional* on the portfolio experiencing particularly adverse circumstances. As contrasts with Value-at-Risk, (defined subsequently), the metric is affected not just by the dispersion across all downside extremes, but by the dispersion within downside extremes.
- **Correlation**: Correlation, or correlation coefficient, is a mathematical representation of the relationship between two asset classes and ranges between -1 and +1. Perfect positive correlation (a correlation co-efficient of 1) implies that as a security moves, either up or down, the correlated security moves in lockstep. Perfect negative correlation, alternatively, means that if one security moves in either direction the security that is perfectly negatively correlated will move by an equal degree in the opposite direction. If the correlation is 0, the movements of the securities or asset classes are independent, meaning one's moving does not increase or decrease the likelihood of the other's moving.
- **Efficiency Analysis**: Efficiency analysis plots portfolios along two dimensions, one corresponding to an investment objective, most typically forecasted return, and the second to risk, most typically forecasted volatility, so as to evaluate the *efficiency* by which one is achieved at the expense of the other. Graphically speaking, more 'efficient' portfolios appear in an efficiency analysis chart above less efficient ones controlled for forecasted risk, i.e. at the same point along the horizontal axis. Research suggests that skillful blending of asset classes can maximize the tradeoff between objective and risk, and thus 'efficiency' is relevant to the determination of an appropriate strategic asset allocation.
- **Fat-Tailed Return Distribution**: A probability distribution implying that large deviations from the average are materially more probable than what so-called 'normal' probability distributions imply is commonly referred to as being 'fat tailed'. For further on this property of distributions, please see the '**Skewness'** and '**Kurtosis**' entries further in this Glossary.
- **Kurtosis**: A statistical measure of the "peakedness" of a distribution. In a return series that is leptokurtic, i.e. one that exhibits higher kurtosis than the normal distribution, risk is manifested through low frequency high impact 'events', both positive and negative, measured as returns several standard deviations away from the average. These distributions are called 'fat tailed' because their extremes are *thick* with probability (the normal distribution is 'thin tailed' such that returns 3 or more standard deviations away from the average are exceedingly rare). In 'low kurtosis' return series, i.e. kurtosis less than or equal to normal, risk is manifested through high frequency deviations close to the average. The vast majority of financial return series are leptokurtic, however some investments, e.g. hedge funds, are significantly more so than other investments, which is an unfavorable attribute of their profile.
- **Percentile Return**: a measure of uncertainty based upon the forecast likelihood of events. For example, 5th percentile return is defined as the portfolio return that only 5% of potential returns are less than (and by implication 95% of returns are greater than), a number which will vary greatly with the forecast frequency of adverse return events.
- **Probability of Return**: In simple terms, the likelihood of a given return threshold being passed. Specifically, in the context of a model of capital market dynamics, risk and return forecasts can be used to infer the likelihood that a given portfolio's return will be above or below any nominal threshold at any specific future point in time.
  - **Probability < 0% or Probability of Loss** is the probability that portfolio return will be *less than or equal to* zero.
  - **Probability > Target Return or Probability > 7520 Rate** is the probability that portfolio return will be *greater than or equal to* the supplied target or 7520 rate. As with other such figures, the accuracy of those predictions are based on the accuracy of the risk, return and distributional assumptions applied to the calculation.

GLOSSARY (CONT'D)

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- **Probability Density:**one way to express the likelihood of a particular event is to display its probability density. The more a given event is 'dense with probability' the more likely it is. In this analysis, probability density is used to elaborate the relative likelihood of a portfolio's achieving a specified value at a specified time in the investment horizon.

- **Probability of Return**:In the context of an internally consistent model, risk and return forecasts can be used to infer the likelihood that a given portfolio's return will be above or below any nominal threshold.
  - **Probability < 0% or Probability of Loss** is the probability that portfolio return will be *less than or equal to* zero.
  - **Probability of Target Return** is the probability that portfolio return will be *greater than or equal to* the supplied target. As with the other figures in this analysis, the accuracy of those predictions are based on the accuracy of the risk, return and distributional assumptions applied to the calculation.

- **Return Forecast**: Projected annual rate of change in the price of an asset class or portfolio. In the foregoing analysis, Portfolio Return Forecasts are based on a weighted average of the return assumptions for granular asset classes, detailed Appendix 4, where the weights are equal to the portfolio itself.

- **Scenario Analysis**: An examination of the effect of a specified event- historical, hypothetical or some combination of the two (here conditional)- on a portfolio's return. Another name for 'what if' analysis.

- **Sharpe Ratio**: Developed by William F. Sharpe, this calculation measures the risk-adjusted return, or 'efficiency', of a portfolio. The Sharpe Ratio is calculated as the *excess* expected return an investment or portfolio delivers divided by its expected volatility, i.e. standard deviation, where excess means expected return minus the risk free rate of return. One criticism of Sharpe ratios is that the measure of risk, portfolio standard deviation, penalizes all forms of dispersion equally, upside and downside, and does not sufficiently control for downside event risk.

- **Skewness**: A statistical measure of asymmetry of an asset class or portfolio return distribution. Negative skew is an undesirable characteristic of some investments, e.g. private real estate, indicating that left hand tail of a return distribution (representing the likelihood of downside deviation from average) is 'longer' than the right hand, i.e. that downside events are bigger than their reciprocally plausible upside ones. By corollary, the bulk of the values of negatively skewed distributions lie above the average. Positive skewed distributions, such as private equity and managed futures, exhibit the opposite behavior, and distributions with zero skew are balanced about the average.

- **Standard Deviation**: A statistical measure of the dispersion of data (in the context of this report, return data). Standard deviation can be thought of as the *average* difference between an individual data point and the average value of all data points under consideration. All else equal, more broadly distributed returns will have a higher standard deviation than more narrowly distributed returns.

- **Turnover**: A measure of the average holding period of an investment in a client's portfolio. Portfolio turnover is calculated by taking either the total value of securities bought or sold – whichever is less – over a 12-month time period, divided by net asset value. The GIC's assumptions of asset class turnover are based on the average turnover values of managers in that category.

- **Value-at-Risk (Annual)**: A measure of the downside risk of an investment portfolio, it is defined in this presentation as the portfolio loss that is less than 95% of projected one year returns. One way to interpret the statistic is that drawdowns of this magnitude or greater would be, on average, anticipated in one out of every twenty years, subject to the accuracy of the risk, return and distributional assumptions applied to the calculation.

- **Volatility**: A measure of the magnitude of variability of the returns of an asset class or security, measured statistically as the forecasted standard deviation of those returns (see above). It is generally the case that a larger dispersion of return implies greater risk, as this implies more substantially adverse outcomes for a given level of likelihood of their occurrence.

ASSET CLASS DEFINITIONS

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- **Cash**: Representative Index- Bloomberg US Generic Government 3M Yield (1954 – March 18, 2017)
  - Treasury bills and other money markets debt securities with very short-term maturities are called cash or cash equivalents. They earn interest based on agreed upon rates that are in practice heavily influenced Federal Reserve overnight policy interest rates.
- **Short Duration**: Representative Index- Barclays U.S. Government/Credit 1-3 Year Bond Index (1976 – March 18, 2017)
  - Fixed-rate, short-term debt of developed-market countries. Currency exposure is hedged to the US dollar.
- **US Investment Grade Fixed Income**: Representative Index- Barclays Capital US Aggregate Bond Index (hedged) (1976 – March 18, 2017)
  - US investment grade (treasury, government agency, investment grade corporate, agency mortgage-backed security, etc.) debt securities with a maturity of 1 year or greater.
- **International Investment Grade Fixed Income**: Representative Index- Barclays Capital Non-USD Aggregate Bond Index (hedged) (1990 – March 18, 2017)
  - Global investment-grade, fixed-rate corporate debt securities as well as the securitized component that includes mortgage-backed securities, asset-backed securities, and commercial mortgage-backed securities. Currency exposure is hedged to the US dollar.
- **Municipal Bonds**: Representative Index- Barclays Capital Municipal Bond Index, (1980 - March 18, 2017)
  - Bonds issued by US state and local governments or their agencies which are tax advantaged for investors subject to federal (and sometimes state) US income tax liability.
- **Floating Rate Notes**: Representative Index- Barclays Capital US Floating Rate Note Index (2003 – March 18, 2017)
  - Bonds whose coupon payments are reset periodically based on a reference index, most commonly a money market interest rate such as LIBOR, plus an explicit spread to the reference rate contractually specified at issuance. Floating Rate Notes have low interest rate risk due to the fact that their baseline interest rate 'floats' on prevailing interest rates, however, they have the same exposure to credit and credit spread risk as other corporate bonds with similar risk factors and spread duration.
- **High Yield**: Representative Index- Barclays Capital Global High Yield Index (hedged) (1990 – March 18, 2017)
  - Globally issued speculative grade corporate and securitized bonds, typically without a long track record of sales or of questionable credit quality, and generally rated BB+ (S&P/Fitch) or Ba+ (Moody's) or lower. High yield bonds trade at a premium yield to investment grade bonds to compensate investors for their higher risk (which accounts for their name). Currency exposure is hedged to the US dollar.
- **High Yield Municipal Bonds**: Representative Index- Barclays Capital Municipal High Yield Index, (2003-March 18, 2017)
  - Bonds issued by financially distressed US state and local governments or their agencies which, like investment grade Municipal Bonds, are tax advantaged for investors subject to federal (and sometimes state) US income tax liability. High Yield Municipal Bonds, like the corporate variety, are typically rated speculative grade by the credit rating agencies- BB+ (S&P/Fitch) or Ba+ (Moody's) or lower. They also trade at a premium yield to investment grade bonds to compensate investors for their higher risk.
- **Emerging Market Bonds**: Representative Index- JP Morgan Government Bond Index, Emerging Markets Global Diversified Composite (local currency, unhedged) (2003 – March 18, 2017)
  - Debt instruments issued by emerging market sovereigns and corporations and denominated in the currency of their domicile. Securities issued by foreign corporations or governments may be subject to market, economic, political or other conditions affecting the respective government, company, industry or country.
- **Emerging Market Corporate Bonds**: Representative Indices- JP Morgan Corporate Emerging Markets Bond Index, US dollar (2007 – March 18, 2017), JP Morgan Emerging Market Bond Index, US Dollar (1994 – 2007)
  - Debt instruments issued by emerging market corporations and quasi-sovereign corporations (more than 50% government ownership) domiciled in the emerging markets of Latin American, Eastern Europe, the Middle East/Africa, and Asia and denominated in US dollars. Securities issued by foreign corporations may be subject to market, economic, political or other conditions affecting the respective government, company, industry or country.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

- **Inflation-Linked Securities**: Representative Index- Barclays Capital Universal Government Inflation-Linked Bond Index (1997 – March 18, 2017)
  - A special type of government bond whose principal and coupon payments are reset based on changes in a reference measure of retail inflation, (e.g. the Bureau of Economic Analysis's Consumer Price Index in the US), thereby attempting to reduce its exposure to the potentially deleterious effects of inflation on bond investments.
- **Preferred Stock** : Representative Index- The BofA Merrill Lynch Fixed Rate Preferred Securities Total Return Index (1989 – March 18, 2017)
  - Ownership in a corporation with a higher claim on the assets and earnings than common stock, but no residual claim on earnings beyond the contractually specified dividends, and usually no voting rights. Preferred stock is generally junior to the secured, unsecured and subordinated debt of an issuing company in the corporation's capital structure, which implies greater credit and cash flow risks than traditional debt and debentures. As a result, preferred stocks tend to trade at higher yields than similar cash flow/issuer credit quality bonds to compensate investors (preferred stock pays a contractually formalized dividend that in practice functions like a coupon).
- **Convertible Bonds :** Representative Index- Merrill Lynch Convertible Bond Index (2003 – March 18, 2017)
  - Convertible bonds are corporate bonds embedded with equity warrants that give the owner the right to 'convert' the bond security into common stock, ADRs, or a cash equivalent at a contractually specified conversion ratio. Depending on the ratio and the performance of the reference equity security, convertible bonds can trade like equities, like bonds, or as a hybrid of the two. Convertible bonds are also considered to be exposed to equity volatility via the embedded warrant, and the spread on the baseline bond security.
- **US Large-Cap Growth Equities**: Representative Index- Russell 1000 Growth Index (1979 – March 18, 2017)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in the approximately 1000 largest securities on a combination of market and current index membership in the US equity universe.
- **US Large-Cap Value Equities**: Representative Index- Russell 1000 Value Index (1979 – March 18, 2017)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in the approximately 1000 largest securities on a combination of market and current index membership in the US equity universe.
- **US Mid-Cap Growth Equities**: Representative Index- Russell Midcap Growth Index (1986 – March 18, 2017)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in medium capitalization companies in the US equity universe.
- **US Mid-Cap Value Equities**: Representative Index- Russell Midcap Value Index (1986 – March 18, 2017)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in medium capitalization companies in the US equity universe.
- **US Small-Cap Growth Equities**: Representative Index- Russell 2000 Growth Index (1979 – March 18, 2017)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in the approximately 2000 smallest securities on a combination of market and current index membership in the US equity universe.
- **US Small-Cap Value Equities**: Representative Index- Russell 2000 Value Index (1979 – March 18, 2017)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in the approximately 2000 smallest securities on a combination of market and current index membership in the US equity universe.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

- **International Developed Market Equities:** Representative Index- MSCI Europe Asia Far East IMI Index (1970 – March 18, 2017).
  - Stocks traded in developed markets outside the United States. Investing in the securities of such companies and countries adds foreign exchange rate risk for US based investors, however can also provide diversification.
    - **Canada Equities:** Representative Index- MSCI Canada IMI Index (1970 – March 18, 2017)
      - Stocks traded in Canada.
    - **Europe Equities:** Representative Index- MSCI Europe IMI Index (1970 – March 18, 2017)
      - Stocks traded in Developed Europe.
    - **UK Equities**: Representative Index- MSCI UK IMI Index (1970 – March 18, 2017)
      - Stocks traded in the United Kingdom.
    - **Japan Equities**: Representative Index- MSCI Japan IMI Index (1970 – March 18, 2017)
      - Stocks traded in Japan.
    - **Pacific ex Japan Equities**: Representative Index- MSCI Pacific ex Japan IMI Index (1970 – March 18, 2017)
      - Stocks traded in the developed markets of the Pacific region excluding Japan (i.e., primarily Australia, Hong Kong, New Zealand and Singapore).
    - **World ex US Small-Cap Equities**: Representative Index- MSCI World ex US Small Cap IMI Index (1995 – March 18, 2017)
      - Small capitalization stocks traded throughout the developed markets outside the US.
- **Emerging Market Equities**: Representative Index- MSCI Emerging Markets IMI Index (1988 – March 18, 2017)
  - Stock issued by companies domiciled in emerging markets. Investing in the securities of such companies and countries involves certain consideration not usually associated with investing in developed countries, including political and economic situations and instability, adverse diplomatic developments, price volatility, lack of liquidity and fluctuations in the currency exchange.
- **Frontier Emerging Market Equities**: Representative Index- MSCI Frontier Markets Index (2002 – March 18, 2017)
  - Stock issued by companies domiciled in frontier emerging markets, which are the least developed emerging market countries. Investing in the securities of such companies and countries exacerbates the considerations associated with investing in emerging market countries, including political and economic situations and instability, adverse diplomatic developments, price volatility, lack of liquidity and fluctuations in the currency exchange.
- **US & Global Equity Market Sector, Style and Capitalization Segments**: Representative Indices as per the relevant component of the MSCI World IMI Index (1988 – March 18, 2017)
  - Under certain circumstances, it may be necessary to capture the sector and/or capitalization specifics of an underlying client holding. In these cases, the GIC will model the exposure according to the component of the MSCI All Country World IMI Index which it best matches. For example, a position in a global energy sector fund would be modeled as the MSCI World Energy Sector Index.
- **Real Estate Investment Trusts (REITS)**: Representative Index- FTSE EPRA NAREIT Global Total Return Index (1990 – March 18, 2017)
  - A security that is usually traded like a stock on the major exchanges and invests in real estate directly, either through properties or mortgage loans and securities and 'pas through' the income generated by its investments to shareholders.
- **Master Limited Partnerships (MLPs)**: Representative Index- Alerian MLP Total Return Index (1996 – March 18, 2017)
  - MLPs are limited partnerships that are publicly traded on a securities exchange. MLPs invest in the cash flow generating assets of qualifying commercial enterprises, commonly energy infrastructure (e.g. pipelines). Similarly to REITs, MLPs pass through the vast majority of its earnings to investors as dividend distributions.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

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- **Commodities:** Representative Index- Dow Jones / UBS Commodity Total Return Index (1970 – March 18, 2017)
  - Commodities are distinguished from financial investments in that they are tangible or 'real' assets, such Precious Metals, Cereals, Oil, Copper, Timber, etc. The prices of real assets tend to fluctuate widely and to a large extent unpredictably, due to their high exposure to idiosyncratic factors (e.g. weather). Moreover, commodity prices are affected by a broad range factors including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.
- **Precious Metals:** Representative Index- Dow Jones / UBS Precious Metals Total Return Index (1973 – March 18, 2017)
  - Subset of the larger commodity asset class consisting only of precious metals, including gold, silver, platinum, and palladium, whose low storage costs yield them substantial demand as a monetary store of value/inflation hedge. Precious metals demand is derived largely from jewelry and investors/central banks, with lesser industrial applications compared with base metals and other commodities. Precious metals have high historical volatility and attendant risks, and low historical returns relative to other risk assets, however their reputation for maintaining value in highly adverse geopolitical circumstances ensures a substantial and dedicated investor base. **Note**: The representative index for Precious Metals, S&P GSCI Precious Metals Total Return Index, includes only gold and silver, and assumes they are an effective proxy for precious metals as a whole. Precious metals are more appropriate for the risk capital portion of your portfolio and for investors who have speculative investment objectives.
- **Managed Futures and Managed Futures Sectors**: Representative Indices- Barclay BTop50 Index, Barclay Currency Traders Index, Barclay Agricultural Traders Index, Barclay Discretionary Traders Index, Barclay Diversified Traders Index, Barclay Financial & Metals Traders Index, Barclay Systematic Traders Index, (1980 – March 18, 2017)
  - Managed Futures are alternative investment vehicles that trade financial and commodity futures, forwards and options on such futures and forwards. Assets in managed futures are managed by professional trading managers called Commodity Trading Advisors or CTAs. The BTOP50 Index seeks to replicate the overall composition of the managed futures industry with regard to trading style and overall market exposure and includes the largest investable trading advisor programs, as measured by assets under management, provided the program is open for investment, willing to furnish daily returns, has at least two years of trading activity and its advisor has at least three years of operating history. The BTOP50's portfolio is equally weighted among the selected programs at the beginning of each calendar year and is rebalanced annually. Barclay CTA Sub-Indices group specific managers within the Barclay estimation universe according to their investment strategy (e.g. which markets they invest in, whether they generate their signals through quantitative or qualitative means, etc.).
- **Hedged Strategies and Hedged Strategy Sectors**: Representative Indices- HFRI Fund of Funds Composite Index, HFRI Relative Value Index , HFRI Event-Driven Index, HFRI Equity Hedge Index, HFRI Macro Index, (1990 – March 18, 2017)
  - A private and unregistered investment pool that may employ sophisticated hedging and arbitrage techniques, using long and short positions, leverage and derivatives and investments in many markets. The HFRI Monthly Indices (HFRI) are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. Fund of Funds invest with multiple managers, creating a diversified portfolio of managers with the intent to lower the risk of investing with individual managers. Hedge Fund Research, Inc. ("HFRI"), Funds of Funds Indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.
- **Natural Resources**: Representative Index- MSCI All Country World Infrastructure Utility Total Return Index (1999 – March 18, 2017)
  - Natural resource investments are investment in private and publicly listed enterprises that procure basic resources like timber, water and energy. Private natural energy investments are illiquid and often bear both substantial risks and opportunities for their investors.
- **Leveraged Loans**: Representative Index- S&P/LSTA Leveraged Loan Index (1997 – March 18, 2017)
  - A leveraged loan is a loan, most commonly of low credit quality (often to relatively highly leveraged/speculative entities) that is underwritten, securitized and administered by a financial intermediary, most typically an investment bank, and then syndicated/sold on to ultimate investors. Leveraged loans are often though not always illiquid, concentrated and high risk/return securities.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

- **Private Equity:** Representative Indexes- Venture Economics Private Equity Index/Venture Economics LBO Index/Venture Economics Venture Capital Index/Venture Economics Mezzanine Funds Index (1988 – March 18, 2017), Venture Economics European LBO Index (1988 – March 18, 2017) , MSCI World Infrastructure Total Return Index (1999 – March 18, 2017)
  - Private equity firms that provide equity, debt and debt equity hybrid capital (mezzanine debt) to a wide variety of firms, from start-ups to small, medium and, in certain cases, large capitalization firms, both public and private. Private equity interests are typically highly illiquid, involve a high degree of risk and leverage on the underlying portfolio of companies and can be subject to transfer restrictions. Venture Economics collects quarterly information on individual private equity funds across the private equity sub-strategies listed below. The Venture Economics data set is based on voluntary reporting of fund returns by private equity firms and their limited partners.
    - **Leveraged Buyouts**: Ownership, equity or interest in funds that primarily conduct leveraged buyouts of public and private firms for the purposes of enhancing their efficiency and most typically, resale onto the public market or private entities after several years.
    - **Venture Capital**: Venture Capital funds provide equity capital and other services to enterprises in the early stages of their development for the primary objective of ushering the company through its preliminary development and ultimately selling the company, most commonly through initial public offerings.
    - **Mezzanine Debt**: Private equity transactions often create hybrid capital instruments with both debt and equity features, whether through their speculative nature, their optionality, etc. Mezzanine Debt funds invest in these securities and pass their typically high yield, illiquidity and risk onto their ultimate investors.
    - **European Leveraged Buyouts**: Ownership, equity or interest in funds that primarily conduct leveraged buyouts of public and private firms in Europe for the purposes of enhancing their efficiency and most typically, resale onto the public market or private entities after several years.
    - **Infrastructure**: Ownership interest in infrastructure projects that typically generate reliable cash flows with lesser volatility and upside than other private equity types.
    - **Partnership Interests**: Ownership interests in professional partnerships (e.g. law firms, etc.). There are no indices nor financial returns series that directly measure returns to partnership stakes, but they are often a highly significant component of their owner's net worth. As such, the GIC proxies Partnership Interests with Private Equity, (as per the above), with adjustments to take account of their unique risks, (i.e. lesser leverage and greater exposure to the specific risks of a single enterprise).

- **Private Real Estate**: Representative Indexes- NCREIF Property Index (1980 – March 18, 2017), Investment Property Databank Global Property Index (1980 – March 18, 2017), NCREIF Townsend Fund Index (1988 – March 18, 2017)
  - Commercial real estate properties or funds from all market sectors, unleveraged in the case of property exposure, and varying in the case of real estate funds in their degree of leverage and speculative nature, acquired and held in the private market for investment purpose. Real estate investments are subject to special risks, including interest rate and property value fluctuations, as well as risk related to general and economic conditions.
    - **US Real Estate**: Private Real Estate domiciled within the United States.
    - **Canada Real Estate**: Private Real Estate domiciled within Canada.
    - **UK Real Estate**: Private Real Estate domiciled within the United Kingdom.
    - **Europe ex UK Real Estate**: Private Real Estate domiciled within the developed markets of Europe excluding the United Kingdom.
    - **Japan Real Estate**: Private Real Estate domiciled within Japan.
    - **Dev AP ex Japan Real Estate**: Private Real Estate domiciled within the Pacific Region's developed markets excluding Japan.
    - **Latin America Real Estate**: Private Real Estate domiciled within Latin America.
    - **Emerging Asia Real Estate**: Private Real Estate domiciled within the emerging markets of Asia
    - **Real Estate Funds**: Private Equity Real Estate funds domiciled in the United States, including Core, Value-Added and Opportunistic investments/funds.
    - **Core Real Estate Funds**: Core Private Equity Real Estate funds domiciled in the United States.
    - **Value-Added Real Estate Funds**: Value-Added Private Equity Real Estate funds domiciled in the United States.
    - **Opportunistic Real Estate Funds**: Opportunistic Private Equity Real Estate funds domiciled in the United States.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS RISK CONSIDERATIONS

Report Prepared for Michigan County Road Commission Self-Insurance Pool

There are risks associated with different investment options. For example, **Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate. Bonds are also subject to secondary market risk, as there is no guarantee that a secondary market will exist for a particular fixed income security.

Asset-backed Securities generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments

Interest on **Municipal Bonds** and is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence The tax-exempt status of municipal securities may be changed by legislative process, which could affect their value and marketability. Insurance does not pertain to market values which will fluctuate over the life of the bonds; it covers only the timely payment of interest and principal. Credit quality varies depending on the specific issuer and insurer. Credit ratings shown may be the higher of the 'underlying' rating of the issuer or the rating of any insurer providing credit enhancement to the bonds.

High Yield Municipal Bonds are often but not always exempt from federal tax, and are subject to many of the same risks as Municipal Bonds. In addition, High Yield Municipals, which often do not have recourse to the credit of the governmental issuer, have a substantial risk of default relative to investment grade Municipal Bonds. In this, they are analogous to **Corporate and Securitized High Yield Bonds**, which have speculative characteristics and present significant risks beyond those of other securities, including substantially greater credit risk, price volatility, call option risk and limited liquidity in the secondary market, the latter of which can be substantially exacerbated during periods of market duress. High Yield debt across all sectors should comprise only a limited portion of a balanced portfolio.

Investing in the bonds of foreign **Emerging Markets** entail greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance. Emerging market debt should comprise only a limited portion of a balanced portfolio.

Convertible Bonds and **Preferred Stocks** are subject to market risk including interest risk, credit (default) risk, liquidity risk, and equity risk of the underlying common stocks. They are also subject to dividend risk that the underlying company increases its common stock dividend without similarly adjusting the convertible bond's yield or preferred stock's dividend. This may reduce or even negate the yield advantage over the common stock. The majority of convertible bonds and preferred stocks are 'callable' meaning that the issuer may retire the securities at specific prices and dates prior to maturity, and/or at a lower price than the purchase price. Interest/dividend payments on certain preferred issues maybe deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received.

Treasury Inflation Protected Securities (TIPS) coupon payments and underlying principal are automatically increased, or if above par, decreased, to compensate for inflation as measured by the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low initial interest. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional US Treasuries in times of low inflation or deflation. Some inflation-linked securities may be subject to call risk.

Floating Rate Notes may have lower initial rate than fixed-rate securities of the same maturity because investors expect to receive additional income due to future increases in the floating/linked index. However, there can be no assurance that these increases will occur. Furthermore, floating rate notes expose their issuers to substantial interest rate risk, which can lead to financial duress and potential credit events.

ASSET CLASS RISK CONSIDERATIONS (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Publicly traded **Equity** securities may fluctuate in response to news on companies, industries, market conditions and the general economic environment. There are additional risks associated with **international investing**, including foreign economic, political, monetary, and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. In addition, the securities markets of many of the **emerging markets** are substantially smaller, less liquid and more volatile than the securities of the US and other developed market countries, and historically have been subject to a greater degree of geopolitical and other specific 'country' risk than have developed market securities. All of these risks are even more acute in the context of investing in equity securities traded in **Frontier Emerging Markets**.

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

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Stocks of medium-sized companies entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies.

Investing in **Commodities**, including commodity futures contracts, and physical **Precious Metals**, entails significant risks. Commodity and Precious Metal prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, (vii) the price volatility of a commodity and (viii) changes in inflationary and other monetary conditions. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. Commodities and Precious Metals are more appropriate for the risk capital portion of your portfolio and for investors who have speculative investment objectives.

Real Estate Investment Trusts, (REITs) investing risks include property value fluctuations, lack of liquidity, limited diversification and sensitivity to several economic and financial factors including but not limited to interest rate changes, equity market drawdowns and economic recessions.

Master Limited Partnerships (MLPs) investing risks include financial leverage, energy demand destruction, lack of liquidity, limited diversification, and sensitivity to several economic and financial factors including but not limited to interest rate changes, equity market drawdowns, credit freezes and economic recessions. MLPs are also exposed to changes in tax and regulatory policy and are subject to complex tax reporting requirements.

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

The potential tax benefits from investing in **MLPs** depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

ASSET CLASS RISK CONSIDERATIONS (CONT'D)

Alternative Investments which may be referenced in this report, including Private Equity funds (including Venture Capital, Leveraged Buyouts and Mezzanine Debt funds), Private Real Estate funds, Hedged Strategies, Managed Futures funds, Funds of Hedge Funds, Infrastructure funds, Leveraged Loan funds and Natural Resource funds, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor.

Managed futures investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually suitable only for the risk capital portion of an investor's portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

Private Real Estate investing risks include those applicable to publicly traded real estate, like REITs, including exposure to economic developments, however in practice private real estate entails substantially greater concentrations (less diversification) and far less liquidity than public real estate (the secondary market for private real estate is limited and transaction and market impact costs can be prohibitive, especially during market dislocations). As a consequence, Private Real Estate investments are exposed to high levels of asymmetric downside risk. The risk of Private Real Estate increases on an increasing basis (i.e. non-linearly) with the degree to which the underlying properties are leveraged.

Private Equity investing risks includes those applicable to publically traded equities, however in practice private equity entails substantially greater concentrations and risk, and far less liquidity than public real estate (the secondary market for private equity is limited and transaction and market impact costs can be prohibitive, especially during market dislocations). In addition, Private Equity investing often exposes investors to high levels of leverage and strategy specific risk, both of which can contribute to adverse events. Though Private Equity Infrastructure generates high yields, it is not a bond substitute tends to be highly illiquid and carries a host of specific risks relating to the inherent concentrations of any given investment.

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

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

ASSET ALLOCATION METHODOLOGY

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Morgan Stanley Wealth Management Global Investment Committee Expected Return Estimates Methodology

This tool incorporates a methodology for making hypothetical financial projections approved by the Global Investment Committee. Opinions expressed in this presentation may differ materially from those expressed by other departments or divisions or affiliates of Morgan Stanley Wealth Management.

About Expected Return Estimates, Rate of Return, Standard Deviation, and Asset Class Indices

Expected Return Estimates (EREs)

What are EREs?

Expected Return Estimates (EREs) represent one set of assumptions regarding rates of return for specific asset classes approved by the Global Investment Committee.

How are EREs derived?

EREs are derived using a proprietary methodology using a building block approach. Our EREs reflect expectations for a number of long-term economic and market-related factors we expect to influence capital market returns, such as population growth, productivity, earnings expectations, etc.

Index returns are used for calculation of volatility and correlations. For most indices, we use data since 1994. Regarding several types of alternative investments such as hedged strategies, private equity and real estate, we apply significant statistical adjustments to historical returns in order to correct for distortions such as survivorship biases, selection biases, and returns measurement error (e.g. by consequence of stale prices in the illiquid asset classes).

What else is important to know?

It is important to remember that future rates of return can't be predicted with certainty and that investments that may provide higher rates of return are generally subject to higher risk and volatility. The actual rate of return on investments can vary widely over time. This includes the potential loss of principal on your investment.

Investors should carefully consider several important factors when making asset allocation decisions using projected investment performance data based on assumed rates of return on indices:

Indices illustrate the investment performance of instruments that have certain similar characteristics and are intended to reflect broad segments of an asset class. Indices do not represent the actual or hypothetical performance of any specific investment, including any individual security within an index. Although some indices can be replicated, it is not possible to directly invest in an index. It is important to remember the investment performance of an index does not reflect deductions for investment charges, expenses, or fees that may apply when investing in securities and financial instruments such as commissions, sales loads, or other applicable fees. Also, the stated investment performance assumes the reinvestment of interest and dividends at net asset value without taxes, and also assumes that the portfolio is consistently "rebalanced" to the initial target weightings. Asset allocations which deviate significantly from the initial weightings can significantly affect the likelihood of achieving the projected investment performance.

Another important factor to keep in mind when considering the historical and projected returns of indices is that the risk of loss in value of a specific asset, such as a stock, a bond or a share of a mutual fund, is not the same as, and does not match, the risk of loss in a broad asset class index. As a result, the investment performance of an index will not be the same as the investment performance of a specific instrument, including one that is contained in the index. Such a possible lack of "investment performance correlation" may also apply to the future of a specific instrument relative to an index.

For these reasons, the ultimate decision to invest in specific instruments should not be premised on expectations that the historical or projected returns of indices will be the same as those for specific investments made.

ASSET ALLOCATION METHODOLOGY (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Rates of Return, Standard Deviation and Asset Class Indices

Standard deviation is a common risk measurement that estimates how much an investment's return will vary from its predicted average. Generally, the higher an investment's standard deviation, the more widely its returns will fluctuate, implying greater volatility. In the past, asset classes that have typically provided the highest returns have also carried greater risk. For purposes of this Presentation, the standard deviation for the asset classes shown below are calculated using data going back to 1994.

It is important to note that the rates of return of the listed indices may be significantly different than the ERE or your own assumptions about the rates of return used in the Presentation. As always, keep in mind that past performance is no guarantee of future results. EREs are for illustrative purposes only and are not indicative of the future performance of any specific investment.

Performance of an asset class within a portfolio is dependent upon the allocation of securities within the asset class and the weighting or the percentage of the asset class within that portfolio. Potential for a portfolio's loss is exacerbated in a downward trending market. A well-diversified portfolio is less vulnerable in a falling market. Asset allocation and diversification, however, do not assure a profit or protect against loss in a declining market.

Asset class returns and standard deviations of returns projections are based on reasoned estimates of drivers of capital market returns and historical relationships. As with any return estimation discipline, the assumptions and inputs underlying the GIC's EREs may or may not reconcile with, or reflect, each investor's individual investment horizon, risk tolerance, capital markets outlook, and world view. For these reasons, and because return estimation methods are complicated, investors are encouraged to discuss returns estimation with a Morgan Stanley Financial Advisor/Private Wealth Advisor.

As described, financial returns estimation involves developing a methodology for extracting expected returns and standard deviations of returns from historical data. Each returns estimation methodology is developed by selecting objective and subjective factors that vary among those developing the returns estimation model. The GIC has formulated several different methodologies and makes its return estimates available to Morgan Stanley customers. Differences exist between the various methodologies because different objective and subjective factors are incorporated into each methodology. These differences can include: the indices used as proxies for various asset categories and classes, the length of time historical index data is input into the calculations, and the resulting expected returns and volatility for each asset class. Each model may cover a greater or lesser number of asset classes than other models, the indices used to represent asset classes may be different for certain classes of assets in the models, and the GIC has more asset classes in the Alternative Investments asset category than are available in other models. Additionally, other differences may develop in the future as these methodologies are dynamic in nature and are likely to change over time.

While Morgan Stanley Smith Barney LLC has not designed its returns estimation methodologies to match or address its inventory as a broker-dealer of financial products, an appearance of a conflict of interest could exist in which the GIC's EREs, if followed, guide investors in directions that support Morgan Stanley Smith Barney LLC's inventory. To the extent this is a concern to customers, they should request that a return estimation be prepared using a different third party methodology, either alone or in conjunction with a GIC model for comparison purposes. Your Financial Advisor/Private Wealth Advisor is available to explain the different returns estimation methodologies and can compare and contrast different models upon request.

Return Series Adjustments

A common way to forecast standard deviation, correlation and other risk metrics is to observe their average magnitude in historical return series data. We agree this is appropriate for traditional asset classes- cash, bonds and equities- and for 'alternative or absolute return' asset classes that are priced in liquid public markets and have consistent, transparent reporting requirements. However, we believe this approach dramatically understates the risk of hedged strategies and private investments, such as private equity and private real estate, while overstating their potential to diversify other risks in the portfolio. These asset classes have several pronounced biases due to voluntary reporting of performance to index providers and lack of liquidity in the underlying investments. The biases that arise include return smoothing, survivorship bias, selection bias, stale pricing and appraisal bias each of which has implications for reported risk, return and correlation of the investments (foremost amongst which is the artificial reduction of their actual risks).

To address these challenges, the Global Investment Committee use econometric models to estimate the impact of each of these biases to create synthetic 'true' return series, based on the reported returns, from which we glean forecasts of the risk, return and correlation of these investments. The adjustments made are on balance conservative. They substantially increase forecasted risk, reduce forecasted return and decrease the diversification properties compared to what the historical averages of reported index returns suggest. Your Financial Advisor/Private Wealth Advisor is available to explain these methodological choices in greater detail upon request.

DISCLOSURES

Report Prepared for Michigan County Road Commission Self-Insurance Pool

IMPORTANT INFORMATION

The Global Investment Committee (GIC) Asset Allocation Models represent asset allocation recommendations made by the GIC based on general client characteristics such as investable assets and risk tolerance. The GIC Asset Allocation Models are not representations of actual trading or any type of account, or any type of investment strategies and none of the fees or other expenses (e.g., commissions, mark-ups, mark-downs, advisory fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models are not intended to represent a client-specific suitability analysis or recommendation. The suitability of an asset allocation for a particular client must be based on the client's existing portfolio, investment objectives, risk profile and liquidity needs. Any such suitability determination could lead to asset allocation results that may differ materially from those presented herein. Each client should consult with his or her Financial Advisor/Private Wealth Advisor to determine whether the GIC Asset Allocation Models are relevant to the client's investment objectives.

Every client's financial circumstances, needs and risk tolerances are different. This Presentation ("Asset Allocation Review") is based on the information you provided to us, the assumptions you have asked us to make and the other assumptions indicated herein as of the date of the Presentation. This Presentation should be considered a working document that can assist you in achieving your investment objectives. You should carefully review the information and suggestions found in this Presentation and then decide on future steps.

This Presentation does not constitute an offer to buy, sell, or recommend any particular investment or asset, nor does it recommend that you engage in any particular investment, manager or trading strategy. It reflects only allocations among broad asset classes. All investments have risks. The decisions as to when and how to invest are solely your responsibility.

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

The assumed return rates in this Presentation are not reflective of any specific investment and do not include any transaction costs, management fees or expenses that may be incurred by investing in specific products. Such fees would reduce a client's returns. The actual returns of a specific investment may be more or less than the returns used in this Presentation. The return assumptions are based on historic rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

The return assumptions used in this are estimates based on models that employ fundamental macroeconomic and econometric data together with average annual returns for the index used as a proxy for each asset class to forecast returns prospectively. The portfolio returns are calculated by weighting the individual return assumptions disclosed herein for each asset class according to your portfolio allocation. During the preparation of this Presentation, your Financial Advisor/Private Wealth Advisor may have refined the asset allocation strategy to develop a strategy that optimizes the potential returns that could be achieved with the appropriate level of risk that you would be willing to assume.

Morgan Stanley cannot give any assurances that any estimates, assumptions or other aspects of the Presentation will prove correct. It is subject to actual known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those shown.

This Presentation speaks only as of the date of this Presentation. Morgan Stanley Smith Barney expressly disclaims any obligation or undertaking to update or revise any statement or other information contained herein to reflect any change in past results, future expectations or circumstances upon which that statement or other information is based.

DISCLOSURES (CONT'D)

Report Prepared for Michigan County Road Commission Self-Insurance Pool

Hypothetical Portfolio Returns

The proposed asset allocations (also referred to herein as Hypothetical Portfolios) in this report are hypothetical and do not reflect actual portfolios but simply reflect selected indices that are representative for asset classes in the GIC's current strategic allocations. Hypothetical performance results have inherent limitations. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC asset allocation, idea or strategy for the periods indicated.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs. The hypothetical returns are not intended to forecast potential returns but rather to help identify relative patterns of behavior among asset classes which, when put in different combinations, assume various levels of risk. Each analysis in this report contains simulations of performance. The calculation of the performance of these Hypothetical Portfolios begins with the applicable GIC Asset Allocation Model for a particular risk profile. The GIC has established eight model portfolios conforming to various risk tolerance levels. The least risky model corresponds to risk profile 1 with the most risky being risk profile 8. Thus, as the risk profile increases, so does the level of risk.

Once the appropriate risk profile levels have been determined, your Financial Advisor/Private Wealth Advisor then customizes the GIC model based on each client's circumstances. The GIC models reflect historical performance of the indices used as proxies.

The calculation of the Hypothetical Portfolio returns assumes reinvestment of dividends, capital gains and interest but do not reflect any transaction costs, such as taxes, fees or charges, that would apply to actual investments. Such fees and charges would reduce performance.

Hypothetical performance is shown for illustration purposes only, has inherent limitations and does not reflect actual performance, trading or decision making. The results may vary and reflect economic or market factors such as liquidity constraints or volatility, which have an important impact on decision making and actual performance. This hypothetical performance is likely to differ from actual practice in client accounts.

Fees reduce the performance of actual accounts: Unless specified in the Client Fee Assumptions portion of this Appendix, none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees) associated with actual trading or accounts are reflected in the GIC asset allocation strategy or ideas. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material.

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

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

This report is not a financial plan and does not, in and of itself, create an investment advisory relationship between you and your Financial Advisor/Private Wealth Advisor to the extent that one did not exist. In providing you with this report, we are not providing services as a fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information contained in this report is not intended to form the primary basis for any investment decision by you, or investment advice or a recommendation relating to the purchase or sale of any securities for either ERISA or Internal Revenue Code purposes.

Morgan Stanley, its affiliates, and its Financial Advisors or Private Wealth Advisors do not provide legal or tax advice. We strongly recommend that you consult your own legal and/or tax adviser to determine whether the analyses in these materials apply to your personal circumstances. This material and any tax-related statements are not intended or written to be used and cannot be use or relied upon, by any taxpayer for the purpose of avoiding taxpayer penalties under either State or Federal tax laws.

Inputs for GIC Asset Allocation

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Morgan Stanley Wealth Management

Annual Update of Capital Market Assumptions

Here we present our annual update of our capital market assumptions. These forecasts estimate returns and volatility of global asset classes over the strategic, or seven-year horizon, and the secular, or 20+ year horizon. The strategic estimates are the key inputs into the Global Investment Committee's (GIC) strategic asset allocations. This year's forecasts reflect the significant market movements of the past year and incorporate our outlook for improving global growth.

Alongside the annual update of our strategic assumptions is a rebalancing of our GIC strategic models. These models are optimized annually using our goals-based framework and targeted benchmark risk parameters. Importantly, these strategic models, which are developed to have a seven-year investment horizon, do not immediately impact our tactical models.

To the contrary, while these capital markets assumptions certainly inform our views, our tactical models are balanced toward an investment horizon of 12 to 18 months and are adjusted by way of the collective deliberations of the GIC. As such, any updates to tactical models will be pursued and published separately.

Executive Summary

Since March 2016, when we last updated our capital market assumptions, equity markets and interest rates have risen significantly while earnings growth expectations and equity multiples have rebounded across the globe. This optimism is strong evidence that investors are shifting away from the narrative of "secular stagnation," which posited that the economic weakness of the past several years was a permanent state of affairs. In its place is a belief in the return of economic growth and inflation, or "reflation."

Despite this major shift in the market outlook, our seven-year strategic forecasts are only modestly changed from last year as much of the improvement is already reflected in current asset prices. This year's forecasts, like last year's, recognize that we are likely at the end of a period of above-average returns and in the midst of a long economic cycle that may soon come to an end.

Notable changes to our seven-year strategic forecasts include a slight reduction in our US equity forecast, to 4.9% annualized returns from the previous 5.3%, reflecting the higher current valuations for US equities. International equities retain a similar forecast from last year, while emerging market (EM) equity return forecasts have declined following a year of outperformance. Given the recent rise in rates and the improving long-term outlook for continued interest rate normalization from the recent lows, our broad fixed income forecast has risen to 3.0% from 2.0% and our ultrashort fixed income forecast to 2.0% from 1.8%.

To align our models with these forecasts, we also update our strategic allocations, which can be found on pages 10 and 11. We have modestly decreased our overall allocations to equities, primarily in the US, and reallocated funds to international equities and alternative asset classes, with a focus on master limited partnerships (MLPs). We expect these allocations to improve our risk-adjusted return over the seven-year strategic horizon.

Exhibit 1: Slightly Lower Estimates for US Equities, Slightly Higher for Non-US Equities and Fixed Income

	Annualized Return (2017)	Annualized Volatility (2017)	Annualized Return (2016)	Annualized Volatility (2016)
Global Equities	5.7%	16.0%	5.9%	17.3%
US Equities	4.9	14.7	5.3	16.6
International Equities	6.3	17.3	6.2	17.5
Emerging & Frontier Mkt. Equities	7.5	22.1	8.2	27.6
Ultrashort Fixed Income	2.0	0.9	1.8	0.9
US Fixed Income Taxable	3.0	5.4	1.9	5.4
High Yield Fixed Income	3.5	8.4	6.6	8.5
Real Assets	5.9	14.0	6.6	12.7
Absolute Return Assets	3.5	4.0	3.8	3.9
Equity Hedge Assets	4.1	8.3	3.9	8.3
Equity Return Assets	4.5	8.3	4.4	8.7

Note: Ultrashort Fixed Income represented by 90-day T-bills; US Fixed Income by Bloomberg Barclays US Aggregate Index; High Yield Fixed Income by Bloomberg Barclays US Corporate High Yield Index. All other others are based on proprietary models.
Source Morgan Stanley Wealth Management GIC as of March 10, 2017

How Has Our Outlook Changed?

Global markets have rallied sharply since the first quarter of 2016, when we published the previous capital market assumptions. Today, the general acceptance of a "lower for longer" interest rate regime that dominated one year ago, driven by deflationary fears and weak global growth, has given way to optimism supported by stronger economic data, improving earnings and better growth prospects. The current highs in the equity markets price these higher expectations. These richer valuations offset the expectations of improving growth rates: the net result is a modest decline in our strategic return expectations for equities, especially in the US and the emerging markets (see Exhibit 1). The recovery in international developed markets, however, has lagged. Accordingly, our strategic forecasts are similar to last year's.

This improving global economic outlook has been reflected across fixed income markets as well, where rates have risen from previous lows and credit spreads have meaningfully tightened from last year's elevated levels. This has increased our strategic return forecasts across fixed income, with the exception of high yield, which is no longer trading at the significant discount priced last year. Alternatives are largely in line with last year's estimates; forecasted returns for master limited partnerships remain elevated, but have declined somewhat following strong performance over the last year. The full set of our current forecasts can be found in the tables on page 12.

Overall, we have an optimistic outlook for global growth and we believe that the reflationary narrative, in which growth and inflation recover from historically low levels, will take hold. Additionally, we believe global interest rates will see a similar degree of upside over the course of the cycle, with the 10-year US Treasury bond reaching an end-of-cycle level of 3.0% versus the current 2.38%. Indeed, as we outlined in our September 2016 *Special Report,* "Beyond Secular Stagnation," we believe that many of the headwinds to growth are troughing, suggesting we may be at the beginning of a secular bull market for equities.

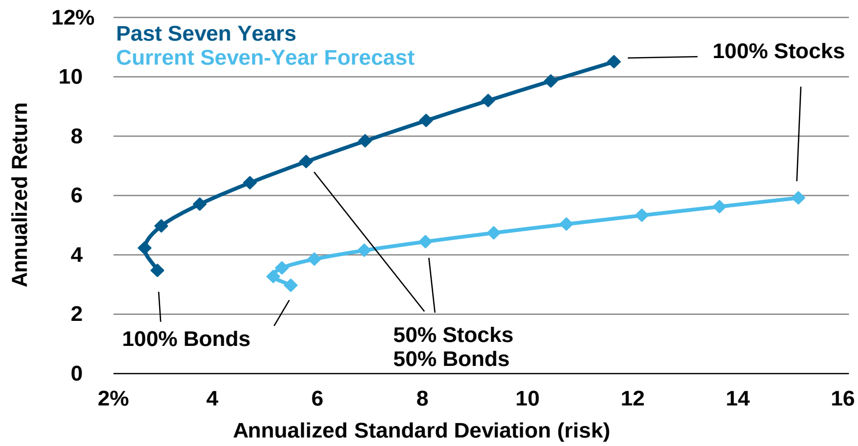
That said, we believe that developed markets are unlikely to see a near-term reacceleration of growth to the high levels seen in past decades as we lack the significant tailwinds from favorable demographics, accelerating globalization, room for leverage to grow and productivity-boosting technological innovations. We are also near the final stages of the current business cycle. Now a full eight years since the last global recession, we expect the current expansion to end at some point in the next seven years. As this cycle has lacked the excesses in sentiment, debt and corporate activity which have traditionally exacerbated major downturns, we believe the next downturn may be less severe than a typical recession.

Our expectation for slower economic growth than that seen in recent decades has important investment implications. While we remain confident that the time-tested principles of asset allocation and diversification will help investors achieve their goals, it is important to keep both return *and* risk in mind when setting those goals. Our forecasts suggest that risk-adjusted returns in the next seven years are likely to be materially lower than the past seven years, as shown by the lower and flatter shape of the efficient frontier (see Exhibit 2). This means investors may have to either accept lower returns or assume greater levels of risk that may be necessary to earn higher returns.

Rebalancing Our Strategic Models

We are updating and rebalancing our strategic models, as can be seen in Exhibits 9 and 10 on pages 10 and 11. These changes are driven by our updated return expectations and are managed at the portfolio level, where asset class volatilities and correlations are paramount to delivering risk-adjusted results. We are modestly decreasing our overall exposure to equities and ultrashort fixed income, and reallocating proceeds into alternatives. The majority of the reduction in our equity exposure stems from the US, in line with our view that current higher valuations more fully price improving global growth expectations. Our international equity exposure rises across Europe, Japan and emerging markets where our forecasts suggest higher return potential.

Exhibit 2: Next Seven-Year Outlook Calls for Lower Returns With Higher Volatility



Source: FactSet, Morgan Stanley Wealth Management GIC. Note: Stocks represented by MSCI ACWI Index; bonds represented by Bloomberg Barclays US Aggregate.

While there is no net change to fixed income, we do reallocate among component asset classes to take advantage of the higher yields in the US and the emerging markets relative to developed international fixed income securities.

Proceeds from reduced equity and ultrashort fixed income are allocated to alternatives. The expected return for MLPs stands out among alternatives, as they remain cheap relative to history and offer high yields supplemented by strong expected distribution growth.

In our Level 2 models, which are intended for investors with assets greater than $25 million, an allocation to private credit now joins private equity and private real estate. We believe this asset class offers exposure to attractive lending opportunities while harvesting an illiquidity premium.

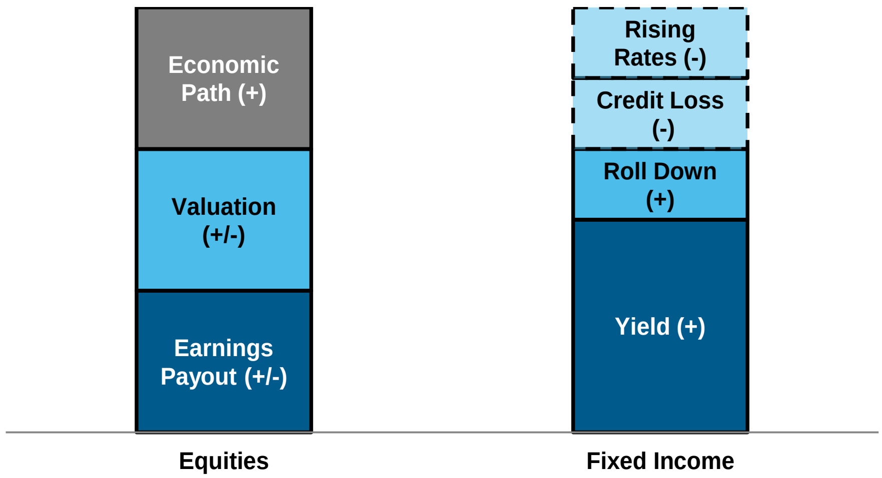
Increasing portfolio allocations to alternatives improves the risk and return outlook of our portfolio, as these asset classes have offered lower correlations to traditional asset classes and higher returns than high quality fixed income, a traditional portfolio diversifier.

Investors should keep in mind that our strategic models target an investment horizon of at least seven years, and are designed to maximize risk-adjusted return and minimize turnover. Investors who are seeking short-term market opportunities and who are comfortable with six-to-18 month holding periods should consider the tactical GIC model portfolios. While our strategic models are designed using a systematic process, the tactical models add the GIC's judgment, incorporating their view of current market conditions along with the likely near-term path of the business cycle. Because strategic and tactical follow separate processes, their portfolio allocations may diverge.

Building Our Forecasts

We have refined our methodology for forecasting equity and fixed income returns (see Exhibit 3, page 4). For equities, we build return estimates by combining three major factors: the return of earnings to shareholders, the impact of changes in valuation and the likely economic path in the next seven years. For fixed income, we construct estimates from current yields and appreciation due to expected "roll down"—price appreciation as bonds near maturity—and adjust for potential losses from credit exposure and rising interest rates. For other asset classes including alternatives, we derive return forecasts based on our estimates for equities and fixed income, the likely economic path over the strategic horizon and specific analysis of each asset class.

Exhibit 3: The Building Blocks of Our Return Estimates



Source: Morgan Stanley Wealth Management GIC, Morgan Stanley & Co.

Equities: Our Strategic Methodology

Our methodology for forecasting strategic equity returns has three main components. First, we examine what earnings companies are likely to pay out through dividends or share repurchases. Second, we anticipate the effects of potential repricing by examining current valuations and assuming asset prices will normalize during the seven-year period. Finally, we examine the likely economic path which will influence earnings. By breaking our forecasts into these parts, we can contextualize our estimates in the current market environment.

What Earnings Will Companies Return to Investors?

Financial asset prices are mainly determined by the present value of cash flows paid to the investor. Accordingly, we assess the extent to which cash is delivered to equity owners through dividends and share repurchases. We measure these returns by examining which companies in each region have paid out in both forms during the past 12 months and net out the anticipated effects of inflation, which brings us to a real dividend yield and real repurchase yield estimate (see Exhibit 4). These estimates form the base of our return forecasts, to which we add effects from changes in valuation, real earnings growth and inflation.

Are Valuations Likely to Boost or Drag Down Returns?

Return forecasts are not simply a matter of projecting what companies are likely to earn and return to investors, but also whether the pricing, or valuation, of that cash flow is attractive or unattractive in historical context. We focus on two measures of valuation appropriate over a multiyear horizon: cyclically-adjusted price/earnings (CAPE) multiples, which compare the market price to earnings over a business cycle; and the equity risk premium, which compares the yield generated by an equity position to the yield of a comparable fixed income substitute. We believe that by combining these two measures of valuation into our forecast rather than relying on either individually, we are able to improve the accuracy of our forecasts.

First, we estimate valuation-driven returns based on the CAPE ratio. This metric attempts to smooth the volatility in company earnings that can occur in the course of a business cycle and makes an inflation adjustment with the goals of getting a better picture of the true earning potential of the equity market and how much investors are paying for it. Popularized by Yale University Professor

Exhibit 4: We Expect International Equities to Outperform US in Next Seven Years

	Earnings		Valuation		Economic Path			
	Real Dividend Yield	Real Repurchase Yield	Price/Earnings Ratio	Equity Risk Premium	Growth Trend	Recession Impact	Inflation	**Total**
US Large-Cap Equities	0.8%	0.5%	-0.6%	0.1%	2.5%	-0.5%	2.0%	**4.8%**
US Small/Mid-Cap Equities	-0.6	-0.1	-0.8	0.4	5.4	-1.0	2.0	**5.4**
UK Equities	0.3	0.0	0.0	2.0	2.9	-0.6	3.1	**7.7**
European Equities	1.4	0.0	-0.2	2.0	1.9	-0.4	1.7	**6.4**
Japan Equities	1.3	0.6	0.5	2.0	1.0	-0.3	1.0	**6.1**
Asia Pacific ex Japan Equities	0.4	0.1	-0.1	0.6	3.4	-0.6	2.0	**5.8**
Developed International Equities	1.0	0.2	0.0	1.7	2.1	-0.4	1.8	**6.3**
Emerging Markets Equities	0.2	0.0	1.1	0.3	4.7	-0.8	2.0	**7.5**
Global Equities	0.8	0.3	-0.1	0.7	2.7	-0.5	1.9	**5.7**
Global Small/Mid-Cap Equities	-0.3	-0.1	-0.1	0.1	4.5	-0.7	1.9	**6.3**

Source: Robert J. Shiller of Yale University, Standard and Poor's, Bloomberg, FactSet, Haver Analytics, Datastream/IBES, Morgan Stanley Wealth Management GIC, Morgan Stanley & Co. as of March 10, 2017

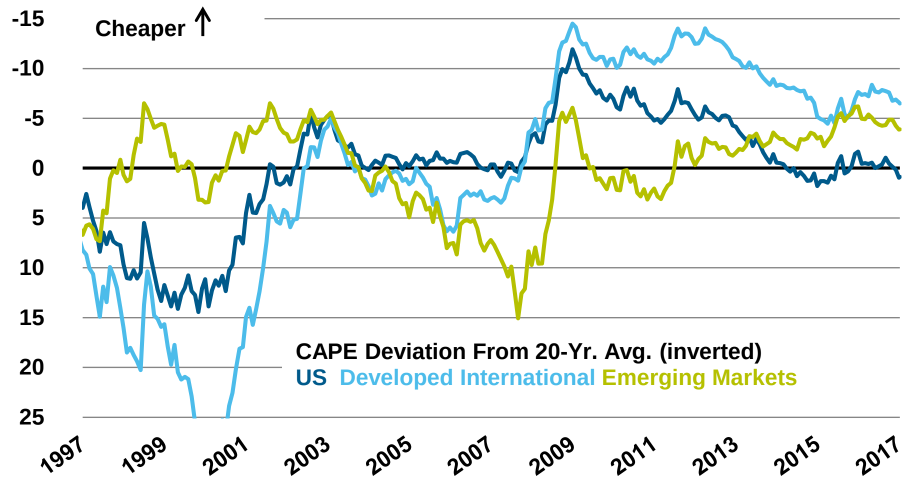
Robert Shiller,[1] a version of the CAPE ratio which employs a 10- year average to smooth earnings has shown a historical correlation to average equity returns over the long term. The theory behind this relationship suggests that more expensive CAPE ratios imply lower average future returns.

We use this observation as a baseline for our methodology. However, because the historical rate of earnings growth has outpaced the growth we expect in the next seven years, we believe it is more appropriate to utilize the CAPE ratio to estimate how much of the return may come from changes in valuation alone.

Our work suggests that equity multiples demonstrate mean reversion over our seven-year strategic horizon. Future expansion and contraction in multiples have been associated with initial valuations; when equities are purchased at unusually cheap or expensive levels, as measured by a CAPE ratio with a trailing seven-year cyclical adjustment, they tend to rise or fall over the next seven years. We find that current US CAPE ratios suggest modest multiple contraction over the next seven years, while developed international and EM CAPE ratios suggest their equity returns are likely to be boosted by multiple expansion (see Exhibit 5).

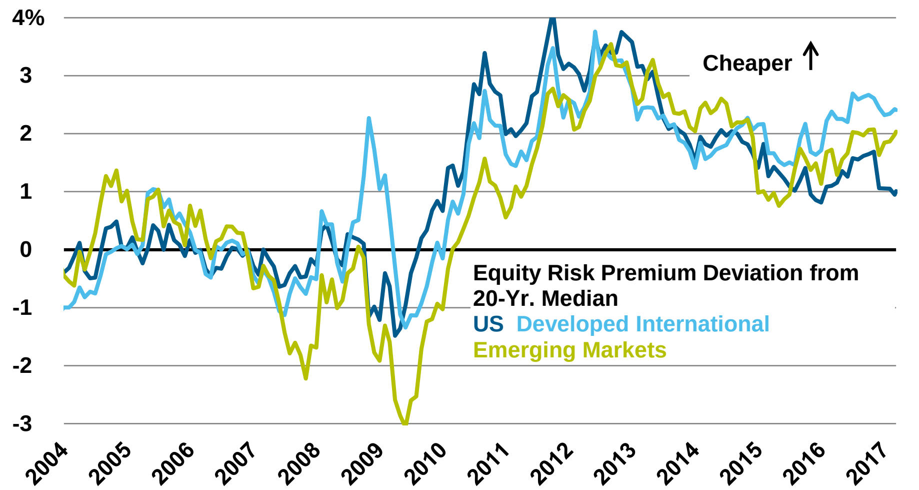
The equity risk premium component of our valuation analysis measures the degree of additional compensation investors require to hold equities as an asset class. This is measured by comparing the yield generated by an equity position to the yield of corporate bonds, which are driven by similar fundamentals but which offer additional levels of security in the form of fixed payments and a superior standing in the capital structure. A higher equity risk premium suggests that equities are cheap relative to bonds as they offer a high degree of compensation for bearing equity risk. While the recent rise in rates, especially in the US, has caused equity

Exhibit 5: Based on CAPE, Developed International and Emerging Market Stocks Appear Cheaper Than US



Source: Robert J. Shiller of Yale University, Standard and Poor's, Bloomberg, FactSet, Haver Analytics, Morgan Stanley Wealth Management GIC as of March 10, 2017

Exhibit 6: Equity Risk Premiums Remain Above Average



Source: Bloomberg, FactSet, Haver Analytics, Morgan Stanley Wealth Management GIC as of March 10, 2017

risk premiums to fall, they remain at elevated levels across the globe, especially in large-cap international developed markets (see Exhibit 6).

In line with our view, we expect rates to rise globally as loose global monetary policy normalizes and deflation fears continue to ease. During the next seven years, we expect modestly higher rates, at levels consistent with our estimates of growth and inflation. Accordingly, we embed assumptions of finishing the cycle with the 10-year US Treasury bond at 3.0%, the German Bund at 1.0%, the British Gilt at 1.75%, the Canadian 10-year sovereign bond at 2.0% and Japanese government bonds at 0.75%. Assuming we realize these yield targets, investment grade corporate spreads return to historical median levels and equity risk premiums revert to their historical median from current elevated levels, we forecast a moderate boost to equity returns in the US and in emerging markets and a significant boost to international developed markets.

[1] Campbell, John and Robert Shiller, "Valuation Ratios and the Long-Run Stock Market Outlook," *The Journal of Portfolio Management,* July 1997. http://www.econ.yale.edu/~shiller/online/jpmalt.pdf .

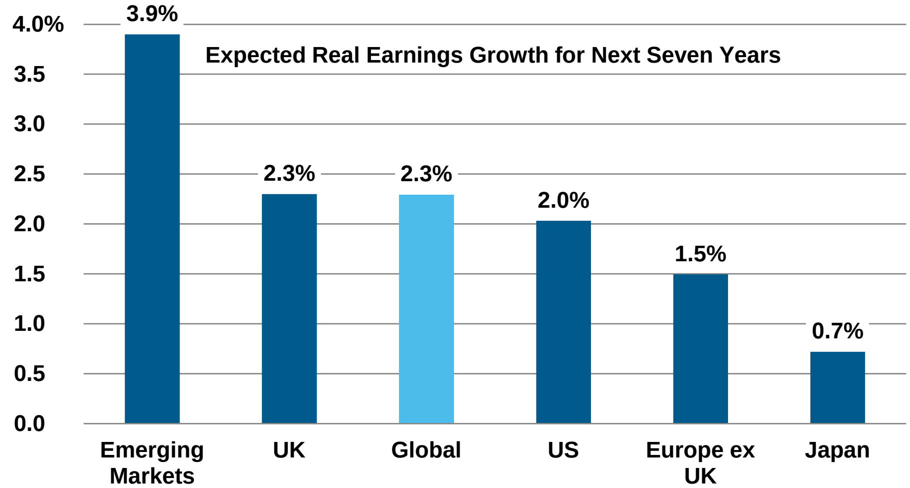
What Is the Likely Economic Path?

The final component to equity returns concerns the likely path of the economy, as this has a strong impact on the ability of companies to grow their earnings. We begin with OECD estimates of real GDP growth for the next seven years. We believe real GDP growth is a good proxy for the rate of index-level real earnings growth, as consumption and production, which constitute the lion's share of GDP growth, are closely related to index revenue values. Additionally, we believe the outlook for corporate margins is relatively stable, with significant contraction or expansion unlikely in the next seven years. Finally, we make one refinement for smaller companies, which have seen earnings growth at faster levels than their large counterparts that constitute the majority of equity indexes. We observe that since 1988, smaller companies have grown earnings 2.9% faster than large companies in the US, and 1.0% faster than large companies abroad. We incorporate this incremental growth into our forward estimates for smaller companies.

Next, we add a downward adjustment to these growth rates to account for our expectation of a mild recession. Given that we are well into the current economic cycle and that the time horizon of our forecast approximates the average length of a business cycle, we believe that a recession will occur during the next seven years. To incorporate this into our growth forecast, we assume a -1% decline in real GDP spanning one year. Across the different regions, this decreases the trend real growth forecast by -0.3% to -1%. These growth forecasts for major regions can be seen in Exhibit 7.

Finally, we incorporate expected inflation to the preceding analysis to convert our real forecasts to nominal values. We use market-based "inflation breakevens" to forecast expected inflation. Inflation breakevens compare yields on nominal government bonds to liquid inflation-indexed government securities, which pay investors a fixed rate of interest on a par value that increases in line with headline inflation measures. By subtracting the real yield of the inflation-indexed bond from the nominal bond, we find the implied inflation rate over the time period associated with the maturity of the underlying bonds. To match our seven-year forecast horizon, our analysis focuses on inflation breakevens based on bonds set to mature in seven-years, when data is available.[2] These implied inflation rates generally confirm our optimistic economic outlook that reflation will continue. We are slightly more optimistic than the market concerning inflation in Japan, where we assume it will reach 1.0% versus the market's 0.6%. This increase is driven by our more optimistic view of their economic path and is also intended to offset potential bias from a constrained supply of Japanese inflation-protection securities.

Exhibit 7: Emerging Markets Growth Is Expected to Outpace All Other Regions



Source: OECD, Morgan Stanley Wealth Management GIC as of March 17, 2017

Fixed Income: Our Strategic Methodology

Forecasting fixed income returns over the strategic horizon begins by approximating the likely returns based off current yields and price appreciation due to "roll down," and then adjusts downward for the effect of likely rising rates and potential credit losses (see Exhibit 8, page 7). Our methodology leverages the work of Andrew Sheets, Morgan Stanley & Co.'s chief cross-asset strategist and a member of the Global Investment Committee.[3]

Initial Yield and Rolldown

Our approach sets a baseline for fixed income returns using the current yield on each index. Historically, the yield at which fixed income instruments have been purchased has been a good predictor of forward returns, especially over long horizons and for bonds of higher credit quality. This concept is relatively straightforward: When a bond is purchased, the yield is locked-in and, barring credit losses and assuming the bond is held to

[2] In order to account for lack of available data, we employed the following proxies: UK: 60% weight in 5-year UK breakeven and 40% weight in 10-year UK breakeven; Europe: 30% weight in estimated UK breakeven, 35% weight in Germany seven-year breakeven plus 35% weight in France seven-year breakeven; EM: seven-year US breakeven; Canada: 10-year Canada breakeven.

[3] Tang, Serena W, Andrew Sheets, Phanikiran L Naraparaju, Wanting Low, and Elizabeth Volynsky, "What Will Markets Return?," *Cross-Asset Dispatch,* Oct. 23, 2016, Morgan Stanley & Co.

Exhibit 8: Higher Starting Yields Don't Always Result in Stronger Returns

	Starting Yield	Return From Rolldown	Credit Loss	Return From Yield Change	Expected Return
US 10-Yr.Treasury	2.49%	0.74%	0.00%	-0.78%	2.45%
US Aggregate	2.57	0.89	-0.05	-0.44	2.97
US Agg. Short	1.45	0.65	-0.02	-0.14	1.94
US Agg. Interm.	2.33	1.38	-0.04	-0.31	3.36
US Agg. Long	3.84	0.39	-0.07	-1.13	3.02
US Municipal	1.70	0.65	-0.02	-0.27	2.06
US High Yield Corp.	5.58	0.99	-2.80	-0.29	3.48
International Agg.	0.74	1.24	-0.05	-0.58	1.35
Emg. Mkt. Credit*	5.80	0.81	-0.97	-0.93	4.70
Emg. Mkt. Asia*	3.97	0.87	-0.97	-1.01	2.87
Emg. Mkt. Europe*	5.08	1.02	-0.97	-0.68	4.45
Emg. Mkt. Lat. Am.*	6.94	0.96	-0.97	-1.11	5.82
Global Aggregate	1.58	1.13	-0.05	-0.51	2.15
Global Agg. Short	0.75	0.46	-0.02	-0.14	1.05
Global High Yield	5.10	0.96	-2.80	-0.28	2.97

*US dollar
The above asset classes are represented by the following indexes in order of appearance: Bloomberg Barclays US Treasury: 10-20 Year Index; Bloomberg Barclays US Aggregate Bond. Index; Bloomberg Barclays US Aggregate 1-3 Year Index; Bloomberg Barclays US Aggregate Intermediate Index; Bloomberg Barclays US Agg 10+ Year Index; Bloomberg Barclays Municipal Bond Interm.-Short 1-10 Yr. Index, Bloomberg Barclays US Corporate High Yield Index, Bloomberg Barclays Global Aggregate Non USD (hedged) Index, JPMorgan EMBI Global; JPMorgan EMBI Asia, JPMorgan EMBI Europe, JPMorgan EMBI Latin; Bloomberg Barclays Global-Aggregate Index; Bloomberg Barclays Global Agg 1-3 Year Index; and Bloomberg Barclays Global HighYield Corporate Index.
Source: Bloomberg, FactSet, Haver Analytics, Datastream, Moody's, Morgan Stanley Wealth Management GIC as of March 10, 2017

term, will be paid to investors over the life of the bond.

In addition to the yield of a fixed income security, changes in market value account for the rest of the return gained by investors. The "roll" of a bond down the yield curve is one relatively predictable component of expected change in market value. Generally, yield curves are upward sloping, a phenomenon associated with additional compensation for the higher uncertainty associated with longer time horizons. As time passes, longer-maturity bonds roll down the curve, growing closer to their maturity date and effectively becoming shorter-maturity bonds. As dictated by the typically upward-sloping yield curve, this entails price appreciation as yields decline. The magnitude of appreciation differs according to the different yield curves and the long-term average roll down for different fixed income classes.

Allowances for Rising Rates

Fixed income instruments have benefitted from a 30-year secular bull market as rates fell to historic lows. We believe, however, that during the next seven years, rates are likely to sustain their recent gains off these low levels and potentially reach higher levels as growth and inflation normalize. To maintain consistency, we must account for the drop in price higher rates would imply, offsetting a portion of the returns from initial yield and the roll down.

Our estimates assume that the 10-year US Treasury yield will rise to 3%, 0.62% above the current level. Given our seven-year horizon, which encompasses the average length of a business cycle, we make no assumptions about changes in the shape of the yield curve because they tend to average out over the course of a cycle. Instead, we assume a parallel shift in the curve upward for all fixed income instruments and adjust for duration, or interest rate sensitivity, to estimate the impact on returns for each fixed income asset class. Long duration bonds are most affected.

Allowances for Credit Loss

Fixed income securities are also subject to losses associated with default risk. When the market believes that rising stress on the creditor company is raising the risk of default, the price of a bond generally goes down while the yield goes up to compensate investors for the additional risk. This risk is especially important for bonds with lower credit ratings such as high yield bonds or debt issued by emerging market countries.

Sheets has found the relationship between credit losses and the time to maturity varies depending on the bond's credit rating. Investment grade bonds generally face higher risk of credit loss as the maturity of the bond grows closer, as issuers are likely to grow larger and take on greater risks since their bond issuance. High yield bonds, in contrast, typically face lower risk of credit losses as time goes on. These riskier, often younger companies face the highest default risk in the first few years, suggesting companies that succeed in making it past those years are likely able to sustain or even improve their credit quality.

Accordingly, we adjust our forecasts based on the historical credit losses associated with bonds of similar credit ratings and time to maturity. High yield bonds see significant losses, nearing 3% per year, while losses to investment grade debt are near zero.

Ultrashort Fixed income

Our strategic ultrashort fixed income return forecast is based on the market-implied expected return of the three-month US Treasury bill for the next seven years. We derive this figure from the prices of a set of instruments including the on-the-run three-month T-bills and a selection of longer-term swaps (T-bills vs. three-month Libor) up to a maturity of seven years. Our forecast this year is a slightly higher 2.0% vs. 1.8% in 2016, consistent with our expectation of a gradual pace of US interest rate normalization.

Inflation-Protection Securities

We employ the same inflation breakeven measures used in our equity forecasts[4] as a proxy for yields on inflation-protection securities in the country. Our global inflation-protection Securities return is then estimated by taking the average of the seven-year breakeven inflation for the countries in the Bloomberg Barclays Global Inflation-Linked Index, weighted by their respective shares in the index. We expect a higher rate of 2.2% this year against the backdrop of the global reflationary boost.

Alternatives: Our Strategic Methodology

Global REITs

We estimate the return on global real estate investment trusts (REITs) using the three-factor Fama-French model. This model examines the relationship between historical returns of global REITs and three broad market factors: the excess market returns, excess small-cap returns, and excess value-factor returns.[5] Once we have determined the historical relationship between REITs and these factors, we use this model and our equity forecasts above to estimate the return of global REITs for the next seven years in a manner consistent with our economic outlook. By our estimates, we expect an annualized 4.95% return.

Master Limited Partnerships

Our strategic forecast for MLPs takes into account the outsize importance of capital distributions for this asset class. We begin with the trailing 12-month yield of the Alerian MLP Index, and add the expected annualized distribution growth of 3% over the seven years. This 3% is the sum of the expected volume growth of midstream MLPs and inflation expectations. This brings our strategic return forecast to 9.8%.

Commodities

We estimate the return to commodities based on the three sources of returns of commodity futures: changes in the spot price of the commodity, the yield from collateral set aside by investors and the appreciation or depreciation from rolling along the futures curve. We assume that the spot price will appreciate with expected inflation and expect that collateral set aside for commodities trading to deliver a return in line with our ultrashort fixed income estimate. Finally, the roll yield is based on the historical return from the Bloomberg Roll Select Commodities Index. We believe our framework is appropriate over a seven-year horizon and estimate that commodities will return an annualized 3.0% over this period.

Hedged Strategies and Managed Futures

Hedged strategies are not themselves asset classes. Instead, they are investment strategies that have historically shown an ability to deliver returns in a manner that diversifies stock and bond holdings within portfolios by leveraging exposures to traditional asset classes. We thank our colleagues at Morgan Stanley Investment Management's Alternative Investment Partners for their assistance in creating this methodology.

To develop return assumptions, we decompose historical returns into their fundamental sources. In the case of directional strategies, including equity long-short and event-driven, we use betas and correlations to stock and bond markets to determine return forecasts consistent with our estimates of these traditional asset classes.

In contrast, absolute return strategies like managed futures and global macro are less directional – in other words, they do not rely on being systematically invested and frequently take short positions. For these strategies, we attribute expected return based on modestly positive effects from "skill" factors (market timing and security selection) in proportions consistent with recent history.

Measures of broad performance of these strategies face difficulties that are not encountered among traditional asset classes. Private indexes designed to track the performance of funds following these strategies rely on independent investment managers to report their own performance, which can impart selection bias and survivorship bias from selective disclosures of existing and now extinct funds. Furthermore, managers of hedged strategies often hold less-liquid securities, and so reported returns appear excessively "smooth" due to lagging price discovery. We use statistical methods to mitigate these effects and establish estimated returns as closely aligned with the underlying economics as possible.

Private Equity, Private Real Estate and Private Credit

Private investments have also earned a reputation for delivering strong returns in a manner uncorrelated to traditional asset classes. However, their performance can also be difficult to measure at an index level due to their illiquidity and the lack of published high-frequency return data. We adjust index-level returns using a statistical method to "de-smooth" their historical return series. We then estimate the relationship between these returns and a set of common factors that have shown a historical relationship with the performance of these private investments, including GDP growth, inflation volatility and the concurrent returns of other traditional and illiquid asset classes. By quantifying these relationships, we are able to use our assumptions about the

[4] Including the adjustment for Japanese inflation to 1.0% from 0.6%.
[5] We use the data provided by Kenneth French for the three factors in the model. http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

behavior of these other factors to estimate returns to these asset classes over the strategic horizon. Note that we assume a private equity composition of 80% of leveraged buyout funds and 20% venture capital funds. Overall, we expect an annualized return of 7.6% for private equity, 6.8% for private real estate, and 4.1% for private credit.

Secular Returns

In addition to our strategic return estimates, we also project returns over the secular horizon, which we consider to be a 20+ year horizon. As a primary guide, we use the average returns over a long history of market data for both global equities and bonds. For developed market asset classes, much of our data extends to 1900. For emerging markets, the data begins in 1987. For asset classes for which long histories are not available, we base our estimates on the typical relative return differential versus a comparable asset class over the longest available period of monthly returns.

Given the evolving nature of the global economy, we believe it is necessary to make several adjustments to these long-run averages when the future is likely to exhibit material differences from the past. One such adjustment concerns US equities: Given their exceptionally strong returns since 1900 and the significant transformation of the US over that time, we reduce our large-cap estimate from the historical average by 1.0% per year. Over our large-cap return estimates, we add an annualized premium of 0.5% for US mid-caps, 1.0% for US small caps and 0.5% for international small caps versus international large caps. While these understate historical outperformance by small- and mid-cap stocks, we believe the significant structural improvements in the liquidity of small-cap equities is consistent with lower return differentials compared to history. Finally, because multiyear outperformance of growth and value equities is difficult to time, we assume both growth and value cohorts of US equities of a given market cap deliver equal returns going forward.

Among alternative asset classes, data availability once again poses a challenge to using the same methodology that we use for equities and fixed income. To account for this, we employ similar methodologies to those used in our strategic estimates over the longest available horizon to provide secular return estimates for alternatives. The one exception is our long-run MLP forecasts, which employ the same Fama-French methodology used for Global REITs. This is necessary because MLP distribution growth, key to our strategic forecasts, is difficult to predict over very long time periods.

Volatility

Volatility is a measure of the variability of returns around their average value, and is one measure of the risk associated with an investment. In order to estimate volatility for liquid asset classes, we calculate the average volatility for the available history of each asset class and give a higher weight to the past seven years. Using long-term data mitigates the impact of specific effects dependent on the specific stage of the business cycle, such as the recent low volatility in US equities tied to unusually loose monetary policy. Generally, we expect equities to continue to see the below-historical average volatility that has been realized in the past several years. We expect fixed income volatility to remain relatively constant, driven by continued low interest rates.

For strategies with values that are not continuously marked on public markets, including hedge funds, private equity and private real estate, historical returns may understate the true volatility of underlying assets. For these classes, we use the aforementioned statistical methodologies to eliminate serial correlation and estimate a more representative volatility of underlying assets.

Correlation

A critical factor in asset allocation is correlation, or the degree to which asset class returns move together. Correlations can vary considerably over different historical periods due to changes in economic regime, market structure, stage of the business cycle or myriad other factors. Therefore, we calculate long-run correlations based on asset-class returns for the past 20 years or the longest history available. For illiquid asset classes, we include the statistical adjustments to return series discussed above. We use these 20-year correlations as a proxy for expected future correlations. Please refer to table beginning on page **13.** ■

Exhibit 9: New Strategic Weights for GIC Asset Allocation Models Level 1

	Capital Preservation	Income	Balanced Growth	Market Growth	Opportunistic Growth
Ultrashort Fixed Income	12%	8%	4%	2%	0%
Equities					
US Equities	8	14	20	26	32
US Large-Cap Growth	2	5	6	9	12
US Large-Cap Value	2	5	6	9	12
US Mid-Cap Growth	1	1	2	2	2
US Mid-Cap Value	1	1	2	2	2
US Small-Cap Growth	1	1	2	2	2
US Small-Cap Value	1	1	2	2	2
International Equities	11	14	22	26	34
European Equities	7	10	15	18	21
Japan Equities	4	4	6	6	9
Asia Pacific ex Japan Equities			1	2	4
Emerging & Frontier Mkt. Equities	3	5	6	8	9
Total Equities	**22**	**33**	**48**	**60**	**75**
Total US Equities	8	14	20	26	32
Total International Equities	11	14	22	26	34
Total Emerging & Frontier Mkt. Equities	3	5	6	8	9
Fixed Income & Preferreds					
Short-Term Fixed Income	21	17	10	5	
US Fixed Income Taxable	26	22	15	10	
International Fixed Income	2	1	1		
Inflation-Protection Securities					
High Yield Fixed Income	6	5	4	2	
Emerging Mkt Fixed Income	1	1	1	1	1
Total Fixed Income	**56**	**46**	**31**	**18**	**1**
Alternatives					
Real Assets	6	8	8	6	6
REITs	2	3	3	2	2
Commodities					
Master Limited Partnerships	4	5	5	4	4
Absolute Return Assets	4	5	4	1	
Equity Hedge Assets			5	5	7
Equity Return Assets				8	11
Opportunistic Assets					
Private Real Estate					
Private Equity					
Private Credit					
Total Alternative Investments	**10**	**13**	**17**	**20**	**24**

Note: Strategic allocations effective April 1, 2017 for investors with less than $25 million in investable assets.
Source: Morgan Stanley Wealth Management GIC

Exhibit 10: New Strategic Weights for GIC Asset Allocation Models Level 2

	Capital Preservation	Income	Balanced Growth	Market Growth	Opportunistic Growth
Ultrashort Fixed Income	13	9	5	2	
Equities					
US Equities	10	14	18	26	32
US Large-Cap Growth	3	5	7	9	12
US Large-Cap Value	3	5	7	9	12
US Mid-Cap Growth	1	1	1	2	2
US Mid-Cap Value	1	1	1	2	2
US Small-Cap Growth	1	1	1	2	2
US Small-Cap Value	1	1	1	2	2
International Equities	9	13	18	23	31
European Equities	6	8	12	15	21
Japan Equities	3	4	4	6	7
Asia Pacific ex Japan Equities		1	2	2	3
Emerging & Frontier Mkt. Equities	3	4	5	6	8
Total Equities	**22**	**31**	**41**	**55**	**71**
Total US Equities	10	14	18	26	32
Total International Equities	9	13	18	23	31
Total Emerging & Frontier Mkt. Equities	3	4	5	6	8
Fixed Income & Preferreds					
Short-Term Fixed Income	20	16	10	5	
US Fixed Income Taxable	24	19	14	8	
International Fixed Income	2	2	2	1	
Inflation-Protection Securities					
High Yield Fixed Income	6	4	4	2	
Emerging Market Fixed Income	1	1	1		
Total Fixed Income	**53**	**42**	**31**	**16**	
Alternatives					
Real Assets	4	6	6	6	6
REITs	1	2	2	2	2
Commodities					
Master Limited Partnerships	3	4	4	4	4
Absolute Return Assets	2	4	2	1	
Equity Hedge Assets			4	4	4
Equity Return Assets				3	6
Opportunistic Assets	6	8	11	13	13
Private Real Estate	4	3	3	4	4
Private Equity	1	3	6	6	6
Private Credit	1	2	2	3	3
Total Alternative Investments	**12**	**18**	**23**	**27**	**29**

Note: Strategic allocations effective April 1, 2017 for investors with more than $25 million in investable assets.
Source: Morgan Stanley Wealth Management GIC

Exhibit 11: Strategic and Secular Return and Volatility Estimates

	Strategic Return and Volatility Estimates		Secular Return and Volatility Estimates	
	Annualized Return Estimates	Annualized Volatility Estimates	Annualized Return Estimates	Annualized Volatility Estimates
Ultrashort Fixed Income	**2.0%**	**0.9%**	**3.4%**	**0.9%**
Equities	**5.7**	**16.0**	**8.9**	**16.4**
US Equities	4.9	14.7	9.1	15.3
US Large-Cap Growth	4.6	16.2	8.9	17.0
US Large-Cap Value	5.3	14.2	8.9	14.5
US Mid-Cap Growth	4.9	19.1	9.5	20.2
US Mid-Cap Value	5.3	15.4	9.5	15.8
US Small-Cap Growth	5.6	21.7	10.0	22.6
US Small-Cap Value	6.6	17.3	10.0	17.4
International Equities	6.3	17.3	8.7	18.2
European Equities	6.4	16.7	7.5	17.4
Japan Equities	6.1	20.4	7.4	20.9
Asia Pacific ex Japan Equities	5.8	22.5	9.4	23.2
Emerging & Frontier Mkt. Equities	7.5	22.1	10.5	23.0
Fixed Income & Preferreds	**3.0**	**4.4**	**4.8**	**4.4**
Short-Term Fixed Income	1.9	2.7	3.7	2.7
US Fixed Income Taxable	3.0	5.4	4.9	5.4
International Fixed Income	1.3	4.2	4.5	4.2
Inflation-Protection Securities	2.2	7.6	5.3	7.6
High Yield Fixed Income	3.5	8.4	6.9	8.4
Emerging Market Fixed Income	4.7	12.6	5.8	12.6
Alternatives	**4.1**	**6.0**	**6.7**	**6.0**
Real Assets	5.9	14.0	6.4	14.0
REITs	5.0	17.0	7.5	18.1
Commodities	3.0	14.8	5.3	15.3
Master Limited Partnerships	9.8	20.9	8.0	16.3
Absolute Return Assets	3.5	4.0	5.7	4.0
Equity Hedge Assets	4.1	8.3	5.5	8.3
Equity Return Assets	4.5	8.3	7.3	8.3
Opportunistic Assets	7.2	14.1	9.0	14.1
Private Real Estate	6.8	17.0	6.5	12.9
Private Equity	7.6	18.4	11.6	18.4
Private Credit	4.1	8.2	7.8	8.2

Note: Ultrashort Fixed Income represented by 90-day T-bills, Fixed Income & Preferreds by Bloomberg Barclays Aggregate Bond. Index, Short-Term Fixed Income by Bloomberg Barclays Aggregate 1-3 Year Index, US Fixed Income Taxable by Bloomberg Barclays US Aggregate Index, International Fixed Income by Barclays Global Aggregate Non USD (hedged) Index, Inflation-Protection Securities by Bloomberg Barclays Global Inflation Linked Index, High Yield Fixed Income by Barclays US Corporate High Yield Index and Emerging Market Fixed Income JP Morgan EMBI Global Index. All other others are based on proprietary models.
Source: Morgan Stanley Wealth Management GIC as of March 10, 2017
Strategic annualized return and volatility estimates are based on a seven-year time horizon. Secular annualized return and volatility estimates are based on a 20-year-plus time horizon. Annualized volatility estimates are based on data with longest available history through March 2017. Estimates are for illustrative purposes only, are based on proprietary models and are not indicative of the future performance of any specific investment, index or asset class. Actual performance may be more or less than the estimates shown in this table. Estimates of future performance are based on assumptions that may not be realized.
Investor Suitability: Morgan Stanley Wealth Management recommends that investors independently evaluate each asset class, investment style, issuer, security, instrument or strategy discussed. Legal, accounting and tax restrictions, transaction costs and changes to any assumptions may significantly affect the economics and results of any investment. Investors should consult their own tax, legal or other advisors to determine suitability for their specific circumstances. Investments in private funds (including hedge funds, managed futures funds and private equity funds) are speculative and include a high degree of risk.

Exhibit 12: Correlation Matrix

		1	2	3	4	5	6	7	8	9	10	11
1	Ultrashort Fixed Income	1.00	0.00	0.01	-0.01	0.02	0.00	0.00	-0.04	-0.01	0.01	0.09
2	Equities	0.00	1.00	0.94	0.91	0.88	0.88	0.86	0.84	0.80	0.99	0.84
3	US Equities	0.01	0.94	1.00	0.95	0.93	0.86	0.88	0.79	0.78	0.96	0.81
4	US Large-Cap Growth	-0.01	0.91	0.95	1.00	0.80	0.93	0.76	0.84	0.69	0.91	0.79
5	US Large-Cap Value	0.02	0.88	0.93	0.80	1.00	0.73	0.96	0.69	0.84	0.90	0.75
6	US Mid-Cap Growth	0.00	0.88	0.86	0.93	0.73	1.00	0.75	0.94	0.75	0.85	0.75
7	US Mid-Cap Value	0.00	0.86	0.88	0.76	0.96	0.75	1.00	0.74	0.91	0.87	0.72
8	US Small-Cap Growth	-0.04	0.84	0.79	0.84	0.69	0.94	0.74	1.00	0.84	0.80	0.70
9	US Small-Cap Value	-0.01	0.80	0.78	0.69	0.84	0.75	0.91	0.84	1.00	0.78	0.67
10	International Equities	0.01	0.99	0.96	0.91	0.90	0.85	0.87	0.80	0.78	1.00	0.85
11	European Equities	0.09	0.84	0.81	0.79	0.75	0.75	0.72	0.70	0.67	0.85	1.00
12	Japan Equities	-0.04	0.66	0.57	0.55	0.53	0.55	0.53	0.54	0.50	0.65	0.60
13	Asia Pacific ex Japan Equities	-0.03	0.86	0.74	0.70	0.71	0.71	0.72	0.68	0.65	0.83	0.63
14	Emerging & Frontier Mkt. Equities	-0.01	0.87	0.75	0.73	0.71	0.75	0.71	0.71	0.66	0.82	0.69
15	Fixed Income & Preferreds	0.09	-0.02	-0.05	-0.05	-0.04	-0.07	-0.01	-0.11	-0.07	-0.02	-0.13
16	Short-Term Fixed Income	0.37	-0.10	-0.13	-0.13	-0.13	-0.15	-0.11	-0.18	-0.14	-0.10	-0.21
17	US Fixed Income Taxable	0.09	-0.02	-0.05	-0.05	-0.04	-0.07	-0.01	-0.11	-0.07	-0.02	-0.13
18	International Fixed Income	0.14	-0.11	-0.09	-0.12	-0.07	-0.16	-0.06	-0.17	-0.11	-0.10	-0.09
19	Inflation-Protection Securities	0.04	0.41	0.28	0.25	0.30	0.26	0.34	0.21	0.25	0.39	0.11
20	High Yield Fixed Income	-0.09	0.70	0.62	0.60	0.61	0.61	0.67	0.60	0.62	0.67	0.57
21	Emerging Market Fixed Income	0.01	0.59	0.53	0.51	0.52	0.52	0.52	0.50	0.46	0.56	0.47
22	Alternatives	0.11	0.80	0.70	0.69	0.65	0.74	0.67	0.73	0.65	0.77	0.69
23	Real Assets	0.03	0.82	0.73	0.66	0.76	0.69	0.83	0.68	0.79	0.80	0.71
24	REITs	-0.03	0.59	0.57	0.47	0.65	0.48	0.75	0.52	0.73	0.59	0.47
25	Commodities	0.08	0.43	0.31	0.28	0.33	0.34	0.37	0.31	0.31	0.40	0.18
26	Master Limited Partnerships	0.04	0.75	0.69	0.66	0.65	0.67	0.68	0.64	0.65	0.74	0.84
27	Absolute Return Assets	0.10	0.75	0.66	0.63	0.65	0.64	0.68	0.63	0.64	0.72	0.64
28	Equity Hedge Assets	0.10	0.09	0.05	0.04	0.05	0.05	0.08	0.04	0.05	0.08	0.09
29	Equity Return Assets	0.12	0.89	0.80	0.81	0.73	0.88	0.75	0.88	0.76	0.85	0.75
30	Opportunistic Assets	0.20	0.39	0.35	0.35	0.33	0.39	0.31	0.37	0.31	0.38	0.40
31	Private Real Estate	0.36	0.19	0.20	0.14	0.24	0.13	0.23	0.13	0.22	0.20	0.21
32	Private Equity	0.08	0.43	0.38	0.41	0.33	0.44	0.31	0.42	0.30	0.41	0.42
33	Private Credit	-0.01	0.51	0.44	0.40	0.45	0.43	0.53	0.42	0.47	0.49	0.43

Source: Bloomberg, Datastream, Morgan Stanley Alternative Investment Partners, Morgan Stanley Wealth Management GIC
Above is based on data with longest available history through March 2017. Correlation is a statistical method of measuring the strength of a linear relationship between two variables. The correlation between two variables can assume any value from -1.00 to +1.00, inclusive. Past performance is not indicative of future results. We apply significant statistical adjustments to correct for distortions typically associated with index returns for hedge funds, private equity and private real estate. Correlation assumptions are the same for the secular and strategic horizons.

Exhibit 12: Correlation Matrix (continued)

		12	13	14	15	16	17	18	19	20	21	22
1	Ultrashort Fixed Income	-0.04	-0.03	-0.01	0.09	0.37	0.09	0.14	0.04	-0.09	0.01	0.11
2	Equities	0.66	0.86	0.87	-0.02	-0.10	-0.02	-0.11	0.41	0.70	0.59	0.80
3	US Equities	0.57	0.74	0.75	-0.05	-0.13	-0.05	-0.09	0.28	0.62	0.53	0.70
4	US Large-Cap Growth	0.55	0.70	0.73	-0.05	-0.13	-0.05	-0.12	0.25	0.60	0.51	0.69
5	US Large-Cap Value	0.53	0.71	0.71	-0.04	-0.13	-0.04	-0.07	0.30	0.61	0.52	0.65
6	US Mid-Cap Growth	0.55	0.71	0.75	-0.07	-0.15	-0.07	-0.16	0.26	0.61	0.52	0.74
7	US Mid-Cap Value	0.53	0.72	0.71	-0.01	-0.11	-0.01	-0.06	0.34	0.67	0.52	0.67
8	US Small-Cap Growth	0.54	0.68	0.71	-0.11	-0.18	-0.11	-0.17	0.21	0.60	0.50	0.73
9	US Small-Cap Value	0.50	0.65	0.66	-0.07	-0.14	-0.07	-0.11	0.25	0.62	0.46	0.65
10	International Equities	0.65	0.83	0.82	-0.02	-0.10	-0.02	-0.10	0.39	0.67	0.56	0.77
11	European Equities	0.60	0.63	0.69	-0.13	-0.21	-0.13	-0.09	0.11	0.57	0.47	0.69
12	Japan Equities	1.00	0.55	0.57	-0.16	-0.22	-0.16	-0.21	0.13	0.47	0.34	0.57
13	Asia Pacific ex Japan Equities	0.55	1.00	0.89	0.06	-0.01	0.06	-0.04	0.50	0.62	0.62	0.74
14	Emerging & Frontier Mkt. Equities	0.57	0.89	1.00	-0.01	-0.07	-0.01	-0.11	0.45	0.66	0.67	0.81
15	Fixed Income & Preferreds	-0.16	0.06	-0.01	1.00	0.80	1.00	0.77	0.64	0.18	0.32	0.11
16	Short-Term Fixed Income	-0.22	-0.01	-0.07	0.80	1.00	0.80	0.59	0.52	0.06	0.17	0.07
17	US Fixed Income Taxable	-0.16	0.06	-0.01	1.00	0.80	1.00	0.77	0.64	0.18	0.32	0.11
18	International Fixed Income	-0.21	-0.04	-0.11	0.77	0.59	0.77	1.00	0.43	0.01	0.19	0.01
19	Inflation-Protection Securities	0.13	0.50	0.45	0.64	0.52	0.64	0.43	1.00	0.45	0.58	0.49
20	High Yield Fixed Income	0.47	0.62	0.66	0.18	0.06	0.18	0.01	0.45	1.00	0.55	0.67
21	Emerging Market Fixed Income	0.34	0.62	0.67	0.32	0.17	0.32	0.19	0.58	0.55	1.00	0.62
22	Alternatives	0.57	0.74	0.81	0.11	0.07	0.11	0.01	0.49	0.67	0.62	1.00
23	Real Assets	0.53	0.73	0.74	0.05	-0.04	0.05	-0.04	0.45	0.73	0.51	0.74
24	REITs	0.35	0.54	0.50	0.18	0.04	0.18	0.12	0.43	0.61	0.43	0.46
25	Commodities	0.25	0.48	0.48	0.06	0.10	0.06	-0.12	0.51	0.36	0.30	0.51
26	Master Limited Partnerships	0.53	0.58	0.65	-0.11	-0.19	-0.11	-0.12	0.13	0.61	0.38	0.66
27	Absolute Return Assets	0.57	0.66	0.70	0.09	0.05	0.09	-0.04	0.43	0.77	0.56	0.88
28	Equity Hedge Assets	0.01	0.12	0.13	0.35	0.33	0.35	0.35	0.38	0.04	0.11	0.46
29	Equity Return Assets	0.60	0.77	0.82	-0.01	-0.03	-0.01	-0.10	0.37	0.69	0.58	0.92
30	Opportunistic Assets	0.31	0.24	0.28	-0.12	-0.20	-0.12	-0.09	0.14	0.20	0.12	0.36
31	Private Real Estate	0.11	0.11	0.11	0.00	-0.01	0.00	0.04	0.09	0.09	0.04	0.18
32	Private Equity	0.37	0.27	0.32	-0.16	-0.25	-0.16	-0.15	0.16	0.24	0.14	0.39
33	Private Credit	0.43	0.44	0.45	-0.04	-0.08	-0.04	-0.17	0.30	0.77	0.26	0.54

Source: Bloomberg, Datastream, Morgan Stanley Alternative Investment Partners, Morgan Stanley Wealth Management GIC
Above is based on data with longest available history through March 2017. Correlation is a statistical method of measuring the strength of a linear relationship between two variables. The correlation between two variables can assume any value from -1.00 to +1.00, inclusive. Past performance is not indicative of future results. We apply significant statistical adjustments to correct for distortions typically associated with index returns for hedge funds, private equity and private real estate. Correlation assumptions are the same for the secular and strategic horizons.

Exhibit 12: Correlation Matrix (continued)

		23	24	25	26	27	28	29	30	31	32	33
1	Ultrashort Fixed Income	0.03	-0.03	0.08	0.04	0.10	0.10	0.12	0.20	0.36	0.08	-0.01
2	Equities	0.82	0.59	0.43	0.75	0.75	0.09	0.89	0.39	0.19	0.43	0.51
3	US Equities	0.73	0.57	0.31	0.69	0.66	0.05	0.80	0.35	0.20	0.38	0.44
4	US Large-Cap Growth	0.66	0.47	0.28	0.66	0.63	0.04	0.81	0.35	0.14	0.41	0.40
5	US Large-Cap Value	0.76	0.65	0.33	0.65	0.65	0.05	0.73	0.33	0.24	0.33	0.45
6	US Mid-Cap Growth	0.69	0.48	0.34	0.67	0.64	0.05	0.88	0.39	0.13	0.44	0.43
7	US Mid-Cap Value	0.83	0.75	0.37	0.68	0.68	0.08	0.75	0.31	0.23	0.31	0.53
8	US Small-Cap Growth	0.68	0.52	0.31	0.64	0.63	0.04	0.88	0.37	0.13	0.42	0.42
9	US Small-Cap Value	0.79	0.73	0.31	0.65	0.64	0.05	0.76	0.31	0.22	0.30	0.47
10	International Equities	0.80	0.59	0.40	0.74	0.72	0.08	0.85	0.38	0.20	0.41	0.49
11	European Equities	0.71	0.47	0.18	0.84	0.64	0.09	0.75	0.40	0.21	0.42	0.43
12	Japan Equities	0.53	0.35	0.25	0.53	0.57	0.01	0.60	0.31	0.11	0.37	0.43
13	Asia Pacific ex Japan Equities	0.73	0.54	0.48	0.58	0.66	0.12	0.77	0.24	0.11	0.27	0.44
14	Emerging & Frontier Mkt. Equities	0.74	0.50	0.48	0.65	0.70	0.13	0.82	0.28	0.11	0.32	0.45
15	Fixed Income & Preferreds	0.05	0.18	0.06	-0.11	0.09	0.35	-0.01	-0.12	0.00	-0.16	-0.04
16	Short-Term Fixed Income	-0.04	0.04	0.10	-0.19	0.05	0.33	-0.03	-0.20	-0.01	-0.25	-0.08
17	US Fixed Income Taxable	0.05	0.18	0.06	-0.11	0.09	0.35	-0.01	-0.12	0.00	-0.16	-0.04
18	International Fixed Income	-0.04	0.12	-0.12	-0.12	-0.04	0.35	-0.10	-0.09	0.04	-0.15	-0.17
19	Inflation-Protection Securities	0.45	0.43	0.51	0.13	0.43	0.38	0.37	0.14	0.09	0.16	0.30
20	High Yield Fixed Income	0.73	0.61	0.36	0.61	0.77	0.04	0.69	0.20	0.09	0.24	0.77
21	Emerging Market Fixed Income	0.51	0.43	0.30	0.38	0.56	0.11	0.58	0.12	0.04	0.14	0.26
22	Alternatives	0.74	0.46	0.51	0.66	0.88	0.46	0.92	0.36	0.18	0.39	0.54
23	Real Assets	1.00	0.80	0.60	0.79	0.74	0.18	0.75	0.38	0.30	0.35	0.63
24	REITs	0.80	1.00	0.25	0.46	0.50	0.10	0.48	0.26	0.26	0.22	0.50
25	Commodities	0.60	0.25	1.00	0.20	0.49	0.23	0.47	0.20	0.19	0.16	0.37
26	Master Limited Partnerships	0.79	0.46	0.20	1.00	0.64	0.08	0.70	0.36	0.20	0.38	0.52
27	Absolute Return Assets	0.74	0.50	0.49	0.64	1.00	0.19	0.84	0.38	0.22	0.39	0.72
28	Equity Hedge Assets	0.18	0.10	0.23	0.08	0.19	1.00	0.19	0.02	0.04	0.01	0.00
29	Equity Return Assets	0.75	0.48	0.47	0.70	0.84	0.19	1.00	0.41	0.19	0.44	0.53
30	Opportunistic Assets	0.38	0.26	0.20	0.36	0.38	0.02	0.41	1.00	0.72	0.92	0.33
31	Private Real Estate	0.30	0.26	0.19	0.20	0.22	0.04	0.19	0.72	1.00	0.44	0.23
32	Private Equity	0.35	0.22	0.16	0.38	0.39	0.01	0.44	0.92	0.44	1.00	0.32
33	Private Credit	0.63	0.50	0.37	0.52	0.72	0.00	0.53	0.33	0.23	0.32	1.00

Source: Bloomberg, Datastream, Morgan Stanley Alternative Investment Partners, Morgan Stanley Wealth Management GIC
Above is based on data with longest available history through March 2017. Correlation is a statistical method of measuring the strength of a linear relationship between two variables. The correlation between two variables can assume any value from -1.00 to +1.00, inclusive. Past performance is not indicative of future results. We apply significant statistical adjustments to correct for distortions typically associated with index returns for hedge funds, private equity and private real estate. Correlation assumptions are the same for the secular and strategic horizons.

Appendix

Hedge Fund Index Performance Biases

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

Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns.

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

For indexes referenced in this report please visit the following: http://www.morganstanleyfa.com/public/projectfiles/id.pdf

Glossary

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

EFFICIENT FRONTIER The efficient frontier is the set of optimal portfolios that offers the highest expected return for a defined level of risk or the lowest risk for a given level of expected return.

EQUITY RISK PREMIUM The excess return that an individual stock or the overall stock market provides over a risk-free rate.

EXCESS RETURN This term represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive excess return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

MEAN REVERSION This theory suggests that prices and returns eventually move back toward the mean or average. This mean or average can be the historical average of the price or return or another relevant average such as the growth in the economy or the average return of an industry.

STANDARD DEVIATION This statistic quantifies the volatility associated with a portfolio's returns by measuring the variation in returns around the mean return. Unlike beta, which measures volatility relative to the aggregate market, standard deviation measures the absolute volatility of a portfolio's return.

The **Global Investment Committee (GIC)** is a committee of seven senior Morgan Stanley & Co. and Morgan Stanley Wealth Management thought leaders who meet regularly to discuss the global economy and markets, set asset allocation recommendations and portfolio weightings, and produce a suite of strategic and tactical market publications.

Zachary Apoian, Joseph Pickhardt, Lucy Yan, Yogesh Gupta and Aili Chen are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

Risk Considerations

Master Limited Partnerships (MLPs)

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

For tax purposes, MLP ETFs are taxed as C corporations and will be obligated to pay federal and state corporate income taxes on their taxable income, unlike traditional ETFs, which are structured as registered investment companies. These ETFs are likely to exhibit tracking error relative to their index as a result of accounting for deferred tax assets or liabilities (see funds' prospectuses).

The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund's after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Duration

Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

International investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. 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Managed futures investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually suitable only for the risk capital portion of an investor's portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

Physical precious metals are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. If sold in a declining market, the price you receive may be less than your original investment. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. The Securities Investor Protection Corporation ("SIPC") provides certain protection for customers' cash and securities in the event of a brokerage firm's bankruptcy, other financial difficulties, or if customers' assets are missing. SIPC insurance does not apply to precious metals or other commodities.

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

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

Interest on municipal bonds is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence.

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

Treasury Inflation Protection Securities' (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

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

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

Companies paying **dividends** can reduce or cut payouts at any time.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Stocks of medium-sized companies entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies.

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

The **indices** are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Smith Barney LLC retains the right to change representative indices at any time.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions.

Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

Investing in foreign emerging markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. These risks are magnified in **frontier markets.**

Investing in foreign markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. **Investing in currency** involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

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

Credit ratings are subject to change.

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GIC RISK AND RETURN ASSUMPTIONS COMPARISON – 2017 & 2016

	STRATEGIC FORECASTS (Year 1-7)						SECULAR FORECASTS (Year 8+)					
	2017 Return	2016 Return	Return Difference	2017 Volatility	2016 Volatility	Volatility Difference	2017 Return	2016 Return	Return Difference	2017 Volatility	2016 Volatility	Volatility Difference
Equities												
US Large Cap Growth Equities	4.60%	6.70%	**-2.10%**	16.20%	19.00%	**-2.80%**	8.90%	10.30%	**-1.40%**	17.00%	17.20%	**-0.20%**
US Large Cap Value Equities	5.30%	6.20%	**-0.90%**	14.20%	15.80%	**-1.60%**	8.90%	10.00%	**-1.10%**	14.50%	14.60%	**-0.10%**
US Mid Cap Growth Equities	4.90%	8.00%	**-3.10%**	19.10%	23.30%	**-4.20%**	9.50%	11.30%	**-1.80%**	20.20%	20.40%	**-0.20%**
US Mid Cap Value Equities	5.30%	6.90%	**-1.60%**	15.40%	16.80%	**-1.40%**	9.50%	10.60%	**-1.10%**	15.80%	15.90%	**-0.10%**
US Small Cap Growth Equities	5.60%	8.80%	**-3.20%**	21.70%	24.80%	**-3.10%**	10.00%	12.20%	**-2.20%**	22.60%	22.70%	**-0.10%**
US Small Cap Value Equities	6.60%	7.50%	**-0.90%**	17.30%	17.30%	**0.00%**	10.00%	11.30%	**-1.30%**	17.40%	17.30%	**0.10%**
European Equities	6.40%	7.80%	**-1.40%**	16.70%	18.00%	**-1.30%**	7.50%	9.80%	**-2.30%**	17.40%	17.50%	**-0.10%**
Japan Equities	6.10%	7.90%	**-1.80%**	20.40%	19.60%	**0.80%**	7.40%	9.70%	**-2.30%**	20.90%	21.40%	**-0.50%**
Asia Pacific ex Japan Equities	5.80%	8.70%	**-2.90%**	22.50%	24.10%	**-1.60%**	9.40%	12.00%	**-2.60%**	23.20%	23.30%	**-0.10%**
Emerging & Frontier Mkt. Equities	7.50%	11.50%	**-4.00%**	22.10%	27.60%	**-5.50%**	10.50%	11.80%	**-1.30%**	23.00%	23.30%	**-0.30%**
Cash & Bonds												
Cash	2.00%	1.80%	**0.20%**	0.90%	0.90%	**0.00%**	3.40%	3.30%	**0.10%**	0.90%	0.90%	**0.00%**
Short-Term Fixed Income	1.90%	1.90%	**0.00%**	2.70%	2.70%	**0.00%**	3.70%	3.90%	**-0.20%**	2.70%	2.70%	**0.00%**
US Fixed Income Taxable	3.00%	2.10%	**0.90%**	5.40%	5.40%	**0.00%**	4.90%	5.00%	**-0.10%**	5.40%	5.40%	**0.00%**
International Fixed Income	1.30%	1.10%	**0.20%**	4.20%	4.20%	**0.00%**	4.50%	5.50%	**-1.00%**	4.20%	4.20%	**0.00%**
Inflation-Protection Securities	2.20%	0.90%	**1.30%**	7.60%	7.80%	**-0.20%**	5.30%	4.60%	**0.70%**	7.60%	7.80%	**-0.20%**
High Yield Fixed Income	3.50%	6.90%	**-3.40%**	8.40%	9.60%	**-1.20%**	6.90%	8.80%	**-1.90%**	8.40%	9.60%	**-1.20%**
Emerging Markets Fixed Income	4.70%	6.40%	**-1.70%**	12.60%	11.90%	**0.70%**	5.80%	6.50%	**-0.70%**	12.60%	11.90%	**0.70%**
Alternatives *												
REITs	5.00%	7.80%	**-2.80%**	17.00%	21.80%	**-4.80%**	7.50%	9.30%	**-1.80%**	18.10%	18.30%	**-0.20%**
Commodities	3.00%	4.50%	**-1.50%**	14.80%	15.80%	**-1.00%**	5.30%	9.30%	**-4.00%**	15.30%	15.80%	**-0.50%**
Master Limited Partnerships	9.80%	11.70%	**-1.90%**	20.90%	15.00%	**5.90%**	8.00%	9.20%	**-1.20%**	16.30%	16.20%	**0.10%**
Absolute Return Assets	3.50%	3.90%	**-0.40%**	4.00%	3.80%	**0.20%**	5.70%	5.60%	**0.10%**	4.00%	3.80%	**0.20%**
Equity Hedge Assets	4.10%	4.20%	**-0.10%**	8.30%	8.30%	**0.00%**	5.50%	5.70%	**-0.20%**	8.30%	8.30%	**0.00%**
Equity Return Assets	4.50%	4.70%	**-0.20%**	8.30%	8.70%	**-0.40%**	7.30%	7.00%	**0.30%**	8.30%	8.40%	**-0.10%**
Private Real Estate Funds	6.80%	7.80%	**-1.00%**	17.00%	18.20%	**-1.20%**	6.50%	9.70%	**-3.20%**	12.90%	18.20%	**-5.30%**
Private Equity	7.60%	9.90%	**-2.30%**	18.40%	22.10%	**-3.70%**	11.60%	14.30%	**-2.70%**	18.40%	20.80%	**-2.40%**
Private Credit	4.10%	N/A	**N/A**	8.20%	N/A	**N/A**	7.80%	N/A	**N/A**	8.20%	N/A	**N/A**

Source: Global Investment Committee as of March 31, 2017 (2017 data) and as of March 18, 2016 (2016 data). Annualized volatility estimates are based on data with longest available history through March 2017 for the 2017 data set and through March 18, 2016 for the 2016 data set. Strategic annualized return and volatility estimates are based on a seven-year time horizon. Secular annualized return and volatility estimates are based on a 20-year-plus time horizon.

Forecast estimates are for illustrative purposes only, are based on proprietary models and are not indicative of the future performance of any specific investment, index or asset class. Actual performance may be more or less than the estimates shown in this table. Estimates of future performance are based on assumptions that may not be realized.

* The GIC applies significant statistical adjustments to correct for distortions typically associated with hedge fund, private equity and private real estate index returns. For more information, see the 'Return Series Adjustments' section on Appendix page 18.

Investor Suitability: Morgan Stanley Wealth Management recommends that investors independently evaluate each asset class, investment style, issuer, security, instrument or strategy discussed. Legal, accounting and tax restrictions, transaction costs and changes to any assumptions may significantly affect the economics and results of any investment. Investors should consult their own tax, legal or other advisors to determine suitability for their specific circumstances. Investments in private funds (including hedge funds, managed futures funds and private equity funds) are speculative and include a high degree of risk.

Morgan Stanley

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GIC RISK AND RETURN ASSUMPTIONS COMPARISON – 2017 & 2016

All figures annualized. Asset class returns are assumed to be serially independent. In some cases, the asset classes in the forgoing presentation are aggregations of the asset classes listed above, as per the mapping detailed on page 2 of the Appendix. Assumptions for aggregated asset class are simply aggregates of the above assumptions with weights as per the Granular Portfolio Allocations on Page 1 of the Appendix and Model Allocations on page 3 of the Appendix respectively. Please refer to the end of this Appendix for important disclosures about this presentation.

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Graystone Consulting[SM]
A business of Morgan Stanley

Custom Report

Prepared on June 20, 2017

Prepared For: **Michigan County Road Commission Self-Insurance Pool - International**

Please review the disclosures and definitions throughout this Document.

Summary of GIC Tactical Advice: Global Equities

As of May 31, 2017

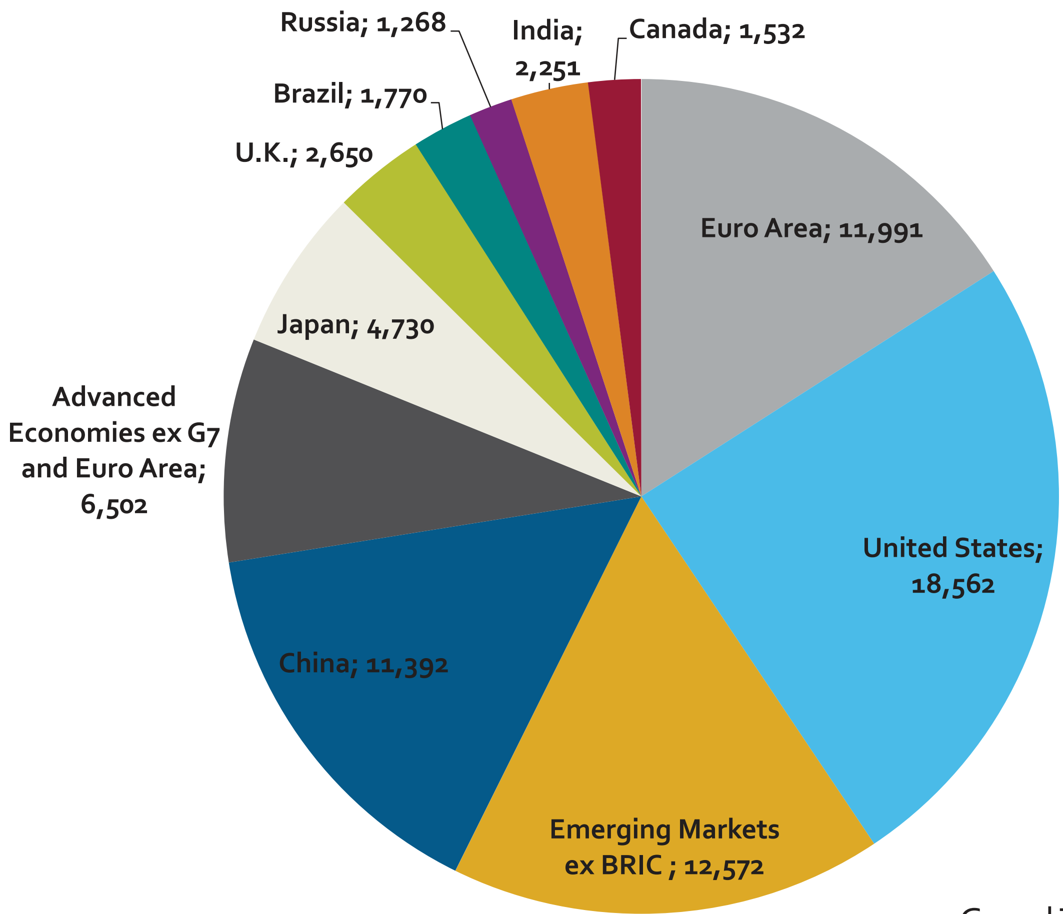
Global Equities	Relative Weight Within Equities	Rationale
US	Overweight	While US equities have done exceptionally well since the global financial crisis, they are now in the latter stages of a cyclical bull market. This bull market was challenged during the past year by fears of recession and political events. With the recent Trump/Republican win, it appears investors are getting more excited about potential growth and “animal spirits” are on the rise. This is likely to lead to the final euphoric stage of this cyclical bull market, which could be quite powerful in 2017’s first half.
International Equities (Developed Markets)	Equal-Weight	We maintain a positive bias for Japanese and European equity markets despite the political challenges that both markets faced in the past year. Ironically, the populist movement around the world is likely to drive more fiscal policy action in both regions, which is needed to make the extraordinary monetary policy offered in both regions more effective. Both are still at record levels of cheapness. We continue to recommend hedging currency risk for 50% of European and Japanese positions.
Emerging Markets	Overweight	Emerging market (EM) equities have been much better performers during 2016 than in the prior three years. However, new concerns have arisen with the recent strength in the US dollar and the rise in interest rates. With global growth and earnings accelerating and financial conditions remaining loose, we think EM equities will perform well again in 2017.

Source: Morgan Stanley Wealth Management GIC

Global GDP

2016 GDP by Region[1]

Billions of US Dollars, as of December 31, 2016



% Share of Global GDP

Euro Area	16%
United States	25%
Emerging ex BRIC	17%
China	15%
Other Developed	9%
Japan	6%
U.K.	4%
Brazil	2%
Russia	2%
India	3%
Canada	2%

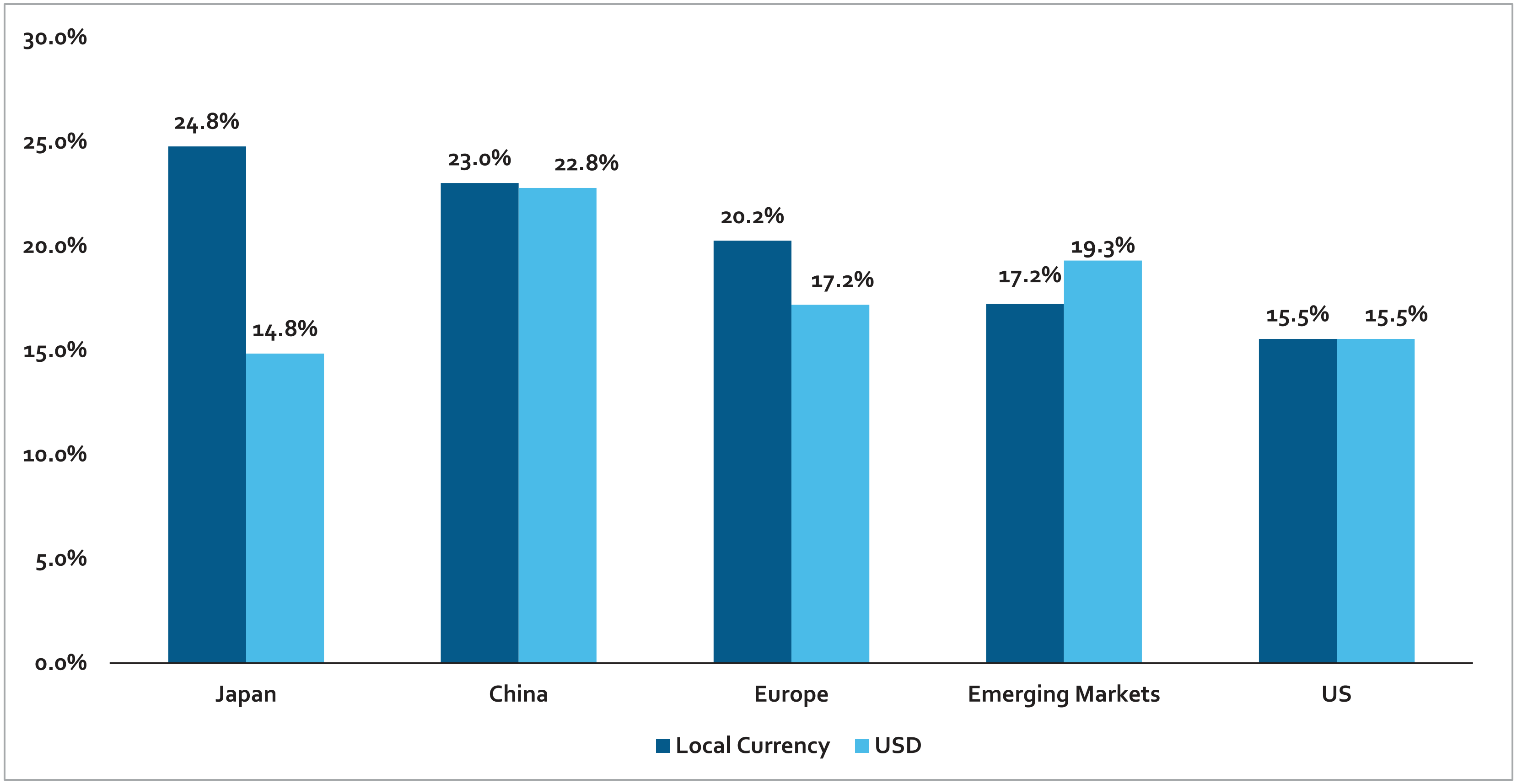
Grand Total for Global GDP is: $75 Trillion

Source: World Bank, Haver Analytics, Morgan Stanley Wealth Management GIC. (1) Advanced Economies ex G7 and Euro Area includes: Australia, Czech Republic, Denmark, Hong Kong SAR, Iceland, Israel, Korea, Latvia, New Zealand, Norway, San Marino, Singapore, Sweden, Switzerland, Taiwan Province of China. Data in chart shows nominal GDP in US dollars.

Since Second Half of 2016, International Regions Have Begun to Outperform the US

Regional Performance in Local Currency & US Dollar

Data from July 1, 2016 – May 31, 2017



Source: FactSet, Morgan Stanley Wealth Management GIC

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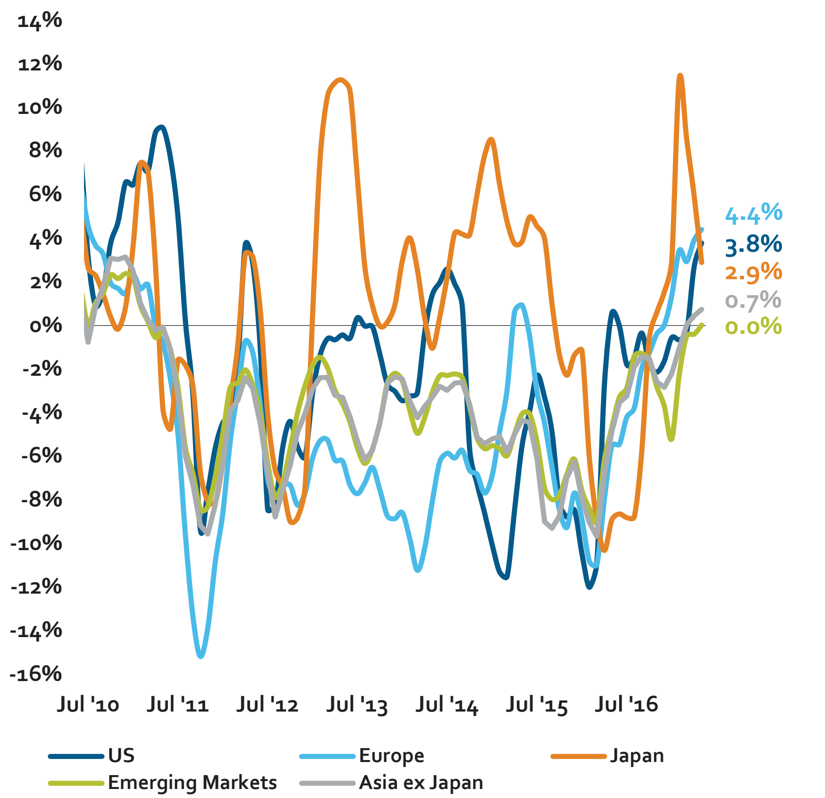
Earnings Growth and Revisions Are Strengthening Outside of US

Global Earnings Revisions Breadth[1]

3-Month Average as of May 31, 2017



Expected EPS Growth

As of May 31, 2017

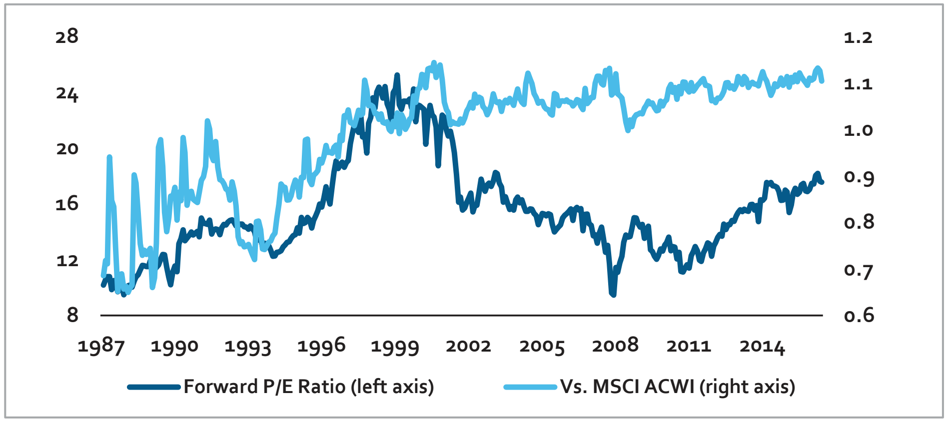
Regional Index	12-month Forward EPS Growth
MSCI Europe	16.1%
MSCI Emerging Markets	15.5%
MSCI All Country World	12.8%
MSCI Asia ex Japan	11.6%
MSCI USA	11.3%
MSCI Japan	9.8%

Source: FactSet, Morgan Stanley Wealth Management GIC. Indices used: MSCI USA for US, MSCI Europe for Europe, MSCI Japan for Japan, MSCI Emerging Markets for Emerging Markets, MSCI Asia ex Japan for Asia ex Japan. (1) Earnings revisions breadth is defined as the number of positive analyst revisions minus the number of negative analyst revisions divided by the total number of revisions.

Valuation: 12-Month Forward P/E Ratios by Region[1]

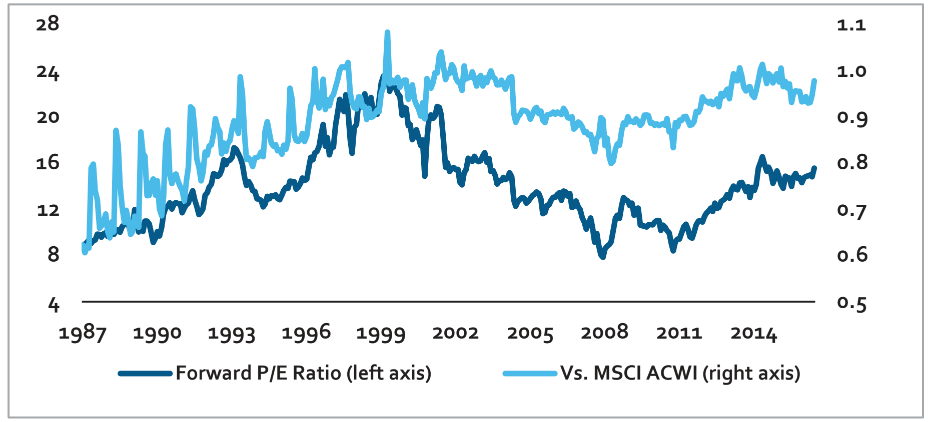
MSCI USA Forward P/E and Relative Valuation

As of May 31, 2017



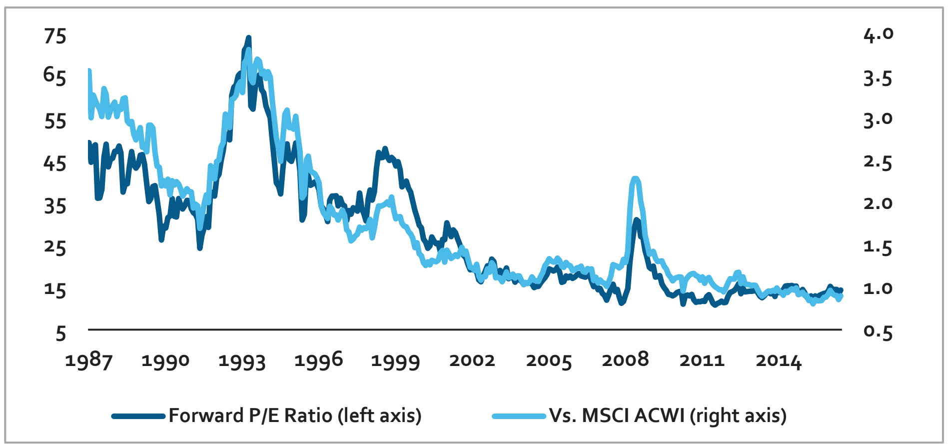
MSCI Europe Forward P/E and Relative Valuation

As of May 31, 2017



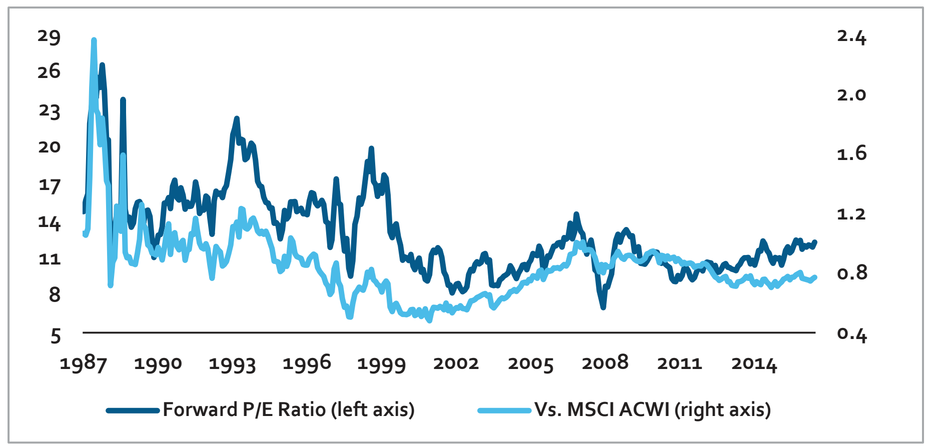
MSCI Japan Forward P/E and Relative Valuation

As of May 31, 2017



MSCI EM Forward P/E and Relative Valuation

As of May 31, 2017

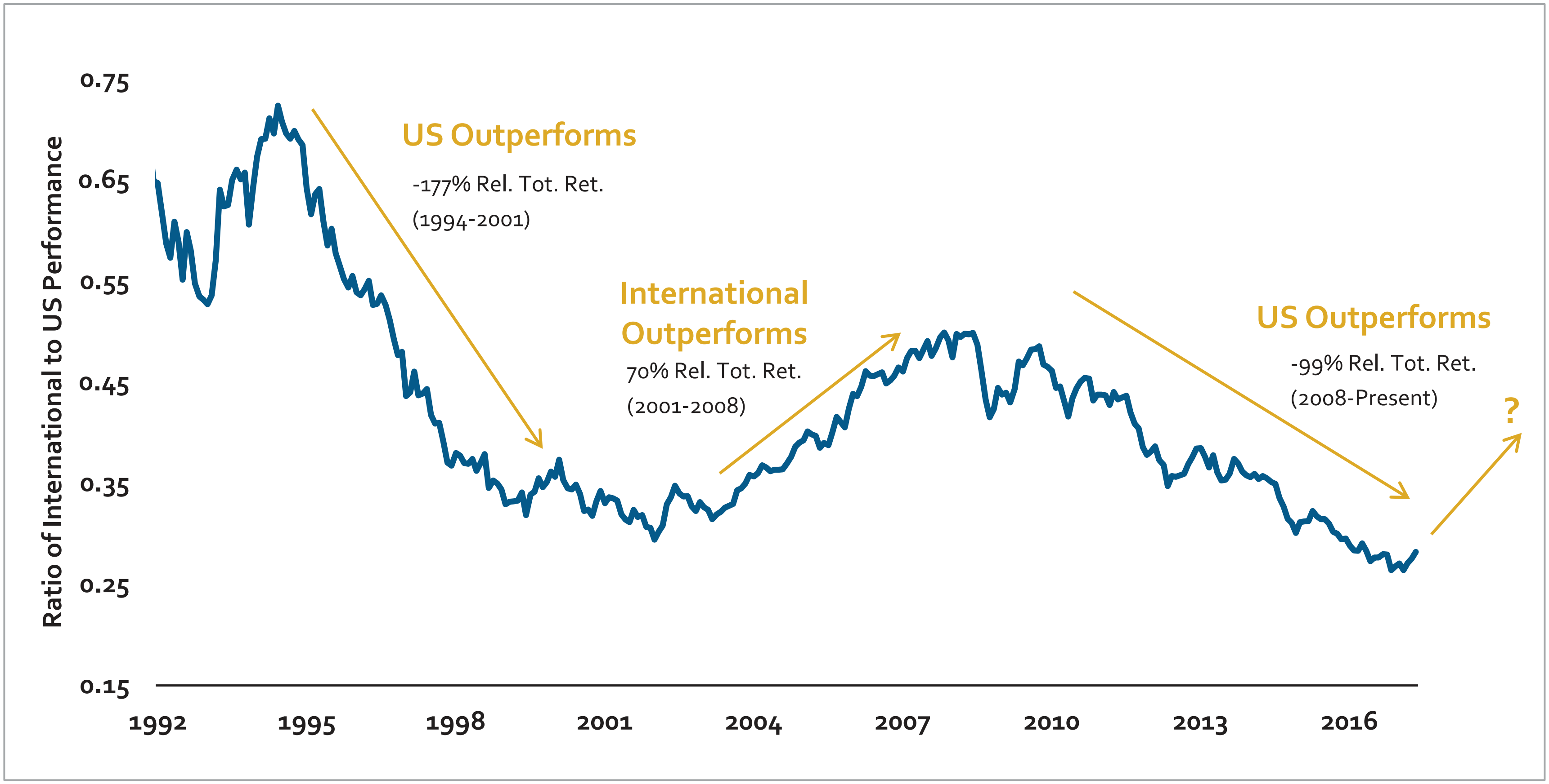


Source: FactSet, Morgan Stanley Wealth Management GIC. (1) Forward P/E = market price per share / expected earnings per share.

Relative Performance of International vs. US Stocks Could Be Turning

MSCI EAFE Vs. S&P 500

Data as of January 31, 1988 to May 31, 2017



Source: FactSet, Morgan Stanley Wealth Management GIC

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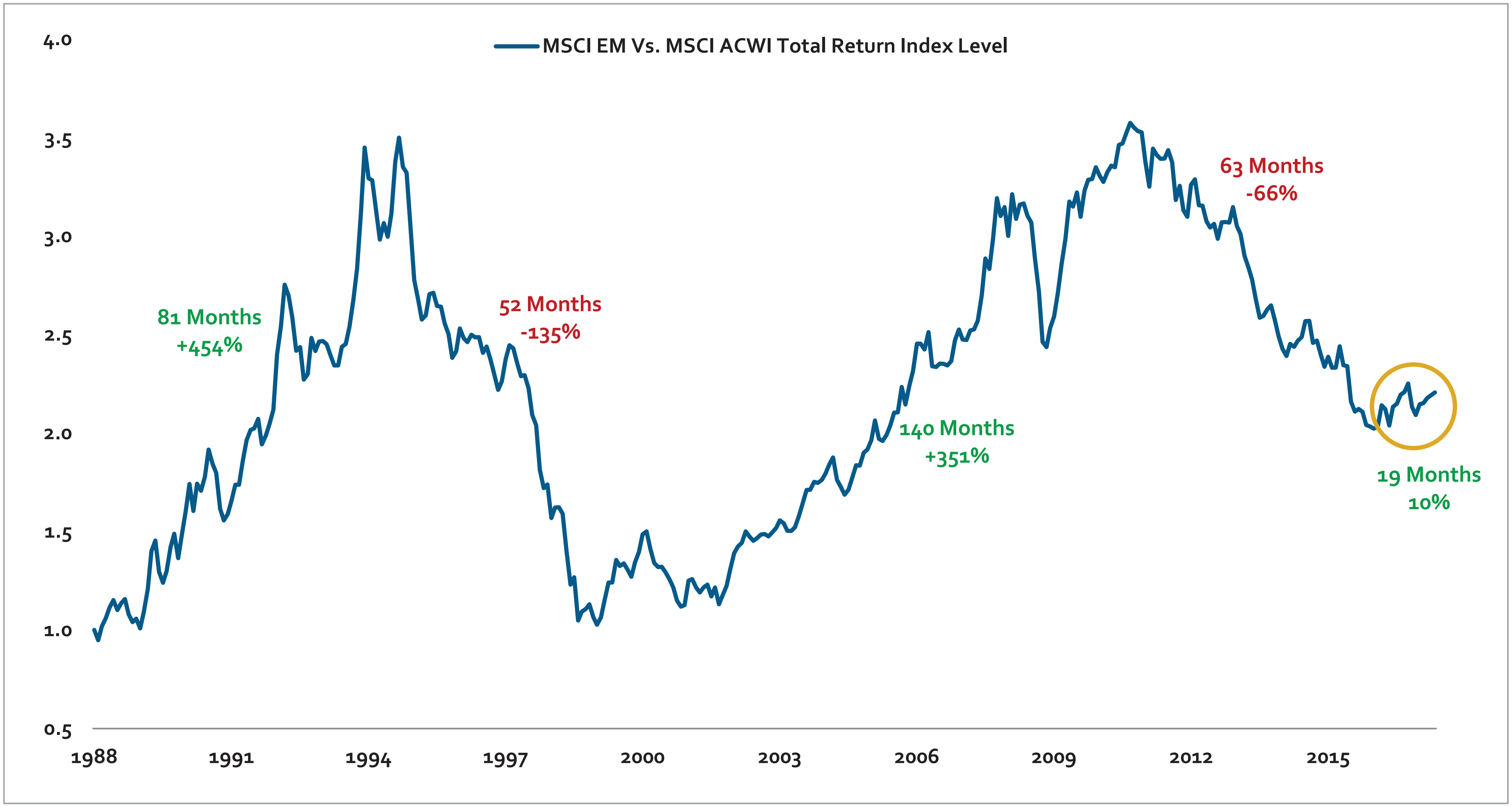
Emerging Markets Have Underperformed Dramatically, but Have Started to Turn the Corner

MSCI Emerging Market Equities Relative Performance

As of May 31, 2017



Source: FactSet, Morgan Stanley Wealth Management GIC

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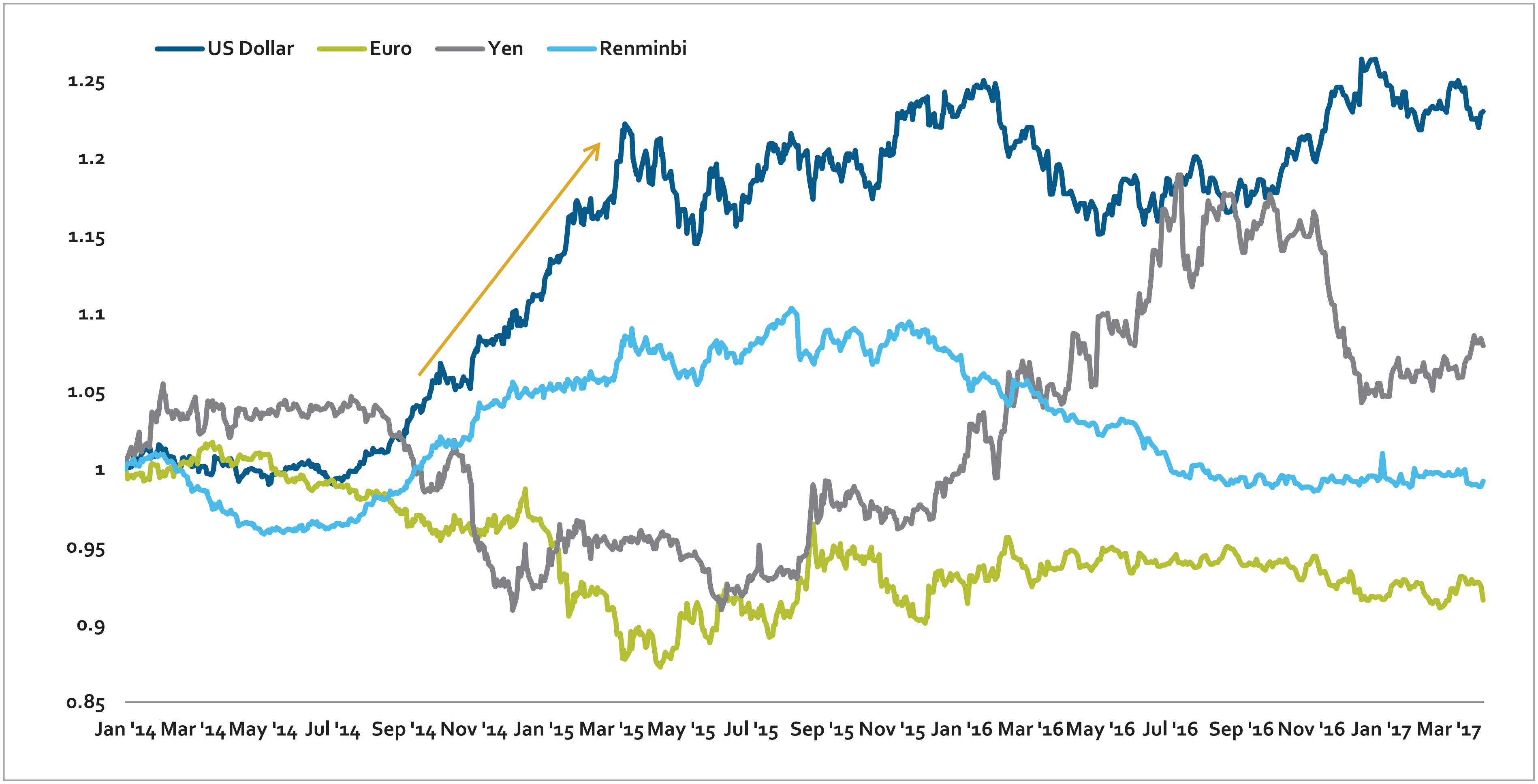
US Dollar Appreciated 24% from 2014 to 2015 Versus Trade Partners

Trade-Weighted Currency Indices

As of March 31, 2017

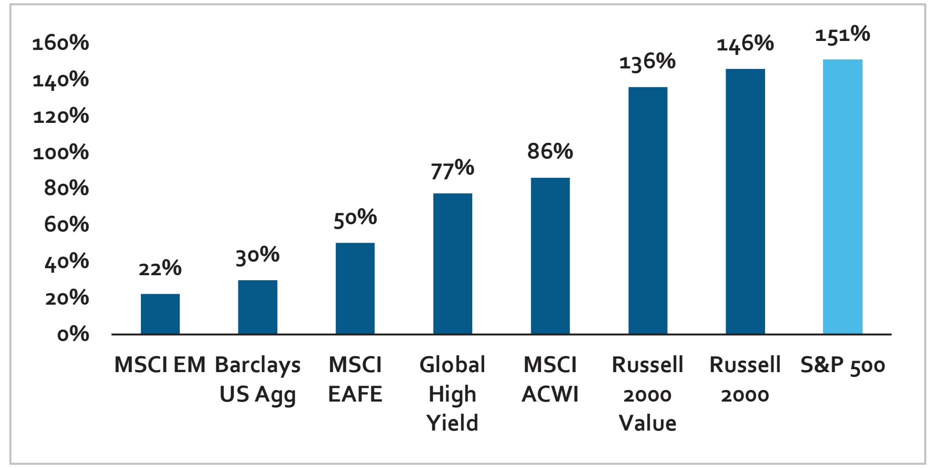


Source: Bloomberg, Morgan Stanley Wealth Management GIC

International Equities: Thinking About the 'Lost Decade' – Are We Set for a Turn?

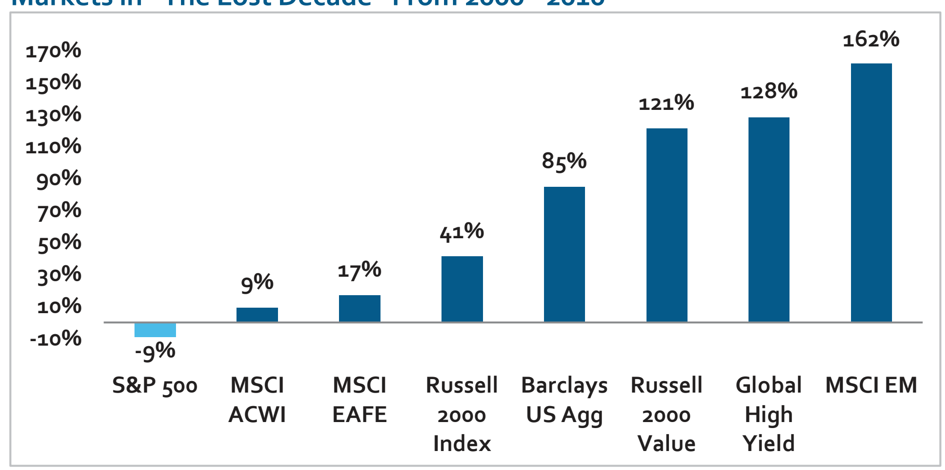
- There's no doubt that US equities have outperformed just about every asset class since the beginning of 2010 and for good reason. Coming out of the financial crisis, the US was quick to respond by recapitalizing the banks and providing stimulus packages to stabilize the economy. Additionally, the Fed stepped in, cutting interest rates and pumping a massive amount of liquidity into the system through multiple iterations of quantitative easing. An investor holding a 60/40 portfolio of the S&P 500 and Barclays US Agg would have done very well, annualizing around 10% per year with low volatility
- We believe this trend is not sustainable and are seeing signs that it is beginning to turn. Looking back to the 2000s, investors should be reminded that there was a time when US equities didn't outperform international. In fact, from 2000 – 2010 the US lagged international markets returning -9% over the time frame compared to 17% in international developed and 162% in emerging markets. While we aren't suggesting the US will post negative returns over the next decade, we do think there is more opportunity internationally and recommend diversifying portfolios globally – while you have likely seen us lay out the case for international equities before, below we summarize our updated views on Europe, Japan and EM today
- Europe – We remain constructive on Europe as economic data remains strong, valuations compelling, and earnings remain supportive. When looking at economic data, the Citi Economic Surprise Index remains elevated indicating that macroeconomic releases are coming in better than expected. Additionally both manufacturing and business PMIs are well into expansion territory at levels last seen coming out of the financial crisis. Valuations remain reasonable, trading at a 10% discount to the US on forward est. PE. Additionally, in 1Q Europe has posted almost 30% y/y EPS growth and 16% sales growth. MS & Co. European Strategist Graham Secker sees 16% EPS growth in 2017
- Japan – Our bullish view is based on earnings, currency, and valuation. Earnings in 1Q have been strong with 73% EPS growth and almost 3% sales growth. While we don't expect that growth to continue it is encouraging nonetheless. MS & Co.'s Jonathan Garner expects 26.5% y/y EPS growth in 2017. On currency, we have seen the yen start to weaken from 108 to 114 vs the dollar over the past month and expect the yen to weaken towards 120 by year end. We don't think it is all about the yen though as corporate governance reform has prioritized capital return and profitability and valuations remain compelling with the TOPIX trading at 14.2x, a significant discount to the US and Europe
- Emerging markets have been a strong performer this year with the MSCI Emerging Markets Index up around 16% YTD. We see this as a long term secular trend for EM, which has underperformed for the past 7 years. Our indicators point to rebounding global trade and improving economics worldwide which benefit EM. If the dollar doesn't strengthen materially from here (we don't think it will) and oil remains in the 50-60 dollar range for the foreseeable future, EM countries broadly should do well

The US has Significantly Outperformed since the Beginning of 2010



Note: Time range is from 12/31/2009 – 5/9/2017 using total returns. FactSet, Morgan Stanley Wealth Management as of 5/9/2017

This Wasn't Always the Case, the US Underperformed International Markets in "The Lost Decade" From 2000 - 2010

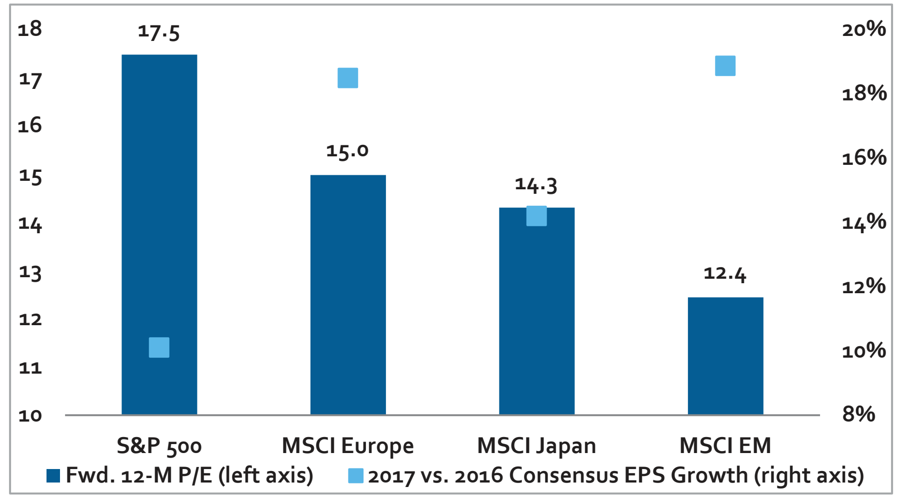


Note: Time range is from 12/31/1999 – 12/31/2009 using total returns. FactSet, Morgan Stanley Wealth Management as of 5/9/2017

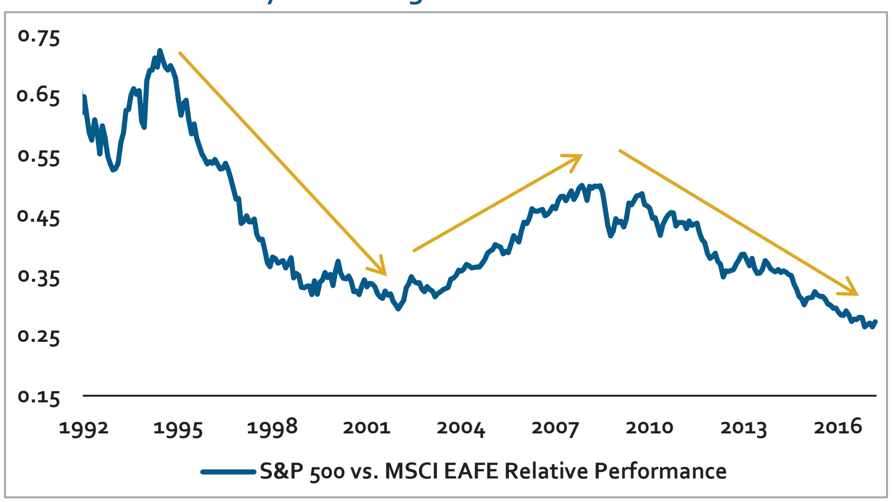
Why We Still Like International Equities

- Europe and Japan both trade at discounts to the S&P 500 on a 12-month forward P/E basis; the MSCI Europe and MSCI Japan indices currently trade at 15x and 14.3x forward EPS, respectively, compared to the S&P 500 at 17.5x
- Earnings are expected to grow faster outside the US as well. In 2017, year-over-year consensus EPS estimates are pointing toward 18% EPS growth for MSCI Europe and 14% for MSCI Japan compared to 10% in the US
- Additionally, international stocks have underperformed the S&P 500 nearly 100 percentage points since 2008. Though this may be beginning to turn – Japan, Europe, and EM have all outperformed the S&P 500 since July 2016. We believe international stocks may be reaching a support level vs. the US and we continue to recommend global equities
- Additionally, global economic growth continues to accelerate and remain supportive of higher equity prices. The Citi Global Economic Surprise Index remains elevated at the highest level since 2010
- While we do think there is more upside for US equities, we believe international equities will lead going forward

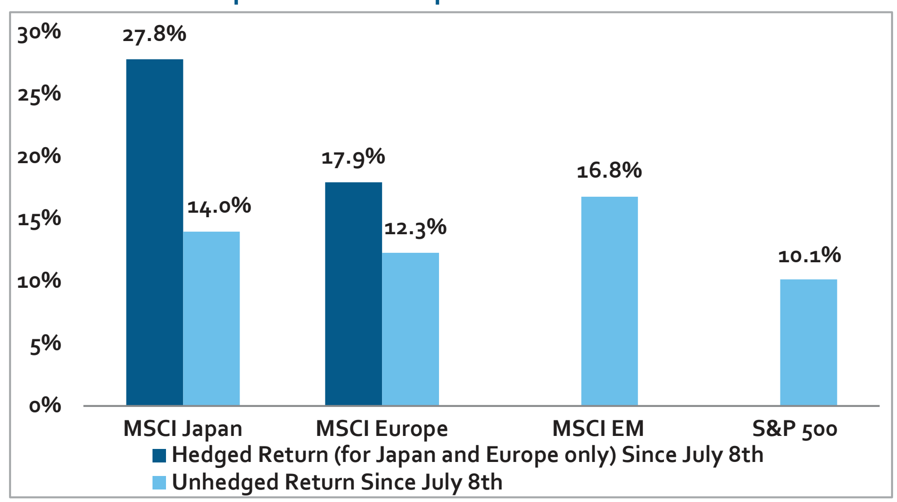
International Equities are Cheaper and Expected to Have Better EPS Growth in 2017 than the US



International Stocks Have Significantly Underperformed the S&P 500 Since 2008 – This May Be Turning…



…International Equities Have Outperformed the US Since Last Summer



Source: Bloomberg, FactSet, Morgan Stanley Wealth Management Market Strategy as of 3/23/2017

Opportunities in Emerging Market Equities

As of June 2017

Emerging market currencies have re-priced and no longer appear vulnerable to Fed hikes currently. Global reflation, improvement in trade and the potential for EM yields to decline from here should set up a sustainable bull market.

Context

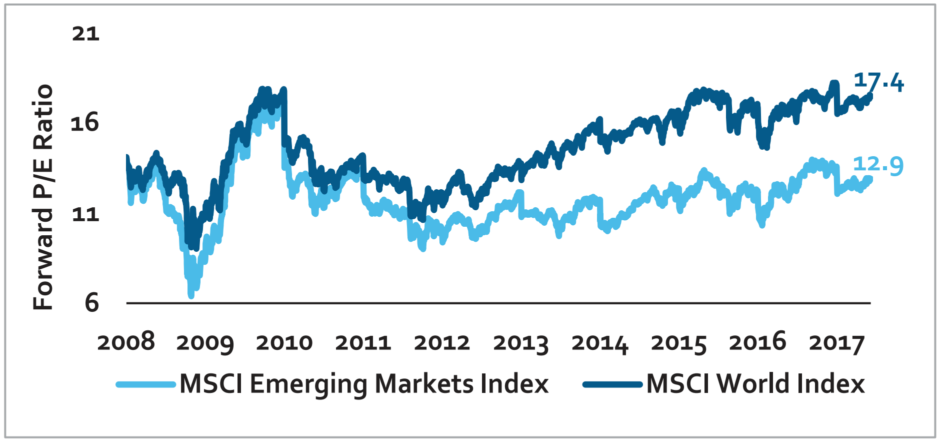
- Since 2010, emerging market equities have underperformed the broader market with annualized returns close to 2% vs the MSCI ACWI at ~8.5%.
- A stronger dollar has been a headwind for emerging markets as much of their companies' financing costs are tied to the currency.
- Declining commodity prices over the last five years have negatively impacted emerging markets' economic growth.
- History shows that regional leadership tends to rotate over multi-year periods. The rotation to EM might have started in the middle of 2016.

Investment Thesis

- Emerging markets have underperformed for the last 5 years, but could now enter a new era of outperformance. The reason: Global growth is improving, commodity prices are stabilizing, and the dollar is behaving. We are already seeing signals of this shift as EM has outperformed the S&P 500 by ~9% this year.
- Despite recent outperformance, valuations remain attractive. The MSCI Emerging Markets Index is priced at a 26% discount to the MSCI World Index (developed markets) based on next 12 months' earnings.
- Real yields are at multi-year highs for emerging markets. We believe EM has the potential to outperform as real yield differentials will tend to converge closer to zero.
- The EM Purchasing Managers' Index, which measures the health of the manufacturing sector, is now above 50 for the 10th month in a row, signifying a sustained improvement in EM growth.
- Earnings troughed in February 2016 along with oil prices and are now increasing from their lows.

Emerging Markets Trading at a 26% Discount to Developed Markets

As of June 6, 2017



Real Rate Differentials in Emerging Markets Remain Attractive

As of April 30, 2017

Source: Bloomberg, FactSet, Morgan Stanley Wealth Management GIC

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Opportunities in Emerging Market Equities

As of June 2017

Investment Ideas

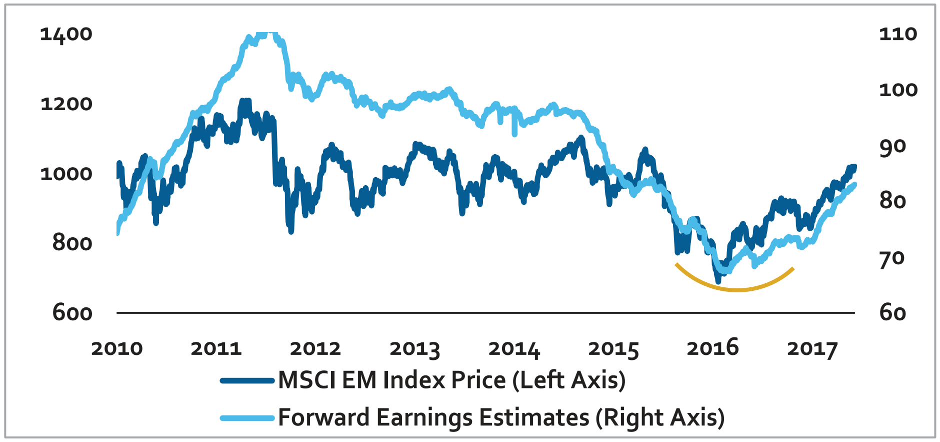
- Due to the uncertainty around trade policy, we prefer an active vs passive approach to EM equities.
- We see opportunities for active management focused on domestically oriented companies in Indonesia, India, Taiwan, Korea and China (through H-shares)

Key Risks

- China's successful soft landing becomes uncontrollable, deflationary risks increase, and the currency depreciates sharply
- Financial conditions tighten considerably
- Trump's protectionist policies impact global trade with EM economies
- The dollar appreciates significantly to levels that stress EM financing costs
- A growth scare turns into a recession and macro data collapses

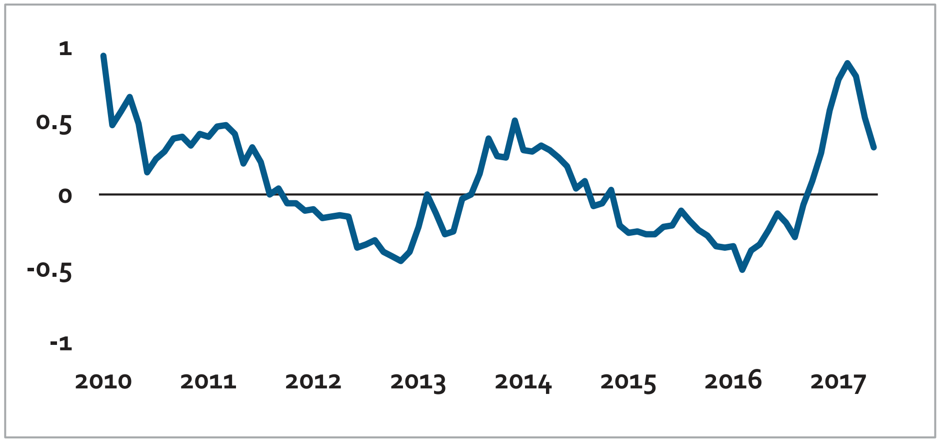
Earnings Growth Has Inflected Upward

As of June 5, 2017



Morgan Stanley Global Trade Leading Indicator Making New Highs

As of May 31, 2017



Source: Bloomberg, FactSet, Morgan Stanley Wealth Management GIC

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

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

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

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

KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. **Options** and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. **Alternative investments** often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. 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Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by NASD Conduct Rule 2711 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank. 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As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper. Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns. Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, "blow ups," or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial "lift" or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor's goals by the pre-established year or "target date." A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor's portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. **Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

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

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For index, indicator and survey definitions referenced in this report please visit the following: http://www.morganstanleyfa.com/public/projectfiles/id.pdf
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Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk /return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date. **FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS:** None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material. **insurance products disclosures: Variable annuities** are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value. **Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk. **Master Limited Partnerships (MLPs): I**ndividual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. **Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. **REITs** investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery

Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments. **Yields** are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. The majority of $25 and $1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some $25 or $1000 **par preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date. Companies paying **dividends** can reduce or cut payouts at any time. **Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. 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MORGAN STANLEY GRAYSTONE CONSULTING
THE BRICE GROUP

EMERGING MARKETS EQUITY PRESENTATION FOR

MICHIGAN COUNTY ROAD COMMISSION SELF-INSURANCE POOL

JUNE 2017

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This report must be accompanied by a separate profile document or other report for each mutual fund and exchange-traded fund (ETF), referred to herein as "fund" or "funds", shown in this report, and for each investment manager shown in this report and approved by Morgan Stanley to be offered to investors in any investment advisory program in which you may invest. These separate documents show, for each manager and fund, various information which may include both gross and net performance (which may be more up-to-date than the gross performance shown in this report).

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This report is not complete unless it contains all pages (as indicated in the page numbering below). Please see "Important Notes About Performance" and "Important Notes About this Report" for other important information (including the effect of fees and a summary of the risks associated with particular investment disciplines).

Prepared Exclusively For: Michigan County Road Commission Self-Insurance Pool

Manager Analysis

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The performance data in this report is historical. Past performance does not guarantee future results.

GROSS PERFORMANCE
The past performance and statistics for investment managers in this report are calculated based on gross performance and do not reflect the deduction of investment management fees and expenses (including Morgan Stanley program fees) that would apply if you invest with any of these managers. The past performance for funds in this report is, and statistics calculated use, gross performance. Returns reflect the funds' internal fees and expenses (such as the funds' management fees and 12b-1 fees), but do not reflect any Morgan Stanley program fees (nor any sales charge or brokerage commission that might apply if you purchased fund shares outside of our investment advisory programs). If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns.

NET PERFORMANCE
See the accompanying investment manager profiles for each investment manager in this report for net performance information on the manager. See the accompanying Morningstar profiles for each fund in the report for standardized fund performance (i.e. returns net of any maximum sales charges that apply if you purchase the fund outside of our investment advisory programs) and also returns net of the maximum annual investment advisory fees that apply if you purchase the fund in one of our investment advisory programs. You should carefully read the manager/fund profiles, which may contain more up-to-date performance information than in this report.

NOTE ABOUT ETF PERFORMANCE
For ETFs, performance shown is based on net asset value (NAV). The Morningstar profile that must accompany this report also shows performance based on market price.

COMPOUNDING EFFECT OF FEES AND EXPENSES
The impact of fees and expenses can be material. In most Morgan Stanley investment advisory accounts, fees are deducted quarterly and have a compounding effect on performance. For example, on an account with a 1% annual fee, if the gross annual performance is 6%, the compounding effect of the fees will result in a net performance of approximately 4.94% after one year, 4.81% after three years and 4.66% after five years.

GENERAL DISCLOSURE
The investment return and principal value of an investment will fluctuate so that an investor's shares in a fund, when redeemed, may be worth more or less than their original cost, and investments in separately managed accounts may be worth more or less than the original amount. Current performance may be lower or higher than the performance quoted. For performance data for a fund current to the most recent month end, please either contact the fund (at the toll-free number or website address specified in that fund's profile given to you with this report) or call your Financial Advisor or Private Wealth Advisor at the toll-free number on the cover page of this report.

You would not necessarily have obtained the performance results shown in this report if you had invested with these managers or funds for the periods indicated. Actual performance results of accounts vary due to factors such as the timing of contributions and withdrawals, client restrictions, rebalancing schedules, and fees and costs. THE SELECTION OF MANAGERS/FUNDS IN THIS REPORT MAY REFLECT THE BENEFIT OF HINDSIGHT BASED ON HISTORICAL RATES OF RETURN.

In this report, all performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

See the applicable Morgan Stanley ADV brochure for an explanation of the fees and charges that would apply if you invest with an investment manager or in a fund through a Morgan Stanley investment advisory program. See "Important Notes About This Report" for information on the sources of performance information in this report.

Manager and Fund Designations

Managers shown in this report may be approved managers offered in some or all of Morgan Stanley's Consulting and Evaluation Services program, Fiduciary Services program or Select UMA program. Please ask your Financial Advisor or Private Wealth Advisor about availability in particular programs. See "Important Notes About This Report" for more information on how Morgan Stanley approves managers for these programs.

Any strategies designated with "GIS" in this report are managed in the Global Investment Solutions program by a team of portfolio managers employed by Morgan Stanley or third party subadvisors.
For managers in Morgan Stanley's investment advisory programs, the following terms have the following meanings:
(S-CLOSE) Closed to new accounts but open to additional assets for existing clients.
(H-CLOSE) Closed to new accounts as well as existing clients.

The "Inception Date" is, for separately managed accounts, the date when the investment manager began managing the applicable investment discipline and, for funds, the date the fund was established. In either case, this date may be before the investment discipline or fund became available in any applicable Morgan Stanley investment advisory program.

Inception Date(s):

Aberdeen Emerging Markets Instl	May 2007	ABEMX
Causeway Emerging Markets Instl	March 2007	CEMIX
Harding Loevner Emerging Markets Advisor	November 1998	HLEMX
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	June 2004	N/A
MSCI Emerging Markets Net	December 1998	N/A

If any mutual funds are listed above, their ticker symbols are shown. "N/A" appears instead for separately managed accounts, exchange traded funds, and indices.

Performance Summary

STANDARD DEVIATION: Standard deviation measures the degree to which a portfolio's performance varies from its average performance during a period. See "Definitions of Statistical Terms Used" for more details.

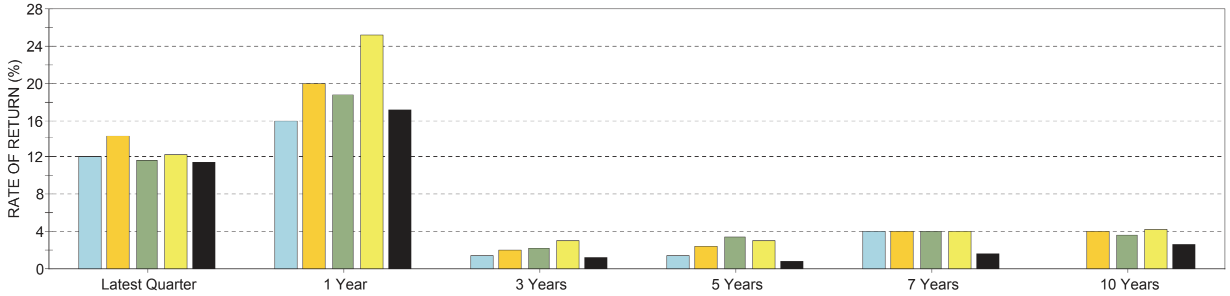
BENCHMARK INDICES: For comparison purposes, this report uses one or more benchmark indices. See "Important Notes About This Report" for more information on benchmark indices.

Performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

In this report, "N/A" means that a manager's or fund's performance track record is not long enough to calculate the applicable data.

Performance

Periods ending March 31, 2017



	Latest Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
Aberdeen Emerging Markets Instl	12.02	15.93	1.46	1.38	4.09	N/A
Causeway Emerging Markets Instl	14.27	19.91	2.08	2.51	4.11	3.98
Harding Loevner Emerging Markets Advisor	11.72	18.71	2.20	3.47	4.09	3.68
Lazard Asset Mgmt LLC Lazard Em Mkt Eq S	12.21	25.17	3.09	3.06	3.99	4.19
MSCI Emerging Markets Net	11.45	17.22	1.18	0.80	1.69	2.72

STANDARD DEVIATION (%)

	3 Years	5 Years	7 Years	10 Years
Aberdeen Emerging Markets Instl	14.79	13.03	16.19	N/A
Causeway Emerging Markets Instl	15.70	14.69	19.04	26.87
Harding Loevner Emerging Markets Advisor	14.73	13.00	17.26	23.65
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	18.13	15.70	18.52	23.86
MSCI Emerging Markets Net	15.50	14.04	17.65	24.43

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

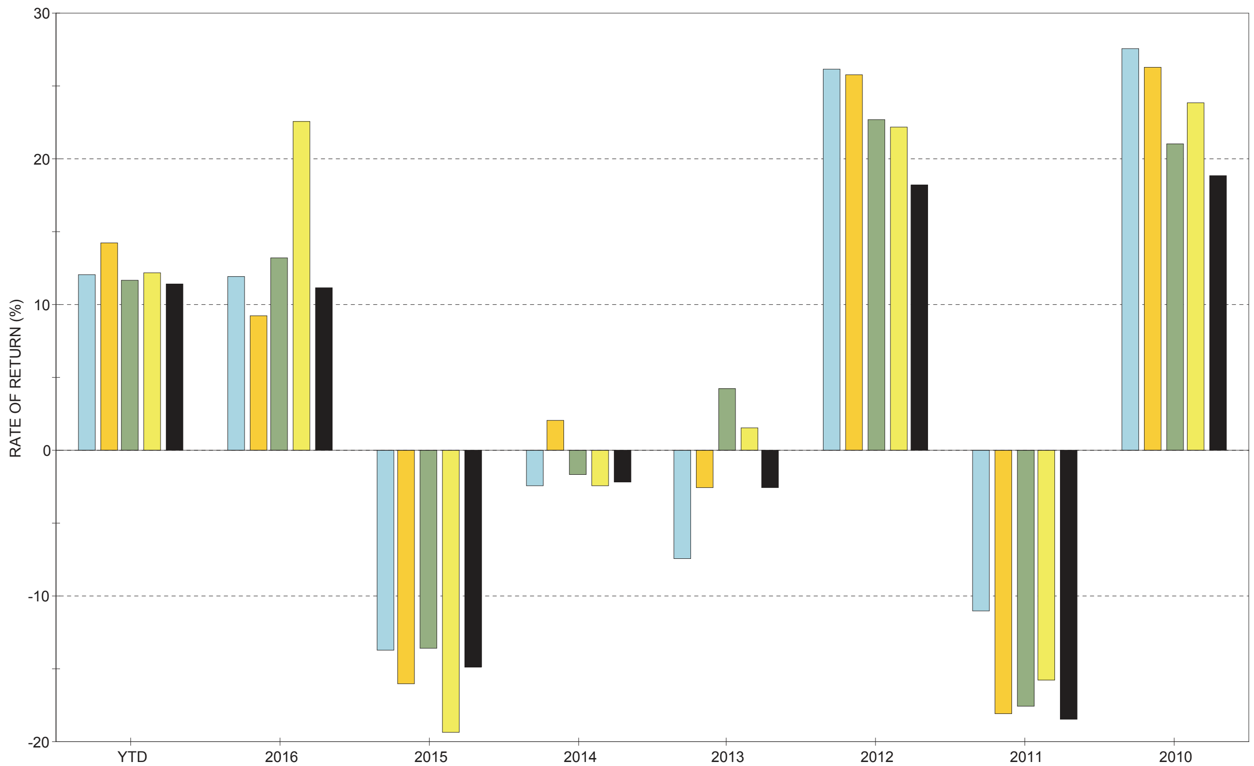
Performance Summary

BENCHMARK INDICES: For comparison purposes, this report uses a weighted combination of the benchmark indices shown on this page for the investment managers and/or funds in the asset allocation according to the relevant percentages ("Index-Hypothetical Portfolio"). See "Important Notes About This Report" for more information on benchmark indices. For more information on the particular benchmarks shown in this report, please ask your Financial Advisor or Private Wealth Advisor.

Performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

In this report, "N/A" means that the Hypothetical Portfolio's or Index-Hypothetical Portfolio's performance track record is not long enough to calculate the applicable data.

Calendar Performance



	YTD	2016	2015	2014	2013	2012	2011	2010
Aberdeen Emerging Markets Instl	12.02	11.96	-13.68	-2.45	-7.49	26.15	-11.05	27.58
Causeway Emerging Markets Instl	14.27	9.21	-16.05	2.07	-2.57	25.80	-18.11	26.29
Harding Loevner Emerging Markets	11.72	13.20	-13.55	-1.66	4.18	22.73	-17.52	20.98
Lazard Asset Mgmt LLC Lazard Em	12.21	22.63	-19.34	-2.43	1.52	22.14	-15.73	23.90
MSCI Emerging Markets Net	11.45	11.19	-14.92	-2.19	-2.60	18.22	-18.42	18.88

Morgan Stanley

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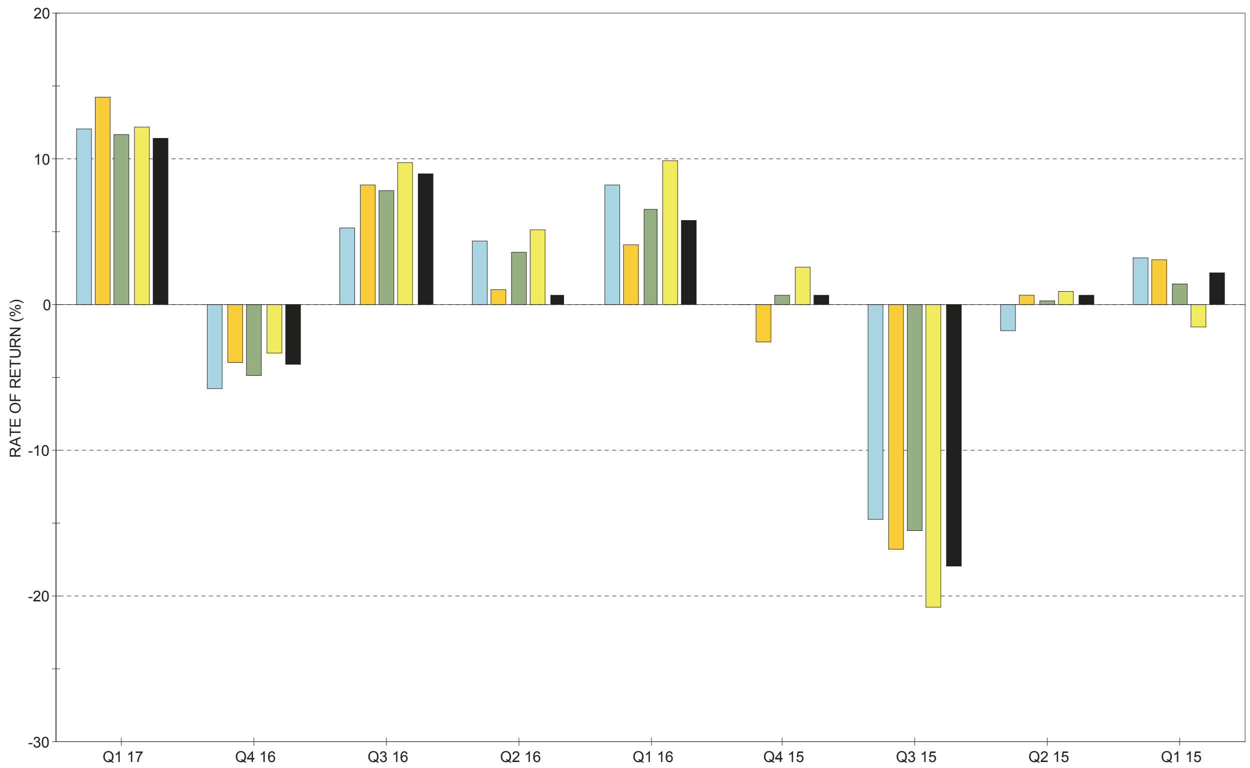
Performance Summary

BENCHMARK INDICES: For comparison purposes, this report uses a weighted combination of the benchmark indices shown on this page for the investment managers and/or funds in the asset allocation according to the relevant percentages (“Index-Hypothetical Portfolio”). See “Important Notes About This Report” for more information on benchmark indices. For more information on the particular benchmarks shown in this report, please ask your Financial Advisor or Private Wealth Advisor.

Performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

In this report, "N/A" means that the Hypothetical Portfolio's or Index-Hypothetical Portfolio's performance track record is not long enough to calculate the applicable data.

Quarterly Returns



	Q1 17	Q4 16	Q3 16	Q2 16	Q1 16	Q4 15	Q3 15	Q2 15	Q1 15
Aberdeen Emerging Markets Ins	12.02	-5.79	5.30	4.31	8.19	-0.00	-14.77	-1.85	3.19
Causeway Emerging Markets In	14.27	-3.93	8.14	1.00	4.07	-2.62	-16.81	0.59	3.02
Harding Loevner Emerging Mar	11.72	-4.85	7.86	3.54	6.53	0.66	-15.56	0.28	1.42
Lazard Asset Mgmt LLC Lazard	12.21	-3.33	9.75	5.14	9.93	2.51	-20.81	0.92	-1.54
MSCI Emerging Markets Net	11.45	-4.16	9.03	0.66	5.71	0.66	-17.90	0.69	2.24

Performance Summary

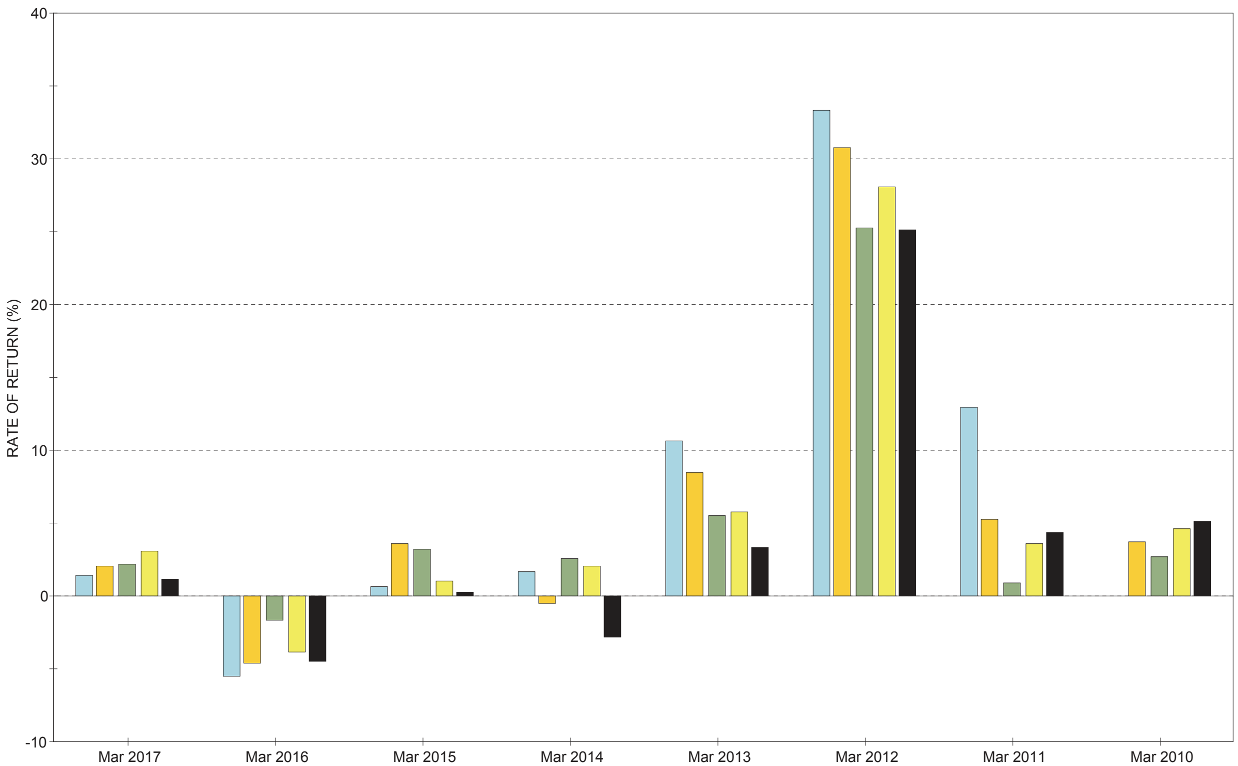
BENCHMARK INDICES: For comparison purposes, this report uses a weighted combination of the benchmark indices shown on this page for the investment managers and/or funds in the asset allocation according to the relevant percentages (“Index-Hypothetical Portfolio”). See “Important Notes About This Report” for more information on benchmark indices. For more information on the particular benchmarks shown in this report, please ask your Financial Advisor or Private Wealth Advisor.

In this report, "N/A" means that the Hypothetical Portfolio's or Index-Hypothetical Portfolio's performance track record is not long enough to calculate the applicable data.

Looking at performance over rolling periods allows us to identify long-term trends.

This page shows annualized returns for three-year periods ending as of the last day in each specified month.

3-Year Rolling Performance



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
Aberdeen Emerging Markets Instl	1.46	-5.54	0.68	1.72	10.67	33.40	13.01	N/A
Causeway Emerging Markets Instl	2.08	-4.63	3.63	-0.52	8.42	30.76	5.20	3.68
Harding Loevner Emerging Markets	2.20	-1.71	3.24	2.62	5.50	25.28	0.95	2.73
Lazard Asset Mgmt LLC Lazard Em	3.09	-3.86	1.04	2.03	5.74	28.11	3.56	4.66
MSCI Emerging Markets Net	1.18	-4.50	0.31	-2.86	3.27	25.07	4.32	5.16

Morgan Stanley

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Consulting Group

Performance Summary

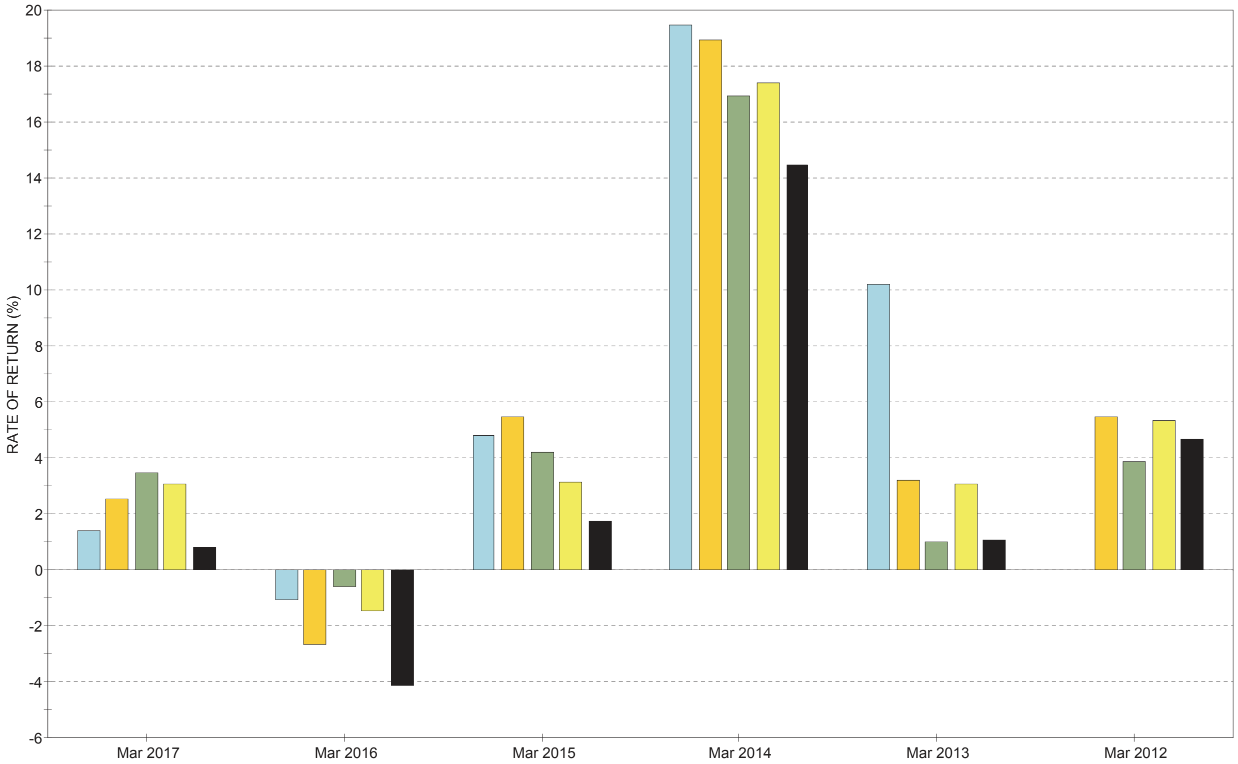
BENCHMARK INDICES: For comparison purposes, this report uses a weighted combination of the benchmark indices shown on this page for the investment managers and/or funds in the asset allocation according to the relevant percentages (“Index-Hypothetical Portfolio”). See “Important Notes About This Report” for more information on benchmark indices. For more information on the particular benchmarks shown in this report, please ask your Financial Advisor or Private Wealth Advisor.

In this report, "N/A" means that the Hypothetical Portfolio's or Index-Hypothetical Portfolio's performance track record is not long enough to calculate the applicable data.

Looking at performance over rolling periods allows us to identify long-term trends.

This page shows annualized returns for five-year periods ending as of the last day in each specified month.

5-Year Rolling Performance



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012
Aberdeen Emerging Markets Instl	1.38	-1.06	4.77	19.47	10.18	N/A
Causeway Emerging Markets Instl	2.51	-2.67	5.44	18.92	3.23	5.47
Harding Loevner Emerging Markets Advisor	3.47	-0.57	4.19	16.92	1.03	3.88
Lazard Asset Mgmt LLC Lazard Em Mkt Eq S	3.06	-1.45	3.13	17.41	3.05	5.33
MSCI Emerging Markets Net	0.80	-4.13	1.75	14.48	1.09	4.67

Morgan Stanley

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Universe Rankings

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the rate of return of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

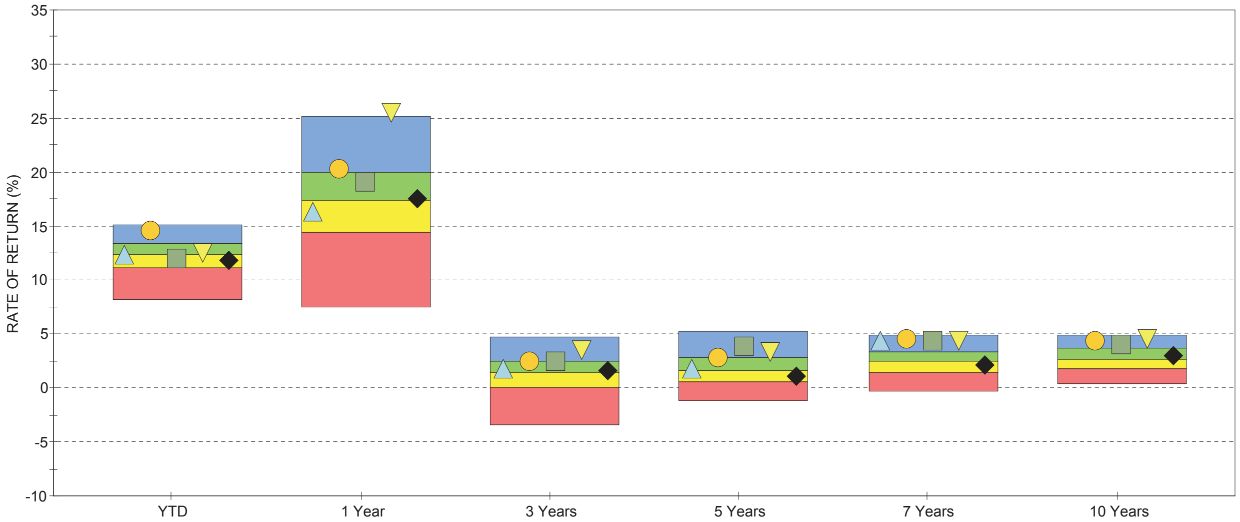
The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

Performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

Performance

Periods ending March 31, 2017

DIVERSIFIED EMERGING MKTS UNIVERSE



	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
HIGH (0.05)	14.83	24.72	4.35	4.88	4.52	4.56
FIRST QUARTILE	12.95	19.64	2.17	2.39	2.97	3.32
MEDIAN	12.05	16.91	1.12	1.28	2.03	2.30
THIRD QUARTILE	10.83	14.03	-0.23	0.30	1.08	1.51
LOW (0.95)	7.78	7.11	-3.71	-1.57	-0.67	0.00
MEAN	11.80	16.62	0.95	1.35	2.02	2.36
VALID COUNT	733	702	595	460	330	238

	YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Aberdeen Emerging Markets Instl	12.02	51	15.93	58	1.46	41	1.38	45	4.09	5	N/A	N/A
○ Causeway Emerging Markets Instl	14.27	4	19.91	21	2.08	26	2.51	22	4.11	5	3.98	6
□ Harding Loevner Emerging Markets Advisor	11.72	57	18.71	33	2.20	24	3.47	10	4.09	6	3.68	15
▽ Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	12.21	45	25.17	1	3.09	12	3.06	14	3.99	7	4.19	4
◆ MSCI Emerging Markets Net	11.45	60	17.22	47	1.18	48	0.80	64	1.69	60	2.72	39

Morgan Stanley

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Consulting Group

Universe Rankings

This page shows ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the rate of return of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

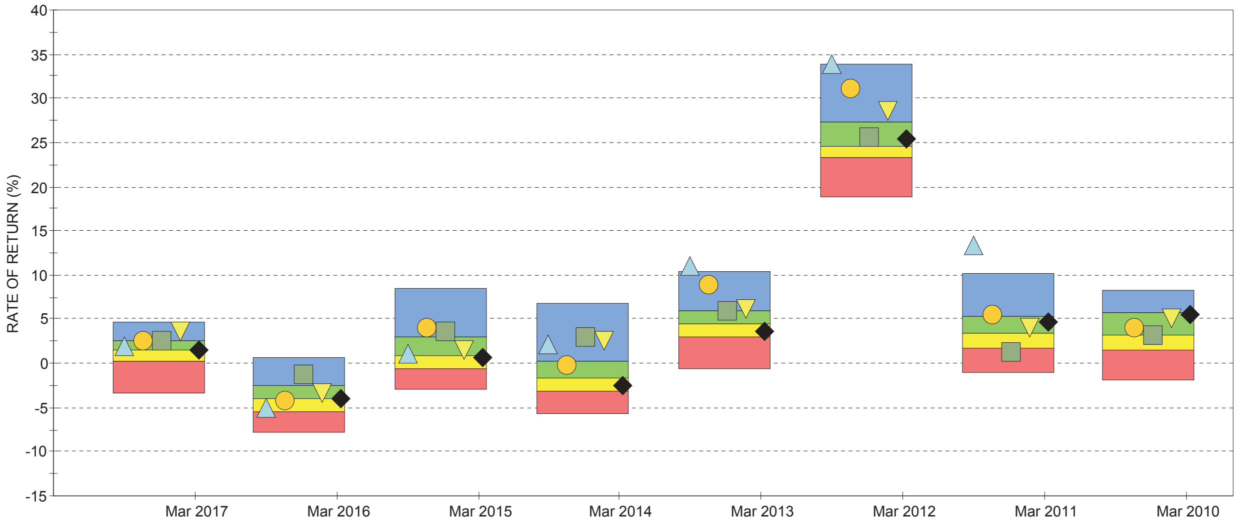
The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

3-Year Rolling Performance

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	4.35	0.26	8.08	6.31	9.88	33.48	9.83	7.77
FIRST QUARTILE	2.17	-3.04	2.62	-0.22	5.53	26.83	4.96	5.39
MEDIAN	1.12	-4.51	0.52	-2.11	3.96	24.15	2.97	2.81
THIRD QUARTILE	-0.23	-5.86	-1.08	-3.65	2.60	22.95	1.23	1.15
LOW (0.95)	-3.71	-8.22	-3.44	-6.09	-0.95	18.45	-1.38	-2.20
MEAN	0.95	-4.37	0.82	-1.65	3.89	24.76	3.20	3.03
VALID COUNT	595	504	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Aberdeen Emerging Markets Instl	1.46	41	-5.54	69	0.68	45	1.72	13	10.67	1	33.40	1	13.01	1	N/A	N/A
● Causeway Emerging Markets Instl	2.08	26	-4.63	51	3.63	15	-0.52	28	8.42	1	30.76	4	5.20	21	3.68	39
■ Harding Loevner Emerging Markets Advisor	2.20	24	-1.71	10	3.24	19	2.62	10	5.50	25	25.28	35	0.95	80	2.73	52
▽ Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	3.09	12	-3.86	38	1.04	40	2.03	12	5.74	20	28.11	16	3.56	43	4.66	32
◆ MSCI Emerging Markets Net	1.18	48	-4.50	49	0.31	54	-2.86	64	3.27	62	25.07	38	4.32	31	5.16	28

Morgan Stanley

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Universe Rankings

This page shows ranking data for five-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the rate of return of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

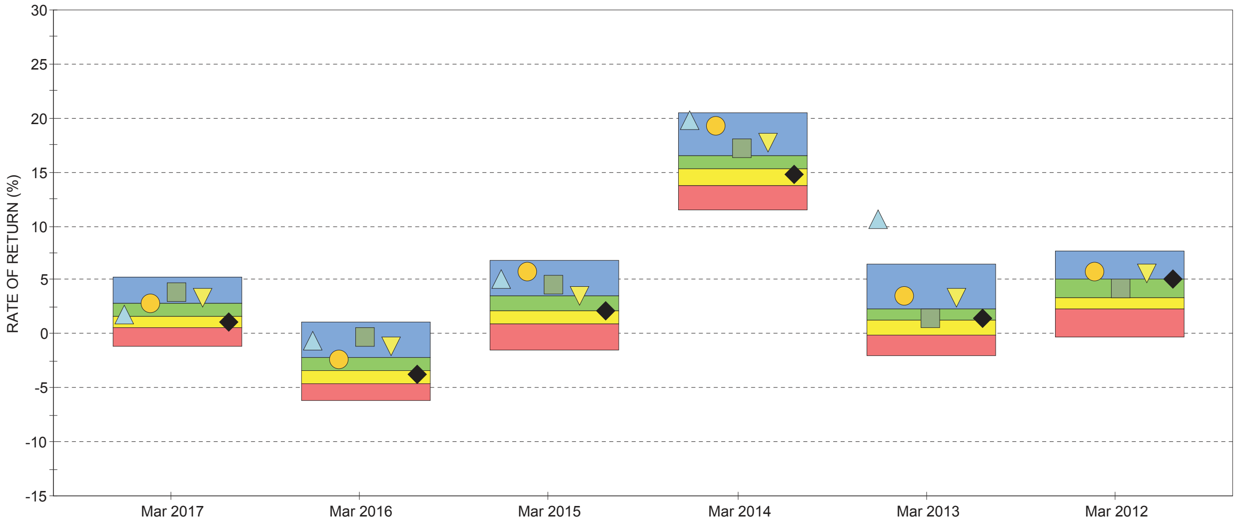
The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

5-Year Rolling Performance

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012
HIGH (0.05)	4.88	0.68	6.41	20.12	6.05	7.34
FIRST QUARTILE	2.39	-2.48	3.17	16.21	1.88	4.70
MEDIAN	1.28	-3.69	1.80	15.00	0.87	3.03
THIRD QUARTILE	0.30	-4.95	0.62	13.47	-0.46	1.94
LOW (0.95)	-1.57	-6.55	-1.77	11.21	-2.40	-0.64
MEAN	1.35	-3.54	1.97	15.01	0.98	3.20
VALID COUNT	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Aberdeen Emerging Markets Instl	1.38	45	-1.06	12	4.77	7	19.47	2	10.18	1	N/A	N/A
○ Causeway Emerging Markets Instl	2.51	22	-2.67	29	5.44	2	18.92	5	3.23	8	5.47	12
□ Harding Loevner Emerging Markets Advisor	3.47	10	-0.57	9	4.19	13	16.92	16	1.03	48	3.88	35
▽ Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	3.06	14	-1.45	13	3.13	25	17.41	11	3.05	10	5.33	13
◆ MSCI Emerging Markets Net	0.80	64	-4.13	61	1.75	51	14.48	57	1.09	47	4.67	24

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Consulting Group

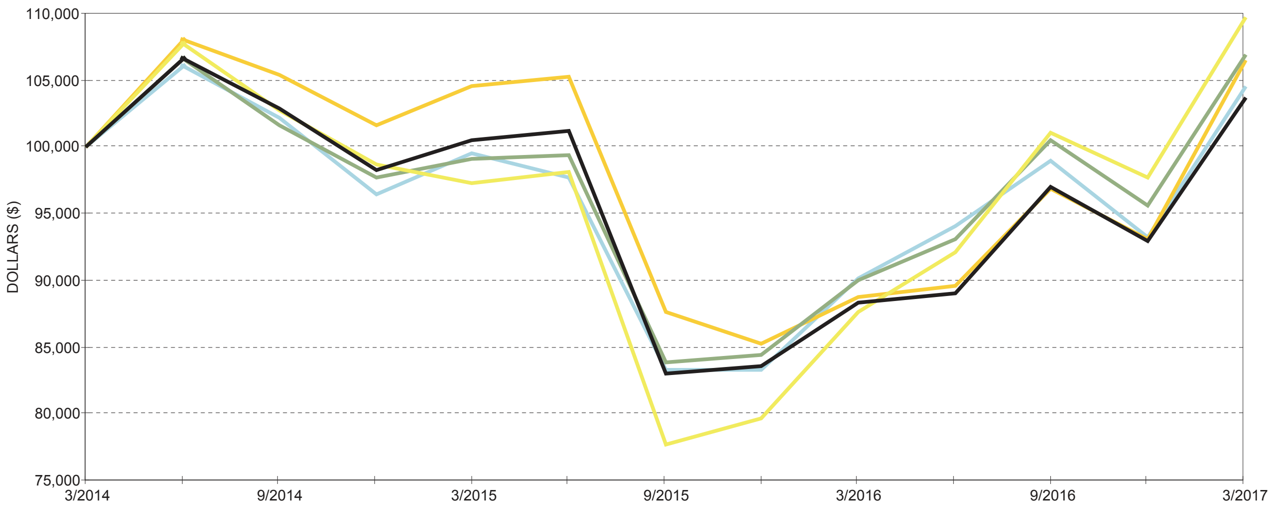
Growth of a $100,000 Investment

This chart shows the growth of an investment of $100,000 over a period of time. The table shows the annualized return ("ROR") and standard deviation ("Std Dev") for both the investment managers/funds and each benchmark index over the specified period. It also shows the annualized excess return, cumulative growth, cumulative excess return, beta and Sharpe Ratio for each investment manager/fund and benchmark index against the risk benchmark index specified below the table.

See "Definitions of Statistical Terms Used" for more details.

3-Year Cumulative Performance

Period ending March 31, 2017



3-YEAR PERFORMANCE STATISTICS

	ROR	Ann. Excess Return	Cum Growth	Cum Excess	Std Dev	Beta	Sharpe Ratio
Aberdeen Emerging Markets Instl	1.46	0.06	4.45	0.89	14.79	0.91	0.09
Causeway Emerging Markets Instl	2.08	0.86	6.38	2.82	15.70	0.99	0.12
Harding Loevner Emerging Markets Advi	2.20	0.85	6.74	3.18	14.73	0.94	0.14
Lazard Asset Mgmt LLC Lazard Em Mkt	3.09	2.24	9.56	5.99	18.13	1.13	0.16
MSCI Emerging Markets Net	1.18	0.00	3.57	0.00	15.50	1.00	0.06

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

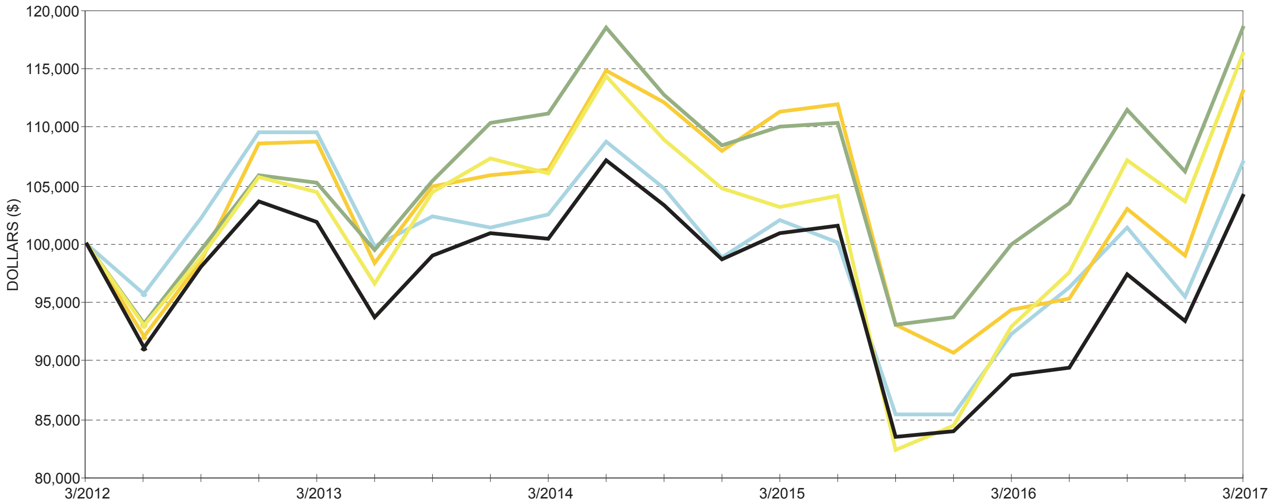
Growth of a $100,000 Investment

This chart shows the growth of an investment of $100,000 over a period of time. The table shows the annualized return ("ROR") and standard deviation ("Std Dev") for both the investment managers/funds and each benchmark index over the specified period. It also shows the annualized excess return, cumulative growth, cumulative excess return, beta and Sharpe Ratio for each investment manager/fund and benchmark index against the risk benchmark index specified below the table.

See "Definitions of Statistical Terms Used" for more details.

5-Year Cumulative Performance

Period ending March 31, 2017



5-YEAR PERFORMANCE STATISTICS

	ROR	Ann. Excess Return	Cum Growth	Cum Excess	Std Dev	Beta	Sharpe Ratio
Aberdeen Emerging Markets Instl	1.38	0.32	7.08	3.00	13.03	0.87	0.10
Causeway Emerging Markets Instl	2.51	1.71	13.19	9.10	14.69	1.02	0.16
Harding Loevner Emerging Markets Advi	3.47	2.47	18.62	14.54	13.00	0.91	0.26
Lazard Asset Mgmt LLC Lazard Em Mkt	3.06	2.42	16.27	12.19	15.70	1.08	0.19
MSCI Emerging Markets Net	0.80	0.00	4.08	0.00	14.04	1.00	0.05

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

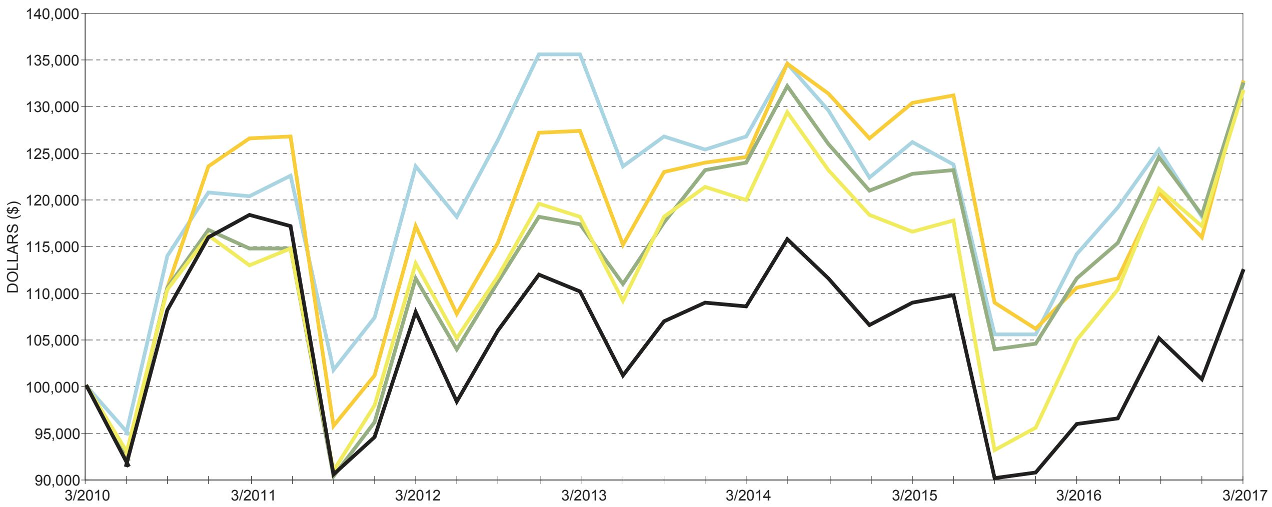
Growth of a $100,000 Investment

This chart shows the growth of an investment of $100,000 over a period of time. The table shows the annualized return ("ROR") and standard deviation ("Std Dev") for both the investment managers/funds and each benchmark index over the specified period. It also shows the annualized excess return, cumulative growth, cumulative excess return, beta and Sharpe Ratio for each investment manager/fund and benchmark index against the risk benchmark index specified below the table.

See "Definitions of Statistical Terms Used" for more details.

7-Year Cumulative Performance

Period ending March 31, 2017



7-YEAR PERFORMANCE STATISTICS

	ROR	Ann. Excess Return	Cum Growth	Cum Excess	Std Dev	Beta	Sharpe Ratio
Aberdeen Emerging Markets Instl	4.09	1.95	32.43	19.99	16.19	0.88	0.25
Causeway Emerging Markets Instl	4.11	2.58	32.56	20.12	19.04	1.06	0.21
Harding Loevner Emerging Markets Advi	4.09	2.22	32.37	19.93	17.26	0.96	0.23
Lazard Asset Mgmt LLC Lazard Em Mkt	3.99	2.33	31.50	19.06	18.52	1.02	0.21
MSCI Emerging Markets Net	1.69	0.00	12.44	0.00	17.65	1.00	0.09

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

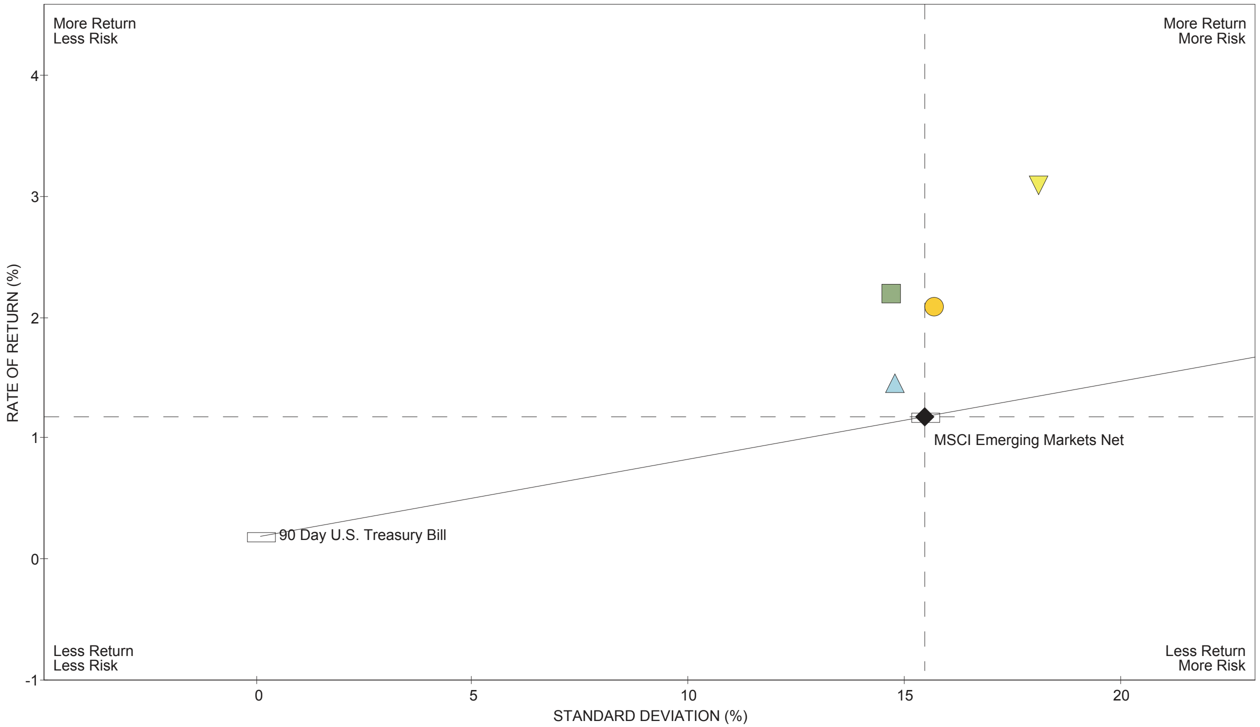
Risk/Reward Analysis

The Risk/Reward Scatter Graph compares the performance ("ROR") and risk (as measured by standard deviation) of each investment manager/fund and benchmark index (if applicable) against the risk benchmark index specified below the table. The table shows various statistics.

See "Definitions of Statistical Terms Used" for more details.

3-Year Risk/Reward Scatter Graph

Period ending March 31, 2017



	ROR	Std Dev	Alpha	Beta	Sharpe Ratio	Tracking Error	Info Ratio	R-Squared
△ Aberdeen Emerging Markets Instl	1.46	14.79	0.34	0.91	0.09	4.48	0.06	0.92
● Causeway Emerging Markets Instl	2.08	15.70	0.92	0.99	0.12	3.16	0.29	0.96
■ Harding Loevner Emerging Markets	2.20	14.73	1.02	0.94	0.14	2.60	0.39	0.97
▽ Lazard Asset Mgmt LLC Lazard Em	3.09	18.13	2.06	1.13	0.16	4.86	0.39	0.94
◆ MSCI Emerging Markets Net	1.18	15.50	0.00	1.00	0.06	0.00	0.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI EMERGING MARKETS NET

Morgan Stanley

Consulting Group

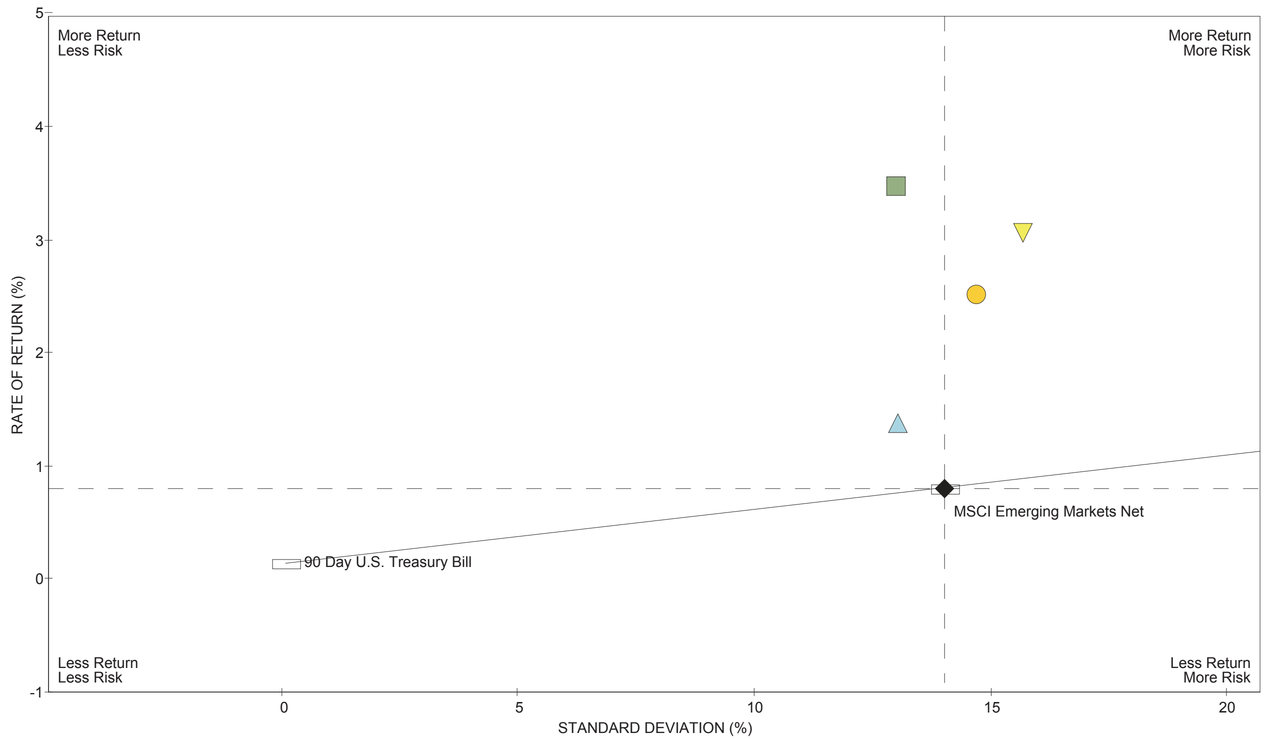
Risk/Reward Analysis

The Risk/Reward Scatter Graph compares the performance ("ROR") and risk (as measured by standard deviation) of each investment manager/fund and benchmark index (if applicable) against the risk benchmark index specified below the table. The table shows various statistics.

See "Definitions of Statistical Terms Used" for more details.

5-Year Risk/Reward Scatter Graph

Period ending March 31, 2017



	ROR	Std Dev	Alpha	Beta	Sharpe Ratio	Tracking Error	Info Ratio	R-Squared
△ Aberdeen Emerging Markets Instl	1.38	13.03	0.62	0.87	0.10	4.66	0.12	0.89
● Causeway Emerging Markets Instl	2.51	14.69	1.74	1.02	0.16	3.44	0.50	0.95
■ Harding Loevner Emerging Markets	3.47	13.00	2.65	0.91	0.26	2.68	1.00	0.97
▽ Lazard Asset Mgmt LLC Lazard Em	3.06	15.70	2.36	1.08	0.19	4.01	0.56	0.94
◆ MSCI Emerging Markets Net	0.80	14.04	0.00	1.00	0.05	0.00	0.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI EMERGING MARKETS NET

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Consulting Group

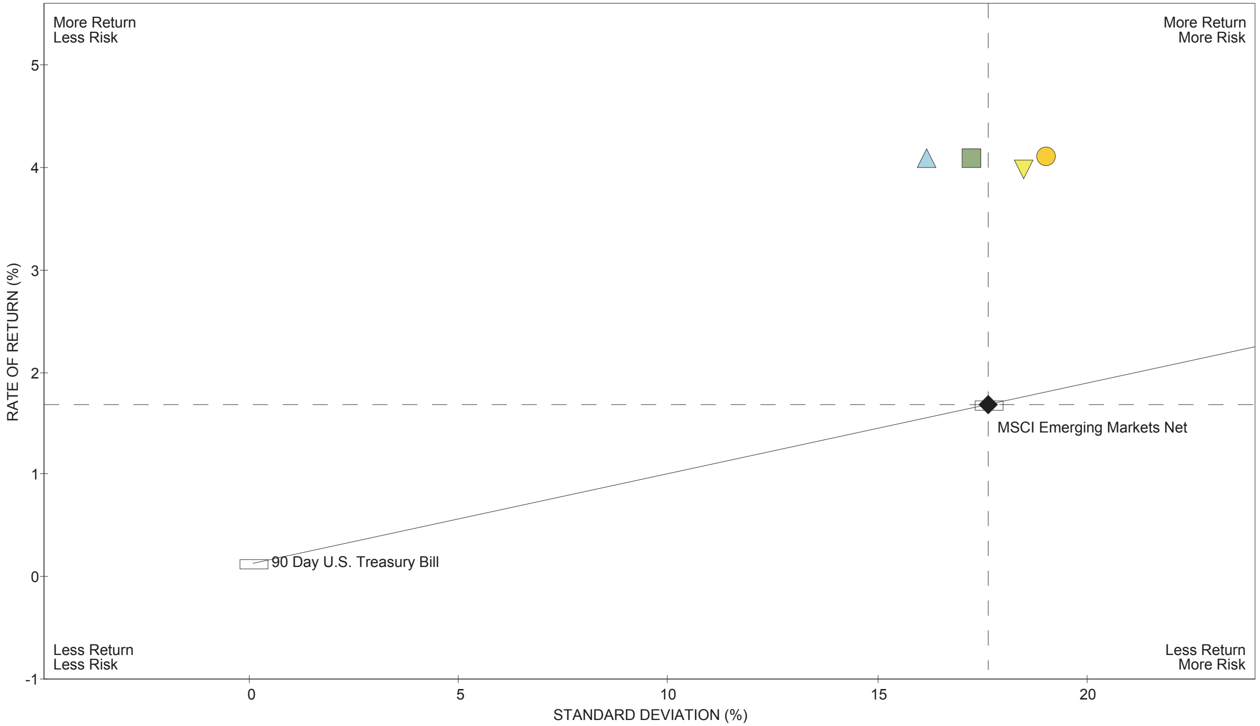
Risk/Reward Analysis

The Risk/Reward Scatter Graph compares the performance ("ROR") and risk (as measured by standard deviation) of each investment manager/fund and benchmark index (if applicable) against the risk benchmark index specified below the table. The table shows various statistics.

See "Definitions of Statistical Terms Used" for more details.

7-Year Risk/Reward Scatter Graph

Period ending March 31, 2017



	ROR	Std Dev	Alpha	Beta	Sharpe Ratio	Tracking Error	Info Ratio	R-Squared
△ Aberdeen Emerging Markets Instl	4.09	16.19	2.44	0.88	0.25	4.89	0.49	0.92
● Causeway Emerging Markets Instl	4.11	19.04	2.44	1.06	0.21	3.45	0.70	0.97
■ Harding Loevner Emerging Markets	4.09	17.26	2.39	0.96	0.23	3.09	0.78	0.97
▽ Lazard Asset Mgmt LLC Lazard Em	3.99	18.52	2.36	1.02	0.21	4.33	0.53	0.95
◆ MSCI Emerging Markets Net	1.69	17.65	0.00	1.00	0.09	0.00	0.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI EMERGING MARKETS NET

Morgan Stanley

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Market Capture Analysis

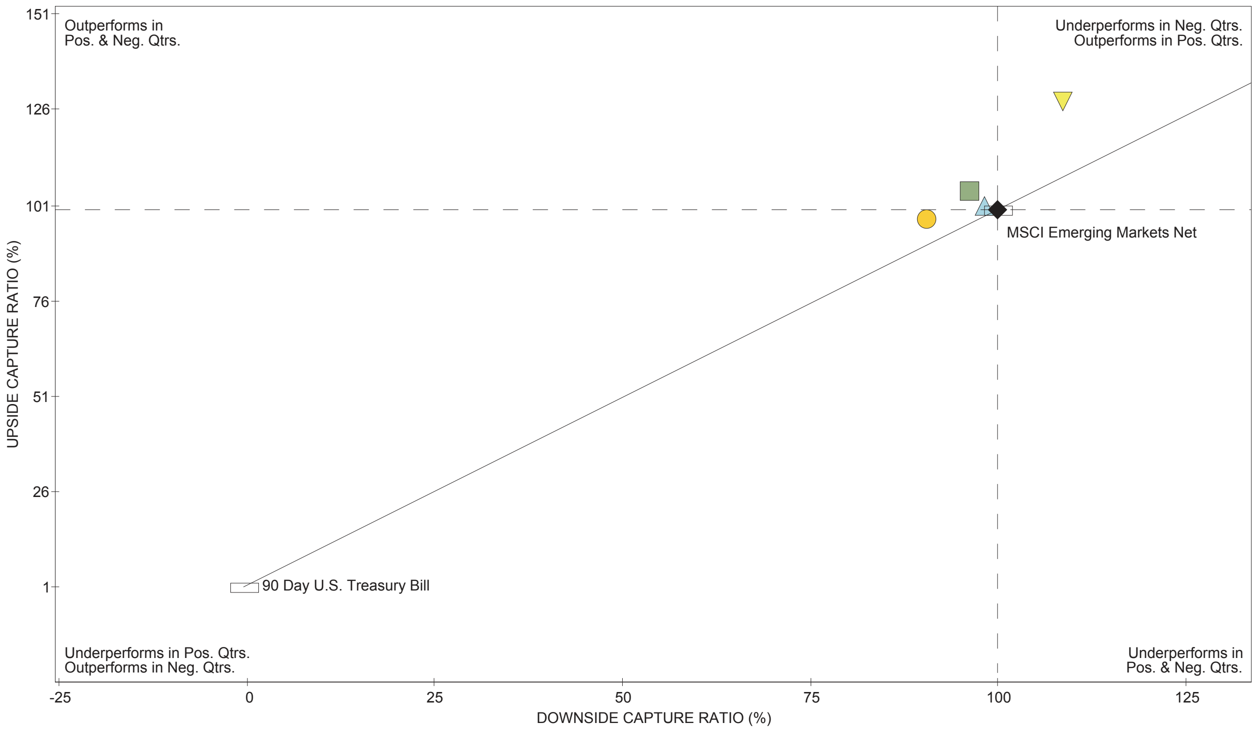
The Capture Ratio Graph measures the market share captured by each investment manager/fund and benchmark index (if applicable) against the risk benchmark specified below the table.

The table shows the number of positive and negative quarterly return periods in the series, the best and worst quarter returns, the upside capture ratio and downside capture ratio calculated with respect to the risk benchmark and R-Squared with respect to the risk benchmark.

See "Definitions of Statistical Terms Used" for more details.

3-Year Capture Ratio Graph

Period ending March 31, 2017



	Pos Periods	Neg Periods	Best Qtr	Worst Qtr	Up Cap Ratio	Down Cap Ratio	R-Squared
△ Aberdeen Emerging Markets Instl	6.00	6.00	12.02	-14.77	100.53	98.21	0.92
● Causeway Emerging Markets Instl	7.00	5.00	14.27	-16.81	97.39	90.51	0.96
■ Harding Loevner Emerging Markets Advi	8.00	4.00	11.72	-15.56	104.87	96.18	0.97
▽ Lazard Asset Mgmt LLC Lazard Em Mkt	7.00	5.00	12.21	-20.81	128.09	108.67	0.94
◆ MSCI Emerging Markets Net	8.00	4.00	11.45	-17.90	100.00	100.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI EMERGING MARKETS NET

Consulting Group

Market Capture Analysis

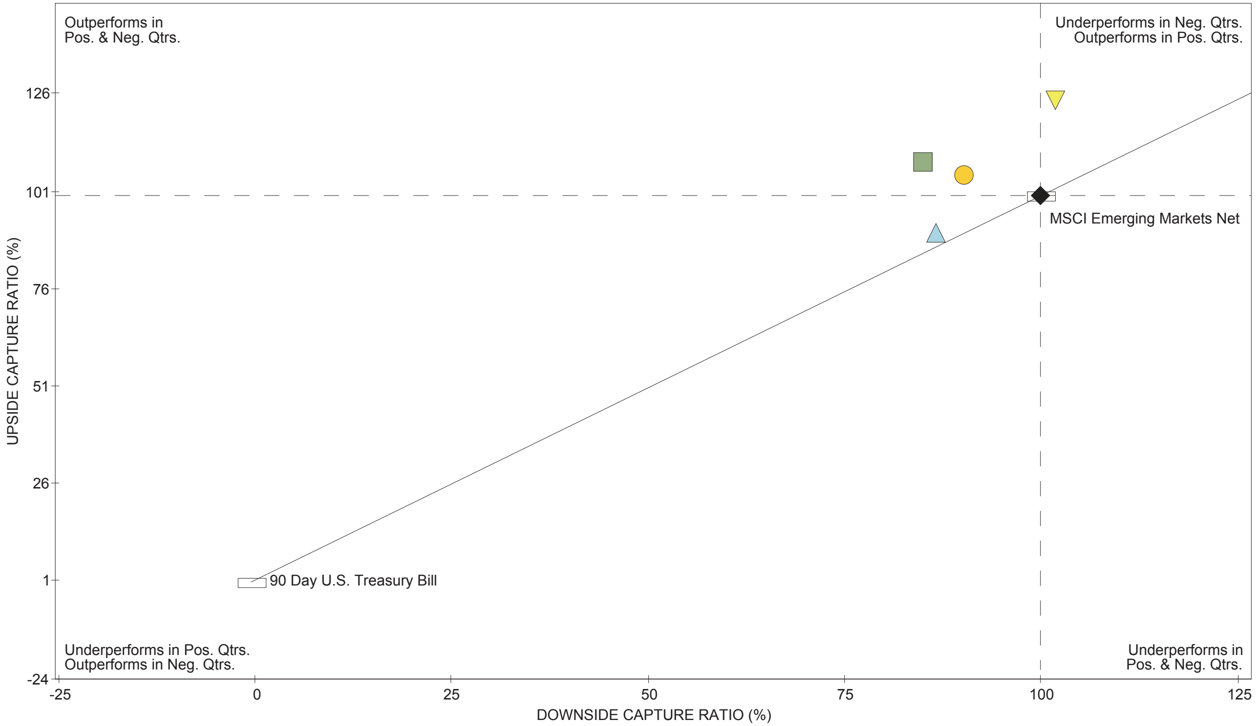
The Capture Ratio Graph measures the market share captured by each investment manager/fund and benchmark index (if applicable) against the risk benchmark specified below the table.

The table shows the number of positive and negative quarterly return periods in the series, the best and worst quarter returns, the upside capture ratio and downside capture ratio calculated with respect to the risk benchmark and R-Squared with respect to the risk benchmark.

See "Definitions of Statistical Terms Used" for more details.

5-Year Capture Ratio Graph

Period ending March 31, 2017



	Pos Periods	Neg Periods	Best Qtr	Worst Qtr	Up Cap Ratio	Down Cap Ratio	R-Squared
△ Aberdeen Emerging Markets Instl	11.00	9.00	12.02	-14.77	90.29	86.53	0.89
● Causeway Emerging Markets Instl	13.00	7.00	14.27	-16.81	105.33	90.30	0.95
■ Harding Loevner Emerging Markets Advi	13.00	7.00	11.72	-15.56	108.72	85.08	0.97
▽ Lazard Asset Mgmt LLC Lazard Em Mkt	11.00	9.00	12.21	-20.81	124.23	101.76	0.94
◆ MSCI Emerging Markets Net	12.00	8.00	11.45	-17.90	100.00	100.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI EMERGING MARKETS NET

Morgan Stanley

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Consulting Group

Market Capture Analysis

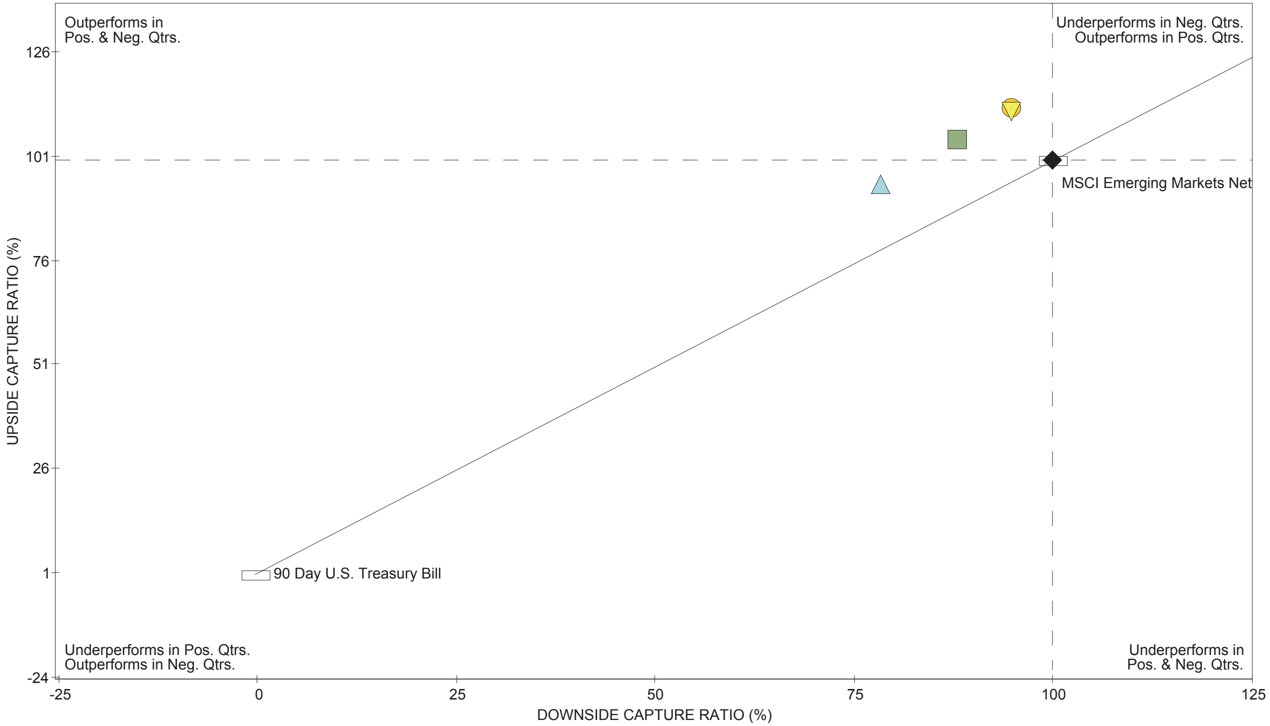
The Capture Ratio Graph measures the market share captured by each investment manager/fund and benchmark index (if applicable) against the risk benchmark specified below the table.

The table shows the number of positive and negative quarterly return periods in the series, the best and worst quarter returns, the upside capture ratio and downside capture ratio calculated with respect to the risk benchmark and R-Squared with respect to the risk benchmark.

See "Definitions of Statistical Terms Used" for more details.

7-Year Capture Ratio Graph

Period ending March 31, 2017



	Pos Periods	Neg Periods	Best Qtr	Worst Qtr	Up Cap Ratio	Down Cap Ratio	R-Squared
△ Aberdeen Emerging Markets Instl	16.00	12.00	19.97	-16.96	94.21	78.26	0.92
○ Causeway Emerging Markets Instl	19.00	9.00	19.68	-24.46	112.63	94.67	0.97
□ Harding Loevner Emerging Markets Advi	18.00	10.00	19.93	-21.21	104.77	87.96	0.97
▽ Lazard Asset Mgmt LLC Lazard Em Mkt	16.00	12.00	19.00	-20.81	111.89	94.83	0.95
◆ MSCI Emerging Markets Net	17.00	11.00	18.03	-22.56	100.00	100.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI EMERGING MARKETS NET

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Alpha Analysis

This page shows annualized alpha ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the alpha of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

Alpha is a measure of risk-adjusted return. A positive alpha indicates that a manager/fund (or benchmark index, if applicable) produced returns above the expected level at the level of risk (as represented by the risk benchmark specified below the table) and vice versa for a negative alpha. The higher the alpha, the better.

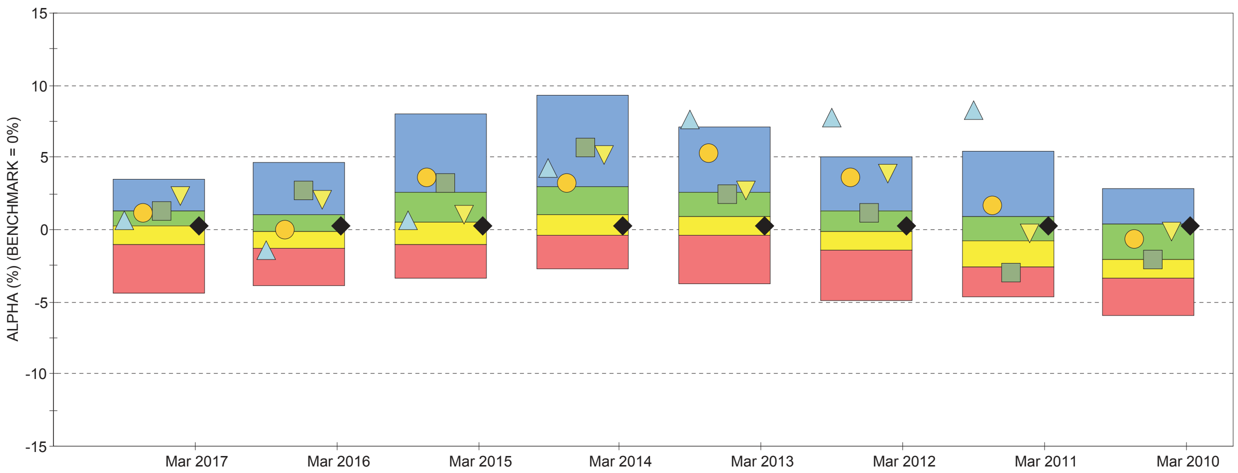
An alpha of 0 implies that a manager/fund (and benchmark index, if applicable) has provided a return that is equivalent to the risk benchmark return used in this analysis.

Looking at alpha over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	3.24	4.43	7.80	9.04	6.81	4.83	5.18	2.58
FIRST QUARTILE	1.06	0.80	2.34	2.66	2.36	0.99	0.65	0.08
MEDIAN	-0.00	-0.42	0.23	0.82	0.69	-0.33	-1.08	-2.29
THIRD QUARTILE	-1.30	-1.55	-1.36	-0.65	-0.59	-1.63	-2.81	-3.65
LOW (0.95)	-4.61	-4.08	-3.63	-3.01	-4.07	-5.21	-4.93	-6.19
MEAN	-0.13	-0.30	0.58	1.25	0.70	-0.27	-0.92	-1.86
VALID COUNT	595	504	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Aberdeen Emerging Markets Instl	0.34	42	-1.66	77	0.40	46	3.96	14	7.37	1	7.48	1	8.04	1	N/A	N/A
○ Causeway Emerging Markets Instl	0.92	27	-0.23	46	3.38	14	2.94	20	5.04	1	3.31	9	1.39	18	-0.87	38
□ Harding Loevner Emerging Markets Advisor	1.02	25	2.42	8	2.92	19	5.45	9	2.20	26	0.91	25	-3.24	83	-2.33	51
▽ Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	2.06	12	1.75	14	0.76	41	4.93	10	2.50	23	3.67	7	-0.58	45	-0.34	31
◆ MSCI Emerging Markets Net	0.00	49	0.00	40	0.00	55	0.00	64	0.00	64	0.00	40	0.00	33	0.00	27

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

Morgan Stanley

Beta Analysis

This page shows annualized beta ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the beta of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

Beta is a measure of the sensitivity of each manager/fund (and benchmark index, if applicable) to market movements (as represented by the risk benchmark index specified below the table).

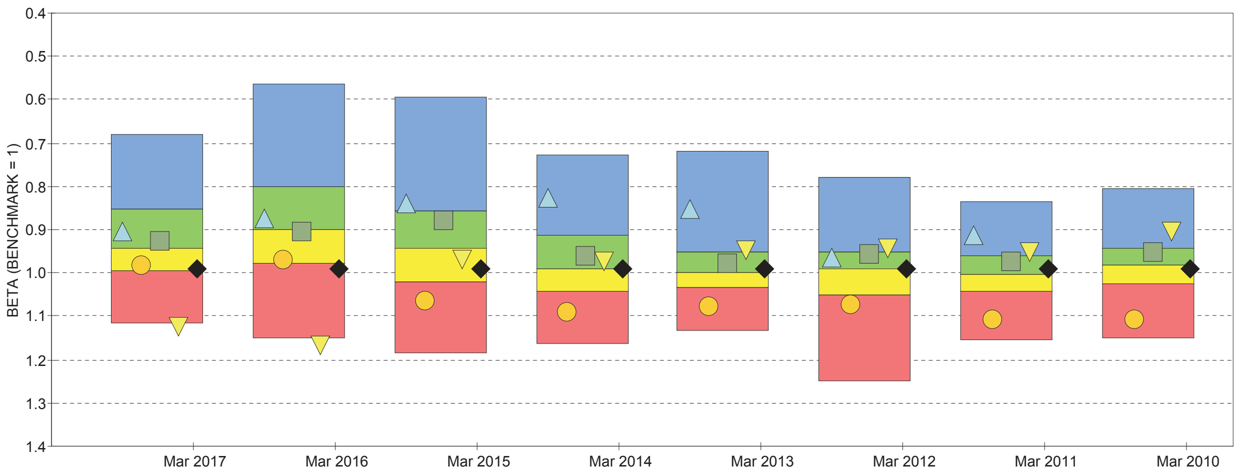
A beta of 1.0 indicates that the manager's/fund's portfolio (or benchmark index, if applicable) moved with the market. A beta less than 1.0 means that the manager's/fund's portfolio (or benchmark index, if applicable) was less volatile than the market. A beta greater than 1.0 indicates that the manager's/fund's portfolio (or benchmark index, if applicable) was more volatile than the market.

Looking at beta over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.95)	0.69	0.57	0.60	0.74	0.73	0.79	0.84	0.81
FIRST QUARTILE	0.86	0.81	0.87	0.92	0.96	0.96	0.97	0.95
MEDIAN	0.95	0.91	0.95	1.00	1.01	1.00	1.01	0.99
THIRD QUARTILE	1.00	0.98	1.03	1.05	1.04	1.06	1.05	1.03
LOW (0.05)	1.12	1.16	1.19	1.17	1.14	1.26	1.16	1.16
MEAN	0.93	0.89	0.94	0.98	0.99	1.01	1.01	0.99
VALID COUNT	595	504	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
Aberdeen Emerging Markets Instl	0.91	40	0.88	40	0.85	20	0.83	11	0.86	7	0.97	31	0.92	11	N/A	N/A
Causeway Emerging Markets Instl	0.99	72	0.98	73	1.07	85	1.10	93	1.08	90	1.08	85	1.11	93	1.11	96
Harding Loevner Emerging Markets Advisor	0.94	45	0.91	52	0.89	34	0.97	34	0.99	33	0.96	26	0.98	31	0.96	27
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	1.13	99	1.18	99	0.98	60	0.98	40	0.96	25	0.95	19	0.96	20	0.91	11
MSCI Emerging Markets Net	1.00	74	1.00	82	1.00	69	1.00	49	1.00	44	1.00	50	1.00	45	1.00	57

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

Morgan Stanley

Consulting Group

Sharpe Ratio Analysis

This page shows the annualized Sharpe ratio ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the Sharpe ratio of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

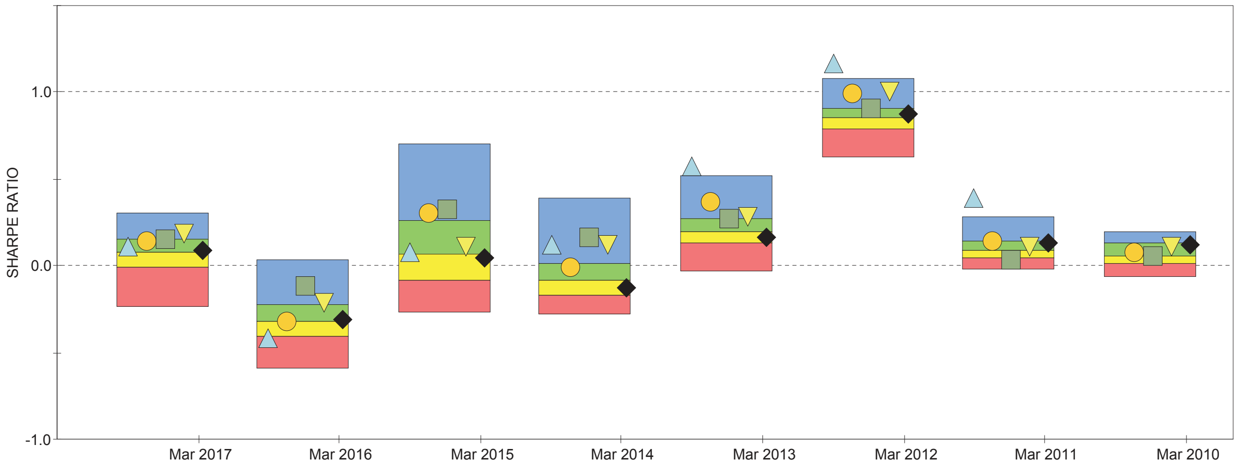
The Sharpe ratio measures the efficiency, or excess return per unit of volatility, of a manager's/fund's (or benchmark index's, if applicable) returns. It evaluates a manager's/fund's (or benchmark index's, if applicable) performance on a volatility-adjusted basis. The higher the Sharpe ratio, the better.

Looking at the Sharpe ratio over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	0.28	0.01	0.68	0.37	0.49	1.06	0.26	0.17
FIRST QUARTILE	0.13	-0.24	0.24	-0.01	0.25	0.88	0.12	0.11
MEDIAN	0.06	-0.35	0.04	-0.11	0.17	0.83	0.07	0.04
THIRD QUARTILE	-0.03	-0.43	-0.10	-0.19	0.11	0.77	0.02	-0.01
LOW (0.95)	-0.26	-0.62	-0.28	-0.30	-0.05	0.61	-0.05	-0.09
MEAN	0.05	-0.33	0.08	-0.08	0.18	0.83	0.08	0.04
VALID COUNT	595	504	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
Aberdeen Emerging Markets Instl	0.09	40	-0.44	77	0.06	44	0.10	13	0.55	1	1.15	1	0.37	1	N/A	N/A
Causeway Emerging Markets Instl	0.12	27	-0.34	48	0.28	20	-0.03	27	0.35	3	0.97	11	0.12	27	0.05	42
Harding Loevner Emerging Markets Advisor	0.14	23	-0.14	10	0.31	17	0.14	10	0.25	28	0.88	24	0.02	81	0.03	51
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	0.16	17	-0.24	22	0.08	40	0.10	12	0.26	21	0.99	4	0.09	43	0.09	33
MSCI Emerging Markets Net	0.06	48	-0.33	45	0.02	55	-0.15	64	0.14	62	0.85	34	0.11	31	0.10	29

RISKLESS BENCHMARK USED FOR THIS ANALYSIS: 90 Day U.S. Treasury Bill

Morgan Stanley

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

Tracking Error Analysis

This page shows the annualized tracking error ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the tracking error of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

Tracking error shows how closely each manager/fund (and benchmark index, if applicable) tracked the risk benchmark specified below the table. The lower the tracking error, the closer the tracking.

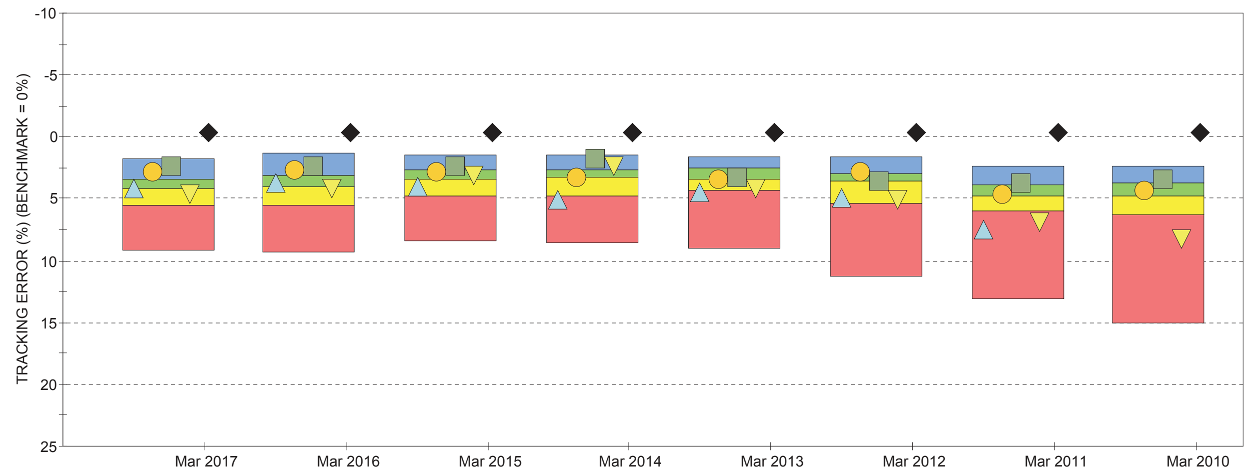
A tracking error of 0 implies that a manager/fund (and benchmark index, if applicable) has tracked the risk benchmark return used in this analysis exactly.

Looking at the tracking error over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.95)	2.10	1.57	1.73	1.75	1.89	1.85	2.64	2.61
FIRST QUARTILE	3.73	3.44	3.02	2.97	2.84	3.22	4.17	4.05
MEDIAN	4.42	4.26	3.66	3.61	3.70	3.92	5.03	5.11
THIRD QUARTILE	5.89	5.85	5.06	5.16	4.58	5.75	6.24	6.62
LOW (0.05)	9.53	9.55	8.67	8.91	9.30	11.62	13.38	15.32
MEAN	4.83	4.67	4.11	4.14	3.88	4.72	5.42	5.73
VALID COUNT	595	504	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
Aberdeen Emerging Markets Instl	4.48	52	4.06	46	4.28	68	5.32	80	4.73	79	5.19	70	7.74	89	N/A	N/A
Causeway Emerging Markets Instl	3.16	14	2.96	13	3.18	34	3.60	49	3.67	50	3.18	24	4.95	50	4.58	39
Harding Loevner Emerging Markets Advisor	2.60	6	2.66	7	2.66	15	2.06	3	3.56	45	3.86	49	4.06	23	3.77	18
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	4.86	61	4.42	53	3.42	42	2.72	18	4.53	75	5.46	73	7.19	88	8.60	92
MSCI Emerging Markets Net	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

Morgan Stanley

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

Consulting Group

Information Ratio Analysis

This page shows the annualized information ratio ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the information ratio of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

The information ratio measures the consistency with which the manager/fund (or benchmark index, if applicable) beats the risk benchmark specified below the table. The higher the information ratio, the better.

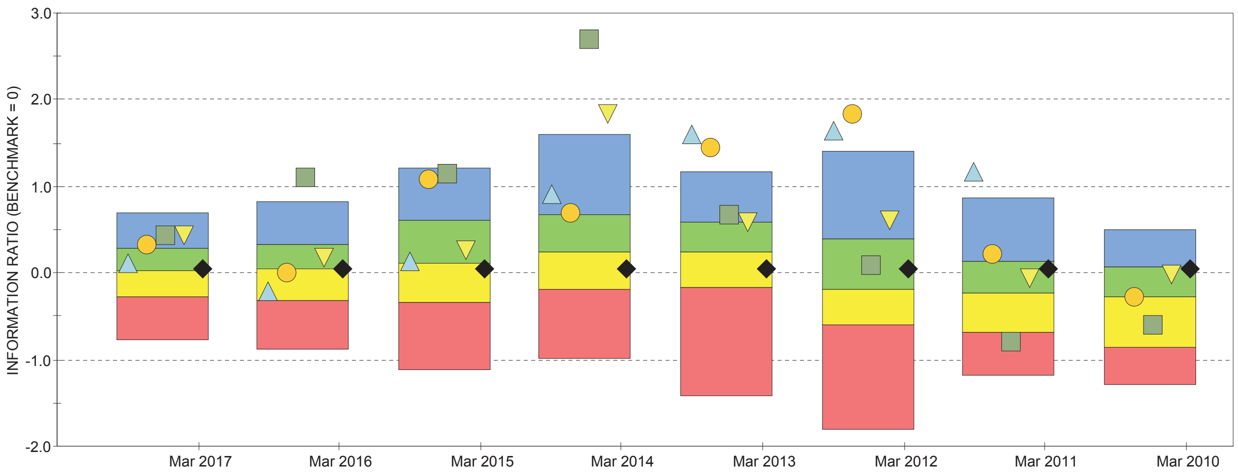
An information ratio of 0 implies that a manager/fund (or benchmark index, if applicable) has provided a return that is equivalent to the risk benchmark return used in this analysis.

Looking at the information ratio over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	0.66	0.79	1.18	1.56	1.12	1.37	0.81	0.45
FIRST QUARTILE	0.25	0.29	0.57	0.62	0.53	0.34	0.09	0.03
MEDIAN	-0.02	-0.00	0.07	0.20	0.19	-0.23	-0.28	-0.33
THIRD QUARTILE	-0.32	-0.37	-0.39	-0.23	-0.22	-0.64	-0.74	-0.91
LOW (0.95)	-0.82	-0.93	-1.15	-1.03	-1.47	-1.84	-1.22	-1.33
MEAN	-0.05	-0.03	0.06	0.21	0.12	-0.15	-0.27	-0.42
VALID COUNT	595	504	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
Aberdeen Emerging Markets Instl	0.06	41	-0.26	66	0.09	48	0.86	15	1.56	1	1.60	1	1.12	1	N/A	N/A
Causeway Emerging Markets Instl	0.29	21	-0.04	51	1.05	4	0.65	23	1.40	1	1.79	1	0.18	17	-0.32	48
Harding Loevner Emerging Markets Advisor	0.39	13	1.05	1	1.10	2	2.66	1	0.63	19	0.06	36	-0.83	80	-0.64	62
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	0.39	13	0.14	39	0.21	40	1.80	1	0.55	24	0.56	15	-0.11	41	-0.06	31
MSCI Emerging Markets Net	0.00	48	0.00	49	0.00	54	0.00	64	0.00	62	0.00	38	0.00	31	0.00	28

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

Morgan Stanley

Consulting Group

R-Squared Analysis

This page shows the annualized R-squared ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the R-squared of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

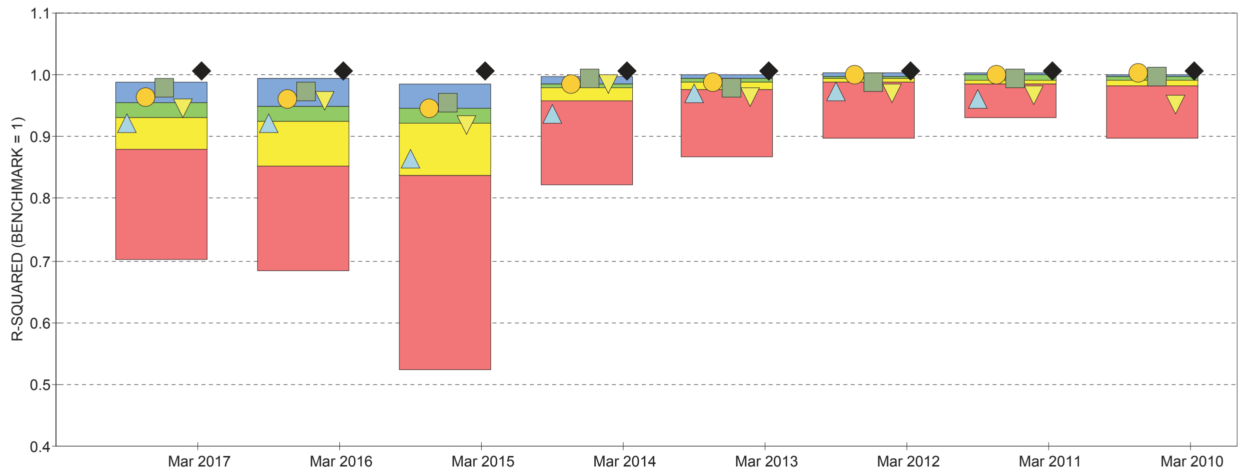
The R-squared figure for any period shows how much of a manager's/fund's (or benchmark index's, if applicable) variability was accounted for by the market (as represented by the risk benchmark specified below the table) during that period. An R-squared of 0 indicates no such correlation with the market, while an R-squared of 1 indicates perfect correlation.

Looking at the R-squared over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

DIVERSIFIED EMERGING MKTS UNIVERSE



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	0.98	0.99	0.98	0.99	0.99	1.00	1.00	1.00
FIRST QUARTILE	0.95	0.94	0.94	0.98	0.99	0.99	0.99	0.99
MEDIAN	0.92	0.92	0.92	0.97	0.98	0.99	0.99	0.99
THIRD QUARTILE	0.87	0.85	0.83	0.95	0.97	0.98	0.98	0.97
LOW (0.95)	0.70	0.68	0.52	0.82	0.86	0.89	0.92	0.89
MEAN	0.91	0.89	0.87	0.96	0.97	0.98	0.98	0.98
VALID COUNT	595	504	460	385	330	318	267	238

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
Aberdeen Emerging Markets Instl	0.92	60	0.91	52	0.86	71	0.93	84	0.97	85	0.97	85	0.96	95	N/A	N/A
Causeway Emerging Markets Instl	0.96	16	0.95	16	0.94	25	0.98	25	0.98	36	1.00	7	1.00	7	1.00	1
Harding Loevner Emerging Markets Advisor	0.97	6	0.97	7	0.95	17	0.99	7	0.97	68	0.98	69	0.99	34	0.99	36
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	0.94	36	0.95	19	0.91	51	0.98	24	0.96	87	0.97	88	0.96	93	0.95	95
MSCI Emerging Markets Net	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1

RISK BENCHMARK USED FOR THIS ANALYSIS: MSCI Emerging Markets Net

Morgan Stanley

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Consulting Group

Style Analysis

Style analysis is a measure for analyzing the style of a manager's/fund's (or benchmark index's) returns when compared with the quarterly returns on a number of selected style indices. These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes.

See "Definitions of Statistical Terms Used" for more details.

3-Year Style Quadrants

Period ending March 31, 2017

	STYLE VARIANCE	SELECTION VARIANCE
Aberdeen Emerging Markets Instl	0.63	0.37
Causeway Emerging Markets Instl	0.69	0.31
Harding Loevner Emerging Markets Advisor	0.70	0.30
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	0.57	0.43
MSCI Emerging Markets Net	0.72	0.28

Morgan Stanley

Consulting Group

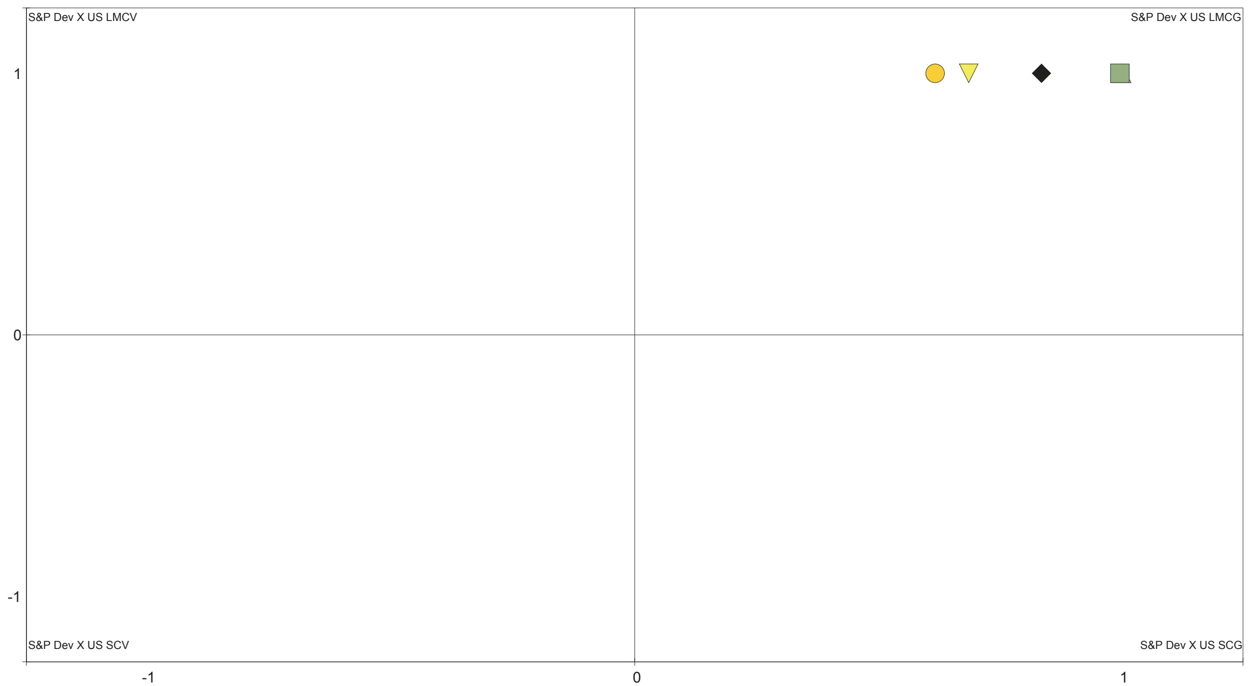
Style Analysis

Style analysis is a measure for analyzing the style of a manager's/fund's (or benchmark index's) returns when compared with the quarterly returns on a number of selected style indices. These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes.

See "Definitions of Statistical Terms Used" for more details.

5-Year Style Quadrants

Period ending March 31, 2017



	STYLE VARIANCE	SELECTION VARIANCE
Aberdeen Emerging Markets Instl	0.62	0.38
Causeway Emerging Markets Instl	0.72	0.28
Harding Loevner Emerging Markets Advisor	0.76	0.24
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	0.66	0.34
MSCI Emerging Markets Net	0.75	0.25

Morgan Stanley

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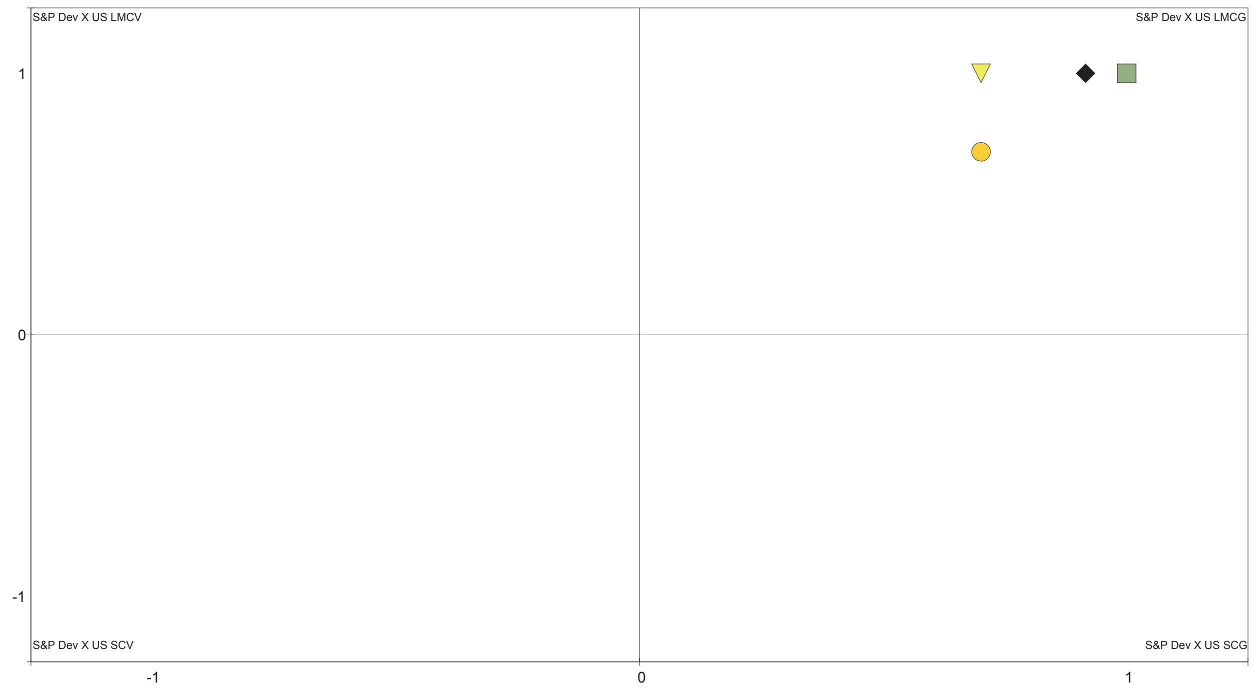
Style Analysis

Style analysis is a measure for analyzing the style of a manager's/fund's (or benchmark index's) returns when compared with the quarterly returns on a number of selected style indices. These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes.

See "Definitions of Statistical Terms Used" for more details.

7-Year Style Quadrants

Period ending March 31, 2017



	STYLE VARIANCE	SELECTION VARIANCE
Aberdeen Emerging Markets Instl	0.71	0.29
Causeway Emerging Markets Instl	0.82	0.18
Harding Loevner Emerging Markets Advisor	0.83	0.17
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	0.74	0.26
MSCI Emerging Markets Net	0.85	0.15

Morgan Stanley

Important Notes About This Report

PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. ACTUAL INDIVIDUAL ACCOUNT RESULTS WILL DIFFER FROM THE PERFORMANCE SHOWN IN THIS REPORT

INVESTMENT DECISIONS: Do not use this report as the sole basis for investment decisions. Do not select an allocation, investment disciplines or investment managers/funds based on performance alone. Consider, in addition to performance results, other relevant information about each investment manager or fund, as well as matters such as your investment objectives, risk tolerance and investment time horizon.

SOURCE OF PERFORMANCE INFORMATION FOR INVESTMENT MANAGERS AVAILABLE IN CONSULTING AND EVALUATION SERVICES, FIDUCIARY SERVICES OR SELECT UMA: Each investment manager included in this report that participates in one or more of the Consulting and Evaluation Services, Fiduciary Services or Select UMA programs ("Programs") has a track record of investing assets in the relevant investment discipline.The investment manager's gross performance track record shown in this report consists of its gross performance in either the Morgan Stanley or the Smith Barney form of the Fiduciary Services program (if that investment manager is in the Fiduciary Services program) for periods for which sufficient data is available. If the strategy or similar strategies are available in both the Morgan Stanley and Smith Barney forms of the program, this profile presents the composite for the strategy that is closest to the strategy currently offered in the Fiduciary Services program. If both strategies are equally close, the profile shows the longer of the two composites. For other periods, the gross performance track record is provided by the investment manager and consists of accounts managed by the investment manager in the same or a similar investment discipline, whether at Morgan Stanley or elsewhere (and may include institutional accounts, retail accounts and/or pooled investment vehicles such as mutual funds).

There may be differences between the performance in the different forms of the Fiduciary Services program, in different Programs, and between the performance in Programs and performance outside the Programs, due to, among other things, investment and operational differences. For example:

- Institutional accounts included in related performance may hold more securities than the Program accounts, participate in initial public offerings (IPOs) and invest directly in foreign securities (rather than in ADRs).
- Mutual funds included in related performance may hold more securities than the Program accounts, may participate in IPOs, may engage in options and futures transactions, and are subject to certain regulatory limitations.
- Performance results in Select UMA accounts could differ from that in Fiduciary Services accounts because Select UMA accounts may hold fewer securities, and have automatic rebalancing, wash sale loss and tax harvesting features.

You should read the investment manager profile accompanying this report for each investment manager. The investment manager profile gives further details on the sources of performance information for a particular investment manager, as well as other calculations of the manager's performance returns (such as performance net of fees and expenses).

SOURCE OF PERFORMANCE INFORMATION FOR GLOBAL INVESTMENT SOLUTION STRATEGIES: In the Global Investment Solutions program, dedicated portfolio managers employed by Morgan Stanley or third party subadvisors make day-to-day investment decisions for clients' accounts invested in various investment strategies. The track record shown in this report for Global Investment Solutions strategies consists of the portfolio management team's gross performance in that strategy in the Global Investment Solutions program (or a predecessor program).

SOURCE OF PERFORMANCE INFORMATION FOR OTHER INVESTMENT MANAGERS: For any investment managers shown in this report that are not available in the Consulting and Evaluation Services, Fiduciary Services or Select UMA programs, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below. The gross performance shown in this report for these managers could differ materially from their gross performance in investment advisory programs offered by firms other than Morgan Stanley. If you have invested with any such manager through another firm, we recommend that you seek information from that firm on the manager's gross and net performance in its programs.

SOURCE OF PERFORMANCE INFORMATION FOR FUNDS: For any fund shown in this report, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below.

BENCHMARK INDICES: Depending on the composition of your account and your investment objectives, the indices shown in this report may not be appropriate measures for comparison purposes and are therefore presented for illustration only. The indices used in this report may not be the same indices used for comparative purposes in the profile for each investment manager, mutual fund and/or ETF that accompanies this report. Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Performance of selected indices may be more or less volatile than that of any investment manager/fund shown in this report. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Important Notes About This Report

MANAGERS AND FUNDS APPROVED IN MORGAN STANLEY WEALTH MANAGEMENT PROGRAMS: Morgan Stanley Wealth Management approves certain managers and funds offered in its investment advisory programs:

- Morgan Stanley Wealth Management's Global Investment Manager Analysis ("GIMA") team approves managers and funds offered in Consulting and Evaluation Services, Fiduciary Services, Select UMA, and TRAK Fund Solution.
- Managers and funds offered in Institutional Consulting Group and Graystone Consulting programs may be approved by GIMA, approved by Morgan Stanley Wealth Management using another process, or not approved by Morgan Stanley Wealth Management.
- Morgan Stanley Wealth Management does not approve managers in the Investment Management Services consulting program.
- Managers in the Global Investment Solutions (GIS) program are not evaluated by GIMA.

If you invest in a manager or fund that is not approved by Morgan Stanley Wealth Management, you are responsible for selecting and/or retaining that manager or fund, and Morgan Stanley Wealth Management does not recommend or monitor that manager or fund. For more information on the approval process in any program, see the applicable ADV brochure, available at www.MorganStanley.com/ADV or from your Financial Advisor or Private Wealth Advisor. If you have any questions about whether or how Morgan Stanley Wealth Management has approved a manager or fund shown in this report, please ask our Financial Advisor or Private Wealth Advisor.

SHARE CLASSES OF FUNDS SHOWN IN THIS REPORT: The share class of a fund shown in this report may differ from the share class available in any Morgan Stanley Wealth Management investment advisory program in which you invest. The performance of the share class in which you invest may differ from that of the share class shown in this report.

REINVESTMENT: The performance results shown in this report assume that all dividend, accrued income and capital gains were reinvested.

SOURCES OF INFORMATION: Although the statements of fact in this report have been obtained from, and are based on, sources that Morgan Stanley believes to be reliable, Morgan Stanley makes no representation as to the accuracy or completeness of the information from sources outside Morgan Stanley. Any such information may be incomplete and you should not use it as the sole basis for investment decisions.

It is important to consider a fund's investment objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund. A copy of the prospectus may be obtained from your Financial Advisor or Private Wealth Advisor. Please read the prospectus carefully before investing in the fund.

KEY ASSET CLASS RISK CONSIDERATIONS: Investing in securities entails risk including the risk of losing principal. There is no assurance that the investment disciplines and investment managers/funds selected will meet their intended objectives.

Commodities - Diversified: The commodities markets may fluctuate widely based on a variety of factors including changes in supply and demand relationships; governmental programs and policies; national and international political and economic events; war and terrorist events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence; weather; technological change; and the price volatility of a commodity. In addition to commodity risk, commodity-linked notes may be subject to special risks, such as risk of loss of interest and principal, lack of a secondary market and risk of greater volatility that do not affect traditional equity and debt securities.

Commodities - Precious Metals: The prices of Commodities - Precious Metals tend to fluctuate widely and in an unpredictable manner, and have historically experienced extended periods of flat or declining prices. The prices of Commodities - Precious Metals are affected by several factors, including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.

Important Notes About This Report

KEY ASSET CLASS RISK CONSIDERATIONS (CONTINUED):

Investing in securities entails risk including the risk of losing principal. There is no assurance that the investment disciplines and investment managers/funds selected will meet their intended objectives.

Fixed Income: Fixed income securities are subject to certain inherent risks such as credit risk, reinvestment risk, call risk, and interest rate risk. Fixed income securities are sensitive to changes in prevailing interest rates. When interest rates rise, the value of fixed income securities generally declines. Accordingly, managers or funds that invest in fixed income securities are subject to interest rate risk and portfolio values can decline in value as interest rates rise and an investor can lose principal.

High Yield Fixed Income: As well as being subject to risks relating to fixed income generally (see "Fixed Income"), high yield or "junk" bonds are considered speculative, have significantly higher credit and default risks (including loss of principal), and may be less liquid and more volatile than investment grade bonds. Clients should only invest in high yield strategies if this is consistent with their risk tolerance, and high yield investments should comprise only a limited part of a balanced portfolio.

International/Emerging Market: International investing (including investing in particular countries or groups of countries) should be considered only one component of a complete and diversified investment program. Investing in foreign markets may entail greater risks than those normally associated with domestic markets, such as foreign political, currency, economic and market risks. In addition, the securities markets of many emerging markets are substantially smaller, less developed, less liquid and more volatile than the securities markets of the U.S. and other more developed countries. Further, a portfolio that focuses on a single country may be subject to higher volatility than one that is more diversified.

Preferred Securities: Preferred securities are generally subject to the same risks as apply to fixed income securities. (See "Fixed Income.") However, preferred securities (especially equity preferred securities) may rank below traditional forms of debt for the purposes of repayment in the event of bankruptcy. Many preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. If a preferred security is called, the investor bears the risk of reinvesting proceeds at a potentially lower return. Investors may not receive regular distributions on preferred securities. For example, dividends on equity preferred securities may only be declarable in the discretion of the issuer's board and may not be cumulative. Similarly, interest payments on certain debt preferred securities may be deferred by the issuer for periods of up to 10 years or more, in which case the investor would still have income tax liability even though payments would not have been received.

Real Estate: Real estate investments are subject to special risks, including interest rate and property value fluctuations as well as risks related to general and local conditions.

Small and Mid Cap: Investments in small-to medium-sized corporations are generally more vulnerable to financial risks and other risks than larger corporations and may involve a higher degree of price volatility than investments in the broad equity market.

Hedged and Alternatives Strategies: In most Consulting Group investment advisory programs, alternative investments are limited to US registered open-end mutual funds, separate account strategies, and ETFs that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives, and options, which can increase volatility and the risk of ivestment loss. Alternative Investments are not suitable for all investors.

Managed Futures: Involve a high degree of risk, often involve leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

Definitions of Statistical Terms Used

ALPHA: Synonym of 'value added', linearly similar to the way beta is computed, alpha is the incremental return on a portfolio when the market is stationary. In other words, it is the extra expected return due to non-market factors. This risk-adjusted measurement takes into account both the performance of the market as a whole and the volatility of the portfolio. A positive alpha indicates that a portfolio has produced returns above the expected level at that level of risk, and vice versa for a negative alpha.

ANNUALIZED RETURN: The constant rate of return that, compounded annually, would yield the same overall return for a period of more than one year as the actual return observed for that period.

BEST AND WORST PERIOD RETURNS: The best period return for a time window is simply the maximum of the returns for that period inside this window. Similarly, the worst period return for a time window is the minimum of the returns for that period inside this window. To calculate the best one-year return for a return series, the program moves a one-year time window along the series and calculates the compound return for each of these windows. The best one-year return is the maximum of the returns thus found. Similarly, the worst one-year return is the minimum of the returns thus found. Therefore, best and worst one-year returns do not refer to calendar years.

BETA: The measure of a portfolio's risk in relation to the market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a portfolio with a beta of 1.5 will have moved, on average, 1.5 times the market return. According to asset pricing theory, beta represents the type of risk, systematic risk, which cannot be diversified away. When using beta, there are a number of issues that you need to be aware of: (1) betas may change through time; (2) betas may be different depending on the direction of the market (i.e. betas may be greater for down moves in the market rather than up moves); (3) the estimated beta will be biased if the portfolio does not frequently trade; and (4) the beta is not necessarily a complete measure of risk (you may need multiple betas). Also, note that the beta is a measure of co movement, not volatility. It is possible for a security to have a zero beta and higher volatility than the market.

CUMULATIVE RETURN: The total return on an investment over a specified time period.

DOWNSIDE CAPTURE RATIO: For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had negative returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. For investors, the lower the downside capture ratio, the better. For example, a downside capture ratio of 90% means that the portfolio's losses were only 90% of the market's losses (as represented by the benchmark index).

EXCESS RETURN: The difference between the returns of two portfolios. Usually excess return is the difference between a portfolio's return and the return of a benchmark for that portfolio.

INFORMATION RATIO: A statistic that seeks to summarize the mean-variance properties of an active portfolio with a single number. The information ratio builds on the Markowitz mean-variance paradigm, which says that the mean and variance (or, equivalently, the mean and standard deviation) of returns are sufficient statistics for characterizing an investment portfolio.

R-SQUARED: Used to show how much of a portfolio's variability can be accounted for by the market. For example, if a portfolio's R-Squared is 0.79, then 79% of the portfolio's variability is due to market conditions. As R-Squared approaches 100%, the portfolio is more closely correlated with the market.

Definitions of Statistical Terms Used

SHARPE RATIO: Developed by William F. Sharpe, this calculation measures a ratio of return to volatility. It is useful in comparing two portfolios or stocks in terms of risk-adjusted return. The higher the Sharpe Ratio, the better the risk-adjusted return of the portfolio. It is calculated by first subtracting the risk free rate (90-Day US T-bill) from the return of the portfolio, then dividing by the standard deviation of the portfolio. Using Sharpe ratios to compare and select among investment alternatives can be difficult because the measure of risk (standard deviation) penalizes portfolios for positive upside returns as much as the undesirable downside returns.

STANDARD DEVIATION: A statistical measure of the degree to which the performance of a portfolio varies from its average performance during a specified period. The higher the standard deviation, the greater the volatility of the portfolio's performance returns relative to its average return. A portfolio's returns can be expected to fall within plus or minus one standard deviation, relative to its average return, two-thirds of the time, and fall within plus or minus two standard deviations relative to its average return, 95% of the time. For example, if a portfolio had a return of 5% and a standard deviation of 13% then, if future volatility of returns is similar to historical volatility (which may not be the case):

- About two-thirds of the time, the future returns could be expected to fall betwen -8% and 18% (being 5% +/- 13%)
- About 95% of the time, the future returns could be expected to fall betwen -21% and 31% (being 5% +/- 26%)

In performance measurement, it is generally assumed that a larger standard deviation means that great risk was taken to achieve the return.

STYLE ANALYSIS (RETURNS BASED STYLE ANALYSIS): A measure for analyzing the style of a portfolio's returns when compared with the quarterly returns on a number of selected style indices. These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes. Style analysis uses a quadratic minimization procedure that minimizes the difference in quarterly return performance between each portfolio's performance and a set of portfolio weights for the style indices under consideration. Style analysis is the construction of this set of portfolio weights for the style indices such that the portfolio style or composition best mimics the actual portfolio composition of the investment being investigated. Return based style analysis determines this underlying passive portfolio or investment style so that you may compare this passive style with the stated investment style of the underlying investment.

TRACKING ERROR: A measurement that indicates the standard deviation of the difference between a selected market index and a portfolio's returns. The portfolio's returns are then compared to the index's returns to determine the amount of excess return, which produces a tracking error. A low tracking error indicates that the portfolio is tracking the selected index closely or has roughly the same returns as the index.

UPSIDE CAPTURE RATIO: For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had positive returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. A percentage less than 100% indicates that the portfolio "captured" less performance than the benchmark index, while a percentage greater than 100% indicates the portfolio captured more performance than the benchmark index. For investors, the higher the upside capture ratio, the better. For example, if the annualized performance of an benchmark index during "up" markets (when its returns were positive) is 20.8% and the portfolio's annualized performance during the same period is 16.8%, then the portfolio's upside capture ratio is 16.8%/20.8% = 80.7%, meaning the portfolio "captured" 80.7% of the upside performance of the index. Stated another way, the portfolio in this example performed almost 20% worse than the market during up periods.

VARIANCE: A measure of how spread out a distribution is. It is computed as the average squared deviation of each number from its mean.

PSN

CORRELATION MATRIX
03/2012 TO 03/2017

Total Return					
Description	#	1	2	3	4
Aberdeen Emerging Markets Instl	1	1.0000	0.9460	0.9496	0.9326
Causeway Emerging Markets Instl	2	0.9460	1.0000	0.9575	0.9326
Harding Loevner Emerging Markets Advisor	3	0.9496	0.9575	1.0000	0.9771
Lazard Asset Mgmt LLC Lazard Em Mkt Eq Select ADR -S	4	0.9326	0.9326	0.9771	1.0000

Aberdeen Emerging Markets Fund

April 2017 Performance Data and Portfolio Composition

Total Returns (%)

	Cumulative as of Apr 30, 2017			Annualized as of Apr 30, 2017				
	1 Mo	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception 05/11/07
Class A w/o sales charges	2.14	8.71	14.25	15.84	1.24	1.60	-	5.82
Class A with sales charges	-3.74	2.46	7.68	9.18	-0.74	0.40	-	5.19
Institutional Class	2.20	8.86	14.49	16.31	1.60	1.95	-	6.00
MSCI Emerging Markets Index	2.21	8.03	13.95	19.58	2.16	1.85	-	2.58

	Annualized as of Mar 31, 2017				
	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception 05/11/07
Class A w/o sales charges	15.54	1.12	1.04	-	5.64
Class A with sales charges	8.90	-0.86	-0.15	-	5.01
Institutional Class	15.93	1.46	1.38	-	5.82
MSCI Emerging Markets	17.65	1.55	1.17	-	2.38

PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. The performance data quoted represents past performance and current returns may be lower or higher. Class A shares have up to a 5.75% front-end sales charge and a 0.25% 12b-1 fee. The investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than the original cost. To obtain performance information current to the most recent month-end, which may be higher or lower than the performance shown above, please call 866-667-9231 or go to aberdeen-asset.us.

Returns prior to 11/23/09 reflect the performance of the Aberdeen-managed predecessor fund before its reorganization into the Aberdeen Funds family. The Inception Date represents the inception date for the oldest share class. Performance prior to the inception date for each share class may be linked to performance for the oldest share class. Please see the Fund's prospectus for further details. Total returns assume the reinvestment of all distributions. Total returns may reflect a waiver of part of the Fund's fees for certain periods since inception, without which returns would have been lower. Indexes are unmanaged and have been provided for comparison purposes only. No fees or expenses are reflected. You cannot invest directly in an index.

Fund Facts

	Class A	Class C	Institutional Class
Net Asset Value (NAV) as of 04/30/17	$14.35	$14.21	$14.38
Ticker	GEGAX	GEGCX	ABEMX
CUSIP	003021250	003021243	003021714
Minimum Initial Investment	$1,000	$1,000	$1,000,000
Gross/Net Expense Ratio	1.58%/1.58%	2.31%/2.10%	1.12%/1.10%
Distributions	Annual Distribution /Annual Capital Gains		

Expenses stated as of the Fund's most recent prospectus. All classes of the Fund have contractual waivers in place and may not be terminated before 2/28/18 without approval of the Independent Trustees.

Investors should carefully consider a fund's investment objectives, risks, fees, charges and expenses before investing any money. To obtain this and other fund information, please call 866-667-9231 to request a summary prospectus and/or prospectus, or download at aberdeen-asset.us. Please read the summary prospectus and/or prospectus carefully before investing any money. Investing in mutual funds involves risk, including possible loss of principal. There is no assurance that the investment objective of any fund will be achieved.

Objective

The Fund seeks long-term capital appreciation.

Strategy

As a non-fundamental policy, under normal circumstances, the Fund invests at least 80% of the value of its net assets, plus any borrowings for investment purposes, in equity securities of emerging market companies. The Fund's investment team employs a fundamental, bottom-up equity investment style, which is characterized by intensive, first-hand research and disciplined company evaluation.

Total Net Assets (all share classes)

$8,541.62 million

Portfolio Management

Aberdeen Global Emerging Markets Equity Team

Risk Considerations

Foreign securities are more volatile, harder to price and less liquid than U.S. securities. They are subject to different accounting and regulatory standards, and currency exchange rate, political and economic risks. Fluctuations in currency exchange rates may impact a Fund's returns more greatly to the extent the Fund does not hedge currency exposure or hedging techniques are unsuccessful. These risks are enhanced in emerging markets countries.

Equity securities of small and mid-cap companies carry greater risk, and more volatility than equity securities of larger, more established companies.

Please read the prospectus for more detailed information regarding these and other risks.

Effective February 22, 2013, the Fund is closed to new investors except in limited circumstances. For further information, please see the prospectus which can be obtained from www.aberdeen-asset.us.

Aberdeen Emerging Markets Fund

Sector Breakdown vs. Benchmark (%)

	Fund	Benchmark	Difference
Consumer Staples	17.1	6.9	10.2
Real Estate	6.6	2.4	4.2
Financials	26.7	24.2	2.6
Materials	9.6	7.3	2.3
Consumer Discretionary	10.2	10.5	-0.3
Telecommunications	4.5	5.6	-1.1
Health Care	1.2	2.4	-1.2
Energy	5.0	7.2	-2.2
Utilities	0.0	2.8	-2.8
Industrials	3.0	5.8	-2.8
Information Technology	13.4	25.1	-11.7
Cash*	2.7	0.0	2.7

Figures may not sum due to rounding.
*Typically cash is below 5%; higher weighting may reflect large daily cash flow.

Top Ten Holdings

	% of Portfolio
Samsung Electronics	5.0
Housing Development Finance Corp.	3.9
Taiwan Semiconductor	3.9
Astra International	3.1
AIA Group	3.1
Banco Bradesco	2.7
FEMSA	2.7
Grupo Financiero Banorte	2.6
China Mobile	2.6
ITC	2.5
Percent of Portfolio in Top Ten	**32.2**

Figures may not sum due to rounding.
Holdings are subject to change and are provided for informational purposes only and should not be deemed as a recommendation to buy or sell the securities shown.

Commentary

- Emerging market equities posted modest gains in April, supported by positive corporate earnings momentum, despite heightened geopolitical risks in North Korea. In the Europe, Middle East and Africa (EMEA) region, Turkey's stock market and lira strengthened after President Tayyip Erdogan controversially won sweeping new powers in a constitutional referendum and the central bank tightened liquidity. Poland benefited from spillover optimism from the first round of the French presidential election, while volatile oil prices hurt markets in Russia and the Middle East.

- In emerging Asia, fears over increased regulatory scrutiny dampened China A shares, with Hong Kong benefiting from the influx of mainland investors, despite better-than-expected mainland gross domestic product growth of 6.9% in the first quarter. The Reserve Bank of India (RBI) kept its benchmark repo rate[1] unchanged, citing inflation risks from the goods and services tax rollout in July and the possibility of a poor monsoon. However, the central bank raised the reverse repo rate[2] by 25 basis points (bps) to encourage banks to lend more to the RBI, underscoring concerns over excess liquidity.

- In the Latin American market, Brazilian equities seesawed on anxiety over whether President Michel Temer's proposed pension reforms would garner Parliamentary approval, while the central bank cut its benchmark rate by 100 bps. In contrast, Banco Mexico issued its fifth consecutive rate hike to combat inflation.

- Regarding Fund-related corporate results, Samsung Electronics reported its best quarterly earnings in over three years and a share buyback totaling 2.3 trillion won (roughly US$2.0 billion). Taiwan Semiconductor Manufacturing Co.'s' first-quarter results marginally missed our expectations, although management has retained its outlook on margins for the full 2017 fiscal year.

- In April, we initiated a position in Hangzhou Hikvision, the world's largest global video surveillance vendor that is expanding its global footprint on the back of increasing automation in surveillance. Conversely, we trimmed the holding in Polish lender Bank Pekao after its robust results buoyed its share price.

[1]The repo rate is the rate at which a country's central bank lends money to commercial banks

[2]The reverse repo rate is the rate at which a country's central bank borrows money from commercial banks.

This commentary is for informational purposes only, and is not intended as an offer or recommendation with respect to the purchase or sale of any security, option, future or other derivatives in such securities.

Unless otherwise noted, all information is as of April 30, 2017.

Definitions

The Morgan Stanley Capital International Emerging Markets (MSCI EM) Index is an unmanaged index considered representative of stocks of developing countries.

Beta is a measure of the volatility of a portfolio in comparison to a benchmark index. Alpha is a measure of performance that takes the volatility of a mutual fund and compares its risk-adjusted performance to a benchmark index. Standard deviation measures historical volatility. R-squared is a statistical measurement that determines the proportion of a fund's return that can be explained by variations in the market, as measured by a benchmark index. Sharpe ratio measures risk-adjusted performance.

Portfolio Characteristics

	Fund	Benchmark
Number of Holdings (not including cash)	63	820
Weighted Average Market Cap (bn USD)	47.3	61.0
Beta	0.9	1.0
Alpha	0.1	0.0
Standard Deviation	15.2	15.9
R-Squared	88.9	100.0
Sharpe Ratio	0.1	0.1

The Beta, Alpha, Standard Deviation and R-Squared are based on a 36-month rolling period.

Regional Breakdown (%)

	Fund	Benchmark
Emerging Asia	58.7	71.6
Latin America	22.2	13.0
EMEA(Europe,Middle East,Africa)	16.4	15.4
Cash	2.7	0.0

Figures may not sum due to rounding.

Aberdeen Funds
1735 Market Street, 32nd Floor
Philadelphia, PA 19103

Shareholder services and
24-hour account access:
866-667-9231

Advisor Services Team:
877-343-2294

Website :
aberdeen-asset.us

EMERGING MARKETS FUND
Institutional Class

As of March 31, 2017

Causeway

FUND STATISTICS

Fund Inception: Mar. 30, 2007
CUSIP: 149498107
Ticker: CEMIX
Minimum Initial Investment: $1 Million *
Maximum Sales Charge: None
Total Expenses: 1.18%
Redemption Fee: ** 2.00%
Net Assets: $2,773,813,686

** The Fund may waive account minimums for customers of a financial intermediary or investment adviser if the aggregate investments of its customers are believed likely to meet the account minimum.*

*** On shares held less than 60 days. If your account incurred a redemption fee, your performance will be lower than the performance quoted.*

TOTAL RETURNS
AS OF 03/31/2017

	Institutional Class	MSCI EM (Gross)
Curr. Qtr.	14.27%	11.49%
YTD	14.27%	11.49%
1 year	19.91%	17.65%
3 year	2.08%	1.55%
5 year	2.51%	1.17%
10 year	3.98%	3.05%
Since Inc.	3.95%	3.10%

MORNINGSTAR Bronze

Investment objective

The Fund's investment objective is to seek long-term growth of capital.

The Fund normally invests at least 80% of its total assets in equity securities of companies located in emerging (less developed) markets and other investments that are tied economically to emerging markets.

Fund features

- Actively managed, tracking-error oriented, quantitative strategy
- Combines bottom-up and top-down factors in security selection
- Supports strict risk controls in stock selection process
- Provides diversification benefits to a developed markets portfolio

About the adviser

Causeway Capital Management LLC is an investment management firm which began operations in June 2001. Causeway has approximately $49.3 billion in global, international, emerging market and absolute return equities assets under management, and has 82 employees, 29 of whom are investment professionals.

ARJUN JAYARAMAN, PhD, CFA *Portfolio Manager* Dr. Jayaraman joined the firm in January 2006 and is head of the quantitative research group at Causeway. He has been co-portfolio manager of Causeway Emerging Markets Fund since March 2007.

MACDUFF KUHNERT, CFA *Portfolio Manager* Mr. Kuhnert performs quantitative research for Causeway. His responsibilities include product development, asset allocation, risk management, and the design and implementation of proprietary valuation models and other quantitative tools. He joined the firm in July 2001 and has been co-portfolio manager of Causeway Emerging Markets Fund since March 2007.

JOE GUBLER, CFA *Portfolio Manager* Mr. Gubler is a quantitative portfolio manager for Causeway. He joined Causeway as a quantitative research associate in April 2005 and was promoted to portfolio manager in January 2014.

The performance data quoted herein represents past performance. Past performance is not a guarantee of future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth less than their original cost, and current performance may be lower than the performance quoted. For performance data current to the most recent month end, please call 1.866.947.7000.

Returns greater than one year are annualized. Total returns assume reinvestment of dividends and capital gains distributions at net asset value when paid.

The MSCI Emerging Markets Index (Gross) is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The Index is gross of withholding taxes, assumes reinvestment of dividends and capital gains, and assumes no management, custody, transaction or other expenses. It is not possible to invest directly in an index.

TOP TEN COUNTRIES

China	26.4%
South Korea	17.7%
Taiwan	12.3%
India	9.6%
Brazil	7.2%
Russia	5.4%
Thailand	4.6%
South Africa	3.6%
Malaysia	1.9%
Indonesia	1.7%

TOP TEN SECTORS

Information Technology	27.6%
Financials	23.7%
Energy	11.1%
Industrials	8.6%
Materials	5.3%
Consumer Discretionary	5.1%
Utilities	3.8%
Consumer Staples	3.8%
Telecommunication Services	3.1%
Health Care	2.5%

TOP TEN ACTIVE HOLDINGS

China Petroleum & Chem Corp. (China)	1.8%	Hon Hai Precision Industry Co. (Taiwan)	1.2%
PTT Public Co., Ltd. (Thailand)	1.8%	Sberbank Russia OJSC (Russia)	1.1%
Bank of China Ltd. (China)	1.7%	Samsung Electronics Co., Ltd. (South Korea)	1.1%
Investimentos Itau (Brazil)	1.6%	Korea Electric Power Corp. (South Korea)	1.1%
Lukoil (Russia)	1.4%	China Comm Construction Co. (China)	1.0%

Active defined as Fund weight minus MSCI EM Index weight. The holdings identified above can and will differ from the Fund's Top 10 holdings measured by Fund weight. Holdings are subject to change.

Market commentary

Emerging markets equities increased their gains in the first quarter of 2017. The MSCI Emerging Markets Index ("Index") returned 7.80% in local currency terms, delivering its highest calendar quarter return in the past five years and handily outpacing developed equity markets. Economic growth within the asset class is improving, and valuations lured investors, particularly given the brightening earnings outlooks for many emerging markets companies. In the Index, every sector appreciated over the period. The top performers were the information technology, industrials, and real estate sectors. The energy, health care, and consumer staples sectors lagged the Index. The Chile, Turkey, and China markets appreciated the most over the quarter. China's substantial economic stimulus appears to have alleviated investor fears of economic destabilization. Russia was one of the few markets left behind by the rally. The market declined as investors grew concerned that the United States would not ease Russian sanctions, and the energy sector came under pressure. Greece and Hungary were the only other two markets in negative territory for the quarter.

The Causeway Emerging Markets Fund ("Fund") outperformed the Index for the first quarter 2017. We use both bottom-up and top-down factors to forecast alpha (return in excess of the Index) for the stocks in the Fund's investable universe. Nearly all of our factor categories demonstrated predictive power over the quarter. Of our bottom-up factors, value and earnings growth continued to post positive returns. Our bottom-up technical factors, which measure share price momentum, have been weak for the past twelve months, indicating rotation within the asset class. Our top-down factors that evaluate the aggregate attractiveness of countries, sectors, and currencies were effective for the period. Our macroeconomic factor performance was flat for the period, having recovered in March after a challenging start to the year.

The Fund's positioning in every emerging markets region added to relative performance versus the Index for the quarter. The greatest contributions came from emerging Asia—most notably from stock selection in China and India—followed by contributions from Latin America and the emerging Europe, Middle East, and Africa (EMEA) region. Financials and information technology were the largest sector-level contributors to outperformance versus the Index, partially offset by the Fund's positioning in the consumer staples and utilities sectors. The top individual contributors to relative performance were overweight positions in oil & gas firm, Hindustan Petroleum Corporation Limited (India), for-profit educator, New Oriental Education & Technology Group, Inc. (China), and online gaming & services provider, NetEase, Inc. (China). The top relative detractors were overweight positions in oil company LUKOIL PJSC (Russia), state-owned bank, Sberbank Russia OJSC (Russia), and agro-industrial group, Charoen Pokphand Foods Public Co. Ltd. (Thailand).

This information must be preceded or accompanied by the current prospectus for Causeway Emerging Markets Fund. Please read the summary or full prospectus carefully before you invest or send money. To obtain additional information including charges, expenses, investment objectives, or risk factors, or to open an account, call 1.866.947.7000, or visit us online at www.causewayfunds.com.

Mutual fund investing involves risk, including possible loss of principal. In addition to the normal risks associated with equity investing, international investing may involve risk of capital loss from unfavorable fluctuations in currency values, from differences in generally accepted accounting principles, or from economic or political instability in other nations. Emerging markets involve heightened risks related to the same factors, as well as increased volatility and lower trading volume. Current and future holdings are subject to risk. Diversification does not protect against market loss. There is no guarantee that securities mentioned will remain in or out of the Fund.

The market commentary expresses the portfolio managers' views as of the date of this report and should not be relied on as research or investment advice regarding any stock. These views and any portfolio holdings and characteristics are subject to change. There is no guarantee that any forecasts made will come to pass. Any securities identified and described do not represent all of the securities purchased, sold, or recommended for the Fund. The reader should not assume that an investment in any securities identified was or will be profitable.

MSCI has not approved, reviewed or produced this report, makes no express or implied warranties or representations and is not liable whatsoever for any data in the report. You may not redistribute the MSCI data or use it as a basis for other indices or investment products.

Causeway Capital Management LLC serves as investment adviser for Causeway Emerging Markets Fund. The Fund is distributed by SEI Investments Distribution Co., which is not affiliated with Causeway Capital Management LLC.

The Morningstar Analyst Rating TM is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with and governed by the U.S. Securities and Exchange Commission. The Manager Research Group evaluates funds based on five key pillars, which are process, performance, people, parent, and price. The Manager Research Group uses this five pillar evaluation to determine how they believe funds are likely to perform relative to a benchmark, or in the case of exchange-traded funds and index mutual funds, a relevant peer group, over the long term on a risk-adjusted basis. They consider quantitative and qualitative factors in their research, and the weight of each pillar may vary. The Analyst Rating scale is Gold, Silver, Bronze, Neutral, and Negative. A Morningstar Analyst Rating of Gold, Silver, or Bronze reflects the Manager Research Group's conviction in a fund's prospects for outperformance. Analyst Ratings ultimately reflect the Manager Research Group's overall assessment, are overseen by an Analyst Rating Committee, and are continuously monitored and reevaluated at least every 14 months. For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to global.morningstar.com/managerdisclosures/.

The Morningstar Analyst Rating (i) should not be used as the sole basis in evaluating a fund, (ii) involves unknown risks and uncertainties which may cause Analyst expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the fund.

For more detailed information about Morningstar's Analyst Rating, including its methodology, please go to http://corporate.morningstar.com/us/documents/ MethodologyDocuments/AnalystRatingforFundsMethodology.pdf.

INSTITUTIONAL EMERGING MARKETS PORTFOLIO

Class I / March 31, 2017

Ticker: HLMEX

The Harding Loevner Funds Institutional Emerging Markets Portfolio is currently closed to new investors.

INVESTMENT OBJECTIVE

The Institutional Emerging Markets Portfolio seeks long-term capital appreciation through investments in equity securities of companies based in emerging markets.

INVESTMENT PHILOSOPHY & PROCESS

We believe a diversified portfolio of high-quality, durable-growth companies purchased at reasonable prices will provide superior investment returns with below-average risk over the long term. Our analysts conduct careful bottom-up research of individual companies and analyze the competitive dynamics of their industries to identify what we believe are the best growth companies and to assess the value of their shares. To qualify for investment, companies must be well managed, financially strong, and possess clear competitive advantages relative to their peers.

FUND FACTS	
CUSIP	412295701
INCEPTION DATE	10/17/2005
MIN. INVESTMENT[1]	$500,000
TOTAL FUND ASSETS	$3,871.7M
SALES CHARGE	None
TOTAL # OF HOLDINGS	80
NET EXPENSE RATIO*	1.28%
GROSS EXPENSE RATIO**	1.29%
TURNOVER (5 YR. AVG.)	24%
REDEMPTION FEE	2% 1st 90 days
DIVIDEND POLICY	Annual
NAV	$18.81

CONTACT

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c/o Northern Trust
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801 South Canal Street
Chicago, IL 60607

Phone: (877)435-8105
Email:hardingloevnerfunds@ntrs.com
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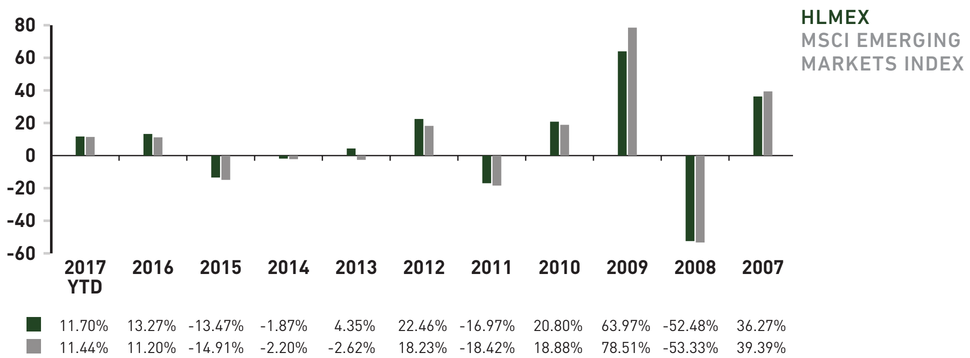
PERFORMANCE (% TOTAL RETURN)

as of March 31, 2017

	INCEPTION DATE	3 MONTHS	1 YEAR	3 YEARS	5 YEARS	10 YEARS
Inst. Emerg. Mrkts Portfolio Class I - Net	10/17/2005	11.70	18.67	2.19	3.46	3.72
MSCI Emerging Markets Index		11.44	17.22	1.18	0.80	2.71

Returns are annualized for periods greater than one year.



Performance data quoted represents past performance; past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Portfolio may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by calling (877)435-8105 or visiting www.hardingloevnerfunds.com. Performance data shown does not reflect the 2.00% redemption fee imposed on shares held 90 days or less; otherwise, total returns would be reduced.

Diversification does not assure a profit or protect against a loss in a declining market.

SECTOR EXPOSURE (%)

SECTOR	HLMEX	BENCHMARK[2]
CONS DISCRETIONARY	13.7	10.4
CONS STAPLES	7.7	6.9
ENERGY	6.0	7.3
FINANCIALS	28.7	24.1
HEALTH CARE	4.5	2.4
INDUSTRIALS	6.2	5.9
INFO TECHNOLOGY	23.4	24.5
MATERIALS	1.7	7.5
REAL ESTATE	1.2	2.6
TELECOM SERVICES	2.9	5.6
UTILITIES	1.7	2.8
CASH	2.3	-

GEOGRAPHIC EXPOSURE (%)

REGION	HLMEX	BENCHMARK[2]
BRAZIL	7.2	7.6
CHINA + HONG KONG	23.3	26.9
INDIA	8.7	8.9
MEXICO	5.4	3.7
RUSSIA	4.7	3.8
SOUTH AFRICA	5.3	6.6
SOUTH KOREA	11.1	15.1
TAIWAN	9.3	12.3
SMALL EMERGING MARKETS[3]	16.6	15.1
FRONTIER MARKETS[4]	1.1	-
DEVELOPED MARKET LISTED[5]	5.0	-
CASH	2.3	-

All holdings and sector/geographic allocations are subject to review and adjustment in accordance with the Portfolio's investment strategy and may vary in the future, and should not be considered recommendations to buy or sell any security. The Portfolio is actively managed; therefore holdings may not be current.

The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. The Index consists of 23 emerging market countries. The Index is net of foreign withholding taxes on dividends. You cannot invest directly in this Index.

INVESTMENT ADVISER

Harding Loevner manages global equity portfolios. Our distinct strategies are available to institutions and individuals around the world. Investing in quality-growth companies for the long term has been our exclusive focus since 1989.

PORTFOLIO MANAGERS

G. RUSTY JOHNSON, CFA
CO-LEAD PORTFOLIO MANAGER
Washington & Lee University, BA, 1986
Harding Loevner since 1994

CRAIG SHAW, CFA
CO-LEAD PORTFOLIO MANAGER
Concordia College, BA, 1986
American Graduate School of Management (Thunderbird), MIM, 1989
Harding Loevner since 2001

PRADIPTA CHAKRABORTTY
PORTFOLIO MANAGER
BIRLA Institute of Technology & Science, BE, 1994
XLRI School of Management, MBA, 1998
University of Pennsylvania, The Wharton School, MBA, 2008
Harding Loevner since 2008

SCOTT CRAWSHAW
PORTFOLIO MANAGER
University of Bristol, BSc, 1995
Harding Loevner since 2014

RICHARD SCHMIDT, CFA
PORTFOLIO MANAGER
Georgetown University, BS, 1986
Harding Loevner since 2011

TEN LARGEST HOLDINGS

	SECTOR	COUNTRY	% ASSETS
SAMSUNG ELECTRONICS	INFO TECHNOLOGY	SOUTH KOREA	5.5
TAIWAN SEMICONDUCTOR	INFO TECHNOLOGY	TAIWAN	4.5
TENCENT	INFO TECHNOLOGY	CHINA	3.2
AIA GROUP	FINANCIALS	HONG KONG	2.5
SBERBANK	FINANCIALS	RUSSIA	2.5
LUKOIL	ENERGY	RUSSIA	2.2
LARGAN PRECISION	INFO TECHNOLOGY	TAIWAN	2.0
ITAU UNIBANCO	FINANCIALS	BRAZIL	1.8
AXIS BANK	FINANCIALS	INDIA	1.8
CNOOC	ENERGY	CHINA	1.8
TEN LARGEST HOLDINGS			27.8%

PORTFOLIO CHARACTERISTICS

QUALITY AND GROWTH	HLMEX	BENCHMARK[2]
PROFIT MARGIN[6](%)	16.2	13.0
RETURN ON ASSETS[6](%)	6.5	6.4
RETURN ON EQUITY[6](%)	15.7	13.9
DEBT/EQUITY RATIO[6](%)	42.3	54.1
STD DEV OF 5 YEAR ROE[6]	3.1	3.5
5 YEAR ROE[6](%)	16.6	16.4
SALES GROWTH[6,7](%)	6.6	4.5
EARNINGS GROWTH[6,7](%)	11.2	9.1
CASH FLOW GROWTH[6,7](%)	14.5	12.4

SIZE	HLMEX	BENCHMARK[2]
WTD MED MKT CAP ($B)	20.3	20.2
WTD AVG MKT CAP ($B)	53.7	64.7

RISK AND VALUATION	HLMEX	BENCHMARK[2]
ALPHA[7]	2.68	-
BETA[7]	0.90	1.00
R-SQUARED[7]	0.94	1.00
STANDARD DEVIATION[7]	14.17	15.20
SHARPE RATIO[7]	0.24	0.05
PRICE/EARNINGS[8]	17.2	14.0
PRICE/CASH FLOW[8]	12.4	9.0
PRICE/BOOK[8]	2.3	1.6

Earnings Growth is not a measure of the Portfolio's future performance.

ENDNOTES

PAGES 1 AND 2

(1) Lower minimums available through certain brokerage firms; (2) MSCI Emerging Markets Index; (3) Includes the remaining emerging markets, which individually, comprise less than 5% of the Index; (4) Includes countries with less-developed markets outside the Index; (5) Includes emerging markets or frontier markets companies listed in developed markets, excluding Hong Kong; (6) Weighted median; (7) Trailing five years, annualized; (8) Weighted harmonic mean. *The Net Expense Ratio is as of March 31, 2017 as the Portfolio is operating below the contractual agreement, which is in effect until February 28, 2018. **The Gross Expense Ratio is as of the Prospectus dated February 28, 2017.

PAGES 1 AND 2

Source (Alpha, Beta, R-Squared, Standard Deviation, Sharpe Ratio): eVestment Alliance (eA); Harding Loevner Institutional Emerging Markets Portfolio, based on the Portfolio returns; MSCI Inc.
Source (other Characteristics): FactSet (Run Date: April 5, 2017), based on the Portfolio's underlying holdings.

Profit Margin: relationship of gross profits to net sales. Return on Assets: net income for past 12 months divided by total assets. Return on Equity: the net income divided by total common equity outstanding, expressed as a percent. Debt/Equity Ratio: total long-term debt divided by total shareholder's equity. Earnings Per Share: portion of a company's profit allocated to each outstanding share of common stock. Alpha: a measure of risk-adjusted return. Beta: a measure of the portfolio's sensitivity to the market. R-Squared: a measure of how well a portfolio tracks the market. Standard Deviation: the statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution. Sharpe Ratio: the return over the risk free rate per unit of risk. Price/Earnings: the ratio of a firm's closing stock price & its trailing 12 months' earnings/ share. Price/Cash Flow: the ratio of a firm's closing stock price & its fiscal year end cash flow/share. Price/Book: the ratio of a firm's closing stock price & its fiscal year end book value/share. Average Weighted Market Capitalization: the product of a security's price & the number of shares outstanding. Median Market Cap: the point at which half of the market value of a portfolio is invested in stocks with a greater market cap, and consequently the other half is invested in stocks with a lower market cap.

The Portfolio invests in foreign securities, which will involve greater volatility and political, economic, and currency risks and differences in accounting methods. It also invests in emerging markets, which involve unique risks, such as exposure to economies less diverse and mature than the U.S. or other more established foreign markets. Economic and political instability may cause larger price changes in emerging markets securities than other foreign securities. Investing in participation notes involve the same risks associated with a direct investment in the underlying security, currency or market.

The Portfolio's investment objectives, risks, charges and expenses must be read and considered carefully before investing. The statutory and summary prospectuses contain this and other important information about the investment company. They may be obtained by calling toll free (877) 435-8105, or visiting www.hardingloevnerfunds.com.

While the Portfolio is "no load", management and other expenses still apply. Please refer to the Prospectus for further details. The Portfolio is distributed by Quasar Distributors, LLC.

Lazard Asset Management LLC

30 Rockefeller Plaza
New York, New York 10112

Style:	Emerging Market Equities
Sub-Style:	Value-oriented
Firm AUM:	$179.0 billion
Firm Strategy AUM:	$3.0 billion
Year Founded:	1970
GIMA Status:	Focus
Firm Ownership:	Lazard Freres & Co. LLC
Professional-Staff:	262^

PRODUCT OVERVIEW

Lazard Asset Management LLC's emerging markets equity investment strategy offers an international equity portfolio consisting of foreign investment in the form of American Depository Receipts (ADRs), exchange-traded funds (ETFs) and closed-end country funds traded in U.S. markets. Lazard's emerging markets equity portfolio seeks to generate strong relative returns over a long-term time horizon by investing in non-Rule 144A ADRs that they believe have strong financial productivity at attractive valuations. The product typically invests in 35 - 45 securities, with a market capitalization of $300 million or greater, or that are domiciled in those countries that comprise the MSCI Emerging Markets Index. Lazard's investment process may, at times, result in portfolios that will be over/underweighted in particular sectors/countries/regions versus the MSCI Emerging Markets Index.

MANAGER'S INVESTMENT STRATEGY

- ☐ Top-down / portfolio structures based on economic trends
- ☑ Bottom-up / portfolio structure based on individual securities

TARGET PORTFOLIO CHARACTERISTICS

Number of stock holdings:	35 to 45
Average dividend yield:	Above the S&P 500
Cash level over market cycle:	0 to 10%
Risk (standard deviation):	Above the MSCI EM Net
Average turnover rate:	0 to 30%
Capitalization:	Large, Medium and Small companies
Emerging markets exposure:	—

PORTFOLIO'S EQUITY SECTOR WEIGHTINGS +

	---------------03/17---------		09/16
Sector	Lazard	Index***	Lazard
Energy	8.90	7.31	9.60
Materials	1.10	7.47	1.40
Industrials	8.00	5.92	7.20
Consumer Discretionary	5.20	10.39	5.60
Consumer Staples	6.90	6.94	8.00
Health Care	1.40	2.40	1.20
Financials	31.90	24.05	31.10
Information Technology	15.70	24.48	17.00
Telecomm Services	14.20	5.64	13.40
Utilities	0.00	2.84	0.00
REIT'S	0.00	2.56	0.00
Cash/Cash Equivalents	6.70	0.00	5.50

PORTFOLIO STATISTICS

	---------------03/17------		09/16
	Lazard	Index***	Lazard
Number of stock holdings	46	830	47
Wtd avg dividend yield	3.2%	2.4%	3.1%
Wtd avg portfolio beta	—	—	—
Mega capitalization +	0.0%	17.2%	0.0%
Large capitalization +	0.0%	44.9%	0.0%
Medium capitalization +	0.0%	33.6%	0.0%
Small capitalization +	0.0%	4.4%	0.0%
Micro capitalization +	0.0%	0.0%	0.0%

PORTFOLIO'S TOP FIVE EQUITY HOLDINGS

	%
China Construction - Unspon ADR	4.8
NetEase Inc	4.8
Taiwan Semiconductor Mfg Co Spon ADR	4.4
Baidu Inc Spon ADR	3.5
YPF Sociedad Anonima Spon ADR	3.4

% PROCESS BASED ON

0	Country Weightings
0	Currency Decision
0	Currency Hedge
10	Industry/Sector Selection
0	Asset Allocation
90	Issue Selection

^As of 03/31/2016. Information as of 03/31/2017 is not yet available.
+Total may not equal 100% due to rounding.
****Index : MSCI EM Net*

Past performance is no guarantee of future results. *This profile is not complete without the pages, which contain important notes, including disclosures about the composite, index descriptions and a glossary of terms. Information shown is as of March 31, 2017, unless otherwise noted. All data are subject to change.*

MANAGER'S INVESTMENT PROCESS

- Lazard's analysts screen global databases consisting of thousands of companies, searching for those with high return on capital and an attractive share price
- Use accounting validation to examine a company's stated financial statistics, looking to identify and take advantage of pricing anomalies and discover opportunities
- Conduct fundamental analysis to determine the sustainability of returns, to discover hidden value, and to identify a catalyst for price revaluation

- The sector-based analysts propose and defend stock recommendations to the product management teams

RISK CONSIDERATIONS

Investing in securities entails risks, including: International investing should be considered one component of a complete and diversified investment program. Investing in foreign markets entails greater risks than those normally associated with domestic markets such as foreign political, currency, economic and market risks. In addition, the securities markets of many emerging markets are substantially smaller, less developed, less liquid and more volatile than the securities of the U.S. and other more developed countries. Equity securities' prices may fluctuate in response to specific situations for each company, industry, market conditions and general economic environment. Companies paying dividends can reduce or cut payouts at any time. Strategies that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than portfolios that diversify among a broad range of sectors. Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

PORTFOLIO'S ALLOCATION HISTORY (%) +

	03/17	12/16	09/16	06/16
ADRs	0	0	0	100
ADRs/Non-U.S. Stocks	93	92	100	0
Cash/Cash Equivalents	7	8	0	0

PORTFOLIOS COUNTRY WEIGHTINGS % +

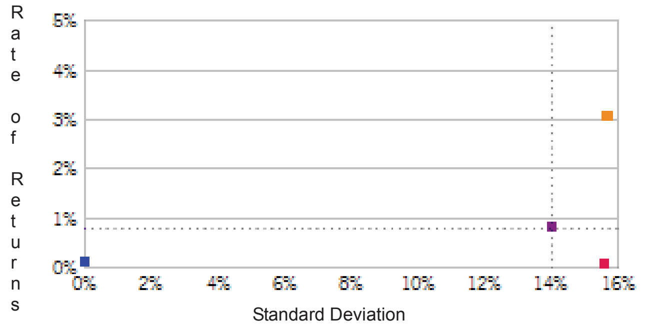
	---------------03/17-------------		09/16
Country	Lazard	Index***	Lazard
China	20.70	0.00	22.00
South Africa	14.80	0.00	14.80
Brazil	12.90	0.00	11.20
Russia	9.00	0.00	9.40
Indonesia	8.20	0.00	10.80
Cash/Cash Equivalents	6.70	0.00	5.50
Argentina	6.20	0.00	5.20
South Korea	5.40	0.00	4.80
Turkey	4.40	0.00	4.70
Taiwan	4.10	0.00	5.00

^As of 03/31/2016. Information as of 03/31/2017 is not yet available.

+Total may not equal 100% due to rounding.

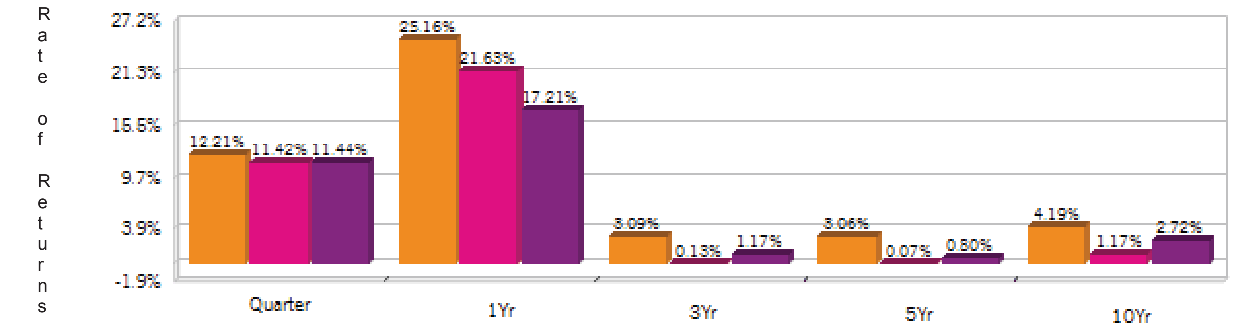
****Index : MSCI EM Net*

RISK/RETURN ANALYSIS - 5 YEARS ENDING 03/31/17



	STD	ROR
Lazard (Gross)	15.70	3.06
Lazard (Net)	15.61	0.07
MSCI EM Net	14.04	0.80
90-Day T-Bills	0.06	0.11

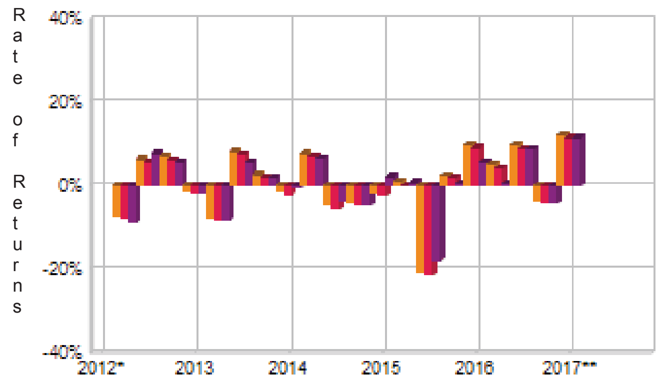
AVERAGE ANNUAL TOTAL RETURN (%) - PERIODS ENDING 03/31/17



INVESTMENT RESULTS

	Annual Rates of Return (%)										10 Year - Ending 03/31/17	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Annual	Std. Dev.
Lazard (Gross)	31.44	-48.78	69.13	23.90	-15.73	22.15	1.52	-2.44	-19.34	22.62	4.19	23.86
Lazard (Net)	27.83	-50.57	64.74	20.43	-18.15	18.63	-1.39	-5.34	-21.66	19.09	1.17	23.82
MSCI EM Net	39.38	-53.33	78.51	18.88	-18.42	18.22	-2.60	-2.19	-14.91	11.19	2.72	24.43

RISK VOLATALITY (%)



*04/01/12-12/31/12 **01/01/17-03/31/17

	Number Of Up Qtrs.	Down Qtrs.
Lazard (Gross)	11	9
Lazard (Net)	11	9
MSCI EM Net	12	8

PORTFOLIO'S QUARTERLY RETURNS (%)

	Quarter1		Quarter2		Quarter3		Quarter4	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
2007	5.89	5.15	12.81	12.07	6.54	5.80	3.28	2.54
2008	-6.04	-6.78	-1.02	-1.76	-19.85	-20.59	-31.28	-32.02
2009	-3.01	-3.75	32.06	31.32	23.41	22.67	7.00	6.26
2010	6.61	5.87	-7.26	-8.00	19.00	18.26	5.30	4.56
2011	-2.77	-3.51	1.58	0.83	-20.68	-21.27	7.57	6.86
2012	15.49	14.71	-7.06	-7.77	6.31	5.54	7.04	6.24
2013	-1.15	-1.89	-7.57	-8.25	8.17	7.39	2.72	2.00
2014	-1.16	-1.98	7.75	6.95	-4.70	-5.40	-3.87	-4.56
2015	-1.54	-2.27	0.92	0.22	-20.81	-21.44	2.51	1.81
2016	9.93	9.10	5.14	4.39	9.75	8.97	-3.33	-4.04
2017	12.21	11.42						

Related   Select UMA

PORTFOLIO'S RISK STATISTICS - ENDING 03/31/17 [1 2]

	PERIODS 3 Year	5 Year
Standard Deviation	18.13%	15.70%
Standard Deviation of Primary Benchmark	15.50%	14.04%
Sharpe Ratio	0.16	0.19
Sharpe Ratio of Primary Benchmark	0.07	0.05
Alpha	2.05%	2.36%
Beta	1.13	1.08
Downside Risk	2.97%	2.38%
R-Squared	0.94	0.94
Tracking Error	4.87%	4.02%
Information Ratio	0.39	0.56

PORTFOLIO DIVERSIFICATION - R^2(INCEPTION THROUGH 12/14)+

	R^2
Lazard vs. MSCI EM Net	0.94

+Statistics are calculated using gross of fee performance only.

1. Statistics are calculated using gross of fee performance only.
2. MSCI EM Net was used as the primary benchmark and the 90-Day T-Bills Index as the risk-free benchmark.

See important notes and disclosures pages for a discussion of the sources of the performance data used to calculate the performance results and related analyses shown above.

Past performance is no guarantee of future results. *This profile is not complete without the pages, which contain important notes, including disclosures about the composite, index descriptions and a glossary of terms. Information shown is as of March 31, 2017, unless otherwise noted. All data are subject to change.*

IMPORTANT NOTES AND DISCLOSURES

COMPOSITE DISCLOSURES

Past performance is no guarantee of future results. Actual individual account results may differ from the performance shown in this profile. There is no guarantee that this investment strategy will work under all market conditions. Do not use this profile as the sole basis for your investment decisions.

Performance results in this profile are calculated assuming reinvestment of dividends and income. Returns for more than one year are annualized and based on quarterly data. Returns for periods of less than a calendar year show the total return for the period and are not annualized.

Sources of Performance Results and Other Data: The performance data and certain other information for this strategy (including the data on page 1 of this profile) reflect the investment manager's results in managing Morgan Stanley program accounts, or the investment manager's results in managing accounts and investment products, in the same or a substantially similar investment discipline. (For periods through June 2012, the Fiduciary Services program operated through two channels - Morgan Stanley channel and the Smith Barney channel - and any performance and other data relating to Fiduciary Services accounts shown here for these periods is calculated using accounts in only one of the these channels.) This information for the investment manager is presented solely to provide information about accounts that were managed according to investment objectives and strategies the same or substantially similar to the corresponding investment discipline in the Select UMA program. Although the Fiduciary Services and Select UMA programs are both Morgan Stanley managed account programs, the performance results and other features of similar investment disciplines in the two programs may differ due to investment and operational differences. For example, the individual investment disciplines in the Select UMA accounts may contain fewer securities, which would lead to a more concentrated portfolio. The automatic rebalancing, wash sale loss and tax-harvesting features of the Select UMA program, which are not available in Fiduciary Services, also could cause differences in performance. Accordingly, the performance of the accounts in the Fiduciary Services program is not, and may differ significantly from, the performance of the accounts in the Select UMA program and should not be considered indicative of or a substitute for Select UMA performance. Similarly, performance results of the investment manager's composites may differ from those of Select UMA accounts managed in the same or a substantially similar investment discipline.

Related Performance:

Lazard Asset Management LLC's emerging markets equity performance prior to 4/1/2010 represents a composite of all actual, fee paying, fully discretionary accounts with an emerging markets equity select investment mandate under management by Lazard.

Morgan Stanley Performance:

The composite consists of **1,873** account(s) with a market value of **$680.1 million** as of **03/31/2017**. In this profile, the performance from April 1, 2010 through June 30, 2012 consists of accounts managed by the investment manager in this strategy in either the Morgan Stanley or the Smith Barney form of the Fiduciary Services program. From July 1, 2012 through December 31, 2015, performance consists of all Fiduciary Services (FS) accounts managed by the investment manager in this strategy, subject to any other limitations stated in this profile. From January 1, 2016, performance consists of the performance of all FS accounts (as described in the previous sentence) as well as the performance of all single style Select UMA accounts managed by the investment manager in this strategy, subject to any other limitations stated in this profile. Performance composites calculated by Morgan Stanley include all fee-paying portfolios with no investment restrictions. New accounts are included beginning with the second full calendar month of performance. Terminated accounts are removed in the month in which they terminate (but prior performance of terminated accounts is retained). Performance is calculated on a total return basis and by asset weighting the individual portfolio returns using the beginning of period values.

Gross Performance: Lazard's gross results do not reflect a deduction of any investment advisory fees or program fees, charged by Lazard or Morgan Stanley, but are net of commissions charged on securities transactions.

Net Performance for all Periods: Net performance results reflect a deduction of 0.7425% quarterly. This consists of three components: 0.625% maximum quarterly MS Advisory Fee and 0.0175% maximum quarterly Program Overlay Fee (which, together cover the services provided by Morgan Stanley), plus 0.1% quarterly SMA Manager Fees (being the fee currently charged by Lazard to new clients for managing their assets in the Select UMA program). The SMA Manager Fees may differ from manager to manager, and managers may change their fee to new clients from time to time. If you select this manager for your account, check the SMA Manager Fees specified in the written client agreement, in case these have changed since you received this profile. Historical net fees reflect the Advisory Fee Schedule as of March 31, 2014.

Morgan Stanley program fees are usually deducted quarterly, and have a compounding effect on performance. The Morgan Stanley program fee, which differs among programs and clients, is described in the applicable Morgan Stanley ADV brochure, which is available at www.morganstanley.com/ADV or on request from your Financial Advisor or Private Wealth Advisor.

Document approval date February 2013.

Focus List, Approved List, and Watch Status:

Global Investment Manager Analysis ("GIMA") uses two methods to evaluate investment products in applicable advisory programs. In general, strategies that have passed a more thorough evaluation may be placed on the "Focus List", while strategies that have passed through a different and less comprehensive evaluation process may be placed on the "Approved List". Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List.

Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either evaluation process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved". The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" on the cover page.
For more information on the Focus List, Approved List, and Watch processes, please see the applicable Morgan Stanley ADV brochure (www.ms.com/adv). Your Financial Advisor or Private Wealth Advisor can provide on request a copy of a paper entitled "GIMA: At A Glance ".

ADDITIONAL DISCLOSURES

The information about a representative account is for illustrative purposes only. Actual account holdings, performance and other data will vary depending on the size of an account, cash flows within an account, and restrictions on an account. Holdings are subject to change daily. The information in this profile is not a recommendation to buy, hold or sell securities.

Actual portfolio statistics may vary from target portfolio characteristics.

The investment manager may use the same or substantially similar investment strategies, and may hold similar portfolios of investments, in other portfolios or products it manages (including mutual funds). These may be available at Morgan Stanley or elsewhere, and may cost an investor more or less than this strategy in Morgan Stanley's Select UMA program.

The portfolio may, at times, invest in exchange-traded funds (ETFs), which are a form of equity security in seeking to maintain continued full exposure to the broad equity market.

Morgan Stanley investment advisory programs may require a minimum asset level and, depending on your specific investment objectives and financial position, may not be suitable for you. Investment advisory program accounts are opened pursuant to a written client agreement.

The investment manager acts independently of, and is not an affiliate of, Morgan Stanley Smith Barney LLC.

Diversification does not guarantee a profit or protect against a loss.

No obligation to notify
Morgan Stanley has no obligation to notify you when information in this profile changes.

Sources of information
Material in this profile has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

No tax advice
Morgan Stanley and its affiliates do not render advice on legal, tax and/or tax accounting matters to clients. Each client should consult his/her personal tax and/or legal advisor to learn about any potential tax or other implications that may result from acting on a particular recommendation.

Not an ERISA fiduciary
Morgan Stanley is not acting as a fiduciary under either the Employee Retirement Income Security Act of 1974, as amended, or under section 4975 of the Internal Revenue Code of 1986, as amended, in providing the information in this profile.

INDEX DESCRIPTIONS

90-Day T-Bills

The 90-Day Treasury Bill is a short-term obligation issued by the United States government. T-bills are purchased at a discount to the full face value, and the investor receives the full value when they mature. The difference of discount is the interested earned. T-bills are issued in denominations of $10,000 auction and $1,000 increments thereafter.

MSCI EM Net

The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. The MSCI Emerging Markets Index consists of the following 23 emerging market country indexes: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates (as of June 2014). Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

S&P 500

The S&P 500 Total Return has been widely regarded as the best single gauge of the large cap U.S. equities market since the index was first published in 1957. The index has over $5.58 trillion benchmarked, with index assets comprising approximately $1.31 trillion of this total. The index includes 500 leading companies in leading industries of the U.S. economy, capturing 75% coverage of U.S. equities. This index includes dividend reinvestment.

Indices are unmanaged and have no expenses. You cannot invest directly in an index.

GLOSSARY OF TERMS

Alpha is a mathematical estimate of risk-adjusted return expected from a portfolio above and beyond the benchmark return at any point in time.

American Depositary Receipts (ADRs) are receipts for shares of a foreign-based corporation held in the vault of a U.S. bank.

Average Portfolio Beta is a measure of the sensitivity of a benchmark or portfolio's rates of return to changes against a market return. The market return is the S&P 500 Index. It is the coefficient measuring a stock or a portfolio's relative volatility.

Beta is a measure of the sensitivity of a portfolio's rates of return to changes in the market return. It is the coeffecient measuring a stock or a portfolio's relative volatility.

Bottom-Up Stock Selection Emphasis primarily on individual stock selection. Considerations of economic and industry factors are of secondary importance in the investment decision-making process.

Capitalization is defined as the following: Mega (Above $100 billion), Large ($12 to $100 billion), Medium ($2.5 - $12 billion), Small ($.50 - $2.5 billion) and Micro (below $.50 billion).

Dividend a portion of a company's profit paid to common and preferred shareholders.

Downside Risk is a measure of the risk associated with achieving a specific target return. This statistic separates portfolio volatility into downside risk and upside uncertainty. The downside considers all returns below the target return, while the upside considers all returns equal to or above the target return.

Duration is a measure of price sensitivity expressed in years.

High Grade Corporate Bonds corporate bonds from issuers with credit ratings of AA or AAA.

Information Ratio is a measure of the investment manager's skill to add active value against a given benchmark relative to how stable that active return has been. Essentially, the information ratio explains how significant a manager's alpha is. Therefore, the higher the information ratio, the more significant the alpha.

Investment Grade Bonds are those rated by Standard & Poor's AAA (highest rated), AA, A or BBB (or equivalent rating by other rating agencies or, in the case of securities not rated, by the investment manager).

Price/Book Ratio (P/B) weighted average of the stocks' price divided by book value per share. Book value per share is defined as common equity, including intangibles, divided by shares outstanding times the adjustment factor.

Price/Cash Flow Ratio a ratio used to compare a company's market value to its cash flow. It is calculated by dividing the company's market cap by the company' operating cash flow in the most recent fiscal year (or the most recent four fiscal quarters); or, equivalently, divide the per-share stock price by the per-share operating cash flow.

Price/Earnings Ratio (P/E Ratio) shows the multiple of earnings at which a stock sells. Determined by dividing current stock price by current earnings per share (adjusted for stock splits). Earnings per share for the P/E ratio are determined by dividing earnings for past 12 months by the number of common shares outstanding. The P/E ratio shown here is calculated by the harmonic mean.

Price/Sales Ratio determined by dividing current stock price by revenue per share (adjusted for stock splits). Revenue per share for the P/S ratio is determined by dividing revenue for past 12 months by number of shares outstanding.

R2 (R-Squared)/Portfolio Diversification indicates the proportion of a security's total variance that is benchmark-related or is explained by variations in the benchmark.

Sharpe Ratio measures the efficiency, or excess return per unit of volatility, of a manager's returns. It evaluates managers' performance on a volatility-adjusted basis.

Standard Deviation is a statistical measure of historical variability or spread of returns around a mathematical average return that was produced by the investment manager over a given measurement period. The higher the standard deviation, the greater the variability in the investment manager's returns relative to its average return.

Top-Down/Economic Analysis Emphasis primarily on macroeconomic trends as opposed to bottom-up stock selection.

Tracking Error represents the standard deviation of the difference between the performance of the investment strategy and the benchmark. This provides a historical measure of the variability of the investment strategy's returns relative to its benchmark.

U.S. Treasury Bonds a marketable, fixed interest U.S. government debt security with a maturity of more than 10 years. Treasury bonds make interest payments semi-annually and the income that holders receive is only taxed at the federal level.

Volatility a measure of risk based on the standard deviation of the asset return. Volatility is a variable that appears in option pricing formulas, where it denotes the volatility of the underlying asset return from now to the expiration of the option. There are volatility indexes. Such as a scale of 1-9; a higher rating means higher risk.

Graystone Consulting[SM]
A business of Morgan Stanley

Custom Report

Prepared on June 20, 2017

Prepared For: **Michigan County Road Commission Self-Insurance Pool - Master Limited Partnership**

Please review the disclosures and definitions throughout this Document.

Summary of GIC Tactical Advice: Alternative Investments

As of May 31, 2017

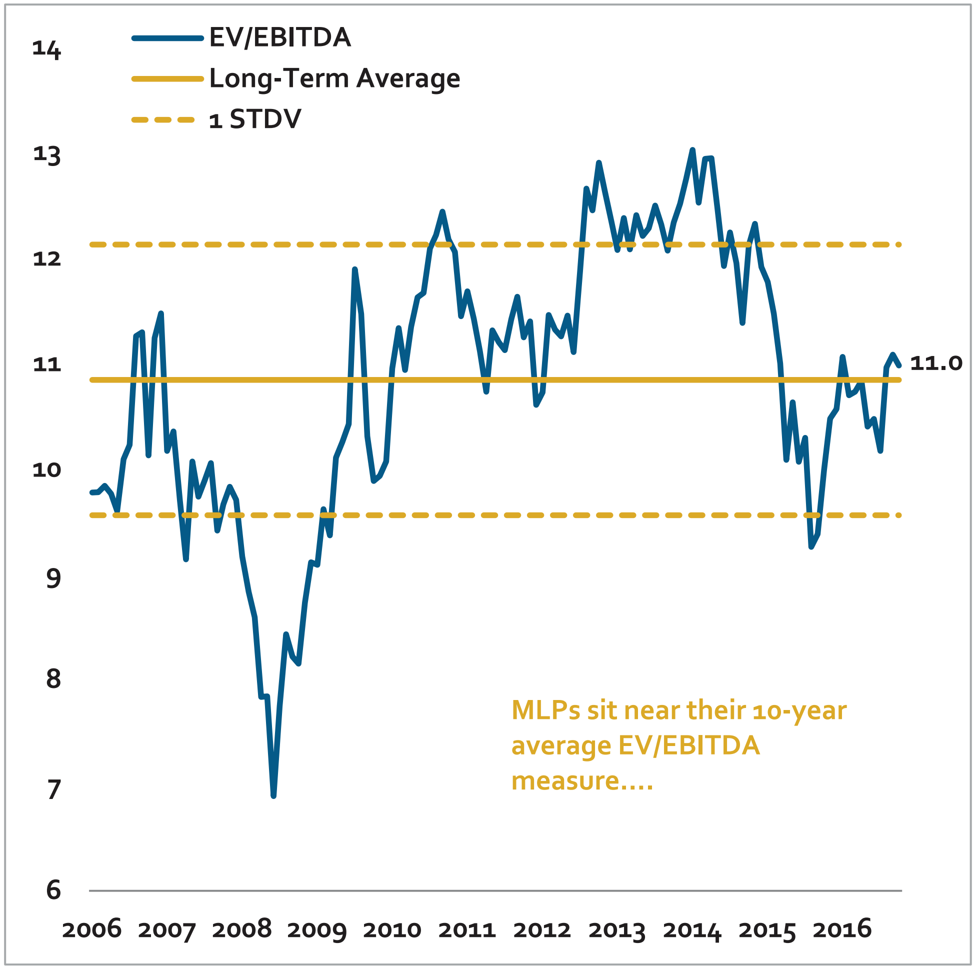
Alternative Investments	Relative Weight Within Alts	Rationale
REITs	Underweight	Real estate investment trusts (REITs) underperformed in 2016, but it is still too early to reconsider our underweight zero allocation given the further rise in rates we expect and deteriorating fundamentals for the industry. Non-US REITs should be favored relative to domestic REITs.
Master Limited Partnerships*	Overweight	Master limited partnerships (MLPs) were devastated during the oil-price collapse and have rebounded sharply. As long as oil remains above $40 per barrel, MLPs may provide a reliable and attractive yield. A Trump presidency should also be supportive for fracking activity and pipeline construction, both of which could lead to an acceleration in dividend growth. MLPs should be one of the strongest asset categories in the first half of 2017.
Hedged Strategies (Hedge Funds and Managed Futures)	Equal Weight	This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth scares and/or interest rate volatility spikes. As volatility becomes more persistent in 2017, these strategies should do better than in recent years.

For more information about the risks to Master Limited Partnerships (MLPs) please refer to the Risk Considerations section at the end of this material.

…And MLPs Are Undervalued Compared to Dividend Equity

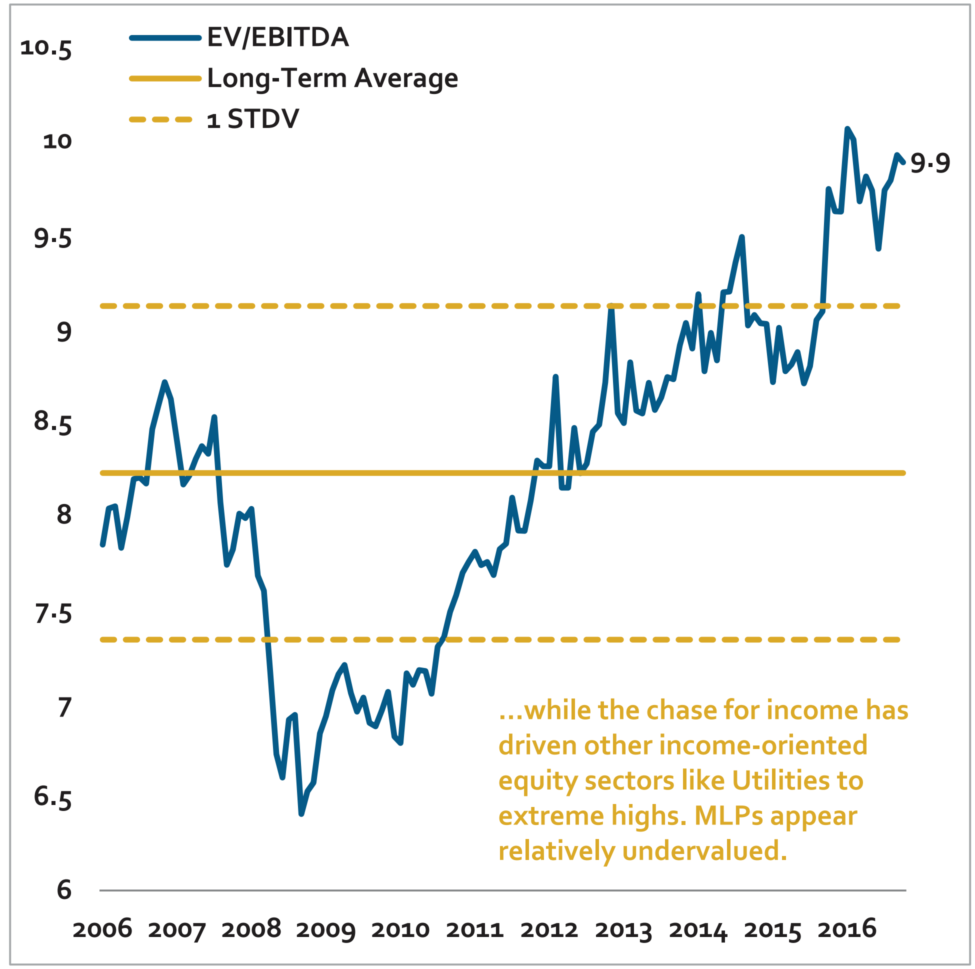
Alerian MLP Infrastructure Index

As of March 31, 2017



S&P 500 Utilities Sector

As of March 31, 2017

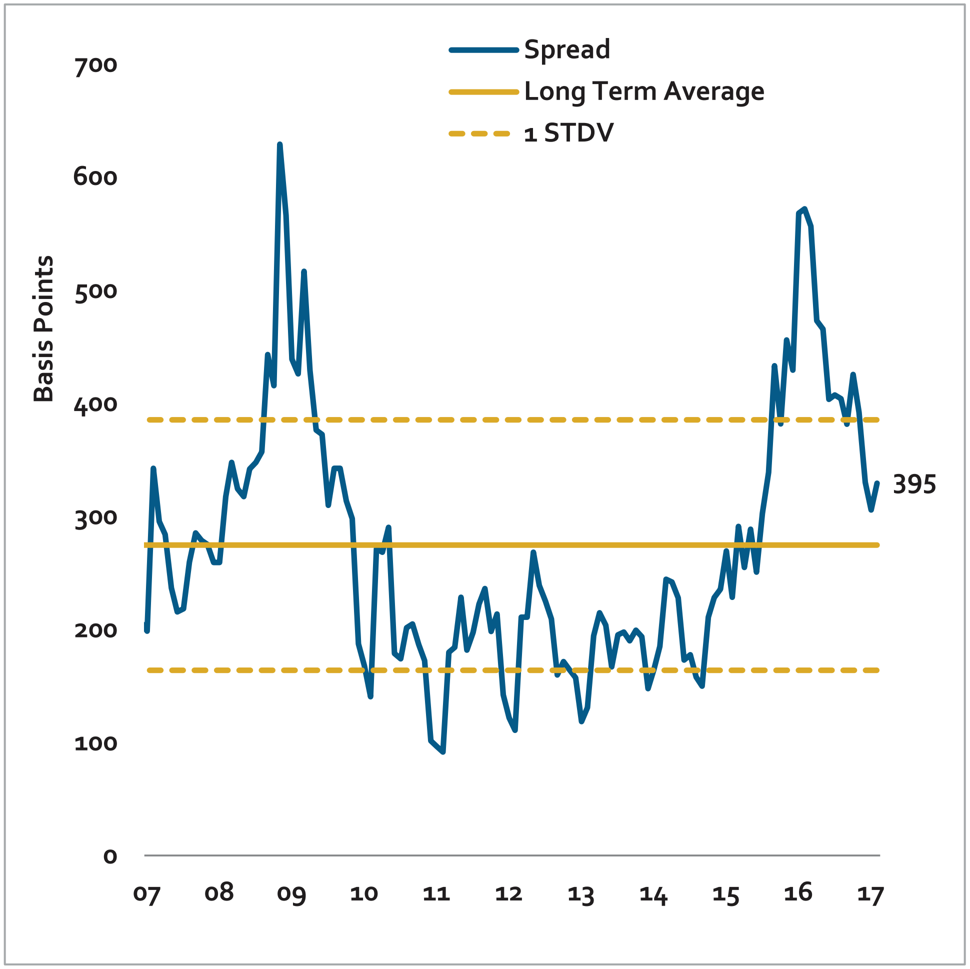


Source: Bloomberg, Morgan Stanley Wealth Management Investment Resources. Distribution rate is the most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.

MLPs Have Offered Higher Distribution Rates Than Both Dividends and Investment Grade Bonds…

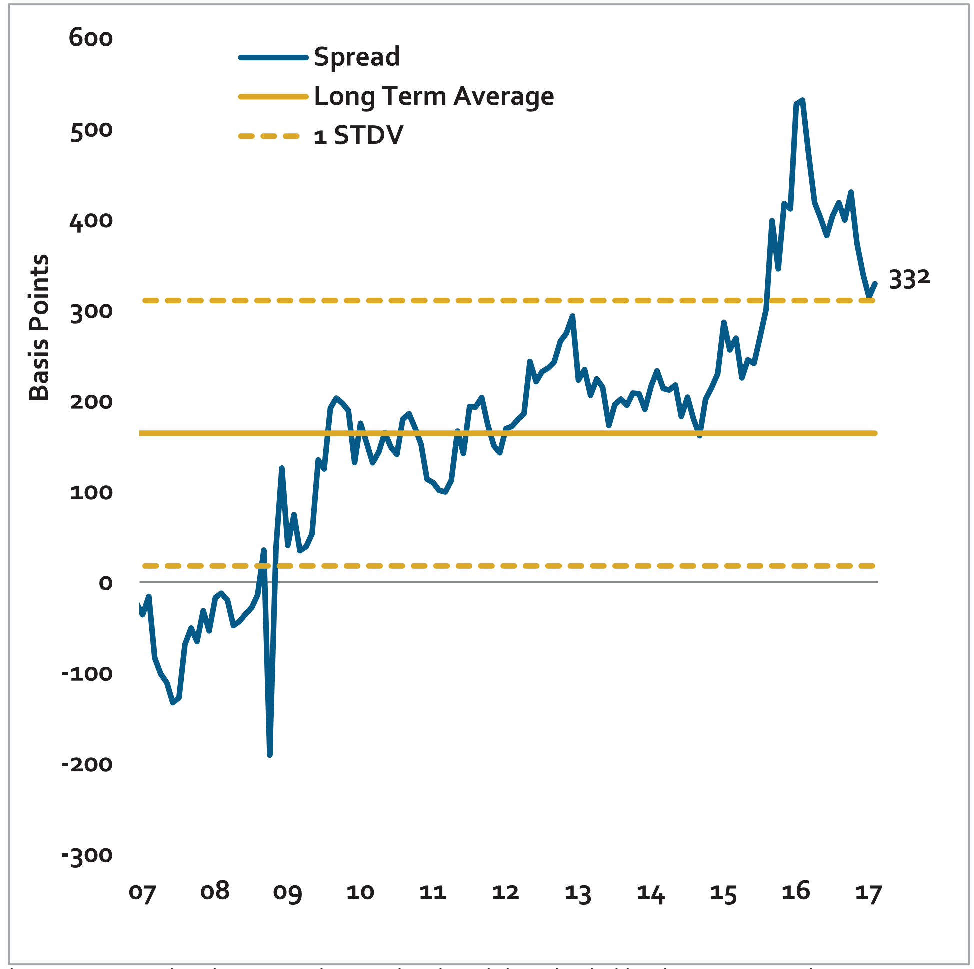
MLP Distribution Rate vs. S&P 500 Utilities Dividend Yield

As of March 31, 2017



MLP Distribution Rate vs. Baa Bond Yield

As of March 31, 2017



Source: Bloomberg, Morgan Stanley Wealth Management Investment Resources. Distribution rate is the most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.

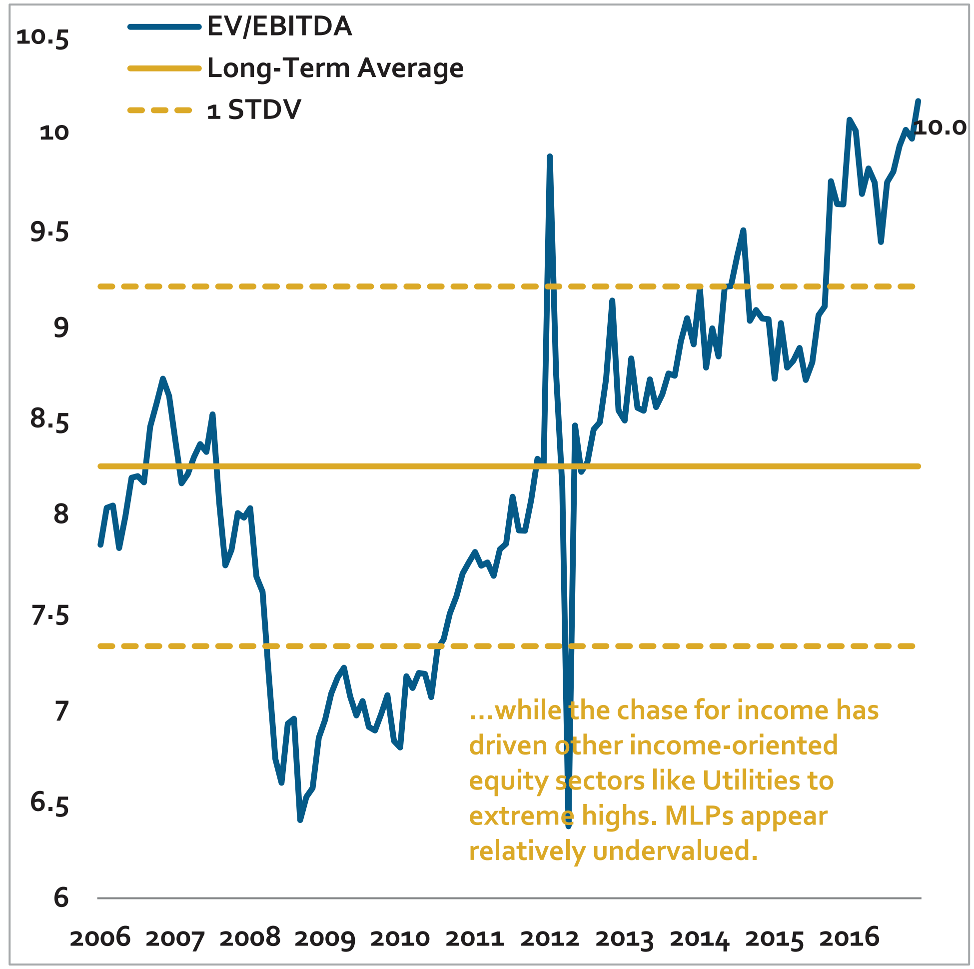
MLPs Are Undervalued Compared to Other Income-Oriented Equities

Alerian MLP Infrastructure Index

As of May 31, 2017

S&P 500 Utilities Sector

As of May 31, 2017

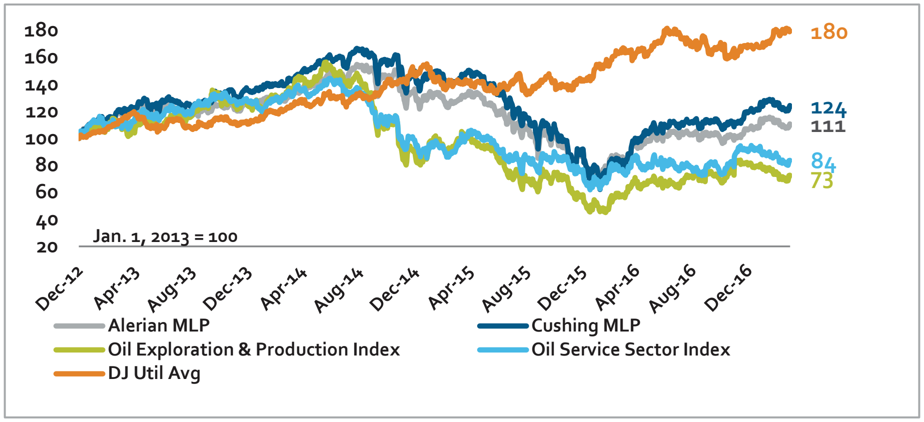


Source: Bloomberg, Morgan Stanley Wealth Management Investment Resources. Distribution rate is the most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.

MLPs[1] Performance and Valuation Metrics

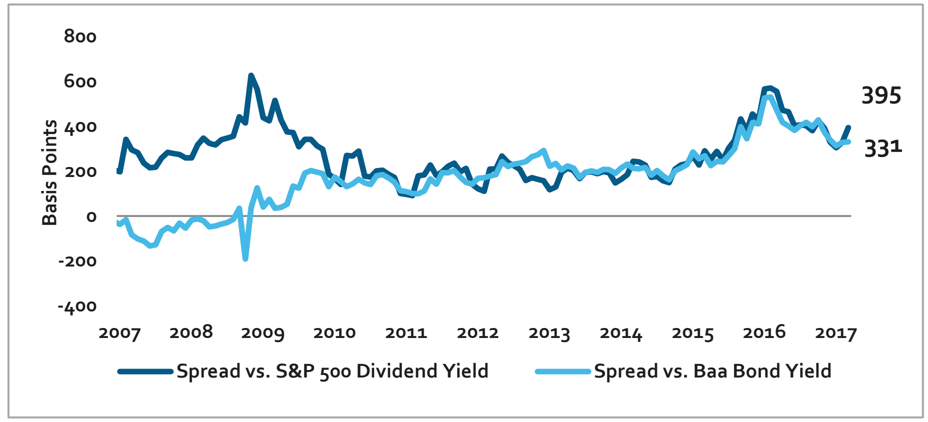
MLP Indexes Relative Performance

As of March 31, 2017



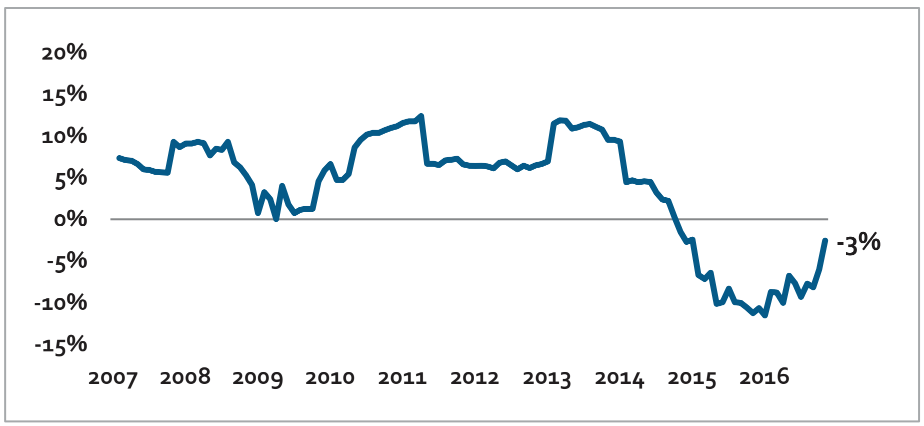
Alerian MLP Index

Distribution Yield Vs. S&P 500 Div. Yield/Baa Bond Yield as of March 31, 2017



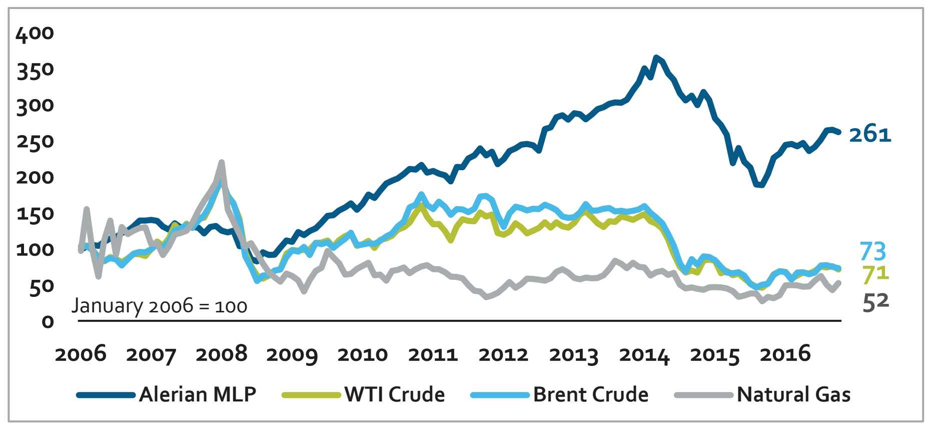
Alerian MLP Index

Year/Year Percent Growth in Dividends per Share as of March 31, 2017



Alerian MLP Index

Vs. WTI Crude, Brent Crude & Natural Gas as of March 31, 2017



Source: Bloomberg, Standard & Poor's, Dow Jones, Morgan Stanley Wealth Management GIC. (1) For more information about the risks to Master Limited Partnerships (MLPs), please refer to the Risk Considerations section at the end of this material. Data for the Alerian MLP index begins as of June 30, 2006.

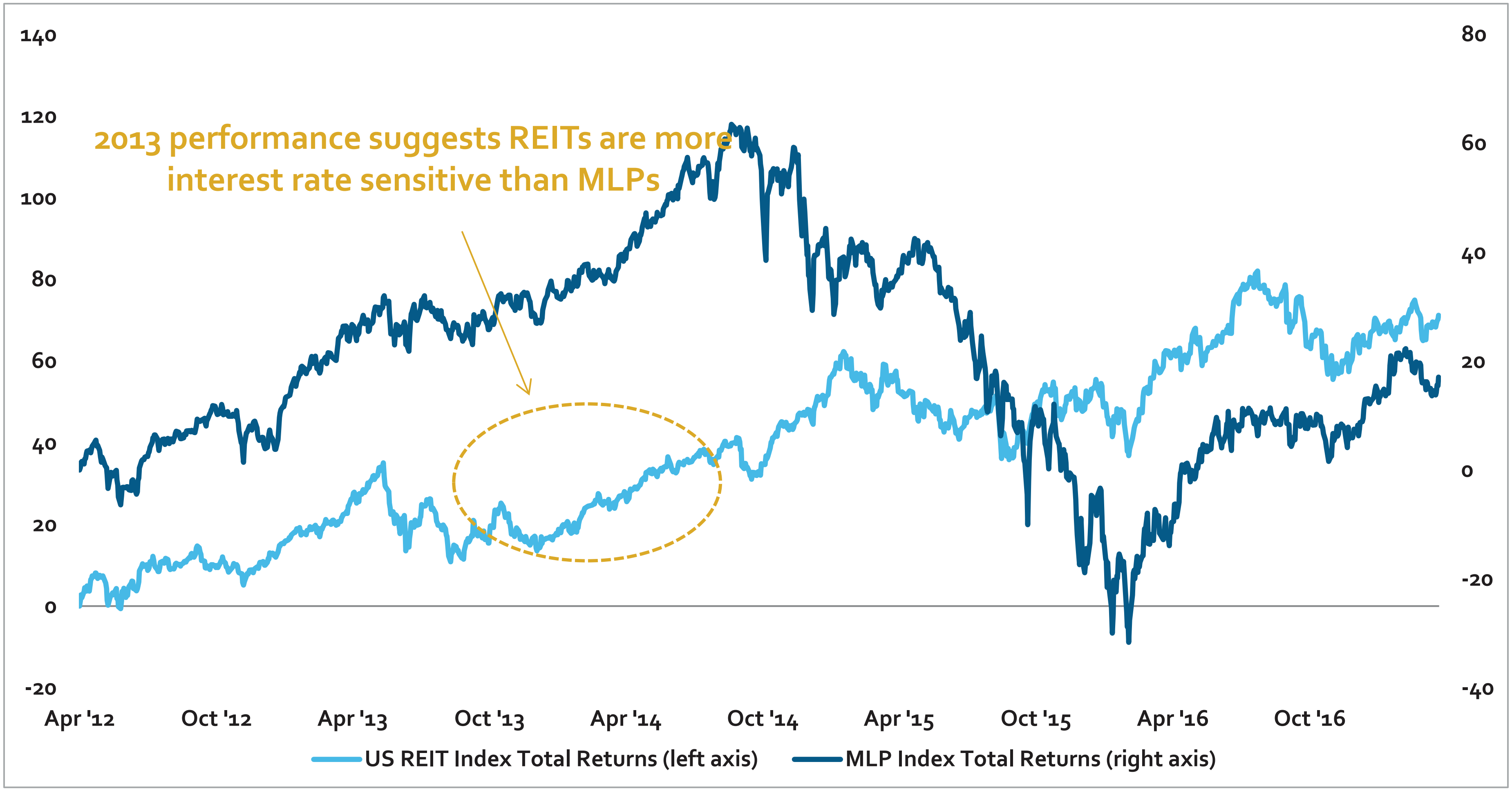
Selective MLP Investing May Reduce Overall Portfolio Risk

Cash Flow Stability	Type of Business	Contract Length	Revenue Type	Exposure to Commodity Prices	Types of Customers
Very High	Natural Gas Pipelines	10+ Years	Rental fee / "Ship-or-pay"	Little	Gas distributors, Utilities, Producers, Marketers, and other
	Crude Oil Pipelines	5-10+ Years	Rental fee / Volume	Little	Refiners, Producers, Financials
	Storage	3-5 years	Rental fee / Volume	Little (forward curve, contango)	Utilities, Marketers, Financials
	Refined Prod. Pipelines	1-5 Years	Rental fee / Volume	Little	Refiners, Marketers
	NGL Pipelines	1-5 Years	Rental fee / Volume	Little	Petrochemical plants, Producers
	Gathering	Ranging from month-to-month to life of lease dedications	Rental fee / Volume	Little	Producers
	Fractionation	Typically short-term contracts but trending more long-term	Fee-based / "Frac-or-pay"	Little	Producers
	Rail	1-5 Years	Fee-based / Distance	Little	Refiners, Producers
	Terminals	1-3 Years	Volume / Ancillary services	Little (contango)	Refiners, Financials
	Processing	Month-to-month to life of lease dedications	Fee-per-car / Distance	More (NGL prices, contract mix)	Producers
	Marine Shipping	1-3 years	Fee-based / Indexed charter rates	Little	Refiners, Petrochemical companies, Integrateds, Marketers
Very Low	E&P Research	--	Market rates / Hedging	Significant	Midstream operators

Source: Morgan Stanley & Co. Research.

MLPs May Be Less Interest Rate Sensitive Than REITs

As of March 31, 2017

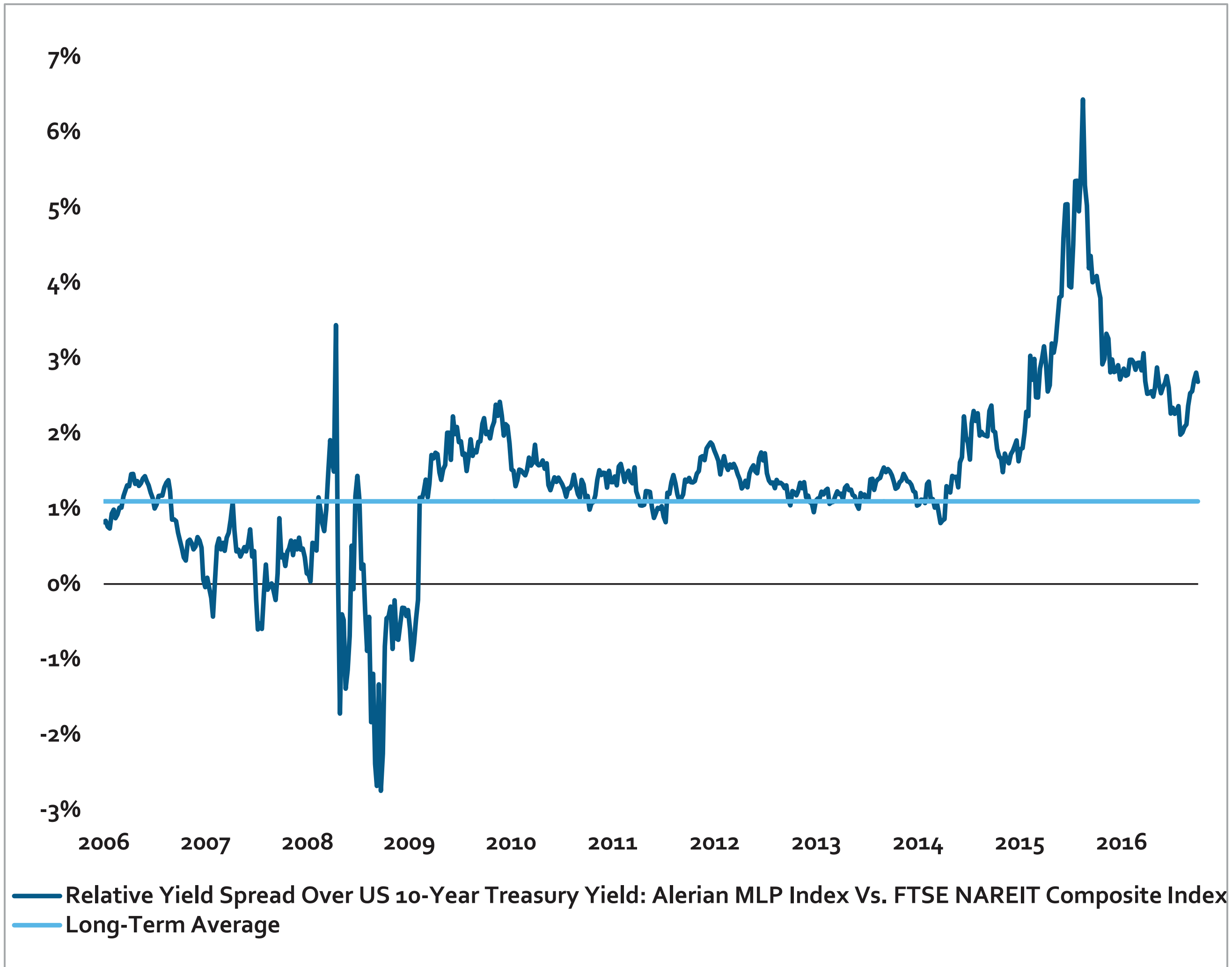


Source: Bloomberg, Morgan Stanley Wealth Management GIC. Alerian MLP Index and FTSE NAREIT Index used for MLP index and US REIT index total returns.

MLP Yield Spreads Relative to REITs Suggest MLPs More Attractive

Relative Yield Spreads: MLPs Vs. REITs

As of March 31, 2017



Relative Total Return: MLPs Vs. REITs[1]			
Date	3-Month	6-Month	12-Month
10/6/2006	4.7%	18.0%	17.8%
2/9/2007	20.2%	21.9%	32.8%
9/19/2008	16.5%	42.9%	41.2%
9/18/2009	9.7%	11.3%	16.0%
5/13/2011	7.6%	9.1%	1.6%
7/22/2011	11.4%	12.2%	5.0%
5/11/2012	1.5%	4.1%	5.3%
11/9/2012	0.7%	-0.2%	14.4%
2/28/2014	3.1%	9.6%	-17.4%
Average	**8.37%**	**14.33%**	**12.97%**

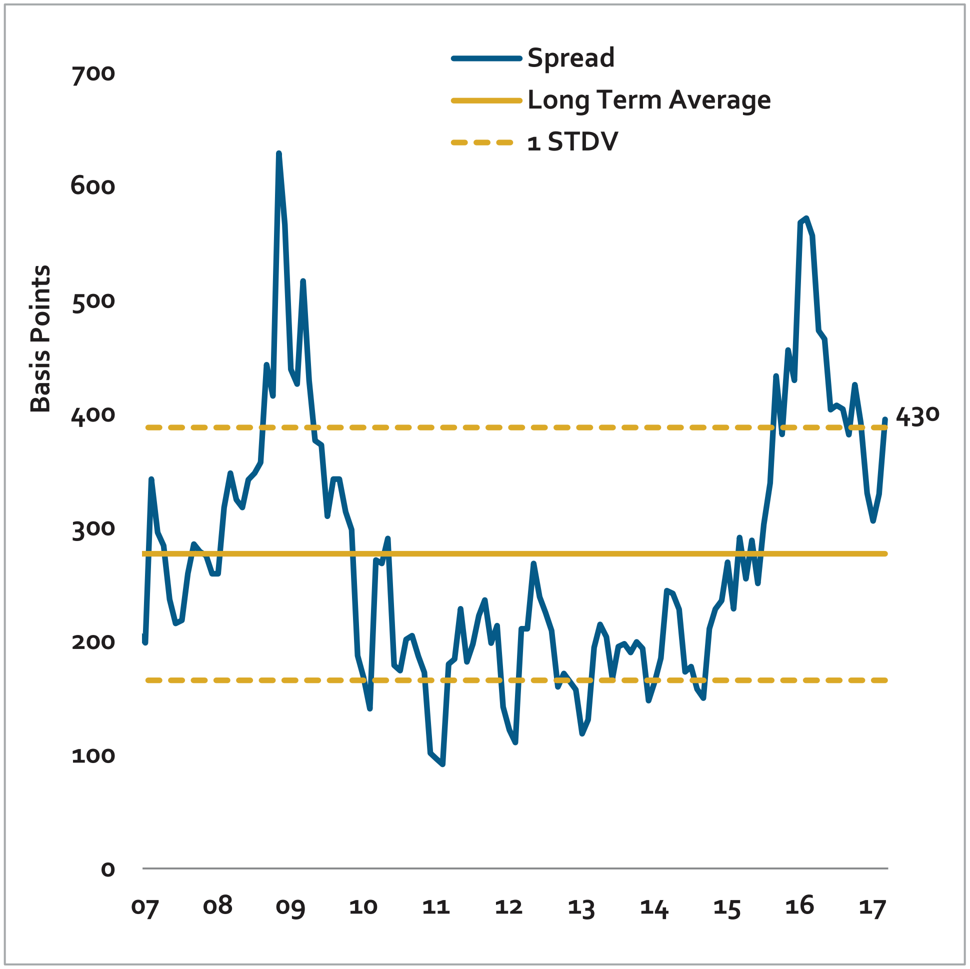
(1) Periods when the Alerian MLP Index Vs. FTSE NAREIT Composite Index relative yield spread over US 10-Year Treasury yield have exceeded 1.5%

Source: Bloomberg, FactSet, Morgan Stanley Wealth Management GIC. Alerian MLP Index and FTSE NAREIT Composite Index yields are shown beginning June 30, 2006.

MLPs Could Be a Key Beneficiary of Increased Shale Production While Providing Potential Income in a Low-Interest-Rate World

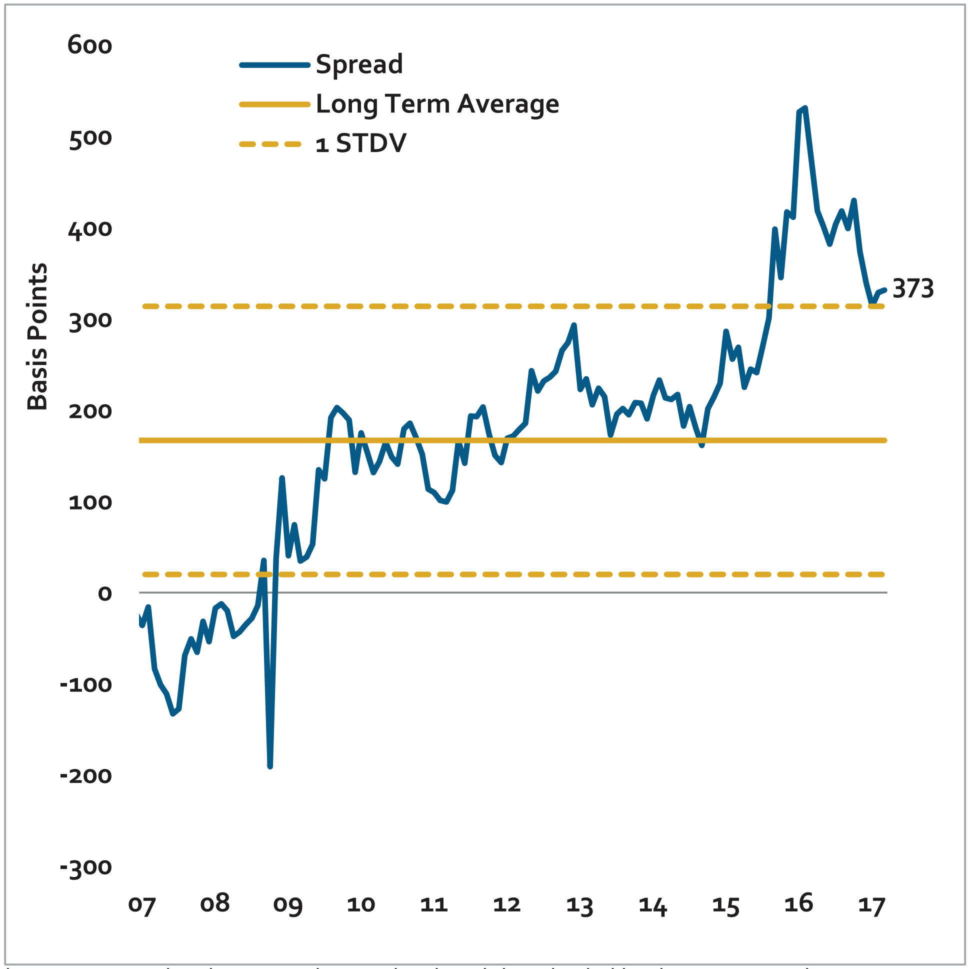
MLP Distribution Rate vs. S&P 500 Utilities Dividend Yield

As of May 31, 2017



MLP Distribution Rate vs. Baa Bond Yield

As of May 31, 2017



Source: Bloomberg, Morgan Stanley Wealth Management Investment Resources. Distribution rate is the most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return of capital. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.

Criteria in Selecting MLP Managers

Criteria in Selecting MLP Managers

INVESTMENT PROCESS & CHARACTERISTICS

- Talented and deep investment team
- Clearly articulated process
- Repeatable and consistent process
- Strong security selection

BUSINESS

- Strong investment culture
- Low personnel turnover
- Extensive resources
- Equitable distribution of employee ownership

OPERATIONS & COMPLIANCE

- Documented policy and procedures
- Representative composite performance
- Reasonable asset levels
- Documented code of ethics

Source: Morgan Stanley Wealth Management

MLP Investment Vehicles: Characteristics & Tax Treatments

Separately Managed Accounts (SMAs)

- Managed account strategy that builds a portfolio of MLPs
- Not subject to income taxes at partnership level
- Individual MLPs pass through asset depreciation and other deductions
- Non-taxable accounts could be subject to UBTI. K-1 for each MLP held

Funds – Regulated Investment Company (RIC)

- RICs are considered pass-through entities and tax implications are passed to investors
- Limited to up to 25% publically traded partnership exposure
- Includes open-end funds, closed-end funds and ETFs
- In most cases no UBTI. No K-1, instead receive a 1099
- May induce notable performance differences from broad MLP universe

Funds – Non-Regulated Investment Company (Non-RIC)

- Structured as C-Corp and generally subject to 35% Federal tax rate at fund level
- Can allocate up to 100% to MLPs
- Includes open-end funds, closed-end funds and ETFs
- No UBTI. No K-1, instead receive a 1099
- May induce notable performance differences from broad MLP universe

Source: Morgan Stanley Wealth Management

Investment Characteristics of MLPs

- Growing free cash flow and yields
- Relatively “utility-like” business models
- Exposure to growing commodity consumption
- Exposure to the US energy infrastructure build
- Uncorrelated to US markets

Source: Morgan Stanley Wealth Management

Master Limited Partnerships

Energy Master Limited Partnerships (MLPs) are publically traded equity securities of businesses with income derived primarily from gathering, processing, transportation and storage of natural gas, oil and refined petroleum products.

MLPs have grown in popularity over the past few years, partly due to:

- Attractive distributions relative to other investments
- Exposure to the developing shale resources in North America
- Potential tax-advantaged status

Along with the growth in popularity, there are increasing options in the types of investment vehicles with exposure to MLPs.

Source: Morgan Stanley Wealth Management

DISCLOSURES

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

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

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

Strategy May Be Available as a Separately Managed Account or Mutual Fund Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program. In most Morgan Stanley Wealth Management investment advisory accounts, fees are deducted quarterly and have a compounding effect on performance. For example, on an advisory account with a 3% annual fee, if the gross annual performance is 6.00%, the compounding effect of the fees will result in a net performance of approximately 3.93% after one year, 1 after three years, and 21.23% after five years. **Conflicts of Interest:** GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an investment manager or fund in which a portion of his or her clients' assets are already invested. While such a recommendation is permissible, GIMA is responsible for the opinions expressed by GIMA. See the conflicts of interest section in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management for a discussion of other types of conflicts that may be relevant to GIMA's evaluation of managers and funds. In addition, Morgan

Stanley Wealth Management, MS & Co., managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs. Morgan Stanley Wealth Management, managers, MS & Co., and their affiliates receive compensation and fees in connection with these services. Morgan Stanley Wealth Management believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all of these companies from an account.

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

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

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

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

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

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

KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent **international securities**, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in **emerging markets and frontier markets**. **Small- and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. **High yield bonds** are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities' (TIPS)** coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments ("ESG")** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein. **Options** and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, **closed-end funds** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. **Alternative investments** often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are suitable only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing. Certain of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results. Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management. This is not a "research report" as defined by NASD Conduct Rule 2711 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or Morgan Stanley & Co. LLC or its affiliates. Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing. While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice. Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank. 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As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management's interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper. Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns. Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, "blow ups," or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial "lift" or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax-inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. An investment in a **target date portfolio** is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor's goals by the pre-established year or "target date." A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. **Managed futures** investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor's portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. **Rebalancing** does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. **Asset allocation and diversification** do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

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

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

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

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

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

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For index, indicator and survey definitions referenced in this report please visit the following: http://www.morganstanleyfa.com/public/projectfiles/id.pdf
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Global Investment Committee (GIC) Asset Allocation Models: The Asset Allocation Models are created by Morgan Stanley Wealth Management's GIC. **HYPOTHETICAL MODEL PERFORMANCE (GROSS):** Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC's strategic and tactical allocations as of the date of this report. The past performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date. **FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS:** None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley's standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio's annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients' returns. The impact of fees and/or expenses can be material. **insurance products disclosures: Variable annuities** are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a **variable annuity** through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value. **Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. **Ultrashort-term fixed income** asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk. **Master Limited Partnerships (MLPs): I**ndividual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk. The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. MLPs carry interest rate risk and may underperform in a rising interest rate environment. **Investing in commodities** entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention. **Physical precious metals** are non-regulated products. Precious metals are speculative investments, which may experience short-term and long term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be suitable for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. **REITs** investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions. Risks of **private real estate** include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery

Bonds. **Asset-backed securities** generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments. **Yields** are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision. **Credit ratings** are subject to change. The majority of $25 and $1000 par **preferred securities** are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price. The initial interest rate on a **floating-rate security** may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk. The market value of **convertible bonds** and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield. Some $25 or $1000 **par preferred securities** are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional 'dividend paying' perpetual preferred securities (traditional preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date. Companies paying **dividends** can reduce or cut payouts at any time. **Nondiversification:** For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors. The **indices selected by Morgan Stanley Wealth Management** to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies. **Growth investing** does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected. Any type of **continuous or periodic investment plan** does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels. **Duration**, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. This material is disseminated in the United States of America by Morgan Stanley Smith Barney LLC. 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M C R C S I P

MLPs
PRESENTATION FOR

MICHIGAN COUNTY ROAD COMMISSION
SELF-INSURANCE POOL

JUNE 2017

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This report must be accompanied by a separate profile document or other report for each mutual fund and exchange-traded fund (ETF), referred to herein as "fund" or "funds", shown in this report, and for each investment manager shown in this report and approved by Morgan Stanley to be offered to investors in any investment advisory program in which you may invest. These separate documents show, for each manager and fund, various information which may include both gross and net performance (which may be more up-to-date than the gross performance shown in this report).

Morgan Stanley has prepared this report for your personal use, at your request, to help you evaluate the asset allocation, investment disciplines and investment managers/funds shown in this report. It is for informational purposes only. It is not a recommendation of a particular portfolio, investment manager or fund. It is not tax or legal advice. The report is based on information you gave Morgan Stanley about your financial situation, investment objectives, risk tolerance and investment time horizon.

IT IS TO BE PRESENTED TO YOU IN A ONE-ON-ONE PRESENTATION WITH YOUR MORGAN STANLEY FINANCIAL ADVISOR OR PRIVATE WEALTH ADVISOR SO THAT YOU HAVE AN OPPORTUNITY TO ASK QUESTIONS. IT IS ONLY TO BE USED IN CONNECTION WITH INVESTMENT ADVISORY PROGRAMS AND NOT BROKERAGE ACCOUNTS.

If you asked us to do so, we have included one or more investment managers/funds that have not been approved by Morgan Stanley to be offered to investors in any investment advisory program in which you may invest. Morgan Stanley does not and will not recommend any such manager/fund for investment in these programs, and has included the manager/fund in the report solely at your request and for your information. The performance shown in this report for any such managers or funds could differ materially from their performance in investment advisory programs offered by firms other than Morgan Stanley. If you have invested with any such manager/fund through another firm, we recommend that you seek information from that firm on the manager's or fund's gross and net performance in its programs.

This report is not complete unless it contains all pages (as indicated in the page numbering below). Please see "Important Notes About Performance" and "Important Notes About this Report" for other important information (including the effect of fees and a summary of the risks associated with particular investment disciplines).

Prepared Exclusively For: Michigan County Road Commission Self-Insurance Pool

Manager Analysis

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Investments and services offered through Morgan Stanley Smith Barney LLC.

Morgan Stanley

Important Notes About Performance

The performance data in this report is historical. Past performance does not guarantee future results.

GROSS PERFORMANCE
The past performance and statistics for investment managers in this report are calculated based on gross performance and do not reflect the deduction of investment management fees and expenses (including Morgan Stanley program fees) that would apply if you invest with any of these managers. The past performance for funds in this report is, and statistics calculated use, gross performance. Returns reflect the funds' internal fees and expenses (such as the funds' management fees and 12b-1 fees), but do not reflect any Morgan Stanley program fees (nor any sales charge or brokerage commission that might apply if you purchased fund shares outside of our investment advisory programs). If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns.

NET PERFORMANCE
See the accompanying investment manager profiles for each investment manager in this report for net performance information on the manager. See the accompanying Morningstar profiles for each fund in the report for standardized fund performance (i.e. returns net of any maximum sales charges that apply if you purchase the fund outside of our investment advisory programs) and also returns net of the maximum annual investment advisory fees that apply if you purchase the fund in one of our investment advisory programs. You should carefully read the manager/fund profiles, which may contain more up-to-date performance information than in this report.

NOTE ABOUT ETF PERFORMANCE
For ETFs, performance shown is based on net asset value (NAV). The Morningstar profile that must accompany this report also shows performance based on market price.

COMPOUNDING EFFECT OF FEES AND EXPENSES
The impact of fees and expenses can be material. In most Morgan Stanley investment advisory accounts, fees are deducted quarterly and have a compounding effect on performance. For example, on an account with a 1% annual fee, if the gross annual performance is 6%, the compounding effect of the fees will result in a net performance of approximately 4.94% after one year, 4.81% after three years and 4.66% after five years.

GENERAL DISCLOSURE
The investment return and principal value of an investment will fluctuate so that an investor's shares in a fund, when redeemed, may be worth more or less than their original cost, and investments in separately managed accounts may be worth more or less than the original amount. Current performance may be lower or higher than the performance quoted. For performance data for a fund current to the most recent month end, please either contact the fund (at the toll-free number or website address specified in that fund's profile given to you with this report) or call your Financial Advisor or Private Wealth Advisor at the toll-free number on the cover page of this report.

You would not necessarily have obtained the performance results shown in this report if you had invested with these managers or funds for the periods indicated. Actual performance results of accounts vary due to factors such as the timing of contributions and withdrawals, client restrictions, rebalancing schedules, and fees and costs. THE SELECTION OF MANAGERS/FUNDS IN THIS REPORT MAY REFLECT THE BENEFIT OF HINDSIGHT BASED ON HISTORICAL RATES OF RETURN.

In this report, all performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

See the applicable Morgan Stanley ADV brochure for an explanation of the fees and charges that would apply if you invest with an investment manager or in a fund through a Morgan Stanley investment advisory program. See "Important Notes About This Report" for information on the sources of performance information in this report.

Manager and Fund Designations

Managers shown in this report may be approved managers offered in some or all of Morgan Stanley's Consulting and Evaluation Services program, Fiduciary Services program or Select UMA program. Please ask your Financial Advisor or Private Wealth Advisor about availability in particular programs. See "Important Notes About This Report" for more information on how Morgan Stanley approves managers for these programs.

Any strategies designated with "GIS" in this report are managed in the Global Investment Solutions program by a team of portfolio managers employed by Morgan Stanley or third party subadvisors.
For managers in Morgan Stanley's investment advisory programs, the following terms have the following meanings:
(S-CLOSE) Closed to new accounts but open to additional assets for existing clients.
(H-CLOSE) Closed to new accounts as well as existing clients.

The "Inception Date" is, for separately managed accounts, the date when the investment manager began managing the applicable investment discipline and, for funds, the date the fund was established. In either case, this date may be before the investment discipline or fund became available in any applicable Morgan Stanley investment advisory program.

Inception Date(s):

Center Coast Cap. Adv. Center Coast MLP SMA -S	June 2007	N/A
Cushing Management, LP Cushing MLP Instl Alph Strt -S	June 2006	N/A
Tortoise MLP & Pipeline Instl	May 2011	TORIX
Alerian MLP Index	December 1995	N/A

If any mutual funds are listed above, their ticker symbols are shown. "N/A" appears instead for separately managed accounts, exchange traded funds, and indices.

Performance Summary

STANDARD DEVIATION: Standard deviation measures the degree to which a portfolio's performance varies from its average performance during a period. See "Definitions of Statistical Terms Used" for more details.

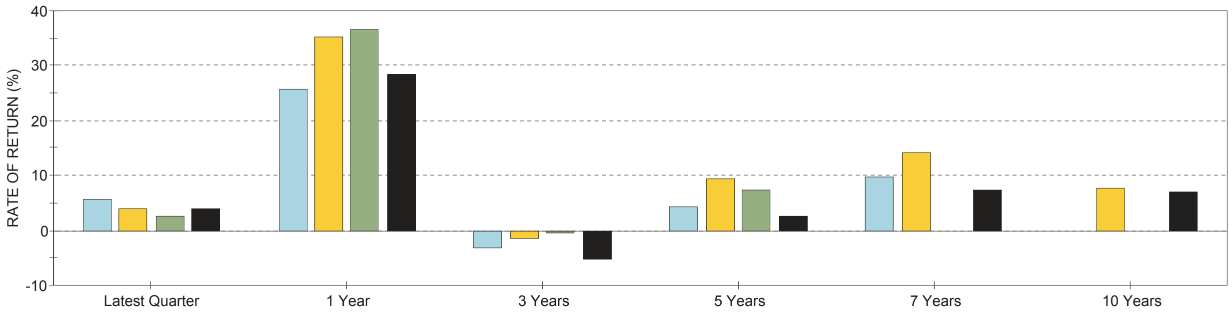
BENCHMARK INDICES: For comparison purposes, this report uses one or more benchmark indices. See "Important Notes About This Report" for more information on benchmark indices.

Performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

In this report, "N/A" means that a manager's or fund's performance track record is not long enough to calculate the applicable data.

Performance

Periods ending March 31, 2017



	Latest Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
Center Coast Cap. Adv. Center Coast MLP	5.59	25.86	-3.26	4.28	9.59	N/A
Cushing Management, LP Cushing MLP Instl	3.78	35.29	-1.61	9.49	14.28	7.59
Tortoise MLP & Pipeline Instl	2.43	36.49	-0.46	7.43	N/A	N/A
Alerian MLP Index	3.95	28.32	-5.17	2.64	7.51	7.15

STANDARD DEVIATION (%)

	3 Years	5 Years	7 Years	10 Years
Center Coast Cap. Adv. Center Coast MLP SMA -S	20.92	19.25	17.96	N/A
Cushing Management, LP Cushing MLP Instl Alph Strt -S	24.96	23.13	21.73	27.90
Tortoise MLP & Pipeline Instl	24.39	20.35	N/A	N/A
Alerian MLP Index	22.07	19.70	18.48	20.75

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

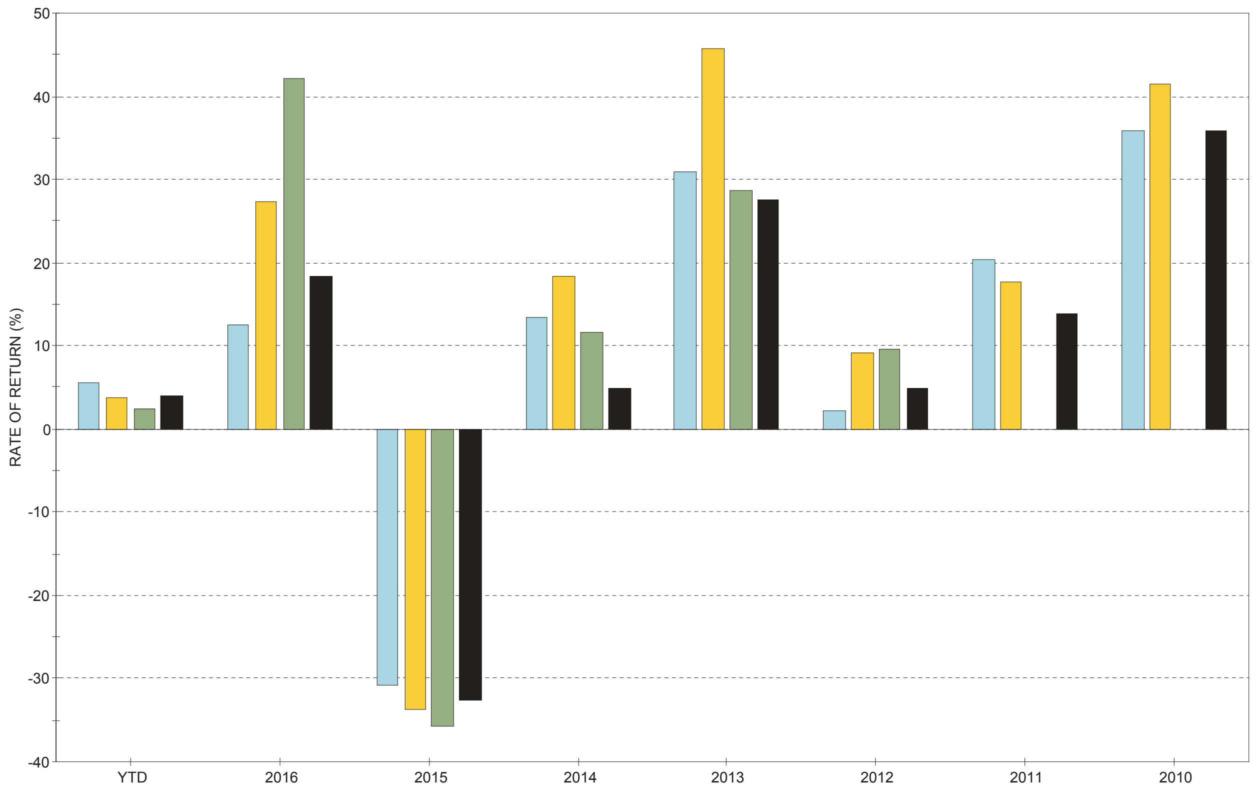
Performance Summary

BENCHMARK INDICES: For comparison purposes, this report uses a weighted combination of the benchmark indices shown on this page for the investment managers and/or funds in the asset allocation according to the relevant percentages ("Index-Hypothetical Portfolio"). See "Important Notes About This Report" for more information on benchmark indices. For more information on the particular benchmarks shown in this report, please ask your Financial Advisor or Private Wealth Advisor.

Performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

In this report, "N/A" means that the Hypothetical Portfolio's or Index-Hypothetical Portfolio's performance track record is not long enough to calculate the applicable data.

Calendar Performance



	YTD	2016	2015	2014	2013	2012	2011	2010
Center Coast Cap. Adv. Center Co	5.59	12.52	-30.84	13.46	30.90	2.27	20.34	35.89
Cushing Management, LP Cushing	3.78	27.29	-33.71	18.26	45.74	9.06	17.78	41.55
Tortoise MLP & Pipeline Instl	2.43	42.12	-35.80	11.66	28.60	9.58	N/A	N/A
Alerian MLP Index	3.95	18.31	-32.59	4.80	27.58	4.80	13.88	35.85

Morgan Stanley

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Performance Summary

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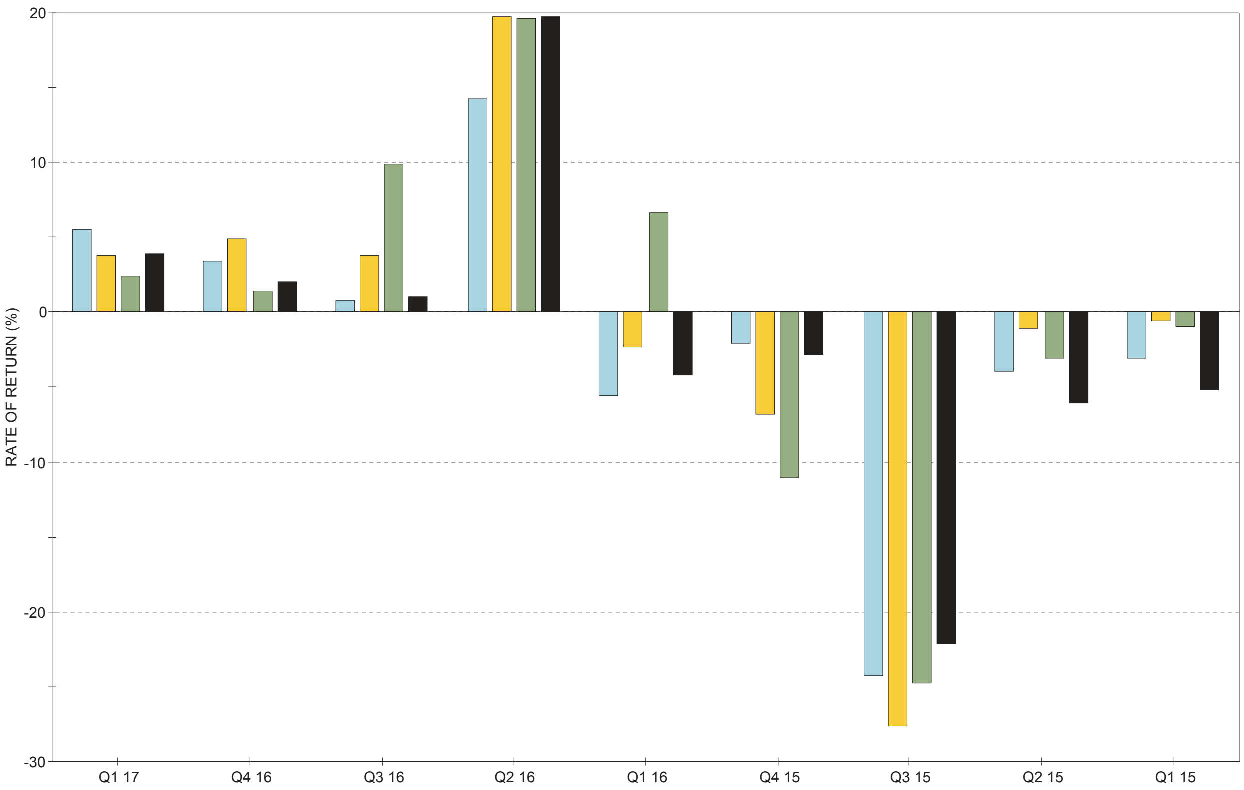
Quarterly Returns



	Q1 17	Q4 16	Q3 16	Q2 16	Q1 16	Q4 15	Q3 15	Q2 15	Q1 15
Center Coast Cap. Adv. Center	5.59	3.45	0.85	14.25	-5.60	-2.02	-24.21	-3.95	-3.03
Cushing Management, LP Cush	3.78	4.89	3.74	19.80	-2.35	-6.81	-27.66	-1.13	-0.54
Tortoise MLP & Pipeline Instl	2.43	1.37	9.85	19.66	6.65	-11.10	-24.73	-3.12	-0.97
Alerian MLP Index	3.95	2.04	1.07	19.70	-4.17	-2.76	-22.10	-6.09	-5.23

Morgan Stanley

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Consulting Group

Performance Summary

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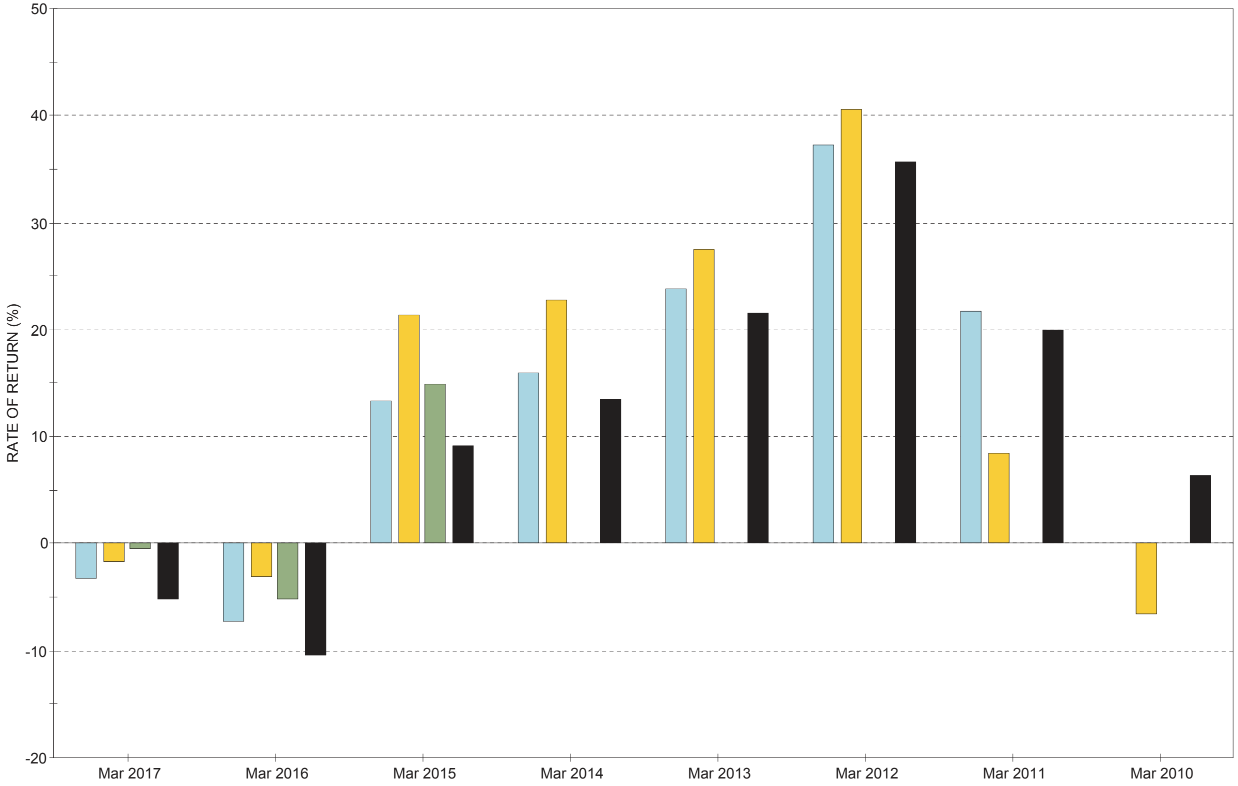
In this report, "N/A" means that the Hypothetical Portfolio's or Index-Hypothetical Portfolio's performance track record is not long enough to calculate the applicable data.

Looking at performance over rolling periods allows us to identify long-term trends.

This page shows annualized returns for three-year periods ending as of the last day in each specified month.

3-Year Rolling Performance



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
Center Coast Cap. Adv. Center Co	-3.26	-7.32	13.31	15.98	23.75	37.17	21.72	N/A
Cushing Management, LP Cushing	-1.61	-3.13	21.35	22.80	27.44	40.63	8.39	-6.54
Tortoise MLP & Pipeline Instl	-0.46	-5.22	14.88	N/A	N/A	N/A	N/A	N/A
Alerian MLP Index	-5.17	-10.31	9.20	13.53	21.49	35.77	20.03	6.32

Morgan Stanley

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Consulting Group

Performance Summary

BENCHMARK INDICES: For comparison purposes, this report uses a weighted combination of the benchmark indices shown on this page for the investment managers and/or funds in the asset allocation according to the relevant percentages ("Index-Hypothetical Portfolio"). See "Important Notes About This Report" for more information on benchmark indices. For more information on the particular benchmarks shown in this report, please ask your Financial Advisor or Private Wealth Advisor.

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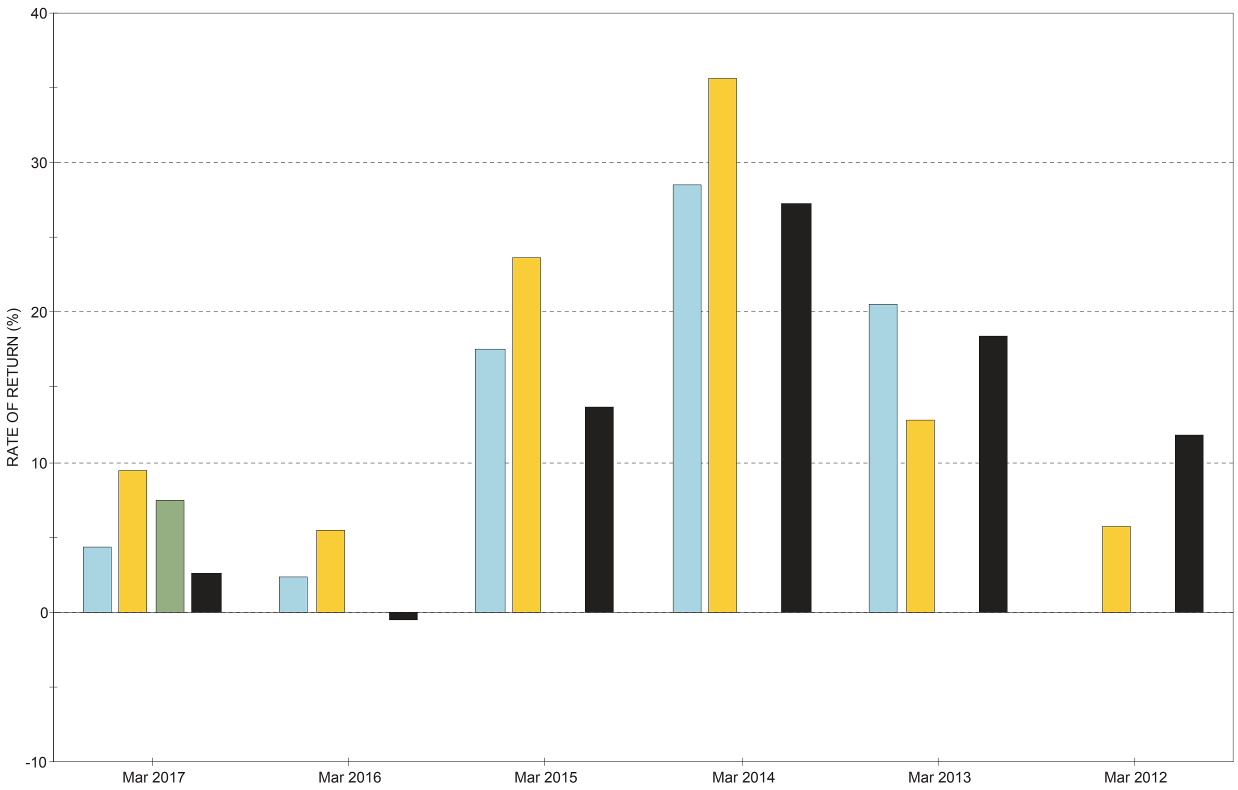
Looking at performance over rolling periods allows us to identify long-term trends.

This page shows annualized returns for five-year periods ending as of the last day in each specified month.

5-Year Rolling Performance



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012
Center Coast Cap. Adv. Center Coast MLP	4.28	2.34	17.51	28.58	20.51	N/A
Cushing Management, LP Cushing MLP Instl	9.49	5.45	23.65	35.66	12.80	5.72
Tortoise MLP & Pipeline Instl	7.43	N/A	N/A	N/A	N/A	N/A
Alerian MLP Index	2.64	-0.55	13.67	27.30	18.45	11.86

Morgan Stanley

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Universe Rankings

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the rate of return of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

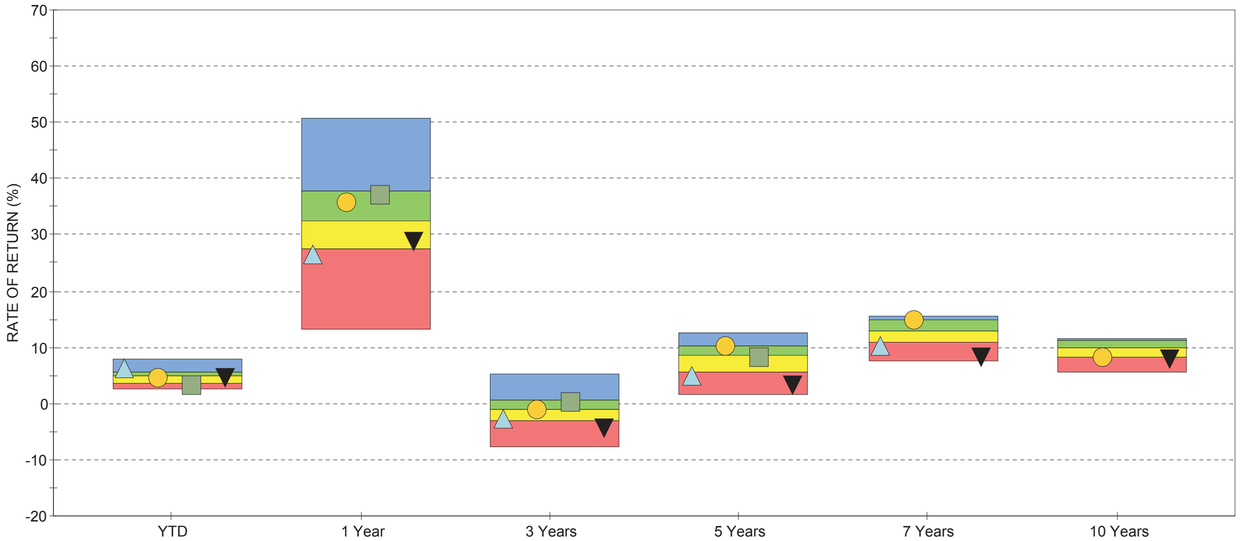
The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

Performance returns for periods of more than one year are annualized returns and for periods of less than one year are not annualized.

Performance

Periods ending March 31, 2017

PSN MASTER LIMITED PARTNERSHIPS



	YTD	1 Year	3 Years	5 Years	7 Years	10 Years
HIGH (0.05)	7.15	50.21	4.42	11.77	14.93	10.78
FIRST QUARTILE	5.07	37.24	-0.24	9.58	14.26	10.66
MEDIAN	4.13	31.68	-1.62	7.78	12.27	9.23
THIRD QUARTILE	3.01	26.95	-3.58	4.99	10.11	7.69
LOW (0.95)	1.83	12.51	-8.30	0.86	6.80	4.86
MEAN	4.20	31.31	-2.24	7.17	11.83	8.69
VALID COUNT	35	35	32	27	23	13

	YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	5.59	17	25.86	80	-3.26	62	4.28	81	9.59	86	N/A	N/A
● Cushing Management, LP Cushing MLP Instl Alph Strt -S	3.78	68	35.29	31	-1.61	46	9.49	25	14.28	21	7.59	76
■ Tortoise MLP & Pipeline Instl	2.43	91	36.49	31	-0.46	28	7.43	51	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	3.95	60	28.32	62	-5.17	87	2.64	85	7.51	91	7.15	84

Morgan Stanley

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Universe Rankings

This page shows ranking data for three-year rolling periods ending as of the last day in each specified month.

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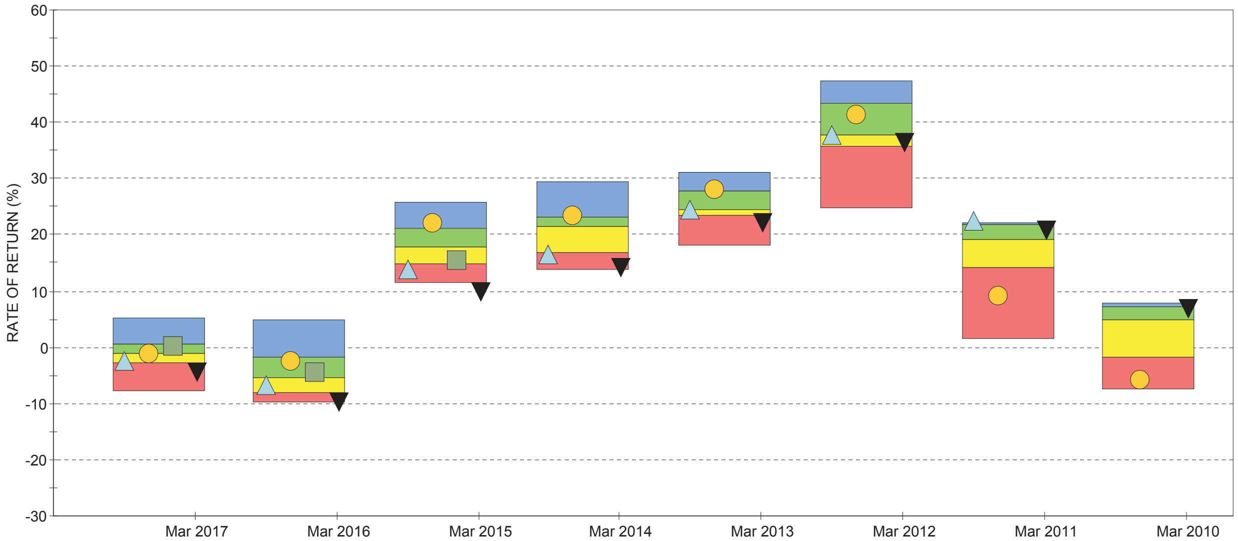
The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

3-Year Rolling Performance

PSN MASTER LIMITED PARTNERSHIPS



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	4.42	4.31	25.21	28.86	30.57	46.59	21.45	7.33
FIRST QUARTILE	-0.24	-2.53	20.57	22.53	27.03	42.84	21.09	6.54
MEDIAN	-1.62	-6.21	17.18	20.90	23.86	37.04	18.57	4.23
THIRD QUARTILE	-3.58	-8.60	14.02	16.06	22.81	34.94	13.48	-2.54
LOW (0.95)	-8.30	-10.53	10.69	13.02	17.37	23.98	0.93	-8.19
MEAN	-2.24	-5.53	17.20	19.86	24.75	37.43	16.03	1.30
VALID COUNT	32	30	28	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	-3.26	62	-7.32	63	13.31	85	15.98	80	23.75	56	37.17	38	21.72	1	N/A	N/A
● Cushing Management, LP Cushing MLP Instl Alph Strt -S	-1.61	46	-3.13	26	21.35	21	22.80	19	27.44	21	40.63	27	8.39	85	-6.54	84
■ Tortoise MLP & Pipeline Instl	-0.46	28	-5.22	40	14.88	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	-5.17	87	-10.31	93	9.20	99	13.53	96	21.49	95	35.77	66	20.03	42	6.32	23

Morgan Stanley

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Universe Rankings

This page shows ranking data for five-year rolling periods ending as of the last day in each specified month.

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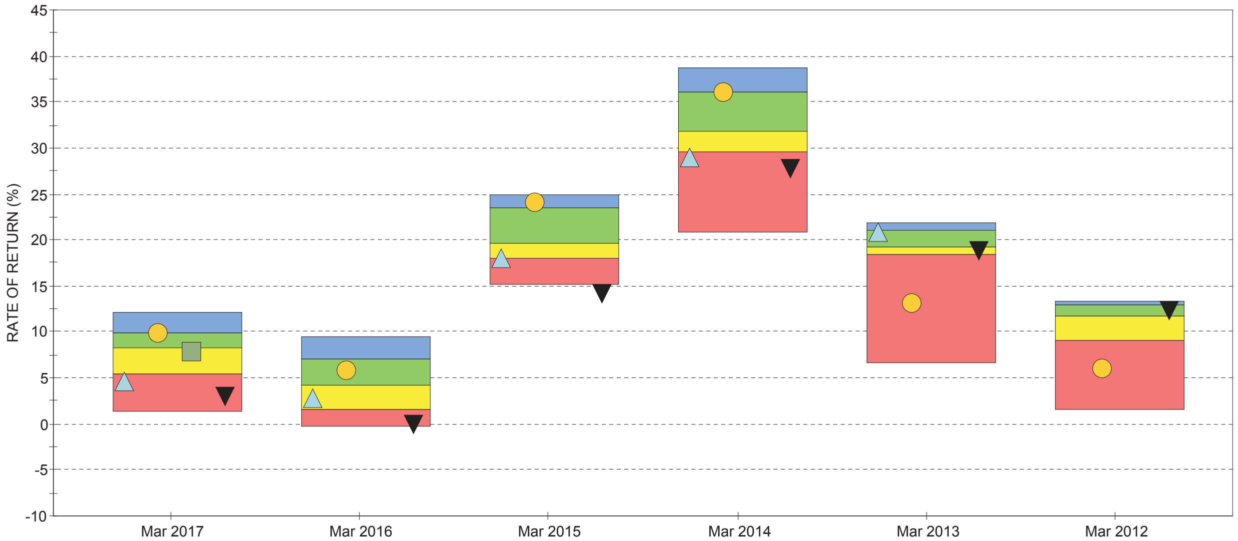
5-Year Rolling Performance

PSN MASTER LIMITED PARTNERSHIPS



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012
HIGH (0.05)	11.77	9.16	24.43	38.22	21.53	12.90
FIRST QUARTILE	9.58	6.73	23.17	35.72	20.65	12.49
MEDIAN	7.78	3.86	19.22	31.48	18.84	11.26
THIRD QUARTILE	4.99	1.24	17.52	29.13	18.00	8.58
LOW (0.95)	0.86	-0.66	14.82	20.45	6.24	1.20
MEAN	7.17	4.06	19.86	31.60	17.73	9.69
VALID COUNT	27	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	4.28	81	2.34	65	17.51	78	28.58	83	20.51	21	N/A	N/A
○ Cushing Management, LP Cushing MLP Instl Alph Strt -S	9.49	25	5.45	34	23.65	21	35.66	22	12.80	92	5.72	84
■ Tortoise MLP & Pipeline Instl	7.43	51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	2.64	85	-0.55	96	13.67	99	27.30	94	18.45	57	11.86	38

Morgan Stanley

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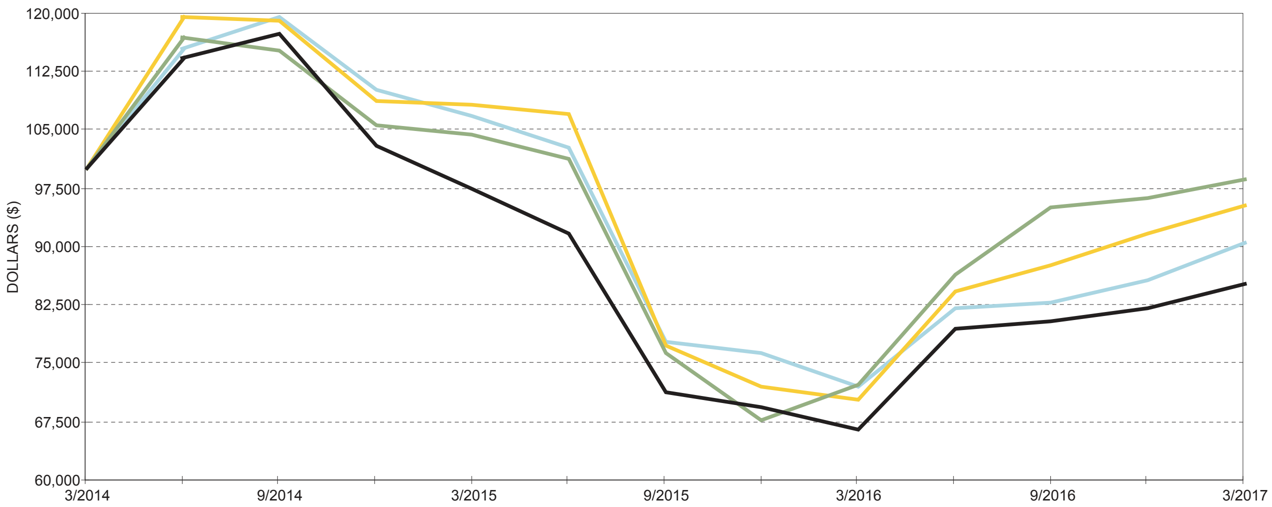
Growth of a $100,000 Investment

This chart shows the growth of an investment of $100,000 over a period of time. The table shows the annualized return ("ROR") and standard deviation ("Std Dev") for both the investment managers/funds and each benchmark index over the specified period. It also shows the annualized excess return, cumulative growth, cumulative excess return, beta and Sharpe Ratio for each investment manager/fund and benchmark index against the risk benchmark index specified below the table.

See "Definitions of Statistical Terms Used" for more details.

3-Year Cumulative Performance

Period ending March 31, 2017



3-YEAR PERFORMANCE STATISTICS

	ROR	Ann. Excess Return	Cum Growth	Cum Excess	Std Dev	Beta	Sharpe Ratio
Center Coast Cap. Adv. Center Coast	-3.26	1.71	-9.46	5.25	20.92	0.92	-0.16
Cushing Management, LP Cushing MLP	-1.61	4.20	-4.76	9.96	24.96	1.08	-0.07
Tortoise MLP & Pipeline Instl	-0.46	4.92	-1.39	13.33	24.39	0.99	-0.03
Alerian MLP Index	-5.17	0.00	-14.72	0.00	22.07	1.00	-0.24

RISK BENCHMARK USED FOR THIS ANALYSIS: Alerian MLP Index

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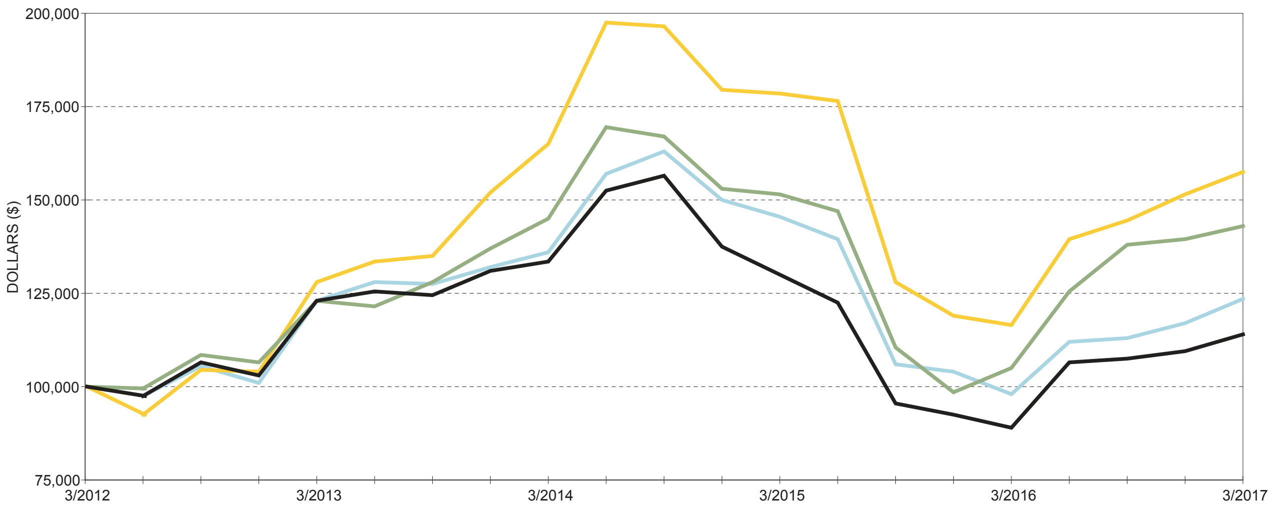
Growth of a $100,000 Investment

This chart shows the growth of an investment of $100,000 over a period of time. The table shows the annualized return ("ROR") and standard deviation ("Std Dev") for both the investment managers/funds and each benchmark index over the specified period. It also shows the annualized excess return, cumulative growth, cumulative excess return, beta and Sharpe Ratio for each investment manager/fund and benchmark index against the risk benchmark index specified below the table.

See "Definitions of Statistical Terms Used" for more details.

5-Year Cumulative Performance

Period ending March 31, 2017



5-YEAR PERFORMANCE STATISTICS

	ROR	Ann. Excess Return	Cum Growth	Cum Excess	Std Dev	Beta	Sharpe Ratio
Center Coast Cap. Adv. Center Coast	4.28	1.47	23.30	9.38	19.25	0.96	0.21
Cushing Management, LP Cushing MLP	9.49	7.23	57.33	43.42	23.13	1.12	0.40
Tortoise MLP & Pipeline Instl	7.43	4.48	43.08	29.16	20.35	0.93	0.36
Alerian MLP Index	2.64	0.00	13.92	0.00	19.70	1.00	0.13

RISK BENCHMARK USED FOR THIS ANALYSIS: Alerian MLP Index

Consulting Group

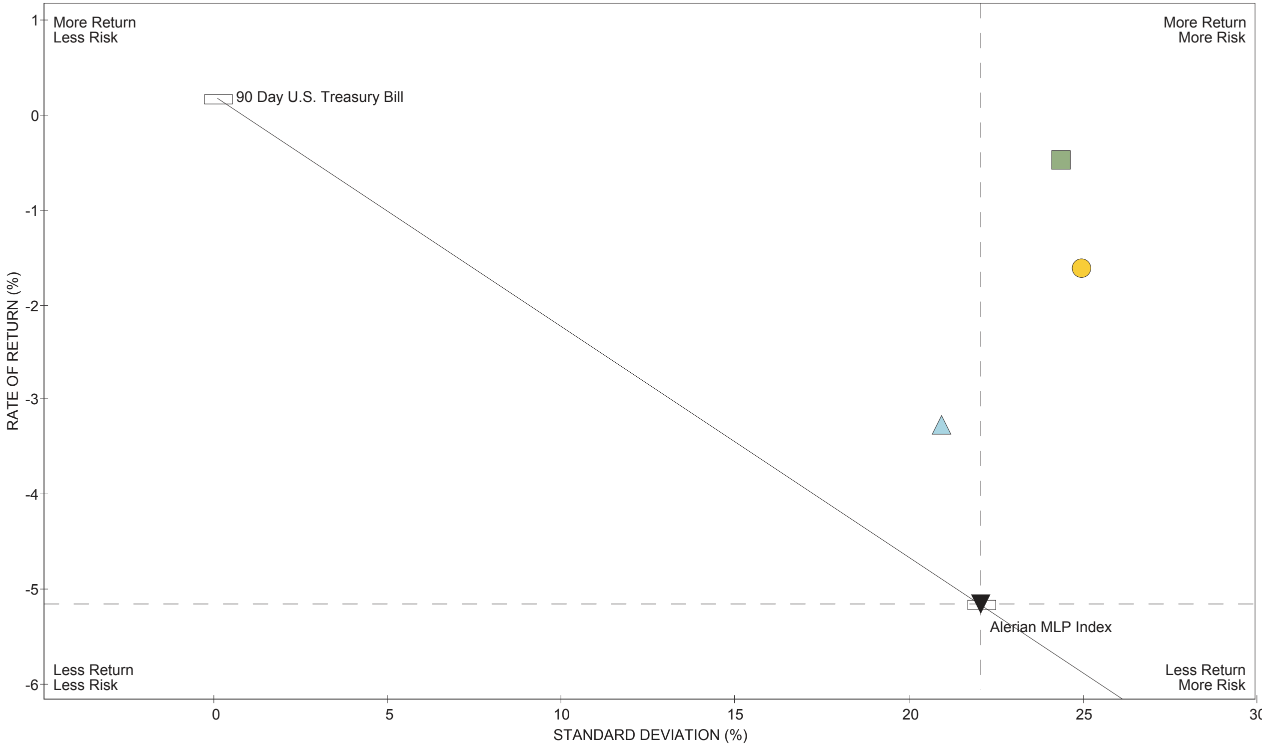
Risk/Reward Analysis

The Risk/Reward Scatter Graph compares the performance ("ROR") and risk (as measured by standard deviation) of each investment manager/fund and benchmark index (if applicable) against the risk benchmark index specified below the table. The table shows various statistics.

See "Definitions of Statistical Terms Used" for more details.

3-Year Risk/Reward Scatter Graph

Period ending March 31, 2017



	ROR	Std Dev	Alpha	Beta	Sharpe Ratio	Tracking Error	Info Ratio	R-Squared
△ Center Coast Cap. Adv. Center Co	-3.26	20.92	1.58	0.92	-0.16	5.05	0.38	0.95
○ Cushing Management, LP Cushing	-1.61	24.96	4.74	1.08	-0.07	7.39	0.48	0.92
□ Tortoise MLP & Pipeline Instl	-0.46	24.39	5.44	0.99	-0.03	10.79	0.44	0.80
▼ Alerian MLP Index	-5.17	22.07	0.00	1.00	-0.24	0.00	0.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: ALERIAN MLP INDEX

Morgan Stanley

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

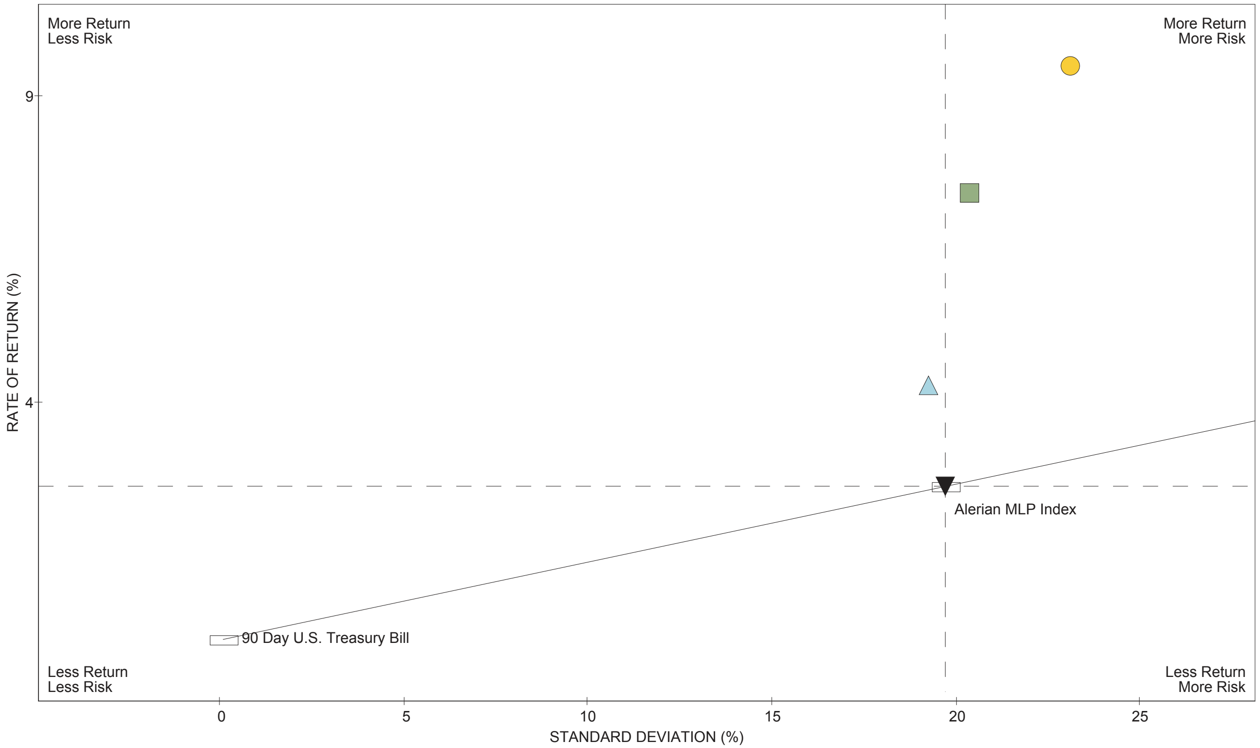
Risk/Reward Analysis

The Risk/Reward Scatter Graph compares the performance ("ROR") and risk (as measured by standard deviation) of each investment manager/fund and benchmark index (if applicable) against the risk benchmark index specified below the table. The table shows various statistics.

See "Definitions of Statistical Terms Used" for more details.

5-Year Risk/Reward Scatter Graph

Period ending March 31, 2017



	ROR	Std Dev	Alpha	Beta	Sharpe Ratio	Tracking Error	Info Ratio	R-Squared
△ Center Coast Cap. Adv. Center Co	4.28	19.25	1.75	0.96	0.21	4.20	0.39	0.95
● Cushing Management, LP Cushing	9.49	23.13	6.99	1.12	0.40	7.58	0.90	0.90
■ Tortoise MLP & Pipeline Instl	7.43	20.35	5.22	0.93	0.36	9.18	0.52	0.80
▼ Alerian MLP Index	2.64	19.70	0.00	1.00	0.13	0.00	0.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: ALERIAN MLP INDEX

Morgan Stanley

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Consulting Group

Market Capture Analysis

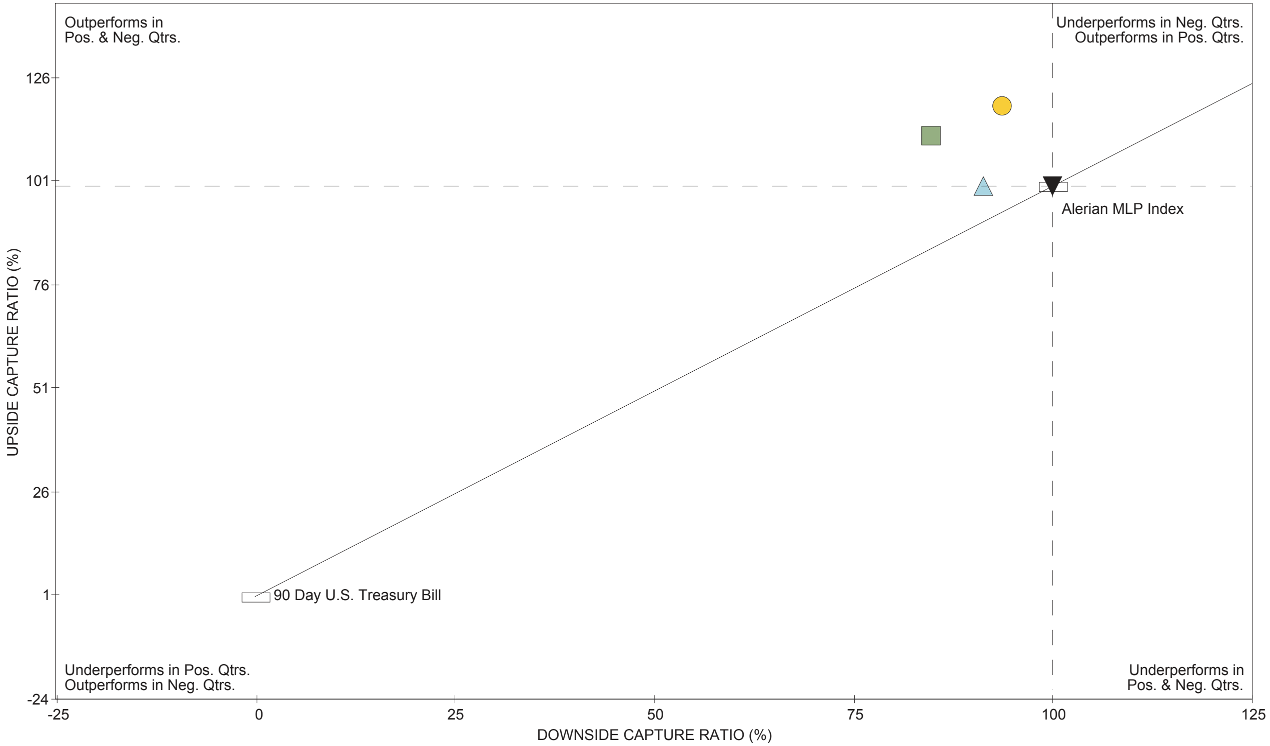
The Capture Ratio Graph measures the market share captured by each investment manager/fund and benchmark index (if applicable) against the risk benchmark specified below the table.

The table shows the number of positive and negative quarterly return periods in the series, the best and worst quarter returns, the upside capture ratio and downside capture ratio calculated with respect to the risk benchmark and R-Squared with respect to the risk benchmark.

See "Definitions of Statistical Terms Used" for more details.

3-Year Capture Ratio Graph

Period ending March 31, 2017



	Pos Periods	Neg Periods	Best Qtr	Worst Qtr	Up Cap Ratio	Down Cap Ratio	R-Squared
△ Center Coast Cap. Adv. Center Coast	6.00	6.00	15.35	-24.21	99.97	91.16	0.95
○ Cushing Management, LP Cushing MLP	5.00	7.00	19.80	-27.66	119.05	93.57	0.92
■ Tortoise MLP & Pipeline Instl	6.00	6.00	19.66	-24.73	112.17	84.67	0.80
▼ Alerian MLP Index	6.00	6.00	19.70	-22.10	100.00	100.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: ALERIAN MLP INDEX

Morgan Stanley

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

Market Capture Analysis

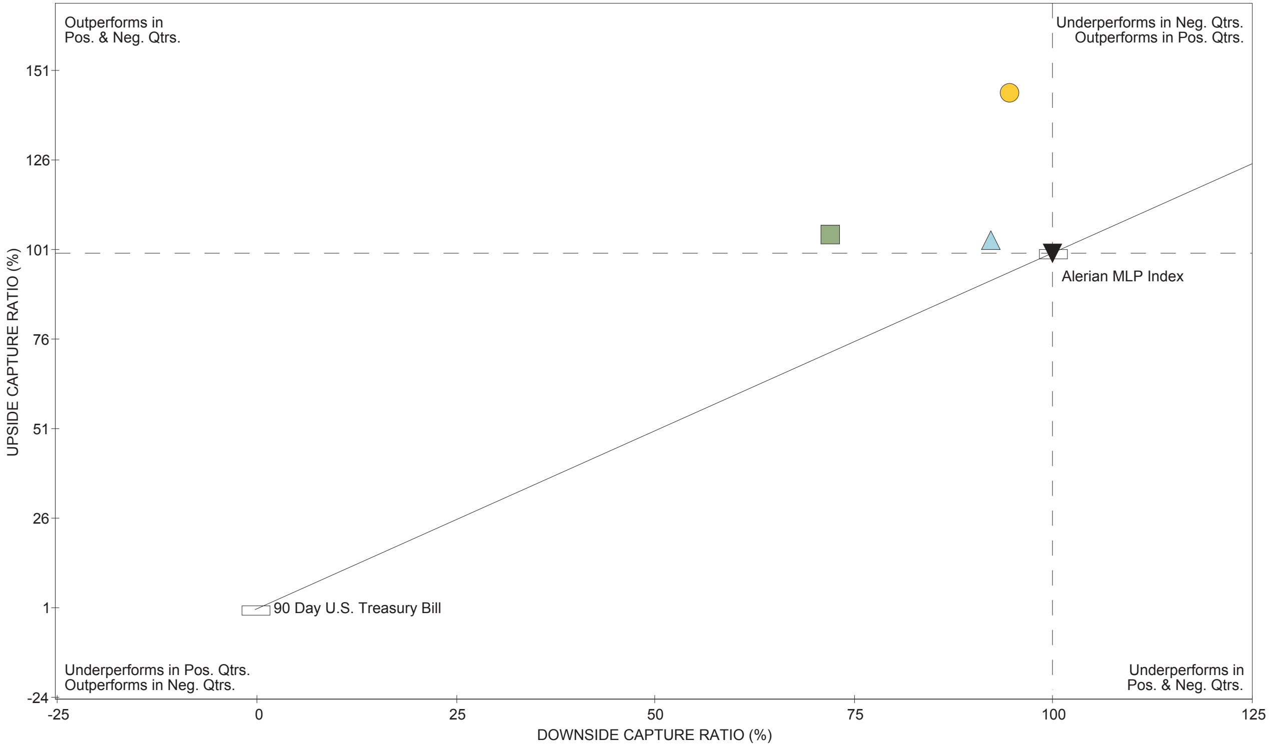
The Capture Ratio Graph measures the market share captured by each investment manager/fund and benchmark index (if applicable) against the risk benchmark specified below the table.

The table shows the number of positive and negative quarterly return periods in the series, the best and worst quarter returns, the upside capture ratio and downside capture ratio calculated with respect to the risk benchmark and R-Squared with respect to the risk benchmark.

See "Definitions of Statistical Terms Used" for more details.

5-Year Capture Ratio Graph

Period ending March 31, 2017



	Pos Periods	Neg Periods	Best Qtr	Worst Qtr	Up Cap Ratio	Down Cap Ratio	R-Squared
△ Center Coast Cap. Adv. Center Coast	11.00	9.00	21.79	-24.21	103.49	92.25	0.95
○ Cushing Management, LP Cushing MLP	11.00	9.00	22.73	-27.66	144.62	94.41	0.90
□ Tortoise MLP & Pipeline Instl	11.00	9.00	19.66	-24.73	104.87	72.05	0.80
▼ Alerian MLP Index	11.00	9.00	19.74	-22.10	100.00	100.00	1.00

RISK BENCHMARK USED FOR THIS ANALYSIS: ALERIAN MLP INDEX

Consulting Group

Alpha Analysis

This page shows annualized alpha ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the alpha of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

Alpha is a measure of risk-adjusted return. A positive alpha indicates that a manager/fund (or benchmark index, if applicable) produced returns above the expected level at the level of risk (as represented by the risk benchmark specified below the table) and vice versa for a negative alpha. The higher the alpha, the better.

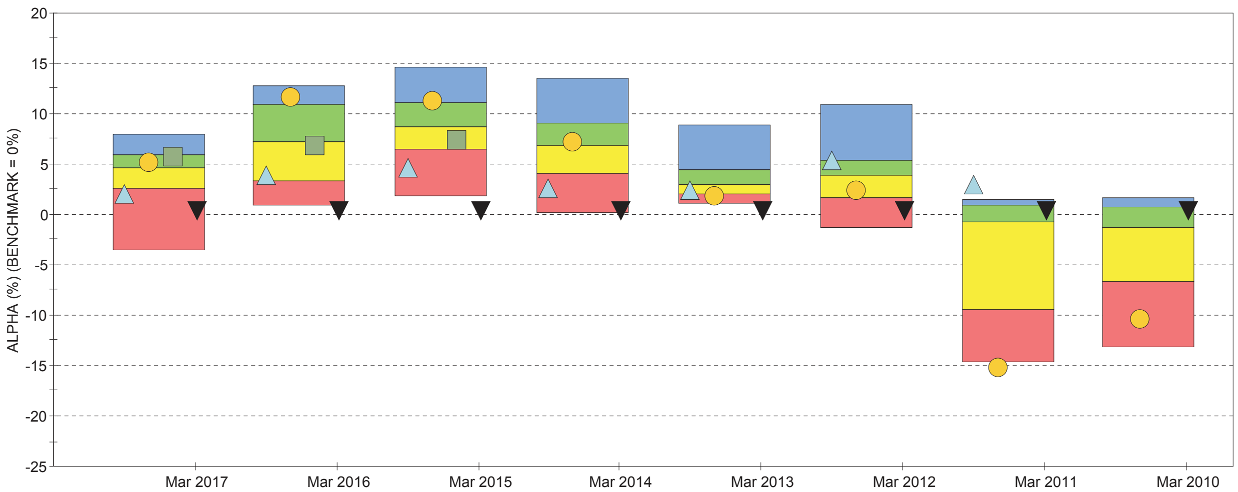
An alpha of 0 implies that a manager/fund (and benchmark index, if applicable) has provided a return that is equivalent to the risk benchmark return used in this analysis.

Looking at alpha over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

PSN MASTER LIMITED PARTNERSHIPS



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	7.68	12.50	14.27	13.20	8.48	10.54	1.10	1.35
FIRST QUARTILE	5.57	10.51	10.66	8.78	4.16	4.91	0.50	0.43
MEDIAN	4.27	6.77	8.29	6.57	2.50	3.53	-1.18	-1.68
THIRD QUARTILE	2.20	2.90	6.12	3.70	1.64	1.36	-9.84	-6.96
LOW (0.95)	-3.95	0.58	1.57	-0.18	0.75	-1.76	-15.03	-13.48
MEAN	3.39	6.57	8.04	6.14	3.14	3.45	-4.28	-4.26
VALID COUNT	32	30	28	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	1.58	75	3.49	70	4.24	92	2.29	92	2.02	65	4.91	16	2.65	1	N/A	N/A
● Cushing Management, LP Cushing MLP Instl Alph Strt -S	4.74	40	11.21	13	11.00	17	6.83	34	1.51	91	2.07	66	-15.48	99	-10.66	84
■ Tortoise MLP & Pipeline Instl	5.44	25	6.41	53	7.11	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	0.00	87	0.00	99	0.00	99	0.00	96	0.00	99	0.00	94	0.00	28	0.00	23

RISK BENCHMARK USED FOR THIS ANALYSIS: Alerian MLP Index

Morgan Stanley

Consulting Group

Beta Analysis

3-Year Rolling Periods

This page shows annualized beta ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the beta of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

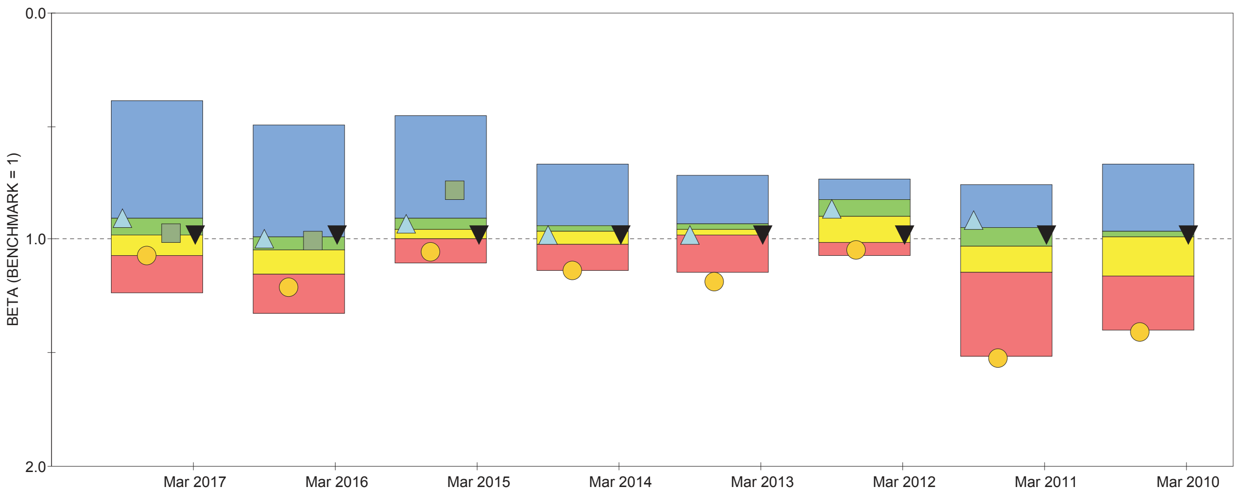
Beta is a measure of the sensitivity of each manager/fund (and benchmark index, if applicable) to market movements (as represented by the risk benchmark index specified below the table).

A beta of 1.0 indicates that the manager's/fund's portfolio (or benchmark index, if applicable) moved with the market. A beta less than 1.0 means that the manager's/fund's portfolio (or benchmark index, if applicable) was less volatile than the market. A beta greater than 1.0 indicates that the manager's/fund's portfolio (or benchmark index, if applicable) was more volatile than the market.

Looking at beta over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

PSN MASTER LIMITED PARTNERSHIPS



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.95)	0.40	0.51	0.47	0.68	0.73	0.75	0.78	0.68
FIRST QUARTILE	0.92	1.01	0.92	0.95	0.95	0.84	0.96	0.98
MEDIAN	0.99	1.07	0.97	0.98	0.97	0.91	1.04	1.01
THIRD QUARTILE	1.09	1.17	1.01	1.03	1.00	1.03	1.16	1.18
LOW (0.05)	1.25	1.34	1.12	1.15	1.16	1.09	1.53	1.41
MEAN	0.98	1.07	0.95	0.98	0.98	0.92	1.04	1.03
VALID COUNT	32	30	28	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	0.92	29	1.01	30	0.95	40	1.00	70	1.00	74	0.88	45	0.93	22	N/A	N/A
○ Cushing Management, LP Cushing MLP Instl Alph Strt -S	1.08	69	1.23	90	1.07	86	1.15	99	1.20	99	1.06	89	1.54	99	1.43	99
□ Tortoise MLP & Pipeline Instl	0.99	47	1.02	37	0.80	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	1.00	57	1.00	24	1.00	75	1.00	70	1.00	79	1.00	67	1.00	43	1.00	31

RISK BENCHMARK USED FOR THIS ANALYSIS: Alerian MLP Index

Morgan Stanley

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Sharpe Ratio Analysis

This page shows the annualized Sharpe ratio ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the Sharpe ratio of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

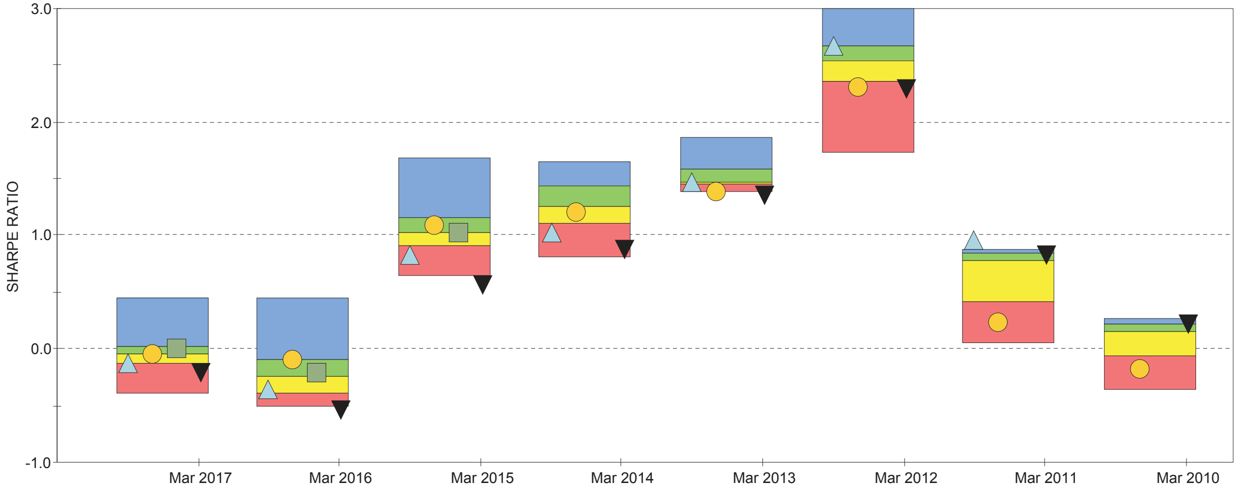
The Sharpe ratio measures the efficiency, or excess return per unit of volatility, of a manager's/fund's (or benchmark index's, if applicable) returns. It evaluates a manager's/fund's (or benchmark index's, if applicable) performance on a volatility-adjusted basis. The higher the Sharpe ratio, the better.

Looking at the Sharpe ratio over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

PSN MASTER LIMITED PARTNERSHIPS



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	0.42	0.42	1.65	1.61	1.83	2.97	0.84	0.23
FIRST QUARTILE	-0.02	-0.12	1.12	1.40	1.54	2.63	0.80	0.18
MEDIAN	-0.07	-0.27	1.00	1.23	1.44	2.51	0.74	0.11
THIRD QUARTILE	-0.16	-0.43	0.88	1.08	1.41	2.33	0.38	-0.10
LOW (0.95)	-0.42	-0.53	0.62	0.78	1.35	1.69	0.02	-0.40
MEAN	-0.10	-0.26	1.02	1.23	1.49	2.45	0.58	0.00
VALID COUNT	32	30	28	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	-0.16	75	-0.39	63	0.79	89	0.99	92	1.44	47	2.63	22	0.93	1	N/A	N/A
● Cushing Management, LP Cushing MLP Instl Alph Strt -S	-0.07	46	-0.14	23	1.06	39	1.17	61	1.35	99	2.28	77	0.20	92	-0.20	76
■ Tortoise MLP & Pipeline Instl	-0.03	28	-0.25	43	0.98	53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	-0.24	87	-0.57	99	0.53	99	0.85	96	1.31	99	2.26	83	0.80	28	0.18	23

RISKLESS BENCHMARK USED FOR THIS ANALYSIS: 90 Day U.S. Treasury Bill

Morgan Stanley

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Tracking Error Analysis

This page shows the annualized tracking error ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the tracking error of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

Tracking error shows how closely each manager/fund (and benchmark index, if applicable) tracked the risk benchmark specified below the table. The lower the tracking error, the closer the tracking.

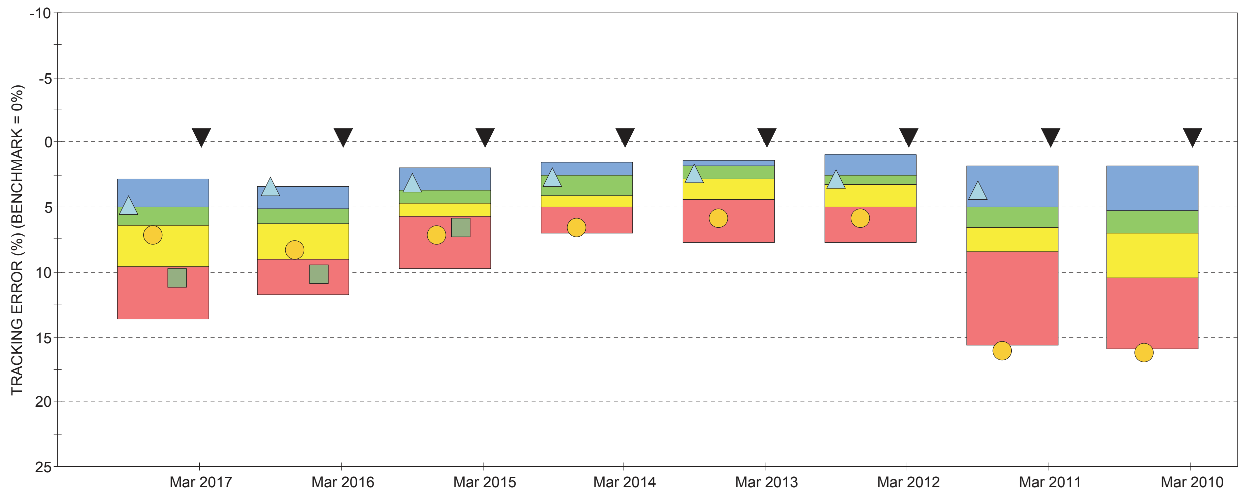
A tracking error of 0 implies that a manager/fund (and benchmark index, if applicable) has tracked the risk benchmark return used in this analysis exactly.

Looking at the tracking error over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

PSN MASTER LIMITED PARTNERSHIPS



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.95)	3.11	3.64	2.28	1.84	1.67	1.26	2.14	2.15
FIRST QUARTILE	5.29	5.36	3.96	2.77	2.08	2.85	5.26	5.60
MEDIAN	6.64	6.63	4.94	4.44	3.14	3.58	6.91	7.33
THIRD QUARTILE	9.91	9.27	5.98	5.28	4.70	5.30	8.78	10.68
LOW (0.05)	13.96	11.99	10.02	7.32	8.02	7.95	15.95	16.15
MEAN	7.45	7.17	5.22	4.23	3.62	3.91	7.06	7.64
VALID COUNT	32	30	28	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	5.05	22	3.73	4	3.33	18	2.94	27	2.69	48	3.10	39	4.01	22	N/A	N/A
○ Cushing Management, LP Cushing MLP Instl Alph Strt -S	7.39	54	8.55	70	7.47	90	6.90	99	6.18	87	6.07	84	16.36	99	16.43	99
□ Tortoise MLP & Pipeline Instl	10.79	88	10.40	90	6.85	79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1	0.00	1

RISK BENCHMARK USED FOR THIS ANALYSIS: Alerian MLP Index

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

Information Ratio Analysis

This page shows the annualized information ratio ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the information ratio of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

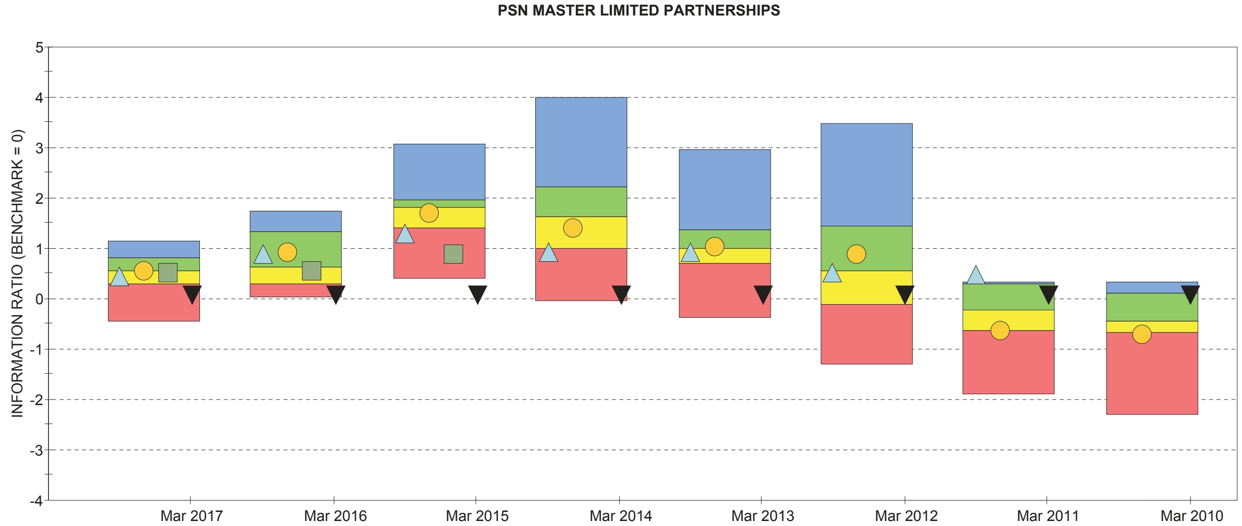
The information ratio measures the consistency with which the manager/fund (or benchmark index, if applicable) beats the risk benchmark specified below the table. The higher the information ratio, the better.

An information ratio of 0 implies that a manager/fund (or benchmark index, if applicable) has provided a return that is equivalent to the risk benchmark return used in this analysis.

Looking at the information ratio over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	1.07	1.67	2.99	3.92	2.88	3.40	0.26	0.24
FIRST QUARTILE	0.75	1.28	1.90	2.15	1.29	1.39	0.22	0.03
MEDIAN	0.48	0.57	1.74	1.56	0.93	0.47	-0.30	-0.53
THIRD QUARTILE	0.24	0.23	1.33	0.92	0.63	-0.18	-0.70	-0.73
LOW (0.95)	-0.51	-0.03	0.34	-0.10	-0.45	-1.38	-1.97	-2.37
MEAN	0.45	0.71	1.61	1.58	1.02	0.58	-0.39	-0.53
VALID COUNT	32	30	28	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	0.38	59	0.81	46	1.23	82	0.84	80	0.84	60	0.45	55	0.42	1	N/A	N/A
● Cushing Management, LP Cushing MLP Instl Alph Strt -S	0.48	50	0.84	40	1.63	57	1.35	57	0.96	47	0.80	33	-0.71	78	-0.78	76
■ Tortoise MLP & Pipeline Instl	0.44	50	0.49	63	0.83	85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	0.00	87	0.00	93	0.00	99	0.00	96	0.00	95	0.00	66	0.00	42	0.00	23

RISK BENCHMARK USED FOR THIS ANALYSIS: Alerian MLP Index

Morgan Stanley

R-Squared Analysis

This page shows the annualized R-squared ranking data for three-year rolling periods ending as of the last day in each specified month.

The ranking data used in this analysis has been provided by PSN Informa Investment Solutions Inc.

The chart is used to rank the R-squared of each manager/fund (and related benchmark index) against a specified universe of investment managers/funds. (Managers are compared to a universe of managers. Funds are compared to a universe of open-end funds. However, if this report shows both managers and funds, these are compared to a universe consisting of managers and open-end funds.)

The universe includes managers/funds offered in Morgan Stanley's investment advisory programs and managers/funds that do not participate in these programs.

The ranges of returns for the selected universe are represented by floating bars. Each bar is broken up into 4 quartiles. For example, the upper quartile represents the top 25% of the managers/funds in the particular universe for that specific time period. The returns of the selected managers/funds are plotted relative to the floating bars.

The "Valid Count" shows the number of managers/funds that make up the selected investment universe for each given time period.

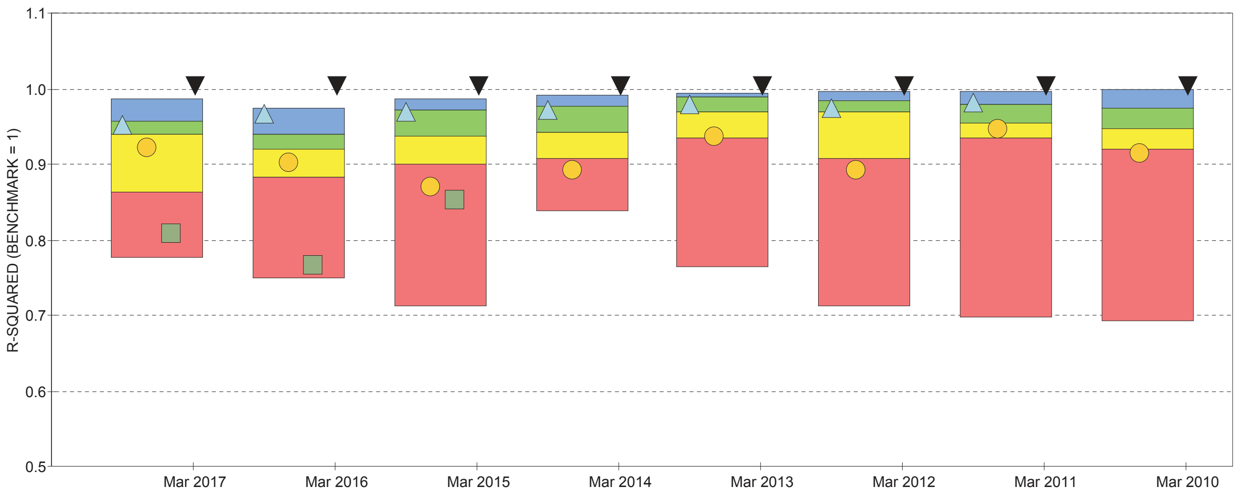
The R-squared figure for any period shows how much of a manager's/fund's (or benchmark index's, if applicable) variability was accounted for by the market (as represented by the risk benchmark specified below the table) during that period. An R-squared of 0 indicates no such correlation with the market, while an R-squared of 1 indicates perfect correlation.

Looking at the R-squared over rolling periods allows us to identify long-term trends.

See "Definitions of Statistical Terms Used" for more details.

3-Year Rolling Periods

PSN MASTER LIMITED PARTNERSHIPS



	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010
HIGH (0.05)	0.98	0.97	0.98	0.99	0.99	0.99	0.99	0.99
FIRST QUARTILE	0.95	0.94	0.97	0.97	0.98	0.98	0.97	0.97
MEDIAN	0.93	0.91	0.93	0.94	0.96	0.96	0.95	0.94
THIRD QUARTILE	0.86	0.88	0.90	0.90	0.93	0.90	0.93	0.91
LOW (0.95)	0.77	0.75	0.71	0.83	0.76	0.71	0.69	0.69
MEAN	0.90	0.90	0.92	0.93	0.95	0.93	0.93	0.93
VALID COUNT	32	30	28	26	23	18	14	13

	Mar 2017		Mar 2016		Mar 2015		Mar 2014		Mar 2013		Mar 2012		Mar 2011		Mar 2010	
	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK	VALUE	RANK
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	0.95	28	0.96	6	0.96	25	0.97	26	0.97	47	0.97	38	0.98	14	N/A	N/A
○ Cushing Management, LP Cushing MLP Instl Alph Strt -S	0.92	56	0.90	56	0.86	85	0.89	92	0.93	73	0.89	83	0.94	50	0.91	84
□ Tortoise MLP & Pipeline Instl	0.80	90	0.76	96	0.85	89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▼ Alerian MLP Index	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1	1.00	1

RISK BENCHMARK USED FOR THIS ANALYSIS: Alerian MLP Index

Morgan Stanley

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

Consulting Group

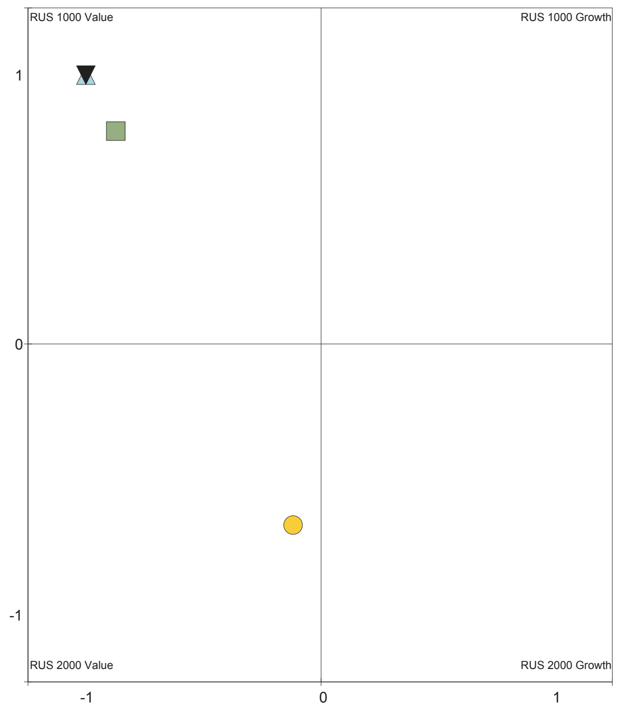
Style Analysis

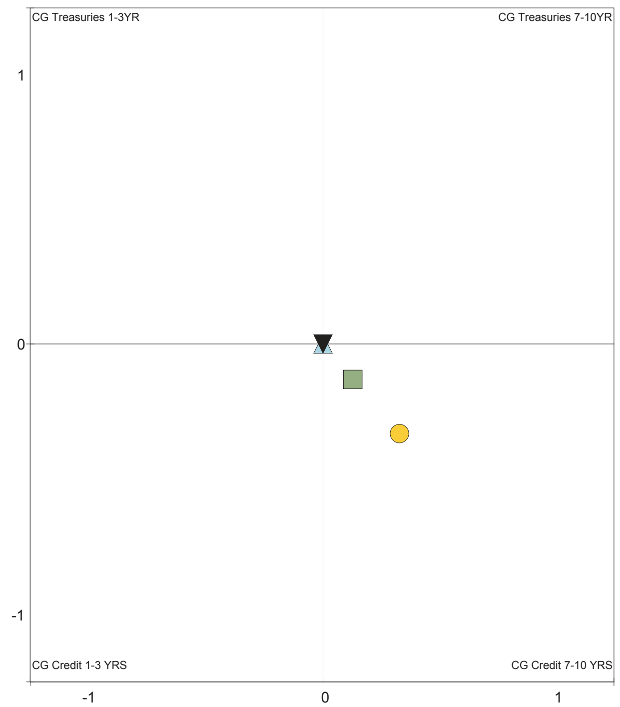
Style analysis is a measure for analyzing the style of a manager's/fund's (or benchmark index's) returns when compared with the quarterly returns on a number of selected style indices. These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes.

See "Definitions of Statistical Terms Used" for more details.

3-Year Style Quadrants

Period ending March 31, 2017





	STYLE VARIANCE	SELECTION VARIANCE
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	0.41	0.59
● Cushing Management, LP Cushing MLP Instl Alph Strt -S	0.23	0.77
■ Tortoise MLP & Pipeline Instl	0.29	0.71
▼ Alerian MLP Index	0.33	0.67

Morgan Stanley

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Consulting Group

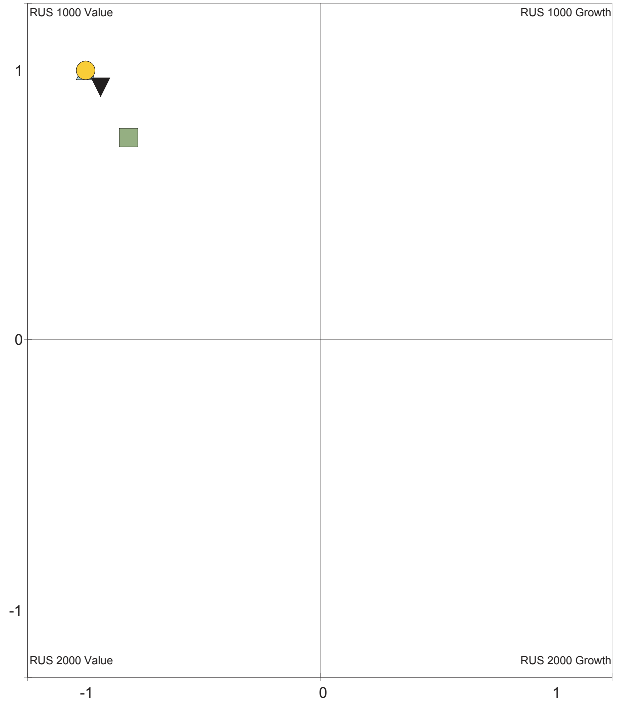
Style Analysis

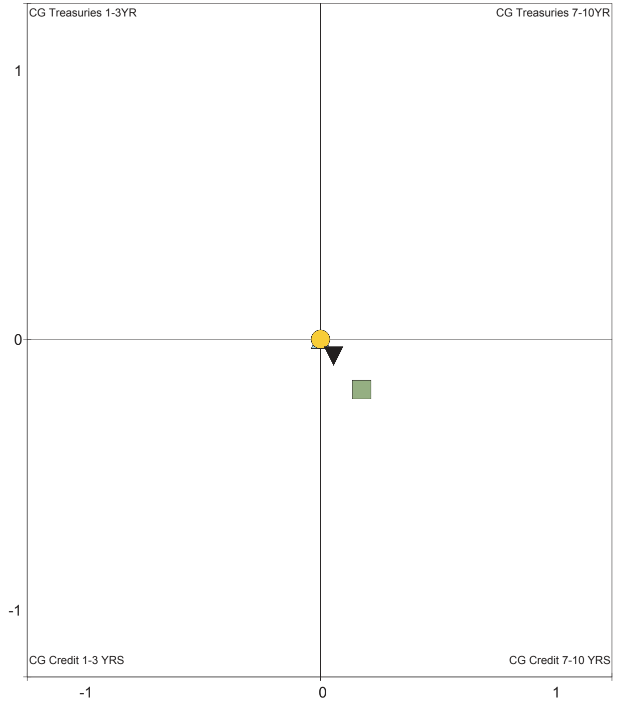
Style analysis is a measure for analyzing the style of a manager's/fund's (or benchmark index's) returns when compared with the quarterly returns on a number of selected style indices. These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes.

See "Definitions of Statistical Terms Used" for more details.

5-Year Style Quadrants

Period ending March 31, 2017





	STYLE VARIANCE	SELECTION VARIANCE
△ Center Coast Cap. Adv. Center Coast MLP SMA -S	0.45	0.55
● Cushing Management, LP Cushing MLP Instl Alph Strt -S	0.44	0.56
■ Tortoise MLP & Pipeline Instl	0.34	0.66
▼ Alerian MLP Index	0.41	0.59

Morgan Stanley

The performance data shows past performance. Past performance does not guarantee future results. The performance shown is gross performance, and all statistics are calculated using gross performance. If you engaged any investment manager or invested in any fund, fees and other expenses would reduce your returns. Please see the profiles given to you with this report for both gross and net performance information on each investment manager and fund available in the applicable Morgan Stanley programs, which may be more up-to-date than the performance information in this report. See "Important Notes About Performance" on page 2 and "Important Notes About This Report" later in this report.

Important Notes About This Report

PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. ACTUAL INDIVIDUAL ACCOUNT RESULTS WILL DIFFER FROM THE PERFORMANCE SHOWN IN THIS REPORT

INVESTMENT DECISIONS: Do not use this report as the sole basis for investment decisions. Do not select an allocation, investment disciplines or investment managers/funds based on performance alone. Consider, in addition to performance results, other relevant information about each investment manager or fund, as well as matters such as your investment objectives, risk tolerance and investment time horizon.

SOURCE OF PERFORMANCE INFORMATION FOR INVESTMENT MANAGERS AVAILABLE IN CONSULTING AND EVALUATION SERVICES, FIDUCIARY SERVICES OR SELECT UMA: Each investment manager included in this report that participates in one or more of the Consulting and Evaluation Services, Fiduciary Services or Select UMA programs ("Programs") has a track record of investing assets in the relevant investment discipline.The investment manager's gross performance track record shown in this report consists of its gross performance in either the Morgan Stanley or the Smith Barney form of the Fiduciary Services program (if that investment manager is in the Fiduciary Services program) for periods for which sufficient data is available. If the strategy or similar strategies are available in both the Morgan Stanley and Smith Barney forms of the program, this profile presents the composite for the strategy that is closest to the strategy currently offered in the Fiduciary Services program. If both strategies are equally close, the profile shows the longer of the two composites. For other periods, the gross performance track record is provided by the investment manager and consists of accounts managed by the investment manager in the same or a similar investment discipline, whether at Morgan Stanley or elsewhere (and may include institutional accounts, retail accounts and/or pooled investment vehicles such as mutual funds).

There may be differences between the performance in the different forms of the Fiduciary Services program, in different Programs, and between the performance in Programs and performance outside the Programs, due to, among other things, investment and operational differences. For example:

- Institutional accounts included in related performance may hold more securities than the Program accounts, participate in initial public offerings (IPOs) and invest directly in foreign securities (rather than in ADRs).
- Mutual funds included in related performance may hold more securities than the Program accounts, may participate in IPOs, may engage in options and futures transactions, and are subject to certain regulatory limitations.
- Performance results in Select UMA accounts could differ from that in Fiduciary Services accounts because Select UMA accounts may hold fewer securities, and have automatic rebalancing, wash sale loss and tax harvesting features.

You should read the investment manager profile accompanying this report for each investment manager. The investment manager profile gives further details on the sources of performance information for a particular investment manager, as well as other calculations of the manager's performance returns (such as performance net of fees and expenses).

SOURCE OF PERFORMANCE INFORMATION FOR GLOBAL INVESTMENT SOLUTION STRATEGIES: In the Global Investment Solutions program, dedicated portfolio managers employed by Morgan Stanley or third party subadvisors make day-to-day investment decisions for clients' accounts invested in various investment strategies. The track record shown in this report for Global Investment Solutions strategies consists of the portfolio management team's gross performance in that strategy in the Global Investment Solutions program (or a predecessor program).

SOURCE OF PERFORMANCE INFORMATION FOR OTHER INVESTMENT MANAGERS: For any investment managers shown in this report that are not available in the Consulting and Evaluation Services, Fiduciary Services or Select UMA programs, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below. The gross performance shown in this report for these managers could differ materially from their gross performance in investment advisory programs offered by firms other than Morgan Stanley. If you have invested with any such manager through another firm, we recommend that you seek information from that firm on the manager's gross and net performance in its programs.

SOURCE OF PERFORMANCE INFORMATION FOR FUNDS: For any fund shown in this report, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below.

BENCHMARK INDICES: Depending on the composition of your account and your investment objectives, the indices shown in this report may not be appropriate measures for comparison purposes and are therefore presented for illustration only. The indices used in this report may not be the same indices used for comparative purposes in the profile for each investment manager, mutual fund and/or ETF that accompanies this report. Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Performance of selected indices may be more or less volatile than that of any investment manager/fund shown in this report. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Important Notes About This Report

MANAGERS AND FUNDS APPROVED IN MORGAN STANLEY WEALTH MANAGEMENT PROGRAMS: Morgan Stanley Wealth Management approves certain managers and funds offered in its investment advisory programs:

- Morgan Stanley Wealth Management's Global Investment Manager Analysis ("GIMA") team approves managers and funds offered in Consulting and Evaluation Services, Fiduciary Services, Select UMA, and TRAK Fund Solution.
- Managers and funds offered in Institutional Consulting Group and Graystone Consulting programs may be approved by GIMA, approved by Morgan Stanley Wealth Management using another process, or not approved by Morgan Stanley Wealth Management.
- Morgan Stanley Wealth Management does not approve managers in the Investment Management Services consulting program.
- Managers in the Global Investment Solutions (GIS) program are not evaluated by GIMA.

If you invest in a manager or fund that is not approved by Morgan Stanley Wealth Management, you are responsible for selecting and/or retaining that manager or fund, and Morgan Stanley Wealth Management does not recommend or monitor that manager or fund. For more information on the approval process in any program, see the applicable ADV brochure, available at www.MorganStanley.com/ADV or from your Financial Advisor or Private Wealth Advisor. If you have any questions about whether or how Morgan Stanley Wealth Management has approved a manager or fund shown in this report, please ask our Financial Advisor or Private Wealth Advisor.

SHARE CLASSES OF FUNDS SHOWN IN THIS REPORT: The share class of a fund shown in this report may differ from the share class available in any Morgan Stanley Wealth Management investment advisory program in which you invest. The performance of the share class in which you invest may differ from that of the share class shown in this report.

REINVESTMENT: The performance results shown in this report assume that all dividend, accrued income and capital gains were reinvested.

SOURCES OF INFORMATION: Although the statements of fact in this report have been obtained from, and are based on, sources that Morgan Stanley believes to be reliable, Morgan Stanley makes no representation as to the accuracy or completeness of the information from sources outside Morgan Stanley. Any such information may be incomplete and you should not use it as the sole basis for investment decisions.

It is important to consider a fund's investment objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund. A copy of the prospectus may be obtained from your Financial Advisor or Private Wealth Advisor. Please read the prospectus carefully before investing in the fund.

KEY ASSET CLASS RISK CONSIDERATIONS: Investing in securities entails risk including the risk of losing principal. There is no assurance that the investment disciplines and investment managers/funds selected will meet their intended objectives.

Commodities - Diversified: The commodities markets may fluctuate widely based on a variety of factors including changes in supply and demand relationships; governmental programs and policies; national and international political and economic events; war and terrorist events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence; weather; technological change; and the price volatility of a commodity. In addition to commodity risk, commodity-linked notes may be subject to special risks, such as risk of loss of interest and principal, lack of a secondary market and risk of greater volatility that do not affect traditional equity and debt securities.

Commodities - Precious Metals: The prices of Commodities - Precious Metals tend to fluctuate widely and in an unpredictable manner, and have historically experienced extended periods of flat or declining prices. The prices of Commodities - Precious Metals are affected by several factors, including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.

Important Notes About This Report

KEY ASSET CLASS RISK CONSIDERATIONS (CONTINUED):

Investing in securities entails risk including the risk of losing principal. There is no assurance that the investment disciplines and investment managers/funds selected will meet their intended objectives.

Fixed Income: Fixed income securities are subject to certain inherent risks such as credit risk, reinvestment risk, call risk, and interest rate risk. Fixed income securities are sensitive to changes in prevailing interest rates. When interest rates rise, the value of fixed income securities generally declines. Accordingly, managers or funds that invest in fixed income securities are subject to interest rate risk and portfolio values can decline in value as interest rates rise and an investor can lose principal.

High Yield Fixed Income: As well as being subject to risks relating to fixed income generally (see "Fixed Income"), high yield or "junk" bonds are considered speculative, have significantly higher credit and default risks (including loss of principal), and may be less liquid and more volatile than investment grade bonds. Clients should only invest in high yield strategies if this is consistent with their risk tolerance, and high yield investments should comprise only a limited part of a balanced portfolio.

International/Emerging Market: International investing (including investing in particular countries or groups of countries) should be considered only one component of a complete and diversified investment program. Investing in foreign markets may entail greater risks than those normally associated with domestic markets, such as foreign political, currency, economic and market risks. In addition, the securities markets of many emerging markets are substantially smaller, less developed, less liquid and more volatile than the securities markets of the U.S. and other more developed countries. Further, a portfolio that focuses on a single country may be subject to higher volatility than one that is more diversified.

Preferred Securities: Preferred securities are generally subject to the same risks as apply to fixed income securities. (See "Fixed Income.") However, preferred securities (especially equity preferred securities) may rank below traditional forms of debt for the purposes of repayment in the event of bankruptcy. Many preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. If a preferred security is called, the investor bears the risk of reinvesting proceeds at a potentially lower return. Investors may not receive regular distributions on preferred securities. For example, dividends on equity preferred securities may only be declarable in the discretion of the issuer's board and may not be cumulative. Similarly, interest payments on certain debt preferred securities may be deferred by the issuer for periods of up to 10 years or more, in which case the investor would still have income tax liability even though payments would not have been received.

Real Estate: Real estate investments are subject to special risks, including interest rate and property value fluctuations as well as risks related to general and local conditions.

Small and Mid Cap: Investments in small-to medium-sized corporations are generally more vulnerable to financial risks and other risks than larger corporations and may involve a higher degree of price volatility than investments in the broad equity market.

Hedged and Alternatives Strategies: In most Consulting Group investment advisory programs, alternative investments are limited to US registered open-end mutual funds, separate account strategies, and ETFs that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives, and options, which can increase volatility and the risk of ivestment loss. Alternative Investments are not suitable for all investors.

Managed Futures: Involve a high degree of risk, often involve leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

Definitions of Statistical Terms Used

ALPHA: Synonym of 'value added', linearly similar to the way beta is computed, alpha is the incremental return on a portfolio when the market is stationary. In other words, it is the extra expected return due to non-market factors. This risk-adjusted measurement takes into account both the performance of the market as a whole and the volatility of the portfolio. A positive alpha indicates that a portfolio has produced returns above the expected level at that level of risk, and vice versa for a negative alpha.

ANNUALIZED RETURN: The constant rate of return that, compounded annually, would yield the same overall return for a period of more than one year as the actual return observed for that period.

BEST AND WORST PERIOD RETURNS: The best period return for a time window is simply the maximum of the returns for that period inside this window. Similarly, the worst period return for a time window is the minimum of the returns for that period inside this window. To calculate the best one-year return for a return series, the program moves a one-year time window along the series and calculates the compound return for each of these windows. The best one-year return is the maximum of the returns thus found. Similarly, the worst one-year return is the minimum of the returns thus found. Therefore, best and worst one-year returns do not refer to calendar years.

BETA: The measure of a portfolio's risk in relation to the market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a portfolio with a beta of 1.5 will have moved, on average, 1.5 times the market return. According to asset pricing theory, beta represents the type of risk, systematic risk, which cannot be diversified away. When using beta, there are a number of issues that you need to be aware of: (1) betas may change through time; (2) betas may be different depending on the direction of the market (i.e. betas may be greater for down moves in the market rather than up moves); (3) the estimated beta will be biased if the portfolio does not frequently trade; and (4) the beta is not necessarily a complete measure of risk (you may need multiple betas). Also, note that the beta is a measure of co movement, not volatility. It is possible for a security to have a zero beta and higher volatility than the market.

CUMULATIVE RETURN: The total return on an investment over a specified time period.

DOWNSIDE CAPTURE RATIO: For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had negative returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. For investors, the lower the downside capture ratio, the better. For example, a downside capture ratio of 90% means that the portfolio's losses were only 90% of the market's losses (as represented by the benchmark index).

EXCESS RETURN: The difference between the returns of two portfolios. Usually excess return is the difference between a portfolio's return and the return of a benchmark for that portfolio.

INFORMATION RATIO: A statistic that seeks to summarize the mean-variance properties of an active portfolio with a single number. The information ratio builds on the Markowitz mean-variance paradigm, which says that the mean and variance (or, equivalently, the mean and standard deviation) of returns are sufficient statistics for characterizing an investment portfolio.

R-SQUARED: Used to show how much of a portfolio's variability can be accounted for by the market. For example, if a portfolio's R-Squared is 0.79, then 79% of the portfolio's variability is due to market conditions. As R-Squared approaches 100%, the portfolio is more closely correlated with the market.

Definitions of Statistical Terms Used

SHARPE RATIO: Developed by William F. Sharpe, this calculation measures a ratio of return to volatility. It is useful in comparing two portfolios or stocks in terms of risk-adjusted return. The higher the Sharpe Ratio, the better the risk-adjusted return of the portfolio. It is calculated by first subtracting the risk free rate (90-Day US T-bill) from the return of the portfolio, then dividing by the standard deviation of the portfolio. Using Sharpe ratios to compare and select among investment alternatives can be difficult because the measure of risk (standard deviation) penalizes portfolios for positive upside returns as much as the undesirable downside returns.

STANDARD DEVIATION: A statistical measure of the degree to which the performance of a portfolio varies from its average performance during a specified period. The higher the standard deviation, the greater the volatility of the portfolio's performance returns relative to its average return. A portfolio's returns can be expected to fall within plus or minus one standard deviation, relative to its average return, two-thirds of the time, and fall within plus or minus two standard deviations relative to its average return, 95% of the time. For example, if a portfolio had a return of 5% and a standard deviation of 13% then, if future volatility of returns is similar to historical volatility (which may not be the case):

- About two-thirds of the time, the future returns could be expected to fall betwen -8% and 18% (being 5% +/- 13%)
- About 95% of the time, the future returns could be expected to fall betwen -21% and 31% (being 5% +/- 26%)

In performance measurement, it is generally assumed that a larger standard deviation means that great risk was taken to achieve the return.

STYLE ANALYSIS (RETURNS BASED STYLE ANALYSIS): A measure for analyzing the style of a portfolio's returns when compared with the quarterly returns on a number of selected style indices. These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes. Style analysis uses a quadratic minimization procedure that minimizes the difference in quarterly return performance between each portfolio's performance and a set of portfolio weights for the style indices under consideration. Style analysis is the construction of this set of portfolio weights for the style indices such that the portfolio style or composition best mimics the actual portfolio composition of the investment being investigated. Return based style analysis determines this underlying passive portfolio or investment style so that you may compare this passive style with the stated investment style of the underlying investment.

TRACKING ERROR: A measurement that indicates the standard deviation of the difference between a selected market index and a portfolio's returns. The portfolio's returns are then compared to the index's returns to determine the amount of excess return, which produces a tracking error. A low tracking error indicates that the portfolio is tracking the selected index closely or has roughly the same returns as the index.

UPSIDE CAPTURE RATIO: For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had positive returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. A percentage less than 100% indicates that the portfolio "captured" less performance than the benchmark index, while a percentage greater than 100% indicates the portfolio captured more performance than the benchmark index. For investors, the higher the upside capture ratio, the better. For example, if the annualized performance of an benchmark index during "up" markets (when its returns were positive) is 20.8% and the portfolio's annualized performance during the same period is 16.8%, then the portfolio's upside capture ratio is 16.8%/20.8% = 80.7%, meaning the portfolio "captured" 80.7% of the upside performance of the index. Stated another way, the portfolio in this example performed almost 20% worse than the market during up periods.

VARIANCE: A measure of how spread out a distribution is. It is computed as the average squared deviation of each number from its mean.

CORRELATION MATRIX
03/2012 TO 03/2017

Total Return				
Description	#	1	2	3
Cushing Management, LP Cushing MLP Instl Alph Strt -S	1	1.0000	0.9497	0.9262
Center Coast Cap. Adv. Center Coast MLP SMA -S	2	0.9497	1.0000	0.8663
Tortoise MLP & Pipeline Instl	3	0.9262	0.8663	1.0000

Cushing Asset Management, LLC

8117 Preston Rd, Suite 440
Dallas, Texas 75225

Style:	MLP/Energy Infrastructure
Sub-Style:	
Firm AUM:	$1,446,495.8 billion
Firm Strategy AUM:	$695.0 million

Year Founded:	2003
GIMA Status:	Approved
Firm Ownership:	Employee-Owned
Professional-Staff:	19

PRODUCT OVERVIEW

The Cushing MLP Instl Alpha Strategy is a long-only portfolio invested in listed energy infrastructure and energy infrastructure-related equities. Investments primary include "midstream" MLPs that own pipeline, transportation, storage and treatment assets serving crude oil and natural gas producers. The strategy will also include investments in MLPs involved in other segments such as upstream, coal, and shipping.

MANAGER'S INVESTMENT STRATEGY

- ☑ Top-down / portfolio structures based on economic trends
- ☑ Bottom-up / portfolio structure based on individual securities

TARGET PORTFOLIO CHARACTERISTICS

Number of stock holdings:	25 to 30
Average dividend yield:	Below the S&P 500
P/E ratio:	Below the S&P 500
Cash level over market cycle:	—
Risk (standard deviation):	Similar to the S&P 500
Average turnover rate:	25 to 35%
Use ADRs:	0 to 0%
Capitalization:	—

PORTFOLIO'S EQUITY SECTOR WEIGHTINGS +

	---------------03/17---------		09/16
Sector	Cushing	Index***	Cushing
Energy	98.72	97.43	100.00
Materials	0.00	0.22	0.00
Utilities	0.00	2.35	0.00
Cash/Cash Equivalents	1.28	0.00	0.00

PORTFOLIO STATISTICS

	---------------03/17------		09/16
	Cushing	Index***	Cushing
Number of stock holdings	26	44	27
Wtd avg dividend yield	5.3%	7.0%	5.5%
Wtd avg P/E ratio [1]	—	24.50x	—
Wtd avg portfolio beta	—	—	—
Mega capitalization +	0.0%	0.0%	0.0%
Large capitalization +	0.0%	53.6%	0.0%
Medium capitalization +	0.0%	37.5%	0.0%
Small capitalization +	0.0%	8.9%	0.0%
Micro capitalization +	0.0%	0.0%	0.0%

PORTFOLIO'S TOP FIVE EQUITY HOLDINGS

	%
Targa Resources Corp	6.3
Energy Transfer Partners Lp	5.8
Ngl Energy Partners Lp	5.5
Energy Transfer Equity Lp	5.5
Williams Cos Inc	5.3

% PROCESS BASED ON

5	Asset allocation - cash vs. stock
15	Industry or sector weighting
65	Stock Selection

[1]The P/E used here is calculated by the harmonic mean.
+Total may not equal 100% due to rounding.
****Index : Alerian MLP Index*

MANAGER'S INVESTMENT PROCESS

- Create an in-depth financial model for each MLP using a bottom-up fundamental research process
- Comprehensive, fundamental analysis to identify the MLPs with the best total return prospects.

RISK CONSIDERATIONS

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources, or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Investing in securities entails risks, including: Equity portfolios are subject to the basic stock market risk that a particular security, or securities in general, may decrease in value. Equity securities' prices may fluctuate in response to specific situations for each company, industry, market conditions and general economic environment. Companies paying dividends can reduce or cut payouts at any time. Strategies that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than portfolios that diversify among a broad range of sectors. The stocks of small and medium-sized companies are often associated with higher risk than stocks of larger companies, including higher volatility. Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations. Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

PORTFOLIO'S ALLOCATION HISTORY (%) +

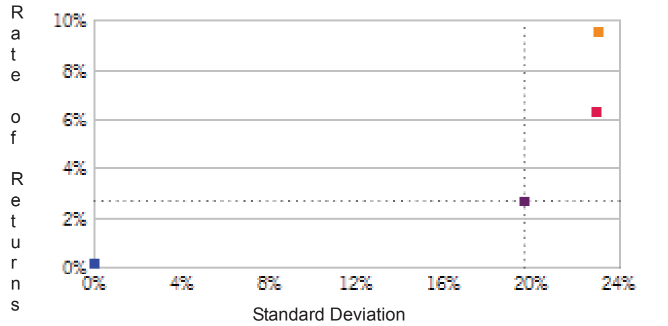
	03/17	12/16	09/16	06/16
U.S. Stocks	99	100	100	98
Cash/Cash Equivalents	1	0	0	2

[!]The P/E used here is calculated by the harmonic mean.

+Total may not equal 100% due to rounding.

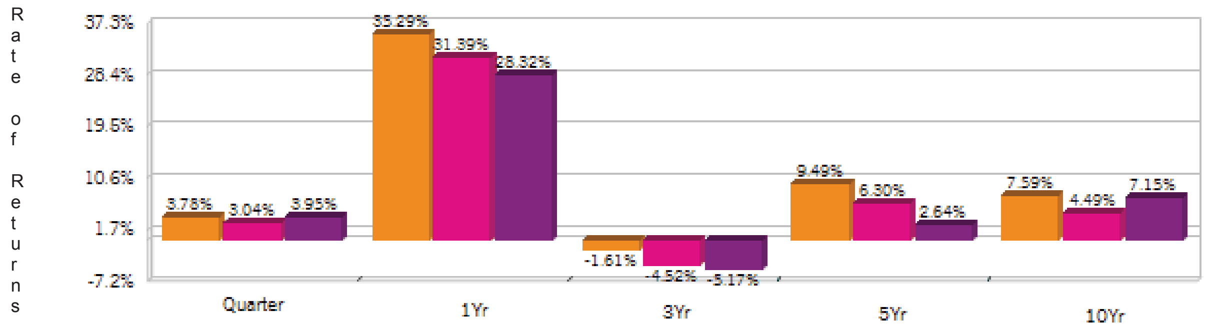
****Index : Alerian MLP Index*

RISK/RETURN ANALYSIS - 5 YEARS ENDING 03/31/17



	STD	ROR
Cushing (Gross)	23.13	9.49
Cushing (Net)	23.01	6.30
Alerian MLP Index	19.70	2.64
90-Day T-Bills	0.06	0.11

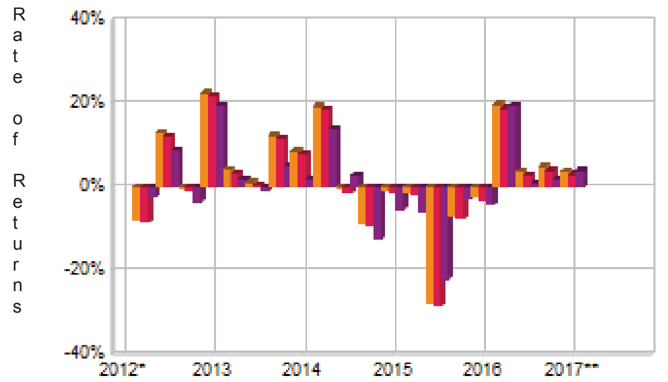
AVERAGE ANNUAL TOTAL RETURN (%) - PERIODS ENDING 03/31/17



INVESTMENT RESULTS

	Annual Rates of Return (%)										10 Year - Ending 03/31/17	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Annual	Std. Dev.
Cushing (Gross)	18.11	-61.06	89.52	41.55	17.78	9.07	45.73	18.25	-33.71	27.30	7.59	27.90
Cushing (Net)	14.75	-62.28	84.56	37.55	14.47	5.96	41.62	14.74	-35.63	23.47	4.49	27.77
Alerian MLP Index	12.72	-36.92	76.41	35.85	13.88	4.80	27.58	4.80	-32.59	18.31	7.15	20.75

RISK VOLATALITY (%)



*04/01/12-12/31/12 **01/01/17-03/31/17

	Number Of	Up Qtrs.	Down Qtrs.
Cushing (Gross)		11	9
Cushing (Net)		11	9
Alerian MLP Index		11	9

PORTFOLIO'S QUARTERLY RETURNS (%)

	Quarter1		Quarter2		Quarter3		Quarter4	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
2007	15.13	14.31	13.99	13.19	-8.45	-9.13	-1.69	-2.41
2008	-9.81	-10.50	4.43	3.70	-29.76	-30.34	-41.13	-41.65
2009	18.86	18.12	16.13	15.34	11.88	11.14	22.72	21.90
2010	7.82	7.02	0.95	0.22	14.90	14.12	13.18	12.38
2011	9.92	9.13	-0.68	-1.39	-8.58	-9.26	18.01	17.23
2012	4.63	3.88	-7.72	-8.39	13.07	12.28	-0.10	-0.83
2013	22.73	21.91	4.20	3.43	1.31	0.56	12.49	11.68
2014	8.74	7.94	19.47	18.61	-0.46	-1.24	-8.55	-9.25
2015	-0.54	-1.31	-1.13	-1.83	-27.66	-28.22	-6.81	-7.44
2016	-2.35	-3.16	19.80	19.00	3.74	2.96	4.89	4.07
2017	3.78	3.04						

Related   Select UMA

PORTFOLIO'S RISK STATISTICS - PERIODS ENDING 03/31/17 [1 2]

	3 Year	5 Year
Standard Deviation	24.96%	23.13%
Standard Deviation of Primary Benchmark	22.07%	19.70%
Sharpe Ratio	-0.07	0.41
Sharpe Ratio of Primary Benchmark	-0.24	0.13
Alpha	4.73%	6.99%
Beta	1.08	1.12
Downside Risk	4.57%	4.28%
R-Squared	0.92	0.90
Tracking Error	7.39%	7.58%
Information Ratio	0.48	0.90

PORTFOLIO DIVERSIFICATION - R^2(INCEPTION THROUGH 12/14)+

	R^2
Cushing vs. Alerian MLP Index	0.88

+Statistics are calculated using gross of fee performance only.

1. Statistics are calculated using gross of fee performance only.
2. Alerian MLP Index was used as the primary benchmark and the 90-Day T-Bills Index as the risk-free benchmark.

See important notes and disclosures pages for a discussion of the sources of the performance data used to calculate the performance results and related analyses shown above.

IMPORTANT NOTES AND DISCLOSURES

COMPOSITE DISCLOSURES

Past performance is no guarantee of future results. Actual individual account results may differ from the performance shown in this profile. There is no guarantee that this investment strategy will work under all market conditions. Do not use this profile as the sole basis for your investment decisions.

Performance results in this profile are calculated assuming reinvestment of dividends and income. Returns for more than one year are annualized and based on quarterly data. Returns for periods of less than a calendar year show the total return for the period and are not annualized.

Sources of Performance Results and Other Data: The performance data and certain other information for this strategy (including the data on page 1 of this profile) reflect the investment manager's results in managing Morgan Stanley program accounts, or the investment manager's results in managing accounts and investment products, in the same or a substantially similar investment discipline. (For periods through June 2012, the Fiduciary Services program operated through two channels - Morgan Stanley channel and the Smith Barney channel - and any performance and other data relating to Fiduciary Services accounts shown here for these periods is calculated using accounts in only one of the these channels.) This information for the investment manager is presented solely to provide information about accounts that were managed according to investment objectives and strategies the same or substantially similar to the corresponding investment discipline in the Select UMA program. Although the Fiduciary Services and Select UMA programs are both Morgan Stanley managed account programs, the performance results and other features of similar investment disciplines in the two programs may differ due to investment and operational differences. For example, the individual investment disciplines in the Select UMA accounts may contain fewer securities, which would lead to a more concentrated portfolio. The automatic rebalancing, wash sale loss and tax-harvesting features of the Select UMA program, which are not available in Fiduciary Services, also could cause differences in performance. Accordingly, the performance of the accounts in the Fiduciary Services program is not, and may differ significantly from, the performance of the accounts in the Select UMA program and should not be considered indicative of or a substitute for Select UMA performance. Similarly, performance results of the investment manager's composites may differ from those of Select UMA accounts managed in the same or a substantially similar investment discipline.

Related Performance:

The performance composite calculated by Cushing MLP Asset Management, LP represents total returns that include income, realized and unrealized gains and losses. Gross performance is presented net of transaction costs as well as custodial fees. Net of fee performance is calculated using actual fees and, where applicable, performance fees. The Cushing MLP Asset Management LP's composite performance is presented before and after the deduction of investment advisory fees and after the deduction of transaction costs.

Morgan Stanley Performance:

The composite consists of **93** account(s) with a market value of **$87.0 million** as of **03/31/2017**. In this profile, the performance from September 1, 2014 through December 31, 2015, performance consists of all Fiduciary Services (FS) accounts managed by the investment manager in this strategy, subject to any other limitations stated in this profile. From January 1, 2016, performance consists of the performance of all FS accounts (as described in the previous sentence) as well as the performance of all single style Select UMA accounts managed by the investment manager in this strategy, subject to any other limitations stated in this profile. Performance composites calculated by Morgan Stanley include all fee-paying portfolios with no investment restrictions. New accounts are included beginning with the second full calendar month of performance. Terminated accounts are removed in the month in which they terminate (but prior performance of terminated accounts is retained). Performance is calculated on a total return basis and by asset weighting the individual portfolio returns using the beginning of period values.

Equity Account (Gross): Cushing's gross results do not reflect a deduction of the investment advisory fees charged by Cushing, or program fees, if any, but are net of commissions charged on securities transactions.

Net Performance for all Periods: Net performance results reflect a deduction of 0.7425% quarterly. This consists of three components: 0.625% maximum quarterly MS Advisory Fee and 0.0175% maximum quarterly Program Overlay Fee (which, together cover the services provided by Morgan Stanley), plus 0.1% quarterly SMA Manager Fees (being the fee currently charged by Cushing to new clients for managing their assets in the Select UMA program). The SMA Manager Fees may differ from manager to manager, and managers may change their fee to new clients from time to time. If you select this manager for your account, check the SMA Manager Fees specified in the written client agreement, in case these have changed since you received this profile. Historical net fees reflect the Advisory Fee Schedule as of March 31, 2014.

Morgan Stanley program fees are usually deducted quarterly, and have a compounding effect on performance. The Morgan Stanley program fee, which differs among programs and clients, is described in the applicable Morgan Stanley ADV brochure, which is available at www.morganstanley.com/ADV or on request from your Financial Advisor or Private Wealth Advisor.

MLP and other Partnership Investments in IRA/Retirement Plan and other Tax Exempt CG Accounts: For the reasons outlined below, where an otherwise tax exempt account (such as an IRA, qualified retirement plan, charitable organization, or other tax exempt or deferred account) is invested in a pass through entity (such as a master limited partnership), the income from such entity may be subject to taxation, and additional tax filings may be required. Further, the tax advantages associated with these investments are generally not realized when held in a tax-deferred or tax exempt account. Please consult your own tax advisor, and consider any potential tax liability that may result from such an investment in an otherwise tax exempt account.

Earnings generated inside most qualified retirement plans, including defined benefit pension plans, defined contribution plans and individual retirement accounts ("IRAs"), are generally exempt from federal income taxes, however, certain investments made by such retirement plans may generate taxable income referred to as "unrelated business taxable income" ("UBTI") that is subject to taxation at trust rates. Generally, passive types of income (when not financed with debt) such as dividends, interest, annuities, royalties, most rents from real property, and gains from the sale, exchange or other disposition of property (other than inventory or property held for sale in the ordinary course of a trade or business) do not generate UBTI. Active income associated with operating a trade or business, however, may constitute UBTI to an otherwise tax exempt investor such as a qualified retirement plan. In addition, UBTI may also be received as part of an investor’s allocable share of active income generated by a pass-through entity, such as partnerships (including limited partnerships and master limited partnerships), certain trusts, subchapter S corporations, and limited liability companies that are treated as disregarded entities, partnerships, or subchapter S corporations for federal income tax purposes.

If more than $1,000 of unrelated trade or business gross income is generated in a tax year, the retirement plan’s custodian or fiduciary (on behalf of the retirement plan) must file an Exempt Organization Business Income Tax Return, Form 990-T. With respect to an individual investing through an IRA, in calculating the threshold amount and the retirement plan’s UBTI for the year, each IRA is generally treated as a separate taxpayer, even if the same individual is the holder of multiple IRAs.

The passive activity loss limitation rules also apply for purposes of calculating a retirement plan’s UBTI, potentially limiting the amount of losses that can be used to offset the retirement plan’s income from an unrelated trade or business each year. It should be noted that these rules are applied to publicly traded partnerships, such as master limited partnerships, on an entity-by-entity basis, meaning that the passive activity losses generated by one master limited partnership generally can only be used to offset the passive activity income (including unrelated traded or business income) from the same master limited partnership. The passive activity losses generated by one master limited partnership generally cannot be used to offset income from another master limited partnership (or any other source). The disallowed losses are suspended and carried forwarded to be used in future years to offset income generated by that same master limited partnership. However, once the retirement plan disposes of its entire interest in the master limited partnership to an unrelated party, the suspended losses can generally be used to offset any unrelated trade or business income generated inside the retirement plan (including recapture income generated on the sale of the master limited partnership interest, as well as income generated by other master limited partnerships).

In calculating the tax, trust tax rates are applied to the retirement plan’s UBTI (i.e., unrelated trade or business gross income less any applicable deductions, including the $1,000 specific deduction). In addition to the passive loss limitation rules noted above, other limitations may apply to the retirement plan’s potential tax deductions. In order to file Form 990-T, the retirement plan is required to obtain an Employer Identification Number ("EIN") because the plan (and not the plan owner or fiduciary) owes the tax. State and local income taxes may also apply. Accordingly, retirement plan investors (and their fiduciaries) should consult their tax and legal advisors regarding the federal, state, and local income tax implications of their investments.

Similar rules apply to other tax-exempt organizations (e.g., charitable and religious organizations), except that certain differences may apply. For instance, the UBTI of most other tax-exempt organizations is taxable at corporate rates, unless the organization is one that would be taxed as a trust if it were not tax-exempt in which case its UBTI is taxable at trust rates. Also, the passive activity loss limitation rules do not apply to all tax-exempt organizations. Tax-exempt investors should consult their tax and legal advisors regarding the federal, state, and local income tax implications of their investments.

Focus List, Approved List, and Watch Status:

Global Investment Manager Analysis ("GIMA") uses two methods to evaluate investment products in applicable advisory programs. In general, strategies that have passed a more thorough evaluation may be placed on the "Focus List", while strategies that have passed through a different and less comprehensive evaluation process may be placed on the "Approved List". Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List.

Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either evaluation process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved". The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" on the cover page.

For more information on the Focus List, Approved List, and Watch processes, please see the applicable Morgan Stanley ADV brochure (www.ms.com/adv). Your Financial Advisor or Private Wealth Advisor can provide on request a copy of a paper entitled "GIMA: At A Glance ".

ADDITIONAL DISCLOSURES

The information about a representative account is for illustrative purposes only. Actual account holdings, performance and other data will vary depending on the size of an account, cash flows within an account, and restrictions on an account. Holdings are subject to change daily. The information in this profile is not a recommendation to buy, hold or sell securities.

Actual portfolio statistics may vary from target portfolio characteristics.

The investment manager may use the same or substantially similar investment strategies, and may hold similar portfolios of investments, in other portfolios or products it manages (including mutual funds). These may be available at Morgan Stanley or elsewhere, and may cost an investor more or less than this strategy in Morgan Stanley's Select UMA program.

The portfolio may, at times, invest in exchange-traded funds (ETFs), which are a form of equity security in seeking to maintain continued full exposure to the broad equity market.

Morgan Stanley investment advisory programs may require a minimum asset level and, depending on your specific investment objectives and financial position, may not be suitable for you. Investment advisory program accounts are opened pursuant to a written client agreement.

The investment manager acts independently of, and is not an affiliate of, Morgan Stanley Smith Barney LLC.

Diversification does not guarantee a profit or protect against a loss.

No obligation to notify
Morgan Stanley has no obligation to notify you when information in this profile changes.

Sources of information
Material in this profile has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

No tax advice
Morgan Stanley and its affiliates do not render advice on legal, tax and/or tax accounting matters to clients. Each client should consult his/her personal tax and/or legal advisor to learn about any potential tax or other implications that may result from acting on a particular recommendation.

Not an ERISA fiduciary
Morgan Stanley is not acting as a fiduciary under either the Employee Retirement Income Security Act of 1974, as amended, or under section 4975 of the Internal Revenue Code of 1986, as amended, in providing the information in this profile.

INDEX DESCRIPTIONS

90-Day T-Bills

The 90-Day Treasury Bill is a short-term obligation issued by the United States government. T-bills are purchased at a discount to the full face value, and the investor receives the full value when they mature. The difference of discount is the interested earned. T-bills are issued in denominations of $10,000 auction and $1,000 increments thereafter.

Alerian MLP Index

The Alerian MLP Index is a composite of the 50 most prominent energy Master Limited Partnerships that provides investors with an unbiased, comprehensive benchmark for this emerging asset class. The index, which is calculated using a float-adjusted, capitalization-weighted methodology, is disseminated real-time on a price-return basis (NYSE: AMZ), and the corresponding total-return index is disseminated daily through ticker AMZX. Relevant data points such as dividend yield are also published daily.

S&P 500

The S&P 500 Total Return has been widely regarded as the best single gauge of the large cap U.S. equities market since the index was first published in 1957. The index has over $5.58 trillion benchmarked, with index assets comprising approximately $1.31 trillion of this total. The index includes 500 leading companies in leading industries of the U.S. economy, capturing 75% coverage of U.S. equities. This index includes dividend reinvestment.

Indices are unmanaged and have no expenses. You cannot invest directly in an index.

GLOSSARY OF TERMS

Alpha is a mathematical estimate of risk-adjusted return expected from a portfolio above and beyond the benchmark return at any point in time.

American Depositary Receipts (ADRs) are receipts for shares of a foreign-based corporation held in the vault of a U.S. bank.

Average Portfolio Beta is a measure of the sensitivity of a benchmark or portfolio's rates of return to changes against a market return. The market return is the S&P 500 Index. It is the coefficient measuring a stock or a portfolio's relative volatility.

Beta is a measure of the sensitivity of a portfolio's rates of return to changes in the market return. It is the coeffecient measuring a stock or a portfolio's relative volatility.

Bottom-Up Stock Selection Emphasis primarily on individual stock selection. Considerations of economic and industry factors are of secondary importance in the investment decision-making process.

Capitalization is defined as the following: Mega (Above $100 billion), Large ($12 to $100 billion), Medium ($2.5 - $12 billion), Small ($.50 - $2.5 billion) and Micro (below $.50 billion).

Dividend a portion of a company's profit paid to common and preferred shareholders.

Downside Risk is a measure of the risk associated with achieving a specific target return. This statistic separates portfolio volatility into downside risk and upside uncertainty. The downside considers all returns below the target return, while the upside considers all returns equal to or above the target return.

Duration is a measure of price sensitivity expressed in years.

High Grade Corporate Bonds corporate bonds from issuers with credit ratings of AA or AAA.

Information Ratio is a measure of the investment manager's skill to add active value against a given benchmark relative to how stable that active return has been. Essentially, the information ratio explains how significant a manager's alpha is. Therefore, the higher the information ratio, the more significant the alpha.

Investment Grade Bonds are those rated by Standard & Poor's AAA (highest rated), AA, A or BBB (or equivalent rating by other rating agencies or, in the case of securities not rated, by the investment manager).

Price/Book Ratio (P/B) weighted average of the stocks' price divided by book value per share. Book value per share is defined as common equity, including intangibles, divided by shares outstanding times the adjustment factor.

Price/Cash Flow Ratio a ratio used to compare a company's market value to its cash flow. It is calculated by dividing the company's market cap by the company' operating cash flow in the most recent fiscal year (or the most recent four fiscal quarters); or, equivalently, divide the per-share stock price by the per-share operating cash flow.

Price/Earnings Ratio (P/E Ratio) shows the multiple of earnings at which a stock sells. Determined by dividing current stock price by current earnings per share (adjusted for stock splits). Earnings per share for the P/E ratio are determined by dividing earnings for past 12 months by the number of common shares outstanding. The P/E ratio shown here is calculated by the harmonic mean.

Price/Sales Ratio determined by dividing current stock price by revenue per share (adjusted for stock splits). Revenue per share for the P/S ratio is determined by dividing revenue for past 12 months by number of shares outstanding.

R2 (R-Squared)/Portfolio Diversification indicates the proportion of a security's total variance that is benchmark-related or is explained by variations in the benchmark.

Sharpe Ratio measures the efficiency, or excess return per unit of volatility, of a manager's returns. It evaluates managers' performance on a volatility-adjusted basis.

Standard Deviation is a statistical measure of historical variability or spread of returns around a mathematical average return that was produced by the investment manager over a given measurement period. The higher the standard deviation, the greater the variability in the investment manager's returns relative to its average return.

Top-Down/Economic Analysis Emphasis primarily on macroeconomic trends as opposed to bottom-up stock selection.

Tracking Error represents the standard deviation of the difference between the performance of the investment strategy and the benchmark. This provides a historical measure of the variability of the investment strategy's returns relative to its benchmark.

U.S. Treasury Bonds a marketable, fixed interest U.S. government debt security with a maturity of more than 10 years. Treasury bonds make interest payments semi-annually and the income that holders receive is only taxed at the federal level.

Volatility a measure of risk based on the standard deviation of the asset return. Volatility is a variable that appears in option pricing formulas, where it denotes the volatility of the underlying asset return from now to the expiration of the option. There are volatility indexes. Such as a scale of 1-9; a higher rating means higher risk.

Center Coast Capital

1100 Louisiana St., Suite 5025
Houston, Texas 77002

Style:	MLP/Energy Infrastructure	Year Founded:	2007
Sub-Style:		GIMA Status:	Approved
Firm AUM:	$4.3 billion	Firm Ownership:	Employee-Owned
Firm Strategy AUM:	$824.8 million^	Professional-Staff:	14^

PRODUCT OVERVIEW

The objective of Center Coast is to generate attractive, non-correlated returns in the form of capital appreciation and income through the application of a disciplined investment process focused on the energy logistics/infrastructure sector. To achieve this objective, Center Coast invests in energy-related Master Limited Partnerships ("MLPs") and MLP affiliates, particularly those participating in the business of operating oil and gas pipelines, refined products, terminals and storage facilities. The portfolio is invested in approximately 15 to 25 MLPs that the investment committee believes possess the highest quality assets, asset mix, contract mix, strategic positioning, GP strength and management teams.

MANAGER'S INVESTMENT STRATEGY

- ☐ Top-down / portfolio structures based on economic trends
- ☑ Bottom-up / portfolio structure based on individual securities

TARGET PORTFOLIO CHARACTERISTICS

Number of stock holdings:	15 to 25
Average dividend yield:	Above the S&P 500
P/E ratio:	Above the S&P 500
Cash level over market cycle:	—
Risk (standard deviation):	Above the S&P 500
Average turnover rate:	20 to 40%
Use ADRs:	No
Capitalization:	Large, Medium and Small companies

PORTFOLIO'S EQUITY SECTOR WEIGHTINGS [+]

	---------------03/17---------		09/16
Sector	Center Coast	Index***	Center Coast
Energy	99.00	97.43	98.99
Materials	0.00	0.22	0.00
Utilities	0.00	2.35	0.00
Cash/Cash Equivalents	1.00	0.00	1.01

PORTFOLIO STATISTICS

	---------------03/17------		09/16
	Center Coast	Index***	Center Coast
Number of stock holdings	21	44	20
Wtd avg dividend yield	6.2%	7.0%	5.8%
Wtd avg P/E ratio [1]	—	24.50x	—
Wtd avg portfolio beta	0.99	—	—
Mega capitalization [+]	0.0%	0.0%	0.0%
Large capitalization [+]	0.0%	53.6%	0.0%
Medium capitalization [+]	0.0%	37.5%	0.0%
Small capitalization [+]	0.0%	8.9%	0.0%
Micro capitalization [+]	0.0%	0.0%	0.0%

PORTFOLIO'S TOP FIVE EQUITY HOLDINGS

	%
Enterprise Product Partners LP	9.1
Tesoro Logistics LP	7.8
MPLX LP	7.7
Shell Midstream Partners LP	6.6
Buckeye Partners LP	6.5

% PROCESS BASED ON

3	Asset allocation - cash vs. stock
0	Industry or sector weighting
97	Stock Selection

^As of 12/31/2016. Information as of 03/31/2017 is not yet available.
[1]The P/E used here is calculated by the harmonic mean.
[+]Total may not equal 100% due to rounding.
****Index : Alerian MLP Index*

MANAGER'S INVESTMENT PROCESS

- Analysis of MLP Universe & construction of Center Coast Proprietary Models
- Portfolio construction and assignment of company weightings
- Investment committee approval and vote
- Investment Implementation/Trading
- Ongoing portfolio rebalance

RISK CONSIDERATIONS

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PORTFOLIO'S ALLOCATION HISTORY (%) +

	03/17	12/16	09/16	06/16
U.S. Stocks	99	99	99	99
Cash/Cash Equivalents	1	1	1	1

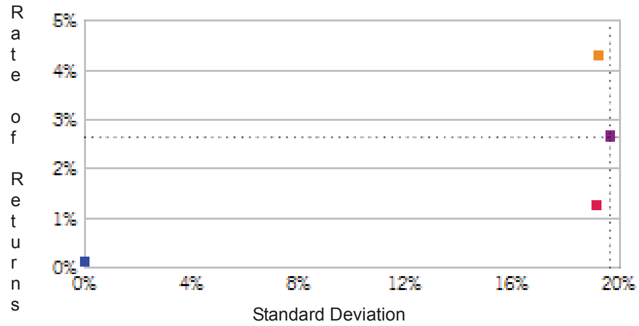
^As of 12/31/2016. Information as of 03/31/2017 is not yet available.

ⁱThe P/E used here is calculated by the harmonic mean.

+Total may not equal 100% due to rounding.

****Index : Alerian MLP Index*

RISK/RETURN ANALYSIS - 5 YEARS ENDING 03/31/17



	STD	ROR
Center Coast (Gross)	19.26	4.28
Center Coast (Net)	19.17	1.23
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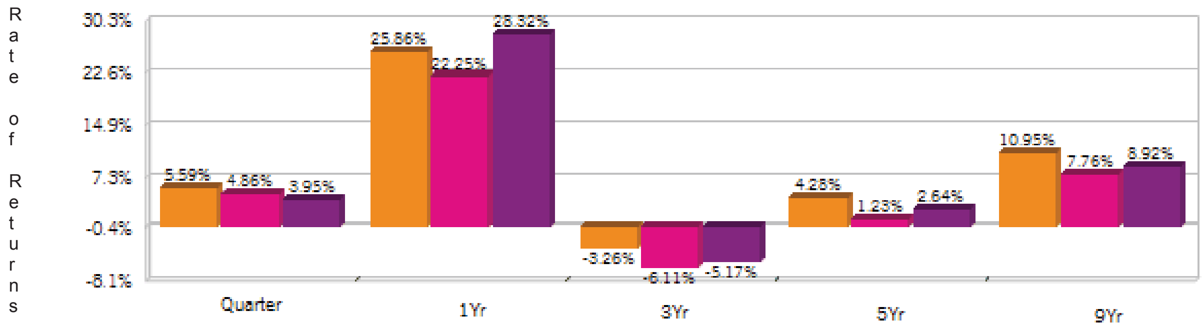
90-Day T-Bills	0.06	0.11

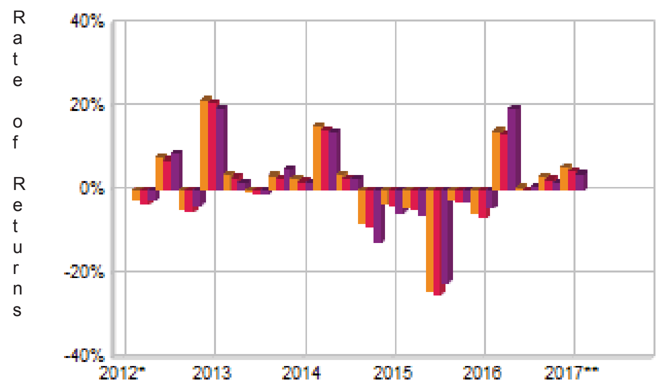
AVERAGE ANNUAL TOTAL RETURN (%) - PERIODS ENDING 03/31/17



INVESTMENT RESULTS	Annual Rates of Return (%)										9 Year - Ending 03/31/17	
	2007*	2008	2009	2010	2011	2012	2013	2014	2015	2016	Annual	Std. Dev.
Center Coast (Gross)	0.65	-35.55	78.39	35.88	20.34	2.27	30.91	13.45	-30.84	12.52	10.95	20.30
Center Coast (Net)	-1.58	-37.42	73.66	31.98	16.89	-0.70	27.19	10.08	-32.83	9.11	7.76	20.21
Alerian MLP Index	-6.69	-36.92	76.41	35.85	13.88	4.80	27.58	4.80	-32.59	18.31	8.92	21.21

*09/01/2007-12/31/2007

RISK VOLATALITY (%)



*04/01/12-12/31/12 **01/01/17-03/31/17

Number Of	Up Qtrs.	Down Qtrs.
Center Coast (Gross)	11	9
Center Coast (Net)	11	9
Alerian MLP Index	11	9

PORTFOLIO'S QUARTERLY RETURNS (%)

	Quarter1		Quarter2		Quarter3		Quarter4	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
2007					-3.23	-4.72	4.01	3.29
2008	-7.88	-8.57	0.15	-0.55	-14.10	-14.74	-18.68	-19.28
2009	14.42	13.71	16.64	15.87	15.36	14.59	15.87	15.03
2010	7.48	6.67	4.40	3.63	12.05	11.26	8.08	7.30
2011	6.33	5.55	0.22	-0.50	-3.58	-4.31	17.12	16.32
2012	1.23	0.48	-2.32	-3.05	8.13	7.36	-4.35	-5.07
2013	21.80	20.99	3.87	3.10	-0.10	-0.84	3.58	2.82
2014	2.98	2.21	15.35	14.53	3.66	2.85	-7.86	-8.58
2015	-3.03	-3.77	-3.95	-4.63	-24.21	-24.80	-2.02	-2.68
2016	-5.60	-6.41	14.25	13.47	0.85	0.10	3.45	2.64
2017	5.59	4.86						

Related   Select UMA

PORTFOLIO'S RISK STATISTICS - PERIODS ENDING 03/31/17 [1 2]

	3 Year	5 Year
Standard Deviation	20.92%	19.26%
Standard Deviation of Primary Benchmark	22.07%	19.70%
Sharpe Ratio	-0.16	0.22
Sharpe Ratio of Primary Benchmark	-0.24	0.13
Alpha	1.58%	1.75%
Beta	0.92	0.96
Downside Risk	3.63%	2.92%
R-Squared	0.95	0.95
Tracking Error	5.05%	4.20%
Information Ratio	0.38	0.39

PORTFOLIO DIVERSIFICATION - R^2(INCEPTION THROUGH 12/14)+

	R^2
Center Coast vs. Alerian MLP Index	0.97

+Statistics are calculated using gross of fee performance only.

1. Statistics are calculated using gross of fee performance only.
2. Alerian MLP Index was used as the primary benchmark and the 90-Day T-Bills Index as the risk-free benchmark.

See important notes and disclosures pages for a discussion of the sources of the performance data used to calculate the performance results and related analyses shown above.

Past performance is no guarantee of future results. *This profile is not complete without the pages, which contain important notes, including disclosures about the composite, index descriptions and a glossary of terms. Information shown is as of March 31, 2017, unless otherwise noted. All data are subject to change.*

IMPORTANT NOTES AND DISCLOSURES

COMPOSITE DISCLOSURES

Past performance is no guarantee of future results. Actual individual account results may differ from the performance shown in this profile. There is no guarantee that this investment strategy will work under all market conditions. Do not use this profile as the sole basis for your investment decisions.

Performance results in this profile are calculated assuming reinvestment of dividends and income. Returns for more than one year are annualized and based on quarterly data. Returns for periods of less than a calendar year show the total return for the period and are not annualized.

Sources of Performance Results and Other Data: The performance data and certain other information for this strategy (including the data on page 1 of this profile) reflect the investment manager's results in managing Morgan Stanley program accounts, or the investment manager's results in managing accounts and investment products, in the same or a substantially similar investment discipline. (For periods through June 2012, the Fiduciary Services program operated through two channels - Morgan Stanley channel and the Smith Barney channel - and any performance and other data relating to Fiduciary Services accounts shown here for these periods is calculated using accounts in only one of the these channels.) This information for the investment manager is presented solely to provide information about accounts that were managed according to investment objectives and strategies the same or substantially similar to the corresponding investment discipline in the Select UMA program. Although the Fiduciary Services and Select UMA programs are both Morgan Stanley managed account programs, the performance results and other features of similar investment disciplines in the two programs may differ due to investment and operational differences. For example, the individual investment disciplines in the Select UMA accounts may contain fewer securities, which would lead to a more concentrated portfolio. The automatic rebalancing, wash sale loss and tax-harvesting features of the Select UMA program, which are not available in Fiduciary Services, also could cause differences in performance. Accordingly, the performance of the accounts in the Fiduciary Services program is not, and may differ significantly from, the performance of the accounts in the Select UMA program and should not be considered indicative of or a substitute for Select UMA performance. Similarly, performance results of the investment manager's composites may differ from those of Select UMA accounts managed in the same or a substantially similar investment discipline.

Related Performance:

The returns have been prepared using the following methodologies consistently. Other methods may produce different results. Quarterly and annual rates of returns are computed by geometrically linking the monthly rates of return for the indicated number of months. For the period September 1, 2007 to March 31, 2009: Performance was constructed retroactively and achieved by a hypothetical portfolio (the "Portfolio"). The Portfolio is based on $100,000,000 and reflects the same core long equity weightings and positions as the Center Coast Capital Partners LP Fund. Monthly Portfolio returns are calculated using a time-weighted rate of return. Returns are based on realized and unrealized gains and losses and do not include the effect of cash or the reinvestment of dividends. The performance results are shown net of fees and calculated using the highest management fee of 1.5% and model transaction costs of 0.20% applied monthly. It should not be assumed that all clients follow the Portfolio. Actual client investments are made with the client's investment objective, risk tolerance and income needs in mind. The Portfolio results do not represent actual trading and do not reflect the impact of material economic and market factors that might impact an adviser's decision in the management of actual client accounts. Actual performance of client accounts may differ substantially. For the period starting April 1, 2009: Trade date accounting is used for calculation and valuation purposes. Monthly Strategy level returns are calculated by asset-weighting account total returns, using beginning of period market values. Monthly account returns are calculated using a Modified Dietz Method. External cash flows of 10% or more will cause the portfolio to be revalued. The accounts in the Strategy are valued at least monthly. The performance results are shown net of transaction costs, and have been presented net of investment advisory fees. Accounts are included in the Strategy the first full month under management. Performance presented for periods beginning April 1, 2009 reflect the returns of actual accounts managed by Center Coast Capital Advisors, LP. Total investment returns include realized and unrealized gains and losses and dividends. Cash accounting is used to record dividend and interest income.

Morgan Stanley Performance:
The composite consists of **264** account(s) with a market value of **$103.4 million** as of **03/31/2017**. In this profile, the performance from November 1, 2012 through December 31, 2015, performance consists of all Fiduciary Services (FS) accounts managed by the investment manager in this strategy, subject to any other limitations stated in this profile. From January 1, 2016, performance consists of the performance of all FS accounts (as described in the previous sentence) as well as the performance of all single style Select UMA accounts managed by the investment manager in this strategy, subject to any other limitations stated in this profile. Performance composites calculated by Morgan Stanley include all fee-paying portfolios with no investment restrictions. New accounts are included beginning with the second full calendar month of performance. Terminated accounts are removed in the month in which they terminate (but prior performance of terminated accounts is retained). Performance is calculated on a total return basis and by asset weighting the individual portfolio returns using the beginning of period values.

Gross Performance: Center Coast's gross results do not reflect a deduction of any investment advisory fees or program fees, charged by Center Coast or Morgan Stanley Smith Barney, but are net of commissions charged on securities transactions.

Net Performance for all Periods: Net performance results reflect a deduction of 0.7425% quarterly. This consists of three components: 0.625% maximum quarterly MSSB Advisory Fee and 0.0175% maximum quarterly Program Overlay Fee (which, together cover the services provided by Morgan Stanley Smith Barney), plus 0.1% quarterly SMA Manager Fees (being the fee currently charged by Center Coast to new clients for managing their assets in the Personal Portfolio program). The SMA Manager Fees may differ from manager to manager, and managers may change their fee to new clients from time to time. If you select this manager for your account, check the SMA Manager Fees specified in the written client agreement, in case these have changed since you received this profile. Historical net fees reflect the Advisory Fee Schedule as of March 31, 2014.

Morgan Stanley program fees are usually deducted quarterly, and have a compounding effect on performance. The Morgan Stanley program fee, which differs among programs and clients, is described in the applicable Morgan Stanley ADV brochure, which is available at www.morganstanley.com/ADV or on request from your Financial Advisor or Private Wealth Advisor.

MLP and other Partnership Investments in IRA/Retirement Plan and other Tax Exempt CG Accounts: For the reasons outlined below, where an otherwise tax exempt account (such as an IRA, qualified retirement plan, charitable organization, or other tax exempt or deferred account) is invested in a pass through entity (such as a master limited partnership), the income from such entity may be subject to taxation, and additional tax filings may be required. Further, the tax advantages associated with these investments are generally not realized when held in a tax-deferred or tax exempt account. Please consult your own tax advisor, and consider any potential tax liability that may result from such an investment in an otherwise tax exempt account.

Earnings generated inside most qualified retirement plans, including defined benefit pension plans, defined contribution plans and individual retirement accounts ("IRAs"), are generally exempt from federal income taxes, however, certain investments made by such retirement plans may generate taxable income referred to as "unrelated business taxable income" ("UBTI") that is subject to taxation at trust rates. Generally, passive types of income (when not financed with debt) such as dividends, interest, annuities, royalties, most rents from real property, and gains from the sale, exchange or other disposition of property (other than inventory or property held for sale in the ordinary course of a trade or business) do not generate UBTI. Active income associated with operating a trade or business, however, may constitute UBTI to an otherwise tax exempt investor such as a qualified retirement plan. In addition, UBTI may also be received as part of an investor’s allocable share of active income generated by a pass-through entity, such as partnerships (including limited partnerships and master limited partnerships), certain trusts, subchapter S corporations, and limited liability companies that are treated as disregarded entities, partnerships, or subchapter S corporations for federal income tax purposes.

If more than $1,000 of unrelated trade or business gross income is generated in a tax year, the retirement plan’s custodian or fiduciary (on behalf of the retirement plan) must file an Exempt Organization Business Income Tax Return, Form 990-T. With respect to an individual investing through an IRA, in calculating the threshold amount and the retirement plan’s UBTI for the year, each IRA is generally treated as a separate taxpayer, even if the same individual is the holder of multiple IRAs.

The passive activity loss limitation rules also apply for purposes of calculating a retirement plan’s UBTI, potentially limiting the amount of losses that can be used to offset the retirement plan’s income from an unrelated trade or business each year. It should be noted that these rules are applied to publicly traded partnerships, such as master limited partnerships, on an entity-by-entity basis, meaning that the passive activity losses generated by one master limited partnership generally can only be used to offset the passive activity income (including unrelated traded or business income) from the same master limited partnership. The passive activity losses generated by one master limited partnership generally cannot be used to offset income from another master limited partnership (or any other source). The disallowed losses are suspended and carried forwarded to be used in future years to offset income generated by that same master limited partnership. However, once the retirement plan disposes of its entire interest in the master limited partnership to an unrelated party, the suspended losses can generally be used to offset any unrelated trade or business income generated inside the retirement plan (including recapture income generated on the sale of the master limited partnership interest, as well as income generated by other master limited partnerships).

In calculating the tax, trust tax rates are applied to the retirement plan’s UBTI (i.e., unrelated trade or business gross income less any applicable deductions, including the $1,000 specific deduction). In addition to the passive loss limitation rules noted above, other limitations may apply to the retirement plan’s potential tax deductions. In order to file Form 990-T, the retirement plan is required to obtain an Employer Identification Number ("EIN") because the plan (and not the plan owner or fiduciary) owes the tax. State and local income taxes may also apply. Accordingly, retirement plan investors (and their fiduciaries) should consult their tax and legal advisors regarding the federal, state, and local income tax implications of their investments.

Similar rules apply to other tax-exempt organizations (e.g., charitable and religious organizations), except that certain differences may apply. For instance, the UBTI of most other tax-exempt organizations is taxable at corporate rates, unless the organization is one that would be taxed as a trust if it were not tax-exempt in which case its UBTI is taxable at trust rates. Also, the passive activity loss limitation rules do not apply to all tax-exempt organizations. Tax-exempt investors should consult their tax and legal advisors regarding the federal, state, and local income tax implications of their investments.

Focus List, Approved List, and Watch Status:

Global Investment Manager Analysis ("GIMA") uses two methods to evaluate investment products in applicable advisory programs. In general, strategies that have passed a more thorough evaluation may be placed on the "Focus List", while strategies that have passed through a different and less comprehensive evaluation process may be placed on the "Approved List". Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List.

Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either evaluation process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a "Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved". The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" on the cover page.

For more information on the Focus List, Approved List, and Watch processes, please see the applicable Morgan Stanley ADV brochure (www.ms.com/adv). Your Financial Advisor or Private Wealth Advisor can provide on request a copy of a paper entitled "GIMA: At A Glance ".

ADDITIONAL DISCLOSURES

The information about a representative account is for illustrative purposes only. Actual account holdings, performance and other data will vary depending on the size of an account, cash flows within an account, and restrictions on an account. Holdings are subject to change daily. The information in this profile is not a recommendation to buy, hold or sell securities.

Actual portfolio statistics may vary from target portfolio characteristics.

The investment manager may use the same or substantially similar investment strategies, and may hold similar portfolios of investments, in other portfolios or products it manages (including mutual funds). These may be available at Morgan Stanley or elsewhere, and may cost an investor more or less than this strategy in Morgan Stanley's Select UMA program.

The portfolio may, at times, invest in exchange-traded funds (ETFs), which are a form of equity security in seeking to maintain continued full exposure to the broad equity market.

Morgan Stanley investment advisory programs may require a minimum asset level and, depending on your specific investment objectives and financial position, may not be suitable for you. Investment advisory program accounts are opened pursuant to a written client agreement.

The investment manager acts independently of, and is not an affiliate of, Morgan Stanley Smith Barney LLC.

Diversification does not guarantee a profit or protect against a loss.

No obligation to notify
Morgan Stanley has no obligation to notify you when information in this profile changes.

Sources of information
Material in this profile has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

No tax advice
Morgan Stanley and its affiliates do not render advice on legal, tax and/or tax accounting matters to clients. Each client should consult his/her personal tax and/or legal advisor to learn about any potential tax or other implications that may result from acting on a particular recommendation.

Not an ERISA fiduciary
Morgan Stanley is not acting as a fiduciary under either the Employee Retirement Income Security Act of 1974, as amended, or under section 4975 of the Internal Revenue Code of 1986, as amended, in providing the information in this profile.

INDEX DESCRIPTIONS

90-Day T-Bills

The 90-Day Treasury Bill is a short-term obligation issued by the United States government. T-bills are purchased at a discount to the full face value, and the investor receives the full value when they mature. The difference of discount is the interested earned. T-bills are issued in denominations of $10,000 auction and $1,000 increments thereafter.

Alerian MLP Index

The Alerian MLP Index is a composite of the 50 most prominent energy Master Limited Partnerships that provides investors with an unbiased, comprehensive benchmark for this emerging asset class. The index, which is calculated using a float-adjusted, capitalization-weighted methodology, is disseminated real-time on a price-return basis (NYSE: AMZ), and the corresponding total-return index is disseminated daily through ticker AMZX. Relevant data points such as dividend yield are also published daily.

S&P 500

The S&P 500 Total Return has been widely regarded as the best single gauge of the large cap U.S. equities market since the index was first published in 1957. The index has over $5.58 trillion benchmarked, with index assets comprising approximately $1.31 trillion of this total. The index includes 500 leading companies in leading industries of the U.S. economy, capturing 75% coverage of U.S. equities. This index includes dividend reinvestment.

Indices are unmanaged and have no expenses. You cannot invest directly in an index.

GLOSSARY OF TERMS

Alpha is a mathematical estimate of risk-adjusted return expected from a portfolio above and beyond the benchmark return at any point in time.

American Depositary Receipts (ADRs) are receipts for shares of a foreign-based corporation held in the vault of a U.S. bank.

Average Portfolio Beta is a measure of the sensitivity of a benchmark or portfolio's rates of return to changes against a market return. The market return is the S&P 500 Index. It is the coefficient measuring a stock or a portfolio's relative volatility.

Beta is a measure of the sensitivity of a portfolio's rates of return to changes in the market return. It is the coeffecient measuring a stock or a portfolio's relative volatility.

Bottom-Up Stock Selection Emphasis primarily on individual stock selection. Considerations of economic and industry factors are of secondary importance in the investment decision-making process.

Capitalization is defined as the following: Mega (Above $100 billion), Large ($12 to $100 billion), Medium ($2.5 - $12 billion), Small ($.50 - $2.5 billion) and Micro (below $.50 billion).

Dividend a portion of a company's profit paid to common and preferred shareholders.

Downside Risk is a measure of the risk associated with achieving a specific target return. This statistic separates portfolio volatility into downside risk and upside uncertainty. The downside considers all returns below the target return, while the upside considers all returns equal to or above the target return.

Duration is a measure of price sensitivity expressed in years.

High Grade Corporate Bonds corporate bonds from issuers with credit ratings of AA or AAA.

Information Ratio is a measure of the investment manager's skill to add active value against a given benchmark relative to how stable that active return has been. Essentially, the information ratio explains how significant a manager's alpha is. Therefore, the higher the information ratio, the more significant the alpha.

Investment Grade Bonds are those rated by Standard & Poor's AAA (highest rated), AA, A or BBB (or equivalent rating by other rating agencies or, in the case of securities not rated, by the investment manager).

Price/Book Ratio (P/B) weighted average of the stocks' price divided by book value per share. Book value per share is defined as common equity, including intangibles, divided by shares outstanding times the adjustment factor.

Price/Cash Flow Ratio a ratio used to compare a company's market value to its cash flow. It is calculated by dividing the company's market cap by the company' operating cash flow in the most recent fiscal year (or the most recent four fiscal quarters); or, equivalently, divide the per-share stock price by the per-share operating cash flow.

Price/Earnings Ratio (P/E Ratio) shows the multiple of earnings at which a stock sells. Determined by dividing current stock price by current earnings per share (adjusted for stock splits). Earnings per share for the P/E ratio are determined by dividing earnings for past 12 months by the number of common shares outstanding. The P/E ratio shown here is calculated by the harmonic mean.

Price/Sales Ratio determined by dividing current stock price by revenue per share (adjusted for stock splits). Revenue per share for the P/S ratio is determined by dividing revenue for past 12 months by number of shares outstanding.

R2 (R-Squared)/Portfolio Diversification indicates the proportion of a security's total variance that is benchmark-related or is explained by variations in the benchmark.

Sharpe Ratio measures the efficiency, or excess return per unit of volatility, of a manager's returns. It evaluates managers' performance on a volatility-adjusted basis.

Standard Deviation is a statistical measure of historical variability or spread of returns around a mathematical average return that was produced by the investment manager over a given measurement period. The higher the standard deviation, the greater the variability in the investment manager's returns relative to its average return.

Top-Down/Economic Analysis Emphasis primarily on macroeconomic trends as opposed to bottom-up stock selection.

Tracking Error represents the standard deviation of the difference between the performance of the investment strategy and the benchmark. This provides a historical measure of the variability of the investment strategy's returns relative to its benchmark.

U.S. Treasury Bonds a marketable, fixed interest U.S. government debt security with a maturity of more than 10 years. Treasury bonds make interest payments semi-annually and the income that holders receive is only taxed at the federal level.

Volatility a measure of risk based on the standard deviation of the asset return. Volatility is a variable that appears in option pricing formulas, where it denotes the volatility of the underlying asset return from now to the expiration of the option. There are volatility indexes. Such as a scale of 1-9; a higher rating means higher risk.

Tortoise MLP & Pipeline Fund

(TORTX/TORIX)

Tortoise MLP & Pipeline Fund (TORTX/TORIX) received a Five-Star Overall Morningstar Rating™ among 76 Energy Limited Partnership Funds (based on a weighted average of the fund's three- and five-year risk-adjusted return measure, if applicable) as of 3/31/2017.

The Tortoise MLP & Pipeline Fund focuses on the large and diverse North American pipeline universe, providing access to the sizable pipeline network of one of the world's largest consumers of energy. The fund has the ability and flexibility to access traditional pipeline corporations alongside MLPs. We believe these pipeline companies and MLPs have strong business fundamentals and expanded growth opportunities.

Key reasons to invest

- **MLP & pipeline focus.** Real, long-lived, essential assets
- **Efficient structure.** Traditional flow-through mutual fund with daily liquidity at NAV
- **Investor simplicity.** One 1099, no K-1s, no unrelated business taxable income, IRA suitability
- **Growth opportunities.** Infrastructure projects connecting new areas of supply and demand
- **Experienced MLP adviser.** A leading and pioneering MLP investment firm

Investment adviser

Tortoise Capital Advisors is one of the largest investment managers of registered energy infrastructure funds, with approximately $17.0 billion (as of 3/31/2017) across listed closed-end funds, mutual funds, private funds and separate accounts.

Investment strategy

The fund intends to invest primarily in equity securities of MLPs and pipeline companies in the energy infrastructure sector. These companies transport, gather and process, distribute and/or store natural gas, natural gas liquids, crude oil and refined petroleum products (including biodiesel and ethanol).

Performance as of 3/31/2017

	Class	Calendar YTD	1 year	3 year	5 year	Since inception*	Expense ratio (gross)
TORIX	Institutional	2.43%	36.49%	-0.46%	7.43%	9.60%	0.97%
TORTX	Investor (excluding load)	2.44%	36.24%	-0.70%	7.17%	9.30%	1.22%
TORTX	Investor (maximum load)	-3.45%	28.42%	-2.63%	5.91%	8.20%	1.22%
TORCX	C Class (excluding CDSC)	2.24%	35.20%	-1.44%	6.37%	8.49%	1.97%
TORCX	C Class (including CDSC)	1.24%	34.20%	-1.44%	6.37%	8.49%	1.97%
SPXT	S&P 500® Index	6.07%	17.17%	10.37%	13.30%	12.52%	
TNAPT	Tortoise North American Pipeline Index℠	3.08%	30.66%	2.83%	8.51%	N/A	

Note: For periods over one year, performance reflected is for the average annual returns.
*Period from fund inception through 3/31/2017. The Institutional and Investor Class Shares commenced operations on 5/31/2011 and C Class Shares commenced operations on 9/19/2012. Performance shown prior to inception of the C Class Shares is based on the performance of the Institutional Class Shares, adjusted for the higher expenses applicable to C Class Shares. The S&P 500® Index is an unmanaged market-value weighted index of stocks, which is widely regarded as the standard for measuring large-cap U.S. stock market performance. Returns include reinvested dividends. The Tortoise North American Pipeline Index℠ is a float-adjusted, capitalization-weighted index of pipeline companies headquartered in the U.S. and Canada. It is not possible to invest directly in an index.

Fund details

Objective	Total return
Institutional Class	
Ticker	TORIX
Cusip	56166Y404
Minimum investment	$1,000,000
Redemption fee	None
Maximum front-end sales load[1]	None
Maximum deferred sales load	None
Investor Class	
Ticker	TORTX
Cusip	56166Y305
Minimum investment	$2,500
Redemption fee	None
Maximum front-end sales load[2]	5.75%
Maximum deferred sales load[3]	None
C Class	
Ticker	TORCX
Cusip	56166Y826
Minimum investment	$2,500
Redemption fee	None
Maximum front-end sales load[1]	None
Maximum deferred sales load[4]	1.00%

(1) While the Institutional and C Classes have no front-end load, advisory and other expenses still apply.
(2) You may qualify for sales charge discounts if you invest at least $50,000.
(3) No front-end sales charge is payable on Investor Class investments of $1 million or more, although the fund may impose a Contingent Deferred Sales Charge ("CDSC") of 1% on certain redemptions made within 12 months of purchase.
(4) The C Class CDSC applies to redemptions made within 12 months of purchase.

Investment committee

Average experience approximately 25 years

Kevin Birzer, CFA	Brian Kessens, CFA
Zach Hamel, CFA	James Mick, CFA
Ken Malvey, CFA	Matt Sallee, CFA
Terry Matlack, CFA	Rob Thummel

The Tortoise North American Pipeline Index℠ (the "Index") is the exclusive property of Tortoise Index Solutions, LLC, which has contracted with S&P Opco, LLC (a subsidiary of S&P Dow Jones Indices LLC) to calculate and maintain the Index. The Index is not sponsored by S&P Dow Jones Indices or its affiliates or its third party licensors (collectively, "S&P Dow Jones Indices"). S&P Dow Jones Indices will not be liable for any errors or omission in calculating the Index. "Calculated by S&P Dow Jones Indices" and its related stylized mark(s) are service marks of S&P Dow Jones Indices and have been licensed for use by Tortoise Index Solutions, LLC and its affiliates. S&P® is a registered trademark of Standard & Poor's Financial Services LLC ("SPFS"), and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). No portion of this publication may be reproduced in any format or by any means including electronically or mechanically, by photocopying, or by any other form or manner whatsoever, without the prior written consent of Tortoise Index Solutions, LLC.

Performance data quoted represents past performance; past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the fund may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by calling 855-TCA-Fund (855-822-3863).
Performance data shown reflecting the Investor Class (maximum load) reflects a sales charge of 5.75%. Performance data shown "excluding load" does not reflect the deduction of the maximum sales load. Performance data shown for the C Class (including CDSC) reflects a contingent deferred sales charge ("CDSC") of 1% for the first 12 months of investment. Performance data shown "excluding CDSC" does not reflect the deduction of the CDSC. If reflected, the load and the CDSC would reduce the performance quoted. Investment performance reflects fee waivers in effect. In the absence of such waivers, total return would be reduced.

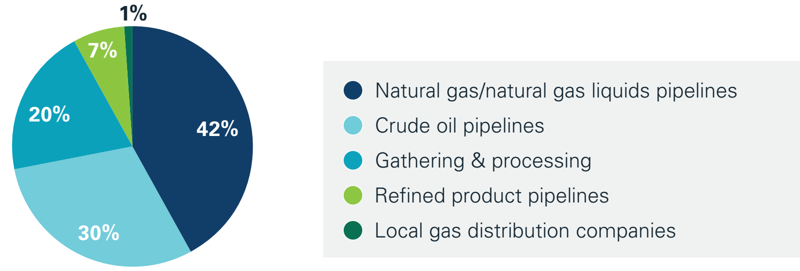
www.tortoiseadvisors.com

Tortoise℠

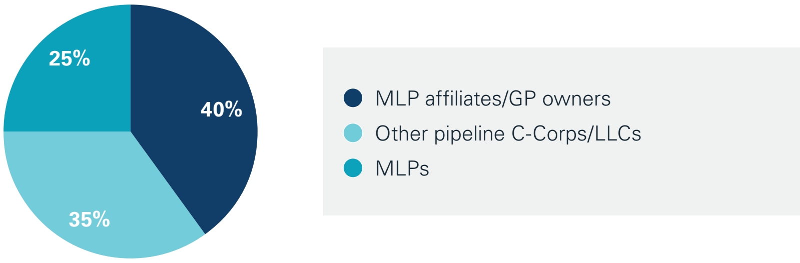
Tortoise MLP & Pipeline Fund

Portfolio as of 3/31/2017 (unaudited)

By asset type



By ownership structure



Due to rounding, totals may not equal 100%.

Investment process

Through its in-house research coverage of companies throughout the entire energy value chain, Tortoise's investment process uses a bottom-up, fundamentals-based approach. Tortoise believes its process is a competitive advantage, allowing it to evaluate risk and reward intelligently across the energy infrastructure universe.

Top 10 holdings

As of 3/31/2017 (unaudited)

1.	Kinder Morgan Inc.	8.7%
2.	The Williams Companies, Inc.	8.4%
3.	TransCanada Corporation	7.8%
4.	Enbridge Inc.	7.6%
5.	Cheniere Energy, Inc.	7.2%
6.	ONEOK, Inc.	5.7%
7.	Plains GP Holdings LP	5.4%
8.	Targa Resources Corp.	5.1%
9.	Pembina Pipeline Corporation	4.7%
10.	Inter Pipeline Ltd.	3.5%

Fund holdings are subject to change and are not recommendations to buy or sell any security. Reflected as a percentage of long-term investments.

Disclosures

The fund's investment objective, risks, charges and expenses must be considered carefully before investing. The summary and statutory prospectus contains this and other important information about the fund and may be obtained by calling 855-TCA-FUND (855-822-3863) or visiting www.tortoiseadvisors.com. Read it carefully before investing.

Mutual fund investing involves risk. Principal loss is possible. The fund is non-diversified, meaning it may concentrate its assets in fewer individual holdings than a diversified fund. Therefore, the fund is more exposed to individual stock volatility than a diversified fund. Investing in specific sectors such as energy infrastructure may involve greater risk and volatility than less concentrated investments. Risks include, but are not limited to, risks associated with companies owning and/or operating pipelines and complementary assets, as well as Master Limited Partnerships (MLPs), MLP affiliates, capital markets, terrorism, natural disasters, climate change, operating, regulatory, environmental, supply and demand, and price volatility risks. The tax benefits received by an investor investing in the fund differs from that of a direct investment in an MLP by an investor. The value of the fund's investment in an MLP will depend largely on the MLP's treatment as a partnership for U.S. federal income tax purposes. If the MLP is deemed to be a corporation then its income would be subject to federal taxation, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund's value. Investments in non-U.S. companies (including Canadian issuers) involve risk not ordinarily associated with investments in securities and instruments of U.S. issuers, including risks related to political, social and economic developments abroad, differences between U.S. and foreign regulatory and accounting requirements, tax risk and market practices, as well as fluctuations in foreign currencies. The fund invests in small and mid-cap companies, which involve additional risks such as limited liquidity and greater volatility than larger companies. Investments in debt securities typically decrease in value when interest rates rise. This risk is usually greater for longer-term debt securities. Investment in lower-rated and non-rated securities presents a greater risk of loss to principal and interest than higher-rated securities. The fund may also write call options which may limit the fund's ability to profit from increases in the market value of a security, but cause it to retain the risk of loss should the price of the security decline.

The Morningstar Rating™ for funds, or "star rating," is calculated for managed products (including mutual funds, variable annuity and variable life subaccounts, exchange-traded funds, closed-end funds and separate accounts) with at least a three-year history without adjustment for sales load. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating™ for a managed product is derived from a weighted average of the performance figures associated with its three-, five- and 10-year (if applicable) Morningstar Rating™ metrics. The weights are: 100% three-year rating for 36 - 59 months of total returns, 60% five-year rating/40% three-year rating for 60 - 119 months of total returns, and 50% 10-year rating/30% five-year rating/20% three-year rating for 120 or more months of total returns. While the 10-year overall star rating formula seems to give the most weight to the 10-year period, the most recent three-year period actually has the greatest impact because it is included in all three rating periods. As of 3/31/17, TORTX/TORIX was rated against the following number of Energy Limited Partnership funds over the following periods: 76 and 31 for the three-year and five-year time periods. TORTX/TORIX received 4 stars and 5 stars for those periods, respectively. This rating is specific to TORTX/TORIX and does not apply to other share classes of the fund. Past performance is no guarantee of future results. Nothing contained on this communication constitutes tax, legal or investment advice. Investors must consult their tax adviser or legal counsel for advice and information concerning their particular situation.

Montage Investments is the indirect majority owner of Tortoise Capital Advisors.

Quasar Distributors, LLC, distributor

• NOT FDIC INSURED • NO BANK GUARANTEE • MAY LOSE VALUE

PROPOSED INVESTMENT TRANSITION
FOR

MICHIGAN COUNTY ROAD COMMISSION
SELF-INSURANCE POOL

JUNE 2017

THE BRICE GROUP
GRAYSTONE CONSULTING

34901 WOODWARD AVENUE, SUITE 300
BIRMINGHAM MI 48009
248-593-2474

Presented by:

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Managing Director – Wealth Management
Institutional Consulting Director
Corporate Retirement Director
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Graystone Consulting[SM]

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MICHIGAN COUNTY ROAD COMMISSION SELF INSURANCE POOL
PROPOSED INVESTMENT TRANSITIONS
MARKET VALUES AS OF JUNE 16, 2017

ACTIONS:

MANDATE	MANAGER	APPROX. ALLOCATION %	APPROX. MARKET VALUE	ACTION
Large Cap Growth Equity	Loomis Sayles	4.08%	$2,680,676	REDUCE POSITION
Large Cap Growth Equity	AMI	4.08%	$2,680,676	REDUCE POSITION
Large Cap Core Equity	The London Company	1.63%	$1,072,270	REDUCE POSITION
Large Cap Value Equity	Delaware	1.00%	$656,492	REDUCE POSITION
Small Cap Growth Equity	Henderson Geneva	1.10%	$722,141	REDUCE POSITION
Small Cap Value Equity	NWQ	1.60%	$1,050,388	REDUCE POSITION
		13.50%	**$8,862,643**	
International Equity	INVESCO	3.05%	$2,002,301	INCREASE EXISTING POSITION
International Equity	Lazard	3.05%	$2,002,301	INCREASE EXISTING POSITION
Emerging Markets Equity	Lazard	2.40%	$1,575,581	INITIATE POSITION
Alternative Investments - MLPs	Cushing	5.00%	$3,282,461	INITIATE POSITION
		13.50%	**$8,862,644**	

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THE BRICE GROUP

MICHIGAN COUNTY ROAD COMMISSION SELF INSURANCE POOL
INVESTMENT STRUCTURE REVIEW AS OF JUNE 16, 2017

Current Investment Structure:

Investment Manager	Mandate	Assets	Asset Allocation	Inv Mgr Fee Rate	MS Overlay Fee Rate	Graystone ISA[1] Fee Rate	Total Fee Rate
				Morgan Stanley Graystone Consulting			
Western Asset Management	Core Plus Fixed Income	$ 12,446,336.77	19%	0.32% [3]	0.04%	0.41%	0.77%
Wedge Capital Management	Domestic Taxable Fixed Income	$ 12,093,837.56	18%	0.25% [4]	0.00%	0.41%	0.66%
Delaware	Domestic Large Cap Value Equity	$ 6,524,760.43	10%	0.28% [3]	0.04%	0.41%	0.73%
The London Company	Domestic Large Cap Core Equity	$ 6,464,678.24	10%	0.28% [3]	0.04%	0.41%	0.73%
Loomis Sayles/Natixis	Domestic Large Cap Growth Equity	$ 8,397,649.12	13%	0.548% [4]	0.00%	0.41%	0.96%
AMI	Domestic Large Cap Growth Equity	$ 6,830,752.66	10%	0.34% [3]	0.04%	0.41%	0.79%
NWQ Investment Management	Domestic Small Cap Value Equity	$ 3,678,798.80	6%	0.60% [4]	0.00%	0.41%	1.01%
Geneva Capital Management	Domestic Small Cap Growth Equity	$ 3,382,778.39	5%	0.40% [3]	0.04%	0.41%	0.85%
Invesco	International Growth Equity	$ 2,859,074.23	4%	0.30% [3]	0.04%	0.41%	0.75%
Lazard	International Value Equity	$ 2,970,555.92	5%	0.30% [3]	0.04%	0.41%	0.75%
TOTAL		***$ 65,649,222.12***	***100%***	***0.35%***	***0.03%***	***0.41%***	***0.78%***

[1]ISA - Morgan Stanley Graystone Consulting Institutional Services Agreement (Morgan Stanley Graystone Fiduciary)

[3]UMA - Unified Managed Account (Overlay Manager, Private Portfolio Group, Fiduciary and Morgan Stanley Co-Fiduciary - Overlay Fee (4 bps) is included in investment manager fee rate)

[4]CES - Consulting & Evaluation Services (Investment Manager Fiduciary)

Fees charged may be negotiated based on a variety of factors, and the fee may be modified by Morgan Stanley upon notice to you.

The above information is for illustrative purposes only. Account information, including the actual fees, will be provided to you in writing after account approval. In the event of any inconsistency between these illustrations and the fees set forth in the written onfirmation, the written confirmation shall be controlling. There is a minimum annual Advisory fee (calculated quarterly) for each Advisory account. This minimum is the lesser of 2% or $250 per year. This minimum will not apply to any account that, when added to any other Consulting Group accounts with which it is related for billing purposes, has a total of $500,000 or more in assets as of the end of the previous billing quarter. The Advisory account will be charged an asset-based wrap fee every quarter ("the Fee"). In general, the Fee covers investment advisory services, the execution of transactions through Morgan Stanley Smith Barney LLC or its affiliates, custody of the client's assets with Morgan Stanley Smith Barney LLC and its affiliates, and reporting. For Select UMA, an Overlay Manager Fee of 0.07% is applied to all assets in the account. Depending on the Advisory Program chosen, and the types of securities utilized in the account, other costs may be incurred. For a complete list of services provided through Morgan Stanley, and for a description of other costs and fees associated with Consulting Group advisory programs, please see the applicable program disclosure document (Form ADV) at www.morganstanley.com/ADV, for the advisory program(s) which you have selected.

The information and data contained in this report are from sources considered reliable, but their accuracy and completeness is not guaranteed. This report has been prepared for illustrative purposes only and is not intended to be used as a substitute for monthly transaction statements you receive on a regular basis from Morgan Stanley Smith Barney LLC. Please compare the data on this document carefully with your monthly statements to verify its accuracy. The Company strongly encourages you to consult with your own accountants or other advisors with respect to any tax questions.

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MICHIGAN COUNTY ROAD COMMISSION SELF INSURANCE POOL
POST TRANSITION
INVESTMENT STRUCTURE REVIEW AS OF JUNE 16, 2017

POST TRANSITION Investment Structure: **Morgan Stanley Graystone Consulting**

Investment Manager	Mandate	Assets	Asset Allocation	Inv Mgr Fee Rate	MS Overlay Fee Rate	Graystone ISA[1] Fee Rate	Total Fee Rate
Western Asset Management	Core Plus Fixed Income	$ 12,446,337	19%	0.32% [3]	0.04%	0.41%	0.77%
Wedge Capital Management	Domestic Taxable Fixed Income	$ 12,093,838	18%	0.25% [4]	0.00%	0.41%	0.66%
Delaware	Domestic Large Cap Value Equity	$ 5,868,268	9%	0.28% [3]	0.04%	0.41%	0.73%
The London Company	Domestic Large Cap Core Equity	$ 5,392,408	8%	0.28% [3]	0.04%	0.41%	0.73%
Loomis Sayles/Natixis	Domestic Large Cap Growth Equity	$ 5,716,973	9%	0.548% [4]	0.00%	0.41%	0.96%
AMI	Domestic Large Cap Growth Equity	$ 4,150,077	6%	0.34% [3]	0.04%	0.41%	0.79%
NWQ Investment Management	Domestic Small Cap Value Equity	$ 2,628,411	4%	0.60% [4]	0.00%	0.41%	1.01%
Geneva Capital Management	Domestic Small Cap Growth Equity	$ 2,660,637	5%	0.40% [3]	0.04%	0.41%	0.85%
Invesco	International Growth Equity	$ 4,861,375	7%	0.30% [3]	0.04%	0.41%	0.75%
Lazard	International Value Equity	$ 4,972,857	8%	0.30% [3]	0.04%	0.41%	0.75%
Lazard	Emerging Markets Equity	$ 1,575,581	2%	0.40% [3]	0.04%	0.41%	0.85%
Cushing	Alternative InvestmeNTS - MLPs	$ 3,282,461	5%	0.40% [3]	0.04%	0.41%	0.85%
TOTAL		***$ 65,649,223***	100%	***0.34%***	***0.03%***	***0.41%***	***0.78%***

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