SST BENEFITS CONSULTING

# COUNTY OF SAN BERNARDINO
## EXECUTIVE SUMMARY
## DEFINED CONTRIBUTION PLANS
## 3RD QUARTER 2017

| | 3RD QUARTER % | 1 YEAR % | 3 YEAR % | 5 YEAR % |
|---|---|---|---|---|
| 457(b) Plan Performance | 4.39 | 17.18 | 9.04 | 12.33 |
| Customized Benchmark | 4.12 | 15.37 | 9.58 | 12.22 |
| DIFFERENCE | 0.27 | 1.81 | -0.54 | 0.11 |
| 401(k) Plan Performance | 4.39 | 17.36 | 9.25 | 12.62 |
| Customized Benchmark | 3.95 | 15.71 | 9.75 | 12.83 |
| DIFFERENCE | 0.44 | 1.65 | -0.50 | -0.20 |
| Retirement Medical Trust | 3.83 | 13.64 | 7.49 | 9.97 |
| Customized Benchmark | 3.27 | 11.43 | 7.93 | 9.91 |
| DIFFERENCE | 0.55 | 2.21 | -0.45 | 0.06 |

## PORTFOLIO COMPOSITION AND ANALYSIS

The total assets in the County of San Bernardino's defined contribution plans increased from $953 million as of June 30, 2017 to $988 million, an increase of 3.7%. The 457(b) assets in the Ameritrade Self-Directed Brokerage Account (SDBA) increased from $1.96 million to $2.03 million with participants at 31. The 401(k) assets in the SDBA increased from $443,000 to $470,000 with 6 participants.

- 457(b) Assets $687,258,935
- 401(k) Assets $134,610,375
- 401(a) Assets $16,613,054
- RMT Assets $113,269,537
- 3121 Assets $36,000,144

SST BENEFITS CONSULTING

**457(b) PLAN CASH POSITION:**

The assets in the Stabilizer decreased as a percentage of total assets from 27.8 to 26.8% 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 decreased from 2.65% to 2.60% as of 10/1/17. 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 100.36% to 100.57% at the end of the third quarter 2017.

**401(k) PLAN CASH POSITION:**

The assets in the Stabilizer decreased from 29.47% to 28.66%.

**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 from 61.2% in the Voya General account to 59.9%.

**457(b) PLAN MUTUAL FUNDS POSITION:**

The mutual fund portfolio was positive for the one (1) year period with a gain of 17.2%. The portfolio outperformed the customized benchmark by 1.81%. There was continued strong performance from American Funds Growth Fund of America, up over 20% for the one (1) year period and Dodge & Cox International Stock outpacing peers by 8.6% over the same one (1) year period. Invesco Small Cap Value continues to outperform with one (1) year returns of 24.8 %, outperforming peers by 6.88%. The only mutual fund that did not perform in positive territory for the one (1) year period was Voya Global Real Estate with a return of -1.58%.

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) increased from 0.72 to 0.93, 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 9.39, which is higher than the benchmark of 8.95.

The Alpha, a measurement of the value added by the investment manager is -0.66. 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 1.02 over three (3) years.

The top 25 stocks in the mutual fund portfolio represent 16.17% of the portfolio led by Amazon.com with 1.67% of assets followed by Microsoft Corp. with 1.24% 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 0.94. The three (3) year Standard Deviation for the portfolio is 9.56 which is slightly higher than the benchmark of 9.24. The Alpha is -0.54 and the Beta is 1.01.

The top 25 stocks in the mutual fund portfolio represent 16.49% of the portfolio led by Amazon.com with 1.76% of assets followed by Microsoft Corp. with 1.28% 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 0.94. The three (3) year Standard Deviation for the portfolio is 7.62, which is higher than the benchmark of 6.68. The Alpha is -1.21 and the Beta is 1.11.

The top 25 stocks in the mutual fund portfolio represent 11.46% of the portfolio led by Apple, Inc. with 1.18% of assets followed by Microsoft Corp. with 0.95% 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.

SST BENEFITS CONSULTING

| PERFORMANCE OF INDEX FUNDS VS. ACTIVELY MANAGED FUNDS | 3RD QTR % | 1 YEAR % | 3 YEAR % | 5 YEAR % |
|---|---|---|---|---|
| LARGE CAP | | | | |
| **Vanguard Institutional Index** | **4.48** | **18.57** | **10.79** | **14.19** |
| American Funds Growth Fund of America | 5.09 | 20.22 | 11.82 | 15.44 |
| MID CAP | | | | |
| **Vanguard Mid Cap Index** | **3.44** | **15.31** | **9.73** | **14.40** |
| Baron Growth | 3.23 | 20.79 | 9.77 | 12.82 |
| SMALL CAP | | | | |
| **Vanguard Small Cap Index** | **4.59** | **17.38** | **10.45** | **13.95** |
| Invesco Small Cap Value | 6.29 | 24.77 | 8.74 | 14.72 |
| INTERNATIONAL | | | | |
| **Vanguard Total International Stock Index** | **5.97** | **19.30** | **5.32** | **7.51** |
| American Funds Capital World Growth & Income | 5.11 | 18.80 | 7.66 | 11.17 |
| Dodge & Cox International Stock | 6.94 | 26.58 | 3.87 | 10.13 |

In the third quarter, three (3) out five (5) actively managed funds outperformed their benchmark index.

SST BENEFITS CONSULTING

# MUTUAL FUND NARRATIVE

## LARGE GROWTH:

| FUND # 1 | AMERICAN FUNDS GROWTH FUND OF AMERICA | RGAGX |
|---|---|---|

IMPLEMENTATION: MAR 2003 ASSETS: $ 87,850,082 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 | 20.22 | 11.82 | 15.44 | 19.75 | 10.36 | 13.70 | 0.47 | 1.46 | 1.74 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 23.9 | 0.94 | 0.00 | 1.08 | 10.56 | 0.33% |
| PEER AVERAGES | | 7.5 | 1.02 | -0.49 | 0.90 | 11.40 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | RGAGX | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 10 | 10 | 10 | 10 |
| | | 79.3/ 71 | 9 | 91 | 10.0/ 15.4 | 96.5/ 89.5 | 0.06 | 31 | 32 | | LCG | LCG | LCG | LCG |

Cash and fixed income inched up another percent during the quarter from last quarter, now at 8.5%. With that said, the percent of equity at GFA has hovered around 90% for at least the last five (5) years. The market cap is now even with the benchmark (Russell 1000 Growth) at about $82 billion, but substantially smaller than the peer average of $119 billion. Energy continues to make up nearly 8% of the portfolio, a stark contrast to the benchmark weight of less than 1%.

Amazon continues to be sold bringing the position down to 6% from what was nearly 10%. Still, a 6% position in any American fund is unique, the next highest holding is less than 3%.

Three (3) of the top four (4) holdings have Price/Earnings Ratios that exceed 100 and are either over or nearing 200. It is a growth fund and these three (3) stocks have been huge contributors, but these companies must continue to experience rapid growth to outperform at these levels. China stocks are now nearing 5% of the portfolio. Technically, China is an Emerging Market, but Broadcom and Alibaba are large and established entities.

GFA is beating the index over five (5) years, but trailing over the one (1) and three (3) year periods. It is beating the peer over all time periods.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

## LARGE BLEND:

| FUND # 2 | VANGUARD INSTITUTIONAL INDEX | VINIX |
|---|---|---|

IMPLEMENTATION: MAY 2008 ASSETS: $ 97,772,634 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 | 18.57 | 10.79 | 14.19 | 18.61 | 10.81 | 14.22 | -0.04 | -0.02 | -0.03 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 16.8 | 1.00 | -0.02 | 1.04 | 10.07 | 0.04% |
| PEER AVERAGES | | N/A | 1.00 | 0.00 | 1.04 | 10.07 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | VINIX | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 10 | 10 | 10 | 10 |
| | | 5.5/ 98 | 2.3 | 99.7 | 0.6 | 32 | 4 | 6 | 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.**

SST BENEFITS CONSULTING

## MID CAP GROWTH:

| FUND # 3 | BARON GROWTH | | | BGRIX |
|---|---|---|---|---|
| IMPLEMENTATION: MAR 2003 | ASSETS: $ 22,371,732 | 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 | 20.79 | 9.77 | 12.82 | 18.18 | 9.13 | 12.62 | 2.61 | 0.64 | 0.20 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 3 | 22.8 | 0.87 | 1.43 | 0.88 | 10.95 | 1.05% |
| PEER AVERAGES | | 7.5 | 1.01 | -1.47 | 0.78 | 11.90 | 1.23% |

| 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | BGRIX | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 5 | 8 | 7 |
| | | 58.9/ -20.1 | 20.3 | 82.8 | 11.2/ 12.8 | 92.7/ 97.2 | -0.29 | 65 | 57 | | MCG | MCG | MCG | MCG |

For the first time in the history of this fund, Ron Baron has been joined by another manager. Neal Rosenberg was added earlier in the year. This is not surprising as Ron is 74 this year and, with a net worth north of $2 billion, may not be long for the day to day business of stock picking (of course Warren Buffett is much older and still loves his day job).

The top two (2) holdings represent 14% of the portfolio with Vail Resorts the biggest holding (8%). Both stocks have been long time holdings; Vail since 1997 and Arch Capital since 2002. New additions in the past twelve months have all been small cap and mostly growth stocks. Turnover remains low at 12%.

While returns versus peer have been good, the fund is trailing both the Russell 2000 Growth and MidCap Growth over the three (3), five (5), ten (10) and fifteen (15) year periods. On a risk-adjusted basis the fund is beating the Russell 2000 Growth over all periods and just slightly trailing the Russell Mid Cap Growth.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

## MID CAP BLEND:

| FUND # 4 | VANGUARD MID CAP INDEX | | | VMCIX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 54,781,089 | 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 | 15.31 | 9.73 | 14.40 | 15.33 | 9.77 | 14.44 | -0.02 | -0.04 | -0.04 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 19.4 | 1.00 | -0.32 | 0.89 | 10.66 | 0.05% |
| PEER AVERAGES | | N/A | 1.00 | N/A | 0.69 | 10.88 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | VMCIX | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 8 | 8 | 8 | 8 |
| | | 31.6/ 4 | 13.9 | 98.5 | 1.3 | 14 | 3 | 56 | 48 | | 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.**

SST BENEFITS CONSULTING

**SMALL BLEND:**

| FUND # 5 | VANGUARD SMALL CAP INDEX | | | VSCIX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 34,279,537 | 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 | 17.38 | 10.45 | 13.95 | 17.33 | 10.41 | 13.91 | 0.05 | 0.04 | 0.04 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 1.5 | 0.92 | 0.51 | 0.84 | 12.33 | 0.05% |
| PEER AVERAGES | | N/A | 1.00 | N/A | 0.52 | 12.65 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | VSCIX | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 2 | 8 | 9 | 9 | 9 |
| | | -15.4/ -52.2 | 2.4 | 95.7 | 3.5 | 83 | 3 | 80 | 29 | | 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.**

SST BENEFITS CONSULTING

**SMALL VALUE:**

| FUND # 6 | INVESCO SMALL CAP VALUE | | | VSMIX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2011 | ASSETS: $ 8,646,287 | BEST FIT INDEX: RUSSELL 2000 VALUE | 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 | 24.77 | 8.74 | 14.72 | 17.89 | 9.17 | 12.32 | 6.88 | -0.43 | 2.40 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 3 | 7.3 | 1.20 | -2.63 | 0.52 | 18.71 | 0.86% |
| PEER AVERAGES | | 7.5 | 1.01 | -1.01 | 0.66 | 14.86 | 1.29% |

| 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | VSMIX | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 7 | 8 | 8 | 8 |
| | | -31.7/ -81 | 20.9 | 81.4 | 17.0/ 14.7 | 111.4/ 108.9 | 0.2 | 74 | 52 | | SCV | SCV | SCV | SCV |

Long time lead manager Canon Coleman has announced his retirement. Coleman will depart the fund by the end of 2018. The fund has had three (3) managers leading it since 2010 and the other two (2) will stay on; there is no word if another will be added.

The fund is heavy on Financial Services, but light on Real Estate compared to the benchmark. Management is not afraid to look different than the index and, in fact, only three (3) of eight (8) sectors have allocations that are similar to the index.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

## INTERNATIONAL STOCK:

| FUND # 7 | AMERICAN FUNDS CAPITAL WORLD GROWTH & INCOME | | | RWIGX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 43,693,470 | 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 | 7.66 | 11.17 | 17.50 | 7.21 | 10.39 | 1.30 | 0.45 | 0.78 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 24.6 | 0.93 | 0.66 | 0.75 | 10.05 | 0.45% |
| PEER AVERAGES | | 5.1 | 0.76 | 3.37 | 0.68 | 10.67 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | RWIGX | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 10 | 10 | 10 | 9 |
| | | 23.5/ 72.9 | 11 | 95.2 | 9.5/ 11.2 | 97.3/ 93 | 0.08 | 35 | 42 | | GE | GE | GE | GE |

In 2015 the fund held 42% in domestic stocks and that has fallen to 34% even while domestic stocks have performed well. Meanwhile, non-US stocks have risen to almost 60% from 51%. This shift represents the current thinking on valuations around the globe and that domestic stocks seemed to be more overvalued, at least relative to international.

As we report nearly every quarter, the fund continues to outperform the peer and index, despite both having a higher domestic allocation. The one difference this time being that international is finally beating domestic in 2017. Emerging Markets have also been on a hot streak and now represent nearly 11% of the fund's holdings.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

| FUND # 8 | DODGE & COX INTERNATIONAL STOCK | | | DODFX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 13,891,400 | BEST FIT INDEX: MSCI WORLD EX US NR 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 | 26.58 | 3.87 | 10.13 | 18.01 | 5.07 | 7.74 | 8.57 | -1.20 | 2.39 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 16.4 | 1.07 | 0.91 | 0.31 | 14.62 | 0.64% |
| PEER AVERAGES | | 5.0 | 0.90 | 0.78 | 0.46 | 11.65 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | DODFX | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 2 | 7 | 9 | 8 | 8 |
| | | -77.6/ 90.2 | 20.9 | 86.8 | 13.5/ 10.1 | 109.2/ 100.6 | 0.35 | 56 | 54 | | ILCB | ILCB | ILCB | ILCB |

The fund is heavy in three areas: Financial Services, Technology and Healthcare (the latter two with double weights). Emerging Markets (EM) make up over 20% of the assets, centered mostly in Brazil, Mexico, India and China. While the EM position hurt the fund in 2015, and is currently hurting the three (3) year number, it is clearly a boon for the fund this year.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

| FUND # 9 | VANGUARD TOTAL INTERNATIONAL STOCK INDEX | VTSNX |
|---|---|---|

IMPLEMENTATION: APRIL 2015 ASSETS: $ 20,079,666 BEST FIT INDEX: SPLICED 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 | 19.30 | 5.32 | 7.51 | 19.39 | 5.26 | 7.46 | -0.09 | 0.06 | 0.05 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 3 | 9.2 | 0.93 | 0.85 | 0.48 | 11.51 | 0.09% |
| PEER AVERAGES | | N/A | 0.95 | N/A | 0.21 | 12.43 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | VTSNX | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 9 | 8 | 8 | 7 |
| | | 16.1/ 34 | 3.7 | 98.1 | 1.8 | 28 | 10 | 19 | 19 | | IE-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.**

SST BENEFITS CONSULTING

**BONDS:**

| FUND # 10 | LOOMIS SAYLES INVESTMENT GRADE BOND | | LSIIX |
|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 19,365,267 | 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 | 4.24 | 2.53 | 3.09 | 4.80 | 3.53 | 3.59 | -0.56 | -1.00 | -0.50 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 20.8 | 1.32 | -1.54 | 0.55 | 4.08 | 0.55% |
| PEER AVERAGES | | 5.0 | 0.49 | 2.02 | 1.02 | 3.49 | 1.02% |

| 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | LSIIX | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 5 | 5 | 5 | 5 |
| | | 0.9/ -11.3 | 20.2 | 29.7 | 4.5/ 3.1 | 117.5/ 94.1 | 0.27 | 81 | 48 | S | CFI | CFI | CFI | CFI |

The weaker dollar contributed to the outperformance of this fund in the third quarter and more generally through 2017 (as well as 2016). The allocation to High Yield and a small allocation to equities also drove returns along with an underweight to U.S. Treasuries. Much of the outperformance was driven by out of benchmark assets; the same assets that contributed to underperformance in 2015.

Management's outlook is for "stable economic growth and inflation" which supports certain "risk assets" such as investment grade and high yield. They also project a low probability of default or economic recession. Non-U.S. exposure is expected to remain steady, especially in Emerging Markets. Note: This fund was removed from the Watch List at the 4Q16 Committee meeting.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

| FUND # 11 | OPPENHEIMER INTERNATIONAL BOND | | | OIBIX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 4,516,454 | 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 | 5.12 | 3.98 | 2.36 | 1.96 | 1.48 | 1.15 | 3.16 | 2.50 | 1.21 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 4.8 | 1.60 | -0.92 | 0.74 | 5.01 | 0.59% |
| PEER AVERAGES | | 6.2 | 0.84 | -0.74 | 0.38 | 5.01 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | OIBIX | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 8 | 8 | 8 | 8 |
| | | -44.6/ 2.3 | 32.8 | 55.5 | 5.3/ 2.4 | 96.2/ 66.2 | 0.49 | 21 | 23 | | GFI | GFI | GFI | GFI |

This complicated bond strategy has done very well over the most recent time periods and is up almost double digits in 2017, a rarity for a bond fund, especially in a world of very low rates. As one might expect, these types of returns don't come without risk. Much of the excess return is due to currency fluctuations and country specific positioning. Should those positions experience a reversal, you will see more downside volatility.

This is not a bond fund for those looking for steady income. It is for those who want a global bond exposure that is not U.S. dollar hedged.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

| FUND # 12 | PIONEER GLOBAL HIGH YIELD | | | GHYYX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 5,465,464 | 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 | 10.42 | 3.48 | 4.56 | 7.77 | 4.17 | 5.14 | 2.65 | -0.69 | -0.58 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 2 | 16.2 | 0.99 | -2.22 | 0.53 | 6.15 | 0.90% |
| PEER AVERAGES | | 6.6 | 0.15 | 3.53 | 0.84 | 5.30 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | GHYYX | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 5 | 5 | 5 |
| | | 95.8/ -96.3 | 2 | 86.9 | 5.5/ 4.6 | 89.1/ 112.2 | -0.91 | 92 | 81 | | HY | HY | HY | HY |

With the weaker dollar and improving economic sentiment in Europe and Emerging Markets, this fund has seen significant growth over the past two (2) years. The fund is at the top of its category, but as we've pointed out in the past, this should be ignored since its category is domestic high yield, not global high yield. When domestic is outperforming this fund will do poorly and vice versa.

While this fund is doing well, caution is always in order when allocating to high yield, especially when that yield exposure comes via currency exposure. Participants who are patient and can handle fluctuation can diversify their portfolio with a fund such as Global High Yield. But the fact that risks in this fund are more stock like than bond, the fund lost about 36% during the financial crisis year of 2008 before gaining almost 64% in 2009 and 18% in 2010. 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: $ 5,125,607 | 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 | 5.26 | 4.28 | 4.68 | 5.44 | 4.47 | 4.87 | -0.18 | -0.19 | -0.19 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 4.7 | 0.74 | 0.91 | 1.16 | 3.38 | 0.13% |
| PEER AVERAGES | | N/A | 0.99 | N/A | 1.02 | 3.55 | 0.34% |

**Target Date fund review summary follows fund #17.**

| FUND # 14 | VANGUARD TARGET RETIREMENT 2020 | | | VTWNX |
|---|---|---|---|---|
| IMPLEMENTATION: DEC 2009 | ASSETS: $ 21,208,098 | 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 | 10.17 | 6.23 | 8.08 | 10.32 | 6.42 | 8.28 | -0.15 | -0.19 | -0.20 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 5 | 4.7 | 0.92 | 0.75 | 0.99 | 5.94 | 0.14% |
| PEER AVERAGES | | N/A | 0.98 | N/A | 1.01 | 6.06 | 0.43% |

**Target Date fund review summary follows fund #17.**

SST BENEFITS CONSULTING

| FUND # 15 | VANGUARD TARGET RETIREMENT 2030 | | | VTHRX |
|---|---|---|---|---|
| IMPLEMENTATION: DEC 2009 | ASSETS: $ 25,624,942 | 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 | 13.25 | 7.19 | 9.58 | 13.44 | 7.37 | 9.79 | -0.19 | -0.18 | -0.21 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 4.7 | 0.99 | 0.70 | 0.93 | 7.42 | 0.15% |
| PEER AVERAGES | | N/A | 0.97 | N/A | 0.93 | 7.61 | 0.43% |

**Target Date fund review summary follows fund #17.**

| FUND # 16 | VANGUARD TARGET RETIREMENT 2040 | | | VFORX |
|---|---|---|---|---|
| IMPLEMENTATION: DEC 2009 | ASSETS: $ 21,442,054 | 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 | 16.26 | 7.97 | 10.80 | 16.45 | 8.20 | 1.04 | -0.19 | -0.23 | 9.76 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 4.7 | 0.92 | 0.38 | 0.87 | 8.95 | 0.16% |
| PEER AVERAGES | | N/A | 0.98 | N/A | 0.86 | 9.16 | 0.43% |

**Target Date fund review summary follows fund #17.**

SST BENEFITS CONSULTING

| FUND # 17 | VANGUARD TARGET RETIREMENT 2050 | | | VFIFX |
|---|---|---|---|---|
| IMPLEMENTATION: DEC 2009 | ASSETS: $ 11,966,338 | 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 | 16.84 | 8.15 | 10.91 | 17.01 | 8.38 | 11.16 | -0.17 | -0.23 | -0.25 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 4 | 4.7 | 0.93 | 0.48 | 0.88 | 9.04 | 0.16% |
| PEER AVERAGES | | N/A | 0.97 | N/A | 0.88 | 9.26 | 0.41% |

Nothing has changed with this fund series since the prior review. We would point out that the International Bond position that added value in 2014 and 2015 is a detractor in 2017 (but still positive). The hedged nature of the International bond fund introduces an aspect where the yield is lower, but the duration is higher than domestic bonds. Yet since there is no currency exposure, there is not a lot of value added in terms of diversification.

**Recommendation: No action at this time.**

SST BENEFITS CONSULTING

**SPECIALTY:**

| FUND # 18 | VOYA GLOBAL REAL ESTATE | | | IGLIX |
|---|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 7,124,855 | 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 | -1.58 | 3.76 | 5.58 | 3.66 | 5.62 | 6.66 | -5.24 | -1.86 | -1.08 |

| | M* | MGR TENURE | BETA | ALPHA | SHARPE | 3 YR STD DEV | EXP RATIO |
|---|---|---|---|---|---|---|---|
| FUND STATISTICS | 3 | 15.9 | 0.97 | -3.35 | 0.34 | 11.91 | 1.01% |
| PEER AVERAGES | | 6.5 | 0.72 | 0.45 | 0.51 | 11.41 | 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-Sep 2017 | 30-Jun 2017 | 31-Mar 2017 | 31-Dec 2016 |
| | IGLIX | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 6 | 6 | 6 | 5 |
| | | -4.7/ 94.9 | 6.3 | 92.8 | 12.2/ 5.6 | 87.3/ 93.7 | -0.47 | 55 | 83 | | GRE | GRE | GRE | GRE |

This fund continues to struggle versus the peer, but is beating the S&P Global REIT index.

We had a call with management in the prior quarter and the committee decided to give the fund some leeway. The third quarter was positive, but not strong, though little changed within the markets that would favor the fund's overall strategy.

Patience is still the best option at this point.

**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: $ 50,367,029 | 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 | 14.56 | 7.45 | 10.41 | 13.62 | 7.54 | 9.82 | 0.94 | -0.09 | 0.59 |

| FUND # 20 | ASSET ALLOCATION FUNDS MODERATE | | |
|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 73,481,737 | 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 | 11.52 | 6.72 | 8.91 | 10.41 | 8.71 | 11.09 | 1.11 | -1.99 | -2.18 |

| FUND # 21 | ASSET ALLOCATION FUNDS CONSERVATIVE | | |
|---|---|---|---|
| IMPLEMENTATION: MAY 2008 | ASSETS: $ 24,389,902 | 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 | 7.67 | 4.57 | 5.72 | 5.53 | 4.68 | 5.12 | 2.14 | -0.11 | 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 3Q 2017:

| ACTION | FUND # | TICKER | FUND NAME | INVESTMENT POLICY | QUARTER ADDED |
|---|---|---|---|---|---|
| ⚠ | 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 -0.31 / -0.44 to -0.36 / -0.47. | 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.