# COMMUNITY FOUNDATION OF GREATER DES MOINES INVESTMENT EDUCATION SESSION

FEBRUARY 16, 2016

**Elizabeth Monticelli** 

Principal

**Chris Kohler** 

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# MERCER CONSULTANT



Elizabeth M. Monticelli
Principal
17+ years with Mercer, 22+ years of investment experience

Elizabeth is a Principal assigned to Mercer's St. Louis office in Investments where she has worked for over 17 years consulting to institutional investors. She works with non-profit institutions that include endowments, foundations, and trusts.

She received an MA degree in International Trade from George Mason University and a BA in Economics from the University of Virginia. She has prior experience with The Witan Company, a financial reporting firm for families of high net worth and before that, she was an accountant and performance analyst for the Scripps family office (SLN Service Co.).

Elizabeth currently is a member of the St. Louis Zoo's Executive Board and serves as the Chair of the Zoo's Investment Oversight Committee. She is on the Board of the Ladue Education Foundation, chaired the Foundation's Partnership Committee and is a member of the CFA Institute and the St. Louis Society of Financial Analysts. Previously, Elizabeth served as the Co-Chair of the St. Louis Chapter of Families for Russian and Ukrainian Adoption.

# MERCER CONSULTANT



Chris Kohler, MBA
Principal
1+ year with Mercer, 10+ years of investment experience

Chris is a Principal and Senior Investment Consultant in Mercer's investment consulting practice, focusing on endowments and foundations in the US. Chris has 10 years of experience advising non-profit institutions with assets ranging from \$50 million to \$2 billion in OCIO and traditional consulting capacities. In September 2014, Chris joined Mercer from a large hedge fund-of-funds, where he was a product specialist on the consultant relations team. Earlier in his career, he held senior consultant and research roles with Aon Hewitt and Cambridge Associates.

Chris received a Master of Business Administration from Carnegie Mellon's Tepper School of Business and a Bachelor of Science in Economics from Pennsylvania State University.

# WEEKLY INDEX REPORT AS OF FEBRUARY 5, 2016

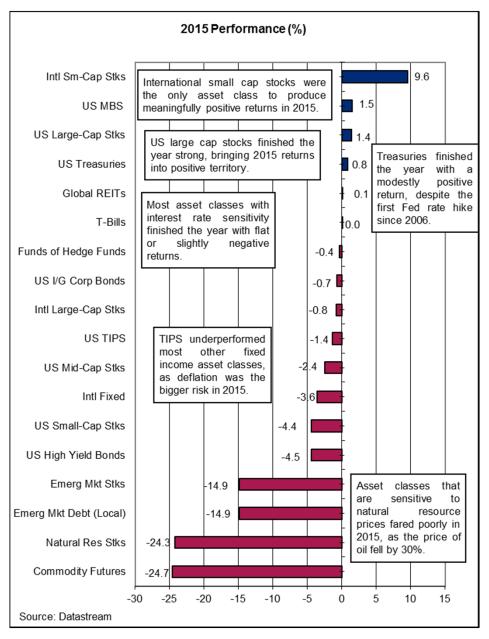
Interest Rates	Current	Dec-15	Sep-15
Fed Funds Rate	0.0-0.25	0.0-0.25	0.0-0.25
3-Month T-Bill	0.29	0.16	-0.02
10-Year Treasury	1.84	2.27	2.16
30-Year Treasury	2.67	3.02	2.96
10-Year TIPS	0.51	0.71	0.69
30-Year TIPS	1.11	1.27	1.31
Barclays High Yield OAS	7.68	6.60	5.90
3-Month LIBOR	0.62	0.61	0.33
Barclays Aggregate	2.32	2.59	2.31
Barclays Long Treasury	2.52	2.89	2.75
Barclays Long Corporate	5.06	5.06	4.92
Barclays Long Govt/Credit	3.98	4.20	4.10

<b>Commodity Prices</b>	Current	Dec-15	Sep-15
Gold Oil	1157.80	1060.20	1115.50
Oil	30.89	37.04	45.09
Natural Gas	2.06	2.34	2.52

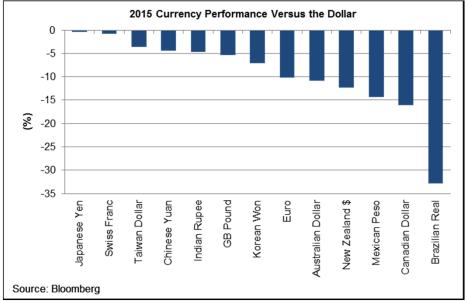
Currencies	Current	QTD	YTD	1 Year
Euro, in dollars	1.12	2.75	2.75	-2.77
U.K. Pound, in dollars	1.45	-1.60	-1.60	-5.38
Yen, per dollar	117.02	2.92	2.92	0.55

	Last				
Index Returns	Week	MTD	QTD	YTD	1 Year
DJ U.S. Total Stock Market	-3.2	-3.2	-8.7	-8.7	-8.9
S&P 500	-3.0	-3.0	-7.9	-7.9	-6.9
Dow-Jones Industrial Avg.	-1.5	-1.5	-6.8	-6.8	-7.1
Russell 1000 Growth	-3.8	-3.8	-9.2	-9.2	-5.5
Russell 1000 Value	-2.3	-2.3	-7.4	-7.4	-10.6
Russell 2000	-4.8	-4.8	-13.2	-13.2	-17.3
Russell 2000 Growth	-5.9	-5.9	-16.1	-16.1	-18.0
Russell 2000 Value	-3.7	-3.7	-10.2	-10.2	-16.8
MSCI ACWI Index	-2.2	-2.2	-8.1	-8.1	-11.4
MSCI ACWI ex-US Index	-1.1	-1.1	-7.9	-7.9	-15.0
MSCI EAFE	-1.5	-1.5	-8.6	-8.6	-11.7
MSCI EAFE Small Cap	-0.7	-0.7	-8.6	-8.6	-2.1
MSCI Emerging Markets	-0.3	-0.3	-6.8	-6.8	-22.9
Barclays Aggregate	0.2	0.2	1.6	1.6	0.6
Barclays Long Treasury	1.4	1.4	6.5	6.5	-0.4
Barclays Long Corporate	0.2	0.2	0.1	0.1	-8.1
Barclays Long Govt/Credit	0.7	0.7	2.8	2.8	-4.7
Dow-Jones Wilshire REIT	-2.2	-2.2	-6.0	-6.0	-9.4
DJ-UBS Commodity Index	-2.1	-2.1	-3.7	-3.7	-26.2
Alerian MLP Index	-4.7	-4.7	-15.2	-15.2	-43.4
S&P Natural Resources	-2.7	-2.7	-7.3	-7.3	-31.2

# 2015 PERFORMANCE







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# 2016 OUTLOOK AND BEYOND

- Despite a challenging 2015 return environment, strong performance from many asset classes over the past seven years has reduced the prospects for future returns while increasing risks to the downside.
  - ✓ Invest for the long term. Have patience, don't panic.
  - Diversifying broadly helps to limit the risk and magnitude of losses in an uncertain world.

### Global Economic Outlook

- The outlook for the global economy remains steady, but continues to face headwinds.
- ✓ Global economic growth in 2016 is likely to be similar to that seen in 2015.
- Developed world growth is expected to remain in-line with recent trend. Emerging economies growth is expected to remain higher than the developed world, but faces downward pressure.

### Market Outlook

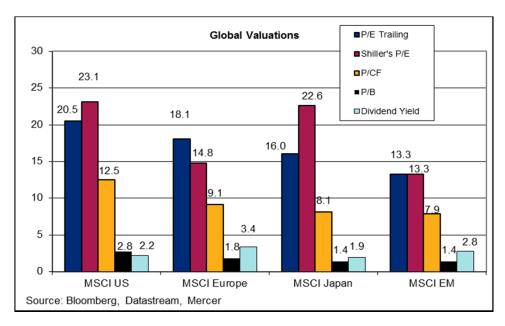
- Global equities are likely to perform well (upper single-digit returns) over the intermediate term (5-7 years), supported by earnings growth and a benign economic environment. Equity market valuations are mixed, but aggregate global markets are trading near fair value.
- ✓ Volatility increased in 2015, which is likely to continue into 2016. Monetary policy changes in the US create the potential for periodic spikes.
- ✓ We expect bond yields to rise modestly from their very low levels.

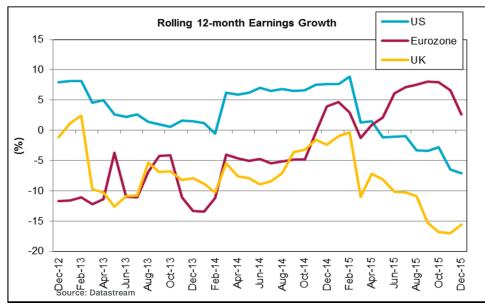
### Potential Risks

- ✓ The Fed's monetary policy.
- Sharp rise in bond yields.
- Global growth stalls.
- Geopolitical shock.

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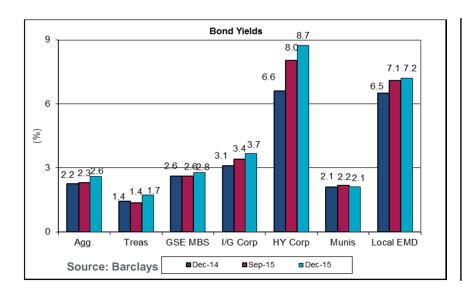
# MARKET OUTLOOK: STOCKS

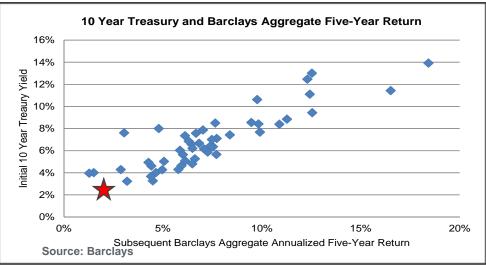




- Developed international stocks should benefit from stronger earnings growth prospects, better starting valuations and relatively looser monetary policies. Dollar strength is a near term risk due to the divergence in monetary policies.
- After several years of disappointments, Eurozone earnings began to expand in 2015, benefiting from limited exposure to energy and improving macro conditions.
  - Energy exposure and currency gains are hurting US and UK firms, both of which have seen declining profits.

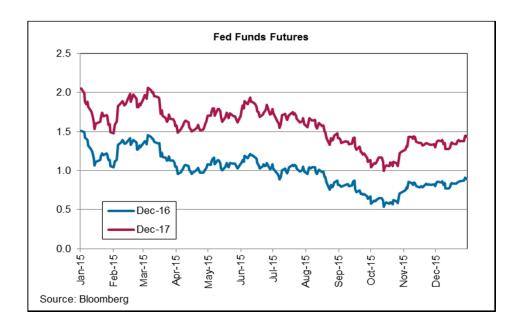
# MARKET OUTLOOK: FIXED INCOME

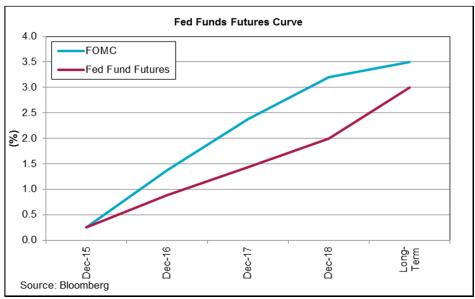




- US core bond sectors continue to offer low yields. Sovereign bond yields in developed markets throughout the globe also remain near historically low levels.
- Low bond yields will create a strong headwind for fixed income investors with expected returns for traditional fixed income modeled at only 3.0% going forward.
- The Federal Reserve (Fed) increased rates at its December 2015 meeting. Additional rate increases are expected in 2016, but policy changes will remain dependent on labor market conditions and economic growth in the US and internationally.
- Modest global growth and diverging central bank policies will likely drive continued volatility in fixed income
  markets. Especially coming off such low yields volatility is expected to be higher than historic norms thus
  reducing the capability of traditional fixed income to provide an effective ballast to the overall portfolio.
- Correlations to equities and other interest rate sensitive assets (e.g. real estate) are likely to increase in a rising rate environment.

# MARKET OUTLOOK: MONETARY POLICY

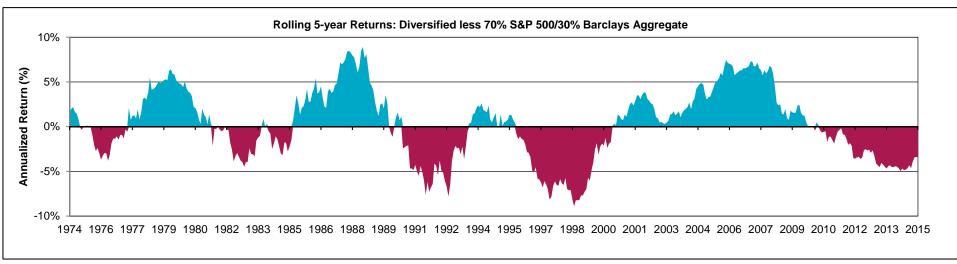




- As expected, the Fed raised rates for the first time in nearly a decade during its December 2015 meeting. Monetary policy remains extremely easy, especially outside the US.
- At the start of 2015, futures were predicting a rate of 1.5% by the end of 2016 versus the current projection of 0.9%.
- There continues to be a large disconnect between the FOMC projections and the rates implied by the bond market. The FOMC projects the rate to be over 2.4% by the end of 2017 versus closer to a 1.4% rate implied by Fed Funds futures.
- We expect the Fed to be very cautious and anticipate a gradual pace of rate increases. One risk to this view is if labor markets tighten more than expected and cause wage growth to unexpectedly accelerate.

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# DIVERSIFICATION IN HISTORICAL CONTEXT



Note: Diversified portfolio: 45% global stocks, 10% private equity, 5% real estate, 5% natural resources, 15% hedge fund of funds, 2.5% HY bonds, 2.5% LC EMD, 15% core fixed income. In cases where an asset class did not have a representative index for the full period, we used the closest substitute we could identify.

Source: Datastream, Capital IQ, HFR, Mercer

- Post financial crisis, globally diversified portfolios have struggled relative to a 70/30 S&P500/Barclays Aggregate mix as almost all asset classes have lagged US stocks.
- Over the long-term, the diversified portfolio has outperformed the 70/30 portfolio, while also experiencing less volatility.
- We believe diversification will be rewarded in the current, post-recovery period.
  - More favorable environment for alpha and non-traditional asset classes
  - Better prospects for international developed stocks
  - Paltry expected return on fixed income
  - Dynamically favoring asset classes offering the best opportunities

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# INVESTMENT OBJECTIVE

### **Community Foundation of Greater Des Moines**

### Investment Objective:

"The primary investment objective of the Foundation is to provide a real rate of return over inflation sufficient to support in perpetuity the mission of the Foundation. It is particularly important to grow the assets in real terms to enable the Foundation to maintain the purchasing power of the spending on grants and administration without eroding the real value of the principal corpus of the Foundation."

<sup>&</sup>lt;sup>1</sup> Source: Statement of Investment Policy for Greater Des Moines Community Foundation

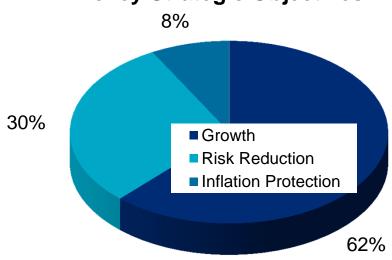
Portfolio Objectives							
Distribution Rate	5.0%						
Inflation	2.2%						
Real Growth	1.0%						
Net Long Term Return Need	8.2%						
10-Year Horizon Expected Return	6.9%						

- We project that the Long-Term Growth Portfolio will gain 6.9% per annum over the intermediate term, slightly under the spending and inflation target of 7.2% and falling short of the Foundation's aspiration for 1.0% real growth. Manager alpha may improve performance beyond that projected above.
- Since Oct. 2002 (almost 13 years), the Long-Term Growth Portfolio has earned 7.3%, annualized and net of fees.
- In addition to meeting the distribution rate, inflation, and providing some growth, the Community Foundation also charges an administrative fee. The fee schedule collects about 100 basis points from most fund types and 50 basis points from agency funds. Based on the last twelve months of activity ending 9/30/15, the Community Foundation's average administration fee was 65 basis points.

Source: Community Foundation of Greater Des Moines Administration

# TARGET POLICY ASSET ALLOCATION STRATEGIC VIEW - LONG-TERM GROWTH PORTFOLIO





Policy Strategic Objectives									
Growth	62%	Risk Reduction	30%	Inflation Protection	8%				
US Equities	28.0%	US Fixed Income	9.0%	Real Assets	8.0%				
Intl Equities	27.0%	Global Fixed Income	4.0%						
Private Equity	7.0%	Hedge Funds/Absolute Return	17.0%						

- Viewed strategically, the Long-Term Growth Portfolio has a 62% allocation to growth assets and a 30% allocation to risk reduction assets. Therefore, the Portfolio should be able to perform better than the equity market during periods of market decline.
- The Policy also has an 8% allocation to inflation protection assets, which should help the Portfolio retain purchasing power during
  inflationary periods. Inflation is not a pressing concern in the current market environment but will be in the future.

# TARGET POLICY - ASSET ALLOCATION TRADITIONAL VIEW - LONG-TERM GROWTH PORTFOLIO

# Equity/Fixed Income/Alternatives Domestic/International Equities Active/Passive 13% Passive Alternatives Active Active

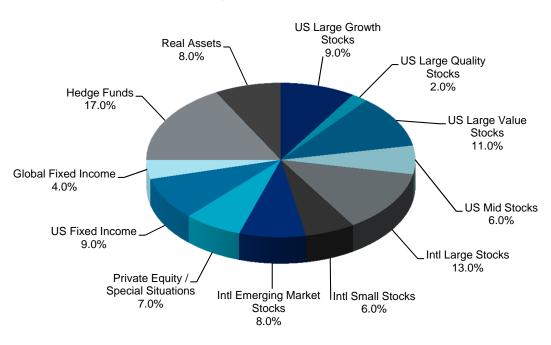
 This page shows the traditional portfolio view where equity, fixed income, and alternative investments are separated into different categories.

13%

- Currently, the Portfolio is well diversified between domestic and international assets.
- The pie chart on the right shows the breakout of the Portfolio into each underlying asset class.

### **Policy Asset Allocation**

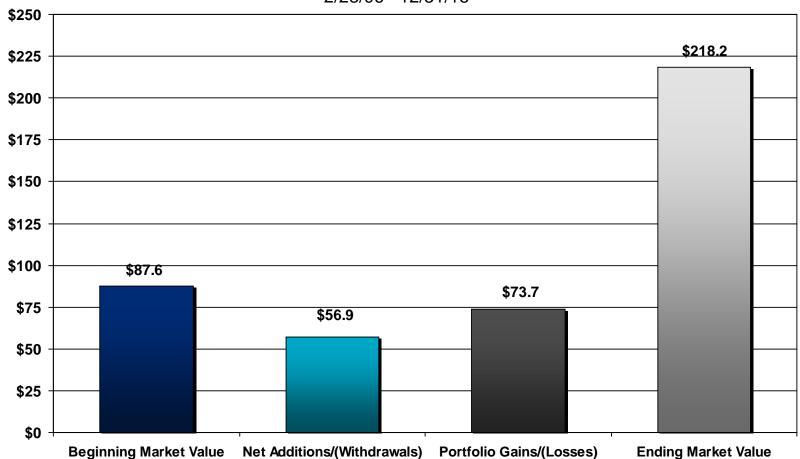
87%\_



# SOURCES OF GROWTH LONG-TERM GROWTH PORTFOLIO

# Change In Market Value

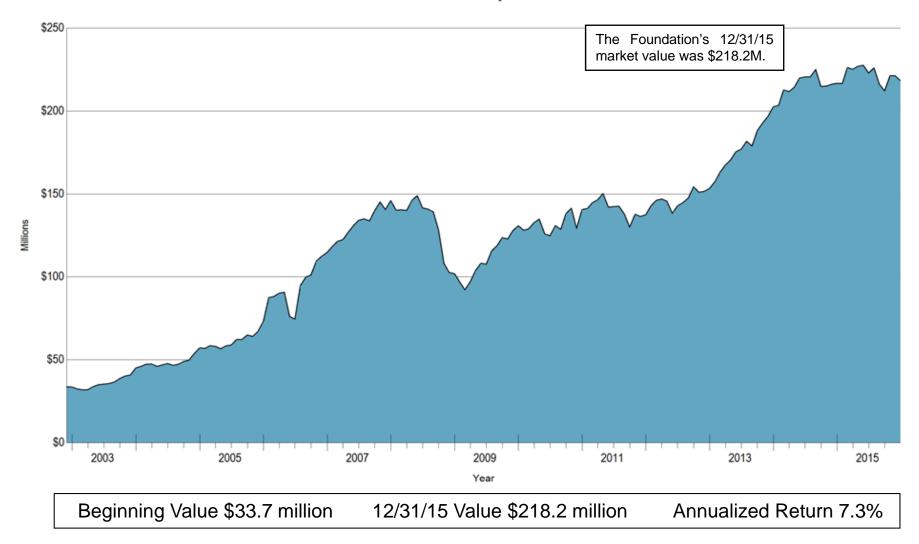
2/28/06 - 12/31/15



Since February 2006, the Foundation's portfolio has grown by \$130.6 million due to \$56.9 million in net additions and \$73.7 million in investment gains.

# MARKET VALUE HISTORY LONG-TERM GROWTH PORTFOLIO

Market Value History



As of December 31, 2015, the Long-Term Growth Portfolio was valued at \$218.2 million.

# PERFORMANCE REVIEW - LONG-TERM GROWTH

AS OF DECEMBER	31, 20	15			Er	nding De	cember 3	1, 2015			Incep	tion
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
CF OF GREATER DES MOINES	218,223,050	100.0	100.0	-1.1	2.5	-0.8	-0.8	5.6	5.9	4.9	7.3	Oct-02
Blended Historical Benchmark				-1.4	3.4	-1.3	-1.3	5.7	5.4	4.7	-	Oct-02
TOTAL MARKETABLE SECURITIES*	208,501,240	95.5	90.0	-1.1	2.8	-1.1	-1.1	5.4	5.6		6.6	Sep-08
TOTAL EQUITY	124,571,504	57.1	55.0	-1.5	4.7	-1.1	-1.1	8.4			10.0	Jul-12
MSCI ACWI				-1.8	5.0	-2.4	-2.4	7.7	-	-	9.3	Jul-12
TOTAL DOMESTIC EQUITY	67,984,622	31.2	28.0	-1.8	6.0	0.8	0.8	14.1	11.9	6.6	8.6	Aug-02
Dow Jones U.S. Total Stock Market				-2.0	6.3	0.4	0.4	14.7	12.1	7.5	9.0	Aug-02
TOTAL INTERNATIONAL EQUITY	56,586,881	25.9	27.0	-1.2	3.1	-3.3	-3.3	2.3	3.6	5.5	7.7	Dec-01
MSCI ACWI ex USA				-1.9	3.2	-5.7	-5.7	1.5	1.1	2.9	6.0	Dec-01
TOTAL FIXED INCOME	30,081,684	13.8	13.0	-0.9	-1.8	-3.7	-3.7	-1.4	2.2	4.8	4.4	Aug-02
Barclays Aggregate				-0.3	-0.6	0.5	0.5	1.4	3.2	4.5	4.4	Aug-02
TOTAL CASH	3,243,244	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.4	Dec-02
TOTAL HEDGE FUNDS	36,953,295	16.9	17.0	-0.5	0.6	0.8	0.8	3.6	4.1		3.7	Jun-06
HFR Fund of Funds				-0.5	0.7	-0.3	-0.3	3.9	2.1	-	1.9	Jun-06
TOTAL REAL ASSETS	15,398,020	7.1	8.0	0.0	2.3	1.5	1.5	7.1	4.2		-2.0	Jan-06
Real Assets Blended Index				0.7	4.3	3.8	3.8	10.0	-	-	-	Jan-06
TOTAL ILLIQUID REAL ASSETS	1,746,508	0.8										
TOTAL PRIVATE EQUITY	7,975,302	3.7	7.0	-0.1	-0.7	5.0	5.0	10.5	10.7		5.5	Jan-06
Burgiss Global Private Equity Index				0.0	5.6	11.8	11.8	16.0	15.4		12.1	Jan-06

- Despite the market turmoil in 2015, the Long-Term Growth Portfolio, valued at \$218.2 million, outperformed its benchmark's 1.3% decline, returning -0.8%, net of all fees.
- The Marketable Securities Composite (excludes private equity and private real assets) performed well versus its benchmarks in a tough year, returning -1.1%, net of fees. In comparison, its global equity benchmark declined 2.4% while bonds rose 0.5%.

The less diversified benchmark mentioned above reflects the broad asset allocation existing during the period, e.g., 70%/30%, 68%/32%, etc.

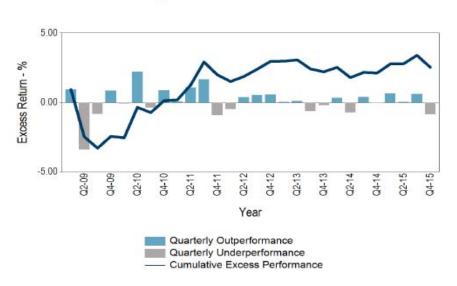
# RISK AND RETURN ANALYSIS SEVEN YEARS ENDING DECEMBER 31, 2015

- We performed a risk and return analysis for the Long-Term Growth Portfolio for the seven-year period ending December 31, 2015. A less diversified blended benchmark was used as a market proxy, e.g., 70%/30%, 68%/32%, etc. The statistics are based on 84 monthly observations.
- In summary, the portfolio generated an annualized return of 9.48% while incurring annual volatility of +/- 9.63% (standard deviation). In comparison, the blended benchmark returned 8.93% over the same period and exhibited a higher standard deviation of +/- 11.09%.
- Relative to the blended benchmark, the Portfolio had a beta of 0.86 which means it was less sensitive to overall
  market movements.
- The Portfolio generated a higher Sharpe ratio (0.98 versus 0.80) which implies higher risk-adjusted returns (greater return per each unit of risk taken).
- In summary, for the seven-year period ending December 31, 2015, the Long-Term Growth Portfolio generated slightly higher returns than the blended benchmark while taking significantly less risk.
- The diversification within the Foundation allowed the Portfolio to capture most of the return potential in rising markets while protecting capital in market downturns.

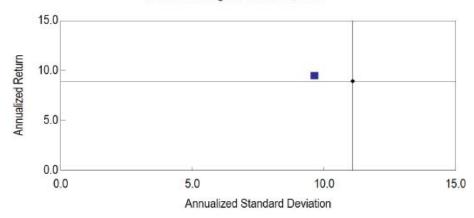
# RISK AND RETURN ANALYSIS

### LONG-TERM GROWTH PORTFOLIO

### Quarterly and Cumulative Excess Performance



### Annualized Return vs. Annualized Standard Deviation 7 Years Ending December 31, 2015



- CF OF GREATER DES MOINES
- · Blended Historical Benchmark

### **RISK RETURN STATISTICS**

January 01, 2009 Through December 31, 2015

	CF OF GREATER DES MOINES	Blended Historical Benchmark
RETURN SUMMARY STATISTICS		
Number of Periods	84	84
Maximum Return	7.17	8.41
Minimum Return	-6.03	-6.97
Annualized Return	9.48	8.93
Total Return	88.52	81.94
Annualized Excess Return Over Risk Free	9.41	8.85
Annualized Excess Return	0.55	0.00
RISK SUMMARY STATISTICS		
Market Wile	0.00	1.00
Beta	0,86	1.00
Beta Upside Deviation	6.21	
Upside Deviation		7.34
Upside Deviation Downside Deviation RISK/RETURN SUMMARY STATIS	6.21 6.25 <b>TICS</b>	7.34 6.94
Upside Deviation Downside Deviation RISK/RETURN SUMMARY STATIS Annualized Standard Deviation	6.21 6.25 <b>TICS</b> 9.63	7.34 6.94 11.09
Upside Deviation Downside Deviation  RISK/RETURN SUMMARY STATIS  Annualized Standard Deviation  Alpha	6.21 6.25 <b>TICS</b>	7.34 6.94 11.09 0.00
Upside Deviation Downside Deviation RISK/RETURN SUMMARY STATIS Annualized Standard Deviation	6.21 6.25 <b>TICS</b> 9.63 0.14	7.34 6.94 11.09 0.00 0.80
Upside Deviation Downside Deviation  RISK/RETURN SUMMARY STATIS  Annualized Standard Deviation  Alpha  Sharpe Ratio  Excess Return Over Market / Risk	6.21 6.25 <b>TICS</b> 9.63 0.14 0.98	7.34 6.94 11.09 0.00 0.80 0.00
Upside Deviation Downside Deviation  RISKRETURN SUMMARY STATIS  Annualized Standard Deviation  Alpha  Sharpe Ratio	6.21 6.25 TICS 9,63 0.14 0.98 0.06	7.34 6.94 11.09 0.00 0.80 0.00
Upside Deviation Downside Deviation  RISK/RETURN SUMMARY STATIS  Annualized Standard Deviation  Alpha  Sharpe Ratio  Excess Return Over Market / Risk  Tracking Error	6.21 6.25 TICS 9.63 0.14 0.98 0.06 2.18	7.34 6.94 11.09 0.00 0.80 0.00 0.00
Upside Deviation Downside Deviation  RISK/RETURN SUMMARY STATIS Annualized Standard Deviation Alpha Sharpe Ratio Excess Return Over Market / Risk Tracking Error Information Ratio	6.21 6.25 TICS 9.63 0.14 0.98 0.06 2.18	7.34 6.94 11.09 0.00 0.80 0.00

Market Proxy: Blended Historical Benchmark

Risk-Free Proxy: 91 Day T-Bills

# LIQUIDITY ANALYSIS

# AS OF DECEMBER 31, 2015 - LONG-TERM GROWTH PORTFOLIO

Liquidity	Manager	Notice Needed	Portfolio Values (\$)	Cumulative Total		
	Vanguard Growth Index Instl	1 Day	13,380,434			
	DSM Large Cap Grow th Fund Ins	1 Day	10,111,576			
	Delaw are Large Cap Value Focus	1 Day	18,813,357			
	Vanguard Value Index Fund	1 Day	6,766,753			
	Vanguard Dividend Appreciation ETF	1 Day	4,265,136			Liquidity
	Sequoia	1 Day	21,028			Liquidity
	Vaughan Nelson Value Opportunity	1 Day	6,637,250			
Daily	Vanguard Mid Cap Index Inst.	1 Day	7,989,088			5%
	Dodge & Cox Intl Stock Fund	1 Day	2,264			10%
	Vanguard FTSE Developed Markets	1 Day	3,476,319			10%
	Aberdeen Emerging Markets Fund	1 Day	15,336,623			
	Metropolitan West Total Return Bond	1 Day	12,777,450			
	JHancock Global Absolute Return Strategies I	1 Day	13,620,676			26% 59%
	Brookfield Global Listed Real Estate	1 Day	6,722,656			20 /6 59 %
	Principal Global Real Estate	1 Day	6,928,856	126,849,466	59%	
	Silchester Int'l Value Equity CTF	10 Days	25,581,042			
	Brandyw ine Global Fixed Income CTF	10 Days	4,926,876			
Monthly	Colchester Global Bond Fund	10 Days	4,789,383			
	Mondrian Int'l Small Cap Fund CTF	15 Days	12,190,633			
	Sankaty High Income Partnership	60 Days	7,587,975	181,925,375	85%	■ Daily ■ Monthly ■ Quarterly ■ Illiquid
Quarterly	Mercer Hedge Fund Investors SPC <sup>1</sup>	100 Days	8,632,099			■Daily ■Monthly ■Quarterly ■Illiquid
Quarterry	Pinehurst Institutional Ltd. <sup>2</sup>	100 Days	13,565,763	204,123,237	95%	
	Silver Creek Low Vol Strategies II Ltd.3	100 Days	1,134,757			
Limited Liquidity (est. 10-15 years)	Illiquid Real Assets	-	1,746,508			
( D ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	Private Equity	-	7,975,302	214,979,804 1	100%	

<sup>1</sup> Redemptions from Mercer HFI are paid out with corresponding redemptions from the underlying managers (could take multiple years). 2 Quarterly redemptions from Pinehurst available up to 25% of account value; full redemptions are available at calendar year-end.

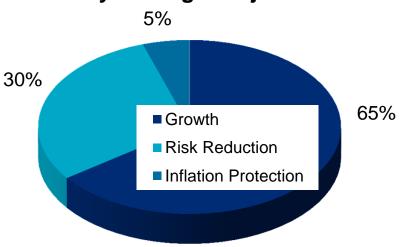
- The liquidity analysis indicates that 85% of Long-Term Growth Portfolio assets could be available within 60 days, including 59% that could be liquidated overnight.
- Entire receipt of assets from hedge fund managers could take one year (Pinehurst) to three years (Mercer Hedge Fund) following sufficient notice.
- We estimate the Foundation can expect distributions from private assets (limited liquidity) over the next ten to fifteen years.

<sup>3</sup> Silver Creek is not allowing redemptions at this time.

# TARGET POLICY ASSET ALLOCATION

### STRATEGIC VIEW - INDEXED GROWTH



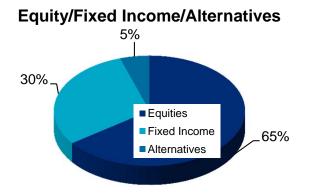


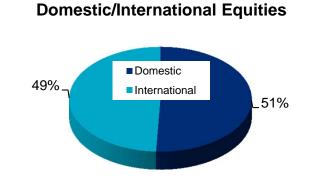
Policy Strategic Objectives									
Growth	65%	Risk Reduction	30%	Inflation Protectior	5%				
US Equities	33.0%	US Fixed Income	21.0%	Real Assets	5.0%				
Intl Equities	32.0%	Global Fixed Income	9.0%						

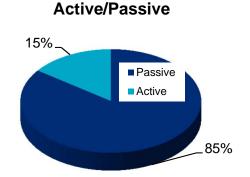
- Viewed strategically, the Indexed Growth Portfolio has a 65% allocation to growth assets and a 30% allocation to risk reduction assets. Therefore, the portfolio should be able to perform better than the equity market during periods of market decline.
- The Policy also has an 5% allocation to inflation protection assets, which should help the portfolio retain purchasing power during
  inflationary periods. Inflation is not a concern in the current market environment but will be in the future.

# TARGET POLICY ASSET ALLOCATION

### TRADITIONAL VIEW - INDEXED GROWTH

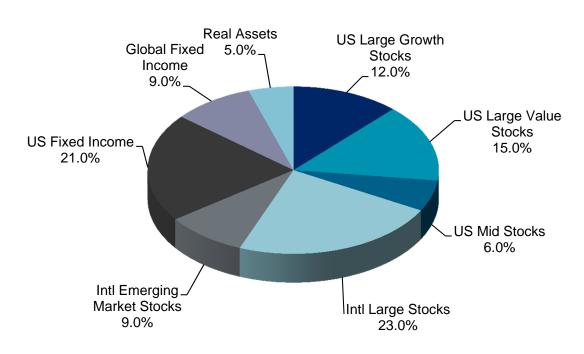






# **Policy Asset Allocation**

- This page shows the traditional portfolio view where equity, fixed income, and alternative investments are separated into different categories than on the previous page.
- Currently, the portfolio has a good mix of domestic and international assets.
- The chart on the left shows the breakout of the portfolio into each underlying asset class.



# PERFORMANCE

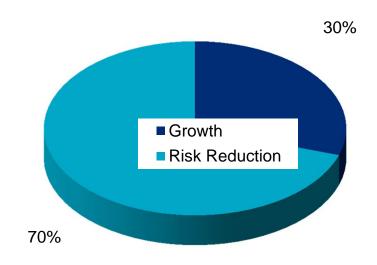
# INDEXED GROWTH PORTFOLIO

				Endin	ıg Decen	ıber 31, 20	15		Incep	tion
	Market Value	% of	1 Mo	3 Mo	YTD	1 Yr	3 Yrs	5 Yrs	Return	Since
	(\$)	Portfolio	(%)	(%)	(%)	(%)	(%)	(%)	(%)	
INDEXED GROWTH PORTFOLIO	22,016,901	100.0	-1.7	2.9	-2.2	-2.2	5.1	4.2	7.1	Jun-10
70% MSCl ACWI(net)/30% Barclays Agg			-1.4	3.4	-1.3	-1.3	5.9	5.4	8.0	Jun-10
Vanguard Growth Index Inst	2,728,065	12.4	-2.4	6.5	3.3	3.3	15.8	13.1	16.8	Jun-10
Vanguard Spliced Large Cap Growth			-2.4	6.5	3.4	3.4	15.9	13.2	16.9	Jun-10
Vanguard Value Index Inst	3,167,611	14.4	-1.0	7.0	-0.9	-0.9			10.9	Mar-13
Vanguard Spliced Large Cap Value			-1.0	7.0	-0.9	-0.9			11.0	Mar-13
iShares S&P Mid Cap 400 Value	480,168	2.2	-5.1	2.2	-6.7	-6.7			-0.6	May-14
S&P 400 MidCap Value			-5.1	2.2	-6.7	-6.7			-0.5	May-14
Vanguard Mid Cap Index Inst	821,446	3.7	-2.7	3.4	-1.3	-1.3			4.4	May-14
CRSP US Mid CapTR USD			-2.7	3.5	-1.3	-1.3			4.5	May-14
Vanguard Developed Mkts Index Adm	3,654,857	16.6	-1.8	3.9	-0.2	-0.2	4.7	3.6	7.6	Jun-10
Vanguard Spliced Developed Markets Index			-1.3	4.9	-0.3	-0.3	5.2	3.7	7.5	Jun-10
iShares Currency Hedged MSCI EAFE	1,578,712	7.2	-3.5	5.1	-				-8.4	May-15
MSCI EAFE 100% Hedged USD (net)			-2.7	6.4	-				-7.5	May-15
Vanguard FTSE Emerging Mkts ETF	1,651,953	7.5	-3.4	-0.7	-15.8	-15.8	-7.2	-5.0	0.0	Jun-10
Vanguard Spliced Emerging Markets Index			-2.1	0.4	-15.4	-15.4	-6.4	-4.6	0.0	Jun-10
Vanguard Total Bond Index Admiral	4,730,717	21.5	-0.4	-0.6	0.4	0.4	1.3	3.1	3.1	Jun-10
Barclays Aggregate			-0.3	-0.6	0.5	0.5	1.4	3.2	3.2	Jun-10
Templeton Global Bond Fund Adv	977,493	4.4	-3.1	2.3	-4.0	-4.0	0.0	2.6	3.9	Jun-10
Citi WGBI			0.9	-1.2	-3.6	-3.6	-2.7	-0.1	1.0	Jun-10
Brandywine Global Fixed Income Portfolio CTF	906,295	4.1	-0.7	-1.2	-7.7	-7.7			-2.5	Mar-13
Citi WGBI			0.9	-1.2	-3.6	-3.6			-1.9	Mar-13
Cash	157,165	0.7	0.0	0.0	0.0	0.0	0.2		0.1	May-11
91 Day T-Bills			0.0	0.0	0.0	0.0	0.0		0.0	May-11
SPDR Dow Jones Global Real Estate ETF	1,162,418	5.3	0.6	4.6	1.0	1.0			2.2	Aug-14
Dow Jones Global Select RESI			0.8	4.9	1.6	1.6			2.9	Aug-14

# TARGET POLICY ASSET ALLOCATION

# STRATEGIC VIEW - DEFENSIVE GROWTH

# **Policy Strategic Objectives**



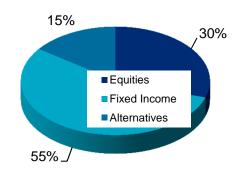
Policy Strategic Objectives									
Growth	30%	Risk Reduction	70%						
US Equities	15.0%	US Fixed Income	38.0%						
Intl Equities	15.0%	Global Fixed Income	17.0%						
		Absolute Return	15.0%						

• Viewed strategically, the Defensive Growth Portfolio has a 30% allocation to growth-oriented assets and a 70% allocation to risk reduction assets.

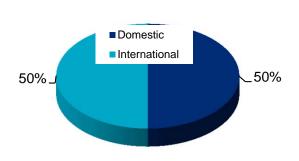
# TARGET POLICY ASSET ALLOCATION

# TRADITIONAL VIEW - DEFENSIVE GROWTH

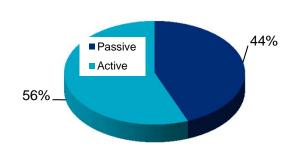




# **Domestic/International Equities**

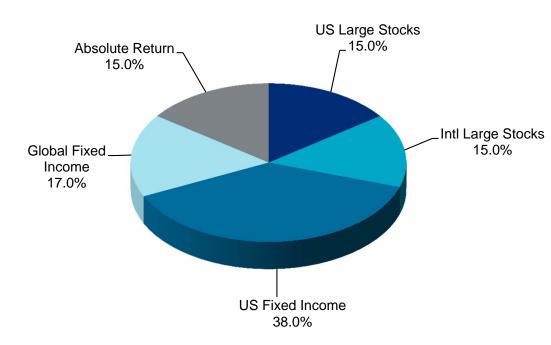


### **Active/Passive**



# **Policy Asset Allocation**

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# PERFORMANCE DEFENSIVE GROWTH PORTFOLIO

				Incep	tion					
	Market ∨alue (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	Return (%)	Since
DEFENSIVE GROWTH PORTFOLIO	6,238,711	100.0	-1.6	1.5	-0.9	-0.9	3.0	4.0	5.5	Jun-10
30%MSCI ACWI(net)/70%Barclays Agg			-0.8	1.1	-0.1	-0.1	3.4	4.3	5.3	Jun-10
Vanguard Total Stock Market Index Adm.	947,911	15.2	-2.0	6.3	0.4	0.4	14.7	12.1	15.5	Jun-10
Vanguard Spliced Total Stock Market			-2.0	6.3	0.4	0.4	14.7	12.2	15.6	Jun-10
Vanguard Developed Markets Index Adm.	653,352	10.5	-1.8	3.9	-0.2	-0.2	4.7	3.6	7.6	Jun-10
Vanguard Spliced Developed Markets Index			-1.3	4.9	-0.3	-0.3	5.2	3.7	7.5	Jun-10
iShares Currency Hedged MSCI EAFE	263,119	4.2	-3.5	5.1					-8.4	May-15
MSCI EAFE 100% Hedged USD (net)			-2.7	6.4					-7.5	May-15
Metropolitan West Total Return Bond	1,118,514	17.9	-0.3	-0.4	0.3	0.3			0.9	Oct-14
Barclays Aggregate			-0.3	-0.6	0.5	0.5			1.2	Oct-14
Sankaty High Income Partnership	426,824	6.8	-2.5	-4.6	-5.1	-5.1			-2.7	Jan-14
50% BofA ML High Yiekl/50% S&P LSTA Leveraged Loan			-1.8	-2.1	-2.7	-2.7			-0.7	Jan-14
Vanguard Short-Term Corp Bond Fund	868,776	13.9	-0.4	-0.3	1.2	1.2			2.0	Aug-13
Barclays 1-5 Yr. Govt/Credit			-0.2	-0.6	1.0	1.0			1.3	Aug-13
Templeton Global Bond Fund ADV	948,839	15.2	-3.1	2.3	-4.0	-4.0	0.0	2.6	3.9	Jun-10
Citi WGBI			0.9	-1.2	-3.6	-3.6	-2.7	-0.1	1.0	Jun-10
JHancock2 Global Absolute Return Strategies I	984,671	15.8	-1.0	0.8	1.7	1.7			4.2	Aug-13
HFR Fund of Funds			-0.5	0.6	-0.3	-0.3			3.5	Aug-13
Cash	26,706	0.4	0.0	0.0	0.1	0.1	0.1		0.2	May-11
91 Day T-Bills			0.0	0.0	0.0	0.0	0.0		0.0	May-11

# CORE ASSET CLASS VIEWS

Asset Class	Equilibrium Return	Jan 2015 View	April 2015 View	July 2015 View	Oct 2015 View	Jan 2016 View	Commentary
Global developed equities	7.2%	Attractive	Neutral	Neutral	Neutral	Neutral	Valuations are around fair value and macro conditions are broadly favorable. However, downside risks for equities have risen over the last six months due to the struggles of EM economies and potential financial contagion.
US equities	7.2%	Neutral	Neutral	Neutral	Neutral	Neutral	Energy price declines and the strong dollar took a bite out of earnings in 2015. Wage inflation threatens to cut further into margins in 2016 and beyond. Valuations are rich in absolute terms, but still appear attractive relative to Treasuries.
International developed equities	7.2%	Attractive	Attractive	Attractive	Attractive	Attractive	European and Japanese equities have the potential to grow earnings since profit margins remain depressed. Valuations are reasonable and monetary policy is very accommodative. We continue to recommend that investors consider hedging a portion of the currency exposure.
Emerging market equities	8.3%	Neutral	Neutral	Neutral	Neutral	Neutral	Macro conditions continue to deteriorate and earnings are likely to fall further. However, valuations are reasonably attractive.
Global REITs	6.5%	Neutral	Neutral	Neutral	Neutral	Neutral	Interest rate sensitivity is a concern, but valuations are reasonable and global REITs should benefit from moderate developed world growth.
US high yield bonds	6.0%	Neutral	Neutral	Neutral	Neutral	Neutral	Spreads on HY bonds widened to 6.6% in Q4. The energy sector remains a significant risk, but a benign economic outlook should be supportive of other sectors. We highly recommend active management within high yield.
Emerging market local currency debt	5.1%	Neutral	Neutral	Neutral	Unattractive	Unattractive	Emerging market currencies have declined sharply in recent years. However, the macro challenges faced by many EM economies combined with rate hikes by the Fed could lead to more capital outflows, pushing currencies down even lower.

# CORE ASSET CLASS VIEWS

Asset Class	Equilibrium Return	Jan 2015 View	April 2015 View	July 2015 View	Oct 2015 View	Jan 2016 View	Commentary
US cash	3.2%	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive	Although the FOMC increased the Fed Funds rate by 25 bps in December to a range of 0.25% to 0.50%, prospective returns for cash investments are extremely limited. The futures market prices a Fed Funds rate of below 2.0% through 2018.
US Treasuries	4.1%	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive	While the Fed rate hike contributed to a 21 bp rise in 10-year Treasury yields, rates remain at historically low levels, indicating relatively weak returns over the intermediate-term.
US TIPS	4.0%	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive	The real yield on 10-year TIPS rose for the third consecutive quarter, finishing Q4 at 0.73%, the highest level since late-2013. If energy prices stabilize, the headline inflation rate should converge with the core rate of 2.1% making the 1.5% breakeven on 10y TIPS attractive.
US I/G corp	4.9%	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive	The yield on I/G bonds rose to 3.7% in the fourth quarter. While credit spreads on investment-grade corporate bonds declined slightly, they remain elevated at 1.65% versus the historical median of 1.09%. The lack of trading liquidity is likely increasing volatility and the above normal spreads may simply reflect compensation for increased illiquidity. While the prospective absolute return on I/G corporates remains low, they are more attractive than Treasuries
Non-US govt. bonds	4.1%	Unattractive	Extremely Unattractive	Unattractive	Unattractive	Unattractive	Yield changes on non-US government bonds were modest over the quarter, with the yield on 10-year German bunds rising 4 bps to 0.63%. In the current environment of ECB and BoJ easing, we expect rates to remain low and returns to be flat or negative in nominal terms.

# **CROSS ASSET VIEWS**

Asset Class	Jan 2015 View	April 2015 View	July 2015 View	Oct 2015 View	Jan 2016 View	Commentary
Global equities/ growth assets vs. defensive assets	Attractive	Attractive	Attractive	Attractive	Attractive	The macroeconomic backdrop remains broadly positive in the developed world. While US profit margins may have peaked, we believe the earnings outlook for the Eurozone and Japan is strong. Global monetary policy is likely to remain supportive in 2016 even if the Fed raises rates further. With high quality bonds priced to provide paltry returns, we continue to favor equities.
International developed vs. US equities	Attractive	Attractive	Attractive	Attractive	Attractive	We continue to prefer international developed stocks over US stocks because of better earnings growth prospects and less demanding valuations. They should also benefit from more accommodative monetary policies. However, dollar strength remains a risk. As such, investors could consider hedging a portion of their international developed exposure.
Emerging market vs. developed market equities	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive	EM stocks are likely to continue to underperform developed market stocks over the near-term given deteriorating macro conditions. The longer-term view is more optimistic. Valuations are relatively attractive and many EM economies have become more competitive over the last few years, which sows the seeds for an eventual recovery.
High yield bonds vs. global equities	Unattractive	Unattractive	Unattractive	Unattractive	Neutral	Rising yields and a muted default outlook outside of the energy sector have led us to raise our relative rating of high yield bonds vs. global equities from unattractive to neutral. We now think they offer similar risk-adjusted returns as global equities.

# RELATIVE VIEWS - EQUITIES

Asset Class	Jan 2015 View	April 2015 View	July 2015 View	Oct 2015 View	Jan 2016 View	Commentary
Global low volatility vs. broad	_	_	Unattractive	Unattractive	Unattractive	Low volatility stocks performed strongly relative to the broad market in 2015. However, rich relative valuations and interest rate sensitivity are concerns.
US high quality vs. low quality	Attractive	Attractive	Attractive	Attractive	Attractive	While low volatility stocks appear expensive globally, high quality US stocks offer better relative value. Quality stocks should exhibit a degree of downside protection in the event of a severe downturn. However, continued dollar strength is a risk to this view given the large weighting to multinational firms.
US large growth vs. large value	Neutral	Neutral	Neutral	Neutral	Neutral	While growth outperformed value across all market caps in 2015, the valuation of growth stocks versus value stocks is in-line with long-term norms. We do not recommend a style bias in US equity portfolios relative to the strategic portfolio.
US small caps vs. large caps	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive	Small-caps underperformed in 2015 for the second consecutive year. Since the start of 2014, the Russell 2000 has trailed the S&P 500 by more than 15 percentage points. This has gone a long way to close the valuation gap, although small-caps still appear slightly expensive. Relative performance tends to exhibit momentum over multi-year cycles, resulting in valuation overshoots. This means small-caps could become a bargain before the cycle turns.
International small caps vs. large caps	Unattractive	Neutral	Neutral	Neutral	Neutral	International small-caps were the best performing asset class in 2015, gaining 9.6%. Valuations on small-caps are elevated relative to large-caps, but they also have more exposure to improving domestic macro conditions.

# RELATIVE VIEWS - FIXED INCOME

Asset Class	Jan 2015 View	April 2015 View	July 2015 View	Oct 2015 View	Jan 2016 View	Commentary
Short-term fixed vs. T-bills	Attractive	Attractive	Attractive	Attractive	Attractive	While the Fed has begun a tightening cycle, we expect it to proceed very slowly given limited inflationary pressures and a rising dollar. Two-year Treasuries yield only 1.06%, offering little benefit to extend duration. However, extending duration through corporates is more rewarding as 1- to 3-year corporates currently offer a 2.2% yield.
Intermediate-term fixed vs. T-bills	Neutral	Neutral	Neutral	Neutral	Neutral	Extending duration via Treasuries does not offer much value, particularly given the expectation of further rate increases, but intermediate-term corporate bonds offer a more attractive premium to cash. Broad intermediate-term bond mandates appear to offer a fair risk-adjusted return.
Long-term fixed vs. T-bills	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive	While we do not expect a sharp increase in long-term yields, the risk-to-return of extending duration to the long end of the cure appears unattractive outside of liability-hedging purposes.
Investment grade vs. Treasuries	Attractive	Attractive	Attractive	Attractive	Attractive	The spread on investment-grade corporate bonds declined slightly during Q4, but remains above the long term median, even after adjusting for the deteriorating quality of the universe. Current credit spreads of 1.65% are more than 50 bps above the historical median. While liquidity conditions could keep spreads elevated, we continue to recommend an overweight to credit.
High yield vs. Treasuries	Attractive	Attractive	Attractive	Attractive	Attractive	Energy exposure and liquidity concerns have led to significant spread widening. While defaults are likely to spike in the energy sector, they should remain muted elsewhere. The 5.8% spread on non-energy names appears attractive relative to Treasuries after adjusting for default losses, although the liquidity environment will likely remain challenging.
TIPS vs. Treasuries	Attractive	Attractive	Attractive	Attractive	Attractive	With a 10-year inflation breakeven rate of 1.5%, TIPS appear attractive relative to Treasuries. While inflation is likely to remain low, headline inflation should converge with core inflation (~2%) when energy prices stabilize.

# DYNAMIC ASSET ALLOCATION SUMMARY RETURN EXPECTATIONS

	Facility days	Ctourdoud	20-Year	10-Year	High Vol
	Equilibrium Return	Standard Deviation	Horizon Return	Horizon Return	Standard Deviation
Growth Assets	Return	Deviation	Return	Return	Deviation
US Large Stocks	7.3	18.1	6.8	5.8	28.0
US Large Value Stocks	7.3	18.1	6.8	5.8	28.0
US Large Growth	7.3	18.1	6.8	5.8	28.0
US Large Quality	7.3	13.7	6.7	6.2	23.0
US Mid Stocks	7.4	19.6	6.8	4.8	30.0
US Small Stocks	7.9	22.1	6.8	4.3	35.0
US Small Value Stocks	7.9	22.1	6.8	4.3	35.0
Intl Large Stocks	7.3	20.3	7.4	7.6	32.0
Intl Large Quality	7.3	15.1	7.3	7.3	27.0
Intl Small Stocks	7.8	22.4	7.6	7.6	35.0
Intl Emerging Market Stocks	8.5	26.3	8.9	8.9	35.0
Intl Emg Mkt Debt	5.1	10.4	6.6	6.6	16.0
US High Yield Fixed	6.1	9.7	5.5	4.8	15.0
Private Debt	8.7	11.4	8.7	8.2	18.2
Private Equity	11.3	26.9	10.8	9.9	43.0
Risk Reduction Assets					
Cash	3.2	2.0	2.7	2.2	2.0
US Treasuries	4.2	6.0	3.3	2.4	6.0
US Long Treasuries	4.5	16.5	3.1	1.8	14.0
US I/G Corp. Fixed	5.0	7.0	4.2	3.4	9.0
US Long I/G Corp	5.0	13.6	4.1	3.2	16.0
US MBS	4.8	4.8	3.7	2.5	7.0
US Broad Fixed Income	4.7	5.3	3.8	3.0	5.0
US Municipal Bonds	4.5	7.7	3.5	2.7	8.3
Intl Fixed Income	4.2	9.8	2.8	1.5	11.0
Hedge Funds	7.2	8.0	6.7	6.2	12.8
Liquid Absolute Return	6.5	8.0	6.0	5.5	12.8
Inflation Protected Assets					
US Inflation Protected Fixed	4.1	5.4	3.0	2.1	7.0
Liquid Real Assets	7.3	16.6	6.7	5.9	31.0
Illiquid Real Assets	8.8	13.9	8.8	8.5	22.2

**Equilibrium Expected Return:** The long-term expectations represent the expected returns of asset classes at equilibrium. They are an estimate of what investors require to invest in each asset class, given the risk, in a normal interest rate environment. They are not affected by current valuations.

**10-Year Horizon Return:** The 10-year mean reversion return represents Mercer's best estimate of returns over the next 10 years. We assume that normalized P/E ratios and interest rates revert to their equilibrium levels over the next 10-years.

**20-Year Horizon Return:** Our long-term expected returns are based on what asset classes are expected to return over the next 20 years. They incorporate current interest rates and assume rates return to equilibrium over five years.

**Standard Deviation:** This statistic quantifies the expected variability of returns around their mean. Both returns above and below the expected return are included in this risk measure. There is roughly a two out of three chance that the return in any given year will fall within the range bounded by the expected return plus or minus the standard deviation. The standard deviation expectations are based on a combination of realized historical results and an examination of current conditions. The high volatility regime expectations represent our estimate of risk in an environment where volatility spikes and correlations between assets increase significantly.

Mercer's approach to developing equilibrium expected returns blends realized historical results and an examination of current conditions. In developing the forecasts, we begin by averaging historical data for the longest period available to determine how much investors have been rewarded for exposure to risk factors in the past. We then use internal and external research to identify structural reasons that risk premiums in the future might be different than those experienced in the past, and adjust our forecasts accordingly. This methodology generally results in lower return forecasts, particularly for equity asset classes, than have been experienced in the past. The return expectations do not include manager alpha except for absolute return strategies. The expected return in excess of cash for absolute return strategies consists mostly of expected alpha.

# CORRELATION ASSUMPTIONS

										Stocks			No.		× Fixed	>			
		G G	ocks a	ts cx	oche ch	ogre	Jality CX	odes . de	o Market	B		cited "	eal Bou	optotect	39 £ 46 60	ome w	Oelot	* J	5 3
	JS	Jaide S	hid stor	shall st	ocks Latos	ode o	Small St	Emerdi	and Loui	ક્રે. જે	Sklogg Sklogg	Muric	icome icone infation	ds rotes	sid Fixed In	Enghi Enghi	iste Og	ot resid	dge Funds
US Large Stocks	1.00	0.97	0.91	0.77	0.77	0.73	0.73	0.96	-0.01	0.12	0.08	0.13	0.69	-0.02	0.54	0.91	0.50	0.50	, 
US Mid Stocks		1.00	0.98	0.74	0.77	0.79	0.71	0.93	0.09	0.16	0.12	0.18	0.72	0.02	0.58	0.88	0.50	0.50	I
US Small Stocks			1.00	0.70	0.70	0.80	0.67	0.87	0.09	0.15	0.11	0.16	0.67	0.02	0.54	0.83	0.55	0.50	1
Intl Large Stocks				1.00	0.99	0.94	0.76	0.74	-0.01	0.08	0.06	0.09	0.65	0.37	0.66	0.70	0.55	0.50	1
Intl Large Quality					1.00	0.95	0.83	0.87	0.12	0.15	0.11	0.15	0.67	0.32	0.67	0.83	0.55	0.50	I
Intl Small Stocks						1.00	0.72	0.71	0.09	0.09	0.07	0.10	0.63	0.33	0.63	0.67	0.55	0.50	I
Intl Emerging Market Stocks							1.00	0.71	0.07	0.03	0.02	0.06	0.63	0.16	0.91	0.67	0.55	0.50	I
Private Equity								1.00	-0.01	0.10	0.06	0.11	0.66	-0.03	0.52	0.89	0.50	0.25	1
Cash									1.00	0.24	0.36	0.34	0.25	0.02	0.05	-0.01	0.00	0.10	I
US Broad Fixed Income										1.00	0.74	0.63	0.31	0.45	0.17	0.10	0.10	0.20	I
US Municipal Bonds											1.00	0.50	0.20	0.37	0.14	0.06	0.35	0.20	I
US Inflation Protected Fixed												1.00	0.15	0.33	0.14	0.11	0.35	0.20	I
US High Yield Fixed													1.00	0.05	0.58	0.62	0.50	0.30	İ
Intl Fixed Income														1.00	0.29	-0.03	0.15	0.20	İ
Intl Emg Mkt Debt															1.00	-0.06	0.20	0.30	1
Private Debt																1.00	0.50	0.30	]
Real Assets																	1.00	0.40	İ
Hedge Funds																		1.00	1

**Correlation coefficients** measure the degree of co-movement between two asset classes. A correlation of 1.00 indicates that both assets move in lock-step with one another, while a correlation of (1.00) suggests that the assets move in opposite directions. A correlation of 0 means that there is no relation.

Diversified portfolios take advantage of the tendency of asset classes to behave in different ways relative to each other. Asset classes with low correlations to one another can be combined to produce portfolios with less risk than any specific asset class displays on a stand-alone basis.

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