

April 27, 2021

Fund Evaluation Report

Agenda

## Agenda

- 1. Estimated Retirement Association Performance as of March 31, 2021
- 2. Performance Update as of February 28, 2021
- 3. Current Issues
  - Small Cap Growth RFP Respondent Review
  - Asset Allocation Update
- 4. Economic and Market Update-Data as of March 31, 2021
- 5. Disclaimer, Glossary, and Notes

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# Estimated Retirement Association Performance As of March 31, 2021



#### **Estimated Retirement Association Performance**

#### Estimated Aggregate Performance<sup>1</sup>

	MTD <sup>2</sup> (%)	QTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Total Retirement Association	0.5	2.6	35.6	8.2	9.3	7.5
Policy Benchmark	1.0	2.2	31.4	8.8	9.9	8.0

#### **Benchmark Returns**

	MTD (%)	QTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
Russell 3000	3.6	6.4	62.5	17.1	16.7	13.8
MSCI EAFE	2.3	3.5	44.6	6.0	8.9	5.6
MSCI Emerging Markets	-1.5	2.3	58.4	6.5	12.1	3.7
Barclays Aggregate	-1.3	-3.4	0.7	4.7	3.1	3.4
Barclays TIPS	-0.2	-1.5	7.5	5.7	3.9	3.4
Barclays High Yield	0.2	0.9	23.7	6.8	8.1	6.5
JPM GBI-EM Global Diversified (Local Currency)	-3.1	-6.7	13.0	-0.8	3.1	0.5
S&P Global Natural Resources	2.2	11.8	67.7	5.5	11.4	1.1

#### **Estimated Total Assets**

	Estimate
Total Retirement Association	\$1,238,404,596

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<sup>&</sup>lt;sup>1</sup> The March performance estimates are calculated using index returns as of March 31, 2021 for each asset class. No performance estimate was included for private equity, real estate, infrastructure, and private natural resources asset classes.

<sup>&</sup>lt;sup>2</sup> As of March 31, 2021.

## Performance Update As of February 28, 2021

## **Current Issues**



#### Summary | As of February 28, 2021

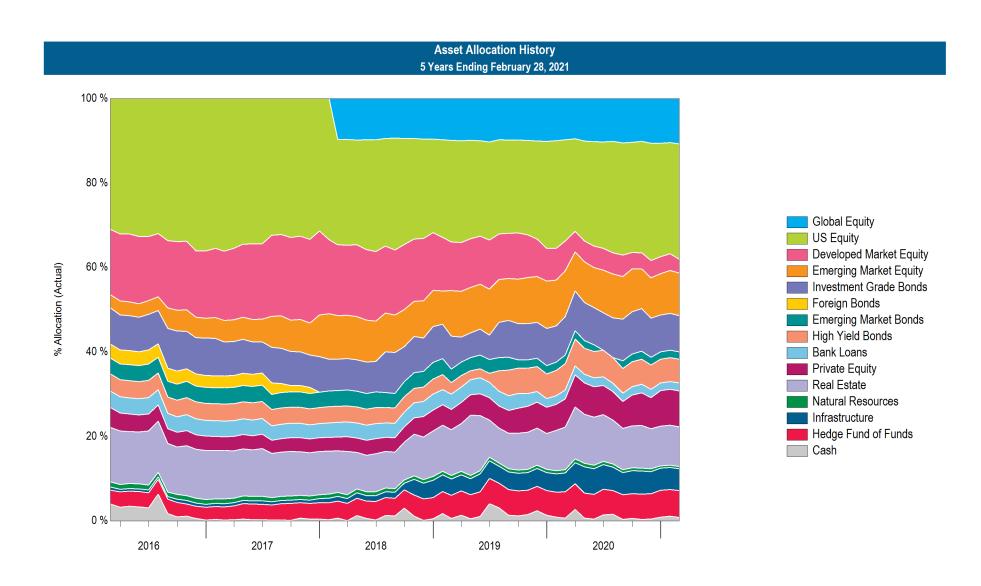
Allocation vs. Target											
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?						
Domestic Equity	\$336,887,806	27%	26%	21% - 36%	Yes						
International Developed Market Equity	\$39,688,033	3%	6%	1% - 16%	Yes						
International Emerging Market Equity	\$124,977,699	10%	10%	5% - 20%	Yes						
Global Equity	\$132,736,299	11%	10%	5% - 20%	Yes						
Core Bonds	\$105,675,100	9%	9%	4% - 14%	Yes						
Value-Added Fixed Income	\$113,700,718	9%	6%	2% - 12%	Yes						
Private Equity	\$104,951,412	9%	13%	4% - 18%	Yes						
Real Estate	\$115,935,953	9%	10%	5% - 15%	Yes						
Real Assets	\$70,554,615	6%	6%	2% - 10%	Yes						
Hedge Fund of Funds	\$77,981,190	6%	4%	2% - 8%	Yes						
Cash	\$10,423,054	1%	0%	0% - 3%	Yes						
Total	\$1,233,511,879	100%	100%								

	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?
Total Equity	\$809,642,558	66%	69%	60% - 80%	Yes
Total Fixed Income	\$219,375,818	18%	15%	5% - 25%	Yes
Total Real Assets and Real Estate	\$194,070,450	16%	16%	13% - 19%	Yes
Cash	\$10,423,054	1%	0%	0% - 3%	Yes

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Summary | As of February 28, 2021





#### Total Retirement Association | As of February 28, 2021

	Asset Class Net F	eriorinanc	e Sullilli	ai y						
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,233,511,879	100.0	1.9	2.2	20.8	7.9	10.2	7.5	8.0	Nov-89
Policy Benchmark (Net) (1)	1,255,511,575	100.0	1.2	1.2	19.5	8.4	10.7	8.0		Nov-89
Actual Allocation (Net)			1.2	1.2	17.8	7.0	9.3			Nov-89
Domestic Equity Assets	336.887.806	27.3	5.1	5.9	47.0	17.4	19.6		17.2	Jan-16
Russell 3000			3.1	2.7	35.3	15.0	17.4	13.4	15.5	Jan-16
International Developed Market Equity Assets	39,688,033	3.2	-4.0	-5.4	11.2	-1.5	6.3		4.4	Jan-16
MSCI EAFE			2.2	1.2	22.5	4.6	9.7	5.0	7.4	Jan-16
International Emerging Market Equity Assets	124,977,699	10.1	1.1	4.5	38.7	5.9	14.2		12.2	Jan-16
MSCI Emerging Markets			0.8	3.9	36.0	6.4	15.2	4.4	13.2	Jan-16
Global Equity Assets	132,736,299	10.8	4.0	2.2	26.9	9.3			7.5	Feb-18
MSCI ACWI			2.3	1.9	30.2	10.3	14.2	8.8	8.5	Feb-18
Core Fixed Income	105,675,100	8.6	-0.8	-1.0	2.6	5.0	3.7		4.0	Jan-16
75% Bbg Barclays Aggregate/25% Bbg Barclays US TIPs 1-10 year			-1.3	-1.6	2.5	<i>5.3</i>	3.6	3.4	3.9	Jan-16
Value Added Fixed Income	113,700,718	9.2	0.5	1.0	6.9	4.8	7.1		6.7	Jan-16
Custom Benchmark (2)			-0.8	-0.9	5.2	5.2	7.0		6.7	Jan-16
Hedge Funds	77,981,190	6.3	1.9	0.7	7.2	4.2	6.3	4.7	4.9	Feb-10
Custom Benchmark			1.4	1.1	12.7	5.1	5.2	3.4	3.7	Feb-10
Real Estate (3)	115,935,953	9.4	0.1	0.2	4.7	7.7	6.1		5.6	Jan-16
80% NCREIF ODCE / 20% Wilshire REIT			0.7	0.8	1.4	5.3	5.7		5.3	Jan-16
Private Equity (4)	104,951,412	8.5	0.0	0.0	14.4	8.7	7.2		7.0	Jan-16
Cambridge Associates FoF Composite 1Q Lagged			0.0	0.0	12.4	12.1	10.7	11.8	10.4	Jan-16
Real Assets (5)	70,554,615	5.7	0.1	-0.1	2.3	2.6	0.0		0.0	Jan-16
CPI + 3%			0.6	1.1	4.7	4.8	5.1	4.7	5.0	Jan-16
Cash and Cash Equivalent	10,423,054	0.8								

<sup>(1)</sup> The custom benchmark is comprised of 26% Russell 3000/ 6% MSCI EAFE/ 10% MSCI Emerging Markets/ 13% Cambridge Associates FOF 1Q Lag/ 10% MSCI ACWI/ 4% Hedge Funds Custom Benchmark/ 9% (75/25 Barclays Aggregate and Barclays Tips 1-10yr)/ 6% Value Added FI Custom Benchmark/ 10% (80/20 NCREIF ODCE and Wilshire REIT)/ 6% CPI+3%

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<sup>(2)</sup> The custom benchmark is comprised of 25% BBgBarc US High Yield/ 25% Credit Suisse Leveraged Loans/ 25% JP Morgan EMBI Global diversified/ 25% BBgBarc Multiverse TR

<sup>(3)</sup> The market value and performance is one quarter lagged.

<sup>(4)</sup> The market value and performance is one quarter lagged.

<sup>(5)</sup> The market value and performance is one quarter lagged.



#### Summary | As of February 28, 2021

	Traili	ng Net P	erforma	nce							
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement Association	1,233,511,879	100.0		1.9	2.2	20.8	7.9	10.2	7.5	8.0	Nov-89
Policy Benchmark (Net)				1.2	1.2	19.5	8.4	10.7	8.0		Nov-89
Actual Allocation (Net)				1.2	1.2	17.8	7.0	9.3		-	Nov-89
Domestic Equity Assets	336,887,806	27.3	27.3	5.1	5.9	47.0	17.4	19.6		17.2	Jan-16
Russell 3000				3.1	2.7	<i>35.3</i>	15.0	17.4	13.4	15.5	Jan-16
Rhumbline Russell 1000 Value	58,400,385	4.7	17.3	6.0	5.1	22.2	8.2	11.9		10.0	Apr-13
Russell 1000 Value				6.0	5.1	22.2	8.2	12.0	10.4	10.1	Apr-13
Rhumbline Russell 1000 Growth	52,299,358	4.2	15.5	0.0	-0.8	44.2	21.0	22.1	16.4	17.5	Jul-09
Russell 1000 Growth				0.0	-0.8	44.3	21.0	22.2	16.4	17.6	Jul-09
Fisher Midcap Value	63,310,996	5.1	18.8	6.0	6.3	47.2	16.1	18.9	11.8	9.6	Apr-07
Russell MidCap Value				7.7	7.5	27.7	8.9	12.4	10.7	7.6	Apr-07
Russell MidCap				5.6	5.3	36.1	13.7	15.9	12.3	9.3	Apr-07
Boston Company Small Cap Growth	87,554,020	7.1	26.0	2.8	6.7	82.4	33.8	32.2	18.5	19.6	Aug-09
Russell 2000 Growth				3.3	8.3	58.9	18.9	21.1	13.8	16.0	Aug-09
LMCG Small Cap Value	75,323,047	6.1	22.4	10.5	10.5	33.1	8.2	11.7		8.9	Mar-11
Russell 2000 Value				9.4	15.2	41.1	10.1	14.2	9.7	9.6	Mar-11

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#### Summary | As of February 28, 2021

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	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
International Developed Market Equity Assets	39,688,033	3.2	3.2	-4.0	-5.4	11.2	-1.5	6.3		4.4	Jan-16
MSCI EAFE				2.2	1.2	22.5	4.6	9.7	5.0	7.4	Jan-16
HGK TS International Equity	802,662	0.1	2.0								
Aristotle International Equity	19,388,646	1.6	48.9								Mar-21
MSCI EAFE				2.2	1.2	22.5	4.6	9.7	5.0		Mar-21
Walter Scott International Equity	19,496,725	1.6	49.1								Mar-21
MSCI EAFE				2.2	1.2	22.5	4.6	9.7	5.0		Mar-21
International Emerging Market Equity Assets	124,977,699	10.1	10.1	1.1	4.5	38.7	5.9	14.2		12.2	Jan-16
MSCI Emerging Markets				0.8	3.9	36.0	6.4	15.2	4.4	13.2	Jan-16
ABS Emerging Markets	63,520,602	5.1	50.8	2.4	5.6	40.4				22.0	Dec-18
MSCI Emerging Markets				0.8	3.9	36.0	6.4	15.2	4.4	16.7	Dec-18
Driehaus Emerging Markets Growth	61,457,097	5.0	49.2	-0.3	3.3	43.7				23.1	Mar-19
MSCI Emerging Markets				0.8	3.9	36.0	6.4	15.2	4.4	15.5	Mar-19
Global Equity Assets	132,736,299	10.8	10.8	4.0	2.2	26.9	9.3			7.5	Feb-18
MSCI ACWI				2.3	1.9	30.2	10.3	14.2	8.8	8.5	Feb-18
First Eagle Global Value Fund	22,910,756	1.9	17.3	2.2	0.8	18.8	6.0			4.5	Feb-18
MSCI ACWI Value NR USD				4.5	3.6	17.8	3.7	9.6	5.8	1.9	Feb-18
Kopernik Global All Cap Fund	33,877,344	2.7	25.5	7.7	7.3	61.4	12.7			11.2	Feb-18
MSCI ACWI Value NR USD				4.5	3.6	17.8	3.7	9.6	5.8	1.9	Feb-18
Lee Munder Global Multi-Cap Strategy	35,637,191	2.9	26.8	3.5	2.3	25.8	7.4			7.4	Mar-18
MSCI ACWI				2.3	1.9	30.2	10.3	14.2	8.8	10.3	Mar-18
Wellington Durable Enterprises, L.P.	40,311,009	3.3	30.4	2.4	-1.0	14.6	10.3			10.3	Mar-18
MSCI ACWI				2.3	1.9	30.2	10.3	14.2	8.8	10.3	Mar-18

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#### Summary | As of February 28, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	105,675,100	8.6	8.6	-0.8	-1.0	2.6	5.0	3.7		4.0	Jan-16
75% Bbg Barclays Aggregate/25% Bbg Barclays US TIPs 1-10 year				-1.3	-1.6	2.5	5.3	3.6	3.4	3.9	Jan-16
IR&M Core Bonds	58,698,832	4.8	55.5	-1.3	-1.9	2.9	5.4	3.9	3.7	4.3	Nov-04
BBgBarc US Aggregate TR				-1.4	-2.2	1.4	5.3	3.6	3.6	4.2	Nov-04
Lord Abbett Short Duration Credit Trust II	36,904,747	3.0	34.9	0.1	0.4	2.7				3.4	Aug-19
BBgBarc US Credit 1-3 Yr TR				0.0	0.1	2.5	3.6	2.7	2.2	3.4	Aug-19
Rhumbline TIPS Trust	10,071,522	0.8	9.5	-1.6	-1.3					0.0	Sep-20
BBgBarc US TIPS TR				-1.6	-1.3	5.8	6.1	4.3	3.6	-0.1	Sep-20
Value Added Fixed Income	113,700,718	9.2	9.2	0.5	1.0	6.9	4.8	7.1		6.7	Jan-16
Custom Benchmark				-0.8	-0.9	5.2	5.2	7.0		6.7	Jan-16
Eaton Vance High Yield	23,887,801	1.9	21.0	0.5	0.7	8.3	6.0	7.3	6.2	6.9	Apr-06
ICE BofA US High Yield TR				0.3	0.7	8.6	6.2	8.8	6.3	7.2	Apr-06
First Eagle Bank Loan Select Fund	23,043,056	1.9	20.3	0.6	2.0	5.5	4.0	5.6	4.7	5.2	Sep-10
Credit Suisse Leveraged Loans				0.7	1.9	5.7	4.2	5.9	4.4	4.8	Sep-10
Manulife Strategic Fixed Income	33,177,899	2.7	29.2	0.2	-0.4	7.6				6.1	Jul-19
BBgBarc Multiverse TR				-1.6	-2.5	4.5	3.9	3.9	2.6	4.5	Jul-19
Mesirow High Yield	11,850,000	1.0	10.4	1.5	3.7	15.7				11.3	Aug-19
BBgBarc US Corporate High Yield TR				0.4	0.7	9.4	6.6	9.0	6.5	7.1	Aug-19
Eaton Vance EMD Opportunities Fund	21,741,962	1.8	19.1	0.3	0.9					8.7	Aug-20
JP Morgan EMBI Global Diversified				-2.6	-3.6	0.9	4.5	5.9	5.9	0.6	Aug-20

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#### Summary | As of February 28, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Hedge Funds	77,981,190	6.3	6.3	1.9	0.7	7.2	4.2	6.3	4.7	4.9	Feb-10
Custom Benchmark				1.4	1.1	12.7	5.1	5.2	3.4	3.7	Feb-10
ABS Offshore SPC - Global Segregated Portfolio	32,417,238	2.6	41.6	3.7	1.1	18.3	7.2	7.8	5.9	6.4	Aug-10
HFRI Fund of Funds Composite Index				2.9	2.2	14.7	5.4	5.8	3.4	4.0	Aug-10
Entrust Special Opportunities Fund III, Ltd.	20,336,430	1.6	26.1	0.0	0.0	0.7	1.7			8.8	Oct-16
HFRI Fund of Funds Composite Index (QTR)				0.0	0.0	10.3	4.7	4.5	3.3	5.1	Oct-16
Old Farm Partners Master Fund, L.P.	6,269,122	0.5	8.0	4.5	3.3	25.9				9.8	Oct-18
HFRI Fund of Funds Composite Index				2.9	2.2	14.7	5.4	5.8	3.4	6.6	Oct-18
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	18,958,401	1.5	24.3	0.0	0.0	-3.3				10.2	Jan-19
HFRI Fund of Funds Composite Index (QTR)				0.0	0.0	10.3	4.7	4.5	3.3	8.6	Jan-19

Note: The data for Entrust Special Opportunities Fund III and EntrustPermal Special Opportunities Evergreen Fund is based on December 31, 2020 fair market value, adjusted for subsequent cash flows.

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#### Summary | As of February 28, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Estate	115,935,953	9.4	9.4	0.1	0.2	4.7	7.7	6.1		5.6	Jan-16
80% NCREIF ODCE / 20% Wilshire REIT	, ,			0.7	0.8	1.4	5.3	5.7			Jan-16
Core Real Estate	67,519,578	5.5	58.2	0.2	0.4	2.2	6.9	6.9		6.2	Jan-16
NCREIF-ODCE				0.0	0.0	1.2	4.9	6.2	9.9	6.0	Jan-16
TA Realty Core Property Fund, L.P.	39,169,321	3.2	58.0	0.0	0.0	3.3				7.9	Apr-18
NCREIF ODCE				0.0	0.0	1.2	4.9	6.2	9.9	4.3	Apr-18
JPMorgan Strategic Property	28,350,257	2.3	42.0	0.5	1.0	0.7				2.2	Apr-19
NCREIF-ODCE				0.0	0.0	1.2	4.9	6.2	9.9	2.6	Apr-19
Non-Core Real Estate	48,416,375	3.9	41.8	0.0	0.0	8.3	7.9	2.3		2.3	Jan-16
Private Equity	104,951,412	8.5	8.5	0.0	0.0	14.4	8.7	7.2		7.0	Jan-16
Cambridge Associates FoF Composite 1Q Lagged				0.0	0.0	12.4	12.1	10.7	11.8	10.4	Jan-16
Private Equity	97,055,817	7.9	92.5	0.0	0.0	17.0	9.5	6.6		6.5	Jan-16
Venture Capital	7,895,595	0.6	7.5	0.0	0.0	-8.5	0.0	5.3		5.2	Jan-16
Real Assets	70,554,615	5.7	5.7	0.1	-0.1	2.3	2.6	0.0		0.0	Jan-16
CPI + 3%				0.6	1.1	4.7	4.8	5.1	4.7	5.0	Jan-16
IFM Global Infrastructure	39,328,821	3.2	55.7	0.2	-0.2	5.5				9.1	Oct-18
CPI+5%				0.7	1.4	6.7	6.8	7.1	6.7	6.9	Oct-18
Cash and Cash Equivalent	10,423,054	8.0	8.0								
Cash	10,423,054	0.8	100.0								

Note: The data for Real Estate, Private Equity, and Real Assets is based on September 30, 2020 fair market value, adjusted for subsequent cash flows. Note: The data for JPMorgan Strategic Property and IFM Global Infrastructure is as of February 28, 2021.

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#### Summary | As of February 28, 2021

	Annual Investment Expense Analysis  As Of February 28, 2021									
Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee						
Domestic Equity Assets		\$336,887,806								
Rhumbline Russell 1000 Value	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	\$58,400,385	\$25,020	0.04%						
Rhumbline Russell 1000 Growth	0.05% of First 25.0 Mil, 0.04% of Next 25.0 Mil, 0.03% Thereafter	\$52,299,358	\$23,190	0.04%						
Fisher Midcap Value	0.80% of First 25.0 Mil, 0.75% of Next 25.0 Mil, 0.67% Thereafter	\$63,310,996	\$476,684	0.75%						
Boston Company Small Cap Growth	0.45% of Assets	\$87,554,020	\$393,993	0.45%						
LMCG Small Cap Value	0.90% of Assets	\$75,323,047	\$677,907	0.90%						
International Developed Market Equity Assets		\$39,688,033								
Aristotle International Equity	0.49% of Assets	\$19,388,646	\$95,004	0.49%						
Walter Scott International Equity	0.85% of Assets	\$19,496,725	\$165,722	0.85%						
International Emerging Market Equity Assets		\$124,977,699								
ABS Emerging Markets	Performance-based 0.35 and 0.10	\$63,520,602	\$223,764	0.35%						
Driehaus Emerging Markets Growth	0.55% of Assets	\$61,457,097	\$338,014	0.55%						
Global Equity Assets		\$132,736,299								
First Eagle Global Value Fund	0.75% of Assets	\$22,910,756	\$171,831	0.75%						
Kopernik Global All Cap Fund	0.80% of First 50.0 Mil, 0.75% of Next 150.0 Mil, 0.70% of Next 250.0 Mil, 0.65% of Next 350.0 Mil	\$33,877,344	\$271,019	0.80%						
Lee Munder Global Multi-Cap Strategy	0.45% of Assets	\$35,637,191	\$160,367	0.45%						
Wellington Durable Enterprises, L.P.	0.60% of Assets	\$40,311,009	\$241,866	0.60%						

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#### Summary | As of February 28, 2021

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Core Fixed Income		\$105,675,100		
IR&M Core Bonds	0.25% of First 50.0 Mil, 0.20% of Next 50.0 Mil, 0.15% Thereafter	\$58,698,832	\$142,398	0.24%
Lord Abbett Short Duration Credit Trust II	0.17% of Assets	\$36,904,747	\$62,738	0.17%
Rhumbline TIPS Trust	0.04% of First 5.0 Mil, 0.03% Thereafter	\$10,071,522	\$3,521	0.03%
Value Added Fixed Income		\$113,700,718		
Eaton Vance High Yield	0.42% of Assets	\$23,887,801	\$100,329	0.42%
First Eagle Bank Loan Select Fund	0.40% of Assets	\$23,043,056	\$92,172	0.40%
Manulife Strategic Fixed Income	0.35% of Assets	\$33,177,899	\$116,123	0.35%
Mesirow High Yield	0.40% of Assets	\$11,850,000	\$47,400	0.40%
Eaton Vance EMD Opportunities Fund	0.30% of Assets	\$21,741,962	\$65,226	0.30%

Eaton Vance EMD Opportunities Fund: Stated fee of 0.30% with other operating expenses capped at 0.15%.

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#### Summary | As of February 28, 2021

Note: The value is based on September 30,2020 FMV.

Duitanto Carritor	Commitment	Total Contributions	Total Distributions	Adjusted Value
Private Equity	Commitment	Total Contributions	Total Distributions	Adjusted Value
Ascend Ventures II, L.P.	2,500,000	2,324,355	925,962	53,458
Ascent Venture Partners IV, L.P.	2,500,000	2,502,219	388,970	38,850
Ascent Venture Partners V, L.P.	5,000,000	5,004,731	3,182,862	4,061,146
Audax Mezzanine Fund IV, L.P.	10,000,000	5,910,858	3,063,362	3,559,167
Charles River Partnership XI, L.P.	1,839,000	1,820,323	2,532,884	42,138
Charlesbank Technology Opportunities Fund, L.P.	12,000,000	1,170,140	0	1,472,319
DN Partners II, L.P.	5,000,000	2,375,841	0	1,851,631
Euro Choice V, L.P.	6,097,405	5,688,459	2,809,141	4,372,962
FS Equity Partners VIII, L.P.	12,000,000	2,628,462	0	3,203,837
Globespan Capital Partners V, L.P.	5,000,000	4,852,500	8,008,564	2,798,693
HarbourVest Partners Co-Investment Fund V, L.P.	12,000,000	5,400,000	0	7,774,225
Ironsides Direct Investment Fund V, L.P.	12,000,000	9,744,952	285,742	13,699,162
Kohlberg IX	10,000,000	0	0	0
Landmark Equity Partners XIV, L.P.	6,000,000	6,304,147	6,747,524	888,639
Leeds Equity Partners IV, L.P.	5,000,000	5,093,100	9,709,704	13,990
Leeds Equity Partners V, L.P.	2,500,000	3,570,815	3,998,728	1,773,719
Lexington Capital Partners VII, L.P.	10,000,000	10,556,021	13,571,702	1,983,666
LLR Equity Partners V, L.P.	12,000,000	8,880,000	1,084,578	8,777,300
Mesirow Financial Capital Partners IX, L.P.	4,000,000	3,840,731	2,021,056	79,366
Ridgemont Equity Partners III, L.P.	12,000,000	2,981,256	0	2,647,595
Rimco Production Company, Inc	2,000,000	2,000,000	7,651,066	1
Searchlight Capital III, L.P.	12,000,000	3,187,241	0	3,413,828
Siguler Guff Distressed Opportunities Fund III, L.P.	6,000,000	5,820,000	8,337,397	1,050,161
Summit Partners Growth Equity Fund IX, L.P.	10,000,000	10,557,000	3,267,549	14,047,482
Summit Venture V	10,000,000	0	0	0
TRG Growth Partnership II, L.P.	7,500,000	7,450,399	7,463,445	1,023,067
Trilantic Capital Partners VI (North America), L.P.	12,000,000	3,022,090	94,177	2,633,929
Waud Capital Partners V, L.P.	10,000,000	0	0	0
Wellspring Capital Partners VI, L.P.	12,000,000	4,883,327	0	5,005,235
Total Plymouth County - PE	228,936,405	127,568,968	85,144,413	86,265,566

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#### Summary | As of February 28, 2021

11,147,161

90,341

660,145

32,826,585

1,258,867

1,473,185

39,978,826

115,706,346

lote: The value is based on September 30, 2020 FMV.				
Real Assets	Commitment	Total Contributions	Total Distributions	Adjusted Value
Basalt Infrastructure Partners II	10,000,000	7,882,050	49,561	9,005,086
BlackRock Global Renewable Power Fund III	10,000,000	0	0	0
BTG Pactual Global Timberland Resources Fund, LLC	5,043,536	5,043,536	229,998	2,993,762
Global Infrastructure Partners III, L.P.	10,000,000	8,705,592	1,505,001	8,068,218
Global Infrastructure Partners IV, L.P.	10,000,000	224,405	0	0
IFM Global Infrastructure (U.S.), L.P.	35,000,000	35,000,000	568,926	39,328,821
ISQ Global Infrastructure III	10,000,000	0	0	0
JPMorgan Global Maritime Investment	10,000,000	10,034,375	938,504	4,737,487
Domain Timbervest Partners III, L.P.	5,000,000	5,000,000	1,789,271	5,031,389
Total Plymouth County - RA	105,043,536	71,889,958	5,081,262	69,164,763
Real Estate	Commitment	Total Contributions	Total Distributions	Adjusted Value
921 Realty, Inc.	5,000,000	5,378,194	0	612,2
AEW Partners IX, L.P.	10,000,000	0	0	
AEW Partners Real Estate Fund VIII, L.P.	25,000,000	19,516,954	6,564,801	15,622,6
Berkshire Value Fund V, L.P.	9,000,000	5,309,677	611,928	4,665,0
Carlyle Realty Partners VIII, L.P.	18,000,000	6,388,607	742,458	6,703,6
OSF Capital Partners IV, L.P.	5,000,000	5,000,000	7,352,550	!
OSF Multi-Family Real Estate Fund III, L.P.	15,000,000	14,239,659	1,672,106	17,016,6
PMorgan Strategic Property	27,000,000	27,000,000	0	28,350,2
New Boston Institutional Fund VII, L.P.	5,000,000	3,012,998	3,985,095	24,7
PCCP, LLC	10,000,000	0	0	
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Note: The value for IFM Global Infrastructure and JPMorgan Strategic Property is as of February 28, 2021.

Real Estate International Partnership Fund I, L.P.

Rockpoint Real Estate Fund VI, L.P.

TA Realty Core Property Fund, L.P.

**Total Plymouth County - RE** 

TerraCap Partners V

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12,675,476

1,647,049

35,337,300

135,505,914

15,000,000

9,000,000

25,000,000

5,000,000

183,000,000



Summary | As of February 28, 2021

Cash Flow Summary					
	Month Ending Febr	ruary 28, 2021			
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
1921 Realty, Inc	\$570,004	\$0	\$0	\$0	\$570,004
ABS Emerging Markets	\$62,050,268	\$0	\$0	\$0	\$63,520,602
ABS Offshore SPC - Global Segregated Portfolio	\$31,265,571	\$0	\$0	\$0	\$32,417,238
AEW Partners Real Estate VIII	\$13,994,909	\$1,016,508	\$0	\$1,016,508	\$15,011,417
Aristotle International Equity	\$0	\$20,000,000	\$0	\$20,000,000	\$19,388,646
Ascend Ventures II	\$56,591	\$0	\$0	\$0	\$56,591
Ascent Ventures IV	\$38,850	\$0	-\$28,668	-\$28,668	\$10,182
Ascent Ventures V	\$4,061,146	\$0	\$0	\$0	\$4,061,146
Audax Mezzanine Debt IV	\$4,491,415	\$0	\$0	\$0	\$4,491,415
Basalt Infrastructure Partners II	\$10,100,587	\$0	\$0	\$0	\$10,100,587
Berkshire Value Fund V	\$3,721,965	\$0	-\$63,642	-\$63,642	\$3,658,323
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	\$1,265,280	\$0	\$0	\$0	\$1,265,280
Boston Company Small Cap Growth	\$85,127,546	\$0	\$0	\$0	\$87,554,020
BTG Pactual Global Timberland Resources	\$2,056,480	\$0	\$0	\$0	\$2,056,480
Carlyle Realty Partners VIII	\$7,094,167	\$0	\$0	\$0	\$7,094,167
Cash	\$13,666,067	\$0	-\$3,243,013	-\$3,243,013	\$10,423,054
Charles River Partnership XI	\$42,138	\$0	\$0	\$0	\$42,138
Charlesbank Technology Opportunities Fund	\$2,871,781	\$52,585	\$0	\$52,585	\$2,924,366
DN Partners II, LP	\$1,851,631	\$0	\$0	\$0	\$1,851,631
Driehaus Emerging Markets Growth	\$61,591,944	\$0	\$0	\$0	\$61,457,097
DSF Multi-Family Real Estate Fund III	\$16,774,657	\$0	-\$242,003	-\$242,003	\$16,532,653
Eaton Vance EMD Opportunities Fund	\$21,686,055	\$0	\$0	\$0	\$21,741,962
Eaton Vance High Yield	\$23,770,972	\$0	\$0	\$0	\$23,887,801
Entrust Special Opportunities Fund III, Ltd.	\$20,336,430	\$0	\$0	\$0	\$20,336,430

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#### Summary | As of February 28, 2021

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	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value	
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	\$18,958,401	\$0	\$0	\$0	\$18,958,401	
Euro Choice V Programme	\$3,997,863	\$0	\$0	\$0	\$3,997,863	
First Eagle Bank Loan Select Fund	\$22,900,804	\$0	\$0	\$0	\$23,043,056	
First Eagle Global Value Fund	\$22,420,429	\$0	\$0	\$0	\$22,910,756	
Fisher Midcap Value	\$59,705,179	\$0	\$0	\$0	\$63,310,996	
FS Equity Partners VIII, L.P.	\$3,203,837	\$1,162,409	\$0	\$1,162,409	\$4,366,246	
Global Infrastructure Partners III	\$7,786,606	\$227,482	-\$203,200	\$24,282	\$7,810,888	
Global Infrastructure Partners IV, L.P.	\$982,506	\$0	\$0	\$0	\$982,506	
Globespan Capital V	\$2,798,693	\$0	\$0	\$0	\$2,798,693	
HarbourVest Partners Co-Investment V	\$10,774,225	\$0	\$0	\$0	\$10,774,225	
HGK TS International Equity	\$26,190,811	\$0	-\$25,388,149	-\$25,388,149	\$802,662	
IFM Global Infrastructure	\$39,235,577	\$0	\$0	\$0	\$39,328,821	
IR&M Core Bonds	\$59,464,406	\$0	\$0	\$0	\$58,698,832	
Ironsides Direct Investment Fund V, L.P.	\$13,699,162	\$0	\$0	\$0	\$13,699,162	
JP Morgan Global Maritime Investment	\$4,737,487	\$0	-\$358,823	-\$358,823	\$4,378,664	
JPMorgan Strategic Property	\$28,171,689	\$0	\$0	\$0	\$28,350,257	
KBI Master Account	\$22,200,813	\$0	-\$21,780,573	-\$21,780,573		
Kohlberg Investors IX	\$1,000,847	\$0	-\$31,864	-\$31,864	\$968,983	
Kopernik Global All Cap Fund	\$31,451,348	\$0	\$0	\$0	\$33,877,344	
Landmark Equity Partners XIV	\$818,744	\$0	\$0	\$0	\$818,744	
Lee Munder Global Multi-Cap Strategy	\$34,419,951	\$0	\$0	\$0	\$35,637,191	
Leeds Equity Partners IV	\$13,990	\$0	\$0	\$0	\$13,990	
Leeds Equity Partners V	\$1,773,719	\$0	\$0	\$0	\$1,773,719	
Lexington Capital Partners VII	\$1,825,774	\$0	\$0	\$0	\$1,825,774	
LLR Equity Partners V, LP.	\$9,663,545	\$0	\$0	\$0	\$9,663,545	
LMCG Small Cap Value	\$68,100,026	\$0	\$0	\$0	\$75,323,047	

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#### Summary | As of February 28, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Lord Abbett Short Duration Credit Trust II	\$36,870,321	\$0	\$0	\$0	\$36,904,747
Manulife Strategic Fixed Income	\$33,118,173	\$0	\$0	\$0	\$33,177,899
Mesirow Financial Capital Partners IX, LP	\$79,366	\$0	\$0	\$0	\$79,366
Mesirow Financial International Real Estate Fund I	\$1,258,867	\$0	\$0	\$0	\$1,258,867
Mesirow High Yield	\$11,680,000	\$0	\$0	\$0	\$11,850,000
Old Farm Partners Master Fund, L.P.	\$6,000,538	\$0	\$0	\$0	\$6,269,122
Rhumbline Russell 1000 Growth	\$52,310,719	\$0	\$0	\$0	\$52,299,358
Rhumbline Russell 1000 Value	\$55,080,617	\$0	\$0	\$0	\$58,400,385
Rhumbline TIPS Trust	\$10,234,163	\$0	\$0	\$0	\$10,071,522
Ridgemont Equity Partners III, L.P.	\$7,535,587	\$0	\$0	\$0	\$7,535,587
RIMCO Royalty Partners, LP	\$1	\$0	\$0	\$0	\$1
Rockpoint Real Estate Fund VI, L.P.	\$1,504,544	\$0	\$0	\$0	\$1,504,544
Searchlight Capital III, L.P.	\$4,576,627	\$78,889	\$0	\$78,889	\$4,655,516
Siguler Guff Distressed Opportunities Fund III, LP	\$1,034,597	\$0	\$0	\$0	\$1,034,597
Summit Partners Growth Equity Fund IX	\$13,866,286	\$0	\$0	\$0	\$13,866,286
TA Realty Core Property Fund, L.P.	\$39,579,037	\$71,700	-\$481,417	-\$409,717	\$39,169,321
TerraCap Partners V, L.P	\$2,065,449	\$720,951	\$0	\$720,951	\$2,786,400
Timbervest Partners III, LP	\$4,631,389	\$0	\$0	\$0	\$4,631,389
TRG Growth Partnership II	\$1,023,067	\$0	\$0	\$0	\$1,023,067
Trilantic Capital Partners VI, L.P.	\$2,633,929	\$0	\$0	\$0	\$2,633,929
Walter Scott International Equity	\$0	\$20,000,000	\$0	\$20,000,000	\$19,496,725
Waud Capital Partners V	\$4,078,966	\$0	\$0	\$0	\$4,078,966
Wellington Durable Enterprises, L.P.	\$39,356,557	\$0	\$0	\$0	\$40,311,009
Wellspring Capital Partners VI	\$5,905,686	\$0	\$0	\$0	\$5,905,686
Total	\$1,219,207,369	\$43,330,525	-\$51,821,353	-\$8,490,829	\$1,233,511,879

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#### Summary | As of February 28, 2021

Cash Flow Summary					
Fre	om October 1, 2020 thre	ough February 28,	2021		
	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
1921 Realty, Inc	\$724,420	\$0	\$0	\$0	\$570,004
ABS Emerging Markets	\$30,625,523	\$20,000,000	\$0	\$20,000,000	\$63,520,602
ABS Offshore SPC - Global Segregated Portfolio	\$28,265,028	\$0	\$0	\$0	\$32,417,238
AEW Partners Real Estate VIII	\$11,198,645	\$2,033,016	-\$2,644,253	-\$611,237	\$15,011,417
Aristotle International Equity		\$20,000,000	\$0	\$20,000,000	\$19,388,646
Ascend Ventures II	\$60,381	\$3,133	\$0	\$3,133	\$56,591
Ascent Ventures IV	\$38,969	\$0	-\$28,668	-\$28,668	\$10,182
Ascent Ventures V	\$3,978,033	\$0	\$0	\$0	\$4,061,146
Audax Mezzanine Debt IV	\$3,490,765	\$1,476,152	-\$543,905	\$932,248	\$4,491,415
Basalt Infrastructure Partners II	\$8,733,332	\$1,583,305	-\$487,804	\$1,095,501	\$10,100,587
Berkshire Value Fund V	\$4,585,857	\$0	-\$1,006,775	-\$1,006,775	\$3,658,323
BlackRock Global Renewable Power Infrastructure Fund III, L.P.	-	\$1,265,280	\$0	\$1,265,280	\$1,265,280
Boston Company Small Cap Growth	\$71,560,463	\$0	-\$10,000,000	-\$10,000,000	\$87,554,020
BTG Pactual Global Timberland Resources	\$2,765,246	\$0	-\$937,281	-\$937,281	\$2,056,480
Carlyle Realty Partners VIII	\$6,352,786	\$904,739	-\$514,224	\$390,515	\$7,094,167
Cash	\$6,318,241	\$9,996,400	-\$5,888,339	\$4,108,061	\$10,423,054
Charles River Partnership XI	\$64,553	\$0	\$0	\$0	\$42,138
Charlesbank Technology Opportunities Fund	\$1,363,597	\$1,462,914	-\$10,867	\$1,452,047	\$2,924,366
Copper Rock Emerging Markets Small Cap	\$10,378,910	\$0	-\$10,356,429	-\$10,356,429	
DN Partners II, LP	\$1,851,631	\$0	\$0	\$0	\$1,851,631
Driehaus Emerging Markets Growth	\$31,214,650	\$20,000,000	\$0	\$20,000,000	\$61,457,097
DSF Multi-Family Real Estate Fund III	\$16,583,540	\$0	-\$484,007	-\$484,007	\$16,532,653
Eaton Vance EMD Opportunities Fund	\$20,141,844	\$0	\$0	\$0	\$21,741,962

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#### Summary | As of February 28, 2021

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	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Eaton Vance High Yield	\$22,410,054	\$0	\$0	\$0	\$23,887,801
Entrust Special Opportunities Fund III, Ltd.	\$16,687,378	\$0	-\$226,220	-\$226,220	\$20,336,430
EnTrustPermal Special Opportunities Evergreen Fund, Ltd.	\$14,321,675	\$2,048,000	\$0	\$2,048,000	\$18,958,401
Euro Choice V Programme	\$4,374,590	\$0	-\$375,099	-\$375,099	\$3,997,863
First Eagle Bank Loan Select Fund	\$21,801,938	\$0	\$0	\$0	\$23,043,056
First Eagle Global Value Fund	\$20,518,989	\$0	\$0	\$0	\$22,910,756
Fisher Midcap Value	\$55,084,767	\$0	-\$7,900,000	-\$7,900,000	\$63,310,996
FS Equity Partners VIII, L.P.	\$3,257,613	\$1,162,409	\$0	\$1,162,409	\$4,366,246
Global Infrastructure Partners III	\$7,713,094	\$325,954	-\$583,284	-\$257,330	\$7,810,888
Global Infrastructure Partners IV, L.P.	\$224,405	\$758,101	\$0	\$758,101	\$982,506
Globespan Capital V	\$2,750,191	\$0	\$0	\$0	\$2,798,693
HarbourVest Partners Co-Investment V	\$6,091,414	\$3,000,000	\$0	\$3,000,000	\$10,774,225
HGK TS International Equity	\$23,024,419	\$0	-\$25,388,149	-\$25,388,149	\$802,662
IFM Global Infrastructure	\$38,178,742	\$0	-\$394,602	-\$394,602	\$39,328,821
IR&M Core Bonds	\$64,241,703	\$0	-\$5,000,000	-\$5,000,000	\$58,698,832
Ironsides Direct Investment Fund V, L.P.	\$12,659,027	\$0	\$0	\$0	\$13,699,162
JP Morgan Global Maritime Investment	\$4,690,129	\$0	-\$358,823	-\$358,823	\$4,378,664
JPMorgan Strategic Property	\$27,630,916	\$0	-\$138,351	-\$138,351	\$28,350,257
KBI Master Account	\$19,506,568	\$0	-\$21,780,573	-\$21,780,573	
Kohlberg Investors IX		\$1,000,847	-\$31,864	\$968,983	\$968,983
Kopernik Global All Cap Fund	\$27,081,364	\$0	\$0	\$0	\$33,877,344
Landmark Equity Partners XIV	\$893,533	\$3,995	-\$73,890	-\$69,895	\$818,744
Lee Munder Global Multi-Cap Strategy	\$30,375,878	\$0	\$0	\$0	\$35,637,191
Leeds Equity Partners IV	\$15,996	\$0	\$0	\$0	\$13,990
Leeds Equity Partners V	\$1,549,213	\$0	\$0	\$0	\$1,773,719
Lexington Capital Partners VII	\$1,866,891	\$0	-\$157,892	-\$157,892	\$1,825,774

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#### Summary | As of February 28, 2021

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	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
LLR Equity Partners V, LP.	\$8,569,280	\$1,200,000	-\$313,755	\$886,245	\$9,663,545
LMCG Emerging Markets	\$38,777,487	\$0	-\$40,203,421	-\$40,203,421	
LMCG Small Cap Value	\$58,838,634	\$0	-\$8,002,074	-\$8,002,074	\$75,323,047
Lord Abbett Short Duration Credit Trust II	\$36,181,799	\$0	\$0	\$0	\$36,904,747
Manulife Strategic Fixed Income	\$31,919,366	\$0	-\$56,920	-\$56,920	\$33,177,899
Mesirow Financial Capital Partners IX, LP	\$86,946	\$0	\$0	\$0	\$79,366
Mesirow Financial International Real Estate Fund I	\$1,296,015	\$0	\$0	\$0	\$1,258,867
Mesirow High Yield	\$10,400,000	\$0	\$0	\$0	\$11,850,000
New Boston Institutional Fund, LP VII	\$25,073	\$0	-\$24,795	-\$24,795	
Old Farm Partners Master Fund, L.P.	\$5,253,837	\$0	\$0	\$0	\$6,269,122
Rhumbline Russell 1000 Growth	\$54,154,478	\$0	-\$7,001,049	-\$7,001,049	\$52,299,358
Rhumbline Russell 1000 Value	\$47,846,676	\$0	\$0	\$0	\$58,400,385
Rhumbline TIPS Trust	\$10,037,177	\$0	\$0	\$0	\$10,071,522
Ridgemont Equity Partners III, L.P.	\$2,638,079	\$5,006,297	-\$118,305	\$4,887,992	\$7,535,587
RIMCO Royalty Partners, LP	\$1	\$0	-\$7,739	-\$7,739	\$1
Rockpoint Real Estate Fund VI, L.P.	\$1,522,089	\$31,359	\$0	\$31,359	\$1,504,544
Searchlight Capital III, L.P.	\$3,067,470	\$1,247,122	-\$5,434	\$1,241,688	\$4,655,516
Siguler Guff Distressed Opportunities Fund III, LP	\$1,118,320	\$0	-\$15,564	-\$15,564	\$1,034,597
Summit Partners Growth Equity Fund IX	\$12,155,331	\$45,896	-\$227,092	-\$181,196	\$13,866,286
TA Realty Core Property Fund, L.P.	\$39,647,907	\$141,663	-\$951,169	-\$809,505	\$39,169,321
TerraCap Partners V, L.P		\$2,786,400	\$0	\$2,786,400	\$2,786,400
Timbervest Partners III, LP	\$4,920,509	\$0	-\$400,000	-\$400,000	\$4,631,389
TRG Growth Partnership II	\$950,027	\$0	\$0	\$0	\$1,023,067
Trilantic Capital Partners VI, L.P.	\$2,556,733	\$0	\$0	\$0	\$2,633,929
Walter Scott International Equity		\$20,000,000	\$0	\$20,000,000	\$19,496,725
Waud Capital Partners V		\$4,078,966	\$0	\$4,078,966	\$4,078,966

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#### Summary | As of February 28, 2021

	Beginning Market Value	Contributions	Withdrawals	Net Cash Flow	Ending Market Value
Wellington Durable Enterprises, L.P.	\$36,043,990	\$0	\$0	\$0	\$40,311,009
Wellspring Capital Partners VI	\$4,517,794	\$903,151	\$0	\$903,151	\$5,905,686
Total	\$1,099,771,921	\$122,465,100	-\$152,638,617	-\$30,173,517	\$1,233,511,879

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## **Small Cap Growth Search**

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**RFP Respondent** 

#### **Background**

- The Association currently employs Boston Company to manage its domestic small cap growth allocation, which represents roughly 7% of the total portfolio, or \$87.6 million as of February 28.
- In January, Meketa Investment Group issued an RFP on behalf of the Association to evaluate the US small cap growth universe.
  - Thirteen managers submitted responses to the RFP.
- Based upon our review and evaluation of each respondent, Meketa Investment Group ranked three managers as "Highly Advantageous" and the remaining ten managers as "Advantageous."
- The following pages review the thirteen manager respondents.

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**RFP Respondent** 

## RFP Respondents

Manager	Rating
Mellon US Small Cap Growth	Highly Advantageous
Next Century Growth Investors	Highly Advantageous
Baron Discovery Strategy	Highly Advantageous
Granahan Small Cap Select	Advantageous
Driehaus Small Cap Growth	Advantageous
Columbia Threadneedle Small Cap Growth	Advantageous
Pier Capital Small Cap Growth	Advantageous
Calamos Timpani Small Cap Growth	Advantageous
GW&K Small Cap Growth	Advantageous
Segall Bryant & Hamil Small Cap Growth	Advantageous
UBS US Small Cap Growth Equity	Advantageous
Wells Fargo Heritage Small Cap Growth Equity	Advantageous
Putnam Small Cap Growth	Advantageous

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#### Mellon US Small Cap Growth

## Mellon US Small Cap Growth

Rating Criteria	Rating	Rationale
Overall	Highly Advantageous	
Organization	Advantageous	<ul> <li>Publicly traded BNY Mellon was established in 1933. Mellon Investments was formed on 12/31/18 when The Boston Company, Standish, and Mellon Capital merged. The firm is headquartered in Boston, MA.</li> <li>Mellon's investment capabilities in equities will be realigned with Newton Investment Management in August 2021. These changes are expected to be completed in the third quarter.</li> <li>At year-end 2020, Mellon had total AUM of \$613 billion of which \$44 billion was in active equity strategies. \$536 million was in US Small Cap Growth.</li> </ul>
Team	Highly Advantageous	<ul> <li>PM John Porter joined Mellon in 2016. He subsequently reorganized the investment team and changed the original small cap growth strategy, making it more aggressive by expanding the funnel of stocks, owning larger positions in more rapidly growing names, investing in the biotech industry, and eliminating the stop-loss rule.</li> <li>Ten sector focused analysts, three investigative analysts and one risk analyst support Mr. Porter. He also has access to the quantitative, fixed income and other resources of the firm.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>Mr. Porter leverages thematic insights that drive innovation and disruption. These themes help identify tailwinds that are driving rapid earnings and revenue growth at selected companies.</li> <li>He seeks to capitalize on the disconnect between a company's true sustainable growth opportunity and the market's expectation of that growth. His investment horizon is two to three years, but he will often hold stocks longer. The investment team recognizes that outsized growth rates are not sustainable indefinitely. It is, therefore, important to purchase stocks before that duration is reflected in the price of the stock.</li> </ul>
Investment Process	Highly Advantageous	<ul> <li>Mellon's experienced team of sector-focused analysts generate investment ideas. Proprietary screens, management meetings, industry contacts, industry conferences and investment themes are also utilized.</li> <li>The investment team performs thorough fundamental due diligence on potential ideas with a focus on the company's potential market opportunity, industry growth rate, market dynamics and ability of management to execute.</li> <li>Working closely with the analyst team, Mr. Porter is the final decision maker. The portfolio he constructs generally consists of 90 to ~100 companies with annual turnover of 50% to 100%.</li> </ul>
Performance	Highly Advantageous	<ul> <li>Performance has been very strong since Mr. Porter took over the portfolio, especially during 2020. As of 12/31/20, trailing 3 and 5-year excess returns were in the 12th and 14th percentiles of the peer group, respectively, with a portfolio beta of 0.96 - 0.97 and a tracking error of 7% to 8% during these two periods.</li> </ul>
Fees	Highly Advantageous	• The current fee is a 45 bps base fee plus a performance fee equal to 20% of the excess return above the Russell 2000 Growth index. The total fee is capped at 90 bps. Mellon proposes to maintain the current fee.

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#### **Next Century Growth Investors**

## **Next Century Growth Investors**

Rating Criteria	Rating	Rationale
Overall	Highly Advantageous	
Organization	Advantageous	<ul> <li>Privately held and based in Minneapolis, Tom Press and Don Longlet started Next Century (NC) in 1998. The firm is 80% employee-owned by the five members of the investment team. Mr. Press holds 50% of the equity. Strong Capital, which provided seed capital, owns the remaining 20%.</li> <li>As of December 31, 2020, Next Century's total AUM was \$1.2B. Firm assets peaked at \$3.9 billion in 2013 and fell as low as \$700 million at the end 2018. NC manages five growth strategies with most of the assets in the Small and Microcap products.</li> <li>AUM in the Small Cap Growth product was \$524 million at year-end.</li> </ul>
Team	Advantageous	<ul> <li>The portfolio is managed by five individuals who serve as PMs and analysts.</li> <li>Everyone is a generalist.</li> <li>Founder Tom Press is 65 years old. Mr. Press had originally said he would work until 70, but has now committed to his partners that, assuming his health is good, he will stay at Next Century until he turns 75.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>NC's philosophy is to construct and manage domestic equity portfolios with the highest quality and fastest growing companies in the US In doing so, they believe that this approach will lead to market outperformance over the long-term.</li> <li>They look for companies with organic revenue growth &gt;15% and the ability to exceed earning expectations. The team tries to exploit the market's underestimation of a company's growth rate and the duration of that growth.</li> <li>NC does not invest in binary biotech and is, therefore, chronically underweight that industry group.</li> </ul>
Investment Process	Advantageous	<ul> <li>The investment team identifies new ideas through screens, though candidates can come from anywhere.</li> <li>The PMs conduct thorough fundamental due diligence on names of interest. The entire team participates in calls and meetings with company managements.</li> <li>The group makes investment decisions collectively, though if a company meets NC's growth criteria, a PM can unilaterally purchase a 1% position. The position size can be increased only if other PMs later support the idea.</li> <li>The portfolio consists of 40 to 60 stocks, with 60 as a hard cap. The PMs have a long-term investment horizon, but portfolio turnover has approximated 70% during the last 3 years.</li> </ul>
Performance	Advantageous	<ul> <li>Performance has been volatile during the last 10 years. NC struggled between 2012 and 2016, but performance rebounded strongly in the 2017 to 2020 period. As of 12/31/20, trailing 3, 5 and 10-year excess returns were in the 8th, 15th and 41st percentiles of the peer group with a beta of 0.93 to 1.0 and TE of ~9%.</li> </ul>
Fees	Not Advantageous	Separate Account: 100 bps on the first \$50 million. 0.95 bps on the next \$50 million.

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#### **Baron Discovery Strategy**

## Baron Discovery Strategy

Rating Criteria Overall	<b>Rating</b> Highly Advantageous	Rationale
Overall	rigiliy Advantageous	
Organization	Advantageous	<ul> <li>Ron Baron founded Baron Capital Management in 1982.</li> <li>The firm is privately held. Employees own 99% of the firm. Ron Baron and his family hold 90% of the equity.</li> <li>Baron manages numerous growth strategies. As of 12/31/20, the firm had total AUM of \$47.7 billion.</li> <li>Incepted in October 2013, the Baron Discovery Strategy had assets of \$1.3 billion, all of which are in the mutual fund.</li> </ul>
Team	Advantageous	Randy Gwirtzman and Laird Bieger are the portfolio managers on Baron Discovery. They have managed the strategy since inception.
		<ul> <li>Baron's centralized research team, which consists of 35 investment professionals, supports the PMs. The team includes 20 research analysts, 13 portfolio managers, who are also analysts, one director of research, and one director of ESG research. The research team is centralized. Portfolio managers and research analysts work collaboratively to generate ideas, evaluate businesses, and formulate investment decisions. Research analysts are sector and industry specialists.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>The Baron Discovery Strategy invests in companies that participate in fast growing sectors of the economy that are experiencing favorable secular trends. Based on the belief that fundamentals drive stock prices, the investment team looks for companies with open- ended growth potential, sustainable competitive advantages and exceptional management teams.</li> </ul>
		• The strategy also invests in fallen angels with long-term franchises that have disappointed investors, and special situations, where lack of investment awareness creates opportunities. The portfolio is a mix of high growth businesses (~40%), more established franchises with good cash flow growth (~40%) and special situations (~20%).
		The PMs invest for the long-term with the intention of holding stocks for 4 to 5 years.
Investment Process	Advantageous	• The strategy's investment universe consists of companies in the market cap range of the Russell 2000 Growth index. PMs and analysts generate ideas, both independently and collaboratively.
		<ul> <li>After new ideas are identified, Baron assesses the company's market opportunity, develops an investment thesis, tests and verifies the investment thesis, builds a financial model, and develops an estimate of intrinsic value. Fundamental research is sound. Meeting with management, including on-site visits, is a critical part of the research process.</li> </ul>
		• The portfolio consists of approximately 70 to 80 stocks. Annual portfolio turnover approximates 50%.
Performance	Advantageous	<ul> <li>Performance, especially in 2020, has been strong since the inception of the strategy. Annualized excess returns rank in the top decile over the trailing 5 and 7-year periods. The portfolio beta has been slightly higher than the index. The tracking error has been relatively high, between 8% and 10%.</li> </ul>
Fees	Not Advantageous	CIT: <\$100 million 95 bps including management fee and fund expenses. Institutional mutual fund: 108 bps.

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#### **Granahan Small Cap Select**

## Granahan Small Cap Select

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Highly Advantageous	<ul> <li>Based in Waltham, MA, Grantham Investment Management (GIM) was started in 1985 by Jack Granaham, Jane White and Gary Hatton. Mr. Granahan retired in 2017. He is no longer associated with the firm.</li> <li>Granahan is 100% employee-owned. Members of the investment team hold 80% of the equity.</li> <li>The firm manages six small cap and SMID cap growth strategies. As of 12/31/20, Granahan had AUM of \$4.6 billion.</li> <li>\$363 million was in Small Cap Select, which includes a sleeve in another Granahan product.</li> </ul>
Team	Advantageous	<ul> <li>PM David Rose joined the firm at the beginning of 2015 from Furey Research. He previously worked at American Century and Fidelity.</li> <li>Mr. Rose conducts the majority of the research on his portfolio. He will sometimes get ideas from other Granahan portfolio managers and will leverage the firm's biotech analyst, Sam Singer.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>Mr. Rose utilizes Granahan's "LifeCycle" framework because he believes that investing in different types of "growth" companies will enable him to outperform in all market environments.</li> <li>The "LifeCycle" framework defines "growth" broadly. Granahan invests in three kinds of companies. "Pioneers" (emerging growth) comprise 20% - 40% of the portfolio. "Core growth" (more established growth companies) is 25% - 60%. "Special situations" comprise 20% - 45%. The special situations bucket can be turnarounds or broken growth. Mr. Rose believes that when there is an inflection point in a business, the market systematically underestimates the magnitude and duration of change.</li> </ul>
Investment Process	Advantageous	<ul> <li>New ideas come from multiple places. The PMs research their own ideas.</li> <li>While they present their ideas to the group, the PMs have sole discretion to purchase them. Knowledge is shared among PMs, but collaboration is at the margin. A "3-pointer" is written to summarize the investment case for each stock.</li> <li>Due diligence is reasonably thorough. The PMs meet with management teams in-house and at industry conferences. They will also attend trade shows.</li> <li>The portfolio consists of approximately 50 - 55 stocks. Annual portfolio turnover approximates 120% to 150%.</li> </ul>
Performance	Highly Advantageous	<ul> <li>Performance has been very strong during Mr. Rose's 5-year tenure. His track record includes a 128% gain in 2020. As of 12/31/20, the trailing 5-year excess return was in the first percentile. However, the risk profile of the portfolio was extremely high with a portfolio beta of 1.3 and a tracking error of 13%. The one-year beta and TE for 2020 were 1.5 and 21%, respectively.</li> </ul>
Fees	Advantageous	Separate Account: 75 bps on the first \$50 million and 70 bps thereafter.

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#### **Driehaus Small Cap Growth**

## Driehaus Small Cap Growth

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	<ul> <li>Richard Driehaus founded the firm in 1982. Based in Chicago, Driehaus Capital Management (DCM) had \$12.3 billion in assets in a wide range of domestic and international strategies as of 12/31/20.</li> <li>Mr. Driehaus passed away unexpectedly on 3/9/21. Although he was no longer involved in the management of any portfolios, he did own the entire firm through a series of trusts set up to administer his estate.</li> <li>In lieu of equity ownership, portfolio managers receive a revenue share from the products they manage. They also participate in a deferred compensation plan.</li> <li>As of 12/31/20, Driehaus managed \$990 million in the Small Cap Growth strategy.</li> </ul>
Team	Advantageous	<ul> <li>Lead PM Jeff James has been at Driehaus for 24 years. He has managed the Small Cap Growth portfolio since the beginning of 2006. He also manages Microcap and SMID Cap Growth strategies that have some overlap with the Small Cap Growth portfolio.</li> <li>A portfolio manager, an assistant PM and four analysts support Mr. James. The two PMs also have coverage responsibility for specific sectors.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>Mr. James is a "second derivative" thinker. He believes that stocks systematically underreact to positive inflections. Most portfolio holdings exhibit positive earnings revisions and are showing improving rates of change. Identifying companies that possess these characteristics typically results in successful investments</li> <li>Medium term momentum and positive earnings revisions as factors outperform over time.</li> </ul>
Investment Process	Advantageous	<ul> <li>Driehaus invests in dynamic, cyclical, recovery and consistent growth companies.</li> <li>The strategy starts with a universe of 1,800 stocks with market caps between \$500 million and \$5 billion. The universe is further reduced through additional fundamental and technical analysis that seeks to identify companies that may be experiencing growth inflections, or that may be poised to do so. The team further narrows the list by developing an investment thesis for each company's growth potential.</li> <li>Due diligence is performed on attractive candidates. Research analysts provide the PMs with recommendations.</li> <li>The PM continuously evaluates the attractiveness of each position's risk/reward profile and balances the potential of a company to exceed investor expectations with an assessment of the relative timeliness of the security's price and valuation. Positions are sized accordingly.</li> <li>The portfolio consists of approximately 80 - 120 stocks. Annual portfolio turnover is between 150% and 240%.</li> </ul>
Performance	Highly Advantageous	<ul> <li>Performance has been very strong during Mr. James' tenure. The strategy has achieved top decile excess returns over the trailing</li> <li>3, 5, 7 and 10-year periods. The portfolio's beta was slightly greater than the index and the tracking error was between 7% and 9%.</li> </ul>
Fees	Advantageous	82 bps for the institutional mutual fund.

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#### Columbia Threadneedle Small Cap Growth

## Columbia Threadneedle Small Cap Growth

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	<ul> <li>Columbia Threadneedle is the wholly owned global asset management business of Ameriprise Financial, a publicly traded, US-based financial services firm. Ameriprise been very acquisitive in growing its asset management business.</li> <li>As of year-end 2020, Columbia Threadneedle managed approximately \$547 billion in a wide range of products. \$3.0 billion was in the Columbia Small Cap Growth strategy. Virtually all the Small Cap Growth assets are in the institutional and retail mutual funds.</li> </ul>
Team	Advantageous	<ul> <li>Lead Portfolio Manager Daniel Cole re-joined Ameriprise in October 2014 and became the lead portfolio manager on the strategy in January 2015. He established the current investment approach.</li> </ul>
		<ul> <li>Portfolio manager Wayne Collette and analyst Dana Kelley assist him. Mr. Cole focuses on the energy, financials, health care, industrials and materials sectors. Mr. Collette covers the consumer, technology, telecom and financials sectors. Mr. Kelley is a generalist. The team is based in Portland, Oregon.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>Mr. Cole is a traditional growth investor with a one to three year investment horizon. He seeks out innovators and niche dominators with elite business models that have the potential to become America's next great growth companies. These companies have management teams that have demonstrated exceptional ability at allocating capital, pivoting the business at proper times, and expanding the total addressable market, while improving and sustaining growth and economic returns. These companies have the ability to double revenues in five years or less, grow cash flow per share faster than revenues, build strong balance sheets and consistently earn greater than their cost of capital. These attributes make them superior investments.</li> </ul>
Investment Process	Advantageous	<ul> <li>The strategy seeks capital appreciation by investing at least 80% of its assets in stocks of companies with a market capitalization equal to or less than the largest stock in the Russell 2000 Growth Index.</li> <li>The investment team spends about one-third of their time meeting with companies. Research, stock selection and portfolio construction is performed by the portfolio managers.</li> </ul>
		<ul> <li>The team follows a seven-step process that includes fundamental, quantitative and valuation analysis. The PMs determine the intrinsic value of each company and purchase the stock at 70% or less of this value.</li> <li>The portfolio consists of 80 to 120 stocks that are a mix of core compounders, emerging compounders and opportunistic special situations. Annual portfolio turnover has been between 75% and 175%.</li> </ul>
Performance	Highly Advantageous	<ul> <li>Performance has been very strong since Mr. Cole took over the strategy in 2015. He has outperformed in every year, especially in 2020. Annualized excess returns rank in the top decile over the trailing 5-year period. The portfolio beta has been in-line with the index. The tracking error has been between 6% and 8%.</li> </ul>
Fees	Advantageous	Separate accounts: 65 bps on the first \$100 million. CIT: 60 bps on mandates of \$45 to \$100 million.

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#### Pier Capital Small Cap Growth

## Pier Capital Small Cap Growth

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	<ul> <li>Jan Parsons (Chairman) founded the firm in 1987 as a division of ABB, a large global engineering firm. ABB sold the business unit to SEB, a large Scandinavian financial institution, in 1998. The business was subsequently renamed SEB Asset Management America Inc. In September of 2004, senior management purchased the firm from SEB and renamed it Pier Capital. Headquartered in Stamford, CT, Pier also has a research office in Jersey City, NJ.</li> <li>As of 12/31/20, Pier managed \$961 million in Small, SMID and Mid Cap growth strategies. Most of the assets (\$892 million) are in the Small Cap Growth strategy.</li> </ul>
Team	Advantageous	<ul> <li>Alex Yakirevich is the strategy PM. He started as an analyst in 2004, was promoted to a PM role in 2008, and then became President and CIO in 2014, succeeding Jan Parsons.</li> <li>Four equity analysts support Mr. Yakirevich. Three of the four analysts are generalists, while one is dedicated to the Health Care sector.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>Pier invests in companies with steady to rapid growth. The strategy looks for companies growing at 15% or greater.</li> <li>The firm believes that a great product or service creates a great company. The product or service is defined by its superior value proposition. The strength of that value proposition determines the life cycle of the product and, therefore, the earnings potential of the company. When identified early in their growth phase, these companies have the opportunity to outperform expectations and the index substantially.</li> </ul>
Investment Process	Advantageous	<ul> <li>Investment ideas are generated by screening earnings reports, earnings revisions, and IPO reports.</li> <li>Pier's investment process seeks to identify companies where the growth rate is accelerating. The investment team tries to determine if the acceleration is sustainable or a short-term anomaly. They identify what the growth catalyst is and whether it is defensible, as well as the size of the company's addressable market.</li> <li>After a stock is researched and becomes an investment candidate, the current business outlook, valuation and ESG risk are evaluated. The stock is purchased when there is a suitable outlook, reasonable valuation and the ESG risks are acceptable. Pier generally buys a stock at a discount to its growth rate.</li> <li>The portfolio is constructed from the bottom up. It consists of approximately 75 to 100 stocks. Annual portfolio turnover is high, between 140% and 180%.</li> </ul>
Performance	Advantageous	Skewed by a very strong 2020, performance ranks in the top third of the peer group over the trailing 3, 5, 7 and 10-year periods. Excluding 2020, the net of fee return has approximated the index over the trailing 10-year period. The portfolio beta has been close to the index and the tracking error has been between 6% and 7%.
Fees	Advantageous	• CIT: 1.00% on the first \$20M, 0.80% on \$20M - \$40M, 0.75% on \$40M - \$80M, and 0.65% >\$80M.

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#### Calamos Timpani Small Cap Growth

## Calamos Timpani Small Cap Growth

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Advantageous	John Calamos, Sr. founded Calamos Advisors in 1977. The firm went public in 2004, but returned to private ownership in 2017. Mr. Calamos and related entities, as well as John Koudounis, own the firm.
		<ul> <li>As of 12/31/20, Calamos managed \$32.3 billion in assets in a broad range of equity and fixed income products.</li> <li>\$500 million was in the SC Growth strategy.</li> </ul>
Team	Advantageous	<ul> <li>Brandon Nelson co-founded Timpani in 2008 after leaving Wells Fargo Asset Management. He was previously part of the growth team at Strong Capital that Wells had acquired in 2004. Calamos Investments purchased Timpani in 2019.</li> <li>Mr. Nelson is the lead portfolio manager. Three analysts support him.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>The strategy invests in rapidly growing companies with sustainable and under-estimated growth and neutral to positive market sentiment. They believe that these companies will outperform over time.</li> </ul>
		<ul> <li>Earnings drive company value and stock price performance. The team tries to identify and exploit the growth gap between a company's business strength and the market's expectation of that strength. This growth gap exists because the market is slow to react to incremental, relevant changes in a company's fundamentals.</li> </ul>
Investment Process	Advantageous	<ul> <li>Investment candidates typically originate from company interaction, industry contacts and database screens.</li> <li>The universe is defined as stocks in the Russell 2000 Index.</li> </ul>
		<ul> <li>Screens are applied to narrow the investment universe to a more manageable list of 200 investment candidates. The team conducts bottom-up fundamental research to assess the sustainability of the growth rate, likelihood of exceeding expectations, and market sentiment.</li> </ul>
		<ul> <li>Technical analysis and market sentiment are considered based on the belief that it is critical to have an understanding of whether the overall market supports the team's conclusions.</li> </ul>
		• The portfolio generally holds 80 to 120 stocks. Annual portfolio turnover has been very high, averaging 115% to 180%, indicating the team's short-term investment horizon.
Performance	Advantageous	<ul> <li>Performance has been strong, but volatile. Excess returns have been in the top third of the peer group during the 3, 5, 7 and 10-year periods. Performance is skewed by a very strong 2020. The portfolio beta has approximated the index, and the tracking error has been between 7% and 11%.</li> </ul>
Fees	Advantageous	70 bps on the first \$150 million for a separate account.

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**GW&K Small Cap Growth** 

## **GW&K Small Cap Growth**

Rating Criteria	Rating	Rationale Rationale
Overdii	Advantageous	
Organization	Advantageous	Benjamin Gannett and Jackson Welsh founded GW&K in 1974. Harold G. Kotler joined the firm in 1975. He became President in 1985, and currently serves as GW&K's CEO and CIO.
		GW&K is an affiliate of Affiliated Managers Group, Inc., a publicly traded global asset management company. GW&K operates independently, with AMG holding a 70% interest in the firm. Employees own the remainder.
		<ul> <li>As of 12/31/20, GW&amp;K managed \$51.4 billion in assets. More than half of the AUM was in municipal bond strategies. \$7.1 billion was in a variety of equity products. The Small Cap Growth strategy had \$691 million in AUM at year-end.</li> </ul>
Team	Advantageous	Joe Craigen and Dan Miller are the Small Cap Growth portfolio managers.
		<ul> <li>Four equity analysts who specialize by sector support them. Some of the analysts also have portfolio management responsibilities.</li> </ul>
Investment Philosophy	Advantageous	GW&K believes that a company's ability to generate consistent, long-term sustainable earnings growth will drive enhanced stock price performance over time, due to both the higher level of future earnings and the higher valuation placed on these earnings by the market. This sustainability of earnings growth is often not properly recognized by the market.
		<ul> <li>Companies that can generate sustainable earnings growth, possess strong products or services in attractive niche markets, and a high quality management team that is focused on enhancing long-term value for shareholders typically make attractive investments.</li> </ul>
Investment Process	Advantageous	<ul> <li>Portfolios are built from the bottom up. The strategy focuses on companies with market caps of \$250 million and \$4 billion. Ideas come from screens, company meetings, industry research, conferences and third parties.</li> <li>The analysts perform thorough fundamental due diligence. They focus on well-positioned companies in attractive niche markets that can deliver consistent long-term growth, and are run by experienced, high quality management teams. The investment team has a 3 to 5-year investment horizon.</li> <li>The portfolio consists of approximately 55 to 85 stocks. Annual portfolio turnover is less than 50%.</li> </ul>
Performance	Not Advantageous	<ul> <li>Long-term performance has been below average and in the third quartile. The portfolio beta has been below the index</li> <li>(0.91 over 10 years) and the tracking error has been between 5% and 6%.</li> </ul>
Fees	Highly Advantageous	50 bps on all assets for a separately managed account.

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#### Segall Bryant & Hamill Small Cap Growth

## Segall Bryant & Hamill Small Cap Growth

Rating Criteria	Rating	Rationale
Overall	Advantageous	
		<ul> <li>Headquartered in Chicago, Segall Bryant and Hamill (SBH) was founded in 1994. At year-end, employees owned 53% of the company and private equity firm Thoma Bravo held the remaining 47%. This ownership structure has been in place since 4/30/18, when SBH acquired Denver Investments.</li> </ul>
Organization	Advantageous	<ul> <li>On 1/25/21, publicly traded CI Financial Corp. acquired SBH, putting SBH is a more stable financial position. The deal is expected to close in the 2Q 2021.</li> </ul>
		<ul> <li>As of 12/31/20, SBH managed \$23.1 billion in assets in equity and fixed income products. \$482 million was in the Small Cap Growth strategy.</li> </ul>
Team	Advantageous	<ul> <li>Brian Fitzsimons and Mitch Begun are the co-portfolio managers. Both PMs have worked on the strategy since its 2011 inception. Mr. Fitzsimons oversees the research and decision-making process and is ultimately responsible for the strategy's performance.</li> <li>One equity analyst supports the two PMs.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>The Small Cap Growth team believes the key to achieving superior risk-adjusted performance in small cap growth investing is being early in identifying companies that exhibit fundamentally stable growth prospects. These types of companies outperform the Russell 2KG Growth with less risk.</li> </ul>
		<ul> <li>The team believes the primary driver of stock prices over time is the ability of a company to exceed market-implied expectations.</li> </ul>
Investment Process	Advantageous	• The strategy's initial universe consists of stocks within the market capitalization range of the Russell 2000 Growth Index.  The investment team generates ideas by screening, their own insights and expertise, and empirical observations.
		<ul> <li>Through independent research, the group seeks to identify companies with the potential to exceed market expectations. An important part of this research is conducting a thorough assessment of each company, including in-depth conversations with management, customers, competitors, suppliers and industry contacts. The team identifies future catalysts, and a discounted cash flow model is used to value and develop an internal forecast for individual stocks. Ideas are presented to the entire team.</li> </ul>
		<ul> <li>The portfolio holds 80 to 100 stocks. Annual portfolio turnover has been 30% to 70%.</li> </ul>
Performance	Advantageous	• Excess returns have been in the top quintile of the peer group during the 3, 5, 7 and 10-year periods, A very strong 2020 significantly helps the track record. The portfolio beta been less than the index (0.95 over 10 years) and the tracking error has been between 5% and 7%.
Fees	Advantageous	• For this mandate, SBH is offering a fee of 75 basis points in the CIT for PCRA to seed the vehicle. Separate account: 0.80% on the first \$25M, 0.70% on the next \$25M, 0.65% on assets over \$50M.

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#### **UBS US Small Cap Growth Equity**

## UBS US Small Cap Growth Equity

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Not Advantageous	<ul> <li>In 1998, UBS Asset Management was formed through the merger of Union Bank of Switzerland and Swiss Bank Corporation. The investment teams of the respective asset managers were subsequently combined. UBS is a global firm with primary offices in New York and Chicago.</li> <li>UBS Asset Management is a wholly owned subsidiary of UBS, a publicly traded company. Over the years, UBS has been involved in a series of scandals, most recently helping wealthy Americans evade taxes and manipulating the LIBOR interest rate index.</li> <li>As of 12/31/20, UBS managed \$1.09 trillion in assets in a broad range of equity, fixed income and other products. \$1.3 billion was in the US Small Cap Growth strategy.</li> </ul>
Team	Advantageous	<ul> <li>David Wabnik and Sam Kim serve as co-Portfolio Managers. Mr. Wabnik has been a portfolio manager on the strategy since he joined the team in 1995, 9 months after the strategy's inception. Mr. Kim joined the firm as an analyst on the strategy in 2003 and became a PM in 2011.</li> <li>The two PMs are supported by one analyst. All three members of the investment team are generalists.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>US Small Cap Growth Equity is a traditional growth strategy. The PMs invest in companies in which they believe the magnitude or duration of sales and earnings growth is underappreciated by the market.</li> </ul>
Investment Process	Advantageous	<ul> <li>The investment team focuses on stocks with market capitalizations within the range of the holdings in the Russell 2000 Growth Index, growth characteristics in the top 60% of the universe, price greater than \$5 and trading at least \$40 million per month.</li> <li>The investment process relies on quantitative screens and fundamental research to identify rapidly growing companies with strong business franchises and a proven record of achievement.</li> <li>The primary focus is on bottom-up individual security selection. While top down and sector views influence the areas of focus, the majority of the team's time is spent researching specific stocks, rather than formulating macro opinions. Direct contact with company management is an important part of the team's research effort.</li> <li>The portfolio generally holds 80 to 100 stocks. Annual portfolio turnover has been 30% to 70%.</li> </ul>
Performance	Advantageous	<ul> <li>Excess returns have been in the top third of the peer group during the 3, 5, 7 and 10-year periods, but are skewed significantly by a very strong 2020. The portfolio beta has slightly exceeded the index, and the tracking error has been between 6% and 8%.</li> </ul>
Fees	Highly Advantageous	<ul> <li>New commingled vehicle proposed: 45 bps on the first \$50 million, 40 bps on the next \$40 million. Estimated operating expenses of 5 to 8 bps.</li> </ul>

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#### Wells Fargo Heritage Small Cap Growth Equity

## Wells Fargo Heritage Small Cap Growth Equity

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Not Advantageous	<ul> <li>Based in San Francisco, CA, Wells Fargo Asset Management (WFAM) is a wholly owned subsidiary of Wells Fargo &amp; Company, a large publically traded bank. Over the years, Wells has been very acquisitive in adding investment managers to WFAM. However, on 2/23/21, Wells announced that it had agreed to sell WFAM to GTCR and Reverence Capital Partners, two private equity firms. The sale is expected to close in the second half of 2021. Wells will retain a 9.9% equity interest and will continue to serve as an important client and distribution partner. The sale is part of new CEO Charles Scharf's plan to turn around Wells following a sales practice scandal.</li> <li>As of 12/31/20, WFAM managed \$604 billion in assets, with \$1.8 billion in the SC Growth strategy.</li> </ul>
Team	Advantageous	<ul> <li>Thomas Ognar leads a team of four PMs who manage the Heritage Small Cap Growth Equity strategy. The other PMs, Joseph Eberhardy, Robert Gruendyke and David Nazaret, are generalists, but have particular areas of emphasis. Messrs. Ognar and Eberhardy joined WFAM in 2004 when the bank acquired Strong Capital Management.</li> <li>Four sector-focused analysts and one research associate support the portfolio managers.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>As traditional growth investors, the team focuses on robust and sustainable growth companies that are currently underappreciated by the market. These growth companies are in the top quartile of their peer groups and, as a result, the team's portfolio will generally skew to high growth.</li> </ul>
Investment Process	Advantageous	<ul> <li>In order to be considered for the portfolio, a company must have top quartile revenue, cash flow and earnings growth, taking into consideration the company's industry and market cap. Sustainable growth is defined as robust growth that can be mapped out and understood for a period of 3-5 years, and have an acceptable growth profile beyond that period. Underappreciated growth is the team's framework around valuation and is focused on the gap between the long-term growth of a company versus what is already reflected in the stock price.</li> <li>Investment ideas come from a variety of sources including management meetings, industry contacts, investment conferences, sell side research, and proprietary screens. The team conducts numerous meetings with managements, suppliers, distributors, customers, competitors and industry experts.</li> <li>The portfolio generally holds 90 to 110 stocks. Annual portfolio turnover has averaged 50% to 100%.</li> </ul>
Performance	Advantageous	• During the 3, 5, 7 and 10-year periods, excess returns have been in the top third of the peer group. The beta has
_		slightly exceeded the index, and the tracking error has been between 6% and 8%.
Fees	Advantageous	CIT: 65 bps including operating expenses.

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#### **Putnam Small Cap Growth**

## Putnam Small Cap Growth

Rating Criteria	Rating	Rationale
Overall	Advantageous	
Organization	Not Advantageous	<ul> <li>After a long history of turmoil and high personnel turnover, Marsh &amp; McLennan sold Putnam to Great West Lifeco, a subsidiary of Power Corporation of Canada, in February 2007. Power has 100% voting control. Putnam employees own approximately 10% of the stock.</li> <li>During the last five years, Putnam has continued to experience a significant amount of turnover on the investment team. The firm has also merged or liquidated a large number of products during the same timeframe.</li> <li>As of year-end 2020, Putnam managed \$191.6 billion in assets in a wide range of products. \$827 million was in the Putnam Small Cap Growth strategy. 98% of the Small Cap Growth assets were in a retail mutual fund.</li> </ul>
Team	Advantageous	<ul> <li>William Monroe was promoted to the role of portfolio manager in March of 2017. He was an analyst in the firm's equity research group prior to this promotion.</li> <li>He is supported by two dedicated analysts and leverages Putnam's central research team, as well as other firm resources.</li> </ul>
Investment Philosophy	Advantageous	<ul> <li>Mr. Monroe uses a bottom-up, fundamental approach to identify companies that he believes can compound growth over the long-term. Through this fundamental approach, he believes that mispriced growth can be found opportunistically in both high quality growth and aggressive growth companies.</li> <li>He believes that stock prices generally follow earnings and cash flow progress, and that the market often underprices the best companies that have stronger competitive advantages. These companies can often grow at higher rates and achieve return levels greater than the market often prices into current valuations.</li> </ul>
Investment Process	Advantageous	<ul> <li>The initial universe includes all companies in the Russell 2500 Index and any ideas generated by Putnam's equity research or fixed income research group that may exhibit attractive growth characteristics, but are not part of the broad index. Screens are applied to identify quality, emerging and cyclical growth candidates.</li> <li>The majority of the investment team's time is spent on bottom up fundamental analysis.</li> <li>60-80% of portfolio assets are typically allocated to quality growth companies and the remaining 20-40% to aggressive growth.</li> <li>The portfolio consists of 70 to 90 stocks. Annual portfolio turnover has been between 40% and 60% during the last three years.</li> </ul>
Performance	Advantageous	<ul> <li>Performance has been strong during Mr. Monroe's 4-year tenure, though the track record is short. Annualized excess returns rank in the top quartile over the trailing 3-year period. The portfolio beta has been 0.9 and the tracking error has been approximately 7% during this period.</li> </ul>
Fees	Advantageous	Separate accounts: 80 bps on the first \$50 million and 70 bps on the next \$50 million.

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#### **Manager Trailing Performance**

## Manager Trailing Performance (Gross of Fees)<sup>1</sup> (As of 12/31/20)

Manager	MRQ (%)	1 Year Returns (%)	3 Year Returns (%)	5 Year Returns (%)	10 Year Returns (%)
Mellon US Small Cap Growth	28.6	71.3	32.7	27.5	19.2
Next Century Growth Investors	26.4	75.0	34.0	26.1	16.1
Baron Discovery Strategy	25.9	67.9	29.9	29.9	
Granahan Small Cap Select	52.6	128.6	47.9	38.6	
Driehaus Small Cap Growth	30.8	64.0	34.3	29.3	21.2
Columbia Threadneedle Small Cap Growth	28.5	72.2	34.4	29.2	18.7
Pier Capital Small cap Growth	32.6	61.7	26.2	23.0	16.5
Calamos Timpani Small Cap Growth	28.2	64.9	26.4	22.8	17.6
GW&K Small Cap Growth	26.4	30.3	17.3	17.8	14.7
Segall Bryant & Hamil Small Cap Growth	30.2	61.3	29.7	26.0	18.5
UBS US Small Cap Growth Equity	29.0	62.0	26.9	21.6	17.2
Wells Fargo Heritage Small Cap Growth	26.1	59.0	27.1	23.2	16.9
Putnam Small Cap Growth	23.1	49.5	27.2	22.3	16.7
Benchmark	YTD Returns (%)	1 Year Returns (%)	3 Year Returns (%)	5 Year Returns (%)	10 Year Returns (%)
Russell 2000 Growth	29.6	34.6	16.2	16.4	13.5

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<sup>1</sup> With the exception of Mellon US Small Cap Growth, the strategy return streams are derived from eVestment Alliance. The return stream for Mellon US Small Cap Growth reflects the performance of the account attributable to the Plymouth County Retirement Association.



**Proposed Fees** 

## **Proposed Fees**

	Investment Vehicle	
Manager	Type	Estimated Effective Fee (%)
Mellon US Small Cap Growth	Separate account	0.45% plus performance up to 0.90% bps
Next Century Growth Investors	Separate account	1.00% on first \$50 million, 0.95% thereafter
Baron Discovery Strategy	Commingled fund Mutual fund	0.95% 1.08%
Granahan Small Cap Select	Separate account	0.75% on the first \$50 million and 70 bps thereafter
Driehaus Small Cap Growth	Mutual fund	0.82%
Columbia Threadneedle Small Cap Growth	Separate account	0.65%
	Commingled fund	0.60%
Pier Capital Small cap Growth	Commingled fund	1.00% on the first \$20M,, 0.80% on \$20M - \$40M, 0.75% on \$40M - \$80M, and 0.65% >\$80M
Calamos Timpani Small Cap Growth	Separate account	0.70%
GW&K Small Cap Growth	Separate account	0.50%
Segall Bryant & Hamil Small Cap Growth	Commingled fund	0.75%
	Separate account	0.80% first \$25M, 0.70% next \$25M, 0.65% on assets over \$50M.
UBS US Small Cap Growth Equity	Commingled fund	0.45% on the first \$50 million, 0.40% on the next \$40 million
Wells Fargo Heritage Small Cap Growth Equity	Commingled fund	0.65%
Putnam Small Cap Growth	Separate account	0.80% on the first \$50 million and 0.70% on the next \$50 million

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**Risk Analysis** 

## Risk Analysis<sup>1</sup>

Firm Name	Product Name	Inception Date	Tracking Error - 1 Year using Russell 2000 Growth (%) (12/2020)	Rank	Tracking Error – 3 Years using Russell 2000 Growth (%) (12/2020)	Rank	Tracking Error – 5 Years using Russell 2000 Growth (%) (12/2020)	Rank	Tracking Error – 7 Years using Russell 2000 Growth (%) (12/2020)	Rank	Tracking Error – 10 Years using Russell 2000 Growth (%) (12/2020)	Rank
Mellon Investments Corporation	US Small Cap Growth	06/2001	8.3	56	7.8	70	6.8	64	6.2	58	5.8	52
Next Century Growth Investors	Small Capitalization	01/1999	9.5	67	9.4	84	8.5	86	9.5	94	9.1	94
Baron Capital	Baron Discovery Strategy	10/2013	10.1	77	8.7	76	7.6	77	8.4	89		
Granahan Investment Management	Small Cap Select Opportunities	03/2015	21.3	100	15.6	98	13.0	98				
Driehaus Capital Management	Driehaus Small Cap Growth	01/1980	6.6	31	8.8	78	7.8	78	7.6	80	7.5	84
Columbia Threadneedle Investments	Columbia Small Cap Growth	12/1992	8.1	54	7.2	57	6.3	52	6.2	57	5.6	44
Pier Capital	Pier Small Cap Growth	07/1987	5.6	17	7.4	65	6.4	54	6.5	64	6.1	57
Calamos Investments	Calamos Timpani Small Cap Growth	04/2008	11.4	82	9.4	85	8.3	83	8.0	85	7.4	82
GW&K Investment Management	Small Cap Growth	04/2008	6.5	29	4.5	13	4.6	18	4.8	21	4.6	22
Segall Bryant & Hamill	Small Cap Growth	01/2011	6.9	38	5.2	23	5.2	31	5.1	31	4.9	31
UBS Asset Management	US Equity Small Cap Growth	07/1994	7.6	46	7.4	67	6.7	63	6.1	55	5.8	51
Wells Fargo Asset Management	Heritage Small Cap Growth	07/1994	7.9	50	6.7	49	6.3	52	6.5	65	6.4	65
Putnam Investments	Putnam U.S. Small Cap Growth Equity	01/2000	9.9	74	7.2	57	5.9	42	5.4	36	4.8	27

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<sup>&</sup>lt;sup>1</sup> With the exception of Mellon US Small Cap Growth, the strategy return streams are derived from eVestment Alliance. The return stream for Mellon US Small Cap Growth reflects the performance of the account attributable to the Plymouth County Retirement Association.



**Risk Analysis** 

## Risk Analysis (cont'd)<sup>1</sup>

Firm Name	Product Name	Inception Date	Beta – 1 Year using Russell 2000 Growth (12/2020)	Rank	Beta – 3 Years using Russell 2000 Growth (12/2020)	Rank	Beta – 5 Years using Russell 2000 Growth (12/2020)	Rank	Beta – 7 Years using Russell 2000 Growth (12/2020)	Rank	Beta – 10 Years using Russell 2000 Growth (12/2020)	Rank	Beta – Since Inception All Products using Russell 2000 Growth 12/2020
Mellon Investments Corporation	US Small Cap Growth	06/2001	0.95	50	0.99	37	0.99	32	1.01	15	0.96	39	0.95
Next Century Growth Investors	Small Capitalization	01/1999	0.85	83	0.93	70	0.93	65	0.97	37	1.00	19	1.08
Baron Capital	Baron Discovery Strategy	10/2013	0.95	54	1.03	14	1.01	17	1.02	11			1.02
Granahan Investment Management	Small Cap Select Opportunities	03/2015	1.49	1	1.34	ſ	1.32	1					129
Driehaus Capital Management	Driehaus Small Cap Growth	01/1980	1.03	20	1.04	12	1.04	11	1.04	8	1.01	12	1.14
Columbia Threadneedle Investments	Columbia Small Cap Growth	12/1992	0.99	34	1.01	26	0.99	28	1.00	17	1.01	14	0.95
Pier Capital	Pier Small Cap Growth	07/1987	0.99	35	1.02	23	1.01	22	0.99	22	0.99	21	1.05
Calamos Investments	Calamos Timpani Small Cap Growth	04/2008	0.86	81	0.94	67	0.94	62	0.97	34	0.98	27	0.95
GW&K Investment Management	Small Cap Growth	04/2008	0.94	55	0.94	66	0.92	69	0.91	73	0.91	71	0.87
Segall Bryant & Hamill	Small Cap Growth	01/2011	0.85	85	0.91	80	0.91	72	0.94	55	0.95	47	0.95
UBS Asset Management	US Equity Small Cap Growth	07/1994	0.96	47	1.03	14	1.05	8	1.05	6	1.01	11	0.88
Wells Fargo Asset Management	Heritage Small Cap Growth	07/1994	1.01	23	1.02	22	1.03	13	1.05	5	1.03	9	0.98
Putnam Investments	Putnam U.S. Small Cap Growth Equity	01/2000	0.82	90	0.88	85	0.90	79	0.91	73	0.94	55	0.93

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<sup>&</sup>lt;sup>1</sup> With the exception of Mellon US Small Cap Growth, the strategy return streams are derived from eVestment Alliance. The return stream for Mellon US Small Cap Growth reflects the performance of the account attributable to the Plymouth County Retirement Association.





**Risk Analysis** 

## Risk-Adjusted Returns Analysis<sup>1</sup>

Firm Name	Product Name	Inception Date	Information Ratio – 1 Year using Russell 2000 Growth (12/2020)	Rank	Information Ratio– 3 Years using Russell 2000 Growth (12/2020)	Rank	Information Ratio – 5 Years using Russell 2000 Growth (12/2020)	Rank	Information Ratio- 7 Years using Russell 2000 Growth (12/2020)	Rank	Information Ratio- 10 Years using Russell 2000 Growth (12/2020)	Rank
Mellon Investments Corporation	US Small Cap Growth	06/2001	4.39	9	2.10	10	1.65	6	122	4	0.99	6
Next Century Growth Investors	Small Capitalization	01/1999	4.23	10	1.89	15	1.15	19	0.50	38	0.29	60
Baron Capital	Baron Discovery Strategy	10/2013	3.29	19	1.58	20	1.78	5	1.00	9		
Granahan Investment Management	Small Cap Select Opportunities	03/2015	4.42	8	2.03	12	1.71	6				
Driehaus Capital Management	Driehaus Small Cap Growth	01/1980	4.48	8	2.05	12	1.66	6	1.22	4	1.04	4
Columbia Threadneedle Investments	Columbia Small Cap Growth	12/1992	4.63	7	2.53	5	2.05	2	1.30	2	0.94	7
Pier Capital	Pier Small Cap Growth	07/1987	4.81	6	1.35	27	1.04	25	0.67	24	0.50	38
Calamos Investments	Calamos Timpani Small Cap Growth	04/2008	2.66	24	1.09	37	0.78	38	0.46	41	0.57	29
GW&K Investment Management	Small Cap Growth	04/2008	-0.66	80	0.25	67	0.31	63	0.01	74	0.26	62
Segall Bryant & Hamill	Small Cap Growth	01/2011	3.89	13	2.60	4	1.86	4	1.21	5	1.02	5
UBS Asset Management	US Equity Small Cap Growth	07/1994	3.59	14	1.44	23	0.78	38	0.63	28	0.64	24
Wells Fargo Asset Management	Heritage Small Cap Growth	07/1994	3.07	21	1.62	19	1.08	23	0.53	35	0.54	32
Putnam Investments	Putnam U.S. Small Cap Growth Equity	01/2000	1.50	37	1.52	21	1.01	27	0.67	24	0.67	22

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<sup>&</sup>lt;sup>1</sup> With the exception of Mellon US Small Cap Growth, the strategy return streams are derived from eVestment Alliance. The return stream for Mellon US Small Cap Growth reflects the performance of the account attributable to the Plymouth County Retirement Association.





**Risk Analysis** 

## Risk-Adjusted Returns Analysis (cont'd)<sup>1</sup>

Firm Name	Product Name	Inception Date	Jensen's Alpha -1 Year using Russell 2000 Growth (%) (12/2020)	Rank	Jensen's Alpha - 3 Years using Russell 2000 Growth (%) (12/2020)	Rank	Jensen's Alpha - 5 Years using Russell 2000 Growth (%) (12/2020)	Rank	Jensen's Alpha  7  Years using Russell 2000 Growth (%) (12/2020)	Rank	Jensen's Alpha - 10 Years using Russell 2000 Growth (%) (12/2020)	Rank
Mellon Investments Corporation	US Small Cap Growth	06/2001	29.7	8	14.7	13	10.0	13	7.0	11	5.6	11
Next Century Growth Investors	Small Capitalization	01/1999	35.9	5	16.7	8	9.8	14	5.0	19	2.8	47
Baron Capital	Baron Discovery Strategy	10/2013	27.6	11	11.9	18	11.9	5	7.7	7		
Granahan Investment Management	Small Cap Select Opportunities	03/2015	57.2	1	24.7	1	16.0	2	***			
Driehaus Capital Management	Driehaus Small Cap Growth	01/1980	21.9	17	15.7	10	11.1	8	8.3	5	7.1	5
Columbia Threadneedle Investments	Columbia Small Cap Growth	12/1992	29.2	8	15.9	9	11.4	6	7.5	8	4.7	18
Pier Capital	Pier Small Cap Growth	07/1987	21.2	19	8.7	29	5.9	29	4.2	27	2.9	44
Calamos Investments	Calamos Timpani Small Cap Growth	04/2008	28.0	10	10.1	24	6.8	24	3.9	30	4.2	25
GW&K Investment Management	Small Cap Growth	04/2008	-1.8	76	1.7	68	2.3	61	0.9	74	2.1	62
Segall Bryant & Hamill	Small Cap Growth	01/2011	24.9	15	12.9	15	9.7	15	6.2	12	5.1	15
UBS Asset Management	US Equity Small Cap Growth	07/1994	22.5	17	9.3	28	4.2	45	3.2	38	3.3	36
Wells Fargo Asset Management	Heritage Small Cap Growth	07/1994	18.5	26	9.5	27	5.8	31	2.9	45	3.0	43
Putnam Investments	Putnam U.S. Small Cap Growth Equity	01/2000	16.7	29	11.2	20	6.6	24	4.2	24	3.6	31

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<sup>&</sup>lt;sup>1</sup> With the exception of Mellon US Small Cap Growth, the strategy return streams are derived from eVestment Alliance. The return stream for Mellon US Small Cap Growth reflects the performance of the account attributable to the Plymouth County Retirement Association.



**Summary** 

#### Summary

 Thirteen managers submitted responses for the small cap growth search. Based upon our review and evaluation of each respondent, Meketa Investment Group ranked three managers, as "Highly Advantageous" and the remaining ten managers as "Advantageous."

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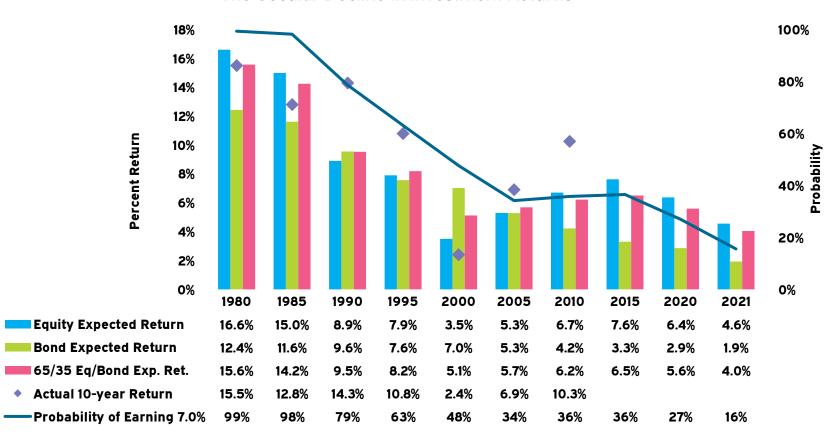


# Asset Allocation Review and Risk Analysis



#### Asset Allocation Review and Risk Analysis

#### The Secular Decline in Investment Returns<sup>1</sup>



• The chart above illustrates that a portfolio comprising of 65% domestic stocks and 35% investment grade bonds has produced diminishing expected returns as well as actual returns over the past 30 years.

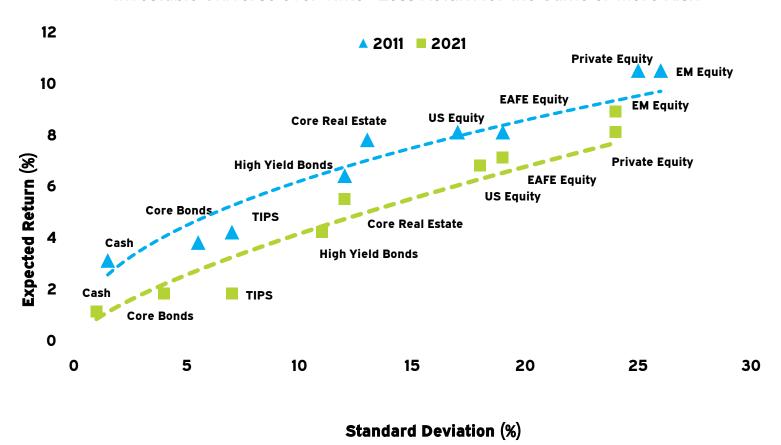
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<sup>1</sup> Expected return assumptions for 1) Bonds equals the yield of the ten-year Treasury plus 100 basis points, and 2) Equities equals the dividend yield plus the earnings yield of the S&P 500 index (using the inflation-adjusted trailing 10-year earnings). Probability calculation is for the subsequent ten years.



#### **Asset Allocation Review and Risk Analysis**

#### Investable Universe over Time: Less Return for the Same or More Risk<sup>1</sup>



- A positive relationship exists between long-term return expectations and the level of risk accepted.
- However, this relationship is not static.

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<sup>&</sup>lt;sup>1</sup> Expected return and standard deviation are based upon Meketa Investment Group's Annual Asset Study.



## **Asset Allocation Policies**

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#### **Asset Allocation Policies**

#### Asset Allocation Policies<sup>1</sup>

	PCRA Policy (%)	PCRA Current (%)	PRIT <sup>2</sup> (%)	Public DB <sup>3</sup> (%)
Growth/Equity	69	66	57	63
US Equity	26	27	23	26
Developed Market Equity (non-US)	6	3	15	13
Emerging Market Equity	10	10	6	7
Global Equity	10	11	0	0
Hedge Funds	4	6	0	6
Private Equity	13	9	13	11
Credit	6	10	7	8
High Yield / Bank loans / Distressed	4	8	6	8
Emerging Market Bonds (major / local)	2	2	1	0
Rate Sensitive	9	9	15	17
Investment Grade Bonds	7	8	8	13
Long-term Government Bonds /Strips	0	0	3	3
TIPS	2	1	4	1
Real Assets	17	16	11	14
Real Estate	11	9	8	10
Natural Resources / Timber	2	2	3	0
Infrastructure (Core & Non-Core)	4	5	0	4
Portfolio Completion/Other	0	0	10	0
Expected Return (20 years)	7.59	7.25	6.86	6.85
Standard Deviation	15.8	14.9	13.2	13.3
Probability of Achieving 7.88% over 20 Years	46.1	41.9	36.0	35.9

<sup>&</sup>lt;sup>1</sup> Expected return and standard deviation are based upon Meketa Investment Group's 2021 Annual Asset Study. Throughout this document, returns for periods longer than one year are annualized. Numbers may not sum due to rounding.

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<sup>&</sup>lt;sup>2</sup> As of Decemebr 31, 2020.

 $<sup>^{3}</sup>$  Composite of top 50 public defined benefits plans in US.



#### **Asset Allocation Policies**

#### Comparison to Peers - Tracking Error

- The Association's target and current asset allocation policies are different from PRIT and the Peer Median.
  - The Peer Median represents a composite of the top 50 US Public Funds with greater than \$1 billion.
- The Association can expect long-term tracking error (i.e., over a 20-year period) for each policy as follows:

	PRIT Tracking Error Per Annum (%)	Peer Median Tracking Error Per Annum (%)
PCRA Policy	3.0	3.0

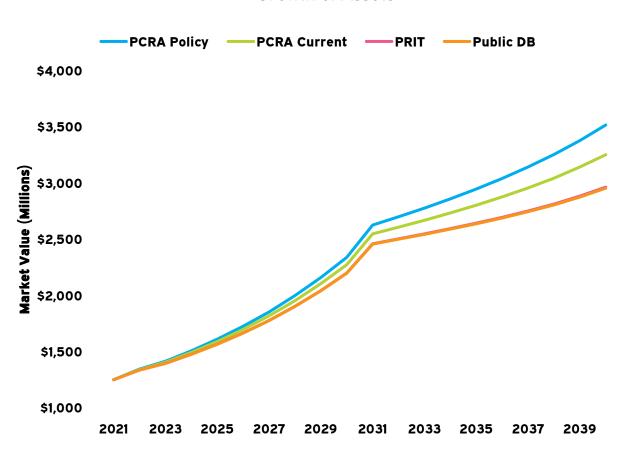
- For context, in 2-out-of-3 years the Association's return will be within +/- 3.0% of PRIT and Peer Median's return.
- Therfore, in 1-out-of-3 years will be outside of +/- 3.0% of PRIT and Peer Median's return.
  - In 1-out-of-6 years the Association will outperform PRIT and Peer Median's return by more than 3.0%.
  - In 1-out-of-6 years the Association will underperform PRIT and Peer Median's return by more than 3.0%.

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**Asset Allocation Policies** 

#### Growth of Assets<sup>1</sup>



• Even apparently small differences in expected returns can result in dramatic differences over long time periods. The difference between the Current and the Peer Median at the end of twenty years is \$331 million.

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<sup>&</sup>lt;sup>1</sup> Assumes each policy option produces its expected return in each calendar year and net cash flow projections as provided by Sherman Actuarial Services.



## **Diversification and Risk Analysis**



### **Diversification and Risk Analysis**

## MVO-Based Risk Analysis

Scenario	PCRA Policy (%)	PCRACurrent (%)	PRIT (%)	Public DB (%)
Worst Case Returns (1)				
One Year	-23.1	-22.1	-19.7	-19.9
Three Years (annualized)	-11.4	-10.9	-9.4	-9.5
Five Years (annualized)	-7.5	-7.1	-6.0	-6.1
Ten Years (annualized)	-3.3	-3.1	-2.4	-2.5
Twenty Years (annualized)	-0.2	-0.2	0.2	0.2
Probability of Experiencing Negative Returns				
One Year	30.7	30.6	29.5	29.7
Three Years	19.2	19.0	17.6	17.8
Five Years	13.0	12.9	11.4	11.7
Ten Years	5.6	5.5	4.4	4.6
Twenty Years	1.2	1.2	0.8	0.9
Probability of Achieving at least a 7.88% Return				
One Year	49.1	48.2	46.8	46.8
Three Years	48.5	46.8	44.5	44.4
Five Years	48.0	45.9	42.9	42.8
Ten Years	47.2	44.3	40.0	39.9
Twenty Years	46.1	41.9	36.0	35.9

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#### **Diversification and Risk Analysis**

#### Value at Risk<sup>1</sup>

Scenario	PCRA Policy	PCRA Current	PRIT	Public DB
VaR (%):				
1 month	-9.9	-9.4	-8.3	-8.4
3 months	-16.3	-15.4	-13.6	-13.7
6 months	-21.7	-20.6	-18.1	-18.2

#### Conditional Value at Risk1

Scenario	PCRA Policy	PCRA Current	PRIT	Public DB
CVaR (%):				
1 month	-11.4	-10.8	-9.6	-9.6
3 months	-18.8	-17.8	-15.7	-15.9
6 months	-25.4	-24.0	-21.1	-21.3

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<sup>&</sup>lt;sup>1</sup> Calculated with a 99% confidence level and based upon Meketa Investment Group's Annual Asset Study. cVaR represents the average loss past the 99th percentile.



#### **Diversification and Risk Analysis**

# Historical Negative Scenario Analysis¹ (Cumulative Return)

Scenario	PCRA Policy (%)	PCRA Current (%)	PRIT (%)	Public DB (%)
Taper Tantrum (May - Aug 2013)	0.7	0.8	-0.5	-0.1
COVID-19 Market Shock (Feb 2020-Mar 2020)	-21.7	-21.9	-17.9	-17.6
Global Financial Crisis (Oct 2007 - Mar 2009)	-32.6	-31.7	-27.0	-28.4
Popping of the TMT Bubble (Apr 2000 - Sep 2002)	-16.3	-15.9	-14.8	-11.0
LTCM (Jul - Aug 1998)	-11.6	-11.9	-8.2	-8.0
Rate spike (1994 Calendar Year)	1.5	1.0	3.5	2.6
Crash of 1987 (Sep - Nov 1987)	-14.3	-14.8	-10.9	-11.5
Strong dollar (Jan 1981 - Sep 1982)	1.2	1.6	2.6	3.5
Volcker Recession (Jan - Mar 1980)	-4.6	-4.5	-4.5	-3.9
Stagflation (Jan 1973 - Sep 1974)	-25.7	-25.6	-22.5	-22.2

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<sup>&</sup>lt;sup>1</sup> See the Appendix for our scenario inputs. In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.



#### **Diversification and Risk Analysis**

# Historical Positive Scenario Analysis¹ (Cumulative Return)

Scenario	PCRA Policy (%)	PCRA Current (%)	PRIT (%)	Public DB (%)
Global Financial Crisis Recovery (Mar 2009 - Nov 2009)	38.9	39.3	34.7	34.5
Best of Great Moderation (Apr 2003 - Feb 2004)	36.5	35.8	30.6	29.8
Peak of the TMT Bubble (Oct 1998 - Mar 2000)	54.1	52.2	44.8	42.7
Plummeting Dollar (Jan 1986 - Aug 1987)	55.7	53.7	54.3	52.3
Volcker Recovery (Aug 1982 - Apr 1983)	36.2	36.8	31.4	31.9
Bretton Wood Recovery (Oct 1974 - Jun 1975)	32.8	32.9	28.4	28.8

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 $<sup>^{1}</sup>$  See the Appendix for our scenario inputs. In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.



#### **Diversification and Risk Analysis**

## Stress Testing: Impact of Market Movements

(Expected Return under Stressed Conditions)<sup>1</sup>

Scenario	PCRA Policy (%)	PCRA Current (%)	PRIT (%)	Public DB (%)
10-year Treasury Bond rates rise 100 bps	4.6	4.6	3.1	3.3
10-year Treasury Bond rates rise 200 bps	-0.2	-0.2	-1.7	-1.3
10-year Treasury Bond rates rise 300 bps	-0.8	-0.3	-5.9	-4.4
Baa Spreads widen by 50 bps, High Yield by 200 bps	-0.6	-0.8	0.6	0.5
Baa Spreads widen by 300 bps, High Yield by 1000 bps	-24.7	-24.1	-21.3	-21.6
Trade Weighted Dollar gains 10%	-4.6	-4.4	-3.7	-3.4
Trade Weighted Dollar gains 20%	-2.5	-2.0	-0.9	-0.6
US Equities decline 10%	-7.3	-7.1	-6.0	-5.8
US Equities decline 25%	-20.3	-19.8	-17.0	-17.1
US Equities decline 40%	-31.0	-30.4	-25.9	-26.4

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<sup>&</sup>lt;sup>1</sup> Assumes that assets not directly exposed to the factor are affected nonetheless. See the Appendix for further details.



#### **Diversification and Risk Analysis**

### Stress Testing: Impact of Positive Market Movements

(Expected Return under Stressed Conditions)<sup>1</sup>

Scenario	PCRA Policy (%)	PCRA Current (%)	PRIT (%)	Public DB (%)
10-year Treasury Bond rates drop 100 bps	2.0	2.1	3.4	3.1
10-year Treasury Bond rates drop 200 bps	10.9	10.4	12.3	11.6
Baa Spreads narrow by 30bps, High Yield by 100 bps	8.2	8.1	7.5	7.5
Baa Spreads narrow by 100bps, High Yield by 300 bps	15.3	15.8	13.2	13.1
Trade Weighted Dollar drops 10%	7.7	7.5	7.3	7.0
Trade Weighted Dollar drops 20%	23.1	21.6	22.3	20.9
US Equities rise 10%	7.6	7.3	7.0	6.7
US Equities rise 30%	18.3	18.3	16.0	16.1

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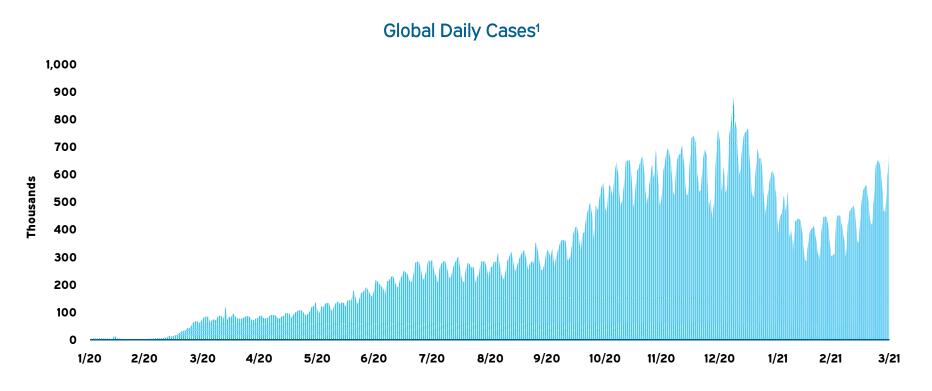
<sup>&</sup>lt;sup>1</sup> Assumes that assets not directly exposed to the factor are affected nonetheless.

## **Economic and Market Update**

Data as of March 31, 2021







- After peaking in early January at ~858,000, the number of global daily cases steadily declined to ~303,000 at the end of February, before increasing again in March, driven by new variants.
- Looking ahead, the rollout of multiple vaccines continues to gather momentum, with roughly 800 million total doses administered as of mid-April.<sup>2</sup>
- In the US, the Biden administration set a goal of the vaccine being available to the general population by April 19.

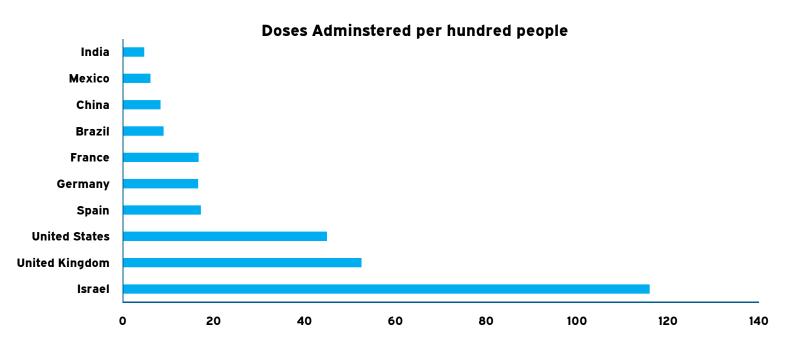
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<sup>&</sup>lt;sup>1</sup> Source: Our World in Data. Data is as of March 31, 2021.

<sup>&</sup>lt;sup>2</sup> Source: Bloomberg. https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/?sref=sA9cMlUe



#### Vaccinations by Country<sup>1</sup>



- Vaccine distribution has ramped up in many countries, including the Pfizer-BioNTech, Moderna, and Johnson & Johnson vaccines in the US. Outside the US, vaccines have also been developed by China, Russia, India, and the UK.
- Some countries have done better with the vaccine rollout, with Israel being at the forefront. The United Kingdom's and the United States' vaccination rates have exceeded many other countries. Early immunization efforts focused on the most vulnerable populations with eligibility expanding recently.

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<sup>&</sup>lt;sup>1</sup> Source: Our World in Data. Data is as of March 31, 2021. Vaccination totals include first and second doses.



#### Market Returns<sup>1</sup>

Indices	March	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500	4.4%	6.2%	56.4%	16.8%	16.3%	13.9%
MSCI EAFE	2.3%	3.5%	44.6%	6.0%	8.9%	5.5%
MSCI Emerging Markets	-1.5%	2.3%	58.4%	6.5%	12.1%	3.7%
MSCI China	-6.3%	-0.4%	43.6%	8.2%	16.1%	7.3%
Bloomberg Barclays Aggregate	-1.3%	-3.4%	0.7%	4.7%	3.1%	3.4%
Bloomberg Barclays TIPS	-0.2%	-1.5%	7.5%	5.7%	3.9%	3.4%
Bloomberg Barclays High Yield	0.2%	0.9%	23.7%	6.8%	8.1%	6.5%
10-year US Treasury	-3.1%	-7.0%	-8.1%	4.7%	1.7%	3.7%
30-year US Treasury	-6.1%	-15.8%	-20.6%	5.6%	2.7%	6.5%

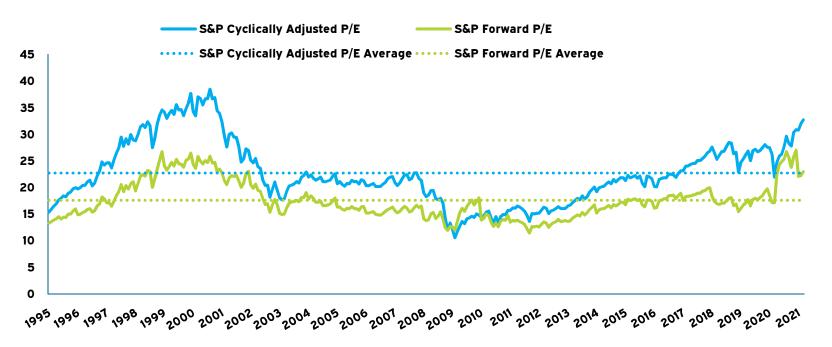
- Over the last year, global risk assets produced significant returns, largely driven by record fiscal and monetary policy stimulus and positive developments with the COVID-19 vaccine. One-year returns are also being heavily influenced by the roll-off the significant declines in March 2020.
- In March, rising inflation and US economic growth expectations continued to drive longer-dated Treasury yields higher, leading to negative returns across most maturities.
- Equity markets across developed economies showed a notable level of resilience to the tighter financial conditions. Emerging markets were impacted by rising COVID-19 cases and re-shuttering of some economies, as well as rising inflation risks prompting some central banks to consider tightening measures.

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<sup>&</sup>lt;sup>1</sup> Source: Investment Metrics and Bloomberg. Data is as of March 31, 2021.



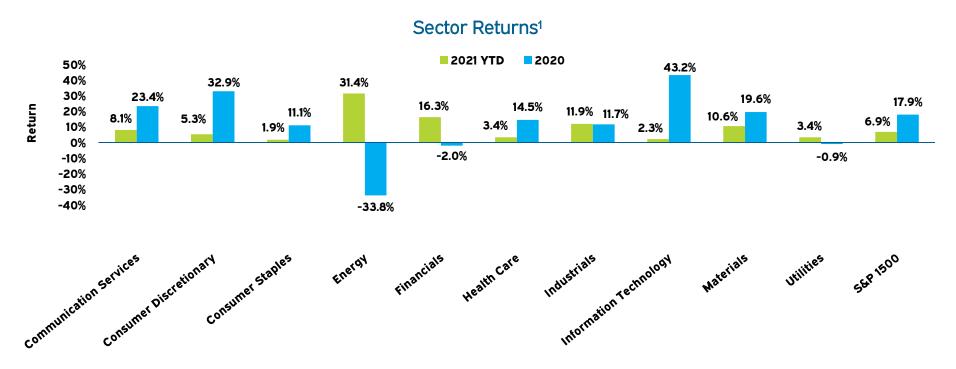
#### S&P Equity Valuations<sup>1</sup>



- With positive developments regarding COVID-19 vaccines, valuations based on backward-looking earnings rose to levels not seen since 2001.
- By contrast, valuations based on forward-looking earnings recently declined due to continued improvements in earnings expectations. Despite the decline in forward P/E ratios, they remain well above long-term averages.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of March 31, 2021.





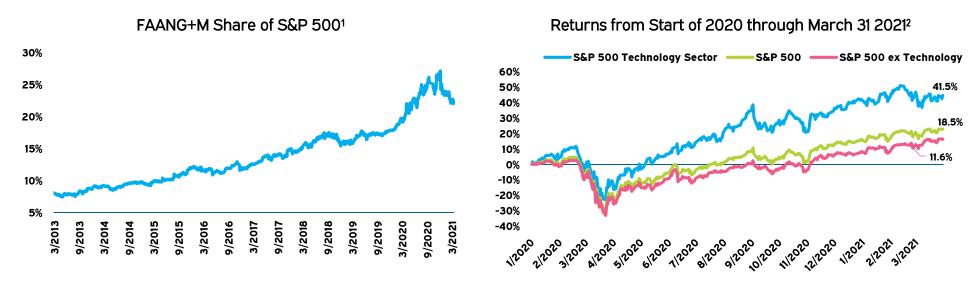
- Cyclical sectors like energy and financials have led the way in 2021, as investors rotate out of the stay-at-home focused companies in the technology sector.
- The recent rotation into value stocks has largely been driven by expectations for the economy to reopen, potentially higher taxes, and rising interest rates. Growth stocks typically produce more of their cash flows further into the future and increased interest rates lead to a larger discounts, reducing present value.
- Energy has been a particular standout this year, supported by record low active rig counts, Saudi Arabia's reductions in output, and expectations of rising demand later in 2021.
- Higher interest rates have benefited lending institutions within the financial sector.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of March 31, 2021



#### Growth stocks led the way for most of 2020, but have recently lagged



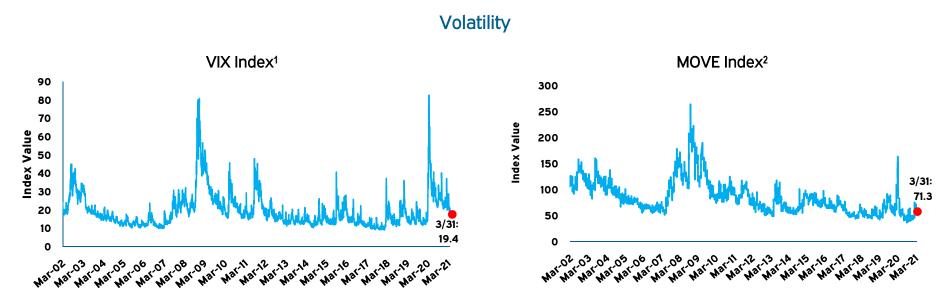
- During much of 2020, market gains were driven by a few technology companies that benefited from the stay-at-home environment related to the virus.
- The outsized relative returns of these companies last year caused them to comprise an increasingly large portion of the S&P 500, making their performance going forward impactful to overall market results.
- Recently, their proportion of the index declined as value stocks outpaced growth stocks by over 10% in 2021.

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<sup>&</sup>lt;sup>1</sup> FAANG+M = Facebook, Amazon, Apple, Netflix, Google (Alphabet), and Microsoft. The percentage represents the aggregate market capitalization of the 6 companies compared to the total market capitalization of the S&P 500 as of March 31, 2021.

<sup>&</sup>lt;sup>2</sup> Each data point represents the price change relative to the 12/31/2019 starting value.





- Equity market volatility, as measured by the VIX, declined over the month to levels last experienced just prior to the spike of market volatility in March 2020.
- Counter to the experience in equity markets, volatility levels within fixed income, as represented by the MOVE index, increased in March due to building expectations for higher growth and inflation. Uncertainty regarding the future path of interest rates could keep fixed income volatility elevated.

<sup>&</sup>lt;sup>1</sup> Source: Chicago Board of Exchange. Data is as of March 31, 2021.

<sup>&</sup>lt;sup>2</sup> Source: Bloomberg. Data is as of March 31, 2021.



#### Key Elements of the Latest Round of US Fiscal Stimulus

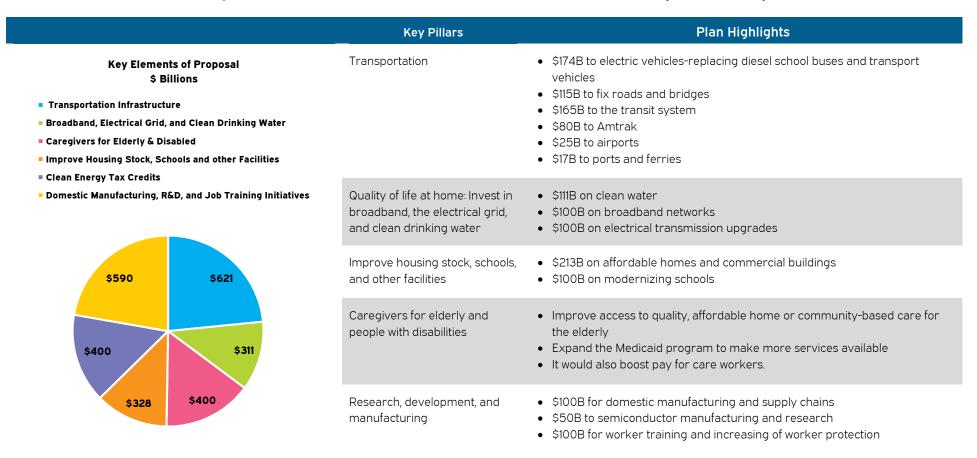
	Joint Proposal
Status	Signed by President Biden on March 11, 2021
Direct Payments	Up to \$1,400 per eligible recipient
Enhanced Unemployment	\$300 per week through September
State & Local Aid	\$360 billion
Vaccines, testing and tracing	\$123 billion
School aid/Education Grants	\$176 billion
Health Insurance Support	\$105 billion
Transportation	\$56 billion
Food / Agriculture aid	\$16 billion
Rental Assistance	\$1 billion
Small Business Assistance	\$59 billion
Total	\$1.9 trillion

- Fiscal stimulus totaling ~\$900 billion, representing the second largest package in history at the time, was finalized in late December 2021.
- President Biden signed an additional \$1.9 trillion stimulus package in March that includes another round of direct payments to individuals, \$300 extra per week in unemployment benefits, and aid to state and local governments.
- Concerns have increased significantly that the historic infusion into the economy could lead to excessive inflation and put pressure on borrowing costs.

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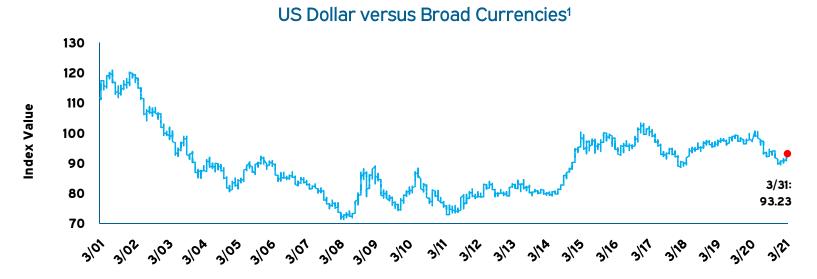
#### Key Elements of the ~\$2.65 Trillion American Jobs Plan (2021 – 2031)



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 $<sup>{\</sup>small 1} \ \ Dollar \ amounts \ are \ estimates. \ \ Source: \\ \underline{https://www.crfb.org/blogs/whats-president-bidens-american-jobs-plan}.$ 



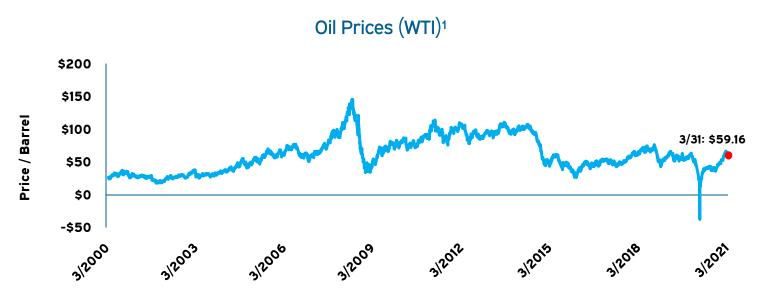


- The US dollar has benefited from higher US growth estimates and rising interest rates. Growth and interest rate differentials have put pressure on emerging market asset prices.
- A stronger US dollar may deepen the US trade deficit and offer a competitive advantage to exporters in Asia and Europe.
- Going forward, the dollar's safe-haven quality and the higher interest rates in the US could continue to provide support.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Represents the DXY Index. Data is as of March 31, 2021.





- Global oil prices rallied from April 2020 lows, and have recovered to pre-crisis levels.
- In 2020 the collapse in global oil demand led to the shuttering of active drilling in North America and international markets and production capacity has been slow to come back online.
- In a surprise decision, OPEC+ recently announced they would not be increasing production despite signs that the global economy could absorb the additional supply.
- Low production capacity and tight supply may help balance oil markets and drawdown reserves offering support for oil prices as global demand recovers.
- Once reserves are used, and if production remains tight, oil prices could continue to rise, contributing to inflationary pressures, and weighing on the global economic recovery.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Represents WTI first available futures contract. Data is as of March 31, 2021.





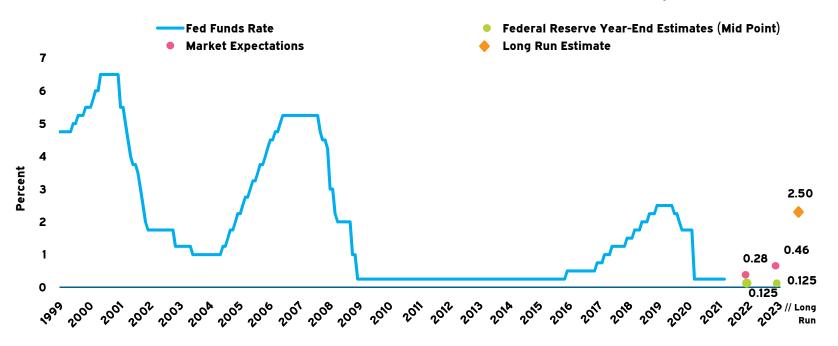


- The US Treasury yield curve declined materially during 2020, driven by safe-haven demand, Federal Reserve polices (policy rate cuts and the quantitative easing program), and weak US economic fundamentals.
- Thus far in 2021, the curve has steepened on inflation fears related to gradual signs of economic improvement, vaccine developments, and expectations for increased Treasury issuance to support fiscal policy measures.
- Higher yields relative to other countries, and the Fed potentially extending the duration of QE purchases to mitigate tightening financial conditions, could counterbalance steepening trends, but the risk remains that the yield curve could continue to steepen if growth and inflationary pressures build.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of March 31, 2021.



## Dot Plot Continues to Indicate Rate Hikes are Some Time Away<sup>1</sup>



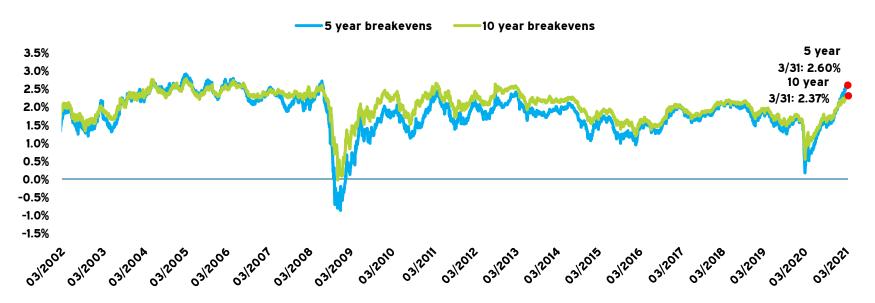
- The FOMC continues to indicate they do not anticipate increasing policy rates for the next few years, as delivered through the FOMC's meeting statements and the supporting Summary of Economic Projections report (aka the "Dot Plot").
- Policy expectations as measured by current asset prices, including fed funds futures, are suggesting more
  aggressive policy actions, with 1-2 policy rate increases by the end of 2023.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of the March 17, 2021 FOMC meeting. Market Expectations reflect Fed Fund Futures



#### 10-Year Breakeven Inflation<sup>1</sup>

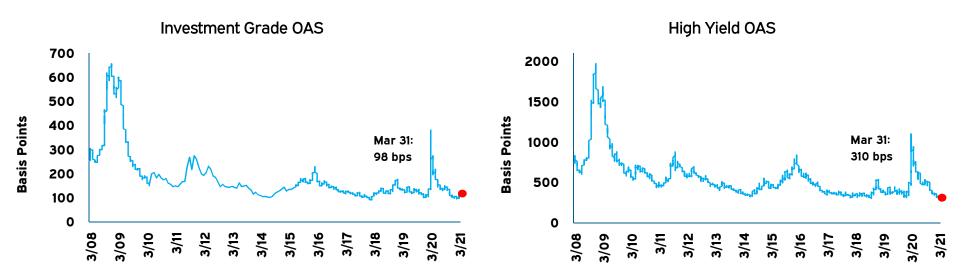


- Inflation breakeven rates declined sharply in early 2020, due to a combination of lower growth and inflation expectations, as well as liquidity dynamics in TIPS during the height of market volatility. Breakeven rates increased as deflationary concerns moderated.
- Inflation expectations have risen abruptly in recent months to slightly above long-term averages, with the vaccine roll-out and expected additional fiscal stimulus as key drivers.
- Looking forward, the track of economic growth and the inflationary effects of the unprecedented US fiscal response will be key issues. Additionally, changes to Fed policy focused on an average inflation target may play a role in the inflation market dynamics going forward.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of March 31, 2021.



# Credit Spreads (High Yield & Investment Grade)<sup>1</sup>



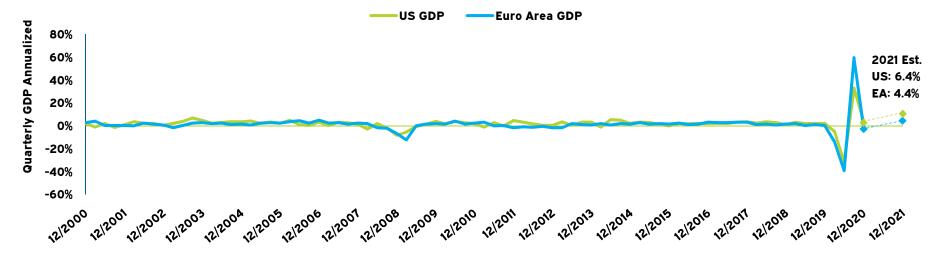
- Credit spreads (the spread above a comparable maturity Treasury) for investment grade and high yield corporate debt widened sharply at the start of the pandemic as investors sought safety.
- Policy support, the search for yield in the low rate environment, and recent increases in Treasury rates
  have led to a decline in credit spreads to below long-term averages, particularly for high yield.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. High Yield represents US Corporate High Yield average OAS. Investment grade represents liquid investment grade corporate average OAS. Data is as of March 31, 2021.



# GDP Data Shows Projected Improvements in 20211



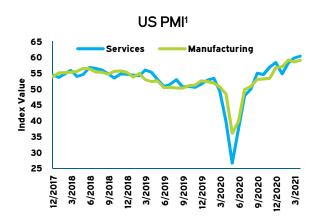
- The global economy faced major recessionary pressures last year, but significant optimism remains for improvements in 2021 as economies are gradually reopening. The IMF is forecasting US 2021 growth at 6.4% and 2022 growth at 3.5%. The IMF has projected 4.4% euro area growth for 2021 and 3.8% in 2022
- Historic declines in US and European growth during the second quarter were followed by record increases in the third quarter of 2020, due to pent-up demand from the lockdown measures earlier in the year.
- Fourth quarter 2020 US GDP growth was 4.1% (QoQ annualized). Full year US GDP growth declined 2.4%, better than the IMF's forecasted decline of 3.4%.
- In the euro area, increased virus cases and a return to restrictions weighed on fourth quarter growth (-2.8% QoQ annualized). For the year, the euro area economy declined 4.9%, worse than the US, but also ahead of forecasts of a 7.2% decline.

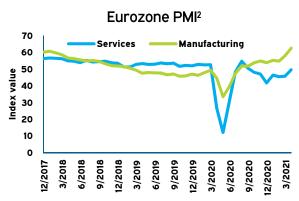
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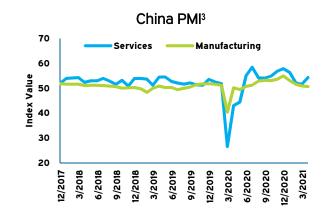
<sup>1</sup> Source: Bloomberg, and IMF; Euro Area figures annualized by Meketa. Projections via April 2021 IMF World Economic Outlook and represent annual numbers.



# **Global PMIs**







- Purchasing Managers Indices (PMI), based on surveys of private sector companies, initially collapsed across
  the world to record lows, as closed economies depressed output, new orders, production, and employment.
- Readings below 50 represent contractions across underlying components and are a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- After a period of underperformance, US services and manufacturing are accelerating. In Europe, manufacturing continues to improve, led by Germany, with services lagging given on-going restrictions. After a notable return to full economic activity in the second half of 2020, the Chinese economy has stabilized in positive territory.

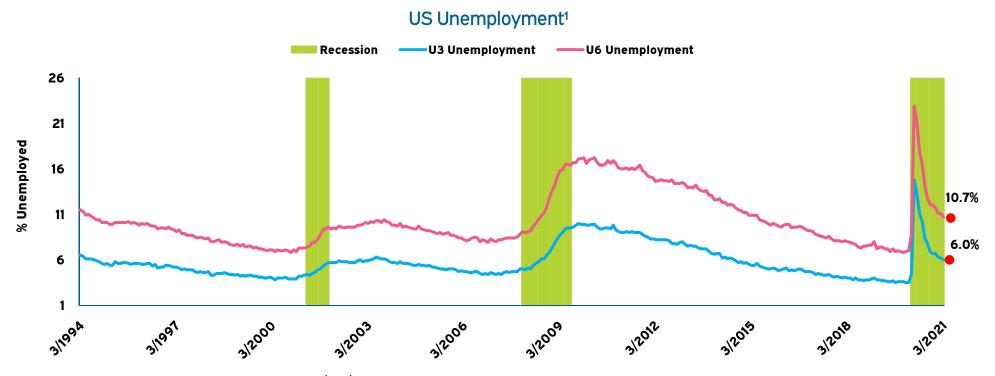
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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of March 2021.

<sup>&</sup>lt;sup>2</sup> Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of March 2021.

<sup>&</sup>lt;sup>3</sup> Source: Bloomberg. Caixin Services and Manufacturing PMI. Data is as of March 2021.



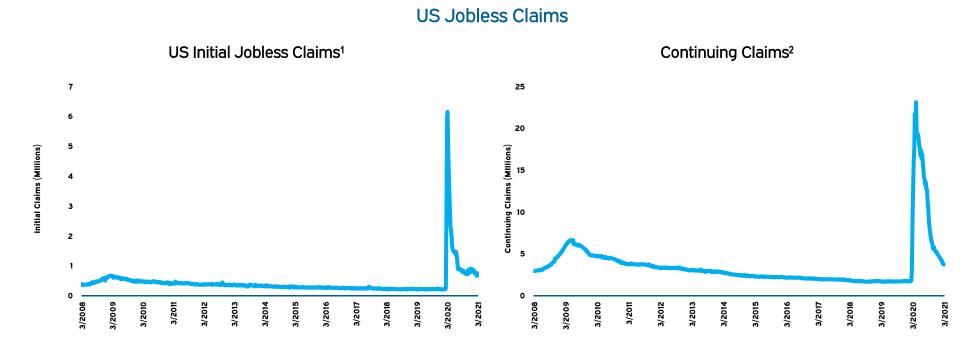


- In March, the unemployment rate (U3) continued its steep decline from the April 2020 peak of 14.7%, falling to 6.0%.
- The broader measure of unemployment (U6) that includes discouraged and underemployed workers is much higher at 10.7%, showing further evidence of the slack in the labor market.
- Despite recent improvements, unemployment levels remain above pre-virus readings and are likely higher than reported, as the total labor force participation rate remains below pre-COVID levels.
- A counterforce to the recent inflation concerns remains the slack in the labor market and corresponding weak wage pressures.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of March 31, 2021. Bars represent recessions as observed by the National Bureau of Economic Research.





- Since the start of the crisis, ~78 million people filed for initial unemployment. This level is approaching four times the 22 million jobs added since the GFC, highlighting the unprecedented impact of the virus.
- Despite the stabilization in initial jobless claims to below one million per week, levels remain near the worst reading during the Global Financial Crisis.
- Continuing jobless claims (i.e., those currently receiving benefits) have also declined from record levels but remain elevated at 3.7 million.

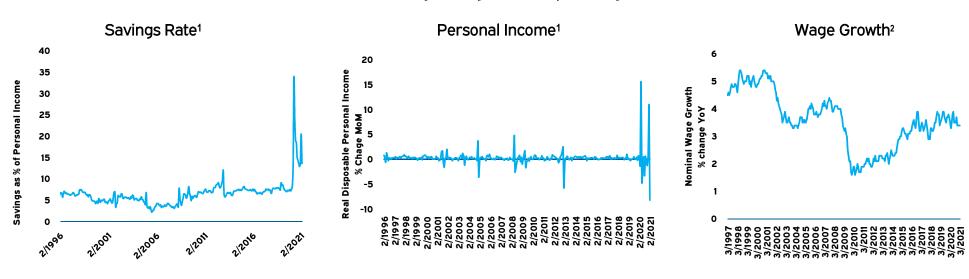
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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. First reading of seasonally adjusted initial jobless claims. Data is as of March 26, 2021.

 $<sup>^2</sup>$  Source: Bloomberg. US Continuing Jobless Claims SA. Data is as of March 26, 2021.



# Savings, Wages and Spending



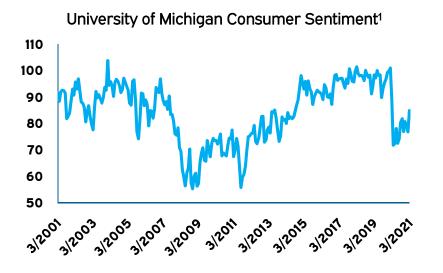
- Fiscal programs including stimulus checks, enhanced unemployment benefits, and loans to small businesses through the Paycheck Protection Program (PPP) have largely supported income levels through the shutdown.
- While estimates of personal income have been extremely volatile since 2020, wage growth has remained relatively stable.
- Despite the income support, the savings rate increased due to the decline in consumer spending, driven by the initial lock-down of the economy, and by uncertainties about the future of the job market and stimulus programs.
- More recently, the savings rate declined from its peak as spending increased with the economy slowly reopening.
   Going forward, questions remain about how consumers will use the recently approved stimulus programs with concerns over the potential inflationary impacts.

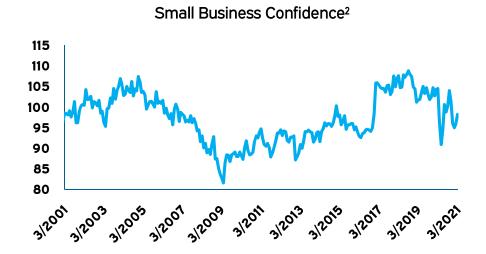
<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Latest data is as of February 2021.

<sup>&</sup>lt;sup>2</sup> Source: Bloomberg. Represents Atlanta FED wage growth tracker. Latest data is as of March 2021.



#### Sentiment Indicators





- The attitudes of businesses and consumers are useful indicators of future economic activity.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of economic growth. Additionally, small businesses generate around half of US GDP, making sentiment in that segment important.
- Sentiment indicators showed improvements as the economy re-opened, particularly for small businesses.
   Increasing cases, including from new variants, and the initial slow vaccine rollout have recently weighed on short-term sentiment. This trend could change based on improvements in vaccine distribution and the recent fiscal stimulus.

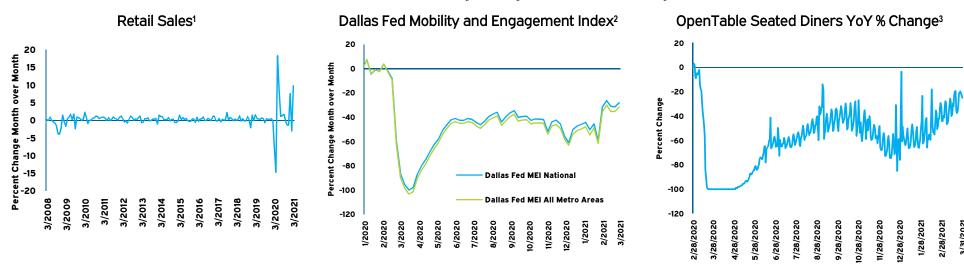
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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. University of Michigan Consumer Sentiment Index. Data is as of March 31, 2021.

 $<sup>^2</sup>$  Source: Bloomberg. NFIB Small Business Optimism Index. Data is as of March 31, 2021.



# US Consumers are beginning to venture out again



- There have been improvements in high frequency data, but overall levels remain well below historical averages, and have slowed in some instances given the recent spike in cases.
- Generally, people have become more active as restrictions eased and stores reopened. Retail sales recovered from a
  record decline with five consecutive months of growth, and notably beat estimates for March as consumers spent
  recently received stimulus checks.
- Restaurants saw initial improvements before declining with the fall spike in cases and rising again after the holidays. In-store dining has been cited as a key contributor to increases in infections.

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<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of March 31, 2021 and represents the US Retail Sales SA MoM%.

<sup>&</sup>lt;sup>2</sup> Source: Bloomberg. Data is as of March 26, 2021 and represents the deviation from normal mobility behaviors induced by COVID-19 (formerly the "Social Distancing Index"). The index represents a weighted average of various lengths of time that a mobile device, like a cell phone, leaves its "home" or place of residence, and/or how long a device stays at home. A decline in this index represents a mobile device at home for a longer period than average.

<sup>&</sup>lt;sup>3</sup> Source: Bloomberg. This data shows year-over-year seated diners at restaurants on the OpenTable network across all channels: online reservations, phone reservations, and walk-ins. Only states or cities with 50+ restaurants in the sample are included. All such restaurants on the OpenTable network in either period are included. Data is as of March 31, 2021. Index start date 2/19/20.



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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.

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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.

SI: Since Inception

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.

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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%.

**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.

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