

State of Michigan Retirement Systems

REAL ESTATE AND INFRASTRUCTURE REVIEW

Investment Advisory Committee Meeting

March 9, 2017



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EXECUTIVE SUMMARY

Performance

MPSERS Plan	1-Year	3-Year	5-Year	7-year	10-Year
Annualized Return	10.3%	13.2%	11.9%	10.8%	5.2%
NCREIF NPI	6.5%	9.6%	9.5%	10.2%	5.5%
Peer Median Return	8.6%	10.5%	11.0%	10.6%	3.7%
Rank vs. Peers	30	16	32	45	30

- Total Real Estate and Infrastructure Division (REID) value was \$6.6 billion with a total one-year return of 10.3%. Increased rental income throughout the portfolio drove performance in the period. Development and lease-up of apartments, warehouse, and office properties continued on schedule. Credit strategies and unique opportunities sourced by staff also contributed to the overall performance.

Strategy Update

- The REID has a focused strategy that pursues attractive risk-adjusted returns. This includes development of urban apartments and warehouses, acquisition of office buildings where REID can add value through management and leasing, and investing in various levels of the capital stack through its credit strategies. Also, REID has selectively added exposure in Europe where value-add opportunities are sourced through managers that have established history and presence in the market.
- The REID has been actively managing the portfolio by selling stabilized assets at attractive capitalization rates where growth in rental income is expected to be limited. The REID has disposed of suburban properties in favor of developing/redeveloping properties in dense urban areas where rent growth and appreciation are strong. The REID is also working with its advisors in executing the disposition of non-strategic properties in secondary markets at attractive values.
- The REID has approximately \$1.6 billion in unfunded commitments. New commitments closed during the quarter include:
 - \$25 million in Asana Partners Fund I, LP, a closed-end, commingled fund focused on retail properties, managed by Asana Partners Fund I GP, LLC.
 - \$37 million in Principal Separate Account, a separate account, for the development of a data center in Dallas, TX, managed by Principal Real Estate Investors.
- The division is being very selective and defensive with new commitments, seeking opportunities that are shorter in duration, deliver more liquidity, produce consistent cash flow, and capitalizing on unique opportunities sourced through REID's extensive network.

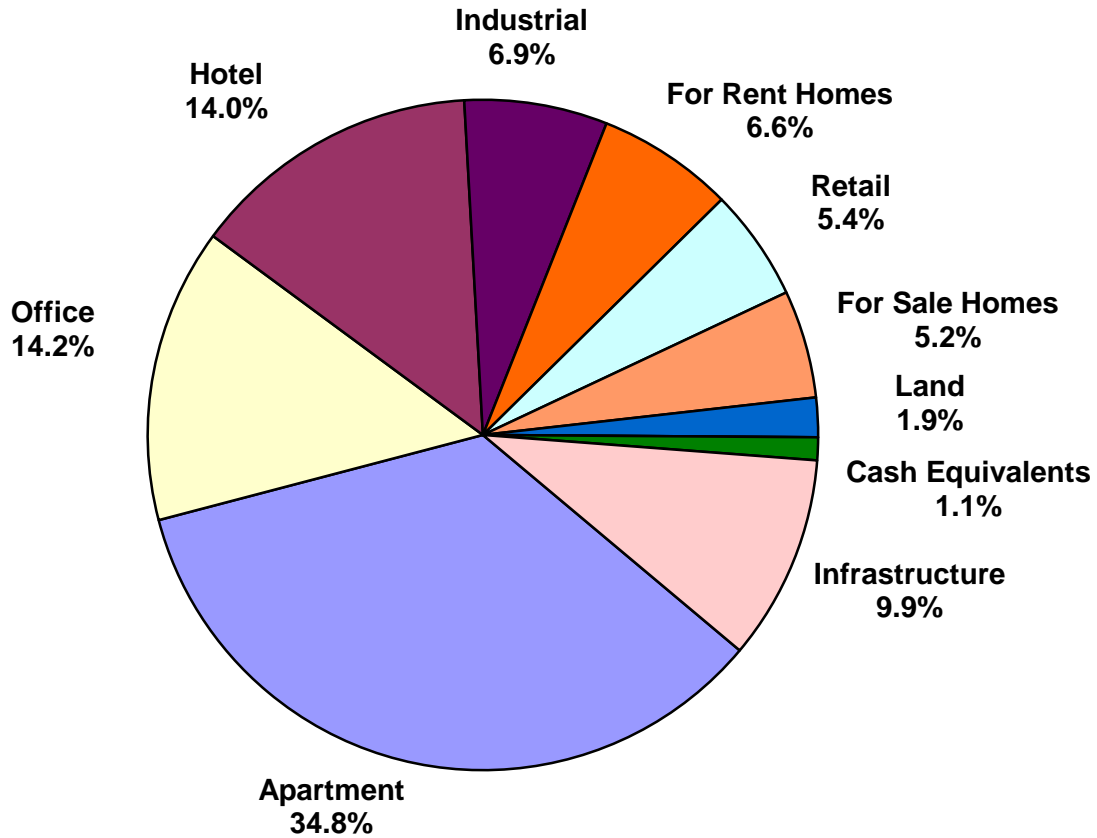
Market Environment

- High quality core assets, although still in demand by both domestic and international investors, have seen pricing beginning to level off. Development of condominiums in major urban markets has begun to ease, as supply becomes a concern in a few markets. Industrial warehouse construction fueled by fulfillment centers continues to meet growing demand. Senior housing, self-storage and student housing are attracting more investor attention. Lenders have become more selective in quality and location of the collateral and are disciplined in keeping loan-to-value ratios generally below 65%. The U.S. has eased FIRPTA Rules to reduce federal taxes on foreign investors for real estate investments. This will likely encourage more offshore pension funds to invest in the U.S., although foreign investors are awaiting the new Federal Administration's policies and their effect on the market.
- Fund flows to the infrastructure sector continue to remain strong, as investor interest in the asset class continues to grow. Opportunities include North American energy, power generation, European transportation, and emerging market fundamental infrastructure projects. The industry has gained attention from the new Federal Administration's intent on rebuilding U.S. infrastructure, however details on investment legal and financial framework are limited and will take time to develop.
- In the commercial mortgage-backed securities (CMBS) market, spreads over the swap rate for 10-year AAA-rated securities decreased 6 basis points (bps) from the prior quarter and now stand at 103 bps. The reduced supply of securities caused spreads on high-rated securities to tighten. The lower-rated security spreads remain appropriate for the risk. Commercial Mortgage Alert reported that CMBS issuance is projected to be \$75 billion for 2017, mirroring the \$76 billion in 2016. A wave of refinancing for 2007 ten-year vintage loans is appearing at the same time new banking rules by the federal government are being implemented. This is making it more difficult for borrowers to find adequate financing dollars. However, issuers are hopeful the new Federal Administration will relax these rules. Large Banks will continue to be the low risk A note lender (<40% LTV), allowing private non-bank lenders to fill the funding gap, where the REID's credit strategy has focused its attention.

SMRS

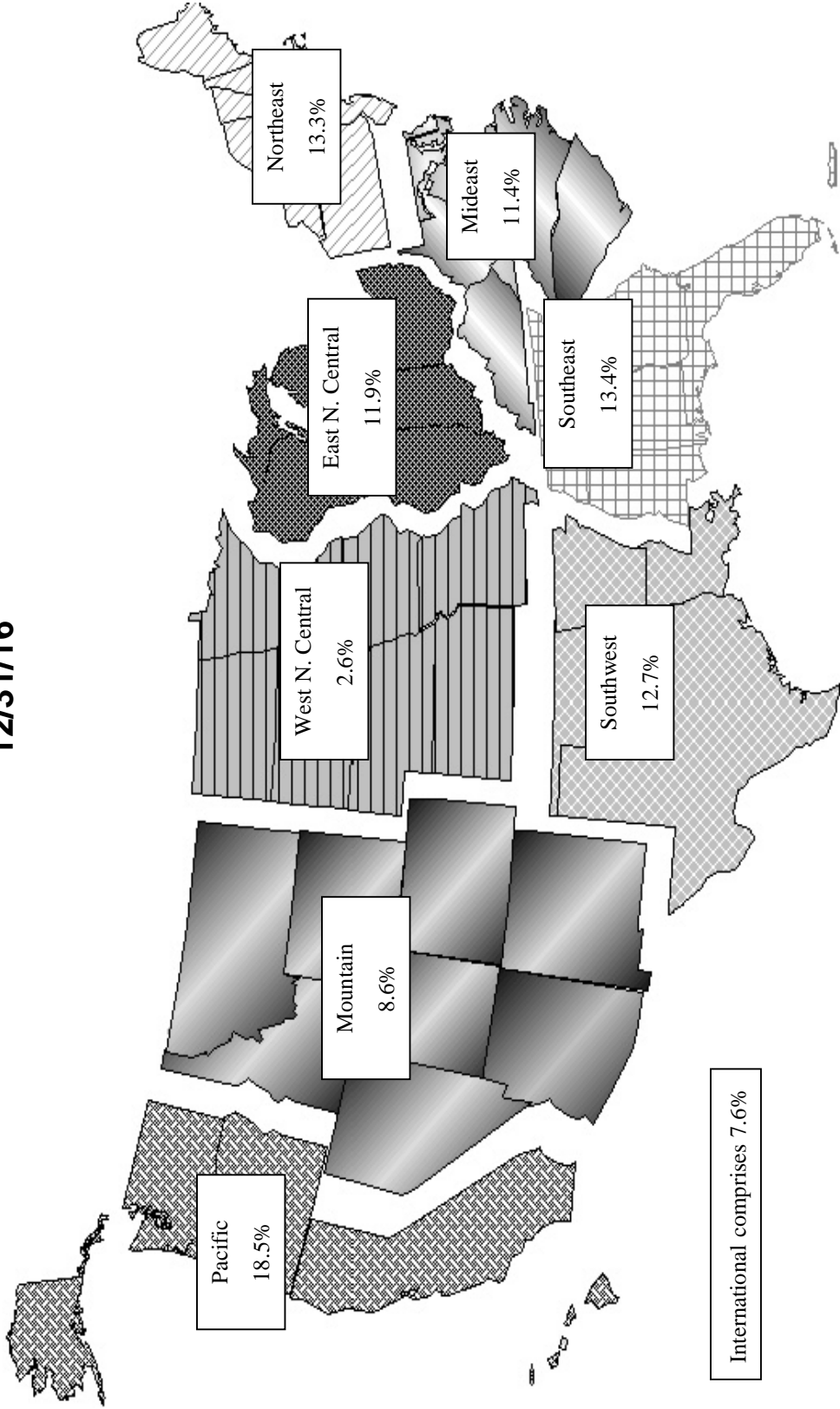
Real Estate and Infrastructure

12/31/16



Market Value in Millions				
	<u>12/31/16</u>		<u>9/30/16</u>	
Apartment	\$2,281	34.8%	\$2,273	34.6%
Office	932	14.2%	1,040	15.8%
Hotel	918	14.0%	916	14.0%
Infrastructure	649	9.9%	625	9.5%
Industrial	451	6.9%	445	6.8%
For Rent Homes	435	6.6%	423	6.5%
Retail	355	5.4%	357	5.4%
For Sale Homes	341	5.2%	335	5.1%
Land	127	1.9%	116	1.8%
	<u>\$6,489</u>	<u>98.9%</u>	<u>\$6,530</u>	<u>99.5%</u>
Cash Equivalents	<u>73</u>	<u>1.1%</u>	<u>34</u>	<u>0.5%</u>
Total Investments	<u>\$6,562</u>	<u>100.0%</u>	<u>\$6,564</u>	<u>100.0%</u>

SMRS
Real Estate by Region
Based on Market Value
(excludes cash & cash equivalents)
12/31/16



Geographic regions defined by NCREIF, whose property index composition is: Pacific 31.5%, Mountain 6.2%, West N. Central 1.4%, Southwest 10.4%, East N. Central 7.6%, Southeast 9.3%, Northeast 21.9%, Midwest 11.8%

SMRS
Real Estate and Infrastructure
12/31/16

**Top Ten
Advisors or Entity**

<u>Advisor or Entity</u>	<u>Market Value</u>
MWT Holdings, LLC (SHLP)	\$ 1,393,392,556
Clarion Partners	683,480,347
Blackstone Group	587,942,944
Domain Capital Advisors Inc	269,421,216
CIM Investment Advisors LLC	266,208,541
Kensington Realty Advisors	250,808,452
Principal Real Estate Investors	242,459,368
Bentall Kennedy LP	236,729,397
Five Star Realty Partners LLC	206,642,583
Rialto Capital Management LLC	199,786,714
	<u>\$ 4,336,872,118</u>

**Occupancy
by Property Type**

	Apartment	Office	Industrial	Retail	Hotel
SMRS Portfolio	95.3%	86.6%	94.2%	93.9%	78.8%
National Average	93.1%	87.0%	91.6%	94.7%	69.3%

SMRS
Market Values by Ownership Entity
12/31/16

REAL ESTATE

	<u>Market Value</u>	<u>Unfunded Commitment</u>
801 Grand Avenue Capital, LLC	\$ 77,859,367	\$ 0
Apollo Asia Real Estate Fund, L.P.	0	74,437,296
* Asana Partners Fund I, LP	0	25,000,000
Avanath Affordable Housing I, LLC	24,592,677	1,467,911
Avanath Affordable Housing II, LLC	25,305,084	0
Avanath II SMRS Co-Investment Fund LLC	20,463,113	0
Beacon Capital Strategic Partners IV, LP	1,887,839	0
Beacon Capital Strategic Partners V, LP	2,307,680	0
Blackstone R/E IH3 Co-Inv Partners	435,091,835	0
Blackstone Real Estate Partners V, LP	22,137,080	2,087,026
Blackstone Real Estate Partners VI, LP	34,575,257	3,680,000
Blackstone Real Estate Partners VIII, LP	29,632,945	48,300,000
Capri Select Income II	66,567	0
Capri Urban Investors, LLC	14,459,485	0
CIM Fund III, LP	67,056,383	0
CIM Fund VIII, LP	70,601,215	38,342,263
CIM Urban REIT, LLC	79,798,915	0
CIM VI (Urban REIT), LLC	30,999,470	0
Clarion Gables Multifamily Trust	29,006,695	0
CPI Capital Partners N.A., LP	173,316	0
CPI Capital Partners N.A. Secondary, LP	835,367	0
Crown Small Cap Real Estate	10,017,722	15,000,000
Domain GVA-1, LLC	206,532,855	148,149,052
Domain Hotel Properties, LLC	473,597,593	0
Dynamic Retail Trust	78,723,134	0
Eastport Properties, LLC	19,970,739	0
Gateway Capital R/E Fund II, LP	45,669,028	1,275,000
Great Lakes Property Group Trust	239,299,541	0
IMRF II CoInvest Spiga LP	12,170,239	3,120,792
Invesco Mortgage Recovery Feeder Fund	17,174,088	0
Invesco Mortgage Recovery Fund II, LP	49,137,148	17,543,582
IPF II Co-Invest LP	17,748,091	12,505,897
JBC North LaSalle, LLC	23,832,936	2,275,000
JBC Opportunity Fund III, LP	1,317,651	0
JP Morgan India Property Fund II, LLC	30,206,795	12,315,000
KBS/SM Fund III, LP	41,452,960	0
KBS/SM Fund IV, LP	85,508,025	0
L-A Saturn Acquisition, LP	42,161,964	0
Landmark Real Estate Partners V, LP	14,148,815	3,900,000
LaSalle Asia Opportunity Fund II, LP	261,731	0
LaSalle Asia Opportunity Fund III, LP	10,077,469	1,250,000
Lion Industrial Trust	169,897,672	0
Lion Mexico Fund, LP	10,978,387	0
Lombard GVA0016	232,649,048	0
Lone Star Fund X, LP	0	200,000,000
Lowe Hospitality Investment Partners	199,835	0
Lubert-Adler Real Estate Fund VII, LP	63,921,581	22,500,000
M1 Westgate CoInvest LLC	9,503,012	1,316,670
M301W CoInvest LLC	8,249,546	8,020,612
MERS Acquisitions, Ltd.	144,428,961	0
MG Alliance, LLC	18,578,936	0
MIP Holdco, LLC	85,080,084	25,000,000
Morgan Stanley R/E Fund V - International	3,141,388	0

	<u>Market Value</u>	<u>Unfunded Commitment</u>
Morgan Stanley R/E Fund VI - International	17,424,638	0
Morgan Stanley R/E Fund V - U.S.	2,945,505	0
Morgan Stanley R/E Special Situations Fund III	39,914,749	0
MWT Holdings, LLC	1,393,392,556	0
Northpark-Land Associates, LLLP	27,217,287	64,150,070
Orange Investors LLC	95,844,379	0
Paladin Realty Brazil Investors III (USA), LP	32,033,641	0
Paladin Realty Latin America Investors IV-CI, LP	31,911,697	27,500,000
Penmain Office LLC	35,671,073	0
* Principal Separate Account	164,600,001	36,500,000
Proprium RE Spec Situations Fund LP	23,283,095	21,214,477
Rialto Credit Partnership LP	74,245,739	139,900,000
Rialto Real Estate Fund, LP	26,619,311	0
Rialto Real Estate Fund II, LP	42,325,885	0
Rialto Real Estate Fund III-Debt, LP	5,805,528	43,966,217
Rialto Mezzanine Partners Fund	50,790,251	0
SM Brell II, LP	53,869,361	0
Stockbridge Real Estate Fund II-C, LP	20,726,505	0
Strategic LP	236,729,397	43,600,000
TPG RE Finance Trust	96,470,865	4,333,381
TPG RE Fund II	19,371,441	29,036,575
TSP Spartan C-I LLC	7,800,901	0
TSP Value and Income Fund LP	41,060,924	6,400,000
Trophy Property Development LP	50,932,164	7,408,100
True North High Yield Investment Fund II	24,710,333	5,000,000
True North Real Estate Fund III	22,903,735	29,867,783
Venture Center, LLC	41,276,544	0
Western National Realty Fund II, LP	27,268,820	0
	<u>\$ 5,839,633,591</u>	<u>\$ 1,126,362,704</u>
Short-Term Investments and Other	52,964,851	0
Total Real Estate Investments	<u>\$ 5,892,598,442</u>	<u>\$ 1,126,362,704</u>
INFRASTRUCTURE		
ArcLight Energy Partners Fund VI, LP	\$ 21,628,431	\$ 28,333,181
ASF VI Infrastructure B LP	17,875,468	17,230,011
ASF Como Co-Investment LP	39,149,294	13,188,030
Basalt Infrastructure Partners, LP	36,166,981	12,313,734
Blackstone Energy Partners, LP	52,491,628	4,213,042
Blackstone Energy Partners II, LP	8,094,543	77,468,362
Brookfield Infrastructure Fund II-B, LP	48,678,173	5,801,803
Customized Infrastructure Strategies, LP	67,016,973	9,230,034
Dalmore Capital Fund	60,128,000	0
First Reserve Energy Infrastructure Fund II, LP	25,667,183	52,939,068
GCM Grosvenor Infrastructure Investment Program, LP	45,046,579	0
GCM Grosvenor Customized Infrastructure Strategies II, LP	12,175,524	39,477,346
GSO Energy Select Opportunities Fund LP	5,919,656	45,462,756
JP Morgan AIRRO India Sidecar Fund US, LLC	66,118,073	5,033,815
JP Morgan AIRRO Fund II US, LLC	10,624,272	83,384,246
KKR Eagle CoInvest L.P.	24,119,780	10,504,631
KKR Global Infrastructure Investors, LP	50,663,704	7,181,281
StonePeak Infrastructure Fund LP	57,588,799	15,584,666
	<u>\$ 649,153,061</u>	<u>\$ 427,346,006</u>
Short-Term Investments and Other	20,527,609	0
Total Infrastructure Investments	<u>\$ 669,680,670</u>	<u>\$ 427,346,006</u>
TOTAL INVESTMENTS	<u>\$ 6,562,279,112</u>	<u>\$ 1,553,708,710</u>

* New or additional commitment made during the quarter reported