

MERS' Investment Philosophy

- Disciplined investment process
- Globally diversified
- Valuation focused investors
- May lag in periods of extended bull markets
- Focus on risk-adjusted returns

MERS' Office of Investments Goals

- Maintain adequate liquidity
- Minimize costs
- Exceed the actuarial rate assumption on a long-term basis
- Exceed the Policy Benchmark¹ on a long-term basis

Economic and Market Summary

Financial markets posted strong gains in the fourth quarter. The S&P 500 hit a record high to close out 2019 as geopolitical risks have eased with the U.S. and China having signed a trade deal, although a new economic "cold war" between the two countries is likely to persist. A weakening dollar boded well for the Emerging Markets as the index posted a return of 11.84% in the fourth quarter. U.S. economic data has continued to point toward slowing growth. The Conference Board's US index of leading economic indicators declined slightly during the 4th quarter, as signs of dwindling momentum are beginning to emerge. The monthly jobs report came in below expectations, with 145,000 jobs added in December versus expectations of 160,000. The economy remains at full employment with the unemployment rate maintaining a 50-year low of 3.5%. Wage growth fell below the 3% mark for the first time since July 2018. Earnings per share growth expectations for the S&P 500 is expected to be 6.6% for 2020. In fixed income, the Fed has committed to maintaining the federal-funds target rate within the 1.50% and 1.75% range by injecting liquidity into the repo market, through the purchase of treasury bills, at a pace of \$60 billion a month since October. Inflation continued to moderate with the Consumer Price Index checking in at 2.3% for 2019. Globally, the European recovery has stagnated with Q3 GDP remaining at 1.2% YOY, well below the U.S. growth rate of 2.1% YOY. U.S. political risk will be one of the main risks going into 2020 with the U.S. presidential election looming. Tensions between global powers in the Middle East are also expected to add to volatility in the coming year.

Portfolio Performance Review

MERS' Total Portfolio returned 4.89% for the quarter and 14.14% the calendar year 2019. The portfolio underperformed the Policy Benchmark for the quarter by 111 bps. The Fund delivered strong absolute returns for the year but continues to maintain lower risk positioning across the portfolio which has detracted from relative performance. Broad policy benchmark underperformance was driven by an underweight to equities, shorter duration fixed income positioning, and an overweight to international and emerging market equities. For the 4th quarter, private markets were the main contributor to the underperformance, this is not surprising due to the long-term focus of that portfolio. The Global Equity portfolio returned 8.63% on the quarter, underperforming the global equity policy blend by 51 bps. Relative returns were driven down by U.S. Small Cap, Mid Cap, Micro Cap, and Frontier Markets which all underperformed U.S. Large Cap equities. Global Fixed Income returned 0.87% on the quarter, outperforming the global fixed income policy blend by 33 bps. Emerging Markets Debt came in the strongest fixed income sub-asset class returning 4.00% for the quarter. The Private Markets portfolio returned 1.56%, led by the Infrastructure portfolio which returned 4.39%. MERS' Defined Benefit (DB) portfolio assets are \$10.84 billion and MERS' total assets are \$12.28 billion.

Risks and Trends

Economic Risks

- Escalating trade war tensions
- Monetary policy mistakes
- Corporate/government debt levels
- Geopolitical instability
- U.S. political uncertainty

Medium-Term Trends

- Rise of populism
- Investment industry consolidation
- Rise of passive investing
- In-sourcing

Long-Term Trends

- Aging population/workforce
- Rising taxes/entitlement costs
- Aging infrastructure
- Competition for resources
- Rise of ESG

Projects and Initiatives

- Formally launched new asset allocation program on July 1, 2019
- Custodial bank transition completed on December 31, 2019
- Incorporating ETFs into the asset allocation program and internal strategies
- Researching the role of active management in sub-asset classes
- Enhancing internal equity portfolio models
- Active international equity search
- Internal fixed income portfolio development

¹ The Policy Benchmark consists of: 45% Russell 3000, 20% MSCI ACWI ex USA IMI (net), 25% Bloomberg Barclays US Aggregate, and Bloomberg Barclays Global Aggregate ex US

Asset Class Valuation Summary

Value/Price Discrepancy²

Asset Class	Overvalued	Undervalued
US Equity	43.10%	
Europe Equity		21.40%
Japan Equity		12.80%
EM Equity		25.90%
US Treasury	-5.50%	
EMD	-4.80%	
US IG	-13.40%	
US HY	-11.70%	

² The value/price discrepancy is a ratio that compares the estimated fair value of an asset relative to its current market price. Overvalued assets have prices above estimated fair value and are expressed as a negative percentage and undervalued assets have prices below estimated fair value and are expressed as a positive percentage.

Equity Market Outlook

- Valuation multiples are elevated in the US and current earnings remain above estimated trend earnings as a result of cyclically high profit margins, low interest rates, and tax reform.
- Valuation multiples and earnings are expected to revert to long-term averages resulting in lower expected returns for US equities.
- Valuations are more favorable in Europe, Japan, and Emerging Markets
- European earnings are currently below trend which is expected to contribute to returns going forward as earnings recover to long-term cyclically-adjusted levels.
- In Emerging Markets, a modest recovery from current below-trend earnings and strong trend earnings growth is expected to drive long-term returns.

Fixed Income Market Outlook

- All fixed income asset classes are overvalued due to current market interest rates being lower than MERS' long-term assumptions.
- U.S. Investment Grade Fixed Income and U.S. High Yield Debt are the most overvalued owing to the current historically low credit spreads in those asset classes.
- In MERS' view, these historically low credit spreads do not compensate investors for future defaults.
- Emerging Market Debt spreads are near fair value but the asset class is still overvalued as a result of low interest rates which are forecasted to rise.

Chart of the Quarter

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real Estate	U.S. Fixed Income	Glob ex U.S. Fixed	Emerging Market Equity	Real Estate	Emerging Market Equity	Real Estate	Emerging Market Equity	U.S. Fixed Income	Emerging Market Equity	Small Cap Equity	U.S. Fixed Income	Real Estate	Small Cap Equity	Real Estate	Large Cap Equity	Small Cap Equity	Emerging Market Equity	Cash Equivalent	Large Cap Equity
13.84%	8.43%	22.37%	55.82%	37.96%	34.90%	42.12%	39.38%	6.24%	78.51%	28.88%	7.84%	27.73%	38.82%	15.02%	21.31%	37.28%	1.87%	31.49%	31.49%
U.S. Fixed Income	High Yield	U.S. Fixed Income	Small Cap Equity	Emerging Market Equity	Real Estate	Emerging Market Equity	Dev ex U.S. Fixed	Glob ex U.S. Fixed	High Yield	Real Estate	High Yield	Emerging Market Equity	Large Cap Equity	Large Cap Equity	U.S. Fixed Income	High Yield	Dev ex U.S. Fixed	U.S. Fixed Income	Small Cap Equity
11.63%	5.28%	10.26%	47.28%	25.55%	15.35%	32.17%	12.44%	4.39%	58.21%	19.63%	4.98%	18.23%	32.35%	13.69%	0.85%	17.13%	24.21%	0.81%	25.52%
Cash Equivalent	Real Estate	Real Estate	Dev ex U.S. Fixed	Dev ex U.S. Fixed	U.S. Fixed Income	Glob ex U.S. Fixed	Glob ex U.S. Fixed	Cash Equivalent	Real Estate	Emerging Market Equity	Dev ex U.S. Fixed	Dev ex U.S. Fixed	U.S. Fixed Income	Cash Equivalent	Large Cap Equity	Large Cap Equity	High Yield	Dev ex U.S. Fixed	Real Estate
6.18%	4.42%	2.82%	40.69%	20.38%	14.47%	25.71%	11.63%	2.06%	37.13%	18.88%	4.36%	16.41%	21.02%	5.97%	0.05%	11.96%	21.83%	-2.08%	22.49%
Small Cap Equity	Small Cap Equity	Cash Equivalent	Dev ex U.S. Fixed	Small Cap Equity	Large Cap Equity	Small Cap Equity	U.S. Fixed Income	High Yield	Dev ex U.S. Fixed	High Yield	Large Cap Equity	Small Cap Equity	High Yield	Small Cap Equity	Real Estate	Emerging Market Equity	Small Cap Equity	Glob ex U.S. Fixed	Real Estate
-3.02%	2.49%	1.78%	39.42%	18.33%	4.91%	18.37%	6.97%	33.67%	33.67%	16.12%	16.39%	7.44%	4.89%	-0.79%	11.19%	14.65%	-2.15%	21.91%	21.91%
Glob ex U.S. Fixed	Emerging Market Equity	High Yield	High Yield	Glob ex U.S. Fixed	Small Cap Equity	Large Cap Equity	Large Cap Equity	Small Cap Equity	Small Cap Equity	Cash Equivalent	Large Cap Equity	Real Estate	High Yield	High Yield	Dev ex U.S. Fixed	Real Estate	Large Cap Equity	Emerging Market Equity	Emerging Market Equity
-3.91%	-2.61%	-1.37%	28.97%	12.54%	4.88%	15.79%	5.49%	33.79%	37.17%	15.06%	6.10%	16.00%	3.67%	2.45%	-3.04%	4.06%	10.81%	-4.38%	18.44%
High Yield	Glob ex U.S. Fixed	Emerging Market Equity	Large Cap Equity	High Yield	Cash Equivalent	High Yield	Cash Equivalent	Large Cap Equity	Large Cap Equity	Dev ex U.S. Fixed	Small Cap Equity	High Yield	Cash Equivalent	Cash Equivalent	Small Cap Equity	Dev ex U.S. Fixed	Real Estate	Real Estate	High Yield
-5.86%	-3.75%	-6.16%	28.68%	11.13%	3.97%	11.88%	6.00%	26.47%	26.47%	8.95%	-4.18%	15.81%	0.07%	0.03%	-4.41%	2.75%	10.36%	-5.63%	14.32%
Large Cap Equity	Real Estate	Dev ex U.S. Fixed	Glob ex U.S. Fixed	Large Cap Equity	High Yield	Glob ex U.S. Fixed	Glob ex U.S. Fixed	Dev ex U.S. Fixed	Glob ex U.S. Fixed	U.S. Fixed Income	Real Estate	U.S. Fixed Income	U.S. Fixed Income	Emerging Market Equity	High Yield	U.S. Fixed Income	U.S. Fixed Income	Small Cap Equity	U.S. Fixed Income
-9.11%	-3.81%	-18.80%	19.95%	10.88%	2.74%	8.16%	1.87%	43.36%	7.53%	6.54%	-6.46%	4.21%	-2.02%	-1.19%	-4.47%	2.65%	7.50%	-11.01%	8.72%
Dev ex U.S. Fixed	Large Cap Equity	Small Cap Equity	U.S. Fixed Income	U.S. Fixed Income	U.S. Fixed Income	Cash Equivalent	Small Cap Equity	Real Estate	U.S. Fixed Income	Glob ex U.S. Fixed	Dev ex U.S. Fixed	Glob ex U.S. Fixed	Emerging Market Equity	Glob ex U.S. Fixed	Glob ex U.S. Fixed	Glob ex U.S. Fixed	U.S. Fixed Income	Dev ex U.S. Fixed	Glob ex U.S. Fixed
-13.77%	-11.89%	-20.48%	4.10%	4.34%	2.43%	4.85%	-1.87%	48.21%	4.99%	6.93%	-12.21%	4.09%	-3.60%	-3.09%	-6.02%	1.49%	3.54%	-14.09%	5.99%
Dev ex U.S. Fixed	Large Cap Equity	Cash Equivalent	Cash Equivalent	Glob ex U.S. Fixed	Glob ex U.S. Fixed	Real Estate	Real Estate	Emerging Market Equity	Cash Equivalent	Cash Equivalent	Emerging Market Equity	Cash Equivalent	Cash Equivalent	Dev ex U.S. Fixed	Emerging Market Equity	Emerging Market Equity	Cash Equivalent	Emerging Market Equity	Cash Equivalent
-21.40%	-22.10%	1.15%	1.33%	-8.65%	4.33%	-7.39%	63.33%	0.21%	0.13%	0.13%	-18.42%	6.11%	-3.08%	-4.32%	-14.92%	0.33%	0.85%	-14.57%	2.28%

2019 saw substantial gains across all asset-classes. Large cap and small cap equities lead the way returning 31.5% and 25.5% respectively. Time has shown that not only is the highest returning asset class not likely to repeat the same results the following year, but it also unpredictable which asset classes will be at the top. Diversification is important to account for this unpredictability. MERS has also positioned the portfolio to tilt away from the overvalued asset classes such as U.S. equities into undervalued asset classes such as Emerging Markets and Developed World ex U.S. as it is unsustainable for U.S. equities to continue this pace.

Assets by Program

