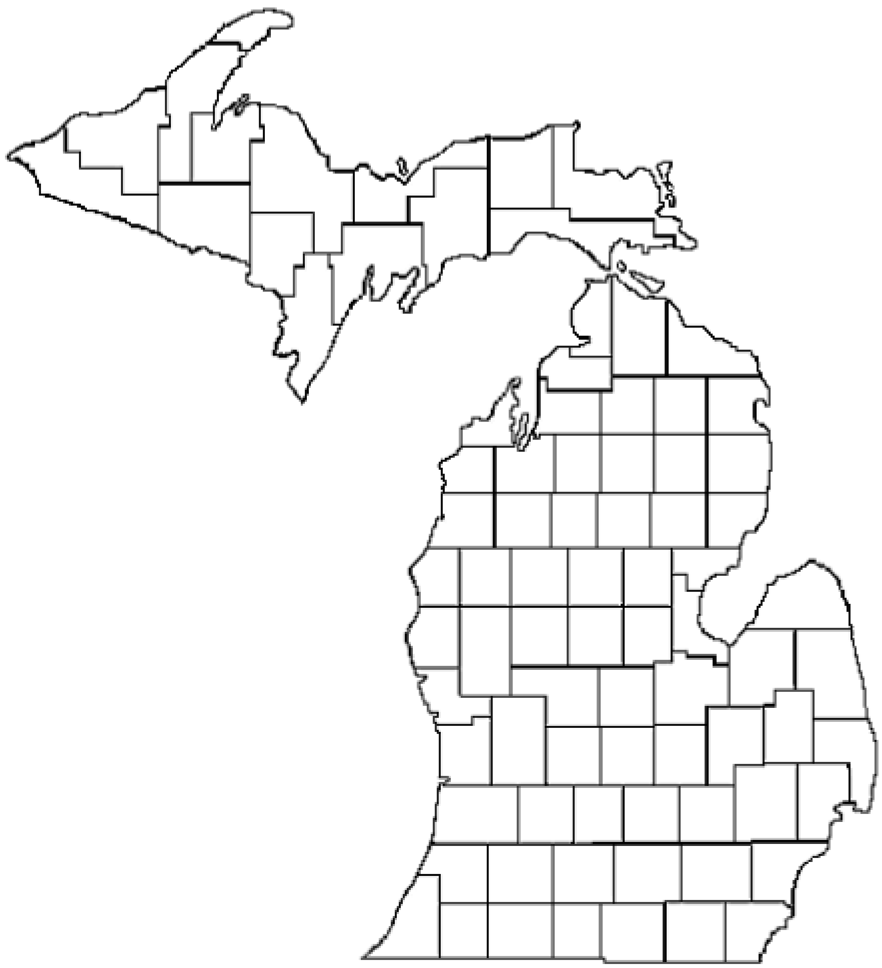
State of Michigan Retirement Systems

EXECUTIVE SUMMARY

Investment Advisory Committee Meeting

March 9, 2017



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EXECUTIVE SUMMARY

December 2016

Performance

An overview.

MPSERS Plan (12/31/16)	1-Year	3-Years	5-Years	7-Years	10-Years
Annualized Returns	7.4%	7.1%	10.0%	9.4%	5.9%
Policy Return	10.0%	7.1%	10.6%	9.6%	6.0%
Peer Median Return	7.9%	5.3%	8.9%	8.4%	5.3%

- Over the past three, five, seven, and ten years, the returns are much higher than peer median returns. When compared to the State Street Universe of public pension plans greater than $10 billion, the returns are among the highest. Perhaps as notable, over the past three and five years, the returns were the least risky, as measured by standard deviation of returns.
- The ten-year return includes the impact of the global financial crisis. Over a very long horizon, since 1979, the annualized rate of return on the plan assets have been approximately 9.3%.
- Compounding even slightly higher than peer returns on $62.2 billion of SMRS assets, significantly adds up over time. For example, the ten year annualized return of 5.9% compared to the 5.3% peer median return adds roughly $6.1 billion of value to SMRS over a ten year period.
- The returns fell below the policy benchmark over the past year by -2.6%. It should be noted that the 2016 policy benchmark return of 10.0% was a very tough target to achieve. Had a plan actually achieved this return, it would have ranked in the top percentiles of returns in the State Street greater than $10 billion peer universe.
- For the year, private equity lagged a very strong publicly traded stock market benchmark. It was a difficult environment for alpha strategies and selectivity in both domestic and international active equities as well as hedge funds, and a slightly more defensive than policy asset allocation were all causes of the underperformance vs. the policy return target.

Asset Allocation

A low return environment.

- Given the historically low rates of return available in the capital markets for safe, short-term bonds, and in order for the assets to earn the long-term actuarial rate of return of 8%, additional risks (primarily equity risk) must be assumed.
- Liquidity is another fundamental risk assumed and it is managed through asset allocation. The plans have outstanding capital commitments to fund approximately $10.6 billion in illiquid assets, primarily private equity. In the December 2016 quarter, over $407 million of new commitments were made.
- The combined systems paid out approximately $2.0 billion net of contributions over the past twelve months ending in December 2016.
- In round numbers, over the past year, the allocation to short-term cash increased by approximately $1 billion. Real return/opportunistic strategies had a $400 million allocation increase, while both long-term fixed income and international equity were each increased by $250 million each. The plans reduced the allocation to domestic equity by $2.4 billion, private equity by $800 million, absolute return by $400 million and real estate by $200 million.

Capital Markets
Risk assets in focus.

- Capital market assumptions used for determining strategic asset allocations are being reduced across the board. This is the general opinion for most consultants, investment banks, and other market participants. The reason for this is the low interest rate environment caused by the policies of the Federal Reserve and other central banks, as well as the run-up in prices for most risk assets since the depths of the global financial crisis.
- The broad U.S. stock market return for 2016 was 13.0%, which was entirely due to multiple expansion.
- The 10-year U.S. Treasury ended December 2016 at 2.4%, about 20 bps higher than one year prior and in line with the December rate hike.
- The price for crude oil was especially volatile in 2016. For the year, the price for crude oil increased from $37.04 to $53.72 per barrel from the beginning to end of 2016, and more than doubled from its February 2016 low.

Economic Backdrop
A pretty good U.S. economy.

- The current economic expansion in the U.S. is into its seventh year, ranking it the fourth longest economic expansion in the past seventy years.
- At its December 2016 meeting, the Federal Reserve Board voted to raise its key interest rate for the second time in as many years, and just its second hike since 2006.
- The most recent reading of the annualized U.S. GDP growth was 1.9%, below the consensus estimate of 2.2%. Current estimates for 2017 GDP growth for the U.S. is 2.3%. Coincidental economic indicators such as the Institute for Supply Management's Manufacturing and Non-Manufacturing PMI Indexes are well above 50, indicating that the U.S. economy is likely to continue to grow.
- The jobs market is very healthy. The national unemployment rate is 4.9% and the three-month average figures for initial jobless claims is at its lowest level since 1973. In December 2016, there were 5.6 million job openings in the U.S. according to the Labor Department, just below an all-time record. The Federal Reserve Bank of Atlanta tracks wage growth of individuals and the trend in wage growth is accelerating. Its three-month median wage growth hit 3.9% in November 2016, an eight year high.

Investment Update
Highlighting the quarter.

($ Millions)

NEW COMMITMENTS

October 1 – December 31, 2016

Asset Class	Fund Name / (Managed By)	Commitment
Private Equity		
	Veritas Capital Fund VI, L.P.	$100
	GSO COF III Co-Investment Fund	50
	Warburg Pincus China, L.P.	45
Real Estate & Infrastructure		
	Principal Separate Account (Principal Real Estate Investors)	37
	Asana Partners Fund I, L.P. (Asana Partners Fund I GP, L.P.)	25
Real Return & Opportunistic		
	TSSP Adjacent Opportunities Partners, L.P. (TPG)	100
	TICP CLO Partners II, L.P. (TPG)	50
TOTAL		**$407**