# Callan

October 31, 2016 Mendocino County Employees' Retirement Association

Investment Measurement Service Monthly Review

The following report was prepared by Callan Associates Inc. ("CAI") using information from sources that include the following: fund trustee(s); fund custodian(s); investment manager(s); CAI computer software; CAI investment manager and fund sponsor database; third party data vendors; and other outside sources as directed by the client. CAI assumes no responsibility for the accuracy or completeness of the information provided, or methodologies employed, by any information provider sexternal to CAI. Reasonable care has been taken to assure the accuracy of the CAI database and computer software. Callan does not provide advice regarding, nor shall Callan be responsible for, the purchase, sale, hedge or holding of individual securities, including, without limitation security holdings or the conformity of individual security holdings with the client's investment policies and guidelines, nor has it assumed any responsibility to do so. Advice pertaining to the merits of individual securities and derivatives should be discussed with a third party securities expert. Copyright 2016 by Callan Associates Inc.

### **Investment Manager Asset Allocation**

The table below contrasts the distribution of assets across the Fund's investment managers as of October 31, 2016, with the distribution as of September 30, 2016. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

	October 31, 2016				September 3	0, 2016
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Domestic Equities	\$165,737,369	37.85%	\$0	\$(3,933,839)	\$169,671,208	38.18%
Large Cap Equities	\$115,002,563	26.26%	\$0	\$(1,878,477)	\$116,881,040	26.30%
Vanguard S&P 500 Index	21,099,576	4.82%	0	(392,743)	21,492,319	4.84%
Dodge & Cox Stock	23,799,093	5.43%	0	(62,178)	23,861,271	5.37%
Boston Partners	23,746,590	5.42%	0	(367,203)	24,113,793	5.43%
Harbor Cap Appreciation	23,636,592	5.40%	0	(387,614)	24,024,206	5.41%
Janus Research	22,720,713	5.19%	0	(668,738)	23,389,451	5.26%
Mid Cap Equities	\$19,851,458	4.53%	\$0	\$(802,867)	\$20,654,325	4.65%
Fidelity Low Priced Stock	5,123,563	1.17%	0	(135,881)	5,259,444	1.18%
Royce Total Return	4,906,767	1.12%	0	(181,452)	5,088,219	1.14%
Morgan Stanley	4,173,336	0.95%	0	(262,483)	4,435,819	1.00%
Janus Enterprise	5,647,793	1.29%	0	(223,051)	5,870,844	1.32%
Small Cap Equities	\$22,871,692	5.22%	\$0	\$(783,237)	\$23,654,929	5.32%
Prudential Small Cap Value	11,537,301	2.63%	0	(220,298)	11,757,598	2.65%
AB US Small Growth	6,430,698	1.47%	0	(330,514)	6,761,212	1.52%
RS Investments	4,903,693	1.12%	0	(232,425)	5,136,118	1.16%
Micro Cap Equities	\$8,011,656	1.83%	\$0	\$(469,258)	\$8,480,914	1.91%
AMG Managers Emrg Opp Fu	nd 8,011,656	1.83%	0	(469,258)	8,480,914	1.91%
International Equities	\$127,948,601	29.22%	\$4,585,294	\$(2,200,460)	\$125,563,767	28.25%
EuroPacific	27,842,309	6.36%	0	(595,430)	28,437,739	6.40%
Harbor International	27,643,916	6.31%	0	(893,661)	28,537,578	6.42%
Columbia Acorn Int'l	14,933,259	3.41%	0	(749,098)	15,682,357	3.53%
Oakmark International	29,748,013	6.79%	0	619,213	29,128,800	6.55%
Mondrian International	27,781,103	6.34%	4,585,294	(581,483)	23,777,293	5.35%
Domestic Fixed Income	\$96,683,699	22.08%	\$0	\$(336,148)	\$97,019,848	21.83%
Dodge & Cox Income	48,674,058	11.12%	0	(70,336)	48,744,394	10.97%
PIMCO	48,009,642	10.96%	0	(265,812)	48,275,453	10.86%
Real Estate	\$45,927,306	10.49%	\$0	\$(626,587)	\$46,553,893	10.47%
RREEF Public Fund	7,989,012	1.82%	0	(442,348)	8,431,360	1.90%
RREEF Private Fund	21,259,763	4.85%	0	(184,239)	21,444,002	4.83%
Barings Core Property Fund	15,814,531	3.61%	0	0	15,814,531	3.56%
625 Kings Court	864,000	0.20%	0	0	864,000	0.19%
Cash	\$1,615,572	0.37%	\$(4,004,864)	\$0	\$5,620,436	1.26%
Total Fund	\$437,912,549	100.0%	\$580,430	\$(7,097,033)	\$444,429,152	100.0%

#### Asset Distribution Across Investment Managers

The table below details the rates of return for the fund's investment managers over various time periods ended October 31, 2016. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns	for Periods	s Ended October 31, 201	6
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		Year		Last	Last
	Last	to	12	36	60
	Month	Date	Months	Months	Months
Domestic Equties	(2.32%)	3.62%	1.74%	6.51%	12.72%
Russell 3000 Index	(2.16%)	5.84%	4.24%	8.13%	13.35%
Large Cap Equities					
Vanguard S&P 500 Index	(1.83%)	5.84%	4.49%	8.81%	-
S&P 500 Index	(1.82%)	5.87%	4.51%	8.84%	13.57%
Dodge & Cox Stock	(0.26%)	9.26%	5.85%	7.28%	14.55%
Boston Partners	(1.56%)	3.59%	0.55%	5.34%	12.59%
S&P 500 Index	(1.82%)	5.87%	4.51%	8.84%	13.57%
Russell 1000 Value Index	(1.55%)	8.29%	6.37%	7.59%	13.31%
Harbor Cap Appreciation (5)	(1.61%)	(0.72%)	(1.21%)	9.03%	13.20%
Janus Research (6)	(2.86%)	(0.38%)	(1.68%)	8.66%	13.03%
S&P 500 Index	(1.82%)	5.87%	4.51%	8.84%	13.57%
Russell 1000 Growth Index	(2.35%)	3.51%	2.28%	9.36%	13.65%
Mid Cap Equities					
Fidelity Low Priced Stock	(2.58%)	2.58%	0.27%	4.58%	11.38%
Royce Total Return (1)	(3.57%)	11.06%	6.21%	3.10%	9.76%
Russell MidCap Value Idx	(2.42%)	10.96%	7.84%	7.97%	14.07%
Morgan Stanley (2)	(5.92%)	(8.44%)	(6.10%)	(1.75%)	4.40%
Janus Enterprise (6)	(3.80%)	7.49%	6.24%	9.73%	13.92%
Russell MidCap Growth Idx	(4.06%)	2.50%	0.40%	6.48%	12.02%
Small Cap Equities					
Prudential Small Cap Value (3)	(1.87%)	11.56%	7.28%	4.89%	11.42%
US Small Cap Value Idx	(2.85%)	10.62%	7.74%	5.82%	12.52%
Russell 2000 Value Index	(3.29%)	11.69%	8.81%	4.47%	11.63%
AB US Small Growth (4)	(4.89%)	(0.95%)	(0.01%)	1.45%	10.57%
RS Investments (1)	(4.53%)	(5.84%)	(8.01%)	2.69%	11.95%
Russell 2000 Growth Index	(6.21%)	0.80%	(0.49%)	3.70%	11.34%
Micro Cap Equities					
AMG Managers Emerging Opp Fund	(5.53%)	4.76%	2.72%	1.71%	11.94%
Russell Microcap Index	(5.70%)	3.14%	1.54%	3.19%	12.17%
Russell Micro Growth Idx	(8.10%)	(3.21%)	(4.63%)	2.01%	11.20%

(1) Switched share class December 2009.
 (2) Switched share class in February 2014.
 (3) Switched share class in Septemeber 2015.
 (4) Switched to a mutual fund in September 2015.
 (5) Switched share class in June 2016.
 (6) Switched share class in July 2016.



The table below details the rates of return for the fund's investment managers over various time periods ended October 31, 2016. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns	for Periods	s Ended	October 31	. 2016
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		Year	Last	Last	Last
	Last	to	12	36	60
	Month	Date	Months	Months	Months
International Equities	(1.69%)	2.96%	(1.16%)	(1.81%)	4.27%
MSCI ACWI ex-US Index	(1.43%)	4.77%	0.72%	(1.04%)	4.11%
EuroPacific (1)	(2.09%)	3.18%	0.44%	1.39%	6.62%
Harbor International (5)	(3.13%)	1.48%	(3.72%)	(2.30%)	4.23%
Columbia Acorn Int'l (2)	(4.78%)	1.81%	0.58%	(0.27%)	6.22%
Oakmark International (4)	2.13%	3.78%	(1.20%)	(1.52%)	8.48%
Mondrian International	(2.12%)	3.46%	(1.57%)	(1.52%)	3.38%
MSCI EAFE Index	(2.05%)	(0.35%)	(3.23%)	(1.31%)	4.99%
MSCI ACWI ex-US Index	(1.43%)	4.77%	0.72%	(1.04%)	4.11%
Domestic Fixed Income	(0.35%)	5.69%	5.06%	3.43%	3.91%
BC Aggregate Index	(0.76%)	4.99%	4.37%	3.48%	2.90%
Dodge & Cox Income	(0.14%)	6.79%	5.83%	3.86%	4.03%
PIMCO	(0.55%)	4.59%	4.30%	2.99%	3.78%
BC Aggregate Index	(0.76%)	4.99%	4.37%	3.48%	2.90%
Real Estate	(1.35%)	4.75%	7.91%	10.65%	10.88%
Real Estate Custom Benchmark (3)	(0.45%)	7.10%	9.13%	11.38%	11.41%
RREEF Public	(5.25%)	1.92%	3.90%	9.95%	10.47%
NAREIT	(4.84%)	7.27%	8.37%	10.18%	11.45%
RREEF Private	(0.86%)	4.65%	8.30%	11.40%	11.90%
Barings Core Property Fund	0.00%	6.48%	9.71%	10.03%	-
NFI-ODCE Equal Weight Net	0.65%	6.98%	9.25%	11.52%	11.35%
625 Kings Court	0.00%	7.39%	10.28%	11.29%	12.98%
Total Fund	(1.60%)	4.06%	2.48%	3.93%	8.09%
Total Fund Benchmark*	(1.45%)	5.47%	3.82%	4.89%	8.02%
	(1.70/0)	0.17/0	0.02 /0	T.0070	0.02 /0

\* Current Month Target = 38.0% Russell 3000 Index, 29.0% MSCI ACWIxUS Gross, 22.0% BB Barclays Aggregate Idx, 8.8% NFI-ODCE Equal Weight Net and 2.2% FTSE NAREIT Composite Idx.
(1) Switched share class December 2009.
(2) Switched share class in February 2014.
(3) Real Estate Custom Benchmark is 50% NAREIT Composite Index and 50% NFI-ODCE Equal Weight Net through 12/31/2011; and 20% NAREIT Composite Index and 80% NFI-ODCE Equal Weight Net thereafter.
(4) Switched to CIT in November 2015.
(5) Switched share class in June 2016.



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November 30, 2016 Mendocino County Employees' Retirement Association

Investment Measurement Service Monthly Review

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## **Investment Manager Asset Allocation**

The table below contrasts the distribution of assets across the Fund's investment managers as of November 30, 2016, with the distribution as of October 31, 2016. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution	Across	Investment	Managers
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	November 3	0, 2016			October 31, 2016		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight	
Domestic Equities	\$175,467,336	39.61%	\$0	\$9,729,967	\$165,737,369	37.85%	
Large Cap Equities	\$120,380,152	27.17%	\$0	\$5,377,589	\$115,002,563	26.26%	
Vanguard S&P 500 Index	21,880,720	4.94%	0	781,144	21,099,576	4.82%	
Dodge & Cox Stock	26,088,636	5.89%	0	2,289,542	23,799,093	5.43%	
Boston Partners	25,717,556	5.81%	0	1,970,966	23,746,590	5.42%	
Harbor Cap Appreciation	23,577,863	5.32%	0	(58,728)	23,636,592	5.40%	
Janus Research	23,115,377	5.22%	0	394,665	22,720,713	5.19%	
Mid Cap Equities	\$20.813,680	4.70%	\$0	\$962,222	\$19,851,458	4.53%	
Fidelity Low Priced Stock	5,402,873	1.22%	0	279,310	5,123,563	1.17%	
Royce Total Return	5,417,101	1.22%	0	510,334	4,906,767	1.12%	
Morgan Stanley	4,105,285	0.93%	0	(68,051)	4,173,336	0.95%	
Janus Enterprise	5,888,421	1.33%	0	240,628	5,647,793	1.29%	
Small Cap Equities	\$25,426,184	5.74%	\$0	\$2,554,493	\$22,871,692	5.22%	
Prudential Small Cap Value	13,180,092	2.98%	0	1,642,791	11,537,301	2.63%	
AB US Small Growth	6,970,991	1.57%	0	540,293	6,430,698	1.47%	
RS Investments	5,275,102	1.19%	0	371,409	4,903,693	1.12%	
Micro Cap Equities	\$8,847,320	2.00%	\$0	\$835,664	\$8,011,656	1.83%	
AMG Managers Emrg Opp Fu		2.00%	0	835,664	8,011,656	1.83%	
International Equities	\$125,503,845	28.33%	\$0	\$(2,444,756)	\$127,948,601	29.22%	
EuroPacific	27,127,795	6.12%	0	(714,514)	27,842,309	6.36%	
Harbor International	27,098,555	6.12%	0	(545,362)	27,643,916	6.31%	
Columbia Acorn Int'l	14,255,327	3.22%	0	(677,932)	14,933,259	3.41%	
Oakmark International	29,980,218	6.77%	0	232,205	29,748,013	6.79%	
Mondrian International	27,041,951	6.10%	0	(739,152)	27,781,103	6.34%	
Domestic Fixed Income	\$94,520,451	21.34%	\$(122,937)	\$(2,040,312)	\$96,683,699	22.08%	
Dodge & Cox Income	47,865,167	10.80%	0	(808,891)	48,674,058	11.12%	
PIMČO	46,655,284	10.53%	(122,937)	(1,231,421)	48,009,642	10.96%	
Real Estate	\$45,792,147	10.34%	\$0	\$(135,160)	\$45,927,306	10.49%	
RREEF Public Fund	7,853,852	1.77%	0	(135,160)	7,989,012	1.82%	
<b>RREEF</b> Private Fund	21,259,763	4.80%	0	0	21,259,763	4.85%	
Barings Core Property Fund	15,814,531	3.57%	0	0	15,814,531	3.61%	
625 Kings Court	864,000	0.20%	0	0	864,000	0.20%	
Cash	\$1,738,509	0.39%	\$122,937	\$()	\$1,615,572	0.37%	
Total Fund	\$443,022,288	100.0%	\$0	\$5,109,739	\$437,912,549	100.0%	

The table below details the rates of return for the fund's investment managers over various time periods ended November 30, 2016. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

		Year Last to	Last	Last	Last
	Last		12	36	60
	Month	Date	Months	Months	Months
Domestic Equties	5.87%	9.70%	6.71%	7.34%	14.17%
Russell 3000 Index	4.48%	10.58%	8.31%	8.68%	14.41%
Large Cap Equities Vanguard S&P 500 Index	2 700/	0.76%	0 0 2 0/	0.049/	
	3.70%	9.76%	8.03%	9.04%	
S&P 500 Index	3.70%	9.79%	8.06%	9.07%	14.45%
Dodge & Cox Stock	9.62%	19.77%	16.60%	9.08%	16.97%
Boston Partners	8.26%	12.14%	9.06%	6.79%	14.48%
S&P 500 Index	3.70%	9.79%	8.06%	9.07%	14.45%
Russell 1000 Value Index	5.71%	14.48%	12.02%	8.60%	14.69%
	0.1170	11.1070	12:02/0	0.0070	11.0070
Harbor Cap Appreciation (5)	(0.25%)	(0.97%)	(2.49%)	7.76%	13.52%
Janus Research (6)	1.74%	1.35%	(0.18%)	8.12%	13.79%
S&P 500 Index	3.70%	9.79%	8.06%	9.07%	14.45%
Russell 1000 Growth Index	2.18%	5.77%	4.22%	9.13%	14.14%
	2.1070	0.1170		0.1070	
Mid Cap Equities					
Fidelity Low Priced Stock	5.45%	8.17%	5.31%	5.61%	12.94%
Royce Total Return (1)	10.40%	22.61%	16.34%	5.54%	12.04%
Russell MidCap Value Idx	6.26%	17.90%	14.25%	9.79%	15.58%
Morgan Stanley (2)	(1.63%)	(9.93%)	(10.16%)	(3.48%)	4.60%
Janus Enterprise (6)	4.26%	12.07%	9.15%	10.20%	14.72%
Russell MidCap Growth Idx	4.35%	6.96%	4.54%	7.22%	13.09%
Russell MidCap Growth ldx	4.33%	0.90%	4.54%	1.22%	13.09%
Small Cap Equities					
Prudential Small Cap Value (3)	14.24%	27.45%	19.19%	8.64%	14.43%
US Small Cap Value Idx	11.17%	22.97%	17.23%	8.54%	14.98%
Russell 2000 Value Index	13.27%	26.52%	19.85%	7.52%	14.50%
AB US Small Growth (4)	8.40%	7.37%	2.68%	3.09%	12.31%
RS Investments (1)	7.57%	1.30%	(3.68%)	4.61%	13.24%
Russell 2000 Growth Index	8.95%	9.82%	4.58%	5.29%	13.38%
Micro Cap Equities					
AMG Managers Emerging Opp Fund	10.43%	15.69%	10.01%	3.55%	14.42%
Russell Microcap Index	11.62%	15.12%	9.18%	4.97%	14.88%
Russell Micro Growth Idx	8.28%	4.80%	(1.38%)	2.65%	13.25%

**Returns for Periods Ended November 30, 2016** 

(1) Switched share class December 2009.
 (2) Switched share class in February 2014.
 (3) Switched share class in Septemeber 2015.
 (4) Switched to a mutual fund in September 2015.
 (5) Switched share class in June 2016.
 (6) Switched share class in July 2016.



The table below details the rates of return for the fund's investment managers over various time periods ended November 30, 2016. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

		Year	Last	Last	Last
	Last	to	12	36	60
	Month	Date	Months	Months	Months
International Equities	(1.91%)	0.99%	(1.26%)	(2.78%)	4.67%
MSCI ACWI ex-US Index	(2.30%)	2.36%	0.46%	(1.87%)	4.71%
EuroPacific (1)	(2.57%)	0.53%	(1.81%)	(0.15%)	6.59%
Harbor International (5)	(1.97%)	(0.52%)	(2.78%)	(3.06%)	4.31%
Columbia Acorn Int'l (2)	(4.54%)	(2.81%)	(4.63%)	(2.01%)	5.86%
Oakmark International (4)	0.78%	4.59%	1.66%	(1.47%)	9.37%
Mondrian International	(2.72%)	0.65%	(1.13%)	(2.60%)	3.65%
MSCI EAFE Index	(1.99%)	(2.34%)	(3.66%)	(2.22%)	5.62%
MSCI ACWI ex-US Index	(2.30%)	2.36%	0.46%	(1.87%)	4.71%
Domestic Fixed Income	(2.11%)	3.46%	2.94%	2.68%	3.69%
BC Aggregate Index	(2.37%)	2.50%	2.17%	2.79%	2.43%
Dodge & Cox Income	(1.66%)	5.02%	4.15%	3.25%	3.95%
PIMCO	(2.56%)	1.91%	1.75%	2.10%	3.43%
BC Aggregate Index	(2.37%)	2.50%	2.17%	2.79%	2.43%
Real Estate	(0.29%)	4.44%	7.61%	10.88%	11.12%
Real Estate Custom Benchmark (3)	0.11%	7.22%	8.37%	11.50%	11.76%
RREEF Public	(1.69%)	0.20%	2.48%	11.30%	10.84%
NAREIT	(2.19%)	4.93%	6.11%	11.16%	11.78%
RREEF Private	0.00%	4.65%	8.30%	11.40%	11.90%
Barings Core Property Fund	0.00%	6.48%	9.71%	10.03%	9.60%
NFI-ODCE Equal Weight Net	0.65%	7.67%	8.81%	11.41%	11.29%
625 Kings Court	0.00%	7.39%	7.39%	9.78%	12.85%
Total Fund	1.17%	5.28%	3.78%	3.81%	8.68%
Total Fund Benchmark*	0.51%	6.01%	4.67%	4.71%	8.47%

#### **Returns for Periods Ended November 30, 2016**

\* Current Month Target = 37.7% Russell 3000 Index, 29.0% MSCI ACWIxUS Gross, 22.2% Blmbg Aggregate Idx, 9.0% NFI-ODCE Equal Weight Net and 2.1% FTSE NAREIT Composite Idx.
(1) Switched share class December 2009.
(2) Switched share class in February 2014.
(3) Real Estate Custom Benchmark is 50% NAREIT Composite Index and 50% NFI-ODCE Equal Weight Net through 12/31/2011; and 20% NAREIT Composite Index and 80% NFI-ODCE Equal Weight Net thereafter.
(4) Switched to CIT in November 2015.
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