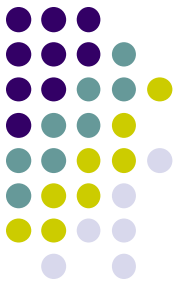


Pieper Challenge Grant and Match Program 2017 Annual Report



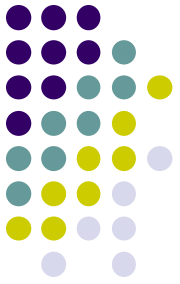
Prepared by Marquette University – College of Business Administration

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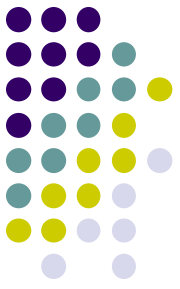
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Grantee Summary



- The Pieper Family Foundation has created the Challenge Grant and Match program to stimulate the trustees of not-for-profits to sharpen their investment policy and oversight. The objective of these grants is growth of capital and the expectation is that investment results will fall within the top quartile of diversified U.S. equity funds' returns over time.
- Pieper Fund returns are provided by each Grantee. The Grantees also provide a description of how their Pieper Fund is invested and the current investment policy. Morningstar data is used to evaluate performance. The Challenge Grant and Match program completed the transition from Lipper data in 2014. Morningstar is widely accepted in the investment industry.
- In addition to comparing performance to large groups of peers, results are compared to the Greater Milwaukee Foundation – Investment Pool, the in-house managed pool for a large local foundation.
- Ten Grantees reported on their Pieper Challenge & Match results for 2017. Grantees reported results in a range of +12.5% to +22.0% compared to +21.2% for the Vanguard Total Stock Market Index.
- Longer term performance proved more challenging. During the last 10 years, there was a significant equity bear market; as a result, only four Grantees earned returns that met or exceeded the return of the Greater Milwaukee Foundation – Investment Pool.
- Throughout the program, all of the Grantees have sharpened their investment policy focus and oversight. Like most investors, over half of the Grantees have experienced missteps during their participation in the Pieper Challenge (primarily early on in their tenure). Corrections by the Grantees have produced fruit, in the form of higher and more stable returns.

Performance Summary



- All ten Grantee funds earned a positive return in 2017. The Vanguard Total Stock Market Index Fund gained 21.2% for the year. Two of the ten Grantees performed as well as or better than the Vanguard Total Stock Market Index.
- The highest return for 2017 was 22.0%, achieved by Grantee Five. The lowest return for 2017 was 12.5% earned by Grantee Seven.
- Six Grantees gained as much or more than the 2017 increase of the Greater Milwaukee Foundation – Investment Pool (+16.7%).
- Three Grantees' five-year performance was in the top quartile versus the Morningstar 70-80% Equity Allocation comparison group. Grantee Nine had the highest five-year average return (15.5%/year). Grantee Two (+12.7%/year) and Grantee One (+11.2%/year) also had first quartile rankings over the five year period.
- Grantee performance since inception is summarized on the next page. We are interested in Grantees' change in relative performance over time. In other words, have Grantees learned lessons from participating in the Challenge Grant Program that they have implemented to improve performance over time?

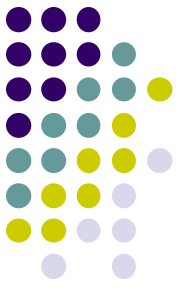
Grantee Fund Performance Since Inception



Grantee	Return /year since inception	Inception	Quartile/ Inception	Progress
1	5.7%	1999	2	Improved
2	9.3%	1997	1	Consistent
3	3.0%	1999	4	Worsened
4	5.3%	1999	1	Improved
5	3.3%	1999	4	Worsened
6	3.6%	2000	3	Consistent
7	5.4%	2000	3	Worsened
8	5.1%	2002	3	Consistent
9	8.5%	2003	1	Improved
10	5.2%	2002	2	Improved

- Endnotes:
 - Full calendar year performance for each Grantee is presented and analyzed in this report.
 - Grantee One – performance in 1999 and 2000 is a simple average of two managers during a transition in management.
 - Grantee Four – inception date is 3/31/1999.
 - Grantee Six – inception date is 11/20/2000.
 - Grantee Seven – inception date is 9/1/2000.
 - Grantee Eight – inception date is 1/1/2002.
 - Grantee Nine – inception date is 11/1/2003.
 - Grantee Ten – inception date is 9/31/2002.

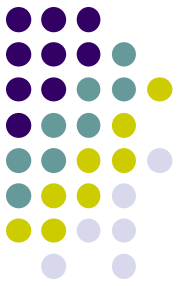
Value creation over time



- The Pieper Challenge Grant and Match program allows for half of the annual gain to be withdrawn for spending by the Grantee and half to be added back to the principal of the portfolio.
- A summary of what \$1 at inception has grown to for each Grantee:

Grantee	Inception	Available for spending	Currently in portfolio	Total
1	1999	\$0.63	\$1.73	\$2.36
2	1997	\$1.17	\$2.58	\$3.75
3	1999	\$0.32	\$1.32	\$1.64
4	1999	\$0.65	\$1.73	\$2.38
5	1999	\$0.43	\$1.30	\$1.73
6	2000	\$0.34	\$1.36	\$1.70
7	2000	\$0.50	\$1.51	\$2.01
8	2002	\$0.47	\$1.49	\$1.96
9	2003	\$0.77	\$2.00	\$2.77
10	2002	\$0.46	\$1.48	\$1.94

Evaluation Method



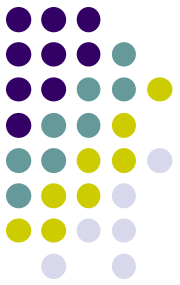
- Performance of each total Pieper Challenge and Match Fund is compared:
 - among the Grantees
 - versus the Vanguard Total US Stock Market Index Fund, as a tool for evaluation against all publicly traded U.S. stocks
 - against the Morningstar 70-85% Equity Allocation composite, a widely-used benchmark for diversified, growth-oriented portfolios. In 2016, Morningstar renamed its Allocation Benchmarks, and the Aggressive Allocation benchmark is now known as the 70-85% Equity Allocation benchmark.
- Each individual fund is compared with its respective industry peer group. Up through 2012, this peer group was calculated by Lipper. Starting in 2013, we use the Morningstar peer group.

Grantee	2017 Return	Investment Policy	
	(%)	Stocks (%)	Bonds (%)
1	18.1	80	20
2	21.2	100	0
3	13.0	77	23
4	14.1	74	26
5	22.0	100	0
6	15.2	70	30
7	12.5	87	13
8	18.1	98	2
9	21.2	100	0
10	17.1	77	23
Vanguard Total Stock Mkt Index	21.2		
Greater Milwaukee Fdn – Inv Pool	16.7		
Morningstar 70-85% Equity Allocation	15.8		

Grantee Fund Performance Summary Table



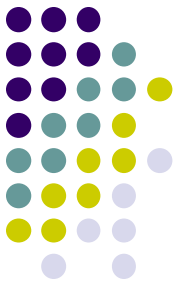
Investment Performance	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Grantee One	-38.9	32.9	18.5	-2.6	14.8	24.4	6.8	-1.4	9.6	18.1
Grantee Two	-40.7	36.3	17.8	-3.3	15.4	28.8	5.9	-1.7	12.1	21.2
Grantee Three	-10.1	14.3	9.8	2.2	11.0	8.5	5.5	-1.5	4.3	13.0
Grantee Four	-22.6	28.0	13.0	3.8	12.9	18.3	7.1	0.3	7.2	14.1
Grantee Five	-44.4	22.4	19.1	-7.2	13.2	12.5	4.1	-5.5	10.7	22.0
Grantee Six	-35.3	38.2	12.9	0.7	11.5	15.2	5.5	-0.8	3.6	15.2
Grantee Seven	-31.1	22.1	12.9	-0.8	10.5	13.6	5.5	-2.7	4.0	12.4
Grantee Eight	-36.8	29.9	16.2	-7.3	14.9	14.9	5.5	-3.5	8.1	18.1
Grantee Nine	-38.7	24.2	17.1	1.1	16.4	33.5	12.5	0.3	12.7	21.2
Grantee Ten	-32.2	33.3	13.8	-5.0	15.0	21.6	3.3	-2.3	7.1	17.1
Benchmarks										
Vanguard Total Stock Mkt Index Fund	-37.0	28.7	17.1	1.0	16.3	33.5	12.5	0.3	12.7	21.2
Morningstar 70-85% Equity Allocation	-34.3	29.4	13.5	-3.8	13.4	21.3	5.7	-2.8	7.9	15.8
Greater Milwaukee Foundation - Investment Pool	-25.6	25.1	13.5	0.1	13.1	16.7	4.4	-1.2	8.1	16.7



Grantee Fund Performance Summary Table

Investment Performance	Annualized		
	5 Year	10 Year	15 Year
Grantee One	11.1%	6.2%	8.6%
Grantee Two	12.7%	6.8%	9.3%
Grantee Three	5.9%	5.4%	7.0%
Grantee Four	9.2%	7.4%	8.6%
Grantee Five	8.4%	2.4%	4.6%
Grantee Six	7.5%	5.0%	7.1%
Grantee Seven	6.4%	3.6%	6.0%
Grantee Eight	8.3%	4.2%	6.5%
Grantee Nine	15.5%	8.0%	8.1%
Grantee Ten	9.0%	5.6%	5.3%
Benchmarks			
Vanguard Total Stock Mkt Index Fund	15.5%	8.6%	10.3%
Morningstar 70-85% Equity Allocation	9.3%	5.1%	7.5%
Greater Milwaukee Foundation - Investment Pool	8.7%	6.1%	8.5%

Annualized return rankings



5-year annualized returns

Grantee	Return
9	15.5%
<i>Vanguard Total Mkt</i>	<i>15.5%</i>
2	12.7%
1	11.2%
4	9.2%
<i>Morningstar 70-85% Alloc</i>	<i>9.2%</i>
10	9.0%
<i>Greater Milw Fnd – Inv Pool</i>	<i>8.9%</i>
8	8.4%
5	8.4%
6	7.5%
7	6.4%
3	5.9%

10-year annualized returns

Grantee	Return
<i>Vanguard Total Mkt</i>	<i>8.7%</i>
9	8.0%
4	7.4%
2	6.8%
1	6.2%
<i>Greater Milw Fnd – Inv Pool</i>	<i>6.2%</i>
10	5.6%
3	5.5%
<i>Morningstar 70-85% Alloc</i>	<i>5.4%</i>
6	4.9%
8	4.3%
7	3.6%
5	2.4%

15-year annualized returns

Grantee	Return
<i>Vanguard Total Mkt</i>	<i>10.5%</i>
2	9.3%
4	8.6%
1	8.6%
<i>Greater Milw Fnd – Inv Pool</i>	<i>8.5%</i>
9	8.1%
<i>Morningstar 70-85% Alloc</i>	<i>7.5%</i>
6	7.1%
3	7.0%
8	6.5%
7	6.0%
10	5.3%
5	4.6%

Sharpe ratio rankings



Sharpe ratio is a measure of risk-adjusted return. It measures excess return (i.e. risk premium – the return achieved above the Treasury bond’s return, for example) per unit of risk. Higher Sharpe ratios imply better risk-adjusted performance.

5-year Sharpe ratio

Grantee	Ratio
4	1.28
9	1.24
<i>Vanguard Total Mkt</i>	<i>1.24</i>
1	1.08
<i>Greater Milw Fnd – Inv Pool</i>	<i>1.08</i>
3	1.04
2	1.03
6	1.01
<i>Morningstar 70-85% Alloc</i>	<i>0.95</i>
8	0.95
7	0.91
10	0.89
5	0.79

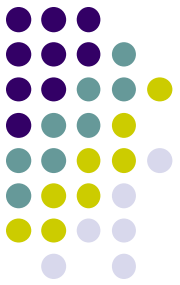
10-year Sharpe ratio

Grantee	Ratio
3	0.69
4	0.53
<i>Vanguard Total Mkt</i>	<i>0.42</i>
<i>Greater Milw Fnd – Inv Pool</i>	<i>0.42</i>
9	0.39
1	0.30
2	0.30
10	0.30
<i>Morningstar 70-85% Alloc</i>	<i>0.27</i>
6	0.26
7	0.23
8	0.21
5	0.11

15-year Sharpe ratio

Grantee	Ratio
3	0.74
4	0.67
<i>Greater Milw Fnd – Inv Pool</i>	<i>0.59</i>
<i>Vanguard Total Mkt</i>	<i>0.54</i>
2	0.44
1	0.43
9	0.42
<i>Morningstar 70-85% Alloc</i>	<i>0.42</i>
6	0.39
7	0.39
8	0.34
10	0.28
5	0.19

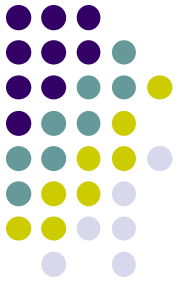
2017 General Market Performance Overview



Index	Description	2017
S&P 500	Large-Cap US Equity	21.8%
Dow	Large-Cap US Equity	28.7%
Russell 2000	Small-Cap US Equity	14.7%
MSCI EAFE	International – Developed Markets	25.0%
MSCI EM	International – Emerging Markets	37.3%
Bloomberg Barclays T-Bill	Cash	0.3%
Bloomberg Barclays Agg	Fixed Income	3.5%

Total return = Price change + income

Performance disclaimer



- This report has been prepared by undergraduate students in Marquette University's College of Business Administration. Every effort has been made to calculate and report accurate information.
- The information contained in this summary is prepared from records which Marquette University considers reliable. However it is not intended to and should not be used as a substitute for periodic statements that you receive on a regular basis from your investment advisor and custodian. Please compare the data on this document carefully with your monthly statements to verify its accuracy.
- If you discover an error in this report, please report it to Dan Geigler, Adjunct Instructor, daniel.geigler@mu.edu.