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COUNTY OF SAN BERNARDINO
EXECUTIVE SUMMARY
DEFINED CONTRIBUTION PLANS
2ND QUARTER 2017

	2ND QUARTER %	1 YEAR %	3 YEAR %	5 YEAR %
457(b) Plan Performance	3.59	17.95	7.04	12.73
Customized Benchmark	2.85	15.65	7.53	12.38
DIFFERENCE	**0.74**	**2.29**	**-0.49**	**0.35**
401(k) Plan Performance	3.48	18.25	7.31	13.10
Customized Benchmark	2.69	16.43	7.94	13.26
DIFFERENCE	**0.80**	**1.82**	**-0.63**	**-0.17**
Retirement Medical Trust	3.22	14.00	5.73	10.32
Customized Benchmark	2.60	11.25	6.60	10.18
DIFFERENCE	**0.62**	**2.75**	**-0.87**	**0.15**

PORTFOLIO COMPOSITION AND ANALYSIS

The total assets in the County of San Bernardino's defined contribution plans increased from $929 million as of March 31, 2017 to $953 million, an increase of 2.6%. The 457(b) assets in the Ameritrade Self-Directed Brokerage Account (SDBA) increased from $1.88 million to $1.96 million with participants at 31. The 401(k) assets in the SDBA increased from $432,000 to $443,000 with 6 participants.

- 457(b) Assets $662,148,115
- 401(k) Assets $130,386,488
- 401(a) Assets $15,423,643
- RMT Assets $109,026,050
- 3121 Assets $35,828,883

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457(b) PLAN CASH POSITION:

The assets in the Stabilizer decreased as a percentage of total assets from 28.6 to 27.8% of the portfolio. The decrease is largely a function of the improved performance of the mutual fund portfolio in the quarter. The interest crediting rate increased from 2.50% to 2.65% as of 7/1/17. The strategy is Intermediate Aggregate Plus which is designed to make the portfolio more responsive to short term fluctuations in the fixed income space. The market-to-book value improved from below par at 99.77% to 100.36% at the end of the second quarter 2017.

401(k) PLAN CASH POSITION:

The assets in the Stabilizer decreased from 30.33% to 29.47%.

RETIREMENT MEDICAL TRUST CASH POSITION:

Interest bearing assets in the RMT remained somewhat stable with the percentage of assets in the fixed interest account decreasing slightly from 62.2% in the Voya General account to 61.2%.

457(b) PLAN MUTUAL FUNDS POSITION:

The mutual fund portfolio was positive for the one (1) year period with a gain of 17.9%. The portfolio outperformed the customized benchmark by 2.29%. There was continued strong performance from American Funds Growth Fund of America, up nearly 22% for the one (1) year period and Dodge & Cox International Stock outpacing peers by 11.2% over the same one (1) year period. Invesco Small Cap Value continues to outperform with one (1) year returns of 31.8%, outperforming peers by 10.62%.

The Sharpe Ratio is a tool that helps determine if the risk the fund or portfolio is taking to achieve the performance is worthwhile. The Sharpe Ratio for the 457(b) decreased slightly from 0.75 to 0.72, indicating that the returns have been worth the risk.

The Standard Deviation is a measurement of the volatility of the portfolio's short term return from the average long term return. The three (3) year Standard Deviation for the portfolio is 9.77, which is higher than the benchmark of 9.42.

The Alpha, a measurement of the value added by the investment manager is -0.54**.** Beta is a measure of the degree of change in value that can be expected given a change in value in the comparable index. The Beta is 1.01 over three (3) years.

The top 25 stocks in the mutual fund portfolio represent 16.14% of the portfolio led by Amazon.com with 1.75% of assets followed by Apple, Inc. with 1.19% of assets.

The dollar weighted net expense ratio remains very low at 0.28%.

401(k) MUTUAL FUNDS POSITION:

The Sharpe Ratio for the 401(k) portfolio is 0.73. The three (3) year Standard Deviation for the portfolio is 9.98 which is slightly higher than the benchmark of 9.88. The Alpha is -0.51 and the Beta is 0.99.

The top 25 stocks in the mutual fund portfolio represent 16.62% of the portfolio led by Amazon.com with 1.85% of assets followed by Microsoft Corp. with 1.24% of assets.

The dollar weighted net expense ratio is very low at 0.27%.

RETIREMENT MEDICAL TRUST (RMT) MUTUAL FUNDS POSITION:

With the RMT heavily weighted to the Voya General Account, the gains or losses of any one fund has little effect on the total portfolio.

The Sharpe Ratio for the RMT portfolio is 0.71. The three (3) year Standard Deviation for the portfolio is 7.98, which is higher than the benchmark of 7.09. The Alpha is -1.41 and the Beta is 1.10.

The top 25 stocks in the mutual fund portfolio represent 11.20% of the portfolio led by Apple, Inc. with 1.05% of assets followed by Microsoft Corp. with 0.89% of assets.

The dollar weighted net expense ratio is extremely low at 0.19%.

The entire portfolio has been fee equalized with Voya receiving 0.12% in required revenue plus 0.06% in an Administrative Expense Reimbursement Allowance for the operation of the Plan by the County.

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PERFORMANCE OF INDEX FUNDS VS. ACTIVELY MANAGED FUNDS	2ND QTR %	1 YEAR %	3 YEAR %	5 YEAR %
LARGE CAP				
Vanguard Institutional Index	**3.08**	**17.86**	**9.59**	**14.60**
American Funds Growth Fund of America	4.00	21.93	10.17	15.95
MID CAP				
Vanguard Mid Cap Index	**2.78**	**17.25**	**8.09**	**14.79**
Baron Growth	6.06	20.05	7.42	13.43
SMALL CAP				
Vanguard Small Cap Index	**1.94**	**19.13**	**6.78**	**14.14**
Invesco Small Cap Value	0.10	31.77	4.00	14.60
INTERNATIONAL				
Vanguard Total International Stock Index	**5.83**	**20.08**	**1.37**	**7.70**
American Funds Capital World Growth & Income	5.29	18.80	5.22	11.56
Dodge & Cox International Stock	4.75	30.37	0.64	10.23

In the second quarter, two (2) out five (5) actively managed funds outperformed their benchmark index.

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MUTUAL FUND NARRATIVE

LARGE GROWTH:

FUND # 1	AMERICAN FUNDS GROWTH FUND OF AMERICA	RGAGX

IMPLEMENTATION: MAR 2003 ASSETS: $ 83,360,437 BEST FIT INDEX: RUSSELL 1000 GROWTH M* ANALYST RATING: Bronze

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	21.93	10.17	15.95	20.02	8.80	13.87	**1.91**	**1.37**	**2.08**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	23.7	0.94	0.04	0.92	10.87	0.33%
PEER AVERAGES		7.6	1.03	-0.87	0.76	11.66	1.15%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	RGAGX	1	1	1	1	1	1	1	1	2	10	10	10	10
		82.0/ 68.9	9.5	91.4	10.0/ 16	98.5/ 89.5	0.22	27	30		LCG	LCG	LCG	LCG

We are noticing some subtle changes in the structure of the fund. Cash is now up to 7.5% from under 2.5% in 2014 and International stocks are now almost 16%, up from under 12% in 2014. The fund is beating the peer over all time periods and is beating the index on the one (1), five (5) and fifteen (15) year periods. Amazon continues to be the top holding, though management appears to be in a selling mode (it is still 6.5% of the portfolio, a large position for American Funds). Of the top 25 holdings, only two (2) are down for the year.

While the fund is huge in terms of assets, it is not a closet index fund. The sector allocations vary widely in some instances from the index, though not as much from peer. The Financial Services sector is 11% versus under 7% for the index. Energy is nearing 8% while the index doesn't even hit 1% (the peer is under 3%). The allocation to Industrials is half the index.

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We believe this is the most "growth" oriented the fund has ever been, while the market capitalization is just above the index and well below the peer. GFA continues to be low in cost for an actively managed fund and has low turnover rate of 31%.

Recommendation: No action at this time.

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LARGE BLEND:

FUND # 2	**VANGUARD INSTITUTIONAL INDEX**		**VINIX**
IMPLEMENTATION: MAY 2008	ASSETS: $ 94,008,776	BEST FIT INDEX: S&P 500	M* ANALYST RATING: Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	17.86	9.59	14.60	17.90	9.61	14.63	-0.04	-0.02	-0.03

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	16.6	1.00	-0.02	0.91	10.35	0.04%
PEER AVERAGES		N/A	1.00	0.00	0.90	10.35	N/A

Passive	Ticker/ ID	Style				Peer Group				Qual.	Score			
		Style	Style Drift	R^2	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	VINIX	1	1	1	1	1	1	1	1	2	10	10	10	10
		6.3/ 98.2	2.1	99.7	0.6	35	4	5	4		LCB-P	LCB-P	LCB-P	LCB-P

This large cap blend index is performing as expected adjusted for expense and tracking error.

Recommendation: No action at this time.

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MID CAP GROWTH:

FUND # 3	**BARON GROWTH**			**BGRIX**
IMPLEMENTATION: MAR 2003	ASSETS: $ 21,849,137	BEST FIT INDEX: RUSSELL MID CAP GROWTH	M* ANALYST RATING:	Bronze

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	20.05	7.42	13.43	18.58	6.86	12.72	**1.47**	**0.56**	**0.71**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	22.6	0.88	0.77	0.65	11.74	1.05%
PEER AVERAGES		7.6	1.05	-2.82	0.58	12.52	1.25%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	BGRIX	1	1	1	0	0	0	0	0	2	5	8	7	8
		59.1/ -23.3	21.5	83.3	11.2/ 13.4	95.6/ 97.7	-0.16	58	51		MCG	MCG	MCG	MCG

As usual, this fund is underperforming one index and outperforming the other. This time it is trailing the Small Growth indexes and beating the Mid Growth indexes. The fund's RPAG score took a dramatic turn falling from an 8 to a 5. The irony is that the fund is beating Mid Cap (peer and index) over all periods. It loses points in the Risk/Return and Peer Group categories. While we are concerned about the score dropping, this is one of those funds that is not easily benchmarked. Growth has rewarded patient investors over time and performance has been quite good. While the fund scores 5, both the Information Ratio and Information Ratio rank are negligible and we would like to see additional quarter reports prior to placing on Watch.

Recommendation: No action at this time.

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MID CAP BLEND:

FUND # 4	**VANGUARD MID CAP INDEX**		**VMCIX**
IMPLEMENTATION: MAY 2008	ASSETS: $ 53,016,584	BEST FIT INDEX: SPLICED MID CAP INDEX	M* ANALYST RATING: Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	17.25	8.09	14.79	17.31	8.12	14.83	-0.06	-0.03	-0.04

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	19.2	0.99	0.07	0.73	11.24	0.05%
PEER AVERAGES		N/A	1.00	N/A	0.78	11.33	N/A

Passive	Ticker/ ID	Style				Peer Group				Qual.	Score			
		Style	Style Drift	R^2	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	VMCIX	0	0	1	1	1	1	1	1	2	8	8	8	8
		38.4/ 1	11	98.7	1.3	12	3	19	1		MCB-P	MCB-P	MCB-P	MCB-P

This mid cap blend index is performing as expected adjusted for expense and tracking error.

Recommendation: No action at this time.

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SMALL BLEND:

FUND # 5	VANGUARD SMALL CAP INDEX			VSCIX
IMPLEMENTATION: MAY 2008	ASSETS: $ 32,948,440	BEST FIT INDEX: SPLICED SMALL CAP INDEX	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	19.13	6.78	14.14	19.09	6.75	14.10	0.04	0.03	0.04

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	1.3	0.93	0.43	0.54	13.28	0.05%
PEER AVERAGES		N/A	1.00	N/A	0.56	13.48	N/A

Passive	Ticker/ ID	Style				Peer Group				Qual.	Score			
		Style	Style Drift	R^2	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	VSCIX	1	1	1	1	0	1	1	1	2	9	9	9	8
		-16.1/ -52.2	3.1	96.3	3.5	90	4	59	24		SCB-P	SCB-P	SCB-P	SCB-P

This small cap blend index is performing as expected adjusted for expense and tracking error.

Recommendation: No action at this time.

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SMALL VALUE:

FUND # 6	INVESCO SMALL CAP VALUE			VSMIX
IMPLEMENTATION: MAY 2011	ASSETS: $ 8,113,793	BEST FIT INDEX: RUSSELL 2000 VALUE	M* ANALYST RATING:	Bronze

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	31.77	4.00	14.60	21.15	5.18	12.47	**10.62**	**-1.18**	**2.13**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	3	7.1	1.17	-2.45	0.28	19.05	0.87%
PEER AVERAGES		7.7	1.06	-4.13	0.41	14.95	1.31%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	VSMIX	1	0	1	1	1	1	0	1	2	8	8	8	7
		-28.5/ -76.4	21.7	80.6	16.9/ 14.6	110.6/ 109.3	0.16	70	50		SCV	SCV	SCV	SCV

After a rough stretch from 2015-2016, 2017 has been much kinder to Invesco Small Cap Value. The three (3) year numbers are still affected, but the one (1), five (5), 10 and 15 are all positive and beating both the peer and index.

This fund is known to buy out of favor stocks and hold them, even when doing so seems like a bad idea. Those who have been patient in the past have been rewarded. The fund is heavily overweight Healthcare and Industrials and underweight Real Estate and Utilities, which will likely generate a return that is either significantly higher or lower than the index and peer.

Recommendation: Remove from Watch List due to improved style and risk/return characteristics.

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INTERNATIONAL STOCK:

FUND # 7	**AMERICAN FUNDS CAPITAL WORLD GROWTH & INCOME**		**RWIGX**
IMPLEMENTATION: MAY 2008	ASSETS: $ 41,399,461	BEST FIT INDEX: MSCI WORLD NR	M* ANALYST RATING: Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	18.80	5.22	11.56	18.02	4.53	10.57	**0.78**	**0.69**	**0.99**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	24.3	0.92	0.70	0.53	10.15	0.45%
PEER AVERAGES		5.0	0.77	3.75	0.44	10.97	1.21%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	RWIGX	1	1	1	1	1	1	1	1	2	10	10	9	10
		25.5/ 72	7.5	95.2	9.5/ 11.6	97.3/ 93	0.08	34	41		GE	GE	GE	GE

Since late 2014 this fund has steadily cut U.S. stocks and added to International. U.S. stocks fell from 42% to 35% while International has climbed from 51% to 56%. Cash is approaching 6%.

While the fund underperformed the index last year (due to International underperforming and being overweight International) it is outperforming this year. For participants looking for a globally balanced stock portfolio with a history of reasonable downside protection, this fund fits the bill. With that said, there is very little allocation to small caps.

Recommendation: No action at this time.

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FUND # 8	DODGE & COX INTERNATIONAL STOCK			DODFX
IMPLEMENTATION: MAY 2008	ASSETS: $ 12,526,909	BEST FIT INDEX: MSCI WORLD EX US NR	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	30.37	0.64	10.23	19.13	1.18	7.81	**11.24**	**-0.54**	**2.42**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	3	16.2	1.04	1.83	0.10	14.55	0.64%
PEER AVERAGES		7.0	1.00	-3.70	0.50	11.98	1.09%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	DODFX	0	1	1	1	1	1	1	1	2	9	8	8	8
		-70.6/ 92.1	23.7	86.9	13.4/ 10.2	107.0/ 99.3	0.31	43	41		ILCB	ILCB	ILCB	ILCB

Few actively managed funds have as low a turnover ratio as International Stock, only 17%, implying a holding period of nearly six (6) years. Management patience has paid off historically, though not without volatility.

The fund has some large index differences, the largest being the double weighting toward Technology (22% vs 11%). This bet has paid off. Large differences from the index provide opportunities to outperform and International Stock has had a great run since underperforming significantly in 2015.

Recommendation: No action at this time.

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FUND # 9	VANGUARD TOTAL INTERNATIONAL STOCK INDEX	VTSNX

IMPLEMENTATION: APRIL 2015 ASSETS: $ 18,815,195 BEST FIT INDEX: SPLICED INTERNATIONAL INDEX M* ANALYST RATING: Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	20.08	1.37	7.70	20.41	1.37	7.77	-0.33	0.00	-0.07

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	3	8.9	0.94	0.57	0.15	11.81	0.09%
PEER AVERAGES		N/A	0.95	N/A	0.14	12.34	N/A

Passive	Ticker/ ID	Style				Peer Group				Qual.	Score			
		Style	Style Drift	R^2	Tracking Error	TE Rank	Expense Rank	Return Rank	SR Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	VTSNX	1	1	0	1	0	1	1	1	2	8	8	7	7
		12.9/ 48	19	91.5	3.6	79	11	12	11		ILCB-P	ILCB-P	ILCB-P	ILCB-P

This international/global index is performing as expected adjusted for expense and tracking error.

Recommendation: No action at this time.

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BONDS:

FUND # 10	LOOMIS SAYLES INVESTMENT GRADE BOND			LSIIX
IMPLEMENTATION: MAY 2008	ASSETS: $ 18,898,707	BEST FIT INDEX: BARCLAYS US CREDIT TR USD	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	4.80	1.25	3.67	6.09	2.52	4.18	**-1.29**	**-1.27**	**-0.51**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	20.6	1.32	-1.52	0.25	4.36	0.55%
PEER AVERAGES		5.1	0.55	1.07	0.68	3.86	1.04%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	LSIIX	0	1	0	1	1	1	0	1	0	5	5	5	5
		4.7/ -15.2	21.3	30.6	4.5/ 3.7	128.7/ 98.4	0.38	81	49	S	CFI	CFI	CFI	CFI

Cash jumped to 15% from 4% in 2016 and essentially 0% in 2013. In reading what was generally positive commentary from the managers at the fund, we found the following remark:

"We have modestly increased reserves in the form of cash and short U.S. Treasury debt. We have some concerns about underpriced geopolitical risk but remain comfortable with the fundamental global economic outlook. Reserves may dampen portfolio risk should volatility develop, and they can be quickly deployed if market dislocations create attractive buying opportunities."

In the past the fund has had more currency exposure than it does today (about 75% is US), High Yield is about 11%. Note: This fund was removed from the Watch List at the 4Q16 Committee meeting.

Recommendation: No action at this time.

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FUND # 11	OPPENHEIMER INTERNATIONAL BOND	OIBIX

IMPLEMENTATION: MAY 2008 ASSETS: $ 4,179,726 BEST FIT INDEX: MSTAR GLOBAL EX US GOV BOND M* ANALYST RATING: N/A

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	6.18	2.34	2.82	1.89	0.31	1.72	**4.29**	**2.03**	**1.10**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	4.5	1.48	-0.73	0.43	5.08	0.59%
PEER AVERAGES		6.0	0.93	-1.91	0.16	5.08	0.97%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	OIBIX	1	0	0	1	1	1	1	1	2	8	8	8	8
		-49.6/ -0.9	33.6	55	5.3/ 2.8	100.5/ 66.7	0.53	42	31		GFI	GFI	GFI	GFI

Patience with this fund has paid off in spades. The fund is up nearly 7% for the first half of the year and is benefitting from its non-dollar exposure as well as its Emerging Markets holding which have both profited from the weak dollar.

Recommendation: No action at this time.

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FUND # 12	PIONEER GLOBAL HIGH YIELD			GHYYX
IMPLEMENTATION: MAY 2008	ASSETS: $ 4,915,199	BEST FIT INDEX: BARCLAYS GLOBAL HY	M* ANALYST RATING:	N/A

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	13.01	1.68	5.19	10.78	3.02	5.70	**2.23**	**-1.34**	**-0.51**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	2	15.9	0.96	-2.55	0.26	6.25	0.90%
PEER AVERAGES		6.5	0.33	2.13	0.58	5.47	1.06%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	GHYYX	1	1	1	0	0	0	0	0	2	5	5	5	5
		96.5/ -96.5	1.7	86.8	5.6/ 5.2	91.1/ 113.7	-0.85	92	80		HY	HY	HY	HY

Returns have been good, though expectations should be tempered. While there are several sources of return available from this fund (yield, currency and credit) the risks are also ever present (currency, tight spreads and general global unrest). With tight spreads, the outlook for U.S. high yield is not great, but that doesn't rule out even tighter spreads, though Pioneer is not expecting that.

The fund continues to hold bank loans, convertibles and insurance-linked bonds which are all out of benchmark. Note: This fund was removed from the Watch List at the 4Q16 Committee meeting.

Recommendation: No action at this time.

SST BENEFITS CONSULTING

TARGET FUNDS:

FUND # 13	VANGUARD TARGET RETIREMENT INCOME			VTINX
IMPLEMENTATION: DEC 2009	ASSETS: $ 4,987,416	BEST FIT INDEX: MORNINGSTAR CONSERVATIVE INC	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	5.23	3.47	4.91	5.38	3.63	5.10	-0.15	-0.16	-0.19

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	5	4.4	0.74	1.18	0.90	3.61	0.13%
PEER AVERAGES		N/A	0.99	N/A	1.03	3.64	0.43%

Target Date fund review summary follows fund #17.

FUND # 14	VANGUARD TARGET RETIREMENT 2020			VTWNX
IMPLEMENTATION: DEC 2009	ASSETS: $ 19,561,851	BEST FIT INDEX: MORNINGSTAR MODERATE 2020	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	10.30	4.85	8.40	10.51	5.03	8.64	-0.21	-0.18	-0.24

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	5	4.4	0.91	1.13	0.75	6.26	0.14%
PEER AVERAGES		N/A	0.98	N/A	0.83	6.39	0.42%

Target Date fund review summary follows fund #17.

SST BENEFITS CONSULTING

FUND # 15	VANGUARD TARGET RETIREMENT 2030			VTHRX
IMPLEMENTATION: DEC 2009	ASSETS: $ 23,591,478	BEST FIT INDEX: MORNINGSTAR MODERATE 2030	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	13.40	5.42	9.90	13.69	5.61	10.15	-0.29	-0.19	-0.25

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	4.4	0.87	1.18	0.69	7.75	0.15%
PEER AVERAGES		N/A	0.98	N/A	0.75	7.95	0.42%

Target Date fund review summary follows fund #17.

FUND # 16	VANGUARD TARGET RETIREMENT 2040			VFORX
IMPLEMENTATION: DEC 2009	ASSETS: $ 19,223,330	BEST FIT INDEX: MORNINGSTAR MODERATE 2040	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	16.49	5.85	11.10	16.79	6.09	11.38	-0.30	-0.24	-0.28

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	4.4	0.92	0.74	0.63	9.30	0.16%
PEER AVERAGES		N/A	0.98	N/A	0.68	9.51	0.42%

Target Date fund review summary follows fund #17.

SST BENEFITS CONSULTING

FUND # 17	VANGUARD TARGET RETIREMENT 2050			VFIFX
IMPLEMENTATION: DEC 2009	ASSETS: $ 10,289,759	BEST FIT INDEX: MORNINGSTAR MODERATE 2050	M* ANALYST RATING:	Gold

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	16.99	5.99	11.18	17.29	6.23	11.46	-0.30	-0.24	-0.28

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	4	4.4	0.92	0.84	0.64	9.37	0.16%
PEER AVERAGES		N/A	0.98	N/A	0.59	9.59	0.42%

Vanguard continues to be the heavyweight in the Target Date field, though this doesn't mean they are immune to market forces. The main area of underperformance are the parts of the series that have a higher allocation to fixed income. Vanguard has an International bond allocation that is hedged back to the U.S. Dollar and that portion has held back returns lately.

We like the diversification that International bonds can add, but in this case the bonds have low interest rates and do not benefit from the falling dollar (conversely, they weren't victims of the rising dollar). Overall, International bonds only make up about 16% of the Retirement Income fund, so over the long term this shouldn't be a major cause for concern.

Vanguard remains the low cost leader and fees over time are highly predictive of outcome.

Recommendation: No action at this time.

SST BENEFITS CONSULTING

SPECIALTY:

FUND # 18	**VOYA GLOBAL REAL ESTATE**			**IGLIX**
IMPLEMENTATION: MAY 2008	ASSETS: $ 6,981,984	BEST FIT INDEX: S&P DEVELOPED PROPERTY	M* ANALYST RATING:	Bronze

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	-1.82	1.62	6.21	2.50	2.98	7.28	**-4.32**	**-1.36**	**-1.07**

	M*	MGR TENURE	BETA	ALPHA	SHARPE	3 YR STD DEV	EXP RATIO
FUND STATISTICS	3	15.7	0.96	-3.71	0.17	12.50	1.01%
PEER AVERAGES		6.4	0.42	-0.42	0.29	11.86	1.35%

Active	Ticker/ ID	Style			Risk/Return			Peer Group		Qual.	Score			
		Style	Style Drift	R^2	Risk / Return	Up / Down	Info Ratio	Return Rank	Info Ratio Rank	(2pt. max)	30-Jun 2017	31-Mar 2017	31-Dec 2016	30-Sep 2016
	IGLIX	1	1	1	1	0	0	0	0	2	6	6	5	5
		-2.9/ 95.4	7.7	92.6	12.2/ 6.2	87.4/ 92.2	-0.4	54	78		GRE	GRE	GRE	GRE

This fund continues to struggle. NFP orchestrated a call with the managers of this fund in June to gather additional data. The call was insightful and confirmed a few of our suspicions. Management tends toward more high quality and consistent dividend payers over smaller and higher beta stocks. It is those smaller stocks that have outperformed. Management has made some adjustments but has not changed their guiding philosophy.

Returns continue to suffer and the fund is in the bottom quartile again in 2017. With that said the fund is beating the S&P Global REIT year to date. While the performance is concerning, we do find sufficient evidence to back up the claims made by management and we are hesitant at this time to recommend a termination. We feel that patience is the best option.

Recommendation: Remain on Watch List due to the one (1), three (3) and five (5) year investment performance versus peers.

SST BENEFITS CONSULTING

ASSET ALLOCATION:

FUND # 19	ASSET ALLOCATION FUNDS AGGRESSIVE		
IMPLEMENTATION: MAY 2008	ASSETS: $ 47,647,230	BEST FIT INDEX: MORNINGSTAR AGGRESSIVE	M* ANALYST RATING: N/A

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	15.53	5.00	10.74	14.18	5.33	10.10	**1.35**	**-0.33**	**0.64**

FUND # 20	ASSET ALLOCATION FUNDS MODERATE		
IMPLEMENTATION: MAY 2008	ASSETS: $ 71,550,106	BEST FIT INDEX: MORNINGSTAR MODERATE	M* ANALYST RATING: N/A

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	12.01	5.14	9.19	10.61	5.32	8.77	**1.40**	**-0.18**	**0.42**

FUND # 21	ASSET ALLOCATION FUNDS CONSERVATIVE		
IMPLEMENTATION: MAY 2008	ASSETS: $ 23,408,532	BEST FIT INDEX: MORNINGSTAR CONSERVATIVE	M* ANALYST RATING: N/A

	ACTUAL RETURN			PEER AVERAGE			DIFFERENCE		
	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR	1 YR	3 YR	5 YR
RATES OF RETURN	8.04	3.55	5.92	5.51	3.72	5.32	**2.53**	**-0.17**	**0.60**

The asset allocation models are performing as expected.

Recommendation: No action at this time

SST BENEFITS CONSULTING

WATCH LIST

The Watch List contains funds that did not meet the criteria outlined in the County of San Bernardino's Investment Policy. Specifically, "A quarterly investment review report shall be evaluated by the DC Committee to ensure that fund performance complies with the objectives outlined in this Policy. Tools and metrics shall be included within the report to assist the committee in the evaluation process. These tools include, but are not limited to, the following:

a. Scorecard System for actively managed funds (see addendum)
b. One, three and five year performance and benchmarking
c. Glide path suitability for Target-Date (age based) funds

The foregoing investment monitoring criteria shall not, under any circumstances, be taken as definitive, conclusive, or controlling for removal, termination, or continuation of an investment option. All determinations should be made by the DC Committee, in accordance with Plan objectives, taking into consideration all relevant facts and circumstances."

The following Watch List is recommended for 2Q 2017:

ACTION	FUND #	TICKER	FUND NAME	INVESTMENT POLICY	QUARTER ADDED
✔	**6**	**VSMIX**	INVESCO SMALL CAP VALUE	Remove from Watch List due to improved style and risk/return characteristics. The 3/5 Information Ratios have changed from -0.41 / -0.05 to -0.43 / 0.00.	2Q 2016
⚠	**18**	**IGLIX**	VOYA GLOBAL REAL ESTATE	Remain on Watch List due to the one (1), three (3) and five (5) year investment performance versus peers. The 3/5 Information Ratios have changed from -0.17 / -0.26 to -0.31 / -0.44.	4Q 2016

SST BENEFITS CONSULTING

COUNTY OF SAN BERNARDINO
INVESTMENT OPTIONS SPECTRUM

TARGET ALLOCATION	ASSET ALLOCATION	SPECIALTY	BONDS	BALANCED ALLOCATION	DOMESTIC EQUITY			INTERNATIONAL - GLOBAL EQUITY
					LARGE VALUE	LARGE BLEND	LARGE GROWTH	
Vanguard Ret Inc	Aggressive Allocation	Voya Global Real Est	Loomis Sayles Inv					AmFunds Cap World
Vanguard Ret 2020	Moderate Allocation		Oppenheimer Intl			Vanguard Institutional Idx	AmFunds Growth Fund	Dodge & Cox Intl
Vanguard Ret 2030	Conservative Allocation		Pioneer Global HY					Vanguard Total Intl
Vanguard Ret 2040								
Vanguard Ret 2050								
					MID CAP VALUE	MID CAP BLEND	MID CAP GROWTH	
						Vanguard Mid Cap Idx	Baron Growth	
					SMALL VALUE	SMALL BLEND	SMALL GROWTH	
					Invesco SmCap Value	Vanguard SmCap Index		

Funds to the left have potentially more inflation risk and less investment risk

Funds to the right have potentially less inflation risk and more investment risk

MUTUAL FUND FORWARD LOOKING RATING SCALE

As mutual fund investors, we have received quantitative and qualitative analysis that provides investors with a look back at how and why a mutual fund performed as it did. Morningstar® is a dominant player in mutual fund analytics. Their quantitative star rating for funds is a backward looking achievement test. The star system takes into account performance category peers after adjusting for risk and sales charges over three (3), five (5) and ten (10) year periods with the greatest weight on the ten (10) year achievement.

Morningstar® has developed a more qualitative approach to evaluating the potential for funds to outperform their benchmarks and peer groups. This is a forward looking approach that uses a methodology based on five qualitative and numeric factors or pillars.

The five pillars are:

1. **PROCESS**
2. **PERFORMANCE**
3. **PEOPLE**
4. **PARENT**
5. **PRICE**

Performance is viewed in the context of risk taken, with a focus on downside risk. The Morningstar® analysts consider that the fundamentals and risks of a fund's holdings are as important as past performance, perhaps more so.

Morningstar® assigns three medal ratings, Gold, Silver and Bronze, along with a Neutral and Negative rating. Morningstar® has only completed 500-600 mutual fund assessments with this new process. So many funds will have an "N/A" instead of one of the five ratings. We expect that nearly all funds will have a rating by the end of 2012.

The ratings should be interpreted as follows:

GOLD Gold

A Gold rating indicates an expectation that the fund will outperform its relative performance benchmark and peer group within the context of the level of risk taken over the long term, (usually five years or a full market cycle). To earn a Gold rating a fund must distinguish itself across the five pillars.

SILVER Silver

Funds in this category have notable advantages across most, but perhaps not all of the five pillars. Funds that have a high price may be the reason for the Silver rating.

BRONZE Bronze

Funds with a Bronze rating have advantages that outweigh any disadvantages across the five pillars. Like Silver, Bronze rated funds may be working their way up or down the scale.

NEUTRAL

These are funds where the Morningstar analysts do not have a strong positive or negative conviction. For example, a fund that combines an overly benchmark conscious strategy with competitive fees could receive this rating because the strategy lends itself to average performance.

NEGATIVE

These funds have at least one major flaw that is likely to hamper future performance. For example, a fund that combines an overly benchmark conscious strategy with high fees could receive this rating because its strategy lends itself to underperformance.

N/A

Morningstar® analysts have not completed their evaluation of this particular fund.

CONCLUSION

- One caution is that a fund with a Gold rating is not necessarily suitable for all investors.
- The People pillar is more critical in concentrated funds whose success is tied to stock picking.
- The expense is a critical factor in all funds, but particularly index funds.
- This rating system does not replace the Morningstar® star system but rather supplements it.
- Finally, there are skeptics of this rating system. We think it may take some time to evaluate the effectiveness of this forward rating system.