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SECRETARY

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- **DATE:** January 29, 2015
- TO: Wisconsin Deferred Compensation Board Investment Committee
- **FROM:** Shelly Schueller, Director Wisconsin Deferred Compensation Program
- SUBJECT: Socially Responsible Investments Overview

Attached is a presentation from Bill Thornton of Advised Assets Group (AAG) regarding potential replacements for the Wisconsin Deferred Compensation Program's socially responsible investment option. Although no change is currently anticipated, the Board requested a review of socially responsible investment options at the November 2014 meeting. The Calvert Social Investment Equity Fund (Ticker symbol: CEYIX) is the current socially responsible fund option in the WDC core investment lineup. This fund meets the Board's investment policy statement criteria, but its performance has lagged over the past 18 months.

The presentation includes a discussion of the non-economic principles used by most firms offering socially responsible investments, a review of the socially responsible funds in the Morningstar database, and the Board's Investment Policy Statement criteria. There are approximately 20 funds that might be appropriate replacement options, if the Board decides to change its socially responsible investment offering. The committee will review this presentation with AAG at the meeting and if warranted, the results of the discussion may be shared with the full Board at its meeting on March 12, 2015.

Attachment: Wisconsin SRI Overview

Reviewed and approved by Matt Stohr, Administrator, Division of Retirement Services

Matt Stol	
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Electronically Signed 2/2/15

Board	Mtg Date	Item #
DCIC	2.10.15	3



Wisconsin Deferred Compensation Program Socially Responsible Investment Overview

January, 2015



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Appendix: Glossary of Terms

ADVISED ASSETS

Socially Responsible Investment Overview

Socially Responsible:

- A fund that selectively invests based on certain non-economic principles
- May actively invest in companies based on:
 - Environmental Responsibility
 - Human Rights
 - Religious Views
 - Favorable Employee Relations
- May avoid investing in companies based on:
 - Alcohol
 - Tobacco
 - Gambling
 - Defense Industry

Morningstar Database

As of 12/31/14, the Morningstar Direct Database contained:

- 186 Socially Responsible Funds (492 including all share classes)
 - 78 Domestic Equity
 - 35 International / Global
 - 8 Sector
 - 32 Fixed Income
 - 33 Asset Allocation / Target Date
- 154 of funds have at least a 5 year track record (353 including all share classes)



Investment Policy Criteria

From the *Wisconsin Deferred Compensation Program Deferred Compensation Board Investment Policy Statement* (revised November 4, 2014)

> Minimum Criteria for Selecting and Monitoring Mutual Fund and Institutional Investment Product Options

- Minimum 5 year operating history may be waived for index funds
- Expense ratio [internal expense charge plus any 12(b)1 fee] not greater than the mean for the appropriate peer group
- 5-year rolling average performance must be equal or exceed appropriate benchmark or index
- Minimum total asset size of \$400 million may be waived for certain categories of funds
- Anticipated WDC assets not greater than 5% of total fund (determined by comparing current WDC asset levels in a comparable fund)
- No loads or sales charges unless they are waived for the WDC
- Not a sector fund



Search Results

1.	Socially Responsible	=	Yes
2.	Morningstar Category	=	All categories
3.	Inception Date	<=	12/31/2009
4.	Prospectus Net Exp Ratio	<=	Category Average
5.	Total Return % Rank 5 Yr	<=	50
6.	Fund Size	>=	\$400 million
7.	Open to New Investors	=	Yes

Results:37 Funds comprising 57 share classesAvailable to Trade:20 Funds comprising 35 share classes

Performance Summary: Wisconsin SRI Overview

period ended 12/31/2014

					Overall Rating ¹				Long-Te	rm Rolling /	Analysis ²	
	Morningstar Category	Fund Complex Rating	Ticker Symbol	Fund Name	Co Overall	mposite Return	%'s Sharpe	Mstar Rating		Consecutive Quarters Below	# of Quarters Below out of trailing 12	
Intl ³	Diversified Emerging Mkts		DFESX	DFA Emerging Markets Social Core Eq	57.8	58.5	57.0	3	Above	0	0 out of 12	Pass
Mid-Cap ⁸	Mid-Cap Growth		CCPIX	Calvert Capital Accumulation I	59.3	58.7	60.0	3	Above	0	0 out of 12	Pass
	Mid-Cap Blend Mid-Cap Blend		DFUEX CAAPX	DFA US Social Core Equity 2 Ariel Appreciation Investor	62.5 54.8	60.5 68.7	64.5 41.0	3	Above Above	0	0 out of 12 1 out of 12	Pass Pass
	Mid-Cap Blend			Ariel Investor	53.9	70.3	37.5	2	Neutral	0	9 out of 12	Warning
Large-Cap	Large Growth Large Growth		PARWX PARNX	Parnassus Endeavor Fund Parnassus	90.8 75.8	91.0 94.0	90.5 57.5	4	Above Above	0	0 out of 12 0 out of 12	Pass Pass
	Large Growth Large Growth		NBSLX	Neuberger Berman Socially Rspns Inst Calvert Equity I	67.2 63.6	59.3 54.7	75.0	4 4 3	Above Above Above	0	0 out of 12 0 out of 12 0 out of 12	Pass Pass Pass
	Large Blend		PRILX	Parnassus Core Equity Institutional	90.1	83.7	96.5	4	Above	0	0 out of 12	Pass
	Large Blend Large Blend		AVEDX DFSIX	Ave Maria Rising Dividend DFA US Sustainability Core 1	71.0 69.5	59.5 84.0	82.5 55.0	4	Above Above	0	0 out of 12 0 out of 12	Pass Pass
	Large Blend Large Blend		TISCX DIEQX	TIAA-CREF Social Choice Eq Instl Domini Social Equity Instl	58.0 44.4	62.0 48.3	54.0 40.5	4	Above Neutral	0	0 out of 12 0 out of 12	Pass Pass
Acct All/Othor	Moderate Allocation		CBAIX	Calvert Balanced I	80.0	68.0	92.0	4	Above	0	0 out of 12	Pass
Asst An/Other	MODELALE ANOCALION		CDAIX	Calvert Balanceu I	80.0	00.0	92.0	4	Above	0	0 001 01 12	F d 35
Bond ⁹	Intermediate-Term Bond		CBDIX	Calvert Bond I	61.3	71.0	51.5	4	Above	0	0 out of 12	Pass
	Intermediate-Term Bond		PTSAX	PIMCO Total Return III Instl	53.5	72.0	35.0	4	Above	0	0 out of 12	Pass
	Short-Term Bond		CDSIX	Calvert Short Duration Income I	79.0	86.0	72.0	4	Above	0	0 out of 12	Pass
Index Funds ⁶	Large Growth		CISIX	Calvert Social Index I (idx)	81.9	68.3	95.5	4	N/A	N/A	N/A out of 12	Pass
	Large Blend		VFTNX	Vanguard FTSE Social Index I (idx)	83.9	74.3	93.5	3	N/A	N/A	N/A out of 12	Pass

1. The Overall Rating is derived from the 3, 5 and 10 year net-of-fee performance figures, the 3 and 5 year Sharpe Ratios and the Morningstar Rating TM.

2. The Long-Term Rolling Analysis accumulates the trailing 12 quarter Overall Ratings and determines a pass/fail designation accordingly

Data Source: Morningstar Direct®

Please refer to the Appendix page for additional footnotes

For all funds, lowest-cost share class is shown.

Return Analysis: Wisconsin SRI Overview

period ended 12/31/2014

		penda ended 12/3/1/2014										
		4th Qtr	4th Qtr	Pe	rformance vs	s. Benchm	nark (Annuali	zed Retur	ns and Retur	n Percent	iles %)	
		2014	2014	1 Year	1 Year	3 Year	3 Year	5 Year	5 Year	10 Year	10 Year	Incept.
	Fund Name	Return	Percentile	Return	Percentile	Return	Percentile	Return	Percentile	Return	Percentile	Date
Intl ³	Diversified Emerging Mkts Peer Group	-4.72	50	-3.34	50	4.25	50	1.88	50	7.65	50	
	DFA Emerging Markets Social Core Eq	-4.50	53	-1.25	69	4.80	57	2.27	60	N/A	N/A	8/31/2006
Mid-Cap ⁸	Mid-Cap Growth Peer Group	5.36	50	7.38	50	18.06	50	14.79	50	8.57	50	
	Calvert Capital Accumulation I	5.83	61	8.09	60	17.77	45	17.13	89	8.18	42	2/26/1999
	Mid-Cap Blend Peer Group	5.79	50	8.82	50	19.52	50	15.51	50	8.34	50	
	DFA US Social Core Equity 2	4.33	30	8.00	43	20.27	66	15.71	55	N/A	N/A	10/1/2007
	Ariel Appreciation Investor	7.38	91	8.15	45	23.58	94	15.90	60	8.56	52	12/1/1989
	Ariel Investor	8.52	98	10.95	78	24.53	98	16.62	83	7.16	30	11/6/1986
Large-Cap	Large Growth Peer Group	4.54	50	10.23	50	19.67	50	14.23	50	7.71	50	
	Parnassus Endeavor Fund	7.37	97	18.50	98	23.78	97	16.07	85	N/A	N/A	4/29/2005
	Parnassus	7.97	98	14.67	94	24.72	98	16.55	90	9.99	94	12/27/1984
	Neuberger Berman Socially Rspns Inst	5.36	72	10.70	55	19.44	45	15.32	74	8.03	59	11/28/2007
	Calvert Equity I	6.04	85	11.57	67	19.34	43	14.51	57	8.19	64	11/1/1999
	Large Blend Peer Group	4.59	50	11.65	50	19.55	50	14.15	50	7.15	50	
	Parnassus Core Equity Institutional	6.34	92	14.70	91	21.18	83	14.95	69	10.43	99	4/28/2006
	Ave Maria Rising Dividend	3.70	33	9.28	25	18.55	35	15.50	84	N/A	N/A	5/2/2005
	DFA US Sustainability Core 1	4.60	51	10.39	34	20.88	80	15.80	88	N/A	N/A	3/12/2008
	TIAA-CREF Social Choice Eq Instl	4.06	40	11.25	45	19.45	48	14.57	59	7.80	79	7/1/1999
	Domini Social Equity Instl	3.38	27	14.40	89	19.52	50	14.56	58	6.88	37	11/28/2008
Asst All/Other	Moderate Allocation Peer Group	2.04	50	5.99	50	11.84	50	9.48	50	6.03	50	
	Calvert Balanced I	4.02	94	10.34	93	13.13	74	10.88	81	5.99	49	2/26/1999
Bond ⁹	Intermediate-Term Bond Peer Group	1.29	50	5.46	50	3.35	50	4.80	50	4.55	50	
	Calvert Bond I	1.67	86	6.73	90	4.24	78	5.15	64	4.94	71	3/31/2000
	PIMCO Total Return III Instl	1.09	35	4.54	25	3.94	71	4.87	53	5.69	92	5/1/1991
	Short-Term Bond Peer Group	0.01	50	0.93	50	1.68	50	2.15	50	2.95	50	
	Calvert Short Duration Income I	-0.11	31	1.30	69	3.16	89	2.95	77	4.12	92	4/11/2006
Index Funds	Calvert Social Index I (idx)	6.08	86	14.41	93	22.06	89	15.66	80	7.25	36	6/30/2000
	Vanguard FTSE Social Index I (idx)	6.92	96	15.85	96	23.24	97	16.36	93	6.75	33	1/14/2003
4												,

A Percentile Ranking of 100% represents the best in class performance whereas 0% represents the low est.

Investment options available in the plan may be through mutual funds and/or a group fixed annuity contract. Total return performance show n above represents that of the underlying fund and does not include a deduction

for any applicable annuity contract of administrative fees/expenses. Performance numbers show n above would be less after applicable fee/expenses are deducted.

Data Source: Morningstar Direct® Please refer to the Appendix page for additional disclosures

Sharpe Ratio and Expense Analysis: Wisconsin SRI Overview

period ended 12/31/2014

		Sharpe	Ratios ar	nd Percentile	s %	Standard I	Deviation	Expense	Expense	Manager	Fund Size
	Fund Name	3 Yr Ratio	3 Yr %	5 Yr Ratio	5 Yr %	3 Yr	5 Yr	Ratio	Percentile %	Tenure (yrs)	\$MM
Intl ³	Diversified Emerging Mkts Peer Group	0.35	50	0.19	50	15.25	18.76	1.52	50		
	DFA Emerging Markets Social Core Eq	0.37	55	0.21	59	15.64	19.44	0.66	97	8	928
Mid-Cap ⁸	Mid-Cap Growth Peer Group	1.46	50	0.95	50	11.77	16.02	1.20	50		
	Calvert Capital Accumulation I	1.48	53	1.02	67	11.53	16.98	0.85	86	9	409
	Mid-Cap Blend Peer Group	1.64	50	0.99	50	11.25	15.77	1.15	50		
	DFA US Social Core Equity 2	1.78	78	0.99	51	10.71	16.04	0.30	92	6	528
	Ariel Appreciation Investor	1.67	64	0.88	18	13.30	18.88	1.13	53	12	1,987
	Ariel Investor	1.66	60	0.86	15	13.90	20.36	1.03	60	28	2,268
Large-Cap	Large Growth Peer Group	1.72	50	0.99	50	10.82	14.63	1.09	50		
	Parnassus Endeavor Fund	2.28	99	1.09	82	9.63	14.70	0.95	66	10	755
	Parnassus	1.86	75	0.96	40	12.33	17.62	0.86	74	30	661
	Neuberger Berman Socially Rspns Inst	1.80	64	1.10	86	10.22	13.76	0.68	91	14	2,366
	Calvert Equity I	1.81	68	1.07	77	10.06	13.56	0.68	91	9	2,791
	Large Blend Peer Group	1.90	50	1.06	50	9.62	13.41	1.03	50		
	Parnassus Core Equity Institutional	2.27	98	1.22	95	8.66	11.96	0.69	77	14	11,318
	Ave Maria Rising Dividend	2.01	69	1.26	96	8.66	12.01	0.98	55	10	835
	DFA US Sustainability Core 1	1.93	54	1.08	56	10.13	14.61	0.33	92	6	431
	TIAA-CREF Social Choice Eq Instl	1.91	52	1.08	56	9.55	13.44	0.18	96	9	2,685
	Domini Social Equity Instl	1.75	29	1.06	52	10.51	13.62	0.80	70	6	1,073
Asst All/Other	Moderate Allocation Peer Group	1.68	50	1.03	50	6.64	9.05	1.10	50		
	Calvert Balanced I	2.10	89	1.37	95	5.97	7.71	0.70	88	12	690
Bond ⁹	Intermediate-Term Bond Peer Group	1.13	50	1.63	50	2.80	2.78	0.78	50		
	Calvert Bond I	1.24	62	1.54	41	3.37	3.25	0.51	82	4	829
	PIMCO Total Return III Instl	1.12	48	1.38	22	3.47	3.45	0.50	84	0	1,510
	Short-Term Bond Peer Group	1.37	50	1.49	50	1.11	1.39	0.77	50		
	Calvert Short Duration Income I	1.90	82	1.64	62	1.61	1.74	0.49	85	5	1,686
Index Funds	Calvert Social Index I (idx)	2.11	98	1.15	93	9.70	13.37	0.21	99	2	420
	Vanguard FTSE Social Index I (idx)	2.18	97	1.18	90	9.85	13.69	0.16	97	3	1,535

A Percentile Ranking of 100% represents the best in class performance w hereas 0% represents the low est.

Expense refers to the Prospectus Net Expense Ratio

Data Source: Morningstar Direct®

Please refer to the Appendix page for additional disclosures

Annual Returns and Statistics: Wisconsin SRI Overview

period ended 12/31/2014

										Port	folio Constru	uction
			Calenc	lar Year R	leturns		MPT S	tatistics (3	year)	Turnover	Number of	% in top
	Fund Name	2014	2013	2012	2011	2010	Alpha	Beta	R2	Ratio	Holdings	10 holdings
Intl ³	Diversified Emerging Mkts Peer Group	-3.34	-1.40	18.90	-19.00	18.58						
	DFA Emerging Markets Social Core Eq	-1.25	-3.15	20.36	-21.27	23.42	0.71	1.02	97	10	3145	12%
Mid-Cap ⁸	Mid-Cap Growth Peer Group	7.38	35.50	14.66	-3.82	25.85						
	Calvert Capital Accumulation I	8.09	29.62	16.60	2.89	31.14	0.40	0.88	90	81	47	30%
	Mid-Cap Blend Peer Group	8.82	33.64	16.84	-2.81	23.92						
	DFA US Social Core Equity 2	8.00	37.08	17.50	-2.64	22.48	-1.61	0.97	96	11	2315	14%
	Ariel Appreciation Investor	8.15	46.21	19.35	-7.35	19.61	-1.43	1.17	90	24	41	38%
	Ariel Investor	10.95	44.68	20.32	-11.34	25.97	3.05	1.06	88	29	38	34%
Large-Cap	Large Growth Peer Group	10.23	34.10	15.48	-1.79	16.03						
	Parnassus Endeavor Fund	18.50	31.15	22.02	-1.61	12.93	3.86	0.83	88	41	34	45%
	Parnassus	14.67	34.21	26.06	-5.01	16.70	2.56	1.05	88	65	41	40%
	Neuberger Berman Socially Rspns Inst	10.70	38.48	11.15	-2.72	23.06	-1.20	1.02	88	36	40	43%
	Calvert Equity I	11.57	31.17	16.14	-1.70	17.86	-0.62	0.99	92	24	102	34%
	Large Blend Peer Group	11.65	31.94	15.47	0.05	14.38						
	Parnassus Core Equity Institutional	14.70	34.15	15.64	3.38	9.10	2.80	0.89	86	17	43	34%
	Ave Maria Rising Dividend	9.28	33.85	13.89	4.63	17.90	0.57	0.88	92	14	42	33%
	DFA US Sustainability Core 1	10.39	36.69	17.05	-0.66	18.68	-0.90	1.07	98	7	2387	11%
	TIAA-CREF Social Choice Eq Instl	11.25	34.32	14.05	-0.05	15.91	-0.92	1.00	98	7	849	13%
	Domini Social Equity Instl	14.40	33.46	11.84	1.12	14.25	-1.39	1.04	93	86	158	29%
Asst All/Other	Moderate Allocation Peer Group	5.99	17.31	12.11	-0.04	12.12						
	Calvert Balanced I	10.34	17.83	11.38	3.80	11.50	1.14	0.60	95	124	415	11%
Bond ⁹	Intermediate-Term Bond Peer Group	5.46	-1.69	6.54	6.42	7.54						
	Calvert Bond I	6.73	-1.97	8.27	6.23	6.80	0.25	0.82	95	187	359	-4%
	PIMCO Total Return III Instl	4.54	-2.07	9.69	3.53	9.08	0.07	3.04	90	316	1007	117%
	Short-Term Bond Peer Group	0.93	0.32	3.73	1.65	4.20						
	Calvert Short Duration Income I	1.30	1.30	6.97	0.95	4.34	0.61	0.30	72	168	396	1%
Index Funds	Calvert Social Index I (idx)	14.41	35.04	17.71	0.05	13.73	1.08	1.02	96	8	732	21%
	Vanguard FTSE Social Index I (idx)	15.85	37.09	17.84	-0.52	14.58	1.76	1.03	97	14	375	20%

A Percentile Ranking of 100% represents the best in class performance whereas 0% represents the low est.

The Fund Performance Review is a proprietary high level analytical tool that is used to evaluate fund performance and is not intended as an offer or solicitation of securities, or as investment advice.

Investment options available in the plan may be through mutual funds and/or a group fixed annuity contract. Total return performance show n above represents that of the underlying fund and does not include a deduction

for any applicable annuity contract of administrative fees/expenses. Performance numbers show n above would be less after applicable fee/expenses are deducted.

Data Source: Morningstar Direct® Please refer to the Appendix page for additional disclosures

Fund Performance Report

Index Performa	ince							period	l ending 1	2/31/2014
			Total	Total	Total			-	-	
		Total	Return	Return	Return	Annual	Annual	Annual	Annual	Annual
		Return	Annizd	Annizd	Annizd	Return	Return	Return	Return	Return
	Index	1 Year	3 Year	5 Year	10 Year	2014	2013	2012	2011	2010
International ³	MSCI EMF ID	-4.63	1.43	-0.68	5.84	-4.63	-4.98	15.15	-20.41	16.36
	MSCI Eafe Ndtr_D	-4.90	11.06	5.33	4.43	-4.90	22.78	17.32	-12.14	7.75
	MSCI World Ndtr_D	4.94	15.47	10.20	6.03	4.94	26.68	15.83	-5.54	11.76
Small-Cap ⁵	Russell 2000 Growth	5.60	20.14	16.80	8.54	5.60	43.30	14.59	-2.91	29.09
	Russell 2000	4.89	19.21	15.55	7.77	4.89	38.82	16.35	-4.18	26.85
	Russell 2000 Value	4.22	18.29	14.26	6.89	4.22	34.52	18.05	-5.50	24.50
Mid-Cap ⁸	Russell Midcap Growth	11.90	20.71	16.94	9.43	11.90	35.74	15.81	-1.65	26.38
init-oap	Standard & Poor's Midcap 400	9.77	19.99	16.54	9.71	9.77	33.50	17.88	-1.73	26.64
	Russell Midcap Value	14.75	21.98	17.43	9.43	14.75	33.46	18.51	-1.38	24.75
Large-Cap	Russell 1000 Growth	13.05	20.26	15.81	8.49	13.05	33.48	15.26	2.64	16.71
	Standard & Poor's 500 TR	13.69	20.41	15.45	7.67	13.69	32.39	16.00	2.11	15.06
	Russell 1000 Value	13.45	20.89	15.42	7.30	13.45	32.53	17.51	0.39	15.51
Bond ⁹	Barclays Capital Aggregate Bond	5.97	2.66	4.45	4.71	5.97	-2.02	4.21	7.84	6.54
	Barclays Capital Credit	7.53	4.84	6.25	5.46	7.53	-2.01	9.37	8.35	8.47
	Barclays Capital Mortgage-Backed	6.08	2.37	3.73	4.75	6.08	-1.41	2.59	6.23	5.37
	Barclays Capital Government Bond	4.92	1.40	3.70	4.29	4.92	-2.60	2.02	9.02	5.52
	Barclays Capital 1-3 Year Governm	0.64	0.51	1.09	2.62	0.64	0.37	0.51	1.56	2.40
MSCI EMF ID	A capitalization-weighted index of stocks from 26	emerging markets that	at only includes is	sues that may be	e traded by foreign in	vestors. The reported r	eturns reflect eq	uities priced in U	JS dollars and do	
	not include the effects of reinvested dividends.									
MSCI EAFE Ndtr_D	Widely accepted as a benchmark for internationa	l stock performance, t	he EAFE Index is	an aggregate of	21 individual country	indexes that collective	ly represent mar	ny of the major m	arkets of the wor	d.
MSCI World Ndtr_D	Includes all 23 MSCI developed market countries declared by companies.	. Ndtr_D indexes are o	calculated daily a	nd take into acco	unt actual dividends	reinvested daily before	withholding tax	es, but exclude s	pecial tax credits	
Russell 2000 Growth	Market-weighted total return index that measures	the performance of c	ompanies within	he Russell 2000 l	Index having higher p	price-to-book ratios and	higher forecast	ed growth values	s.	
Russell 2000	Consists of the smallest 2000 companies in the R	ussell 3000 Index, repi	esenting approxi	mately 7% of the	Russell 3000 total ma	rket capitalization.				
Russell 2000 Value	Market-weighted total return index that measures	the performance of c	ompanies within t	he Russell 2000 l	Index having lower pr	rice-to-book ratios and	lower forecasted	growth values.		
Russell Mid Cap Growth	Market-weighted total return index that measures	the performance of c	ompanies within	he Russell Midca	ap Index having high	er price-to-book ratios a	and higher forec	asted growth val	ues.	
Standard & Poor's Midcap 400	Includes approximately 10% of the capitalization	of U.S. equity securiti	es. These are con	nprised of stocks	in the middle capitali	ization range.				
Russell Mid Cap Value	Market-weighted total return index that measures	the performance of c	ompanies within	he Russell Midca	ap Index having lowe	r price-to-book ratios a	nd lower forecas	ted growth value	es.	
Russell 1000 Growth	Market-weighted total return index that measures	the performance of c	ompanies within t	he Russell 1000 l	Index having higher p	price-to-book ratios and	higher forecast	ed growth values	š.	
Standard & Poor's 500	A market capitalization-weighted index of 500 wid						issues.			
	Standard and Poor's chooses the member compar									
Russell 1000 Value	Market-weighted total return index that measures	1	1		U 1		lower forecasted	l growth values.		
BarCap US Aggregate Bond	Composed of the Barclays Capital Govt/Credit In-									
BarCap US Credit	Listed for corporate bond-general and high-quali	•					ninated, SEC-reg	istered, investme	ent-grade corpora	te debt.
BarCap US MBS	Includes 15- and 30-year fixed-rate securities back	1 2 2 1								
BarCap US Government Bond	Listed for government-bond general and Treasur This index is effective for tracking portfolios hold				agency bonds, and o	one- to three-year U.S. §	government obli	gations.		
BarCap US Govt 1-3 Yr	Comprised of both the Treasury Bond index (all p	oublic obligations of the	he U.S. Treasury,	excluding flower	bonds and foreign-ta	argeted issues) and the	Agency Bond I	ndex		
	(all publicly issued debt of U.S. Government ager	cies and quasi-federa	l corporations an	d corporate-debt	guaranteed by the U	J.S. Government).				

A benchmark index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, performance of an Index Fund will generally be less than its benchmark index. You cannot invest directly in a benchmark index.

Data Source: Morningstar Direct®

ADVISED ASSETS

S&P 500® Index is a registered trademark of Standard & Poor's Financial Services LLC ("Standard & Poor's), and is an unmanaged index considered indicative of the domestic Large-Cap equity market. S&P 400® Index is a registered trademark of Standard & Poor's Financial Services LLC ("Standard & Poor's), and is an unmanaged index considered indicative of the domestic Mid-Cap equity market. Please refer to the Appendix page for additional disclosures

GROUP 13

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FUND PERFORMANCE REVIEW

IMPORTANT DISCLOSURES:

The Fund Performance Review is compiled at the request of the Plan Sponsor and/or broker. It is designed as a high level analytical tool to aide plan sponsors in carrying out their fiduciary responsibilities; it is not intended as investment advice. Plan Sponsors may wish to review the enclosed material with their investment adviser, consultant or broker, if necessary, prior to making final investment decisions.

Funds listed on the Fund Performance Review are designed to meet stated investment objectives and risk profiles. Risks associated with the investment options can vary significantly and the relative risks of investment categories may change under certain economic conditions. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be more or less than their original cost. Current performance may be lower or higher than performance data shown due to market activity. Past performance is not a guarantee of future results.

CONFIDENTIAL - DO NOT DISCLOSE OR DISSEMINATE Data Source: Morningstar Direct®

FUND PERFORMANCE REVIEW: OVERVIEW

OBJECTIVE: * To quantify historical fund performance relative to peer group benchmarks.

- * To identify funds that have consistently underperformed over the long-term.
- * To assist in identifying style drift and discern gaps within the plan portfolio.

FUNDAMENTALS: * An objective analysis based on set criteria.

- * Based on long-term and risk-adjusted performance.
- * Comparison against peer group of similar funds as determined by Morningstar, Inc.®
- SOURCE: * Statistics are derived from an independent third-party: primarily Morningstar Direct ®
 - **SCOPE:** * The Fund Performance Review is designed as a high level analytical tool to aide plan sponsors in carrying out their fiduciary responsibilities; it is not intended as investment advice.

The purpose of this document is to provide investment-related information only for the plan sponsor in its role as a fiduciary to the Plan, not as investment advice for plans or plan participants. Although the data contained in this report is from reliable sources. Advised Assets Group, LLC cannot guarantee its completeness or accuracy. Risks associated with investment options can vary significantly with each particular Investment category and the relative risks of categories may change under certain economic conditions. The investment return and principal of an investment will fluctuate so that an investor's shares, when redeemed, may redeemed, may be more or less

Current performance may be lower or higher than performance data shown due to market volatility. Past performance is no guarantee of future returns.

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FUND PERFORMANCE REVIEW: CRITERIA

OVERALL RATING: Based on performance, risk-adjusted performance and the Overall Morningstar Rating.

Return Composite: Determined by taking the equal-weighted average of the 3-, 5- and 10-year category return percentiles.

Sharpe Composite: Calculated by averaging the 3- and 5-year category sharpe percentiles.

Overall Composite: The equally-weighted average of the Return Composite and Sharpe Composite.

Overall Morningstar Rating: Represents a measure of an investment's risk-adjusted return, relative to similar investments. The Overall Composite is the sole determinate for the Overall Rating for funds that do not have an Overall Morningstar Category Rating.

Overall		Overall Morningstar	Overall
Composite		Rating	Rating
<u>></u> 50.00%	AND	9 , 9 , or 9	Above
<u>></u> 50.0%	OR	8, 9, or 5	Neutral
< 50.0%	AND	0 , or 2	Below

LONG-TERM ROLLING ANALYSIS: Based on the accumulated trailing 12 quarter "Overall Ratings".

Consecutive number	onsecutive number Total number of							
of Quarters Receiving	Quarters Below of		Lo	rm				
a Below Rating		of trailing 12 quarters	Rolling Analysis					lysis
< 4 Quarters	AND	< 7 Quarters	Pass					
> 4 Quarters	OR	>7 Quarters	Warning OR Fa		Fail			
OR								
Overall Rating: < 25.0%			Warning	OR	Fail			

Funds receiving a Warning: Please see the footnotes page for Special Product Consideration Funds.

For expanded definitions of the Composites, Sharpe Ratio and Ratings, please refer to the corresponding glossary. Information for this fund evaluation was received from what we believe to be reliable sources, but we cannot absolutely guarantee accuracy, The performance data quoted within represents past performance and is not a guarantee or indication of future investment results. For each fund with at least a three-year history, Morningstar calculates a Morningstar Rating based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's monthly performance (including the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. The top 10% of the funds in each category receive 5 stars, the next 22.5% receive 3 stars, the next 22.5% receive 2 stars and the bottom 10% receive 1 star. (Each share class is counted as a fraction of one fund within this scale and rated separately, which may cause slight variations in the distribution percentages). The Overall Morningstar Rating for a fund is derived from a weighted average of the performance figures with its three -, five -, and then-year (if-applicable) Morningstar Rating metrics. Past Performance is no guarantee of future results.

FUND COMPLEX RATING

OVERVIEW:

Due to the issues involving mutual fund complexes and their compliance with security laws and regulations, Great-West FinancialSM developed a ratings system for funds involved in its packaged products. Mutual fund complexes are assigned a rank of red, yellow or green.

RED RATING:

A fund complex or any of its respective funds may be placed on the Red Fund Complex Corporate Rating and may be terminated or disqualified from participating in the packaged products if that fund complex is determined by a court or appropriate regulatory agency or the fund complex admits to having allowed regulatory violations or corporate infractions in its funds by its employees (officers or portfolio managers) of the complex. In such event, depending on the severity of the violation or infraction, the fund(s) may be terminated even if such activity was not found to have occurred in a fund used by Great-West FinancialSM but elsewhere in the fund complex.

YELLOW RATING:

A fund or fund complex will be put on the Yellow Fund Complex Corporate Rating if that fund complex is charged by a court or appropriate regulatory agency or admits to having allowed regulatory violations or corporate infractions in its funds. While a fund is on the Yellow Fund Complex Corporate Rating, no action shall be taken to terminate or replace the fund.

GREEN RATING:

A fund or fund complex that has not been implicated in any regulatory violations or infractions nor has admitted to committing such activities.

Fund Performance Report

SPECIAL NOTE REGARDING SPECIAL PRODUCT CONSIDERATION FUNDS

Funds receiving the 'Warning' rating represent a limited number of Special Product Consideration funds that have not earned a 'Pass' rating and are given a 'Warning' due to exceptional circumstances. These circumstances include: funds offered by companies on an exclusive or restricted basis to GWRS in specific markets; Great-West funds that have historical performance of the prior management; funds that occupy unique product positioning for Minority Business Enterprise status, Women Business Enterprise status, or Disabled Business Enterprise status; or funds, in the opinion of GWRS, misclassified by Morningstar or have restricted investment policies or some other unique positioning of the fund. Funds with a 'Warning' rating are monitored closely and can be reclassified when appropriate to a 'Pass' or 'Fail' rating. GWRS will periodically review the funds in the product array and assign the Special Product Consideration (SPC) as appropriate.

Funds currently designated by GWRS for Special Product Consideration:

FUND

American Funds American Hi-Inc Tr American Funds Bond Fund of Amer American Funds Interm Bd Fd of Amer American Funds Invmt Co of Amer American Funds IS® Mortg American Funds IS® US Govt/AAA-Rtd Secs American Funds IS® US Govt/AAA-Rtd Secs American Funds Ltd-Term Tx-Ex Bd American Funds Money Market American Funds Mortgage American Funds NVIT Bond American Funds ST Bd Fd of Amer American Funds Tax-Exempt Bond

FUND

American Funds US Government Sec Ariel Discovery Ariel Great-West Aggressive Profile Great-West Lifetime 2025 I Great-West Lifetime 2055 I Great-West Money Market Great-West Multi-Manager LgCpGr Great-West Putnam High Yield Bond Great-West SecureFoundation® LT 2055 Great-West Small Cap Growth



12b-1 Fee The maximum annual charge deducted from fund assets to pay for distribution and marketing costs. Although usually set on a percentage basis, this amount will occasionally be a flat figure.

Actively managed fund A fund manager buys and sells securities attempting to outperform the market as a whole.

Adjustable Bonds A bond whose coupon is reset periodically—usually every six months to three years. At the reset date, the coupon is set equal to some base index, such as the one-year constant Treasury rate, plus a spread (or margin). When interest rates are falling, these bonds do better than an in-year Treasury, but when interest rates rise, they can lag Treasury yields.

Aggressive Growth (Objective) Funds that seek rapid growth of capital and that may invest in emerging market growth companies without specifying a market capitalization range. They often invest in small or emerging growth companies and are more likely than other funds to invest in IPO's or in companies with high price/earnings and price/book ratios. They may use such investment techniques as heavy sector concentrations, leveraging, and short-selling.

Alpha A measure of the difference between a fund's actual returns and its expected performance, given its level of risk as measured by beta. A positive alpha figure indicates the fund has performed better than its beta would predict. In contrast, a negative alpha indicates the fund's underperformance, given the expectations established by the fund's beta.

Annual Returns Total returns calculated on a calendar-year basis. The annual return for a fund will be the same as its trailing 12-month total return only at year-end.

Annualized Returns Returns for periods longer than one year are expressed as "annualized returns." This is equivalent to the compound rate of return which, over a certain period of time, would produce a fund's total return over that same period.

Asset Allocation (Objective) Income and capital appreciation are dual goals for funds in this objective. Managers often use a flexible combination of stocks, bonds, and cash. Managers may shift assets based on analysis of business-cycle trends.

Average Credit Quality Gives a snapshot of the portfolio's overall credit quality. It is an average of each bond's credit rating, adjusted for its relative weighting in the portfolio.

Average Effective Duration A measure of a fund's interest-rate sensitivity--the longer a fund's duration, the more sensitive the fund is to shifts in interest rates. Duration is determined by a formula that includes coupon rates and bond maturities. Small coupons tend to increase duration, while shorter maturities and higher coupons shorten duration. The relationship between funds with different durations is straightforward: A fund with a duration of 10 years is twice as volatile as a fund with a five-year duration.

Average Effective Maturity Used for taxable fixed-income funds only, this figure takes into consideration all mortgage prepayments, puts, and adjustable coupons; it does not, however, account for call provisions. The number listed is a weighted average of all the maturities of the bonds in the portfolio, computed by weighing each maturity date (the date the security comes due) by the market value of the security.

Balanced (Objective) Funds that seek both income and capital appreciation by investing in a generally fixed combination of stocks and bonds. These funds generally hold a minimum of 25% of their assets in fixed-income securities at all times.

Basis Point One-hundredth of a percentage point. For example, 50 basis points equals .50%.

Beta A measure of a fund's sensitivity to market movements. The beta of the market is 1.00 by definition. Beta is calculated by comparing a fund's excess return over Treasury bills, so a beta of 1.10 shows that the fund has performed 10% better than its benchmark index in up markets and 10% worse in down markets, assuming all other factors remain constant. Conversely, a beta of 0.85 indicates that the fund's excess return is expected to perform 15% worse than the market's excess return during up markets and 15% better during down markets.

Bonds Interest-bearing certificates of indebtedness or IOUs. While bonds' rates of return remain fixed, bond prices change in relation to interest rates — when interest rates go up, bond prices go down, and vice versa. However, bond funds are variable funds and fluctuate with market conditions.

Bond funds Contrary to individual bonds, which offer a guaranteed rate of return, bond funds are variable funds and their returns may rise or fall depending on market conditions. Funds with 70% or more of their assets invested in bonds are classified as Bond Funds. Bond funds are divided into two main groups: Taxable Bond and Municipal Bond. Taxable Bond Fund categories include the following: Long-Term Government, Intermediate-Term Government, Short-Term Government, Long-Term Bond, Intermediate-Term Bond, Ultrashort-Bond, International-Bond, High-Yield Bond, Emerging-Markets Bond and Multisector Bond.

Breakpoint The investment amount at which investors in a load fund qualify for a discount on the fund's sales charges.

Broker A firm or individual that acts as an intermediary between a buyer and a seller of securities, thereby earning a commission on the transaction. Unlike a broker-dealer, a broker does not own the securities that he or she sells.

Callable Bond A bond that can be repaid early, at the issuer's discretion. A callable bond allows an issuer to refinance debt at a lower rate, should interest rates drop below the coupon rate on the bond. If interest rates have dropped significantly since the date of issue, a callable bond will trade as though its maturity were shortened to the call date, which is the earliest time at which the bond can be redeemed.

Capital Appreciation The taxable income generated when a security is sold. The amount of appreciation is measured by subtracting the purchase price from the sale price.

Capital Gains Taxable income generated only when a security is sold. This figure is calculated by subtracting the purchase price from the sale price. Under IRS regulations, funds must distribute 98% of their capital gains each year to avoid paying taxes on them. Shareholders pay taxes on these distributions, even if the gains are reinvested. Further capital gains can be generated by selling shares in a fund for more than the original purchase price.

Capitalization The total dollar value of all stock issued by a company. Small-cap stocks are issued by companies with market cap less than \$1 billion. Mid-cap stocks are issued by medium-sized companies with market cap anywhere from \$1 billion to \$5 billion. Large-cap stocks include companies with market cap greater than \$5 billion.

CMOs Collateralized mortgage obligations are derivative securities, created by chopping up mortgage pass-throughs or whole loans into various slices in order to redistribute the cash flows (both principal and interest payments) from the underlying bonds. The CMO group, except for adjustable-rate mortgage funds, includes PACs (planned amortization class bonds), floating- and inverse-floating-rate CMOs, and accrual or Z-tranche bonds, among other varieties.

Consumer Price Index (CPI) This index measures the changes in prices of goods and services purchased by urban households. Many pension and employment contracts are tied to changes in consumer prices, as protection against inflation and reduced purchasing power.

Corporate Bond--General (Objective) Funds that seek income by investing in fixed-income securities. Funds with this objective may hold a variety of issues, including but not limited to government bonds, high-quality corporates, mortgages, asset-backeds, bank loans and junk bonds.

Corporate Bond--High Quality (Objective) Offerings that seek income by investing at least 65% of their assets in corporate debt securities rated A or higher. They generally maintain average ratings of AA or better.

Corporate Bond--High Yield (Objective) Funds that seek income by generally investing 65% or more of their assets in bonds rated below BBB. The price of these issues is generally affected more by the condition of the issuing company (similar to a stock) than by the interest-rate fluctuation that usually causes bond prices to move up and down.

Current income Results when a stock pays a dividend or a bond makes an interest payment. This is the value of your investment increased. With current income, you get a fairly stable pattern of income — which generally means reduced volatility. (Stock dividends must be declared, and are <u>not</u> predictable.)

Diversification Spreading your money over many different types of investments. Contrary to putting all your eggs in one basket, diversification can help protect your savings because when one investment is doing poorly, another may be doing well. This does not guarantee against loss of value in your investments.

Dividends The distribution of earnings to stockholders by a company. Dividends are usually paid out from current earnings.

Domestic equity funds are placed in a category based on the style and size of the stocks they typically own. The style and size parameters are based on the divisions used in the investment style box: Value, Blend, or Growth style and Small, Medium, or Large median market capitalization.

Domestic Hybrid Category Used for funds with stock holdings of greater than 20% but less than 70% of the portfolio.

Dow Jones Industrial Average Computed by summing the prices of the stocks of 30 companies and then dividing that total by an adjusted value--one which has been adjusted over the years to account for the effects of stock splits on the prices of the 30 companies. Dividends are reinvested to reflect the actual performance of the underlying securities.

Duration A time measure of a bond's interest-rate sensitivity, based on the weighted average of the time periods over which a bond's cash flows accrue to the bondholder. Time periods are weighted by multiplying by the present value of its cash flow divided by the bond's price. (A bond's cash flows consist of coupon payments and repayment of capital). A bond's duration will almost always be shorter than its maturity, with the exception of zero-coupon bonds, for which maturity and duration are equal.

Equity-Income (Objective) Funds that are expected to pursue current income by investing at least 65% of their assets in dividend-paying equity securities.

Equity style box is a matrix that shows a fund's investment style. Nine boxes represent two variables: the size of the companies invested in (small-cap, mid-cap, large-cap), and whether a fund is growth, value, or blend oriented. Morningstar recalculates the style of each fund on a monthly basis. The equity style box is shown below (areas are shaded according to risk — the darker the area, the higher the risk associated with the investment).

Value	Blend	Growth	ו
1	2	3	Large
4	5	6	Medium
7	8	9	Small

Excess Returns A component found in Morningstar Return, Morningstar Risk, and the Morningstar Rating. This figure is calculated by subtracting the monthly returns of the three-month Treasurybill from the monthly returns of the fund during the same time period.

Exchange-Traded Funds (ETFs) are not mutual funds in the traditional sense; rather, they are hybrid instruments combining aspects of common stocks and mutual funds and offering many the benefits of both. ETFs are products that trade like stocks. They mimic stock indexes and are passively managed just like an index fund. Because ETFs trade throughout the day just like a stock, investors have the ability to choose the timing and know the price of the transaction.

Expense Ratio The percentage of fund assets paid for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.

FHLMC mortgages The Federal Home Loan Mortgage Commission, a federally-sponsored corporation that packages huge pools of individual mortgages and carves these pools up as mortgagebacked securities. This provides diversification, and consequently lower risk for mortgage investors. Although FHLMC securities are not directly backed by the federal government, it is implicitly recognized that the government would step in were there a likelihood that they would default.

Fixed-income style box is similar to the equity style box. Fixed income style boxes represent a bond fund's investment style. A fixed-income style would be the intersection of its duration (short, intermediate, and long) and the quality of the bonds selected for the portfolio (high, medium, low). Listed below is the matrix using the fixed-income style groupings (again, the darker the shading, the higher the risk).

Short	Int.	Long	•
1	2	3	High
4	5	6	Medium
7	8	9	Low

Flagship Fund Not to be confused with the Flagship Family of funds, a flagship fund is typically the oldest of a management company's funds, or one that boasts the largest number of assets. Such funds often bear the management company's name.

Foreign Stock Category An international fund having no more than 10% of stocks invested in the United States.

Fund of Funds A fund that specializes in buying shares in other mutual funds rather than individual securities. Quite often this type of fund is not discernible from its name alone, but rather through prospectus wording (i.e.: the fund's charter).

Geometric Mean Return A compounded and annualized rate of return.

GNMA mortgages These are mortgage pass-through securities issued by the Government National Mortgage Association. These bonds are backed by the full faith and credit of the U.S. government.

Government Bond--General (Objective) Offerings that pursue income by investing in a combination of mortgage-backed securities, Treasuries, and agency securities.

G - 3

Government Bond--Mortgage (Objective) Funds that seek income by generally investing at least 65% of their assets in securities backed by mortgages, such as securities issued by the Government National Mortgage Association (GNMA), the Federal National Mortgage Association (FNMA), and the Federal Home Loan Mortgage Corporation (FHLMC).

Government Bond--Treasury (Objective) Treasury funds that seek income by generally investing at least 80% of their assets in U.S. Treasury securities.

Growth (Objective) Funds that pursue capital appreciation by investing primarily in equity securities. Current income, if considered at all, is a secondary concern.

Growth and Income (Objective) Growth of capital and current income are near-equal objectives for these funds. Investments are typically selected for both appreciation potential and dividend-paying ability.

Guaranteed Certificate Fund All money deposited into a certificate during a "deposit period" earns a guaranteed rate of return, credited daily until maturity. Backed by the general assets of the certificate issuer.

High-Yield Bond Category A fund with at least 65% or more of bond assets in bonds rated below BBB.

Index Fund A fund that tracks a particular index and attempts to match returns. While an index typically has a much larger portfolio than a mutual fund, the fund's management may study the index's movements to develop a representative sampling, and match sectors proportionately.

Individual Retirement Account (IRA) A personal retirement plan. Taxes on earnings are deferred until money from the account is withdrawn.

Industrial Cyclicals Sector Includes aerospace and aerospace industries, building supplies, industrial-building products, business equipment, chemicals, machinery (both light and industrial), metals fabrication (iron, steel, coal, and rare metals), paper and packaging, and photo equipment. Some examples of companies in this sector include Boeing, Canon, Caterpillar, Eastman Kodak, Georgia Pacific, Potash, and Sherwin-Williams.

Information Ratio The information ratio is a measure of the consistency of excess return. This value is determined by taking the annualized excess return over a benchmark (style benchmark by default) and dividing it by the standard deviation of excess return.

Institutional Fund Any fund that meets one of the following qualifications: a) has the word "institutional" in its name.

b) has a minimum initial purchase of \$100,000 or more.

c) states in its prospectus that it is designed for institutional investors or those purchasing on a fiduciary basis.

International Equity Funds with 40% or more of their equity holdings in foreign stocks (on average over three years) are placed in the international equity class. These categories include Europe, Japan, International Hybrid, Latin America, Diversified Pacific, Pacific ex. Japan, Specialty Precious Metals, Diversified Emerging Markets, World Stock, and Foreign Stock. Foreign investments involve special risks, including currency fluctuations and political developments.

Lehman Brothers 1-3 Year Government Bond Comprised of both the Treasury Bond index (all public obligations of the U.S. Treasury, excluding flower bonds and foreign-targeted issues) and the Agency Bond Index (all publicly issued debt of U.S. Government agencies and quasi-federal corporations and corporate-debt guaranteed by the U.S. Government). These bonds also must have maturities of one to three years. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Aggregate Index. Composed of the Lehman Brothers Govt/Credit Index, the Mortgage-Backed Securities Index, and the Asset-Backed Securities Index. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Credit Listed for corporate bond-general and high-quality funds. This index tracks the returns of all publicly issued, fixed-rate, nonconvertible, dollar-denominated, SEC-registered, investment-grade corporate debt. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Government Bond Index Listed for government-bond general and Treasury funds. Because it tracks the returns of U.S. Treasuries, agency bonds, and one- to three-year U.S. government obligations, this index is effective for tracking portfolios holding non-mortgage government securities. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Govt/Credit Represents a combination of the Government and Corporate Bond indices. The returns published for the index are total returns, which include reinvestment of dividends. For more information, view the Lehman Brothers Web site or call 212-526-1000.

Lehman Brothers Intermediate Government Index Includes those indexes found in the LB Government Index which have a maturity of one to three years. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Intermediate Government/Corporate Index Includes both corporate (publicly-issued, fixed-rate, nonconvertible, investment grade, dollar-denominated, SEC-registered, corporate dept.) and government (Treasury Bond index, Agency Bond index, 1-3 Year Government index, and the 20+-Year treasury) indexes, including bonds with maturities up to ten years. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Intermediate Treasury This index includes treasury bonds with maturates of at least one year and up to 10 years with an outstanding par value of at least 100 million. They include fixed-rate debt issues, rated investment grade or higher by Moody's Investor Services, Standard & Poor's Corporation, or Fitch Investor's Service (in that order). Treasuries include all public obligations of the U.S. Treasury, excluding flower bonds and foreign-targeted issues. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Long Credit Serves as a measure of all public-issued nonconvertible investment-grade corporate debts that have a maturity of 10 years or more. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Long Term Government Index Includes those indexes found in the LB Government index which have a maturity of 10 years or more. The returns published for the index are total returns, which include reinvestment of dividends.

Lehman Brothers Mortgage-Backed Securities Includes 15- and 30-year fixed-rate securities backed by mortgage pools of the Government National Mortgage Association (GNMA). The returns published for the index are total returns, which include reinvestment of dividends.

Life Cycle These funds are geared toward investors of a certain age or with a specific time horizon for investing. Typically they are grouped together in sets (i.e. conservative, moderate, and aggressive portfolios).

Linear Scale Linear graphs are scaled so that equal vertical distances represent the same absolute dollar value change. A drop from \$10,000 to \$9,000, for example, is represented in the same way as a drop from \$100,000 to \$99,000.

Logarithmic Scale Used for graphs, a scale that reveals percentage changes. A given percentage move takes up the same amount of space as another move of equal percentage. A change from 100 to 200, for example, is presented in the same way as a change from 1000 to 2000.

Maturity Short-term bonds mature (or come due) in less than four years. Intermediate-term bonds mature in four to ten years. Long-term bonds mature more than ten years from the date of purchase. The longer the term, the higher the risk and the rate of potential return.

Management Fees The management fee is the percentage deducted from fund assets to pay an advisor or subadvisor. Often, as the fund's net assets grow, the percentage deducted for management fees decreases. For example, a particular fund may report a management fee of 0.40% on the first \$500 million in assets, 0.35% on all assets between \$500 million and \$1 billion, and 0.30% on assets in excess of \$1 billion. Thus, if the fund contains \$1.5 billion in total net assets, the advisor scales back its management fees accordingly. Alternatively, the fund may compute the fee as a flat percentage of average net assets. The management fee might also come in the form of a group fee (G), a performance fee (P), or a gross income fee (I). Note: The management fee is just one (albeit a major) component of a fund's costs. The overall expense ratio is the most useful number for investors. Actual fees are also noted in this section.

Market-Neutral Funds These are funds that attempt to eliminate the risks of the market by holding 50% of assets in long positions in stocks and 50% of assets in short positions. Funds in this group match the characteristics of their long and short portfolios, keeping factors such as price-to-earnings and industry exposure similar. Stock picking, rather than broad market moves, should drive a market-neutral fund's performance.

Median Market Capitalization The median market capitalization of a fund's equity portfolio gives you a measure of the size of the companies in which the fund invests. It is the trimmed mean of the market capitalizations of the stocks in the fund's portfolio.

Modern Portfolio Theory (MPT) Statistics Alpha, beta, and R-squared are modern-portfolio-theory measures of a fund's relative risk, based on least-squares regression of a fund's excess returns on the excess returns of a market index. Standard deviation is not considered an MPT statistic because it is not generated through the same formula or mathematical analysis as the other three statistics.

Money market funds Best described as short-term versions of bonds. These relatively low-risk variable funds hold very short-term securities such as U.S. government securities, certificates of deposit, cash and cash equivalents. Investments in Money Market funds are neither insured nor guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although they seek to preserve the value of your investment at \$1 per share, it is possible to lose money in Money Market funds.

Morley Stable Value Index A hypothetical portfolio comprised of a weighted blend of 50% five-year stable value contracts, 30% three-year stable value contracts and 20% 30-day prime commercial paper. The five-year component consists of 60 hypothetical five-year stable value contracts, one purchased at the prior month end's illustrative rate at the beginnning of each month for the prior 60 months. The three-year component consists of 36 hypothetical three-year stable value contracts, one purchased at the prior month end's illustrative rate at the beginning of each month for the prior 36 months.

Morningstar was founded in 1984 to provide investors with useful information for making intelligent, informed investment decisions. The company's first product, originally named the Mutual Fund Sourcebook, proved to be innovative in its ability to tap into an underserved market. Soon a demand grew for an even more in-depth and analytical publication, leading to the launch of Morningstar Mutual Funds in late 1986.

Morningstar Category identifies funds based on their actual investment styles as measured by their underlying portfolio holdings (portfolio statistics and compositions over the past three years). If the fund is new and has no portfolio, we estimate where it will fall before assigning a more permanent category. When necessary, we may change a category assignment based on current information.

MSCI EAFE Ndtr_D Listed for foreign stock funds (EAFE refers to Europe, Australasia, and Far East). Widely accepted as a benchmark for international stock performance, the EAFE Index is an aggregate of 21 individual country indexes that collectively represent many of the major markets of the world. Ndtr_D indexes are calculated daily and take into account actual dividends reinvested daily before withholding taxes, but exclude special tax credits declared by companies. In addition, Ndtr_D indexes subtract withholding taxes retained at the source, for foreigners who do not benefit from a double taxation treaty. The returns published for the index are total returns, which include reinvestment of dividends.

MSCI Europe Ndtr_D Listed for Europe stock funds. This index measures the performance of stock markets in Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, Ireland, Portugal, and the United Kingdom. Total returns date back to December 1981. Ndtr_D indexes are calculated daily and take into account actual dividends reinvested daily before withholding taxes, but exclude special tax credits declared by companies. In addition, Ndtr_D indexes subtract withholding taxes retained at the source, for foreigners who do not benefit from a double taxation treaty.

MSCI Pacific Ndtr_D Formerly known as MS Pacific, this index is listed for Pacific stock funds and measures the performance of stock markets in Australia, Hong Kong, Japan, New Zealand, and Singapore, and Malaysia. Ndtr_D indexes are calculated daily and take into account actual dividends reinvested daily before withholding taxes, but exclude special tax credits declared by companies. In addition, Ndtr_D indexes subtract withholding taxes retained at the source, for foreigners who do not benefit from a double taxation treaty. The returns we publish for the index are total returns, which include reinvestment of dividends.

MSCI World Ndtr_D Includes all 23 MSCI developed market countries. Ndtr_D indexes are calculated daily and take into account actual dividends reinvested daily before withholding taxes, but exclude special tax credits declared by companies. In addition, Ndtr_D indexes subtract withholding taxes retained at the source, for foreigners who do not benefit from a double taxation treaty.

Mutual fund An investment option that pools money from many shareholders and invests it in a group of stocks, bonds, or other securities. Also known as an open-end investment management company, mutual funds are securities required to be registered with the SEC.

NASD (National Association of Securities Dealers) A self-regulatory organization for the securities industry with jurisdiction over certain broker-dealers. The NASD enforces broker-dealers' compliance with securities regulations, including the requirement that they maintain sufficient levels of net operating capital. It also conducts market surveillance of the over-the-counter (OTC) securities market.

NAV Stands for net asset value, which is the fund's share price. Funds compute this value by dividing the total net assets by the total number of shares.

NASDAQ Composite Index Measures the performance of all issues listed in the NASDAQ Stock Market, except for rights, warrants, units, and convertible debentures.

Net Assets The month-end net assets of the mutual fund, recorded in millions of dollars. Net-asset figures are useful in gauging a fund's size, agility, and popularity. They help determine whether a small company fund, for example, can remain in its investment-objective category if its asset base reaches an ungainly size.

Ndtr_D: Noted for various Morgan Stanley indexes, Ndtr_D indicates that the index is listed in US dollars, with net dividends reinvested. Ndtr_D indexes take into account actual dividends before withholding taxes, but excludes special tax credits declared by companies. In addition, Ndtr_D indexes subtract withholding taxes retained at the source, for foreigners who do not benefit from a double taxation treaty.

NYSE (New York Stock Exchange Composite) Serves as a comprehensive measure of the market trend for the benefit of investors who are concerned with general stock market price movements. The index is a composite of all common stocks listed on the NYSE and four sub-groups--Industrial, Transportation, Utility, and Finance.

Options/Futures/Warrants Options and futures may be used speculatively, to leverage a portfolio, or cautiously, as a hedge against risk.

OTC (over the counter) A name for a security that is not listed on an exchange. The OTC is the major trading market for all US bonds, as well as many small- and large-capitalization stocks. Whereas non-OTC stocks trade on the floor of actual stock exchanges, OTC issues are traded via telephone and computer networks connecting dealers in stocks and bonds. The dealer may or may not be a member of a securities exchange, but he or she must be a member of the NASD.

Price/Book Ratio The weighted average of the price/book ratios of all the stocks in a fund's portfolio. The P/B ratio of a company is calculated by dividing the market price of its stock by the company's per-share book value. Stocks with negative book values are excluded from this calculation. In theory, a high P/B ratio indicates that the price of the stock exceeds the actual worth of the company's assets, while a low P/B ratio indicates that the stock is a bargain.

Price/Earnings Ratio The weighted average of the price/earnings ratios of the stocks in a fund's portfolio. The P/E ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months' earnings per share. In computing the average, Morningstar weights each portfolio holding by the percentage of equity assets it represents, so that larger positions have proportionately greater influence on the fund's final P/E.

Price/Cash Flow This represents the weighted average of the price/cash-flow ratios of the stocks in a fund's portfolio. Price/cash-flow represents the amount an investor is willing to pay for a dollar generated from a particular company's operations. Price/cash-flow shows the ability of a business to generate cash and acts as a gauge of liquidity and solvency. Because accounting conventions differ among nations, reported earnings (and P/E ratios) may not be comparable across national boundaries. Price/cash-flow attempts to provide an internationally-standard measure of a firm's stock price relative to its financial performance.

Prospectus A fund's formal written statement, generally issued on an annual basis. In this statement the fund sets forth its proposed purposes and goals, and other facts (e.g.: history and investment objective) that an investor should know in order to make an informed decision.

Prospectus Objective Indicates a particular fund's investment goals, based on the wording in a fund's prospectus.

R-Squared Reflects the percentage of a fund's movements that can be explained by movements in its benchmark index. An R-squared of 100 indicates that all movements of a fund can be explained by movements in the index. Thus, index funds that invest only in S&P 500 stocks will have an R-squared very close to 100. Conversely, a low R-squared indicates that very few of the fund's movements can be explained by movements in its benchmark index. An R-squared measure of 35, for example, means that only 35% of the fund's movements can be explained by movements in the benchmark index.

Regression A mathematical tool used to study the way that two sets of numbers interact with each other. Regression measures how much of one number's changes might be caused by or linked to how much another number changes.

Returns Based Style Analysis In 1988, William F. Sharpe, Nobel Laureate and Professor of Finance at Stanford University, wrote an article for the Investment Analyst Review entitled "Determining a Fund's Effective Asset Mix". In this article, he demonstrated that a manager's style could be determined by analyzing portfolio returns, as opposed to holdings. This was done mathematically by comparing the manager's returns to the returns of a number of style indexes. This discovery revolutionized style and performance analysis and provided the basis for the StyleADVISOR suite of software.

Since its debut in 1993, StyleADVISOR has been the style analysis package of choice for the large institutional marketplace. Our client list has grown to include over 250 plan sponsors, consultants, and money managers. They use StyleADVISOR to determine, for themselves, using only monthly or quarterly returns, the style and consistency of managers and funds. They create custom style benchmarks, do performance, risk-return, upside downside market capture analyses, manager to peer universe comparisons, asset allocation, and much more. StyleADVISOR also enables them to perform manager searches, create custom universes, evaluate competitors, and monitor aggregate portfolios.

Risk Basically there are four types of risk: 1) inflation risk means your money may not earn enough in the long run because as prices go up the value of your money goes down; 2) market risk means you could lose money because the price of a stock may go down; 3) credit risk means a company or organization that borrowed your money may not be able to pay it back; and 4) interest rate risk means you could lose money because as interest rates go up the value of bond investments goes down.

Risk-Free Rate of Return Three-month T-bills are government-backed short-term investments considered to be risk-free and as good as cash because the maturity is only three months.

Risk/Return Graph The Manager Risk/Return Graph displays the risk/return characteristics of a manager and compares them to a benchmark, universe or other managers. It plots Return on the vertical axis and a Risk Statistic on the horizontal axis.

The chart has crosshairs that provide a basis for comparison by dividing the graph into four quadrants. The crosshairs are centered at either the Market Benchmark, the Style Benchmark or the median of the Universe, depending on the options you select. A relatively aggressive manager, for example, is likely to fall in the Northeast corner relative to the crosshairs centered at the universe median, with both more risk and more return.

Russell 1000 Consists of the 1000 largest companies within the Russell 3000 index. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose. The returns published for the index are total returns, which include reinvestment of dividends.

Russell 1000 Growth Market-capitalization weighted index of those firms in the Russell 1000 with higher price-to-book ratios and higher forecasted growth values. The Russell 1000 includes the largest 1000 firms in the Russell 3000, which represents approximately 98% of the investable US equity market.

Russell 1000 Value Market-capitalization weighted index of those firms in the Russell 1000 with lower price-to-book ratios and lower forecasted growth values. The Russell 1000 includes the largest 1000 firms in the Russell 3000, which represents approximately 98% of the investable US equity market.

Russell 2000 Consists of the smallest 2000 companies in the Russell 3000 Index, representing approximately 7% of the Russell 3000 total market capitalization. The returns published for the index are total returns, which include reinvestment of dividends.

Russell 2000 Growth Market-weighted total return index that measures the performance of companies within the Russell 2000 Index having higher price-to-book ratios and higher forecasted growth values. The Russell 2000 Index includes the 2000 firms from the Russell 3000 Index with the smallest market capitalizations. The Russell 3000 Index represents 98% of the of the investable US equity market.

Russell 2000 Value Market-weighted total return index that measures the performance of companies within the Russell 2000 Index having lower price-to-book ratios and lower forecasted growth values. The Russell 2000 Index includes the 2000 firms from the Russell 3000 Index with the smallest market capitalizations. The Russell 3000 Index represents 98% of the of the investable US equity market.

Russell 3000 Composed of the 3000 largest U.S. companies by market capitalization, representing approximately 98% of the U.S. equity market. The returns published for the index are total returns, which include reinvestment of dividends.

S&P 500/BARRA Growth Index A subset of the Standard & Poor's 500 Index®. Each year, all the stocks in the S&P 500® are classified as either growth or value. The stocks classified as growth make up the S&P 500/BARRA Growth Index. In general, growth companies tend to have high price-to-earnings (P/E) ratios, low dividend yields, and above-average earnings growth rates.

S&P 500/BARRA Value Index A subset of the Standard & Poor's 500 Index®. Each year, all the stocks in the S&P 500® are classified as either growth or value. The stocks classified as value make up the S&P 500/BARRA Value Index. In general, value companies tend to have low P/E ratios, high dividend yields, and below-average earnings growth rates.

S&P 400 MidCap Index The S&P 400 MidCap Index consists of 400 U.S. companies that have market capitalization from \$1 billion to \$5 billion. The index includes approximately 312 industrial companies, 10 transportation companies, 41 utilities, and 37 financial companies.

S&P 500 Index® Standard & Poor's 500 Index® is a benchmark for the United States stock market. It's a list of the 500 largest publicly traded companies, which include 400 industrial companies, 20 transportation companies, 40 utilities, and 40 financial companies.

S&P Small Cap 600 Index The Standard & Poor's SmallCap 600 Index consists of 600 U.S. companies that have market capitalization less than \$1 billion. The index includes approximately 499 industrial companies, 18 transportation companies, 27 utilities, and 56 financial companies. Equity securities of companies with small market capitalization may be more volatile than securities of larger, more established companies.

SEC Yield A calculation based on a 30-day period ending on the last of the previous month. It is computed by dividing the net investment income per share earned during the period by the maximum offering price per share on the last day of the period.

Share Classes Shares of the same fund that offer different shareholder rights and obligations, such as different fee and load charges. Common share classes are A (front-end load), B (deferred fees), C (no sales charge and a relatively high annual 12b-1 fee, such as 1.00%). Multi-class funds hold the same investment portfolio for all classes, and differ only in their surrounding fee structure.

Sharpe Ratio A risk-adjusted measure developed by Nobel Laureate William Sharpe. It is calculated by using standard deviation and excess return to determine reward per unit of risk. The higher the Sharpe Ratio, the better the fund's historical risk-adjusted performance. The Sharpe ratio is calculated for the past 36-month period by dividing a fund's annualized excess returns by its annualized standard deviation.

Socially Conscious Any fund that invests according to non-economic guidelines. Such funds may make investments based on such issues as environmental responsibility, human rights, or religious views. A socially conscious fund may take a pro-active stance by selectively investing in, for example, environmentally-friendly companies, or firms with good employee relations. This group also includes funds that avoid investing in companies involved in promoting alcohol, tobacco, or gambling, or in the defense industry.

Standard Deviation A statistical measurement of dispersion about an average, which, for a mutual fund, depicts how widely the returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that are most likely for a given fund. When a fund has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

Stocks Ownership in a company. Stocks are sold by the company and then bought/sold among investors. Risks involved include the company not performing up to expectations or that the price of your stock will fall.

Style Benchmark The concept of the style benchmark was first introduced by Nobel Laureate William F. Sharpe in 1988 and referred to as the "Effective Asset Mix". A quadratic optimizer is used to find a combination of the selected indices that would best track (have the highest correlation to) a given return series. For example, if a domestic equity manager optimization found that a weighted composite of 20% Russell Large Value, 10% Russell Large Growth, 60% Russell Small Value, 5% Russell Small Growth, and 5% T-bills had a 92% R-squared to that manager's returns, it could be said that 92% of this manager's performance may be attributed to his "style". The remaining 8% is unexplained variance due to stock selection, etc.

Tax-deferred earnings You don't have to pay taxes on any earnings in your 401(k) until you withdraw your money. The money in a 401(k) can grow faster than with other types of savings plans, because the earnings you accumulate, if any, are also tax-deferred.

Treynor Ratio The Treynor Ratio is a measure of performance per unit of market risk. It is the portfolio's excess return over the risk-free rate divided by the portfolio's beta to the selected benchmark. Also known as the Reward to Volatility Ratio.

Turnover Ratio The turnover rate of a fund is a decent proxy for how frequently a manager trades his or her portfolio. The inverse of a fund's turnover ratio is the average holding period for a security in that fund. If a fund consistently showed a 20% turnover ratio, for example, it would suggest that--on average--that fund holds a security for five years before selling it. A fund with a 20% turnover ratio pretty much changes its portfolio wholesale every six months.

Upside / Downside Market Capture Graph StyleADVISOR's Upside / Downside Market Capture graph displays the percentage of benchmark movement captured by a manager in both up and down markets. The graph plots the manager's upside capture ratio (vertical axis) against the downside capture ratio (horizontal axis). The capture ratio is the manager's return divided by the benchmark's return, or the percentage of the benchmark's return that was "captured" by the manager. The Upside capture ratio is computed for periods when the market has a positive return. The Downside capture ratio is computed for periods when the market has a negative return.

Variable funds Investments that fluctuate with market conditions. Unlike guaranteed investments, such as bonds or CDs, variable funds don't guarantee a specific rate of return. They do offer potential for higher earnings in return for higher degree of market risk.

Wilshire 4500 Listed for small-company funds, measures the performance of all U.S. common equity securities excluding the stocks in the S&P 500. The returns published for the index are total returns, which include reinvestment of dividends.

Wilshire 5000 Measures the performance of all U.S. common equity securities, and so serves as an index of all stock trades in the United States. The returns published for the index are total returns, which include reinvestment of dividends.

World Stock Category An international fund having more than 10% of stocks invested in the US. Also known as global funds. Foreign Investments involve special risks, including currency fluctuations and political developments.

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