

# San Jose Federated City Employees' Retirement System As of December 31, 2020 Quarterly Review

FCERS 3-18-21



Agenda

1. The World Markets in the Fourth Quarter 2020

### 2. Executive Summary

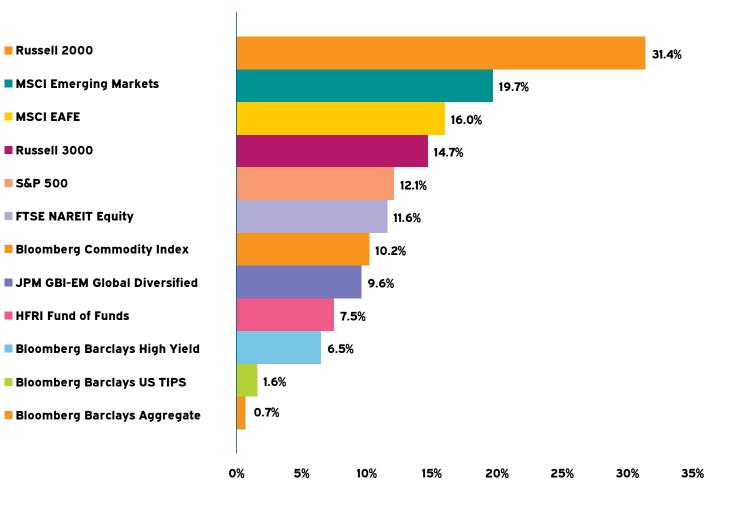
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The World Markets Fourth Quarter of 2020

# MEKETA

### The World Markets Fourth Quarter of 2020

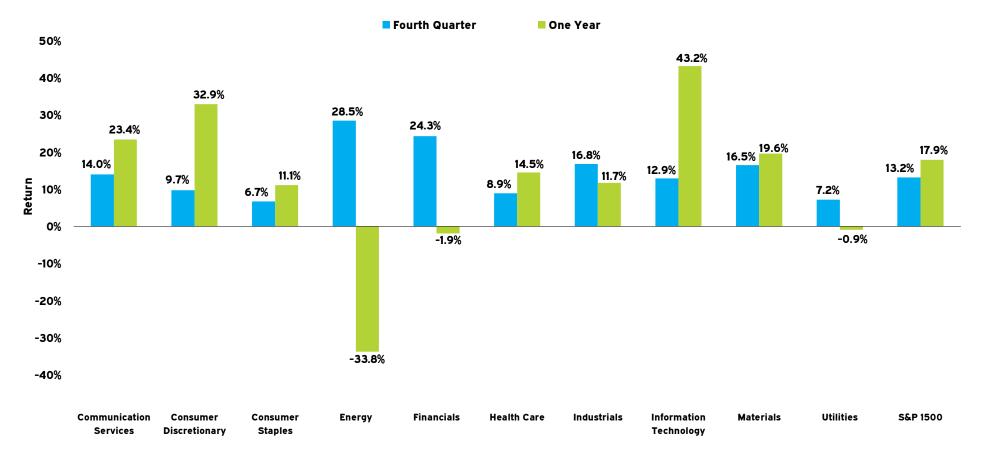
# The World Markets<sup>1</sup> Fourth Quarter of 2020





	4Q20 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Domestic Equity					
S&P 500	12.1	18.4	14.2	15.2	13.9
Russell 3000	14.7	20.9	14.5	15.4	13.8
Russell 1000	13.7	21.0	14.8	15.6	14.0
Russell 1000 Growth	11.4	38.5	23.0	21.0	17.2
Russell 1000 Value	16.3	2.8	6.1	9.7	10.5
Russell MidCap	19.9	17.1	11.6	13.4	12.4
Russell MidCap Growth	19.0	35.6	20.5	18.7	15.0
Russell MidCap Value	20.4	5.0	5.4	9.7	10.5
Russell 2000	31.4	20.0	10.2	13.3	11.2
Russell 2000 Growth	29.6	34.6	16.2	16.4	13.5
Russell 2000 Value	33.4	4.6	3.7	9.7	8.7
Foreign Equity					
MSCI ACWI (ex. US)	17.0	10.7	4.9	8.9	4.9
MSCI EAFE	16.0	7.8	4.3	7.4	5.5
MSCI EAFE (Local Currency)	11.4	0.8	3.0	5.8	6.8
MSCI EAFE Small Cap	17.3	12.3	4.9	9.4	7.8
MSCI Emerging Markets	19.7	18.3	6.2	12.8	3.6
MSCI Emerging Markets (Local Currency)	16.0	19.1	8.1	12.6	6.6
Fixed Income					
Bloomberg Barclays Universal	1.3	7.6	5.5	4.9	4.2
Bloomberg Barclays Aggregate	0.7	7.5	5.3	4.4	3.8
Bloomberg Barclays US TIPS	1.6	11.0	5.9	5.1	3.8
Bloomberg Barclays High Yield	6.5	7.1	6.2	8.6	6.8
JPM GBI-EM Global Diversified	9.6	2.7	3.0	6.7	1.5
Other					
FTSE NAREIT Equity	11.6	-8.0	3.4	4.8	8.3
Bloomberg Commodity Index	10.2	-3.1	-2.5	1.0	-6.5
HFRI Fund of Funds	7.5	10.3	4.7	4.4	3.3

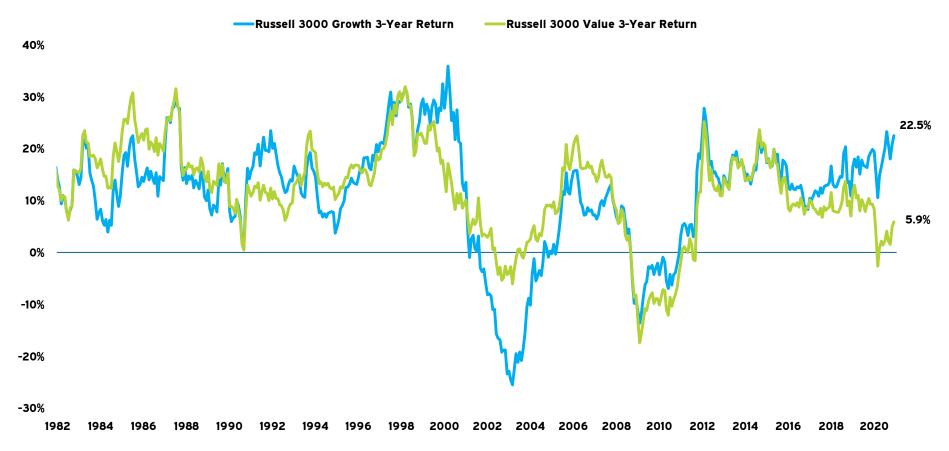




### S&P Sector Returns<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Source: InvestorForce. Represents S&P 1500 (All Cap) data.

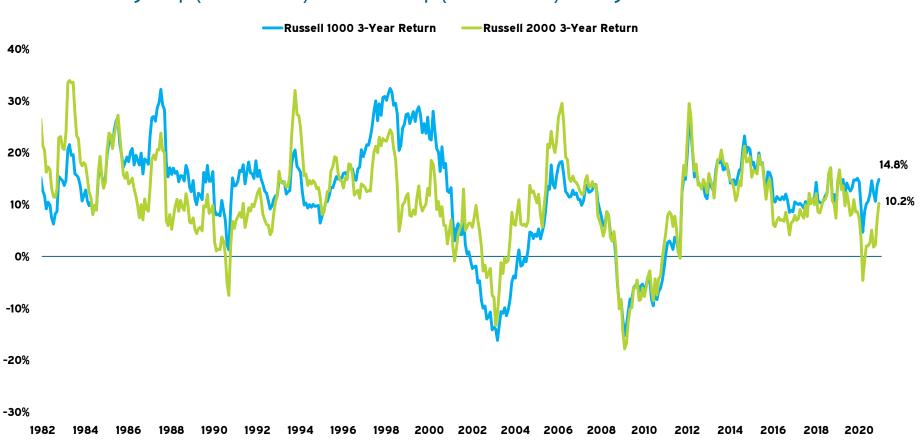




# Growth and Value Rolling Three Year Returns<sup>1</sup>

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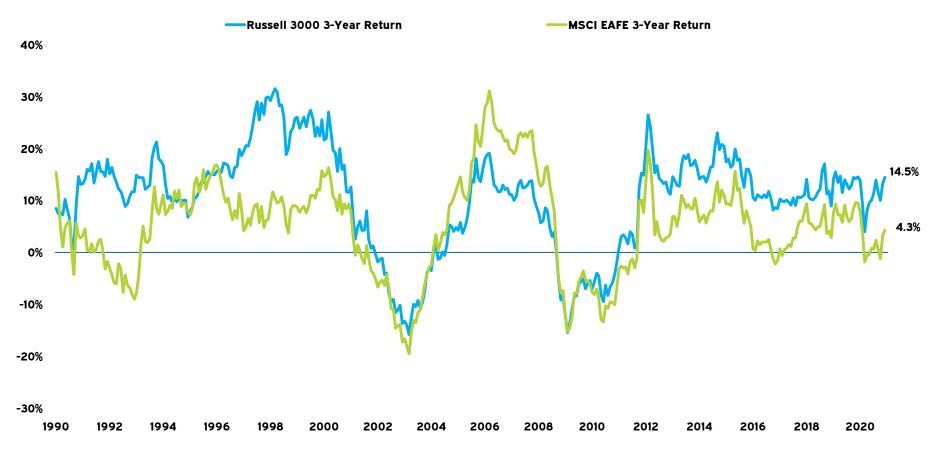




# Large Cap (Russell 1000) and Small Cap (Russell 2000) Rolling Three Year Returns<sup>1</sup>

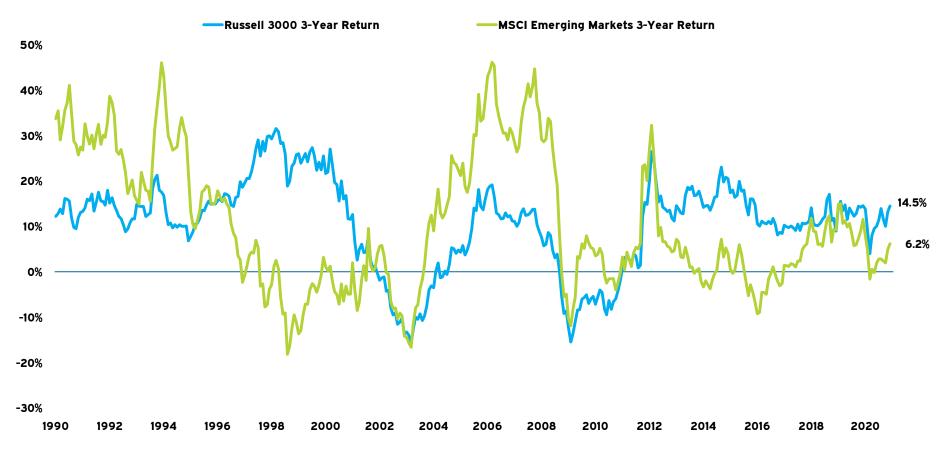
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# US and Developed Market Foreign Equity Rolling Three-Year Returns<sup>1</sup>

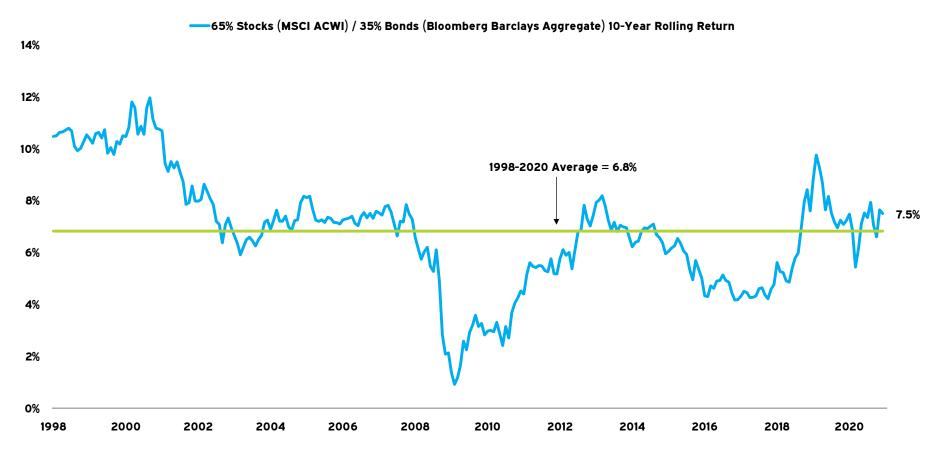




# US and Emerging Market Equity Rolling Three-Year Returns<sup>1</sup>

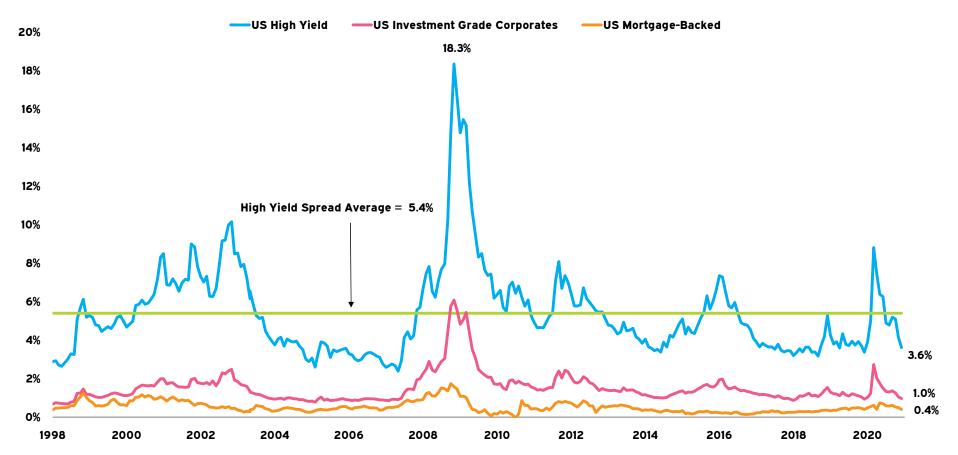


# Rolling Ten-Year Returns: 65% Stocks and 35% Bonds<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Source: InvestorForce.



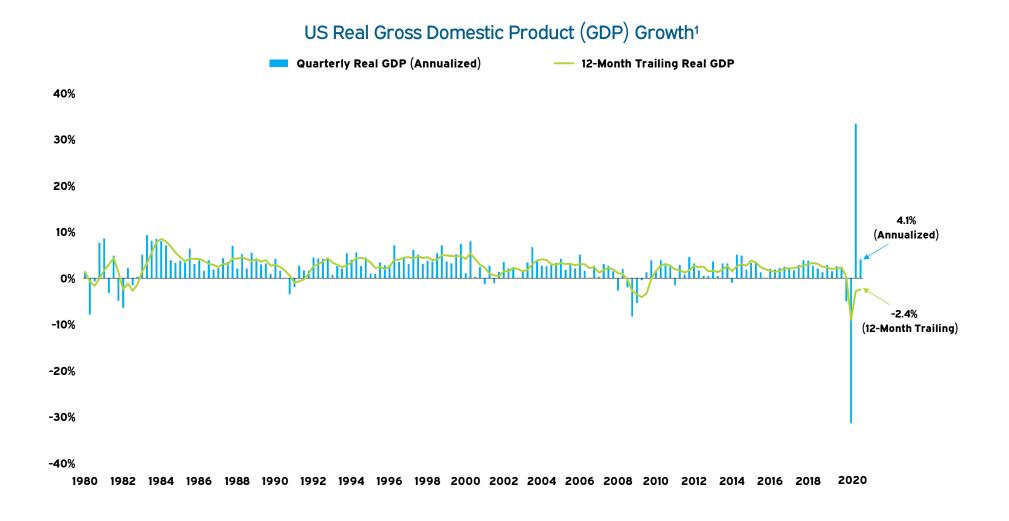


### Credit Spreads vs. US Treasury Bonds<sup>1,2</sup>

<sup>&</sup>lt;sup>1</sup> Source: Barclays Live. Data represents the OAS.

 $<sup>^2</sup>$  The median high yield spread was 4.8% from 1997-2020.



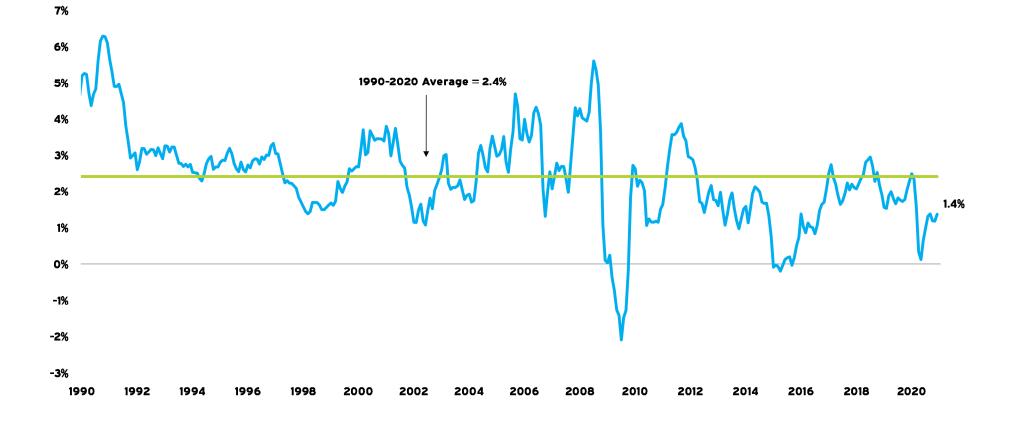


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 $<sup>^{1\,}</sup>$  Source: Bureau of Economic Analysis. Data is as of Q4 2020 and represents the second estimate.



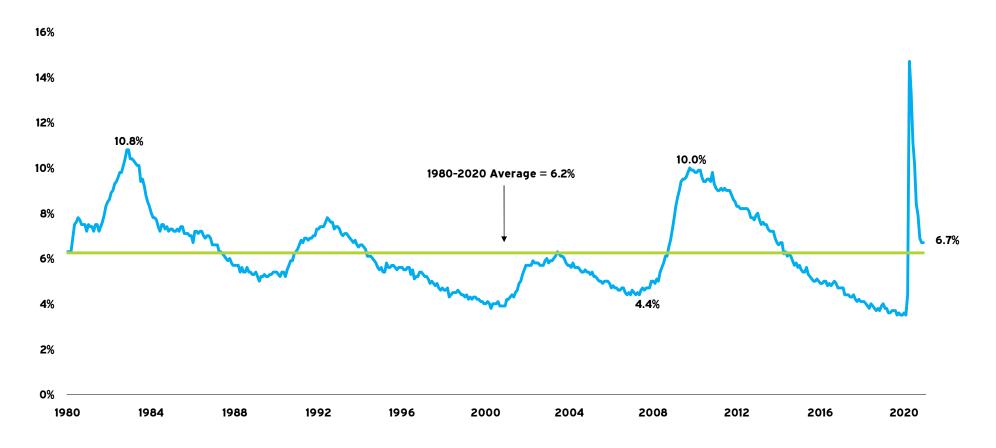
US Inflation (CPI) Trailing Twelve Months<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Source: Bureau of Labor Statistics. Data is non-seasonally adjusted CPI, which may be volatile in the short-term. Data is as of December 31, 2020.







<sup>&</sup>lt;sup>1</sup> Source: Bureau of Labor Statistics. Data is as of December 31, 2020.

Executive Summary As of December 31, 2020



### Aggregate Plan Overview

The value of the San Jose Federated City Employees' Retirement System assets was \$2.67 billion on December 31, 2020, an increase of approximately \$209 million from the end of the prior quarter. The System had net cash outflows of \$43 million during the quarter, and \$253 million of investment gains during the quarter.

- The System's net of fees performance for the quarter was +10.4%, compared to the Policy Benchmark (+10.3%) and Investable Benchmark Portfolio (+10.5%) returns, and outperformed the peer median (+10.1%).
- The Retirement System returned +16.0% over the trailing one-year period, compared to the Policy Benchmark (+15.2%) and Investable Benchmark Portfolio (+14.6%) returns, while outperforming the peer median return of +10.8%. The Retirement System's standard deviation of returns was 14.4% over the trailing one-year period, exhibiting lower volatility than the peer median (+15.1%). For calendar year 2020, the System was in the top 5% of the 80-plan peer universe.
  - Growth returned +13.8% for the quarter and +16.5% over the trailing one-year period, versus +13.9% and +15.5% for the Growth Benchmark over the same periods, respectively.
  - Low Beta returned +0.8% for the quarter and +3.0% over the trailing one-year period versus
     +0.1% and +1.8% for the Low Beta Benchmark over the same periods, respectively.
  - Other assets returned +0.3% for the quarter and +0.3% over the trailing one-year period, versus
     +0.4% and -3.6% for the Other Benchmark over the same periods, respectively.
- During the quarter, the System added five new investments: Columbia High Yield (High Yield Bond), Crestline Portfolio Finance II (Private Equity), Exeter Industrial Value Fund V (Private Real Estate), HPS Special Situations Opportunity (Private Debt), and Payden & Rygel EMD Blended Currency (Emerging Markets Debt). Additionally, the Retirement System terminated Blue Bay EM Select Bond (Emerging Market Debt).



**Manager Highlights** 

### Artisan

• Artisan Global Value returned +21.9% for the quarter, outperforming the MSCI ACWI Value NR USD benchmark by 530 basis points. Outperformance for the quarter was driven by Samsung (semiconductor demand), Baidu (recovery in China's advertising market), and Expedia (vaccine related optimism in the travel industry). Compared to peers, Artisan ranks in the 16th percentile of its peer group for the quarter and in the 27th percentile since inception (1st is best and 100th is worst).

### Oberweis

• Oberweis International Opportunities returned +24.2% for the quarter and +64.8% over the trailing one-year period, compared to the MSCI World ex USA Small Cap Growth benchmark returns of +15.0% and +22.9% over the same time periods. Strong stock selection was driven by portfolio companies experiencing positive business growth despite the pandemic, and some even accelerating growth in key metrics vs baseline expectations. Compared to peers, Oberweis ranks in the 10th percentile for the quarter and 6th percentile since inception.

### RWC

• RWC Emerging Markets Equity returned +34.9% for the quarter, outperforming the MSCI EM benchmark by over 15%. Compared to peers, RWC ranks in the 1st and 10th percentiles for the quarter and since inception periods, respectively. Both country and sector bets contributed to returns for the quarter.

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# San Jose Federated City Employees' Retirement System

### Fourth Quarter Manager Summary

Investment Manager	Asset Class	Changes/ Announcements	Meketa Recommendation <sup>,</sup>	Comments
Artisan Global Value	Global Equity	Yes	Hold	Personnel Change
Artisan Global Opportunities	Global Equity			
Cove Street Small Cap Value	US Equity		Hold	Watch List
Oberweis International Opps	International Equity			
Dimensional EM Value	Emerging Markets Equity		Hold	Watch List
GQG Partners Global EM	Emerging Markets Equity			
RWC Emerging Markets Equity	Emerging Markets Equity			
Wellington EM Systematic	Emerging Markets Equity			
Wellington Iguazu Partners LP	Emerging Markets Debt			
Payden EMD Blended Currency	Emerging Markets Debt			
Mellon High Yield Beta	High Yield Bonds			
Columbia High Yield	High Yield Bonds			
Voya TALF	Investment Grade Bonds			
Voya Securitized Credit	Investment Grade Bonds			
BlackRock Core Property	Core Real Estate			
Clarion Lion Properties	Core Real Estate			

<sup>&</sup>lt;sup>1</sup> The Meketa Investment Group recommendations are based on the noted organizational or resource changes at each manager.



### Watch List

### Watch List<sup>1,2</sup>

Investment Manager	Asset Class	Watch List Status	Comments
Cove Street Small Cap Value	US Equity	Monitoring	Underperformance
Dimensional Fund Adv EM Value	Emerging Markets Equity	Monitoring	Underperformance
DE Shaw	Market Neutral Strategies	Monitoring	Transparency Concerns

<sup>&</sup>lt;sup>1</sup> Watch List excludes Private Markets and Passive Funds.

<sup>&</sup>lt;sup>2</sup> Placement on the Watch List includes qualitative reasons and manager underperformance versus the appropriate benchmark over a three and or five year period as outlined in the Investment Policy Statement.



Fourth Quarter Manager Summary

### **Cove Street**

• Over the five-year period, Cove Street (+7.4) has underperformed the Russell 2000 Value by 230 basis points. Since inception in May 2014, Cove Street has underperformed the benchmark by 150 basis points per year, on average, and ranked in the 73rd percentile compared to peers.

### Dimensional

• Over the three-year period, Dimensional (-0.4%) has underperformed the MSCI Emerging Markets Value by 120 basis points. Since inception in November 2016, Dimensional has underperformed the benchmark by 60 basis points per year, on average, and ranked in the 89th percentile compared to peers.

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# San Jose Federated City Employees' Retirement System

### Market Environment – 4Q20 Overview

Benchmark	Scope	4Q20 (%)	1 YR (%)	3 YR (%)	5YR (%)	10 YR (%)	HFRI Macro (Total)	=	-	
Global Equity							S&P Global Natural Resources	-		
MSCI ACWI IMI	World	15.7	16.3	9.7	12.1	9.1	DJ Brookfield Global Infra.		_	
MSCI ACWI IMI Net (Local)	World (Local Currency)	13.8	14.2	9.6	11.6	10.0	Bloomberg Commodity			
Domestic Equity							••••			
S&P 500	Large Core	12.1	18.4	14.2	15.2	13.9	NCREIF Property	-		
Russell 1000	Large Core	13.7	21.0	14.8	15.6	14.0	Cambridge Assoc.PE ldx 1Q Lag	_		
Russell 1000 Growth	Large Growth	11.4	38.5	23.0	21.0	17.2	Barclays US TIPS			
Russell 1000 Value	Large Value	16.3	2.8	6.1	9.7	10.5	Barclays US HY			
Russell 2000	Small Core	31.4	20.0	10.2	13.3	11.2				
Russell 2000 Growth	Small Growth	29.6	34.6	16.2	16.4	13.5	Barclays US Aggregate	-	-	
Russell 2000 Value	Small Value	33.4	4.6	3.7	9.7	8.7	JPM EMBI Global TR	_		
Russell 3000	All Cap Core	14.7	20.9	14.5	15.4	13.8	JPM GBI-EM GD		_	
International Equity							S&P Global Leveraged Loan			
MSCI World ex US	World ex-US	15.8	7.6	4.2	7.6	5.2	•			
MSCI EAFE	International Developed	16.0	7.8	4.3	7.4	5.5	Barclays Global Aggregate			
MSCI EAFE (Local)	International Developed (Local Currency)	11.4	0.8	3.0	5.8	6.8	MSCI EM (Local)			
MSCI EM	Emerging Markets	19.7	18.3	6.2	12.8	3.6	MSCI EM			/
MSCI EM (Local)	Emerging Markets (Local Currency)	16.0	19.1	8.1	12.6	6.6	MSCI EAFE (Local)	•		Quarter
Global Fixed Income	(Local ourrency)						MSCI EAFE			🔲 1 Year
Barclays Global Aggregate	Global Core Bonds	3.3	9.2	4.8	4.8	2.8	MSCI World ex US	_		
S&P Global Leveraged Loan	Bank Loans	3.8	3.1	3.2	5.0	4.0	Russell 3000			
JPM GBI-EM GD	Emerging Markets Bonds (Local Currency)	2.8	8.4	8.1	8.5	7.5	Russell 2000 Value	_	100 100	
JPM EMBI Global TR	Emerging Market Bonds	5.5	5.9	4.9	6.8	6.0	Russell 2000 Growth	_		
Domestic Fixed Income	Efferging Market Bonas	0.0	0.7	-1.2	0.0	0.0	Russell 2000			
Barclays US Aggregate	Core Bonds	0.7	7.5	5.3	4.4	3.8	Russell 1000 Value			
Barclays US HY	High Yield	6.5	7.1	6.2	8.6	6.8				
Barclays US TIPS	Inflation	1.6	11.0	5.9	5,1	3.8	Russell 1000 Growth			
Other							Russell 1000	_		
Cambridge AssociatesPE Index 1Qtr Lag	Private Equity	11.2	20.4	16.2	15.0	14.7	S&P 500	_		
NCREIF Property	Real Estate	1.2	1.6	4.9	5.9	9.0	MSCI ACWI IMI Net (Local)			
Bloomberg Commodity	Commodities	10.2	-3.1	-2.5	1.0	-6.5				
DJ Brookfield Global Infrastructure	Infrastructure	7.3	-7.0	3.3	7.5	8.1	MSCI ACWI IMI			
S&P Global Natural Resources	Natural Resources	21.9	0.7	1.0	10.9	0.6	-1(	0% 0%	10% 20%	30% 40% 50%
HFRI Macro	Hedge Funds	5.0	5.5	2.5	2.2	1.0	-1	<i>™</i> <b>V</b> %	Return	JU/0 4U/0 JU/0

# 4Q20 Review

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# San Jose Federated City Employees' Retirement System

### Total Fund | As of December 31, 2020

Current	Overlay Net	/	Policy			Allocation vs. Targets and Poli	су		
						Current Balance	Current Allocation	Russell Net Overlay Position	Policy
					Growth	\$2,027,874,839	76.1%	75.4%	75.0%
					Public Equity	\$1,339,648,403	50.3%	49.6%	49.0%
					Private Markets	\$557,767,779	20.9%	20.9%	21.0%
					Emerging Markets Debt	\$78,433,813	2.9%	2.9%	3.0%
					High Yield Bonds	\$52,024,844	2.0%	2.0%	2.0%
					Low Beta	\$181,082,826	6.8%	6.8%	8.0%
76	5.1%	75.4%	7	75.0%	Market Neutral Strategies	\$43,776,302	1.6%	1.6%	3.0%
					Immunized Cash Flows	\$119,854,515	4.5%	4.5%	5.0%
					Cash	\$17,452,010	0.7%	0.7%	0.0%
					Other	\$443,326,413	16.6%	18.2%	17.0%
					Core Real Estate	\$120,608,785	4.5%	4.5%	5.0%
					TIPS	\$51,842,642	1.9%	1.9%	2.0%
					Investment Grade Bonds	\$219,217,052	8.2%	9.8%	8.0%
					Long Term Govt Bonds	\$51,657,934	1.9%	2.0%	2.0%
					Overlay	\$13,123,089	0.5%	-0.5%	0.0%
					Total	\$2,665,407,168	100.0%	100.0%	100.0%
6.8	8%	6.8%	8	8.0%					
	5%	18.2% - 0.5%		17.0% 0.0%					

<sup>1</sup> Data in the column titled "Russell Overlay Net Position" is based on physical exposures, adjusted for synthetic positions provided by Russell Investments.



#### Total Fund | As of December 31, 2020

A	sset Class Net P	Performan	ce Sum	mary						
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund Aggregate	2,665,407,168	100.0	10.4	17.2	16.0	8.3	8.4	5.8	7.0	Jan-94
Policy Benchmark			10.3	16.4	15.2	8.0	9.1	6.3	7.3	Jan-94
Investable Benchmark Portfolio			10.5	16.7	14.6	7.6	8.4	5.7		Jan-94
Low-Cost Passive Portfolio			9.4	14.4	8.7					Jan-94
60/40 MSCI ACWI IMI/BBgBarc Global Aggregate			10.7	17.3	14.1	8.1	9.4	6.8		Jan-94
Liability Benchmark Portfolio			-3.0	-2.9	17.7					Jan-94
InvMetrics Public DB > \$1B Net Median			10.1	15.5	10.8	7.4	9.0	7.9	7.6	Jan-94
InvMetrics Public DB > \$1B Net Rank			42	17	5	30	85	97	88	Jan-94
Growth	2,027,874,839	76.1	13.8	22.8	16.5	9.3	10.8	-	8.7	Jul-15
Growth Benchmark			13.9	22.1	15.5	10.0	11.8		9.8	Jul-15
Public Equity	1,339,648,403	50.3	16.8	28.0	18.5	9.4	11.1	8.7	9.2	May-10
Public Equity Benchmark			16.3	26.2	16.6	9.9	12.3	9.2	9.5	May-10
Global Equity	322,485,940	12.1	15.8	28.9	22.4	12.4	14.0		12.1	Jul-15
MSCI ACWI IMI Index			15.7	25.1	16.3	9.7	12.1		9.9	Jul-15
eV All Global Equity Net Median			14.3	23.6	15.2	9.2	10.9	9.2	8.9	Jul-15
eV All Global Equity Net Rank			39	26	31	34	29	-	28	Jul-15
US Equity	515,202,936	19.3	15.2	25.5	17.4	12.6	13.8		11.8	Jul-15
MSCI USA IMI GR USD			14.7	25.3	21.1	14.6	15.5		13.7	Jul-15
eV All US Equity Net Median			17.8	26.1	14.4	10.3	12.6	11.8	10.5	Jul-15
eV All US Equity Net Rank			62	54	44	41	42		41	Jul-15

<sup>1</sup> Fiscal Year begins July 1.

<sup>2</sup> Please see the Appendix for composition of the Policy Benchmark, Low-Cost Passive Portfolio, Liability Benchmark Portfolio, Growth Benchmark, and Public Equity Benchmark.
 <sup>3</sup> Returns for the Public Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Equity	230,874,750	8.7	17.7	26.6	17.1	6.0	8.8		7.0	Jul-15
MSCI World ex USA IMI NR USD			16.1	22.7	8.3	4.3	7.9		5.9	Jul-15
eV ACWI ex-US All Cap Equity Net Median			16.4	27.1	19.1	8.3	10.9	7.5	8.7	Jul-15
eV ACWI ex-US All Cap Equity Net Rank			36	54	57	68	70		67	Jul-15
Emerging Markets Equity	271,084,778	10.2	20.4	33.6	19.5	4.4	8.4		5.8	Jul-15
MSCI Emerging Market IMI Net			19.9	31.7	18.4	5.8	12.2		7.4	Jul-15
eV Emg Mkts Equity Net Median			19.9	31.2	18.0	5.8	12.4	4.1	8.0	Jul-15
eV Emg Mkts Equity Net Rank			45	33	45	63	90		77	Jul-15
Private Markets	557,767,779	20.9	8.9	14.6	7.7	7.6	9.6		7.2	Jul-15
Private Markets Benchmark			8.9	14.6	7.7	8.7	11.2		9.2	Jul-15
MSCI ACWI IMI + 100bps			16.0	25.7	17.4	10.8	13.3		11.0	Jul-15
Private Markets ex Russell 3000	395,133,441	14.8	6.4	10.0	6.8					Jul-15
Private Equity	190,360,954	7.1	8.8	14.2	12.8	10.8	10.5	11.7	7.8	Jan-06
San Jose Custom Private Equity Benchmark			11.2	21.6	14.6	12.5	13.5	13.0	11.2	Jan-06
Private Equity ex Russell 3000	190,360,954	7.1	8.8	14.2	12.8	11.4	10.9	11.9	8.0	Jan-06
Northern Trust Russell 3000	162,634,338	6.1	15.5	26.1	21.8				16.3	Jun-18
Russell 3000			14.7	25.2	20.9				15.9	Jun-18
Private Debt	90,411,934	3.4	4.5	11.4	1.4	-0.5	-1.3	2.7	2.7	Dec-10
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5	5.4	7.1	6.1	6.2	Dec-10
Growth Real Estate	81,615,163	3.1	4.4	1.1	3.6	10.6	14.1		14.5	Jul-15
NCREIF Property Index			1.2	1.9	1.6	4.9	5.9		6.5	Jul-15

### Total Fund | As of December 31, 2020

Returns for the Fixed income, Private Debt, and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.
 Please see the Appendix for composition of the Private Markets Benchmark.
 Private Equity composite includes Russell 3000 proxy performance history prior to October 1, 2018.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Real Assets	32,745,389	1.2	3.7	8.5	-6.8	2.3	8.7		4.4	Jul-15
Emerging Markets Debt	78,433,813	2.9	5.0	7.2	8.5	4.0	6.5		4.5	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			7.7	9.3	4.0	4.1	7.0		5.2	Jul-15
eV All Emg Mkts Fixed Inc Net Median			7.8	10.5	6.2	4.4	7.2	5.0	5.7	Jul-15
eV All Emg Mkts Fixed Inc Net Rank			91	93	20	59	72		70	Jul-15
High Yield Bonds	52,024,844	2.0	6.2	11.4					11.4	Jun-20
BBgBarc US Corporate High Yield TR			6.5	11.3					12.4	Jun-20
Low Beta	181,082,826	6.8	0.8	1.8	3.0	3.4	2.7		2.4	Jul-15
Low Beta Benchmark			0.1	0.1	1.8	1.1	1.3		1.0	Jul-15
Immunized Cash Flows	119,854,515	4.5	0.1	0.1	2.9				3.4	Oct-18
Immunized Cash Flows Benchmark			0.1	0.1	2.9				3.4	Oct-18
Market Neutral Strategies	43,776,302	1.6	3.9	6.9	2.5	4.8	3.7		3.9	Nov-12
Market Neutral Strategies Benchmark			0.1	0.1	0.7	0.6	1.0		1.2	Nov-12
Relative Value	43,776,302	1.6	3.9	8.3	-4.0	3.4	3.6		3.5	Oct-14
HFRI Relative Value (Total) Index			5.2	8.3	3.3	3.4	4.6		3.4	Oct-14
Cash	17,452,010	0.7	0.0	0.1	0.5	1.6	1.2			Jan-06
ICE BofA 91 Days T-Bills TR			0.0	0.1	0.7	1.6	1.2			Jan-06
Other	443,326,413	16.6	0.3	1.2	0.3	2.2	2.9	1.7	2.0	Jul-04
Other Benchmark			0.4	3.7	-3.6	-0.5	2.2			Jul-04
Investment Grade Bonds	219,217,052	8.2	0.8	1.9	8.5				7.7	Dec-19
Custom IG Bonds Benchmark			0.4	0.9	6.3				5.7	Dec-19

#### Total Fund | As of December 31, 2020

<sup>1</sup> Cash composite includes the cash account, cash collateral in the Russell Investments Overlay program, and residuals from terminated manager assets.
 <sup>2</sup> Please see the Appendix for composition of the Low Beta Benchmark, Immunized Cash Flows Benchmark, Market Neutral Strategies Benchmark, and Other Benchmark.



#### **Fiscal** % of QTD Market Value 1Yr 3 Yrs 5 Yrs 10 Yrs Inception Inception YTD (%) (%) (%) (%) (%) (\$) Portfolio (%) Date (%) TIPS 51,842,642 1.9 1.3 2.7 Jul-14 3.1 4.1 3.2 1.6 ---BBgBarc U.S. TIPS 0-5 Years 5.1 3.5 2.8 1.7 Jul-14 1.3 3.1 ---**Core Private Real Estate** Jul-04 120,608,785 4.5 0.5 1.0 2.5 5.5 6.4 9.6 6.7 NCREIF ODCE Equal-Weighted 1.2 1.5 0.8 4.4 5.7 9.1 6.4 Jul-04 Long-Term Government Bonds -2.6 -2.2 May-20 51,657,934 1.9 -2.8 \_\_\_ \_\_\_ -----BBgBarc US Govt Long TR -3.0 -2.8 -4.5 May-20 ---\_\_\_ \_\_\_ ---13,123,089 0.5 Overlay



### Total Fund | As of December 31, 2020

	Trailing N	let Perforr	nance							
	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund Aggregate	2,665,407,168	100.0	10.4	17.2	16.0	8.3	8.4	5.8	7.0	Jan-94
Policy Benchmark			10.3	16.4	15.2	8.0	9.1	6.3	7.3	Jan-94
Investable Benchmark Portfolio			10.5	16.7	14.6	7.6	8.4	5.7		Jan-94
Low-Cost Passive Portfolio			9.4	14.4	8.7					Jan-94
60/40 MSCI ACWI IMI/BBgBarc Global Aggregate			10.7	17.3	14.1	8.1	9.4	6.8		Jan-94
Liability Benchmark Portfolio			-3.0	-2.9	17.7					Jan-94
InvMetrics Public DB > \$1B Net Median			10.1	15.5	10.8	7.4	9.0	7.9	7.6	Jan-94
InvMetrics Public DB > \$1B Net Rank			42	17	5	30	85	97	88	Jan-94
Growth	2,027,874,839	76.1	13.8	22.8	16.5	9.3	10.8		8.7	Jul-15
Growth Benchmark			13.9	22.1	15.5	10.0	11.8		9.8	Jul-15
Public Equity	1,339,648,403	50.3	16.8	28.0	18.5	9.4	11.1	8.7	9.2	May-10
Public Equity Benchmark			16.3	26.2	16.6	9.9	12.3	9.2	9.5	May-10
Global Equity	322,485,940	12.1	15.8	28.9	22.4	12.4	14.0		12.1	Jul-15
MSCI ACWI IMI Index			15.7	25.1	16.3	9.7	12.1		9.9	Jul-15
eV All Global Equity Net Median			14.3	23.6	15.2	9.2	10.9	9.2	8.9	Jul-15
eV All Global Equity Net Rank			39	26	31	34	29		28	Jul-15
Artisan Global Value	157,579,052	5.9	21.9	31.7	10.0	6.9	10.9		10.8	Mar-11
MSCI ACWI Value NR USD			16.6	21.3	-0.3	2.4	7.4		5.6	Mar-11
eV All Global Equity Net Median			14.3	23.6	15.2	9.2	10.9	9.2	9.0	Mar-11
eV All Global Equity Net Rank			16	19	65	63	51		27	Mar-11

Returns for the Equity Aggregate are gross of fees through June 2015 and net of fees thereafter.
 Please see final page of the performance report for composition of the Policy Benchmark.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Artisan Global Opportunities	164,906,887	6.2	10.6	26.1	40.9	20.5			20.6	Jul-17
MSCI ACWI Growth NR USD			13.1	26.7	33.6	17.7			19.0	Jul-17
eV All Global Equity Net Median			14.3	23.6	15.2	9.2	10.9	9.2	11.0	Jul-17
eV All Global Equity Net Rank			84	37	12	10			11	Jul-17
US Equity	515,202,936	19.3	15.2	25.5	17.4	12.6	13.8		11.8	Jul-15
MSCI USA IMI GR USD			14.7	25.3	21.1	14.6	15.5		13.7	Jul-15
eV All US Equity Net Median			17.8	26.1	14.4	10.3	12.6	11.8	10.5	Jul-15
eV All US Equity Net Rank			62	54	44	41	42		41	Jul-15
Northern Trust Russell 3000	495,934,635	18.6	14.8	25.3					52.8	Mar-20
Russell 3000			14.7	25.2					31.8	Mar-20
Cove Street Small Cap Value	19,268,300	0.7	27.1	32.1	-2.5	3.7	7.4		5.2	May-14
Russell 2000 Value			33.4	36.8	4.6	3.7	9.7		6.7	May-14
eV US Small Cap Value Equity Net Median			29.8	<i>33.2</i>	4.4	3.2	8.б	8.9	6.1	May-14
eV US Small Cap Value Equity Net Rank			71	57	86	47	73	-	73	May-14
International Equity	230,874,750	8.7	17.7	26.6	17.1	6.0	8.8		7.0	Jul-15
MSCI World ex USA IMI NR USD			16.1	22.7	8.3	4.3	7.9		5.9	Jul-15
eV ACWI ex-US All Cap Equity Net Median			16.4	27.1	19.1	8.3	10.9	7.5	8.7	Jul-15
eV ACWI ex-US All Cap Equity Net Rank			36	54	57	68	70		67	Jul-15
Northern Trust MSCI World ex US	176,171,133	6.6	16.0	21.8	8.4	4.8			9.4	Nov-16
MSCI World ex USA			15.8	21.5	7.6	4.2		-	8.9	Nov-16



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Oberweis Intl Opportunities	54,703,617	2.1	24.2	47.6	64.8	16.6	16.7		17.0	Nov-15
MSCI World ex USA Small Cap Growth NR USD			15.0	29.9	22.9	9.0	11.9		11.8	Nov-15
eV ACWI ex-US All Cap Equity Net Median			16.4	27.1	19.1	8.3	10.9	7.5	9.8	Nov-15
eV ACWI ex-US All Cap Equity Net Rank			10	1	2	7	б		б	Nov-15
Emerging Markets Equity	271,084,778	10.2	20.4	33.6	19.5	4.4	8.4		5.8	Jul-15
MSCI Emerging Market IMI Net			19.9	31.7	18.4	5.8	12.2		7.4	Jul-15
eV Emg Mkts Equity Net Median			19.9	31.2	18.0	5.8	12.4	4.1	8.0	Jul-15
eV Emg Mkts Equity Net Rank			45	33	45	63	90	-	77	Jul-15
Northern Trust MSCI EM IMI	68,359,935	2.6	19.8	31.6	18.4				11.7	Oct-18
MSCI Emerging Market IMI Net			19.9	31.7	18.4				12.0	Oct-18
Dimensional Fund Adv EM Value	42,055,038	1.6	21.0	26.7	2.7	-0.4			6.2	Nov-16
MSCI Emerging Markets Value NR USD			23.0	28.7	5.5	1.8			б.8	Nov-16
eV Emg Mkts Equity Net Median			19.9	31.2	18.0	5.8	12.4	4.1	11.0	Nov-16
eV Emg Mkts Equity Net Rank			39	82	93	95			89	Nov-16
GQG Global Emerging Markets	79,118,974	3.0	15.9	34.6	32.7	11.6			14.9	Jul-17
MSCI Emerging Markets			19.7	31.1	18.3	6.2			9.8	Jul-17
eV Emg Mkts Equity Net Median			19.9	31.2	18.0	5.8	12.4	4.1	9.3	Jul-17
eV Emg Mkts Equity Net Rank			88	26	14	11			14	Jul-17



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
RWC Emerging Markets Equity	38,393,850	1.4	34.9	47.7	34.3				38.0	Sep-19
MSCI Emerging Markets			19.7	31.1	18.3				25.1	Sep-19
eV Emg Mkts Equity Net Median			19.9	31.2	18.0	5.8	12.4	4.1	24.8	Sep-19
eV Emg Mkts Equity Net Rank			1	1	11				10	Sep-19
Wellington Emerging Markets Systematic Equity	43,156,982	1.6	18.0	29.4	13.0				20.0	Sep-19
MSCI Emerging Markets			19.7	31.1	18.3				25.1	Sep-19
eV Emg Mkts Equity Net Median			19.9	31.2	18.0	5.8	12.4	4.1	24.8	Sep-19
eV Emg Mkts Equity Net Rank			70	68	71				71	Sep-19
Private Markets	557,767,779	20.9	8.9	14.6	7.7	7.6	9.6		7.2	Jul-15
Private Markets Benchmark			8.9	14.6	7.7	8.7	11.2		9.2	Jul-15
MSCI ACWI IMI + 100bps			16.0	25.7	17.4	10.8	13.3		11.0	Jul-15
Private Markets ex Russell 3000	395,133,441	14.8	6.4	10.0	6.8					Jul-15
Private Equity	190,360,954	7.1	8.8	14.2	12.8	10.8	10.5	11.7	7.8	Jan-06
San Jose Custom Private Equity Benchmark			11.2	21.6	14.6	12.5	13.5	13.0	11.2	Jan-06
Private Equity ex Russell 3000	190,360,954	7.1	8.8	14.2	12.8	11.4	10.9	11.9	8.0	Jan-06
PE Strategic Partnership, LP	151,071,167	5.7	9.4	13.5	14.3	12.9			9.4	Aug-17
Cambridge PE Composite BM			11.2	22.3	18.4	16.8			17.8	Aug-17
Pathway Private Eq Fund VIII	1,445,892	0.1	-3.8	1.8	-17.8	-11.9	-5.9	3.8	5.3	Jul-09
Cambridge PE Composite BM			11.2	22.3	18.4	16.8	14.6	14.0	14.6	Jul-09



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Pantheon USA Fund VII, LP	11,239,938	0.4	12.4	27.0	11.9				8.6	Jun-18
Cambridge PE Composite BM			11.2	22.3	18.4				17.5	Jun-18
Pantheon Global Secondary III	1,121,504	0.0	2.2	15.3	-6.7	2.2	2.5	3.4	4.0	Jul-09
Cambridge PE Composite BM			11.2	22.3	18.4	16.8	14.6	14.0	14.6	Jul-09
Great Hill Equity Partners IV	2,590,447	0.1	4.6	21.2	12.7	35.6	39.6	35.1	30.3	Jul-09
Cambridge PE Composite BM			11.2	22.3	18.4	16.8	14.6	14.0	14.6	Jul-09
Partners Group Secondary 2008	852,457	0.0	7.3	31.4	9.7	4.2	7.3	7.9	8.6	Jul-09
Cambridge PE Composite BM			11.2	22.3	18.4	16.8	14.6	14.0	14.6	Jul-09
Partners Group Secondary 2011	5,184,109	0.2	12.1	28.9	4.9	3.4	6.4		15.5	Nov-12
Cambridge PE Composite BM			11.2	22.3	18.4	16.8	14.6		14.4	Nov-12
Innovation Endeavors III	3,820,651	0.1	0.7	2.0	49.8				2.2	Jun-18
Cambridge PE Composite BM			11.2	22.3	18.4				17.5	Jun-18
Crestline Portfolio Financing	11,937,351	0.4	2.8	6.1	13.3				10.5	Jun-18
Cambridge PE Composite BM			11.2	22.3	18.4				17.5	Jun-18
Crestline Portfolio Financing Fund II	1,097,439	0.0								
Northern Trust Russell 3000	162,634,338	6.1	15.5	26.1	21.8				16.3	Jun-18
Russell 3000			14.7	25.2	20.9				15.9	Jun-18



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Debt	90,411,934	3.4	4.5	11.4	1.4	-0.5	-1.3	2.7	2.7	Dec-10
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5	5.4	7.1	6.1	6.2	Dec-10
White Oak Direct Lending	16,891,757	0.6	5.3	57.1	35.1	18.1	2.7	3.8	3.8	Feb-11
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5	5.4	7.1	6.1	6.0	Feb-11
Blackstone/GSO Cap Partners	4,635,567	0.2	2.4	2.8	-44.3	-18.2	-10.8	-1.0	-1.1	Mar-11
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5	5.4	7.1	6.1	5.9	Mar-11
Medley Opportunity Fund II LP	10,656,413	0.4	-10.8	-13.3	-21.1	-16.3	-8.9		-1.3	Jun-11
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5	5.4	7.1		5.9	Jun-11
Cross Ocean USD ESS Fund II LP	6,410,586	0.2	2.0	5.6	1.6	4.5			8.2	Aug-16
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5	5.4			6.5	Aug-16
Octagon CLO Opp Fund III	22,066,954	0.8	9.7	20.3	5.4				3.0	Feb-19
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5				6.4	Feb-19
Crestline Co-Investment	967,209	0.0	1.8	5.4	8.7				9.1	Mar-19
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5				5.9	Mar-19
Cross Ocean USD ESS Fund III, L.P.	15,227,957	0.6	9.4	12.7	14.5				7.6	Jun-19
S&P Global Leveraged Loan Index +2%			4.3	9.0	5.5			-	6.1	Jun-19
Arbour Lane Credit Opportunity Fund II, L.P.	6,316,273	0.2	9.6	-18.9					20.2	Apr-20
S&P Global Leveraged Loan Index +2%			4.3	9.0					14.7	Apr-20
Eagle Point Defensive Income Fund	5,163,887	0.2	7.9	8.2					8.2	Jun-20
S&P Global Leveraged Loan Index +2%			4.3	9.0					10.4	Jun-20
HPS Special Situations Opportunity Fund	2,075,333	0.1								
<sup>1</sup> Returns for the Private Debt and Real Assets Angregates are gross of fees through J	une 2015 and net of fees the	ereafter							l.	

### Total Fund | As of December 31, 2020

<sup>1</sup> Returns for the Private Debt and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Growth Real Estate	81,615,163	3.1	4.4	1.1	3.6	10.6	14.1		14.5	Jul-15
NCREIF Property Index			1.2	1.9	1.6	4.9	5.9		6.5	Jul-15
DRA Growth & Income Fund VI	418,021	0.0	-0.9	-30.8	-28.8	-8.4	-1.8	8.3	5.2	Jan-08
NCREIF Property Index			1.2	1.9	1.6	4.9	5.9	9.0	5.8	Jan-08
DRA Growth & Income Fund VII	1,606,578	0.1	40.7	32.1	71.1	57.5	45.4		31.8	Apr-12
NCREIF Property Index			1.2	1.9	1.6	4.9	5.9		8.4	Apr-12
DRA Growth & Income Fund VIII	8,414,038	0.3	11.2	-13.8	-9.2	1.2	6.0		7.0	Jan-15
NCREIF Property Index			1.2	1.9	1.6	4.9	5.9		7.1	Jan-15
Tristan - EPISO IV	13,236,224	0.5	6.1	10.2	9.3	8.4	8.4		8.4	Jan-16
NCREIF Property Index			1.2	1.9	1.6	4.9	5.9		5.9	Jan-16
DRA Growth & Income Fund IX	17,174,941	0.6	3.8	3.2	7.3	11.7			11.4	Feb-17
NCREIF Property Index			1.2	1.9	1.6	4.9			5.5	Feb-17
GEM Realty Fund VI	3,629,159	0.1	0.2	-3.4	-0.7	-2.1			-2.1	Dec-17
NCREIF Property Index			1.2	1.9	1.6	4.9		-	5.4	Dec-17
Torchlight Debt Opportunity VI	30,031,090	1.1	1.2	1.1	-0.4				0.9	Apr-18
NCREIF Property Index			1.2	1.9	1.6				4.7	Apr-18
Tristan - EPISO V	3,109,311	0.1	3.3	-1.9	-43.6				-60.5	Apr-19
NCREIF Property Index			1.2	1.9	1.6				3.7	Apr-19



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
DRA Growth & Income Fund X	1,687,919	0.1	1.8	7.1					13.3	Mar-20
NCREIF Property Index			1.2	1.9					1.6	Mar-20
Rockpoint Real Estate Fund VI, L.P.	932,882	0.0	-3.7	-6.1					-6.1	May-20
NCREIF Property Index			1.2	1.9				-	0.9	May-20
Exeter Industrial Value Fund V	1,375,000	0.1								
Private Real Assets	32,745,389	1.2	3.7	8.5	-6.8	2.3	8.7		4.4	Jul-15
Global Infra Part III-A/B, LP	19,469,355	0.7	4.8	9.8	-4.0	4.4			0.3	Sep-16
DJ Brookfield Global Infrastructure Net TR USD			7.3	5.5	-7.0	3.3		-	5.2	Sep-16
Lime Rock Partners VIII	2,136,122	0.1	0.9	9.7	-17.8			-	-9.3	Dec-18
DJ Brookfield Global Infrastructure Net TR USD			7.3	5.5	-7.0				6.5	Dec-18
Kimmeridge Energy Fund V, L.P.	2,796,611	0.1	3.8	11.4	-6.8			-	-22.5	Aug-19
DJ Brookfield Global Infrastructure Net TR USD			7.3	5.5	-7.0				-0.3	Aug-19
Global Infra Partners IV	13,231	0.0	-51.9	-80.8	-97.6					Sep-19
DJ Brookfield Global Infrastructure Net TR USD			7.3	5.5	-7.0					Sep-19
Lime Rock New Energy, L.P.	3,700,427	0.1	0.0						0.0	Aug-20
Orion Mine Finance III	3,429,647	0.1	6.1						6.1	Aug-20
Real Assets Coinvest I	1,199,996	0.0	0.0						0.0	Sep-20

### Total Fund | As of December 31, 2020

<sup>1</sup> Returns for the Private Debt and Real Assets Aggregates are gross of fees through June 2015 and net of fees thereafter.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Emerging Markets Debt	78,433,813	2.9	5.0	7.2	8.5	4.0	6.5		4.5	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			7.7	9.3	4.0	4.1	7.0		5.2	Jul-15
eV All Emg Mkts Fixed Inc Net Median			7.8	10.5	6.2	4.4	7.2	5.0	5.7	Jul-15
eV All Emg Mkts Fixed Inc Net Rank			91	93	20	59	72		70	Jul-15
BlueBay EM Select Bond	0	0.0	8.1	10.4	3.1	2.4	5.6		3.7	Jul-15
50% JPM EMBI GD / 50% JPM GBI-EM			7.7	9.3	4.0	4.1	7.0		5.2	Jul-15
eV All Emg Mkts Fixed Inc Net Median			7.8	10.5	6.2	4.4	7.2	5.0	5.7	Jul-15
eV All Emg Mkts Fixed Inc Net Rank			45	54	80	86	88		85	Jul-15
Wellington Iguazu Partners LP Fund	46,772,924	1.8	1.0	3.2	12.6				12.2	May-19
50% JPM EMBI GD / 50% JPM GBI-EM			7.7	9.3	4.0				7.8	May-19
eV All Emg Mkts Fixed Inc Net Median			7.8	10.5	6.2	4.4	7.2	5.0	8.2	May-19
eV All Emg Mkts Fixed Inc Net Rank			99	99	3				8	May-19
Payden EMD Blended Currency	31,660,889	1.2								
High Yield Bonds	52,024,844	2.0	6.2	11.4					11.4	Jun-20
BBgBarc US Corporate High Yield TR			6.5	11.3				-	12.4	Jun-20
Mellon High Yield Beta	5,387,879	0.2	6.5	11.6					11.6	Jun-20
BBgBarc US Corporate High Yield TR			6.5	11.3					12.4	Jun-20
Columbia High Yield	46,636,965	1.7								



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Low Beta	181,082,826	6.8	0.8	1.8	3.0	3.4	2.7		2.4	Jul-15
Low Beta Benchmark			0.1	0.1	1.8	1.1	1.3		1.0	Jul-15
Immunized Cash Flows	119,854,515	4.5	0.1	0.1	2.9				3.4	Oct-18
Immunized Cash Flows Benchmark			0.1	0.1	2.9				3.4	Oct-18
Insight Immunized Cash Flow	119,854,515	4.5	0.1	0.1	2.9					Jun-19
Market Neutral Strategies	43,776,302	1.6	3.9	6.9	2.5	4.8	3.7		3.9	Nov-12
Market Neutral Strategies Benchmark			0.1	0.1	0.7	0.6	1.0	-	1.2	Nov-12
Relative Value	43,776,302	1.6	3.9	8.3	-4.0	3.4	3.6		3.5	Oct-14
HFRI Relative Value (Total) Index			5.2	8.3	3.3	3.4	4.6		3.4	Oct-14
Pine River Fund, Ltd	510,751	0.0	0.4	5.4	4.8	10.5	6.3		5.3	Jan-13
HFRI Relative Value (Total) Index			5.2	8.3	3.3	3.4	4.6		4.2	Jan-13
DE Shaw Composite Fund, LLC	34,882,782	1.3	3.9	9.8	17.3	13.2	11.2		12.1	Apr-13
HFRI Fund Weighted Composite Index			10.9	15.8	11.8	5.6	6.1		4.9	Apr-13
JD Capital	46,338	0.0	0.0	-7.8	-87.2	-47.5			-35.8	Oct-16
HFRI Relative Value (Total) Index			5.2	8.3	3.3	3.4			4.0	Oct-16
Hudson Bay	8,336,431	0.3	4.2	7.8	20.6	11.4			10.4	Aug-17
HFRI Relative Value (Total) Index			5.2	8.3	3.3	3.4		-	3.5	Aug-17

#### Total Fund | As of December 31, 2020

<sup>1</sup> Cash composite includes the cash account, cash collateral in the Russell Investments Overlay program, and residuals from terminated manager assets.



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Cash	17,452,010	0.7	0.0	0.1	0.5	1.6	1.2			Jan-06
ICE BofA 91 Days T-Bills TR			0.0	0.1	0.7	1.6	1.2			Jan-06
Other	443,326,413	16.6	0.3	1.2	0.3	2.2	2.9	1.7	2.0	Jul-04
Other Benchmark			0.4	3.7	-3.6	-0.5	2.2			Jul-04
Investment Grade Bonds	219,217,052	8.2	0.8	1.9	8.5				7.7	Dec-19
Custom IG Bonds Benchmark			0.4	0.9	6.3				5.7	Dec-19
Northern Trust Aggregate Bond Index	116,040,319	4.4	0.7	1.3	7.5				6.8	Dec-19
BBgBarc US Aggregate TR			0.7	1.3	7.5				6.8	Dec-19
Voya TALF	505,773	0.0	1.3	1.2					1.2	Jun-20
BBgBarc US ABS TR			0.4	1.2					2.2	Jun-20
Voya Securitized Credit	38,819,010	1.5	1.8	4.6					6.3	May-20
BBgBarc US ABS TR			0.4	1.2					3.4	May-20
BlackRock 1-3 Year Gov/Credit	63,851,950	2.4	0.2						0.2	Aug-20
BBgBarc US Govt/Credit 1-3 Yr. TR			0.2						0.3	Aug-20
TIPS	51,842,642	1.9	1.3	3.1	4.1	3.2	2.7		1.6	Jul-14
BBgBarc U.S. TIPS 0-5 Years			1.3	3.1	5.1	3.5	2.8		1.7	Jul-14
Northern Trust 0-5 Year TIPS	51,842,642	1.9	1.3	3.1	5.7	3.7	3.0		1.8	Jul-14
BBgBarc US Treasury TIPS 0-5 Yr TR			1.3	3.1	5.1	3.5	2.8		1.7	Jul-14



	Market Value (\$)	% of Portfolio	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Private Real Estate	120,608,785	4.5	0.5	1.0	2.5	5.5	6.4	9.6	6.7	Jul-04
NCREIF ODCE Equal-Weighted			1.2	1.5	0.8	4.4	5.7	9.1	6.4	Jul-04
BlackRock Core Property Fund	71,833,627	2.7	0.8	1.3	3.9				3.9	Feb-19
NCREIF ODCE Equal-Weighted			1.2	1.5	0.8				3.1	Feb-19
Clarion Lion Properties Fund	48,775,158	1.8	0.0	0.5	1.2				2.4	Apr-19
NCREIF ODCE Equal-Weighted			1.2	1.5	0.8				2.6	Apr-19
Long-Term Government Bonds	51,657,934	1.9	-2.8	-2.6					-2.2	May-20
BBgBarc US Govt Long TR			-3.0	-2.8					-4.5	May-20
BlackRock Long-Term Gov Bonds	51,657,934	1.9	-2.8	-2.6					-2.2	May-20
BBgBarc US Govt TR			-0.8	-0.6				-	-0.8	May-20
Overlay	13,123,089	0.5								
Russell Investments Overlay	13,114,912	0.5								



	Cash Flow Summary								
		ding December 3	31, 2020						
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value			
Arbour Lane Credit Opportunity Fund II, L.P.	\$5,761,504	\$0	\$0	\$0	\$554,769	\$6,316,273			
Artisan Global Opportunities	\$149,159,103	\$0	\$0	\$0	\$15,747,785	\$164,906,887			
Artisan Global Value	\$129,265,445	\$0	\$0	\$0	\$28,313,607	\$157,579,052			
BlackRock 1-3 Year Gov/Credit	\$15,003,258	\$48,800,000	\$0	\$48,800,000	\$48,692	\$63,851,950			
BlackRock Core Property Fund	\$64,930,129	\$7,000,000	-\$649,301	\$6,350,699	\$552,800	\$71,833,627			
BlackRock Long-Term Gov Bonds	\$47,814,850	\$5,200,000	\$0	\$5,200,000	-\$1,356,916	\$51,657,934			
Blackstone/GSO Cap Partners	\$4,218,240	\$317,450	\$0	\$317,450	\$99,877	\$4,635,567			
BlueBay EM Select Bond	\$36,538,830	\$0	-\$39,497,646	-\$39,497,646	\$2,958,816	\$0			
Cash Account	\$59,269,416	\$170,577,020	-\$212,401,166	-\$41,824,145	\$6,739	\$17,452,010			
Clarion Lion Properties Fund	\$49,130,677	\$0	-\$355,519	-\$355,519	\$0	\$48,775,158			
Columbia High Yield		\$46,000,000	\$0	\$46,000,000	\$636,965	\$46,636,965			
Cove Street Small Cap Value	\$15,161,596	\$0	\$0	\$0	\$4,106,704	\$19,268,300			
Crestline Co-Investment	\$1,788,702	\$0	-\$851,711	-\$851,711	\$30,218	\$967,209			
Crestline Portfolio Financing	\$9,349,196	\$2,325,584	\$0	\$2,325,584	\$262,571	\$11,937,351			
Crestline Portfolio Financing Fund II		\$1,097,439	\$0	\$1,097,439	\$0	\$1,097,439			
Cross Ocean USD ESS Fund II LP	\$7,828,878	\$0	-\$1,555,136	-\$1,555,136	\$136,844	\$6,410,586			
Cross Ocean USD ESS Fund III, L.P.	\$12,021,926	\$2,165,656	-\$130,978	\$2,034,678	\$1,171,353	\$15,227,957			
DE Shaw Composite Fund, LLC	\$33,573,664	\$0	\$0	\$0	\$1,309,118	\$34,882,782			
Dimensional Fund Adv EM Value	\$34,765,055	\$0	\$0	\$0	\$7,289,983	\$42,055,038			
DRA Growth & Income Fund IX	\$17,150,645	\$317,259	-\$920,068	-\$602,809	\$627,105	\$17,174,941			
DRA Growth & Income Fund VI	\$421,916	\$0	\$0	\$0	-\$3,895	\$418,021			
DRA Growth & Income Fund VII	\$2,359,845	\$0	-\$1,462,860	-\$1,462,860	\$709,593	\$1,606,578			

## San Jose Federated City Employees' Retirement System

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
DRA Growth & Income Fund VIII	\$8,124,815	\$0	-\$555,556	-\$555,556	\$844,779	\$8,414,038
DRA Growth & Income Fund X	\$1,636,202	\$326,316	-\$300,208	\$26,108	\$25,609	\$1,687,919
Eagle Point Defensive Income Fund	\$4,812,092	\$0	-\$28,537	-\$28,537	\$380,332	\$5,163,887
Exeter Industrial Value Fund V	\$0	\$1,375,000	\$0	\$1,375,000	\$0	\$1,375,000
GEM Realty Fund VI	\$3,690,835	\$600,000	-\$667,500	-\$67,500	\$5,824	\$3,629,159
Global Infra Part III-A/B, LP	\$19,282,503	\$0	-\$703,591	-\$703,591	\$890,443	\$19,469,355
Global Infra Partners IV	\$13,129	\$14,390	\$0	\$14,390	-\$14,288	\$13,231
GQG Global Emerging Markets	\$68,267,260	\$0	\$0	\$0	\$10,851,714	\$79,118,974
Great Hill Equity Partners IV	\$2,477,684	\$0	\$0	\$0	\$112,763	\$2,590,447
HPS Special Situations Opportunity Fund		\$2,075,333	\$0	\$2,075,333	\$0	\$2,075,333
Hudson Bay	\$8,000,000	\$0	\$0	\$0	\$336,431	\$8,336,431
Innovation Endeavors III	\$3,316,575	\$480,000	\$0	\$480,000	\$24,076	\$3,820,651
Insight Immunized Cash Flow	\$125,612,471	\$0	-\$5,849,778	-\$5,849,778	\$91,822	\$119,854,515
JD Capital	\$926,751	\$0	-\$880,415	-\$880,415	\$2	\$46,338
Kimmeridge Energy Fund V, L.P.	\$2,161,886	\$536,377	\$0	\$536,377	\$98,348	\$2,796,611
Lime Rock New Energy, L.P.	\$2,786,624	\$913,803	\$0	\$913,803	\$0	\$3,700,427
Lime Rock Partners VIII	\$2,101,042	\$17,145	\$0	\$17,145	\$17,935	\$2,136,122
Medley Opportunity Fund II LP	\$13,080,679	\$0	-\$1,032,662	-\$1,032,662	-\$1,391,604	\$10,656,413
Mellon High Yield Beta	\$48,970,000	\$0	-\$46,000,000	-\$46,000,000	\$2,417,879	\$5,387,879
Northern Trust 0-5 Year TIPS	\$48,125,187	\$3,100,000	\$0	\$3,100,000	\$617,454	\$51,842,642
Northern Trust Aggregate Bond Index	\$110,087,169	\$5,200,000	\$0	\$5,200,000	\$753,149	\$116,040,319

## San Jose Federated City Employees' Retirement System

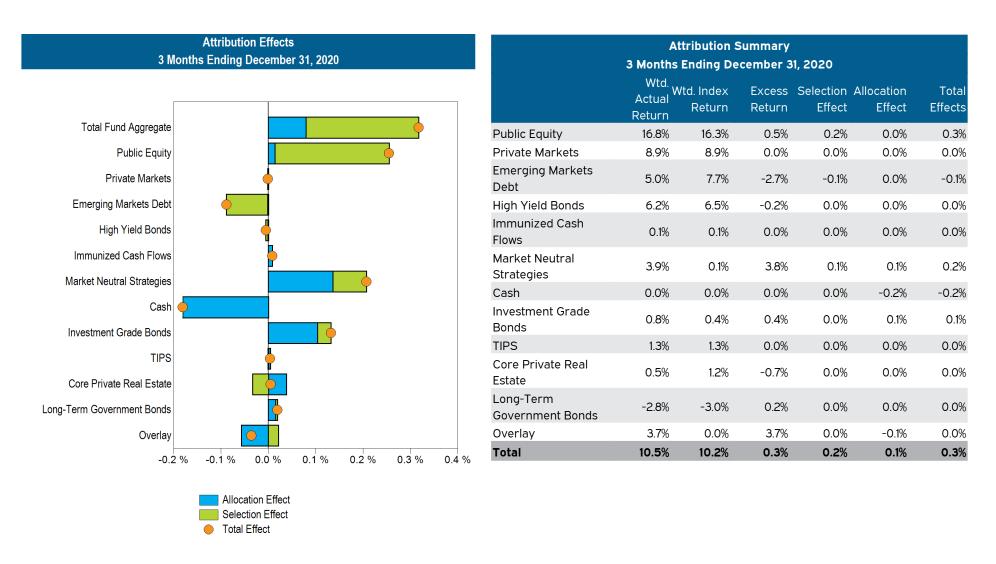
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust MSCI EM IMI	\$61,829,427	\$0	-\$5,000,000	-\$5,000,000	\$11,530,508	\$68,359,935
Northern Trust MSCI World ex US	\$168,162,476	\$0	-\$17,900,000	-\$17,900,000	\$25,908,657	\$176,171,133
Northern Trust Russell 3000	\$160,840,559	\$0	-\$20,000,000	-\$20,000,000	\$21,793,779	\$162,634,338
Northern Trust Russell 3000	\$457,906,218	\$0	-\$28,100,000	-\$28,100,000	\$66,128,417	\$495,934,635
Oberweis Intl Opportunities	\$44,053,002	\$0	\$0	\$0	\$10,650,615	\$54,703,617
Octagon CLO Opp Fund III	\$20,595,392	\$0	-\$487,658	-\$487,658	\$1,959,220	\$22,066,954
Orion Mine Finance III	\$1,623,485	\$1,793,660	-\$144,351	\$1,649,308	\$156,854	\$3,429,647
Pantheon Global Secondary III	\$1,492,494	\$0	-\$400,000	-\$400,000	\$29,010	\$1,121,504
Pantheon USA Fund VII, LP	\$11,256,295	\$0	-\$1,279,999	-\$1,279,999	\$1,263,642	\$11,239,938
Partners Group Secondary 2008	\$794,155	\$0	\$0	\$0	\$58,302	\$852,457
Partners Group Secondary 2011	\$4,827,177	\$0	-\$225,051	-\$225,051	\$581,983	\$5,184,109
Pathway Private Eq Fund VIII	\$1,795,673	\$0	-\$298,187	-\$298,187	-\$51,594	\$1,445,892
Payden EMD Blended Currency		\$31,300,000	\$0	\$31,300,000	\$360,889	\$31,660,889
PE Strategic Partnership, LP	\$135,412,969	\$2,725,000	\$0	\$2,725,000	\$12,933,198	\$151,071,167
Pine River Fund, Ltd	\$508,966	\$0	\$0	\$0	\$1,786	\$510,751
Real Assets Coinvest I	\$1,199,996	\$0	\$0	\$0	\$0	\$1,199,996
Rockpoint Real Estate Fund VI, L.P.	\$968,545	\$0	\$0	\$0	-\$35,663	\$932,882
Russell Investments Overlay	\$12,641,496	\$0	\$0	\$0	\$473,416	\$13,114,912
RWC Emerging Markets Equity	\$28,459,699	\$0	\$0	\$0	\$9,934,151	\$38,393,850
State Street Terminated Managers	\$8,853	\$0	\$0	\$0	-\$676	\$8,177
Torchlight Debt Opportunity VI	\$29,666,018	\$0	\$0	\$0	\$365,072	\$30,031,090

## San Jose Federated City Employees' Retirement System

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Net Investment Change	Ending Market Value
Tristan - EPISO IV	\$12,476,580	\$0	\$0	\$0	\$759,645	\$13,236,224
Tristan - EPISO V	\$2,167,169	\$847,098	\$0	\$847,098	\$95,044	\$3,109,311
Voya Securitized Credit	\$36,571,239	\$1,600,000	-\$4,182	\$1,595,818	\$651,954	\$38,819,010
Voya TALF	\$499,085	\$0	\$0	\$0	\$6,688	\$505,773
Wellington Emerging Markets Systematic Equity	\$36,562,838	\$0	\$0	\$0	\$6,594,143	\$43,156,982
Wellington Iguazu Partners LP Fund	\$38,383,424	\$8,000,000	\$0	\$8,000,000	\$389,500	\$46,772,924
White Oak Direct Lending	\$16,042,105	\$41,231	-\$41,231	\$0	\$849,652	\$16,891,757
Total	\$2,455,731,113	\$344,745,761	-\$387,723,293	-\$42,977,532	\$252,653,587	\$2,665,407,168



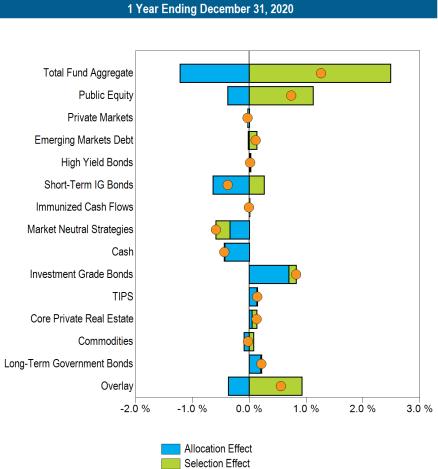
#### Total Fund | As of December 31, 2020



<sup>1</sup> Difference in attribution returns and returns in the performance summary may occur as a result of the different calculation methodologies that are applied by InvestorForce.

## San Jose Federated City Employees' Retirement System

#### Total Fund | As of December 31, 2020

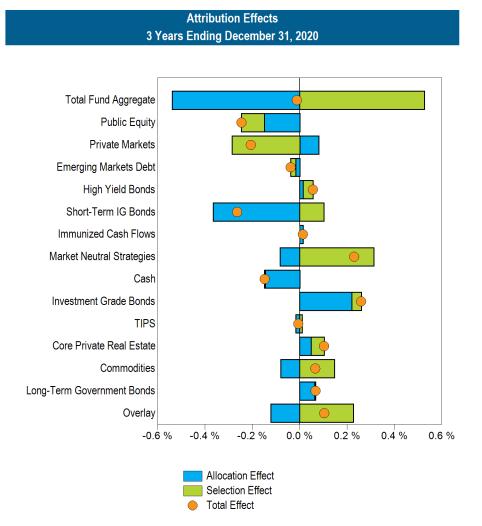


Attribution Effects

Total Eff	ect

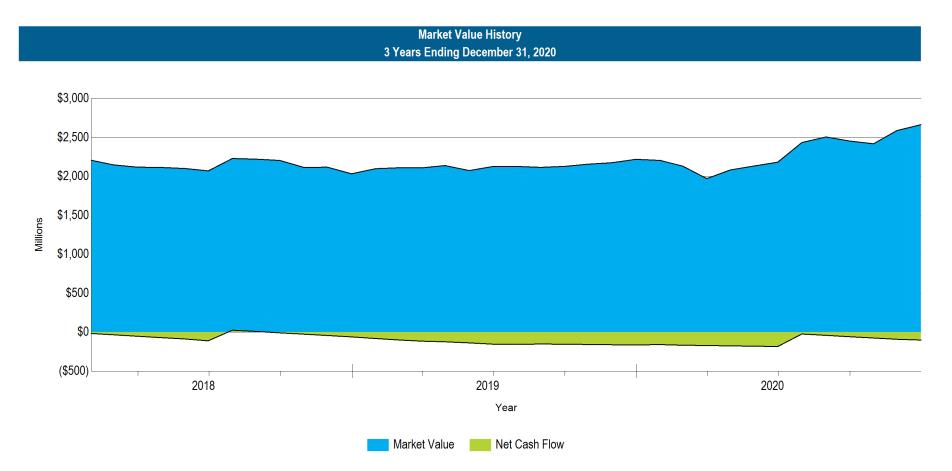
Attribution Summary								
	1 Year Ei	nding Dec	ember 31,	2020				
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects		
Public Equity	18.5%	16.6%	1.9%	1.1%	-0.4%	0.7%		
Private Markets	7.7%	7.7%	0.0%	0.0%	0.0%	0.0%		
Emerging Markets Debt	8.5%	4.0%	4.4%	0.1%	0.0%	0.1%		
High Yield Bonds	11.4%	7.1%	4.3%	0.0%	0.0%	0.0%		
Short-Term IG Bonds	2.6%	0.5%	2.1%	0.3%	-0.6%	-0.4%		
Immunized Cash Flows	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%		
Market Neutral Strategies	2.5%	0.7%	1.8%	-0.2%	-0.3%	-0.6%		
Cash	0.5%	0.7%	-0.2%	0.0%	-0.4%	-0.4%		
Investment Grade Bonds	8.5%	6.3%	2.3%	0.1%	0.7%	0.8%		
TIPS	4.1%	5.1%	-0.9%	0.0%	0.1%	0.1%		
Core Private Real Estate	2.5%	0.8%	1.8%	0.1%	0.0%	0.1%		
Commodities	-21.5%	-3.1%	-18.4%	0.1%	-0.1%	0.0%		
Long-Term Government Bonds	-2.2%	17.6%	-19.8%	0.0%	0.2%	0.2%		
Overlay	47.1%	0.5%	46.7%	0.9%	-0.4%	0.6%		
Total	16.1%	14.9%	1.3%	2.5%	-1.2%	1.3%		

## San Jose Federated City Employees' Retirement System



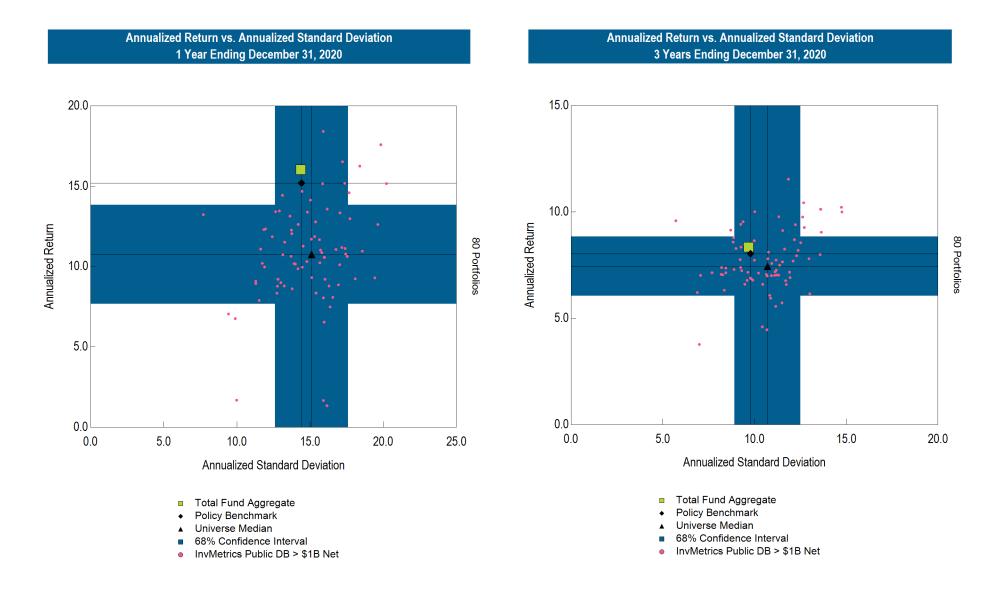
Attribution Summary							
	3 Years E	Ending Dec	ember 3	I, 2020			
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects	
Public Equity	9.4%	9.9%	-0.6%	-0.1%	-0.1%	-0.2%	
Private Markets	7.6%	8.7%	-1.1%	-0.3%	0.1%	-0.2%	
Emerging Markets Debt	4.0%	4.1%	-0.1%	0.0%	0.0%	0.0%	
High Yield Bonds	4.9%	6.2%	-1.3%	0.0%	0.0%	0.1%	
Short-Term IG Bonds	1.8%	1.0%	0.8%	0.1%	-0.4%	-0.3%	
Immunized Cash Flows	2.6%	2.6%	0.0%	0.0%	0.0%	0.0%	
Market Neutral Strategies	4.8%	0.6%	4.2%	0.3%	-0.1%	0.2%	
Cash	1.6%	1.6%	0.0%	0.0%	-0.1%	-0.1%	
Investment Grade Bonds	2.7%	2.0%	0.7%	0.0%	0.2%	0.3%	
TIPS	3.2%	3.5%	-0.2%	0.0%	0.0%	0.0%	
Core Private Real Estate	5.5%	4.4%	1.2%	0.1%	0.0%	0.1%	
Commodities	-7.0%	-2.5%	-4.5%	0.1%	-0.1%	0.1%	
Long-Term Government Bonds	-0.8%	9.8%	-10.6%	0.0%	0.1%	0.1%	
Overlay	7.1%	1.5%	5.6%	0.2%	-0.1%	0.1%	
Total	8.4%	8.2%	0.2%	0.5%	-0.5%	0.0%	



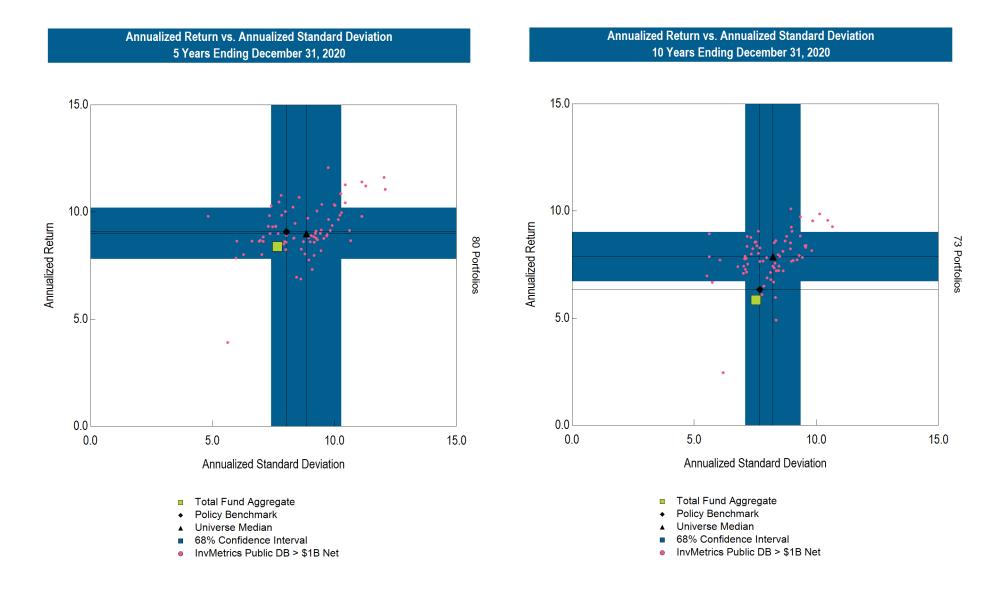


	Fourth Quarter	Fiscal Year-To-Date	One Year	Three Years
Beginning Market Value	\$2,455,731,113	\$2,183,349,144	\$2,220,094,606	\$2,170,709,925
Net Cash Flow	-\$42,977,532	\$83,032,470	\$62,185,375	-\$100,843,459
Net Investment Change	\$252,653,587	\$399,025,554	\$383,127,187	\$595,540,702
Ending Market Value	\$2,665,407,168	\$2,665,407,168	\$2,665,407,168	\$2,665,407,168

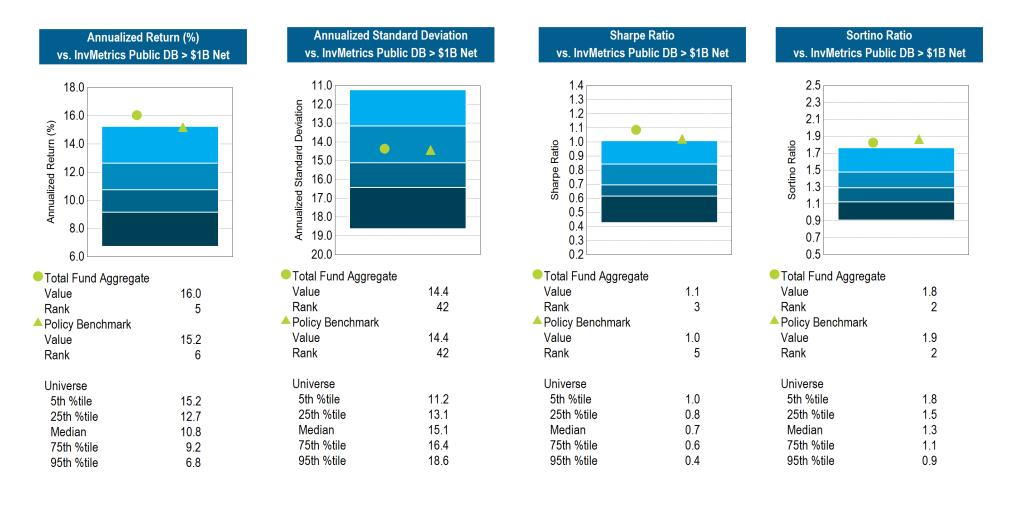




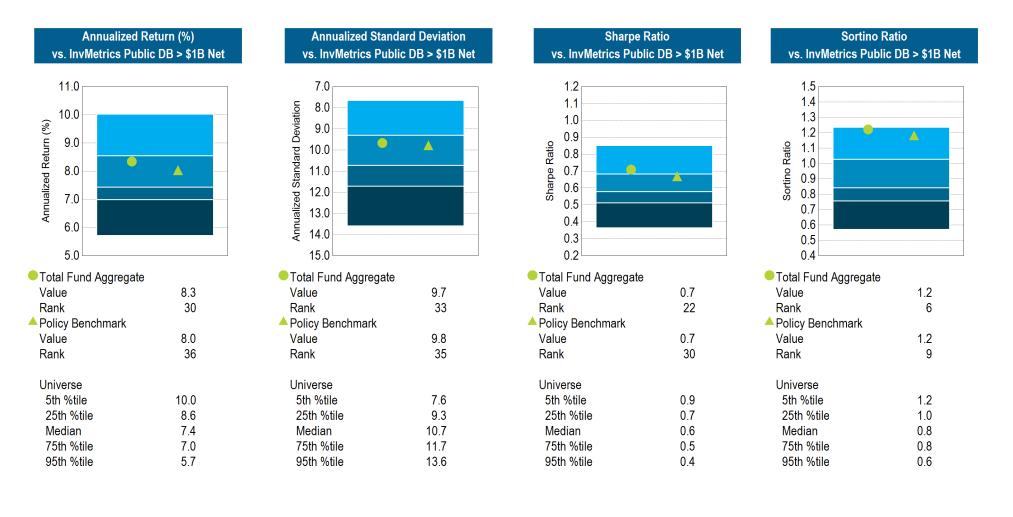




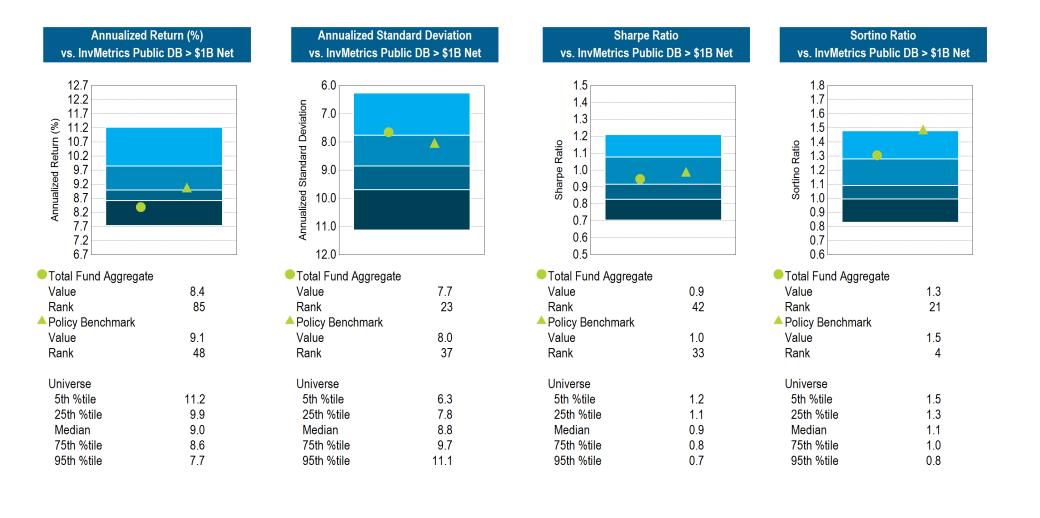
#### Total Fund | One Year As of December 31, 2020



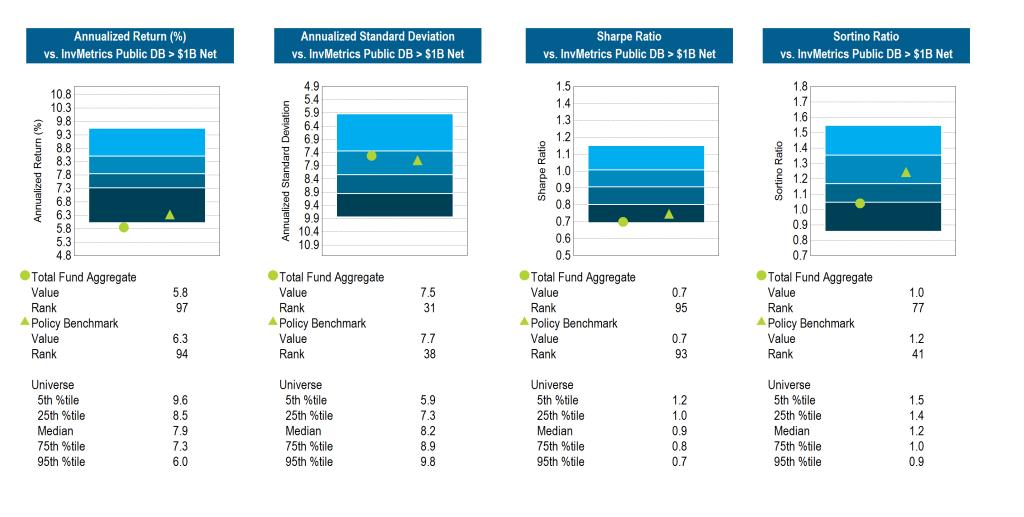
#### Total Fund | Three Years As of December 31, 2020



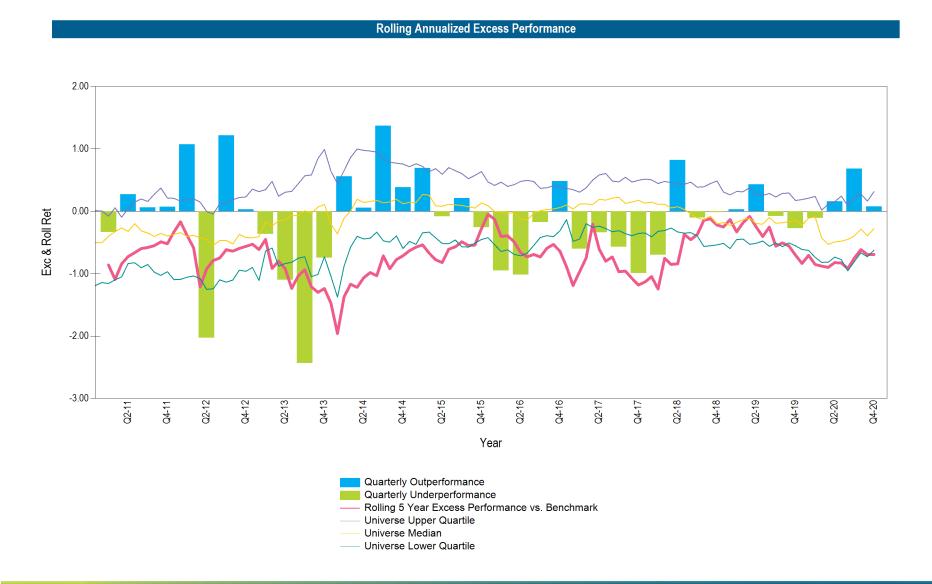
#### Total Fund | Five Years As of December 31, 2020



#### Total Fund | Ten Years As of December 31, 2020

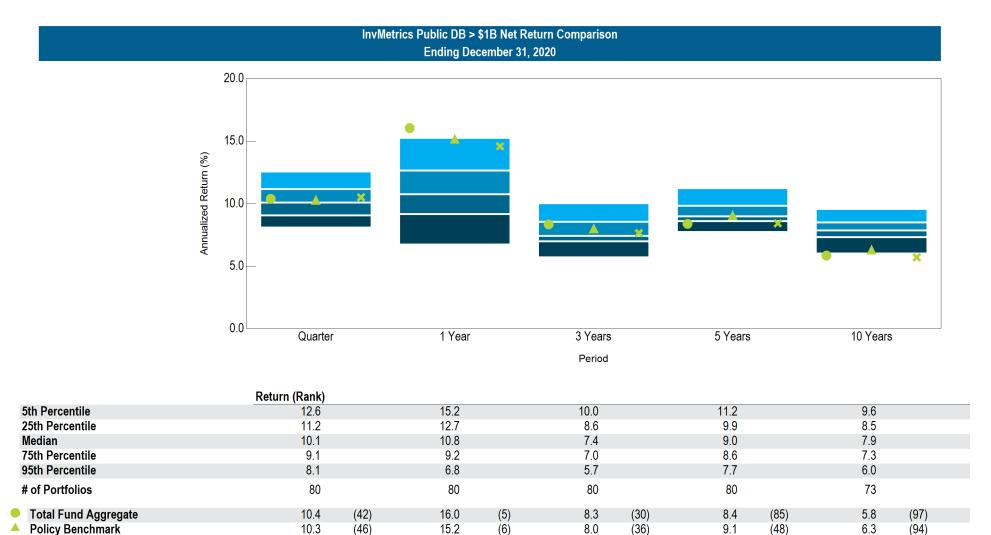








Total Fund | As of December 31, 2020



(41)

10.5

14.6

(11)

7.6

(47)

8.4

(84)

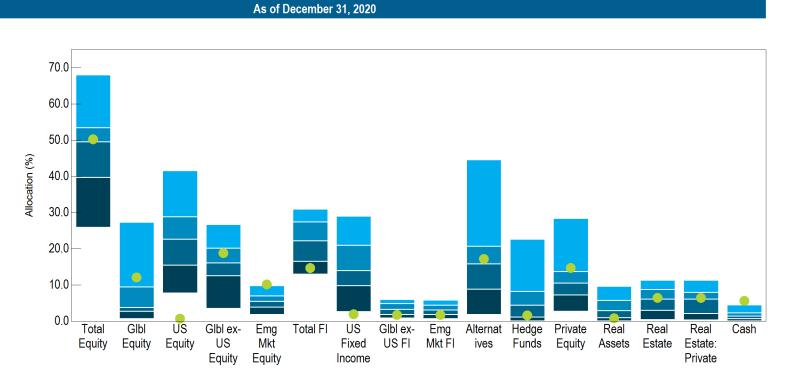
5.7

(98)

× Investable Benchmark Portfolio



Total Fund | As of December 31, 2020



	Allocati	ion															
5th Percentile	68.0	27.3	41.6	26.7	9.8	31.0	29.1	6.0	5.9	44.6	22.7	28.4	9.6	11.3	11.4	4.5	
25th Percentile	53.6	9.6	28.9	20.2	7.1	27.5	21.1	5.0	4.5	20.8	8.4	13.8	5.9	8.9	8.0	2.4	
Median	49.6	3.9	22.8	16.2	5.6	22.4	14.1	3.4	3.2	15.9	4.5	10.7	3.0	6.2	6.2	1.5	
75th Percentile	39.8	2.9	15.6	12.6	4.0	16.7	9.9	2.0	2.0	9.0	1.2	7.4	1.1	3.1	2.2	0.8	
95th Percentile	26.0	0.8	7.9	3.6	2.0	13.1	2.7	1.0	0.8	2.0	0.2	2.8	0.2	0.6	0.4	0.2	
# of Portfolios	58	27	42	54	42	58	41	29	28	56	40	51	31	53	47	58	
<ul> <li>Total Fund Aggregate</li> <li>Rank</li> </ul>	50.3 48	12.1 15	0.7 99	18.8 31	10.2 5	14.7 88	1.9 98	1.8 81	1.8 79	17.2 42	1.6 67	14.7 18	0.8 85	6.5 44	6.5 45	5.6 3	

Total Plan Allocation vs. InvMetrics Public DB > \$1B Net

## San Jose Federated City Employees' Retirement System

	Major Benchmark F				
	Periods Ending Decembe	er 31, 2020			
Name	Q4-20	1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity					
Russell 3000	14.7	20.9	14.5	15.4	13.8
S&P 500	12.1	18.4	14.2	15.2	13.9
Russell 1000	13.7	21.0	14.8	15.6	14.0
Russell 1000 Growth	11.4	38.5	23.0	21.0	17.2
Russell 1000 Value	16.3	2.8	6.1	9.7	10.5
Russell MidCap	19.9	17.1	11.6	13.4	12.4
Russell 2000	31.4	20.0	10.2	13.3	11.2
Russell 2000 Growth	29.6	34.6	16.2	16.4	13.5
Russell 2000 Value	33.4	4.6	3.7	9.7	8.7
International Equity					
MSCI ACWI	14.7	16.3	10.1	12.3	9.1
MSCI World ex USA	15.8	7.6	4.2	7.6	5.2
MSCI EAFE	16.0	7.8	4.3	7.4	5.5
MSCI Emerging Markets	19.7	18.3	6.2	12.8	3.6
Fixed Income					
91 Day T-Bills	0.0	0.5	1.5	1.1	0.6
BBgBarc US Aggregate TR	0.7	7.5	5.3	4.4	3.8
BBgBarc US Govt/Credit TR	0.8	8.9	6.0	5.0	4.2
BBgBarc US Municipal TR	1.8	5.2	4.6	3.9	4.6
BBgBarc US High Yield TR	6.5	7.1	6.2	8.6	6.8
FTSE WGBI TR	2.8	10.1	5.0	4.8	2.3
FTSE WGBI ex US TR	4.8	10.8	4.6	5.2	1.9
Real Estate					
FTSE NAREIT All REIT	9.2	-5.9	5.0	6.7	9.1
NCREIF Property Index	1.2	1.6	4.9	5.9	9.0
Alternatives					
HFRI Fund of Funds Composite Index	8.1	10.9	4.9	4.6	3.3
Inflation					
Consumer Price Index	0.1	1.4	1.9	1.9	1.7



				S	itatistics Su	immary						
				3 Years	Ending Dec	ember 31, 202	0					
	% of Total MV	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Anizd Alpha J	Anlzd Alpha J Rank	Tracking Error	Information Ratio	Information Ratio Rank	Beta	Sharpe Ratio
Total Fund Aggregate	100.00%	8.34%	30	9.67%	33	0.41%	35	1.00%	0.31	22	0.98	0.71
Policy Benchmark		8.03%	36	9.78%	35	0.00%	43	0.00%			1.00	0.67
Growth	76.08%	9.35%		14.30%		-0.44%		1.58%	-0.39		0.98	0.55
Growth Benchmark		9.97%		14.53%		0.00%		0.00%			1.00	0.58
Public Equity	50.26%	9.37%		18.54%		-0.41%		1.70%	-0.34		0.98	0.43
Public Equity Benchmark		9.94%		18.83%		0.00%		0.00%			1.00	0.45
Global Equity	12.10%	12.36%	34	19.37%	64	2.48%	37	2.34%	1.13	23	1.02	0.56
MSCI ACWI IMI Index		9.72%	49	18.85%	58	0.00%	52	0.00%			1.00	0.44
US Equity	19.33%	12.59%	41	20.34%	41	-2.41%	44	1.54%	-1.32	82	1.03	0.55
MSCI USA IMI GR USD		14.61%	33	19.70%	35	0.00%	34	0.00%			1.00	0.67
International Equity	8.66%	6.00%	68	19.24%	59	1.60%	68	2.79%	0.60	54	1.02	0.23
MSCI World ex USA IMI NR USD		4.34%	74	18.67%	49	0.00%	75	0.00%			1.00	0.15
Emerging Markets Equity	10.17%	4.45%	63	20.38%	43	-1.34%	65	2.50%	-0.53	77	1.00	0.15
MSCI Emerging Market IMI Net		5.77%	51	20.15%	38	0.00%	49	0.00%			1.00	0.21
Marketable Alternative Equity												
HFRI Equity Hedge (Total) Index		7.57%		12.09%		0.00%		0.00%			1.00	0.50
Private Markets	20.93%	7.59%		9.62%		-0.31%		4.77%	-0.23		0.89	0.64
Private Markets Benchmark		8.71%		9.48%		0.00%		0.00%			1.00	0.76
Private Equity	7.14%	10.79%	64	6.62%	10	8.92%	35	13.05%	-0.13	59	0.03	1.41
San Jose Custom Private Equity Benchmark		12.48%	55	11.66%	79	0.00%	83	0.00%			1.00	0.94
Private Equity ex Russell 3000	7.14%	11.43%		6.36%		9.35%		13.38%	-0.40		0.04	1.57
Cambridge PE Composite BM		16.85%		12.27%		0.00%		0.00%			1.00	1.25



	% of Total MV	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Anlzd Alpha J	Anlzd Alpha J Rank	Tracking Error	Information Ratio	Information Ratio Rank	Beta	Sharpe Ratio
Private Debt	3.39%	-0.47%		9.78%		-4.12%		9.37%	-0.63		0.56	-0.20
S&P Global Leveraged Loan Index +2%		5.39%		8.46%		0.00%		0.00%			1.00	0.46
Growth Real Estate	3.06%	10.56%	1	6.47%	96	11.68%	1	7.59%	0.75	16	-0.76	1.40
NCREIF Property Index		4.89%	26	2.51%	56	0.00%	59	0.00%			1.00	1.36
Emerging Markets Debt	2.94%	3.97%	59	9.16%	11	0.54%	43	4.75%	-0.02	60	0.75	0.27
50% JPM EMBI GD / 50% JPM GBI- EM		4.09%	58	11.12%	36	0.00%	53	0.00%			1.00	0.23
Low Beta	6.79%	3.40%		1.87%		2.02%		2.74%	0.85		0.25	1.03
Low Beta Benchmark		1.06%		2.83%		0.00%		0.00%			1.00	-0.15
Market Neutral Strategies	1.64%	4.81%		5.70%		3.63%		5.92%	0.71		0.34	0.58
Market Neutral Strategies Benchmark		0.59%		2.79%		0.00%		0.00%			1.00	-0.32
Relative Value	1.64%	3.36%		10.18%		-0.62%		4.86%	0.00		1.32	0.18
HFRI Relative Value (Total) Index		3.38%		6.98%		0.00%		0.00%			1.00	0.27
Cash	0.65%	1.60%		0.33%		0.02%		0.26%	-0.01		0.79	0.36
ICE BofA 91 Days T-Bills TR		1.60%		0.28%		0.00%		0.00%			1.00	0.44
Other	16.63%	2.16%		2.49%		1.31%		3.72%	0.71		0.32	0.27
Other Benchmark		-0.49%		4.56%		0.00%		0.00%			1.00	-0.43
TIPS	1.95%	3.24%		1.70%		0.04%		0.70%	-0.34		0.86	1.03
BBgBarc U.S. TIPS 0-5 Years		3.48%		1.83%		0.00%		0.00%			1.00	1.09
Core Private Real Estate	4.52%	5.53%		2.28%		3.14%		2.76%	0.42		0.31	1.78
NCREIF ODCE Equal-Weighted		4.38%		2.54%		0.00%		0.00%			1.00	1.14
Core Bonds												
BBgBarc Global Aggregate TR		4.85%		4.23%		0.00%		0.00%			1.00	0.80

## San Jose Federated City Employees' Retirement System

	% of Total MV	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Anizd Alpha J	Anlzd Alpha J Rank	Tracking Error	Information Ratio	Information Ratio Rank	Beta	Sharpe Ratio
Overlay	0.49%	7.09%		37.03%		5.60%		37.06%	0.15		-15.76	0.15
91 Day T-Bills		1.48%		0.25%		0.00%		0.00%			1.00	0.00



	Benchmark History										
	As of December 31, 2020										
Total Fund Agg	regate										
4/1/2020	Present	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 21% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 2% BBgBarc US Corporate High Yield TR / 5% Immunized Cash Flows Benchmark / 3% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% BBgBarc US Govt Long TR / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 8% Custom IG Bonds Benchmark									
12/1/2019	3/31/2020	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 23% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 15% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 3% BBgBarc Global Aggregate TR									
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 23% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 18% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 2% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR									
10/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 25% Private Markets Benchmark / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 18% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 3% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR									
10/1/2018	9/30/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 25% Private Markets Benchmark / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 20% ICE BofA 91 Days T-Bills TR / 5% Immunized Cash Flows Benchmark / 7% Market Neutral Strategies Benchmark / 5% NCREIF-ODCE / 3% Bloomberg Commodity Index TR USD / 2% BBgBarc US Treasury TIPS 0-5 Yr TR									
11/1/2017	9/30/2018	28% MSCI ACWI IMI Net USD / 9% Cambridge PE Composite BM / 33% Fixed Income Custom Benchmark / 6% S&P Global Leveraged Loan Index +2% / 8% NCREIF Property Index / 4% Bloomberg Commodity Index TR USD / 1% DJ Brookfield Global Infrastructure Net TR USD / 11% HFRI Macro (Total) Index									
7/1/2015	10/31/2017	28% MSCI ACWI IMI Net USD / 9% Cambridge Associates Private Equity Composite / 19% Fixed Income Custom Benchmark / 5% S&P Global Leveraged Loan Index +2% / 7% NCREIF Property Index / 6% Bloomberg Commodity Index TR USD / 5% DJ Brookfield Global Infrastructure Net TR USD / 5% S&P Global LargeMidCap Commodity and Resources GR USD / 11% HFRI Macro (Total) Index / 5% 60/40 MSCI ACWI IMI/BC Global									



Low Cost Passiv	ve Benchmark	
4/1/2020	Present	25% MSCI USA IMI NR USD / 12% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 10% Russell 3000 / 11% BBgBarc US Aggregate TR / 2% BBgBarc US Corporate High Yield TR 8% / 3% FTSE EPRA/NAREIT Global NR USD / 2% BBgBarc US Govt Long TR / 5% ICE BofAML 91 Days T-Bills TR / 3% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR
12/1/2019	3/31/2020	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 13% Russell 3000 / 7% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 15% BBgBarc US Govt/Credit 1-3 Yr. TR
11/1/2019	11/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 12% MSCI Emerging Market IMI Net / 13% Russell 3000 / 7% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 18% BBgBarc US Govt/Credit 1-3 Yr. TR
10/1/2019	10/31/2019	13% MSCI USA IMI NR USD / 7% MSCI World ex USA IMI NR USD / 10% MSCI Emerging Market IMI Net / 15% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 5% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 7% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 3% Bloomberg Commodity Index TR USD / 18% BBgBarc US Govt/Credit 1-3 Yr. TR
10/1/2018	9/30/2019	13% MSCI USA IMI NR USD / 10% MSCI World ex USA IMI NR USD / 13% MSCI Emerging Market IMI Net / 12% Russell 3000 / 4% BBgBarc US Aggregate TR / 8% FTSE EPRA/NAREIT Global NR USD / 3% S&P Global Natural Resources Net USD / 3% 50% JPM EMBI GD / 50% JPM GBI-EM / 5% ICE BofAML 91 Days T-Bills TR / 5% 3-Month Libor +1% / 2% BBgBarc US Treasury TIPS 0-5 Yr TR / 2% Bloomberg Commodity Index TR USD / 3% FTSE WGBI ex US TR/17% BBgBarc US Govt/Credit 1-3 Yr. TR



Growth		
4/1/2020	Present	65.33% Public Equity Benchmark / 28% Private Markets Benchmark / 6.67% 50% JPM EMBI GD / 50% JPM GBI-EM / 4.08% BBgBarc US Corporate High Yield TR
11/1/2019	3/31/2020	57.38% Public Equity Benchmark / 37.7% Private Markets Benchmark / 4.92% 50% JPM EMBI GD / 50% JPM GBI-EM
10/1/2019	10/31/2019	50% Public Equity Benchmark / 41.67% Private Markets Benchmark / 8.33% 50% JPM EMBI GD / 50% JPM GBI-EM
10/1/2018	9/30/2019	51.73% Public Equity Benchmark / 43.1% Private Markets Benchmark / 5.17% 50% JPM EMBI GD / 50% JPM GBI-EM
11/1/2017	9/30/2018	51.29% MSCI ACWI IMI Net USD / 16.48% Cambridge PE Composite BM / 10.99% S&P Global Leveraged Loan Index +2% / 7.33% NCREIF Property Index / 60.4% 50% JPM EMBI GD (US)/ 50% JPM GBIEM GD (Lcl) / 60.4% 50% BAML Global HY / 50% S&P Global Leveraged Loan / 1.83% DJ Brookfield Global Infrastructure Net TR USD
7/1/2015	10/31/2017	47.23% MSCI ACWI IMI Net USD / 15.18% Cambridge PE Composite BM / 8.43% S&P Global Leveraged Loan Index +2% / 8.43% DJ Brookfield Globa Infrastructure Net TR USD / 8.43% S&P Global Natural Resources Index TR USD / 5.9% NCREIF Property Index / 3.2% 50% JPM EMBI GD (US)/ 50% JPM GBIEM GD (Lcl) / 3.2% 50% BAML Global HY / 50% S&P Global Leveraged Loan
Public Equit	ý	
4/1/2020	Present	51.02% MSCI USA IMI NR USD / 24.49% MSCI World ex USA IMI NR USD / 24.49% MSCI Emerging Market IMI Net
11/1/2019	3/31/2020	37.14% MSCI USA IMI NR USD / 28.57% MSCI World ex USA IMI NR USD / 34.29% MSCI Emerging Market IMI Net
10/1/2018	10/31/2019	43.33% MSCI USA IMI NR USD / 23.33% MSCI World ex USA IMI NR USD / 33.33% MSCI Emerging Market IMI Net
5/1/2010	9/30/2018	MSCI ACWI IMI Net USD
Global Eq	uity	
7/1/2015	Present	MSCI ACWI IMI Index
US Equity	,	
7/1/2015	Present	MSCI USA IMI GR USD
Internatio	nal Equity	
7/1/2015	Present	MSCI World ex USA IMI NR USD
Emerging	Markets Equit	Y
7/1/2015	Present	MSCI Emerging Market IMI Net



Marketab	le Alternative	Equity
10/1/2014	Present	HFRI Equity Hedge (Total) Index
Private Mar	-kets	
7/1/2015	Present	Private Markets
Private N	larkets ex Russ	sell 3000
		No Benchmark Selected
Private	Equity	
1/1/2006	Present	San Jose Custom Private Equity Benchmark
Priva	ite Equity ex Ru	ussell 3000
7/1/2018	Present	Cambridge Associates Global Private Equity Index
North	nern Trust Rus	sell 3000
6/1/2018	Present	Russell 3000
Private	Debt	
12/1/2010	Present	S&P Global Leveraged Loan Index +2%
Growth	Real Estate	
7/1/2015	Present	NCREIF Property Index
Private	Real Assets	
		No Benchmark Selected
Emerging N	larkets Debt	
7/1/2015	Present	50% JP Morgan GBI EM Global Diversified TR USD / 50% JP Morgan EMBI Global Diversified
High Yield E	Bonds	
6/1/2020	Present	BBgBarc US Corporate High Yield TR
Low Beta		
4/1/2020	Present	62.5% Immunized Cash Flows Benchmark / 37.5% Market Neutral Strategies Benchmark
12/1/2019	3/31/2020	55.56% ICE BofA 91 Days T-Bills TR / 25.93% Immunized Cash Flows Benchmark / 18.52% Market Neutral Strategies Benchmark
10/1/2019	11/30/2019	60% ICE BofA 91 Days T-Bills TR / 23.33% Immunized Cash Flows Benchmark / 6.67% Market Neutral Strategies Benchmark
10/1/2018	9/30/2019	62.5% ICE BofA 91 Days T-Bills TR / 15.62% Immunized Cash Flows Benchmark / 21.88% Market Neutral Strategies Benchmark



7/1/2015	9/30/2018	HFRI Macro (Total) Index
Short-Term	IG Bonds	
10/1/2018	Present	91 Day T-Bills
Immunized	Cash Flows	
10/1/2018	Present	Immunized Cash Flows
Market Neu	tral Strategies	
10/1/2018	Present	3-Month Libor Total Return USD
11/1/2012	9/30/2018	HFRI Macro (Total) Index
Macro		
10/1/2014	Present	HFRI Macro (Total) Index
Relative \	/alue	
10/1/2014	Present	HFRI Relative Value (Total) Index
Cash		
1/1/2006	Present	ICE BofA 91 Days T-Bills TR
Other		
4/1/2020	Present	29.41% NCREIF-ODCE / 11.76% BBgBarc US Govt Long TR / 11.77% BBgBarc U.S. TIPS 0-5 Years / 47.06% Custom IG Bonds Benchmark
12/1/2019	3/31/2020	41.67% NCREIF-ODCE / 16.67% Bloomberg Commodity Index TR USD / 16.67% BBgBarc U.S. TIPS 0-5 Years / 25% BBgBarc Global Aggregate TR
11/1/2019	11/30/2019	55.55% NCREIF-ODCE / 22.22% Bloomberg Commodity Index TR USD / 22.22% BBgBarc U.S. TIPS 0-5 Years
10/1/2018	10/31/2019	50% NCREIF-ODCE / 30% Bloomberg Commodity Index TR USD / 20% BBgBarc U.S. TIPS 0-5 Years
11/1/2017	9/30/2018	76.74% BBgBarc Global Aggregate TR / 11.63% NCREIF Property Index / 11.63% Bloomberg Commodity Index TR USD
7/1/2015	10/31/2017	51.18% BBgBarc Global Aggregate TR / 11.78% NCREIF Property Index / 20.2% Bloomberg Commodity Index TR USD / 16.84% 60/40 MSCI ACWI/BBgBarc Global Aggregate
Investment	Grade Bonds	
12/1/2019	Present	Custom IG Bonds Benchmark
TIPS		
3/1/2017	Present	100% BBgBarc US Treasury TIPS 0-5 Yr TR



Core Private	Real Estate	
7/1/2004	Present	NCREIF ODCE Equal Weighted (Net)
Commoditie	S	
5/1/2010	Present	Bloomberg Commodity Index TR USD
Long Term (	Government B	Bonds
5/1/2020	Present	BBgBarc US Govt Long TR
Core Bonds		
7/1/2015	Present	BBgBarc Global Aggregate TR
Overlay		
11/1/2011	Present	91 Day T-Bills

## **Glossary and Notes**



Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

**Duration:** Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta\*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

**Prepayment Risk:** The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

**Price-Book Value (P/B) Ratio:** The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.



**Price-Earnings (P/E) Ratio:** A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

**Quality Rating:** The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

**Standard Deviation:** A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Style:** The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.



Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

5% (discount)=1% pro rata, plus=6.26% (yield to maturity)5 (yrs. to maturity)5.26% (current yield)=6.26% (yield to maturity)

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999. The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.