



# Investment Performance

September 30, 2022

## CHICAGO

150 North Wacker Drive  
Suite 2500  
Chicago, Illinois 60606  
312.212.4000

## ST. LOUIS

231 South Bemiston Ave  
Suite 200  
Clayton, Missouri 63105  
314.726.9911

[cia-llc.com](http://cia-llc.com)  
[info@cia-llc.com](mailto:info@cia-llc.com)



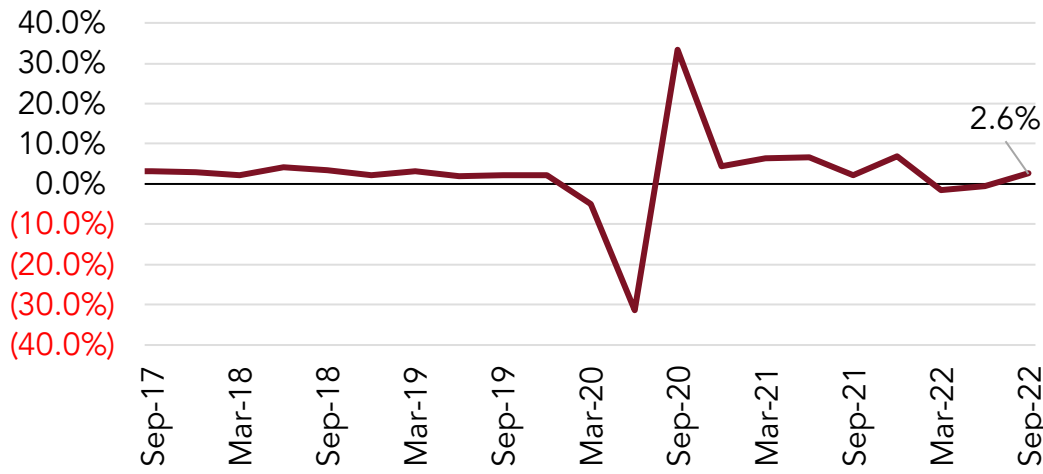


CARDINAL

Economy and Capital Markets

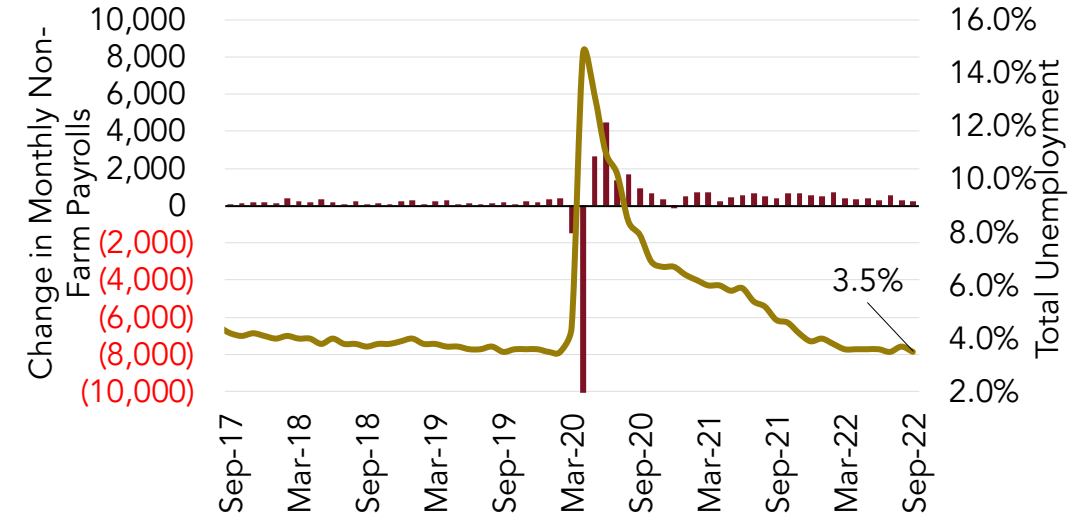
September 30, 2022

### Quarter over Quarter % Change in GDP



BEA

### US Employment Situation



BLS

### Equity Snapshot

	Quarter	YTD	One Year	Three Year	Five Year	Ten Year
S&P 500	(4.9%)	(23.9%)	(15.5%)	8.2%	9.2%	11.7%
S&P 500 - Value	(5.8%)	(16.6%)	(9.6%)	5.1%	6.2%	9.6%
S&P 500 - Growth	(3.9%)	(30.4%)	(21.1%)	9.9%	11.4%	13.2%
Russell 1000 Defensive	(7.1%)	(23.8%)	(15.3%)	5.4%	9.0%	11.1%
Russell 2000	(2.2%)	(25.1%)	(23.5%)	4.3%	3.6%	8.6%
Russell 2000 - Value	(4.6%)	(21.1%)	(17.7%)	4.7%	2.9%	7.9%
Russell 2000 - Growth	0.2%	(29.3%)	(29.3%)	2.9%	3.6%	8.8%
MSCI EAFE	(9.4%)	(27.1%)	(25.1%)	(1.8%)	(0.8%)	3.7%
MSCI EAFE - Value	(10.2%)	(21.1%)	(20.2%)	(2.8%)	(2.7%)	2.4%
MSCI EAFE - Growth	(8.5%)	(33.0%)	(30.3%)	(1.5%)	0.7%	4.7%
MSCI Emerging Markets	(11.6%)	(27.2%)	(28.1%)	(2.1%)	(1.8%)	1.0%

MSCI, Russell, S&P

### Fixed Income Snapshot

	Quarter	YTD	One Year	Three Year	Five Year	Ten Year
ICE BofA 91 Day T-bills	0.5%	0.6%	0.6%	0.6%	1.1%	0.7%
Bloomberg Aggregate	(4.8%)	(14.6%)	(14.6%)	(3.3%)	(0.3%)	0.9%
U.S. Treasury	(4.3%)	(13.1%)	(12.9%)	(3.1%)	(0.2%)	0.5%
U.S. Agency	(2.7%)	(8.5%)	(9.0%)	(1.6%)	0.4%	0.9%
U.S. Credit	(4.9%)	(18.1%)	(17.9%)	(3.6%)	(0.0%)	1.6%
ABS	(1.3%)	(5.1%)	(5.6%)	(0.2%)	1.0%	1.2%
MBS	(5.4%)	(13.7%)	(14.0%)	(3.7%)	(0.9%)	0.5%
CMBS	(3.8%)	(11.8%)	(12.4%)	(2.1%)	0.7%	1.6%
Bloomberg U.S. TIPS	(5.1%)	(13.6%)	(11.6%)	0.8%	2.0%	1.0%
Bloomberg Long G/C	(9.0%)	(28.9%)	(27.4%)	(7.3%)	(1.2%)	1.4%
Bloomberg Municipal	(3.5%)	(12.1%)	(11.5%)	(1.9%)	0.6%	1.8%
Morningstar/LSTA	1.4%	(3.3%)	(2.5%)	2.2%	3.0%	3.5%
Bloomberg High Yield	(0.6%)	(14.7%)	(14.1%)	(0.5%)	1.6%	3.9%

Bloomberg, ICEBofA, S&P, Morningstar



CARDINAL

Summary

September 30, 2022

3

## Executive Summary

- **For the quarter:**

Portfolio update:

- The total balance for the portfolio was \$1.2 B.

Capital Markets:

- The Personal Consumption Expenditures (PCE) Price Index, the Federal Reserve's preferred inflation measure, rose 0.3% during August following the -0.1% reading in July. However, after stripping out the influential food and energy sectors the index rose 0.6% during the month. Prices for energy related goods and services fell 5.5% in August, fueled by subdued demand and falling oil prices. The PCE price index fell 0.2% to 6.2% when measuring the year-over-year change, while the core index rose 0.2% to 4.9%.
- Domestic stock indices suffered sizable losses during September, with the S&P 500 and Dow posting their biggest monthly loss since March 2020. After a large gain in July, domestic stocks fell over the final two months of the third quarter to mark the third consecutive quarterly decline. Worsening economic outlook, persistent inflation, and rising rates continue to weigh on performance.

Performance:

- The PCF's overall portfolio outperformed the benchmark by 49 bps.
- Core fixed income, Equities and Private Real Estate outperformed, while Risky Debt lagged.

- **For the past year:**

Capital Markets:

- For investment grade fixed income markets, LSTA came in at -2.5% followed by 91 Day T-bills at 0.6%.
- For equities all asset classes had negative returns. S&P 500 - Value came in at -4.9%

Performance:

- The PCF's overall portfolio outperformed its relative benchmark, returning -9.4%.
- Private Real Estate composite outperformed by 296 bps, returning 24.1% vs. 21.1% for the benchmark.

- **For the past five years:**

Capital Markets:

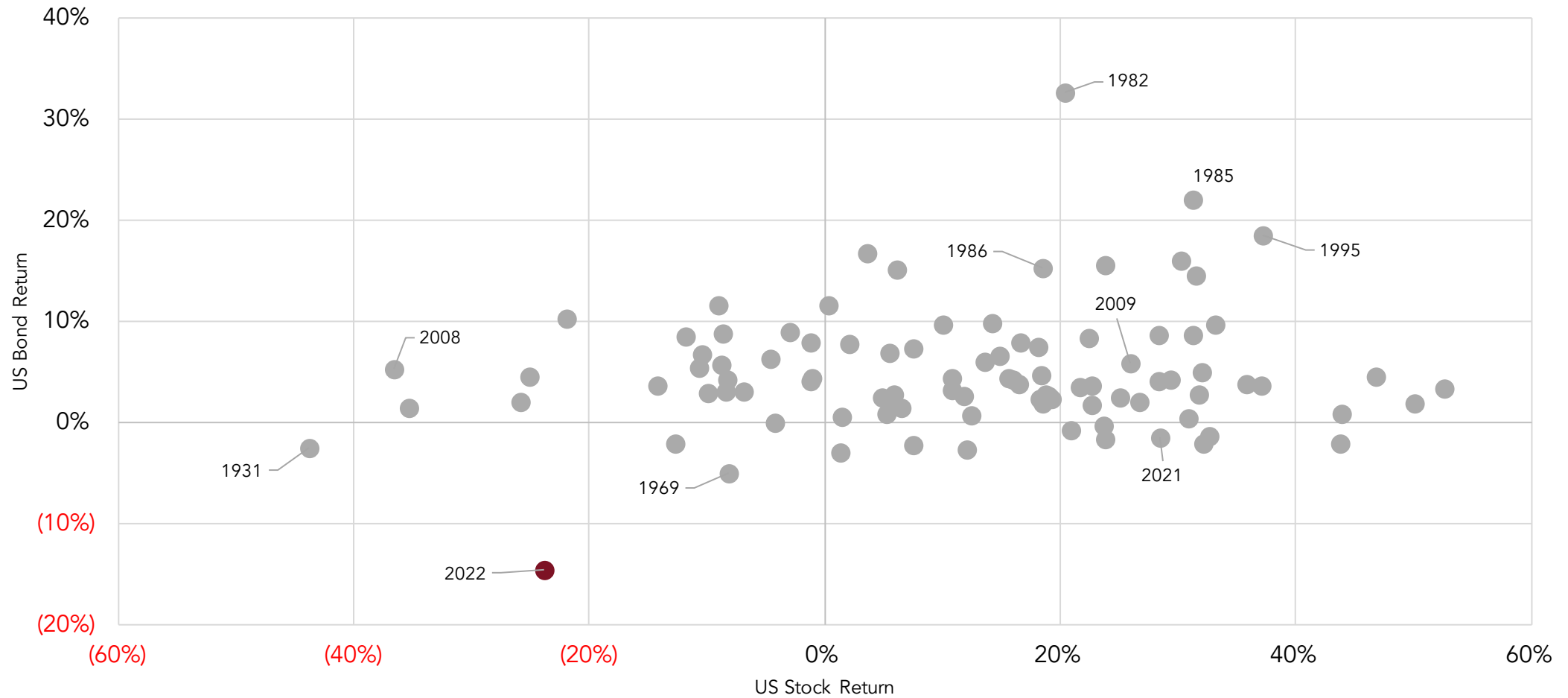
- For fixed income LSTA came in at 3.0% followed by U.S. TIPS, 2.0%.
- The top equity asset performer was S&P 500 Growth at 13.5% followed by S&P 500 at 11.3%.
- Performance: the PCF's overall portfolio performed in line with the benchmark at 1.6%.



CARDINAL

Historical Comparison

US Stocks vs Bonds Returns, 1928-2022



Bloomberg, FRED, NYU Stern, S&P

- From 1928-1975, historical bond returns are represented by the 10-Year US Treasury Bond. Since its inception in 1976, the Bloomberg Aggregate Index is incorporated.
- Historical stock returns are represented by the S&P 500.

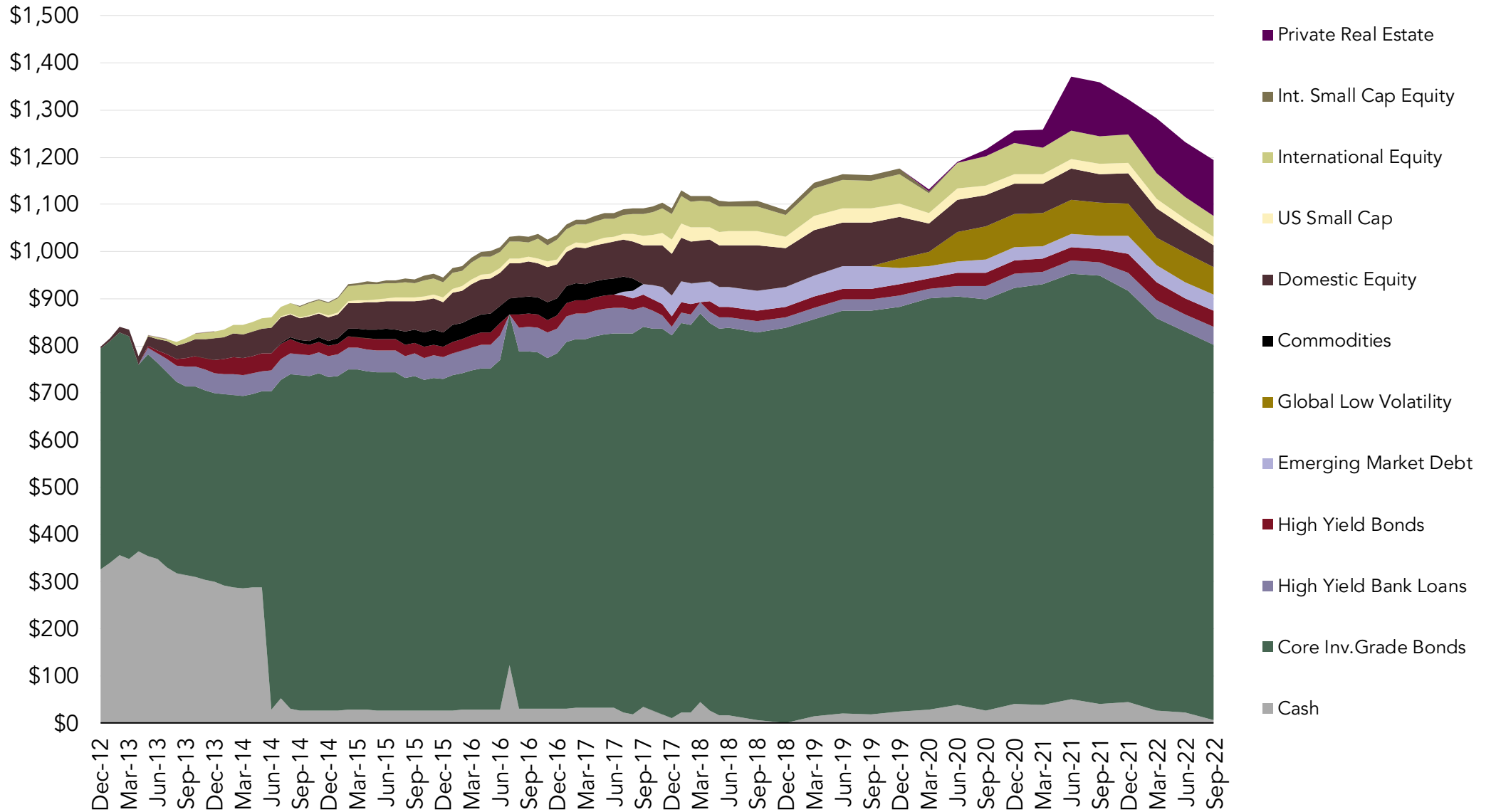


CARDINAL

Asset Allocation

September 30, 2022

Total Company Allocation (\$000s)



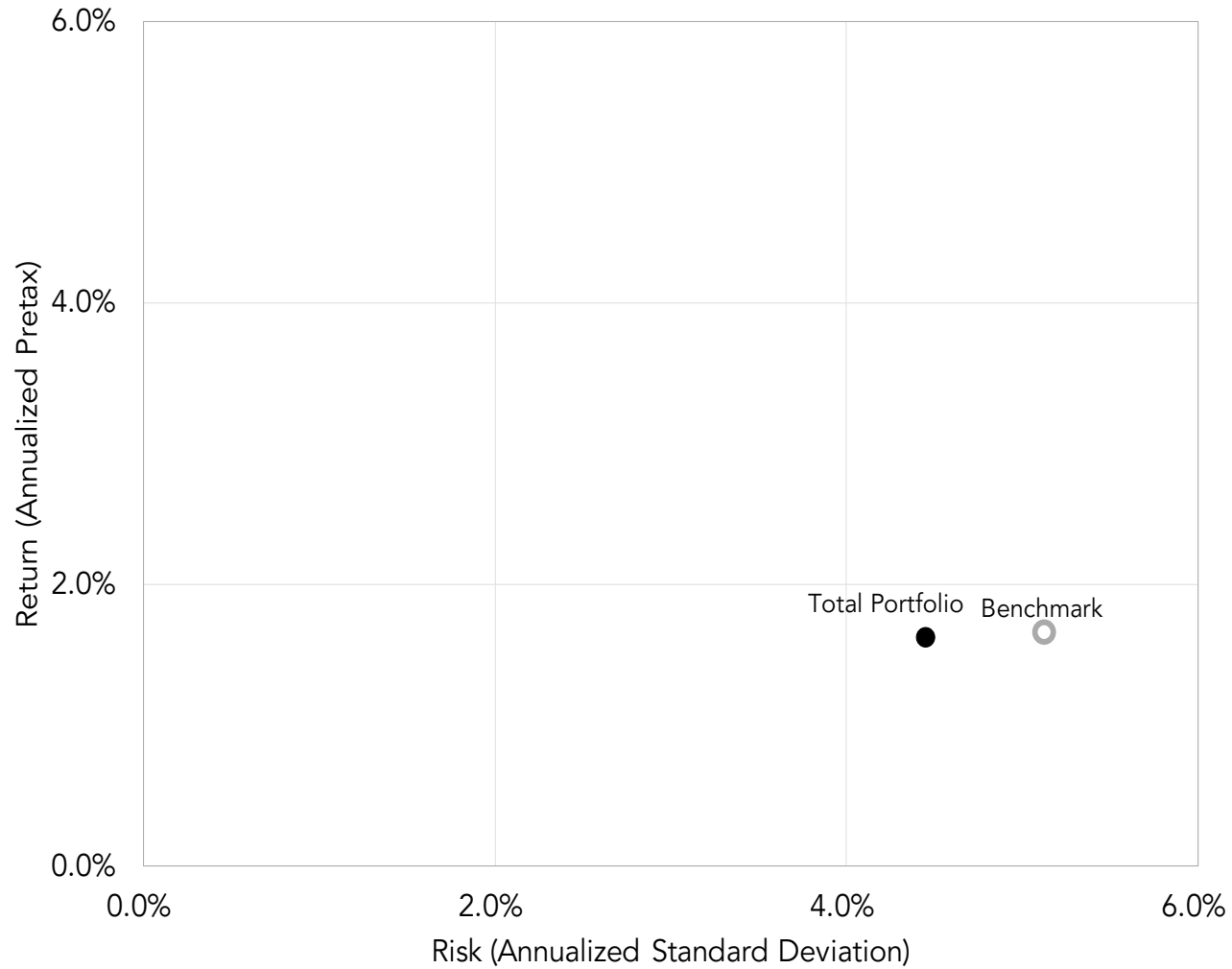


CARDINAL

Performance

September 30, 2022

## Five Year Risk/Return Performance



This chart shows the risk and return for the actual portfolio and the overall benchmark for the past five years.

Over the past five years, LAPCF slightly underperformed its benchmark by 0.03% on an annualized basis with a similar level of risk.



CARDINAL

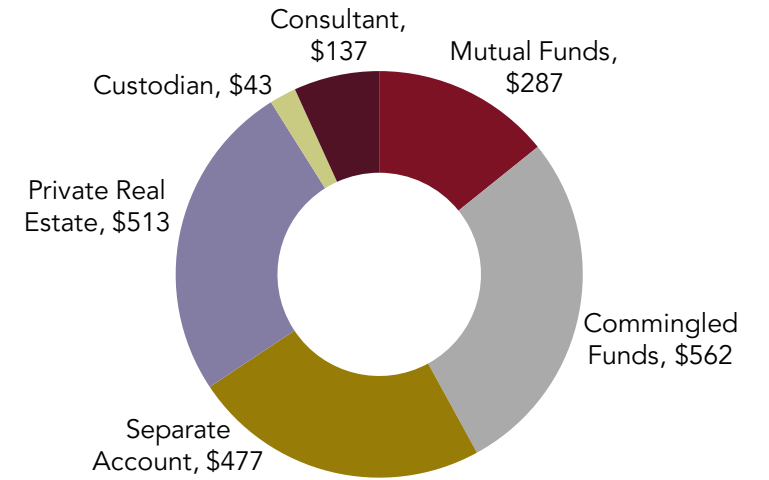
Investment Fees by Vehicle

September 30, 2022

Estimated Annual Fees (\$000s)

	9/30/2022 Market Value (\$MM)	Esimated Annual Fee (\$k)	Expense Ratio
Mutual Funds	\$183	\$287	0.16%
Commingled Funds	\$90	\$562	0.62%
Separate Account	\$796	\$477	0.06%
Private Real Estate	\$118	\$513	0.43%
Cash	\$7	na	na
Custodian	na	\$43	0.00%
Consultant	na	\$137	0.01%
<b>Total</b>	<b>\$1,194</b>	<b>\$2,020</b>	<b>Avg. 0.17%</b>

Distribution of Fees



Wells Fargo, Cardinal

Wells Fargo, Cardinal

- The annual fee amounts were calculated using the most recent available market values and expense ratios for each fund.
- The annual fee amounts presented are estimated due to fluctuating market values of each holding from quarter to quarter.

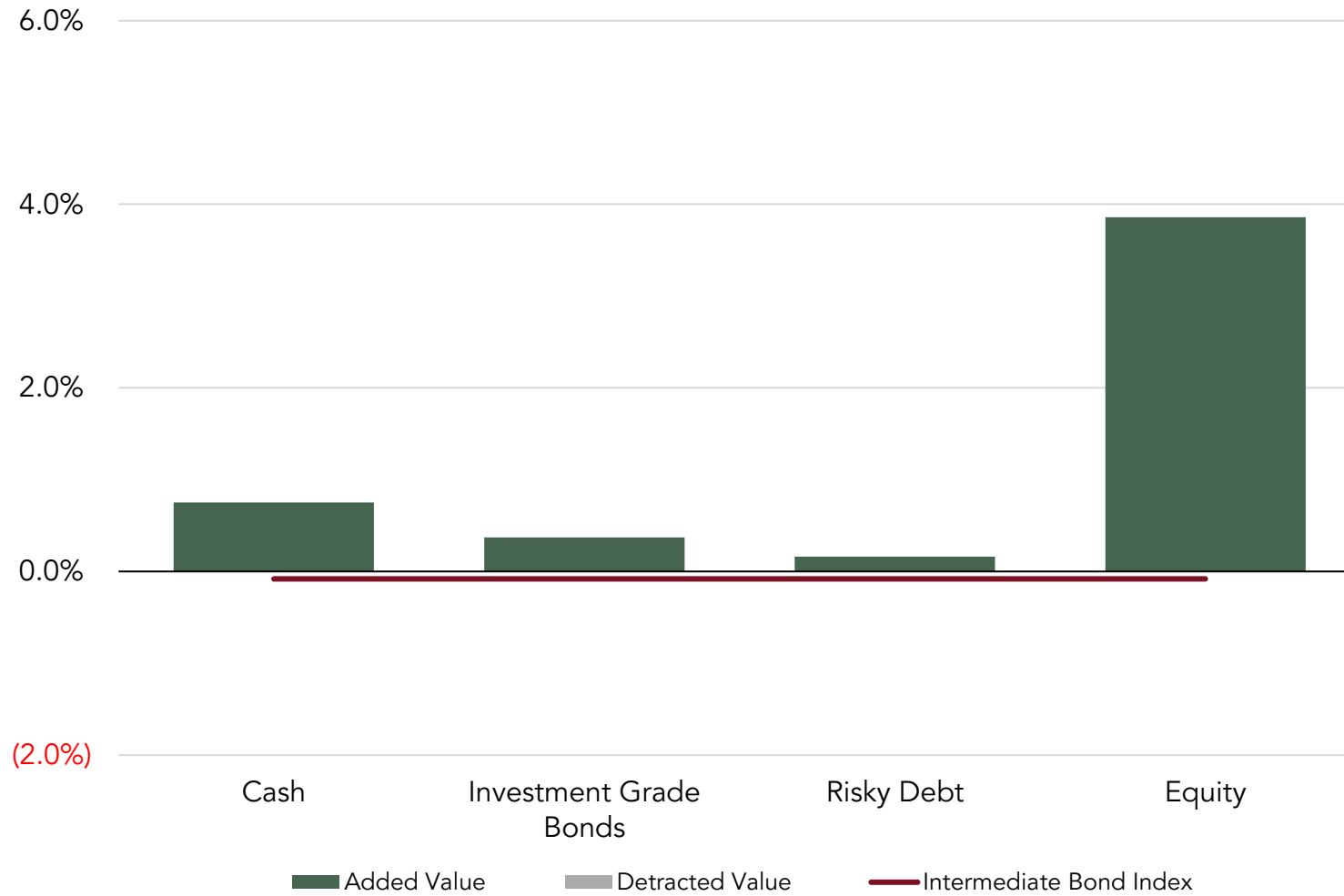


CARDINAL

Performance

September 30, 2022

# Five Year Asset Class Returns vs. Intermediate Bond Index







CARDINAL

Performance

September 30, 2022

Total Composites

Net of Fees

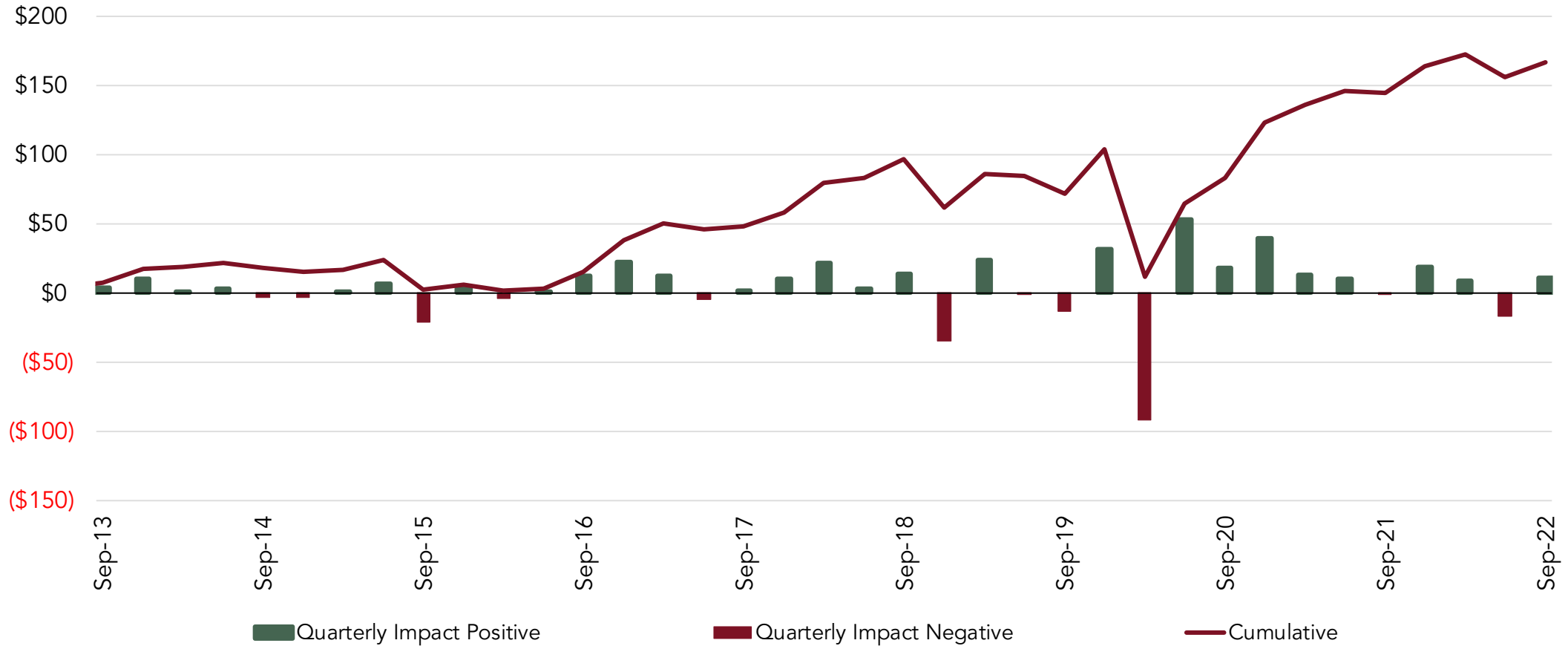
Composite	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>PCF Composite</b>										
Pretax Performance	\$1,194,041	100.0%	(3.06%)	(10.39%)	(9.41%)	0.13%	1.62%	2.00%	2.01%	Jan-12
Blended Benchmark <sup>1</sup>			<u>(3.55%)</u>	<u>(11.47%)</u>	<u>(10.26%)</u>	<u>0.18%</u>	<u>1.65%</u>	<u>2.26%</u>	<u>2.54%</u>	
Relative Performance			0.49%	1.09%	0.85%	(0.05%)	(0.03%)	(0.26%)	(0.53%)	
<b>Cash</b>										
WF Advantage Fund	\$7,033	0.6%	0.36%	0.44%	0.44%	0.34%	0.75%	-	0.54%	Jan-15
Merrill 91 Day T-Bill			<u>0.44%</u>	<u>0.54%</u>	<u>0.53%</u>	<u>0.51%</u>	<u>1.06%</u>	-	<u>0.78%</u>	
Relative Performance			(0.08%)	(0.11%)	(0.09%)	(0.17%)	(0.31%)	-	(0.23%)	
<b>Core Fixed Income Composite</b>	\$795,547	66.6%	(3.40%)	(10.40%)	(10.68%)	(1.75%)	0.37%	1.09%	1.25%	Jan-12
Blended Benchmark <sup>2</sup>			<u>(3.85%)</u>	<u>(11.06%)</u>	<u>(11.52%)</u>	<u>(2.36%)</u>	<u>(0.08%)</u>	<u>0.85%</u>	<u>1.15%</u>	
Relative Performance			0.46%	0.66%	0.84%	0.62%	0.46%	0.24%	0.09%	
<b>Risky Debt Composite</b>	\$105,556	8.8%	(1.57%)	(14.58%)	(14.54%)	(2.23%)	0.16%	-	1.84%	Apr-13
Blended Benchmark <sup>2</sup>			<u>(1.01%)</u>	<u>(12.95%)</u>	<u>(12.76%)</u>	<u>(1.35%)</u>	<u>0.87%</u>	-	<u>2.36%</u>	
Relative Performance			(0.56%)	(1.63%)	(1.78%)	(0.88%)	(0.71%)	-	(0.53%)	
<b>Total Equity Composite</b>	\$167,905	14.1%	(6.37%)	(21.12%)	(16.80%)	2.83%	3.86%	-	8.04%	Nov-12
Blended Benchmark <sup>2</sup>			<u>(6.58%)</u>	<u>(24.74%)</u>	<u>(20.71%)</u>	<u>3.28%</u>	<u>3.71%</u>	-	<u>8.04%</u>	
Relative Performance			0.20%	3.62%	3.91%	(0.45%)	0.15%	-	0.00%	
<b>Private Real Estate Composite</b>	\$118,000	9.9%	2.38%	14.90%	24.08%	-	-	-	13.91%	Jan-20
Blended Benchmark <sup>2</sup>			<u>0.35%</u>	<u>12.47%</u>	<u>21.12%</u>	-	-	-	<u>12.51%</u>	
Relative Performance			2.03%	2.43%	2.96%	-	-	-	1.40%	



CARDINAL

Performance

Value added or (detracted) by the Diversified Portfolio



Wells Fargo, State of Louisiana, Cardinal

- Since inception, the diversified portfolio has added approximately \$167 MM above what the prior portfolio structure likely would have earned.

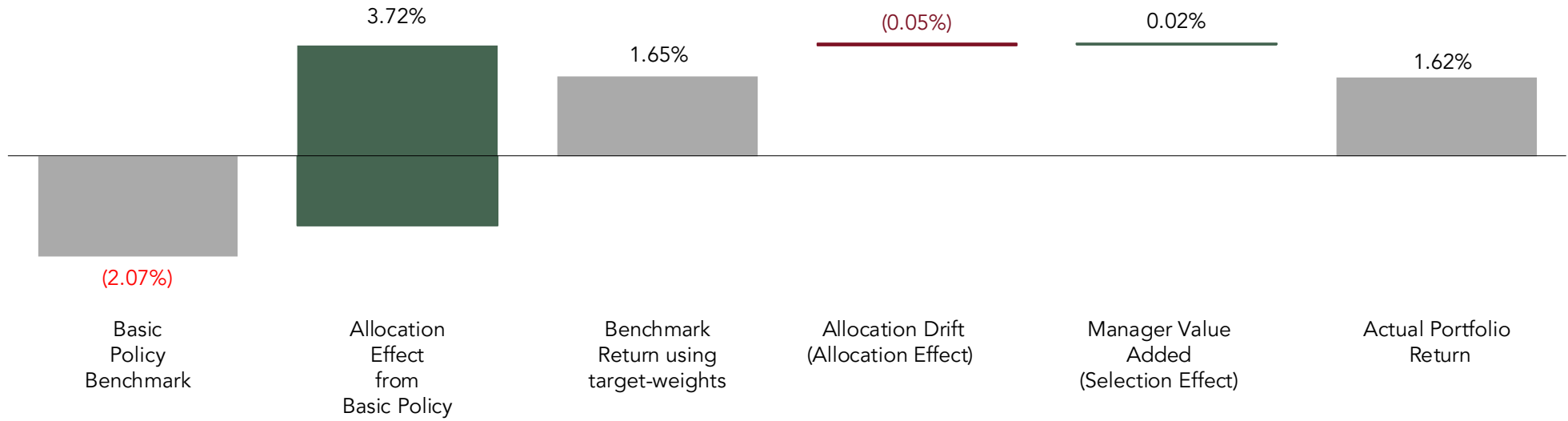
September 30, 2022



CARDINAL

Attribution

# Five-Year Performance Attribution: Overall



Wells Fargo, Cardinal

- Drift, or the Allocation effect was (0.05%) for the last five years.
- The PCF’s investment managers have added 0.02% in value overall on an annualized basis.

September 30, 2022

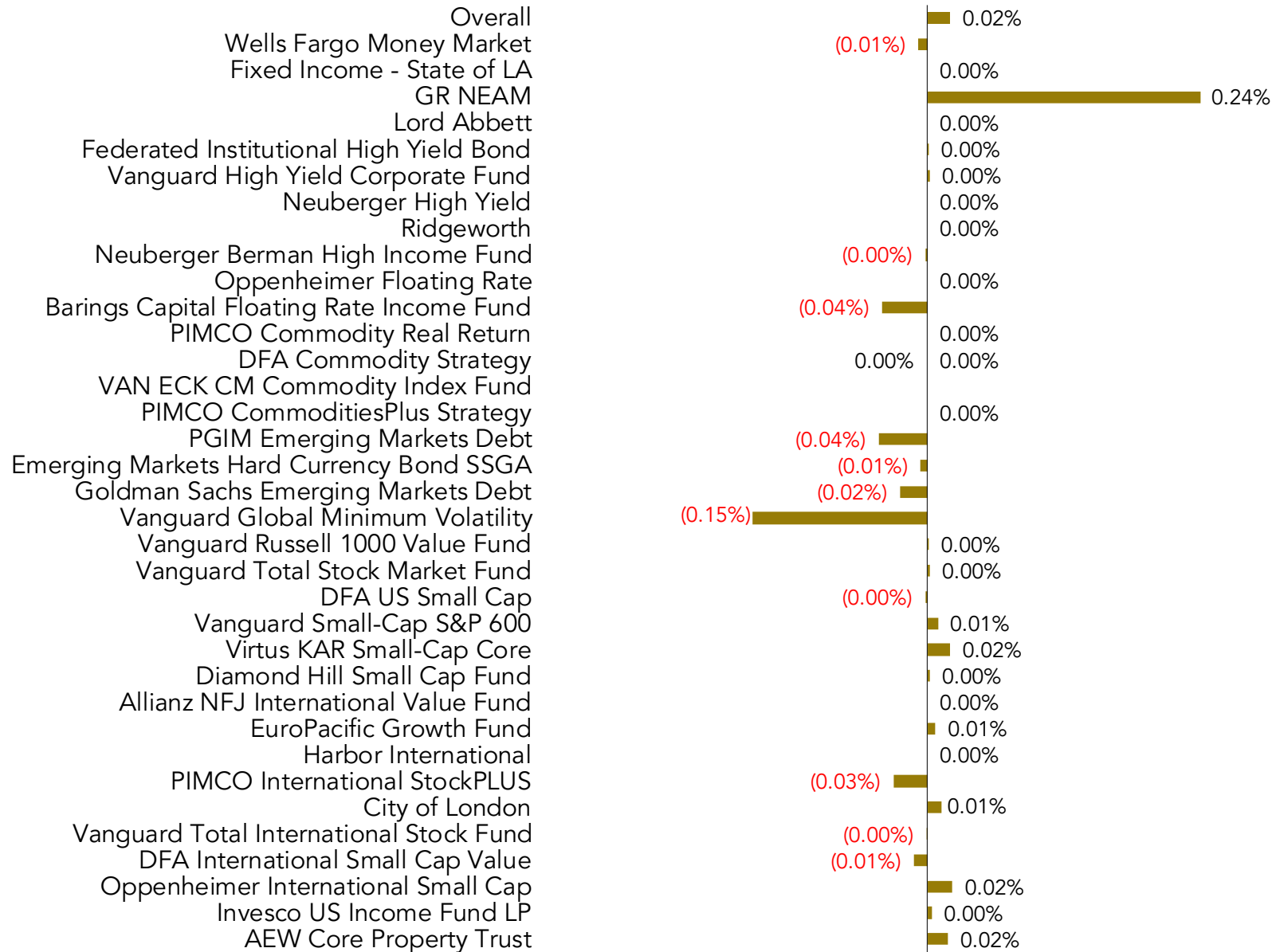


CARDINAL

Attribution

September 30, 2022

# Manager Value Added



- GR NEAM has had a significantly positive impact on the overall portfolio (+0.24%) annualized over the past five years.
- As the rest of the managers have relatively small mandates, they have a limited ability to impact the relative returns of the overall portfolio.
- No manager has had a significant negative effect on the overall portfolio except for Vanguard Global Minimum Volatility which is being hurt by its value bias. Nonetheless, many of the managers that were under-performing over this time period have been terminated.

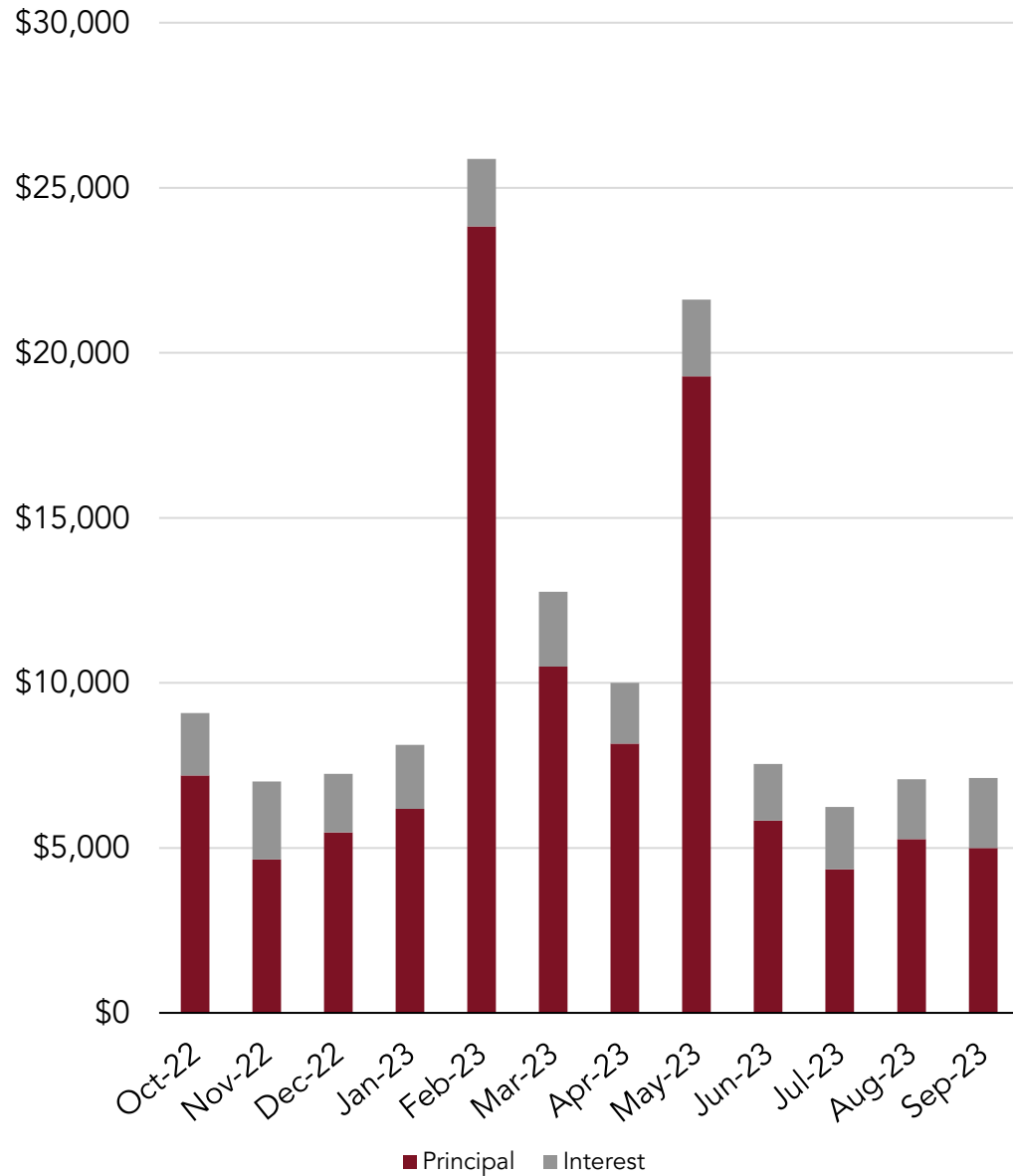


CARDINAL

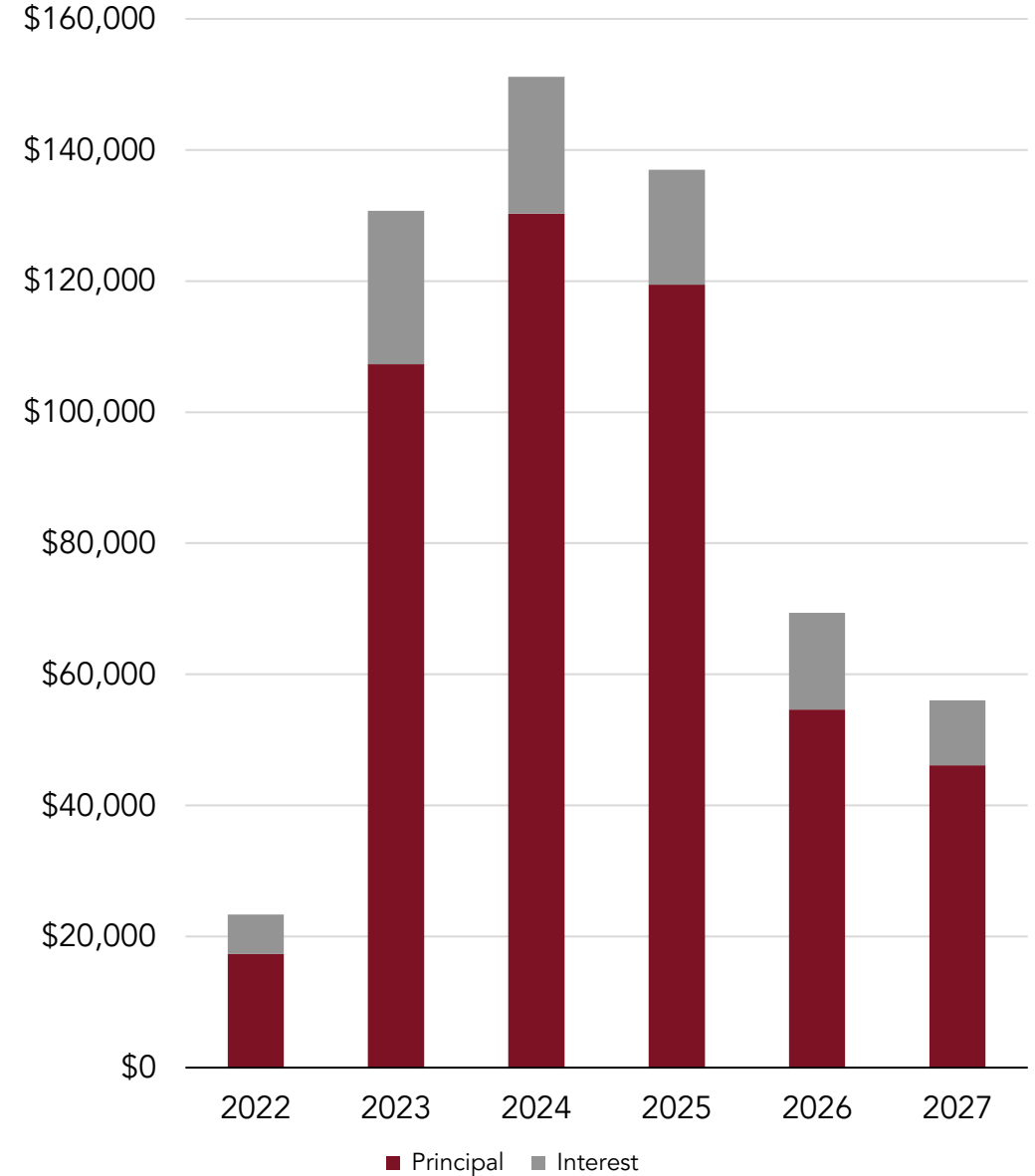
Cash Flows  
Fixed Income

September 30, 2022

Cash Flow Projections (\$000s) - 12 Months



Cash Flow Projections (\$000s) - Yearly





## Fixed Income

	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
Composite										
<b>Core Fixed Income Composite</b>	\$795,547	66.6%	(3.40%)	(10.40%)	(10.68%)	(1.75%)	0.37%	1.09%	1.25%	Jan-12
Blended Benchmark <sup>2</sup>			<u>(3.85%)</u>	<u>(11.06%)</u>	<u>(11.52%)</u>	<u>(2.36%)</u>	<u>(0.08%)</u>	<u>0.85%</u>	<u>1.15%</u>	
Relative Performance			0.46%	0.66%	0.84%	0.62%	0.46%	0.24%	0.09%	
<b>NEAM</b>	\$795,547	66.6%	(3.40%)	(10.40%)	(10.68%)	(1.75%)	0.37%	-	1.18%	Jun-14
Bloomberg Int. Aggregate Index			<u>(3.85%)</u>	<u>(11.06%)</u>	<u>(11.52%)</u>	<u>(2.36%)</u>	<u>(0.08%)</u>	-	<u>0.74%</u>	
Relative Performance			0.46%	0.66%	0.84%	0.62%	0.46%	-	0.45%	

Wells Fargo, State of Louisiana, NEAM, Cardinal

- NEAM outperformed for all reporting time periods against their relative benchmark.
- The Core Fixed Income Composite includes, in chronological order:
  - State of Louisiana fixed income,
  - Various mutual funds used transitionally,
  - JP Morgan, and NEAM.

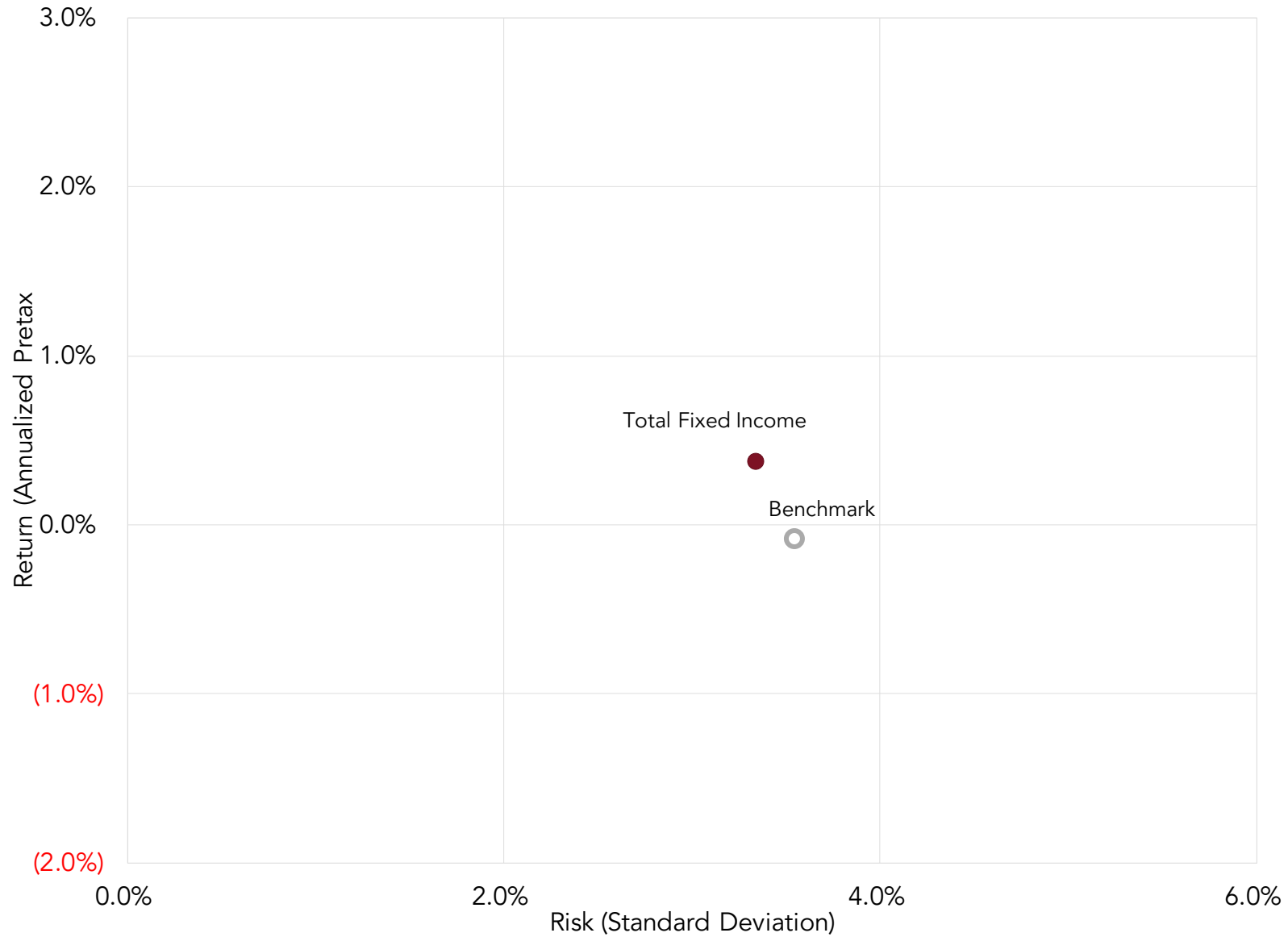


CARDINAL

Performance

September 30, 2022

Five Year Risk/Return Performance (Total Fixed Income)



Over the past five years, Fixed Income has outperformed against its benchmark by 0.46% with nearly the same risk.



## Characteristics

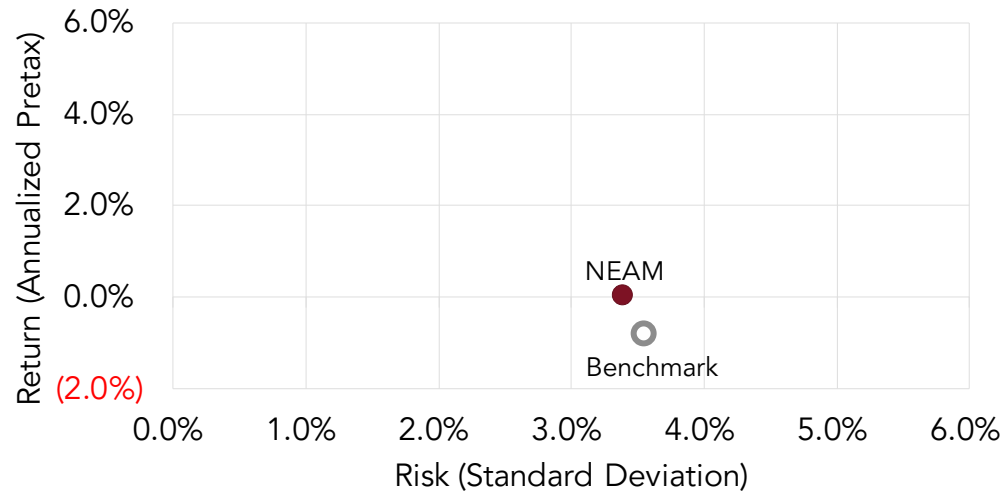
Characteristic	NEAM		BB Int. Aggregate 9/30/22
	6/30/22	9/30/22	
Effective Duration	4.5 years	4.5 years	4.6 years
Average Maturity	5.7 years	5.8 years	5.6 years
Yield to Maturity	3.7%	4.8%	4.7%
Average Quality	AA	AA	AA+

## Mandate and Objective

- Actively managed fixed income separate account
- Inception: June 2014
- Objective: Exceed total return of the Bloomberg Int. Aggregate Index
- Annual Fee = 0.075% on the first \$400M and 0.045% on the remaining

NEAM, Bloomberg

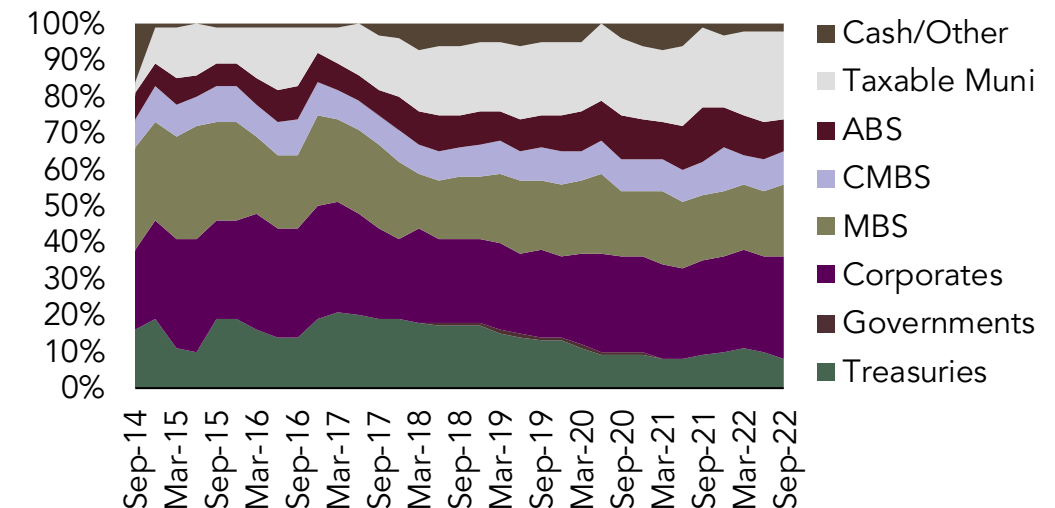
### Five-Year Risk/Return



NEAM, Bloomberg

NEAM

### Historical Sector Distribution



NEAM

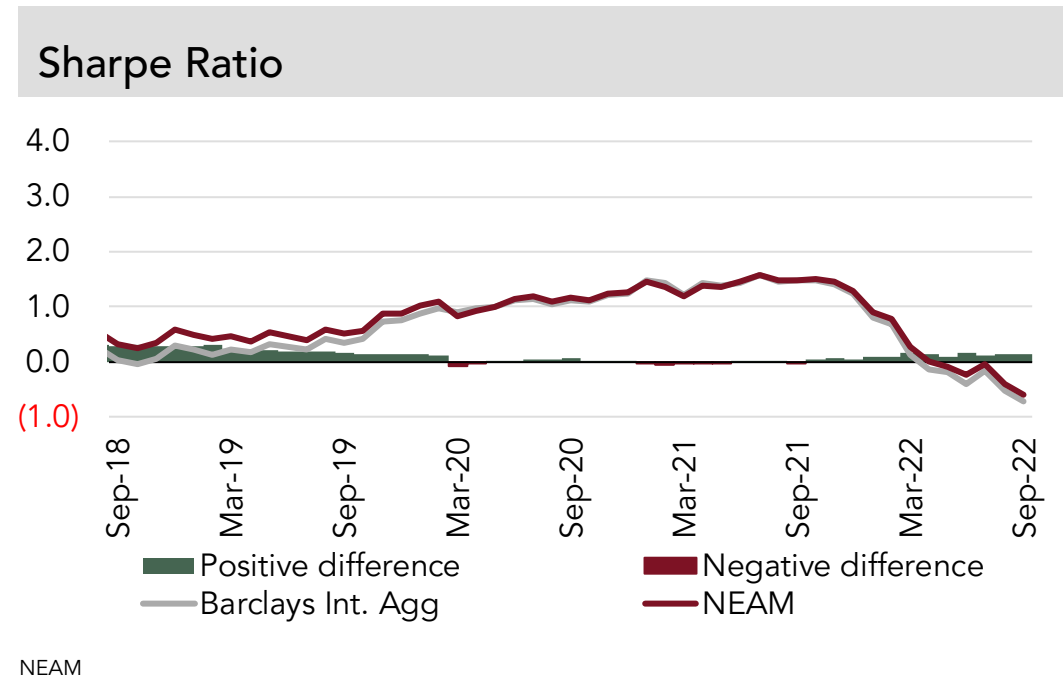
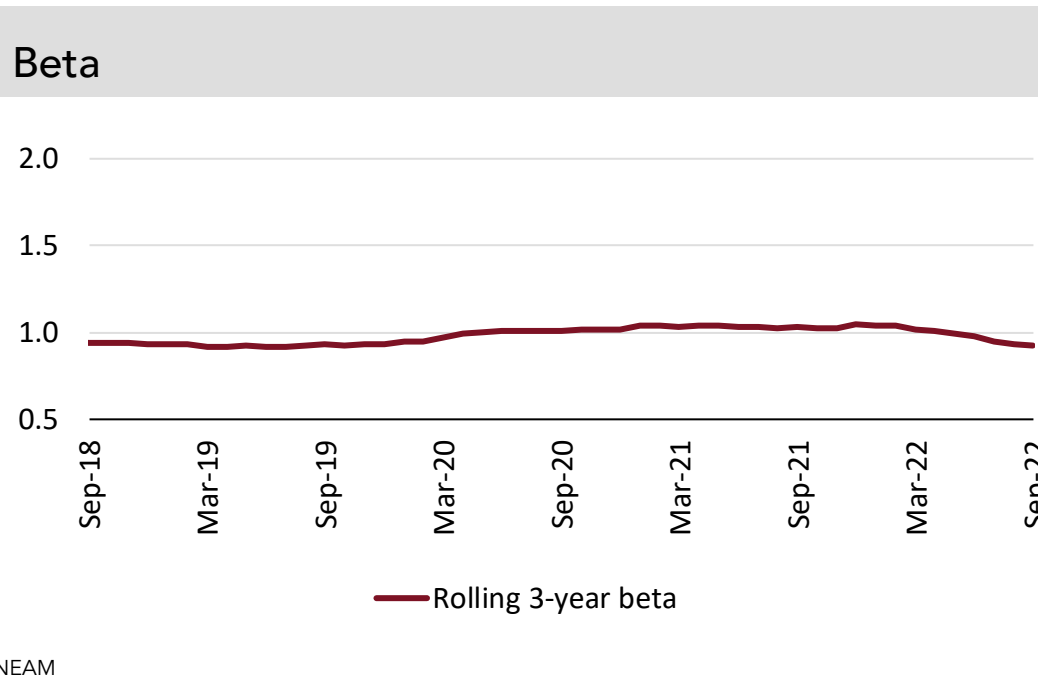
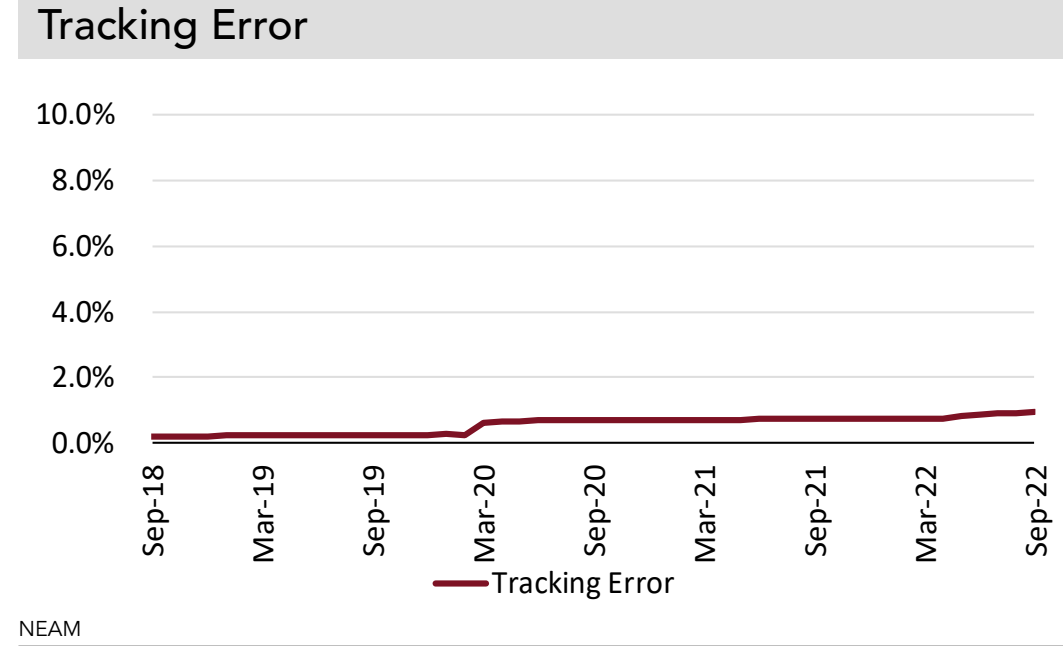
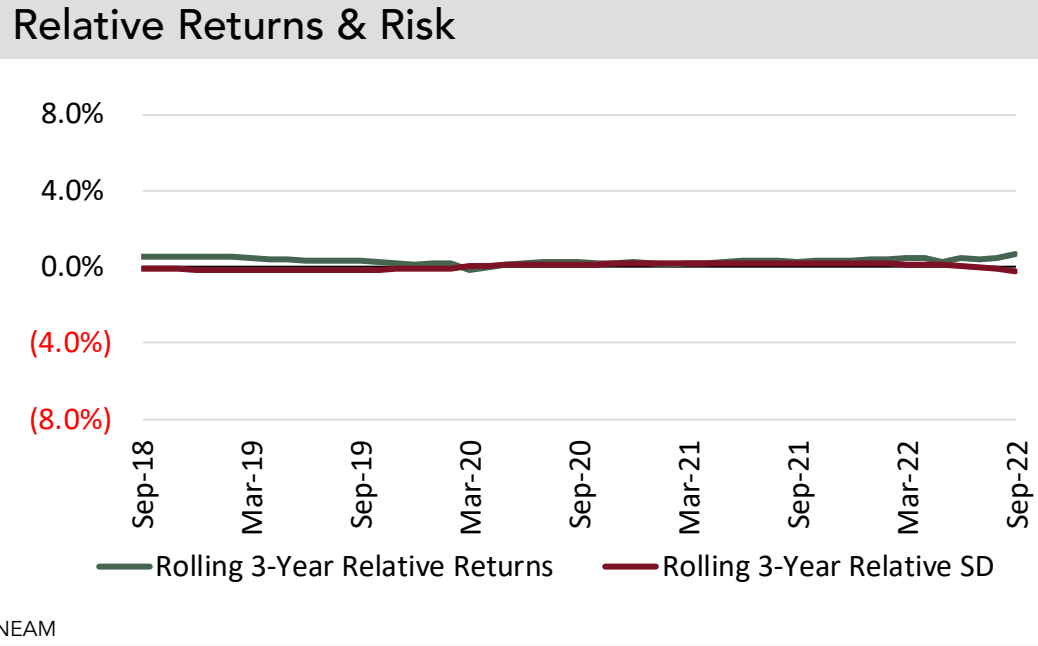




CARDINAL

Characteristics  
NEAM

September 30, 2022





CARDINAL

Performance

# High Yield Bank Loan

Portfolio	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>High Yield Bank Loan Composite</b>	\$37,416	3.1%	0.56%	(4.98%)	(4.38%)	1.20%	2.14%	-	2.61%	Apr-13
S&P LSTA Index			<u>1.20%</u>	<u>(3.72%)</u>	<u>(3.16%)</u>	<u>1.55%</u>	<u>2.32%</u>	-	<u>2.84%</u>	
Relative Performance			(0.64%)	(1.26%)	(1.22%)	(0.36%)	(0.18%)	-	(0.22%)	
<b>Barings Capital Floating Rate Income</b>	\$37,416	3.1%	0.56%	(4.98%)	(4.38%)	1.20%	2.14%	-	2.80%	Aug-16
Morningstar LSTA U.S. Leverage Loan			<u>1.20%</u>	<u>(3.72%)</u>	<u>(3.16%)</u>	<u>1.55%</u>	<u>2.32%</u>	-	<u>2.87%</u>	
Relative Performance			(0.64%)	(1.26%)	(1.22%)	(0.36%)	(0.18%)	-	(0.08%)	

Wells Fargo, Barings, Cardinal

- Barings underperformed for all time periods.
- Since inception Barings has underperformed the benchmark by 8 bps.

September 30, 2022



CARDINAL

Characteristics  
Barings

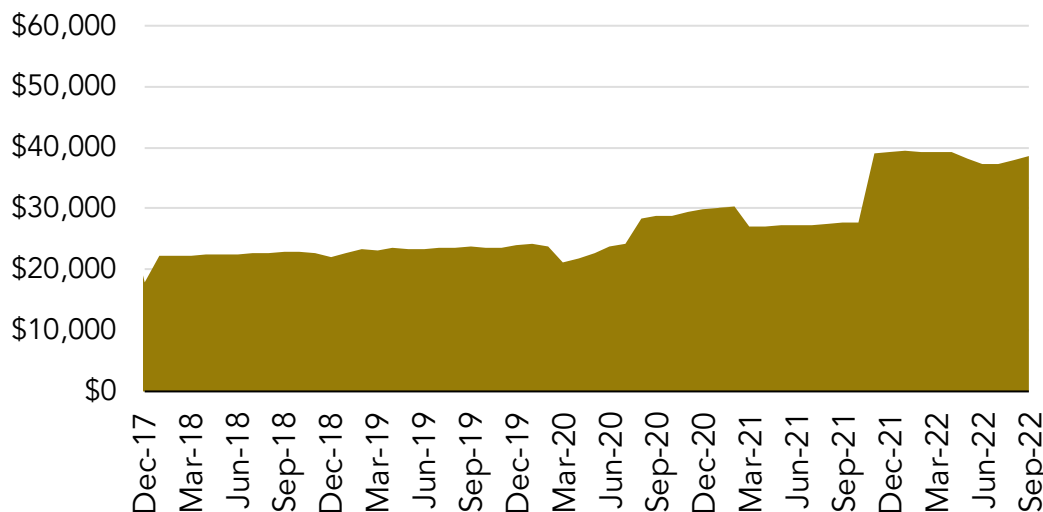
September 30, 2022

### Characteristics

Characteristic	Barings HYBL		Morningstar S&P LSTA
	6/30/22	9/30/22	9/30/22
Number of Issues	253	305	1,391
Average Maturity	5.5 years	4.5 years	NA
Wgtd. Average Spread	3.9 years	3.8 years	3.7 years
Avg Credit Quality	B	B	BB

Barings, Morningstar

### Asset Growth (\$000s)



Barings, Morningstar

### Mandate and Objective

- Actively managed High Yield Bank Loan Fund.
- Inception: August 2016
- Objective: Exceed total return of the Morningstar S&P LSTA index
- Annual fee 0.475%

Barings, Morningstar

### Top Ten Holdings

Holding	Weight
Clear Channel Worldwide	1.2%
Altice USA, Inc	1.1%
Asurion	1.1%
Misys	0.9%
Kenan Advantage	0.9%
Cox Media Group	0.9%
Mauser Packaging Solutions	0.8%
Renaissance Learning, Inc.	0.8%
Medline	0.8%
Alliant	0.8%
<b>Total</b>	<b>9.2%</b>

Barings, Morningstar

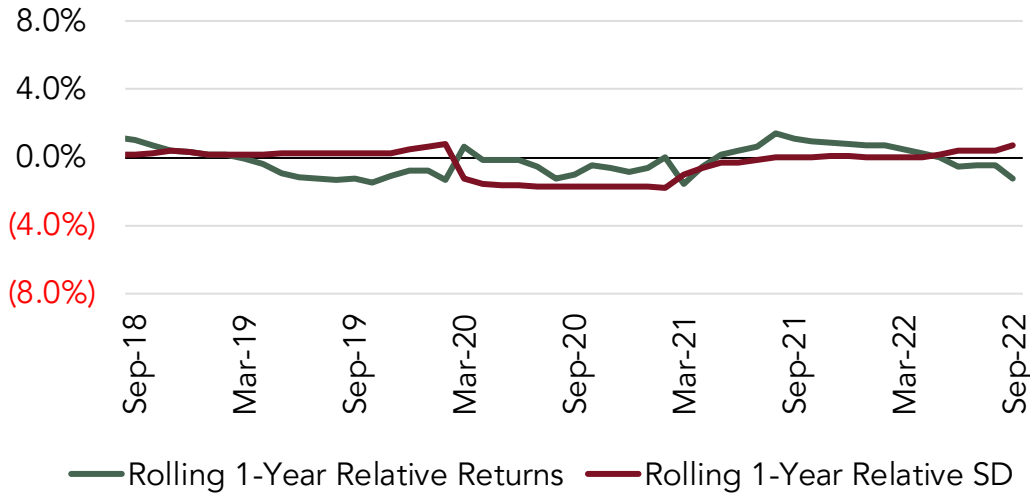


CARDINAL

Characteristics Barings

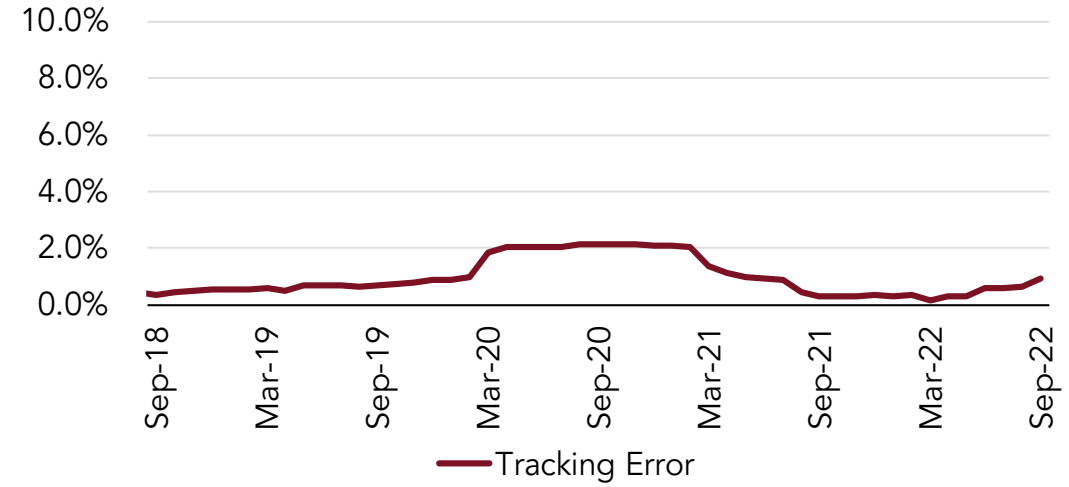
September 30, 2022

Relative Returns & Risk



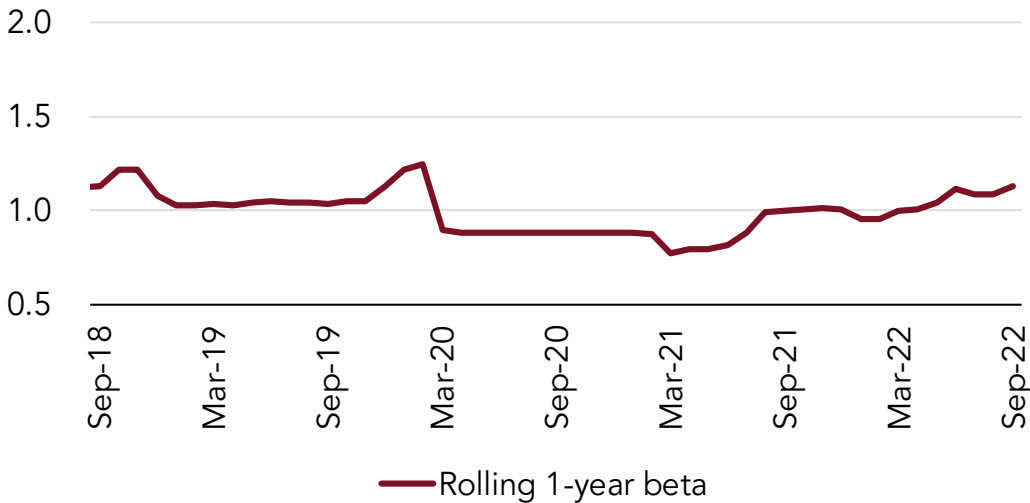
Manager Above

Tracking Error



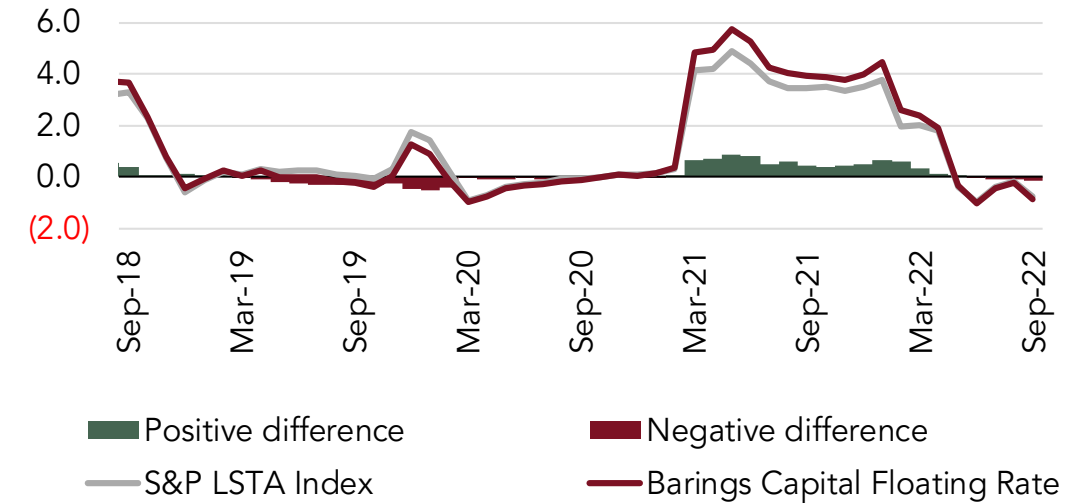
Manager Above

Beta



Manager Above

Sharpe Ratio



Manager Above



CARDINAL

Performance

## High Yield Bond

Portfolio	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>High Yield Bond Composite</b>	\$34,844	2.9%	(1.18%)	(14.09%)	(13.61%)	(0.93%)	1.38%	-	2.66%	May-13
Blended Benchmark <sup>2</sup>			<u>(0.72%)</u>	<u>(14.68%)</u>	<u>(14.11%)</u>	<u>(0.83%)</u>	<u>1.40%</u>	-	<u>2.91%</u>	
Relative Performance			(0.45%)	0.59%	0.50%	(0.11%)	(0.02%)	-	(0.25%)	
<b>Federated Institutional High Yield Bond</b>	\$17,344	1.5%	(1.50%)	(14.94%)	(14.44%)	(0.96%)	-	-	1.50%	Apr-18
BofA/ML U.S. High Yield Cash Pay Index			<u>(0.72%)</u>	<u>(14.68%)</u>	<u>(14.11%)</u>	<u>(0.83%)</u>	-	-	<u>1.54%</u>	
Relative Performance			(0.78%)	(0.26%)	(0.33%)	(0.13%)	-	-	(0.04%)	
<b>Vanguard High Yield Corporate Fund</b>	\$17,500	1.5%	(0.85%)	(13.23%)	(12.77%)	(0.91%)	-	-	1.81%	Apr-18
BofA/ML U.S. High Yield Cash Pay Index			<u>(0.72%)</u>	<u>(14.68%)</u>	<u>(14.11%)</u>	<u>(0.83%)</u>	-	-	<u>1.54%</u>	
Relative Performance			(0.13%)	1.45%	1.35%	(0.08%)	-	-	0.28%	

Wells Fargo, Federated, Vanguard, Cardinal

- The High Yield Bond Composite underperformed the benchmark for all reporting time periods except YTD. and the one-year.
- Federated underperformed for all time periods, while Vanguard outperformed YTD, one year, and since inception.

September 30, 2022



CARDINAL

Characteristics  
Federated High Yield Bond

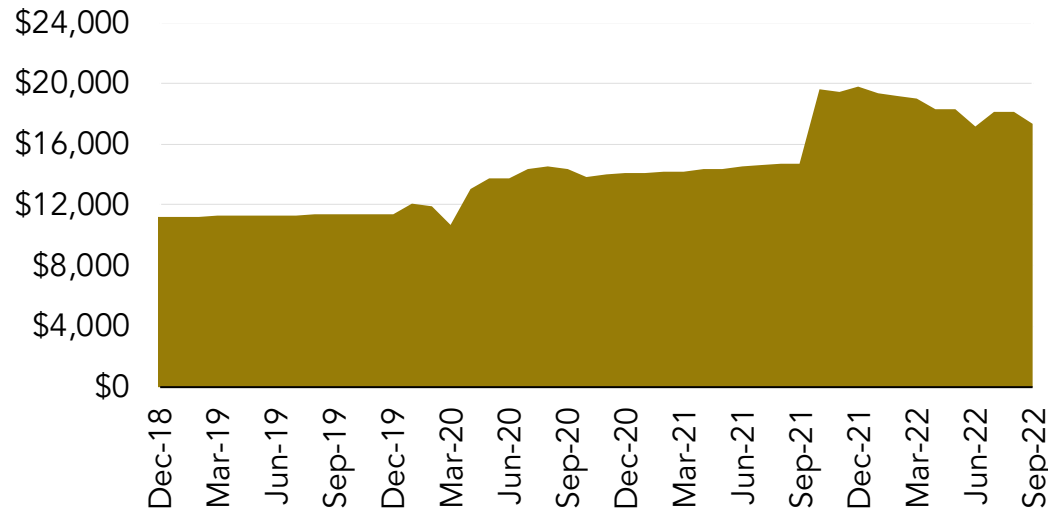
September 30, 2022

### Characteristics

Characteristic	Federated		ICE BofA / ML U.S. High Yield
	6/30/22	9/30/22	9/30/22
No. of Holdings	587	566	1,928
Average Duration	4.3 years	4.1 years	4.2 years
Avg. Credit Quality	B	B	BB-
Avg. Yield to Maturity	5.8%	5.5%	5.7%
Average Coupon	5.8%	5.8%	5.3%

Federated, Merrill Lynch

### Asset Growth (\$000s)



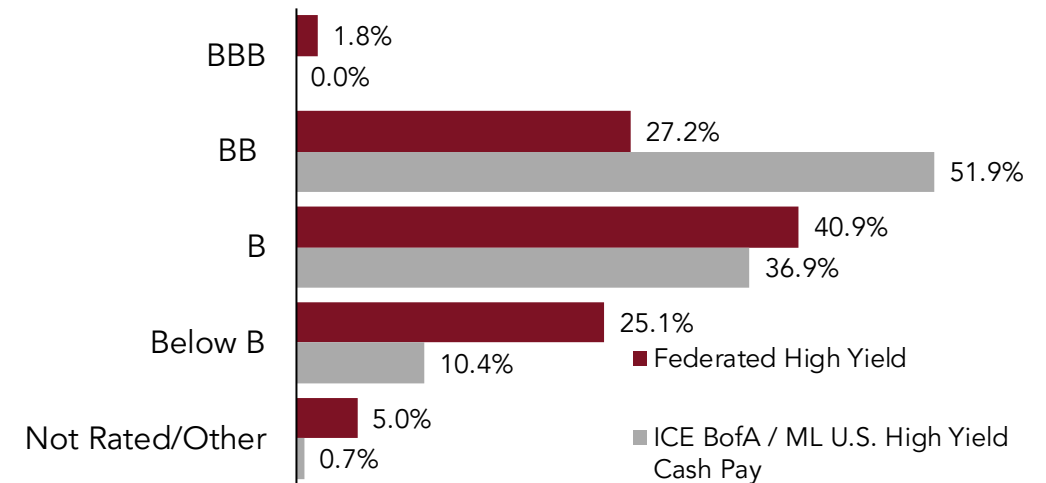
Federated, Merrill Lynch

### Mandate and Objective

- Fund (FIHBX)
- Actively Managed High Yield Bond Fund
- Inception: April 2018
- Objective: Exceed total return of the ICE BofA / ML U.S. High Yield Cash Pay
- Annual Fee 0.500%

Federated, Merrill Lynch

### Quality Distribution



Federated, Merrill Lynch

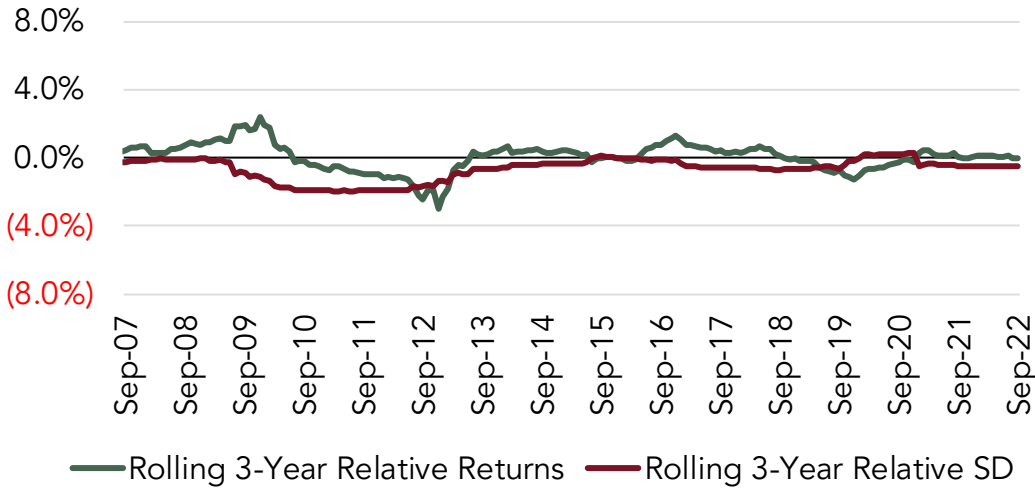


CARDINAL

# Characteristics Federated High Yield Bond

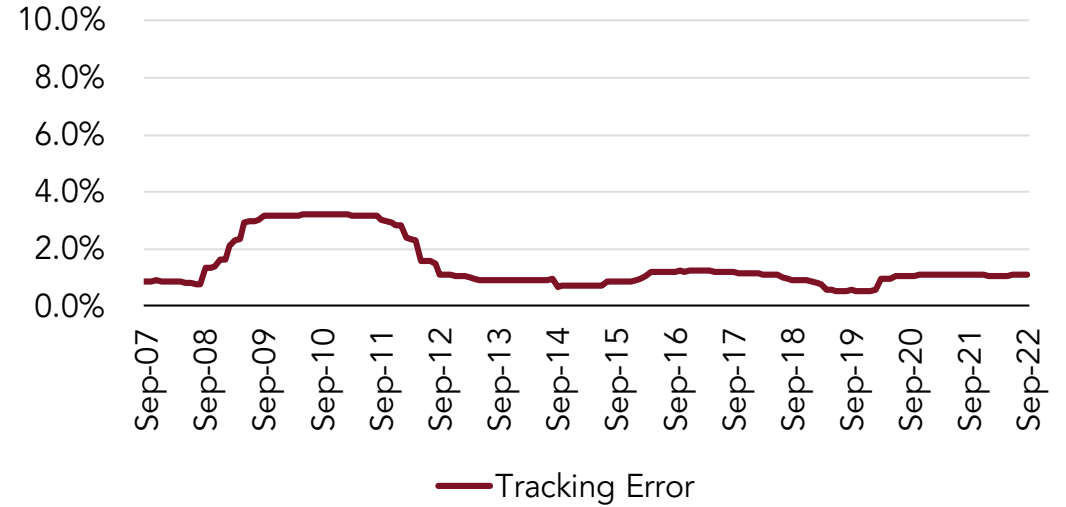
September 30, 2022

## Relative Returns & Risk



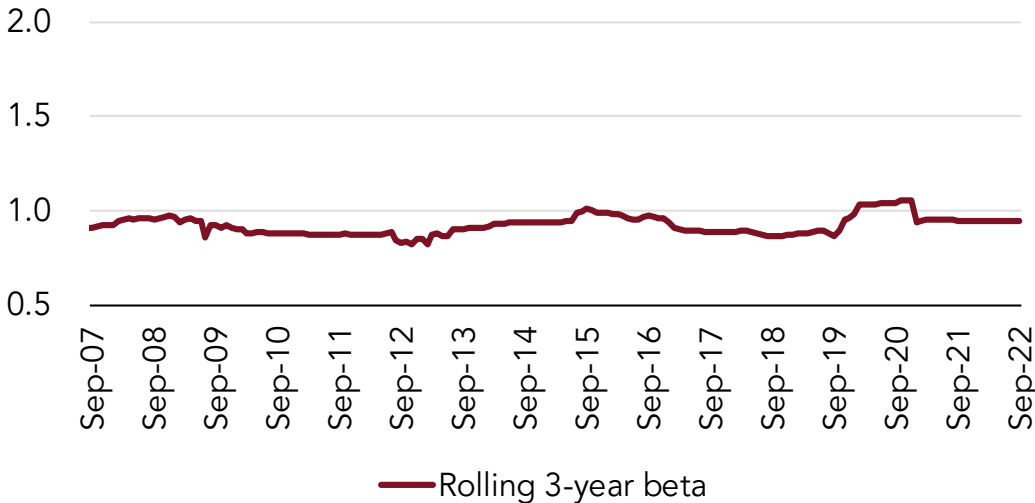
Manager Above

## Tracking Error



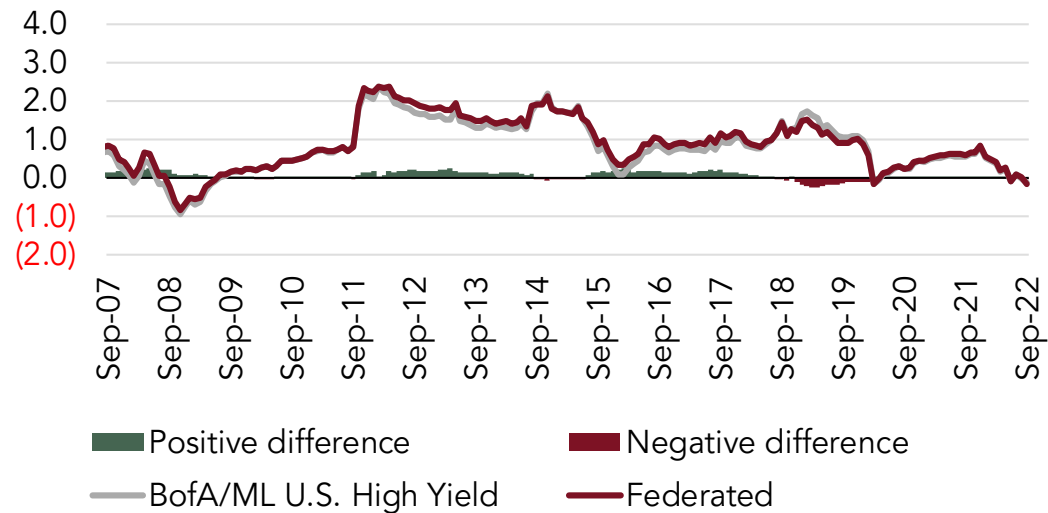
Manager Above

## Beta



Manager Above

## Sharpe Ratio



Manager Above



CARDINAL

Characteristics  
Vanguard High Yield Bond

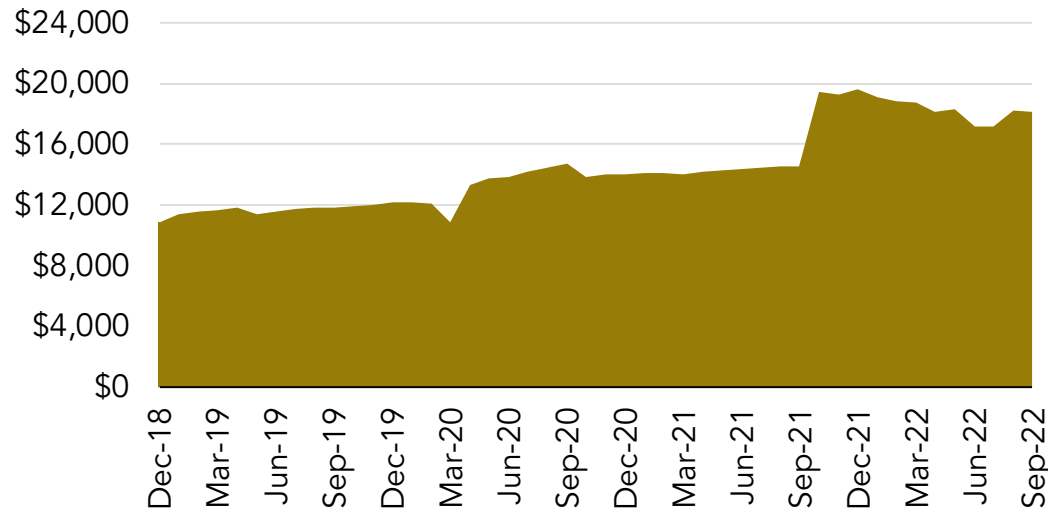
September 30, 2022

### Characteristics

Characteristic	Vanguard HY		ICE BofA / ML U.S. High Yield
	6/30/22	9/30/22	9/30/22
No. of Holdings	629	701	1,928
Average Duration	4.3 years	4.2 years	4.2 years
Avg. Credit Quality	BB	BB	BB-
Avg. Yield to Maturity	7.5%	7.9%	5.7%
Average Coupon	4.8%	4.8%	5.3%

Vanguard, Merrill Lynch

### Asset Growth (\$000s)



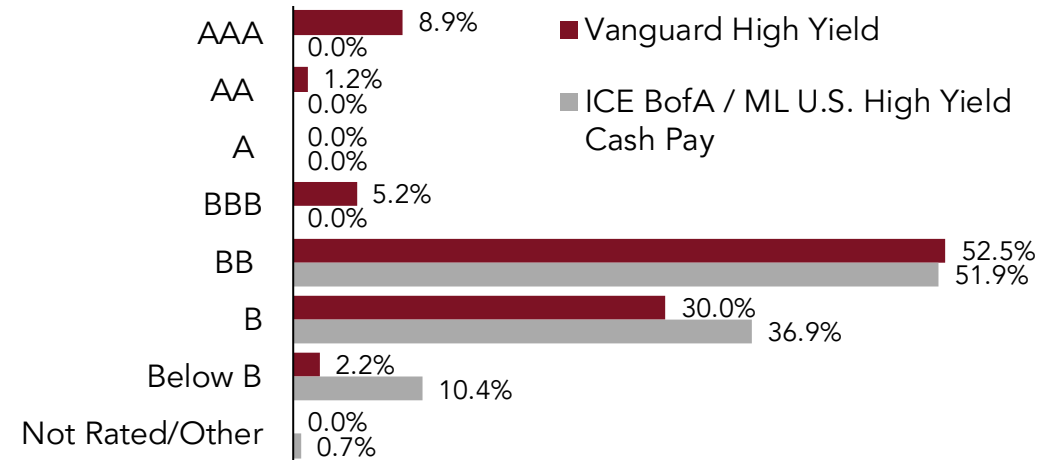
Vanguard, Merrill Lynch

### Mandate

- Fund (VWEAX)
- Passively managed High Yield Bond Fund
- Inception: April 2018
- Objective: Exceed total return of the ICE BofA / ML U.S. High Yield Cash Pay Index
- Annual fee 0.130%

Vanguard, Merrill Lynch

### Quality Distribution



Vanguard, Merrill Lynch



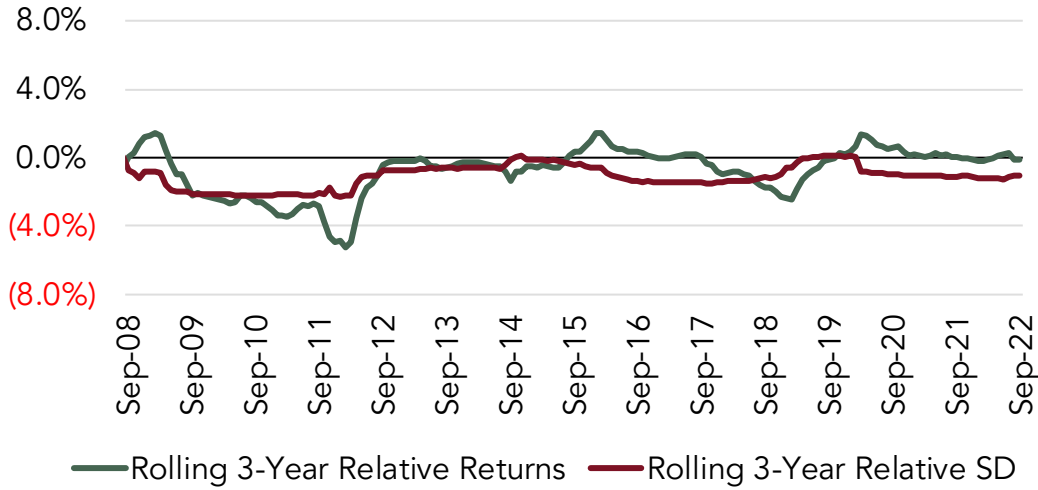


CARDINAL

# Characteristics Vanguard High Yield Bond

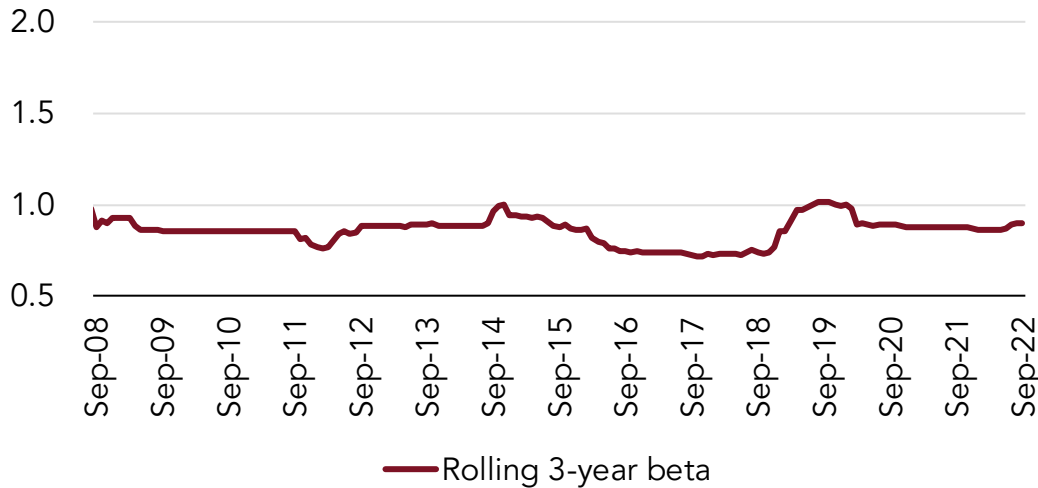
September 30, 2022

## Relative Returns & Risk



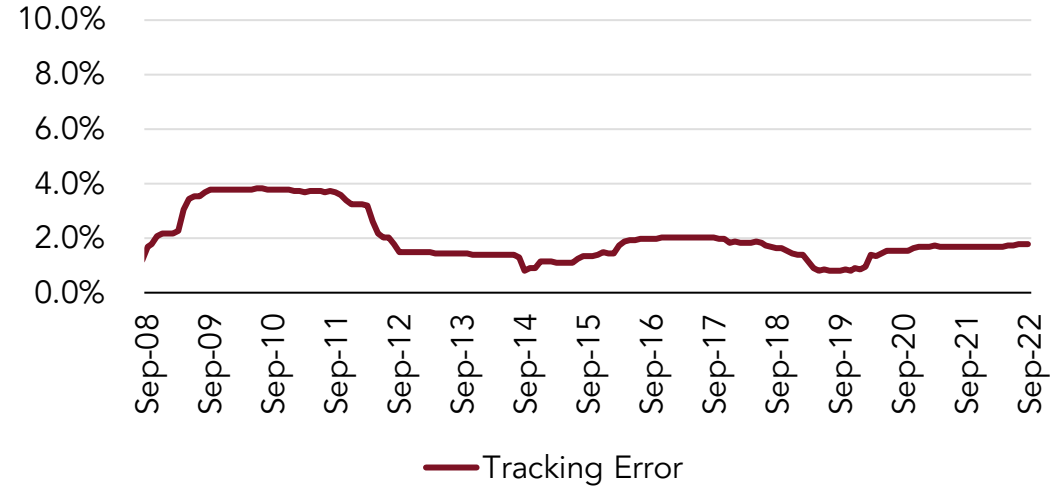
Manager Above

## Beta



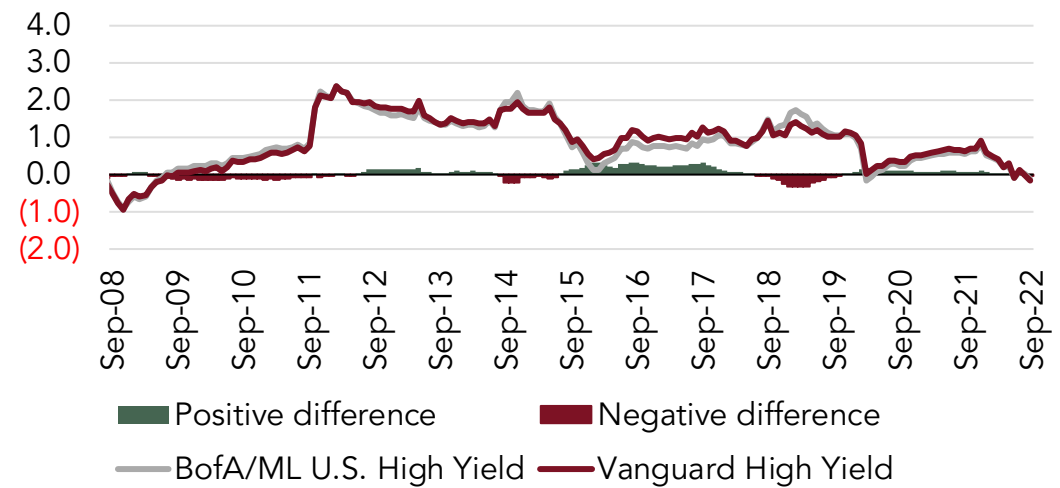
Manager Above

## Tracking Error



Manager Above

## Sharpe Ratio



Manager Above



CARDINAL

Performance

## Emerging Market Debt

Portfolio	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>Emerging Market Debt Composite</b>	\$33,296	2.8%	(4.24%)	(24.25%)	(25.03%)	(6.74%)	(2.87%)	-	(2.48%)	Aug-17
50% EMBI Global / 50% CEMBI Broad			<u>(3.65%)</u>	<u>(20.26%)</u>	<u>(20.72%)</u>	<u>(5.04%)</u>	<u>(1.36%)</u>	-	<u>(1.03%)</u>	
Relative Performance			(0.59%)	(3.99%)	(4.31%)	(1.70%)	(1.50%)	-	(1.45%)	
<b>PGIM Emerging Market Debt</b>	\$33,296	2.8%	(4.24%)	(24.22%)	(24.91%)	-	-	-	(8.11%)	Jul-20
50% EMBI Global / 50% CEMBI Broad			<u>(3.65%)</u>	<u>(20.26%)</u>	<u>(20.72%)</u>	-	-	-	<u>(6.82%)</u>	
Relative Performance			(0.59%)	(3.96%)	(4.19%)	-	-	-	(1.29%)	

Wells Fargo, Goldman Sachs, Prudential, Cardinal

- Emerging Market Debt has underperformed for all time periods.
- Prudential underperformed since inception by 129 bps.

September 30, 2022



CARDINAL

Characteristics  
Prudential Emerging Markets  
Fund

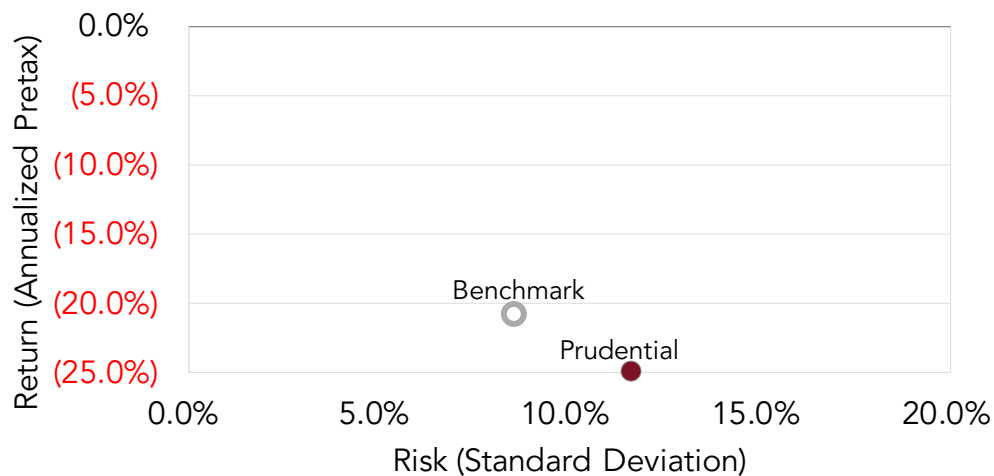
September 30, 2022

### Characteristics

Characteristic	Prudential Emerging Market		50% EMBI Global / 50% CEMBI Broad Div. 9/30/22
	6/30/22	9/30/22	
No. of Holdings	694	533	2,875
Effective Duration	6.9 years	6.6 years	6.9 years
Effective Maturity	10.9 years	10.7 years	5.7 years
Avg. Credit Quality	BB	BB	BBB-
Yield	5.7%	9.2%	6.1%

Prudential

### One-Year Risk/Return



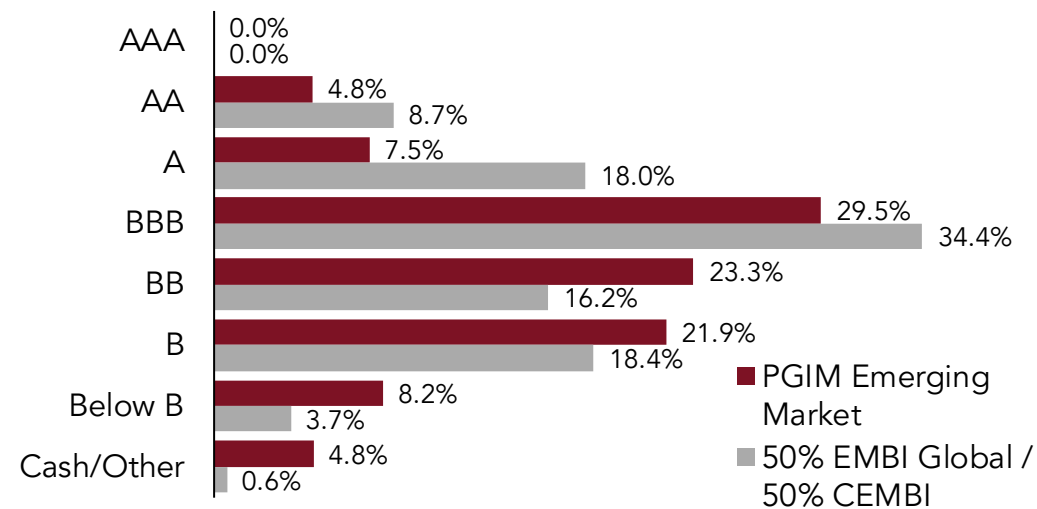
Prudential

### Mandate

- Fund (PDHQX)
- Inception: July 2020
- Objective: Exceed total return of JPM 50% EMBI Global Diversified /50% CEMBI Broad Diversified
- Annual fee 0.65%

Prudential

### Quality Distribution



Prudential

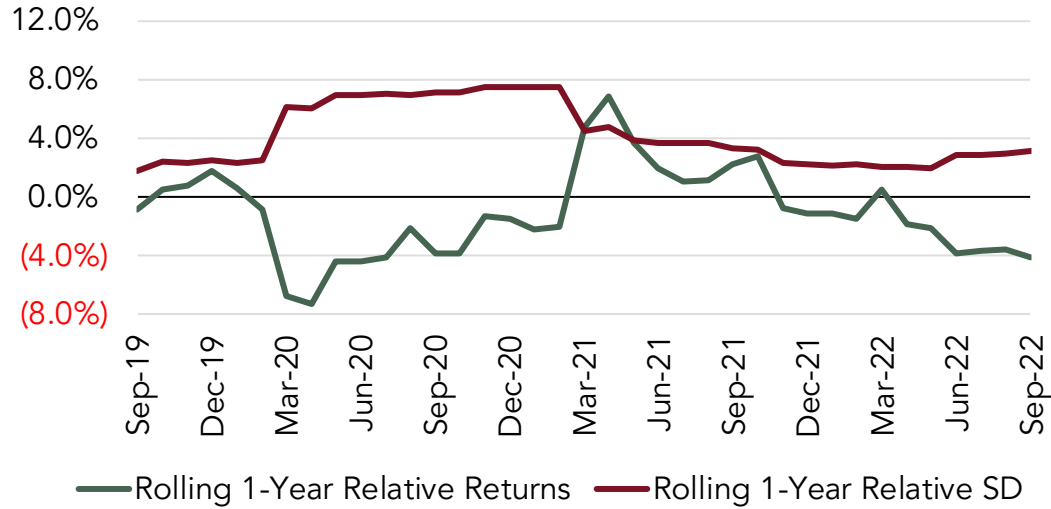


CARDINAL

Characteristics  
Prudential Emerging Markets  
Fund

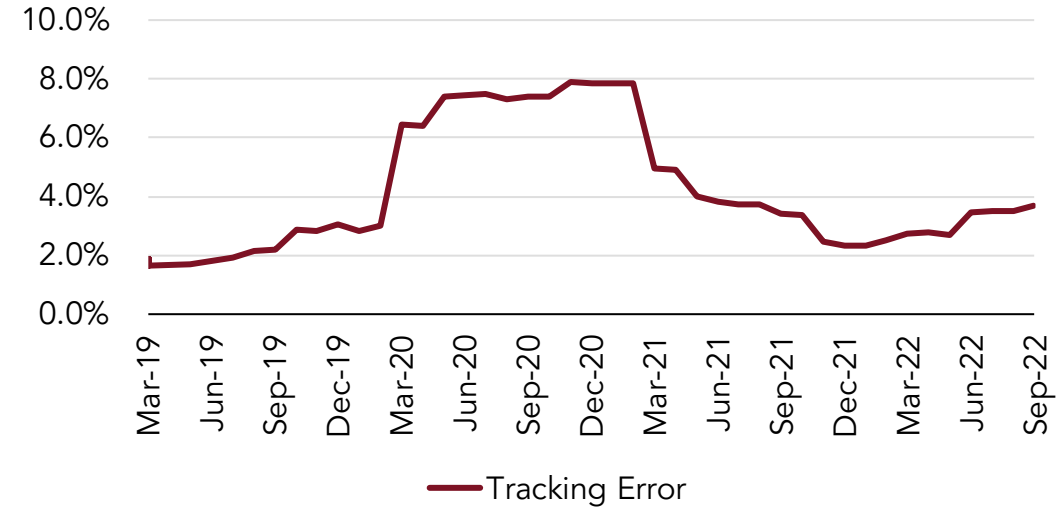
September 30, 2022

Relative Returns & Risk



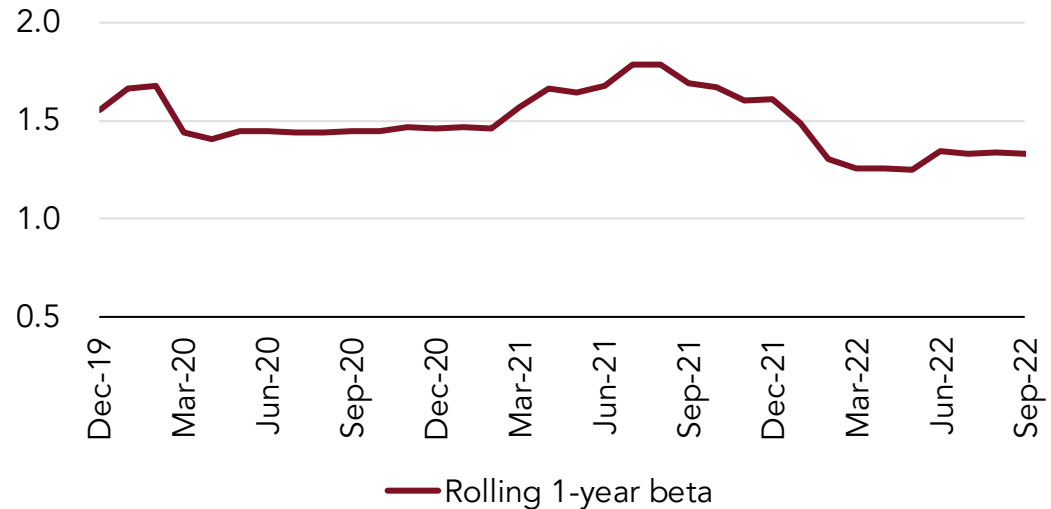
Prudential

Tracking Error



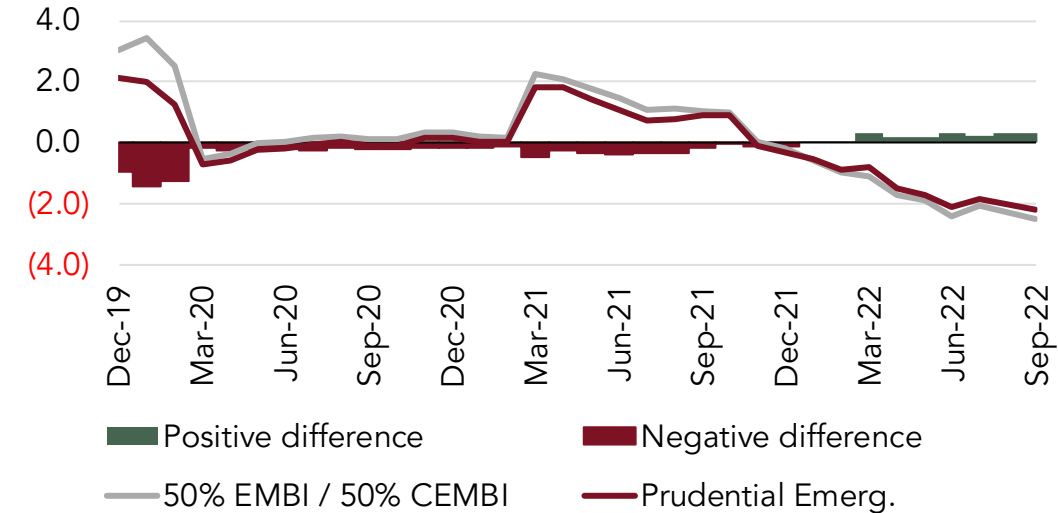
Prudential

Beta



Prudential

Sharpe Ratio



Prudential



CARDINAL

Performance

## Equity and Global Low Volatility

Portfolio	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>Total Equity Composite</b>	\$167,905	14.1%	(6.37%)	(21.12%)	(16.80%)	2.83%	3.86%	-	8.04%	Nov-12
Blended Benchmark <sup>2</sup>			<u>(6.58%)</u>	<u>(24.74%)</u>	<u>(20.71%)</u>	<u>3.28%</u>	<u>3.71%</u>	-	<u>8.04%</u>	
Relative Performance			0.20%	3.62%	3.91%	(0.45%)	0.15%	-	0.00%	
<b>Domestic Equity Composite</b>	\$65,471	5.5%	(4.63%)	(21.87%)	(15.53%)	6.96%	7.60%	-	10.95%	Nov-12
Blended Benchmark <sup>2</sup>			<u>(4.25%)</u>	<u>(22.93%)</u>	<u>(17.52%)</u>	<u>6.34%</u>	<u>6.62%</u>	-	<u>10.53%</u>	
Relative Performance			(0.38%)	1.06%	1.99%	0.62%	0.99%	-	0.42%	
<b>International Equity Composite</b>	\$43,978	3.7%	(10.29%)	(29.46%)	(28.53%)	(0.52%)	(0.43%)	-	2.08%	May-13
Blended Benchmark <sup>2</sup>			<u>(9.68%)</u>	<u>(26.54%)</u>	<u>(25.26%)</u>	<u>(1.02%)</u>	<u>(0.85%)</u>	-	<u>1.99%</u>	
Relative Performance			(0.60%)	(2.92%)	(3.26%)	0.50%	0.42%	-	0.09%	
<b>Vanguard Global Minimum Vol.</b>	\$58,457	4.9%	(5.43%)	(12.72%)	(7.44%)	-	-	-	(1.68%)	Dec-19
FTSE All-World Index			<u>(6.91%)</u>	<u>(25.53%)</u>	<u>(20.67%)</u>	-	-	-	<u>1.99%</u>	
Relative Performance			1.48%	12.81%	13.23%	-	-	-	(3.67%)	

Wells Fargo, Cardinal

The Equity composite outperformed for all time periods except the three-year period.

- Over the past five years:
  - The equity portfolio earned 3.86%.
  - US equities did well, earning 7.60%.
  - International equities earned -0.43%.

September 30, 2022

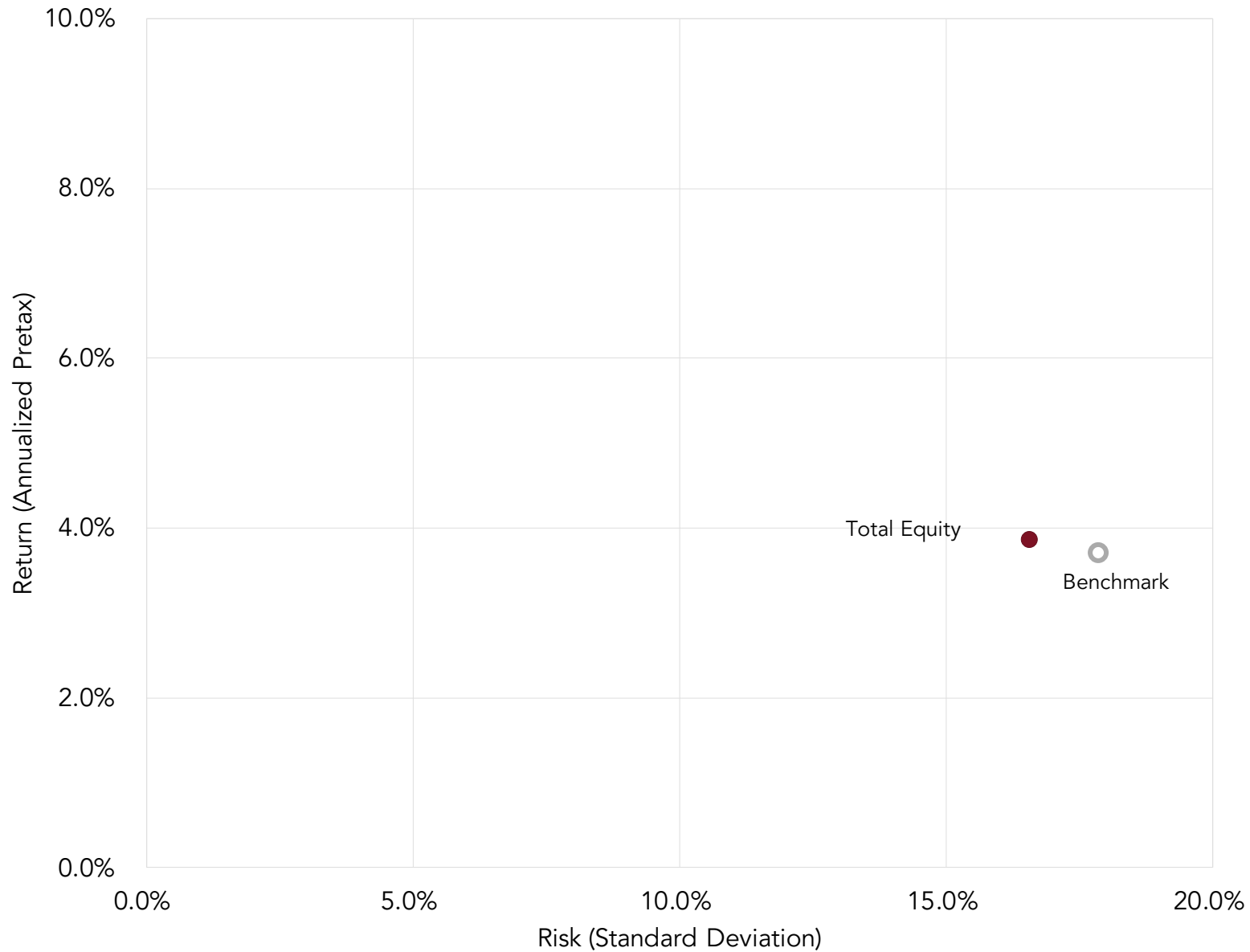


CARDINAL

Performance

September 30, 2022

### Five Year Risk/Return Performance (Total Equity)



Over the past five years, Total Equity has outperformed its benchmark by 0.15%.



CARDINAL

Performance

September 30, 2022

## Domestic Equity

Net of Fees

Portfolio	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>Domestic Equity Composite</b>	\$65,471	5.5%	(4.63%)	(21.87%)	(15.53%)	6.96%	7.60%	-	10.95%	Nov-12
Blended Benchmark <sup>2</sup>			(4.25%)	(22.93%)	(17.52%)	6.34%	6.62%	-	10.53%	
Relative Performance			(0.38%)	1.06%	1.99%	0.62%	0.99%	-	0.42%	
Vanguard Total Stock Market Fund	\$31,560	2.6%	(4.46%)	(24.89%)	(18.01%)	7.60%	8.56%	-	11.64%	Nov-12
Russell 3000 Index			(4.48%)	(24.65%)	(17.67%)	7.66%	8.58%	-	11.65%	
Relative Performance			0.02%	(0.24%)	(0.34%)	(0.06%)	(0.02%)	-	(0.01%)	
Vanguard Russell 1000 Value Fund	\$16,220	1.4%	(5.64%)	(17.81%)	(11.44%)	4.31%	5.25%	-	6.57%	May-14
Russell 1000 Value Index			(5.64%)	(17.80%)	(11.42%)	4.31%	5.22%	-	6.57%	
Relative Performance			0.00%	(0.02%)	(0.02%)	0.00%	0.03%	-	0.00%	
<b>US Small Cap Equity Composite</b>	\$17,691	1.5%	(3.73%)	(20.37%)	(15.13%)	6.94%	-	-	7.11%	Mar-18
Blended Benchmark <sup>2</sup>			(2.20%)	(25.16%)	(23.57%)	4.20%	-	-	2.46%	
Relative Performance			(1.53%)	4.79%	8.44%	2.74%	-	-	4.66%	
Vanguard Small Cap S&P 600	\$8,278	0.7%	(5.22%)	(23.22%)	(18.91%)	5.45%	-	-	3.87%	Mar-18
Russell 2000 Index			(2.20%)	(25.16%)	(23.57%)	4.20%	-	-	2.46%	
Relative Performance			(3.02%)	1.94%	4.66%	1.26%	-	-	1.42%	
Virtus KAR Small Cap Core	\$9,413	0.8%	(2.37%)	(17.68%)	(11.51%)	7.94%	-	-	10.00%	Mar-18
Russell 2000 Index			(2.20%)	(25.16%)	(23.57%)	4.20%	-	-	2.46%	
Relative Performance			(0.18%)	7.48%	12.07%	3.75%	-	-	7.54%	

Wells Fargo, Vanguard, Cardinal



**Characteristics**  
**Vanguard Total Stock Market**  
**Index Fund**

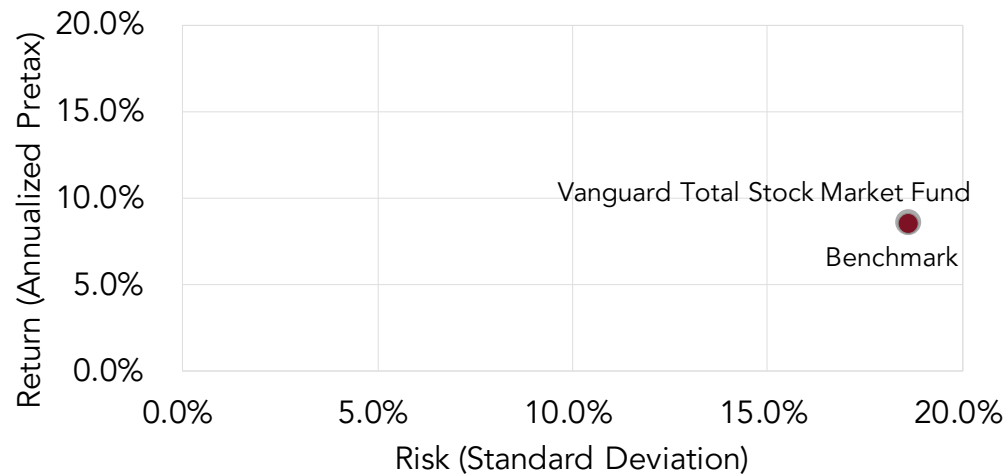
September 30, 2022

## Characteristics

Characteristic	Vanguard Total Stock Market Fund		Russell 3000
	6/30/22	9/30/22	9/30/22
No. of Holdings	4,098	4,066	3,000
P/E Ratio	17.7x	17.1x	17.1x
Price/Book Ratio	3.2x	3.1x	3.1x
Avg Mkt Cap (\$B)	\$114.7	\$104.7	\$104.7
Return on Equity	19.6%	19.3%	19.3%
% in Top 10 Holdings	22.5%	24.2%	24.2%

Vanguard, Russell

## Five-Year Risk/Return



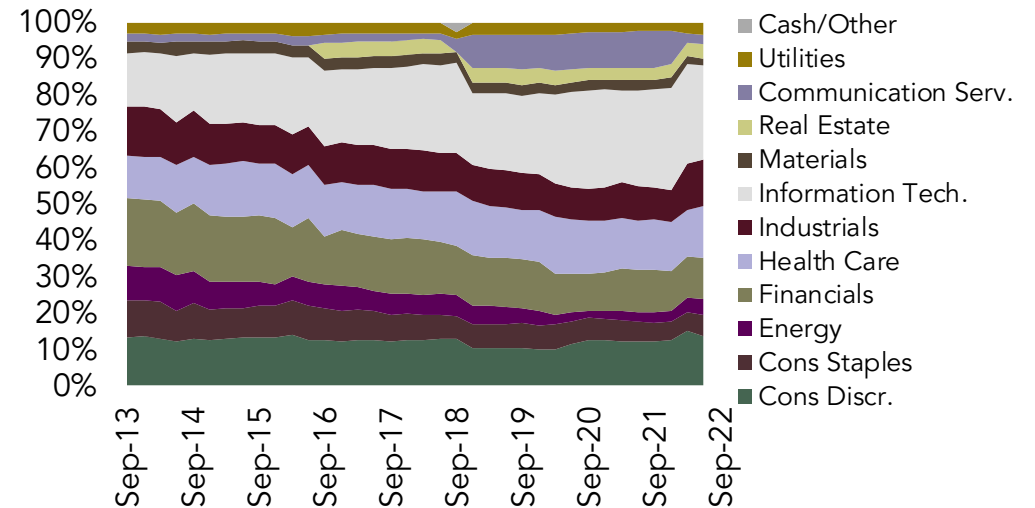
Vanguard, Russell

## Mandate and Objective

- Passively managed equity index fund (VIT5X)
- Inception: November 2012
- Objective: Match performance of the Russell 3000 Index
- Annual Fee = 0.030%

Vanguard

## Historical Sector Distribution



Vanguard



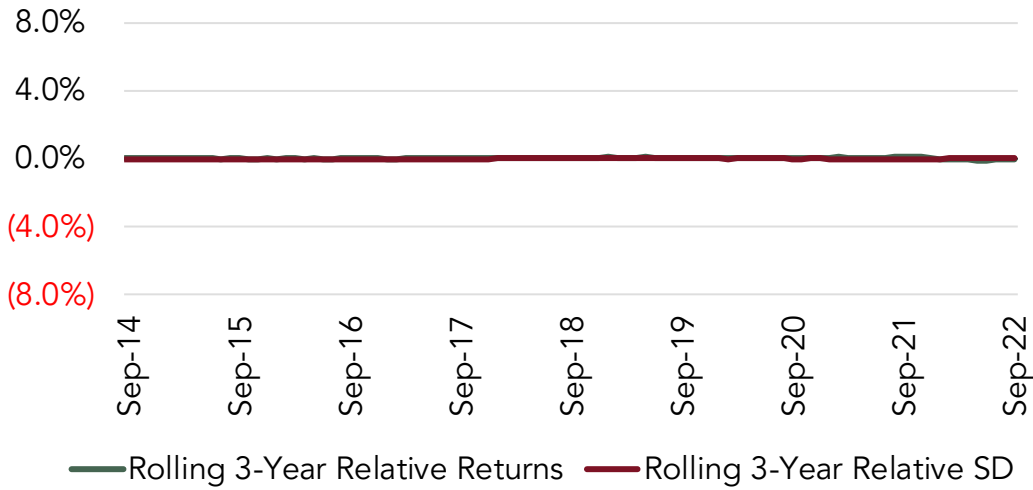


CARDINAL

# Characteristics Vanguard Total Stock Market

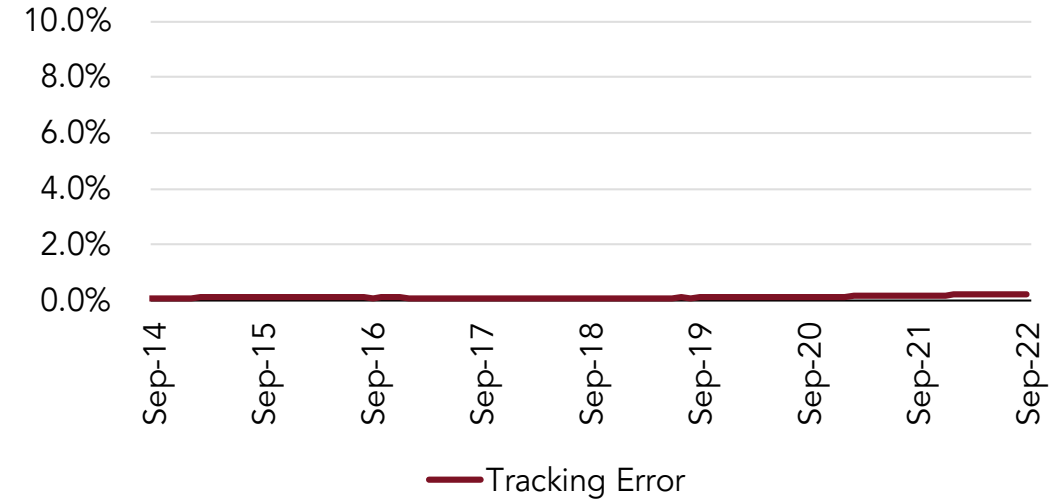
September 30, 2022

## Relative Returns & Risk



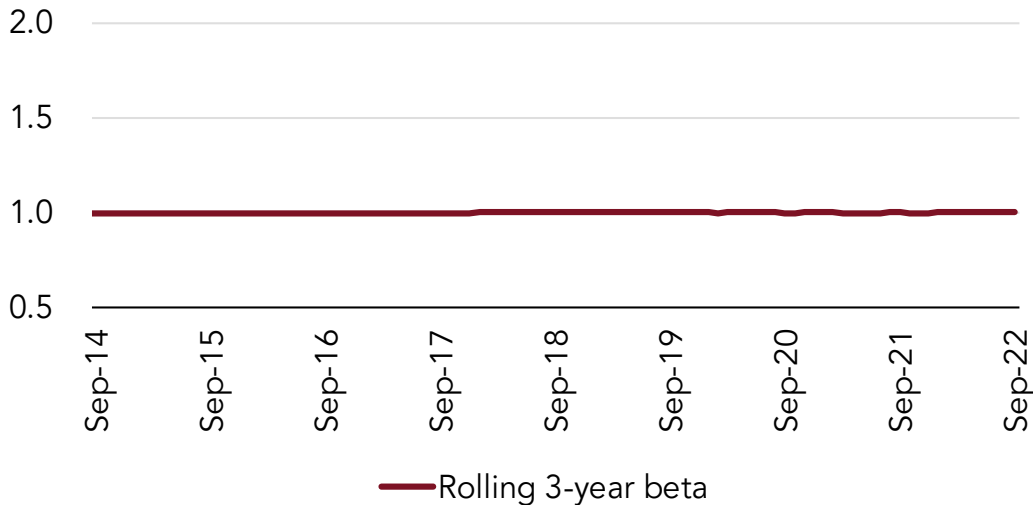
Vanguard

## Tracking Error



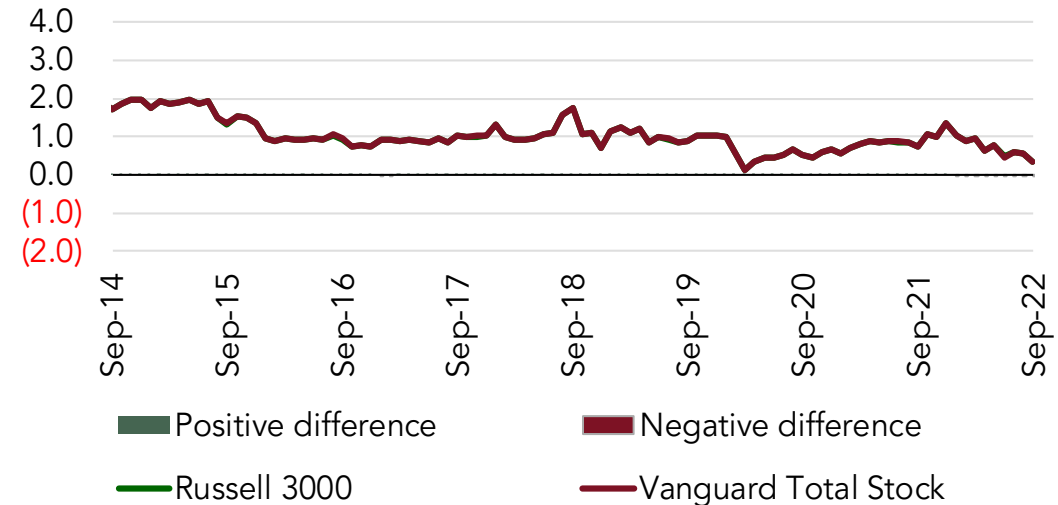
Vanguard

## Beta



Vanguard

## Sharpe Ratio



Vanguard



**Characteristics**  
**Vanguard Russell 1000 Value**  
**Fund**

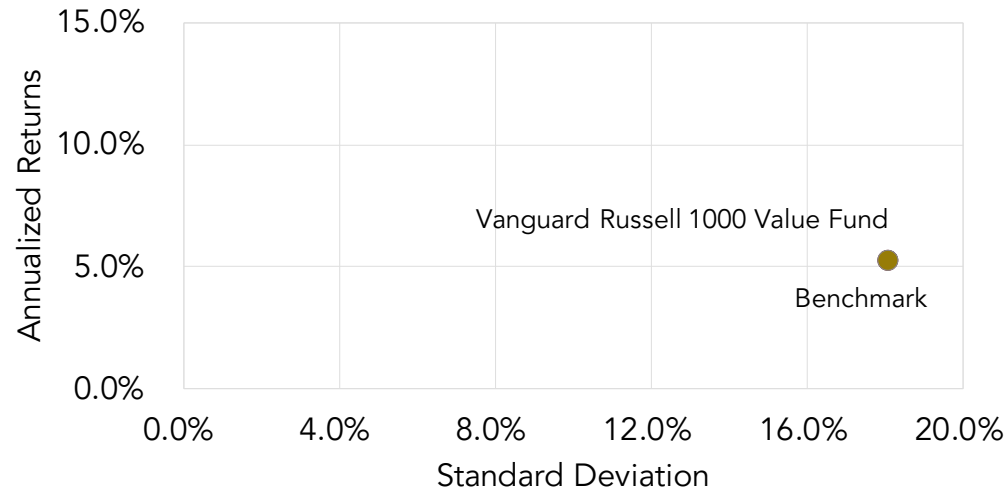
September 30, 2022

## Characteristics

Characteristic	Vanguard Russell 1000 Value Fund		Russell 1000 Value Index
	6/30/22	9/30/22	9/30/22
No. of Holdings	859	857	855
P/E Ratio	14.1x	13.7x	13.7x
Price/Book Ratio	2.1x	2.0x	2.0x
Avg Mkt Cap (\$B)	\$74.5	\$71.6	\$71.6
Return on Equity	12.9%	12.9%	12.9%
% in Top 10 Holdings	17.7%	17.7%	17.7%

Vanguard, Russell

## Five-Year Risk/Return



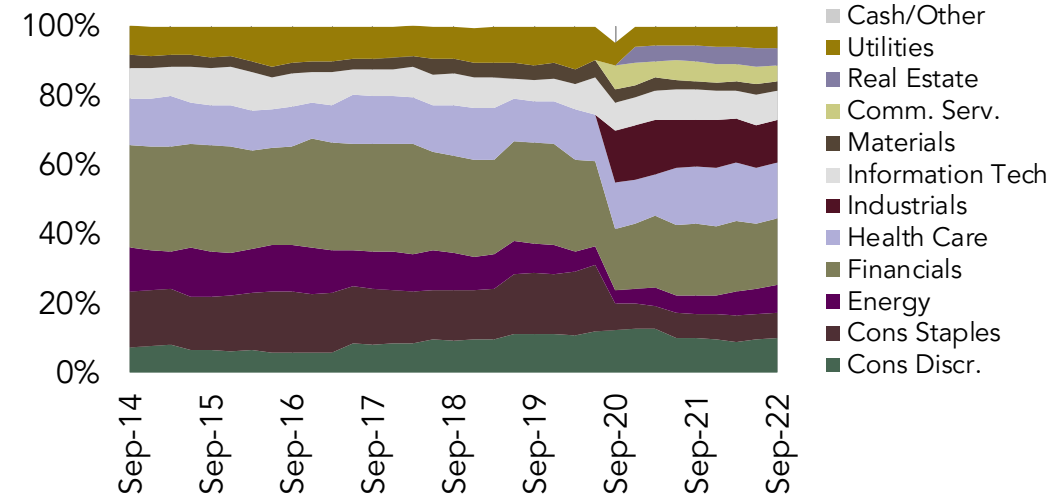
Vanguard, Russell

## Mandate and Objective

- Passively managed equity index fund (VRVIX)
- Inception: May 2014
- Objective: Match performance of the Russell 1000 Value Index
- Annual Fee = 0.07%

Vanguard, Russell

## Historical Sector Distribution



Vanguard, Russell

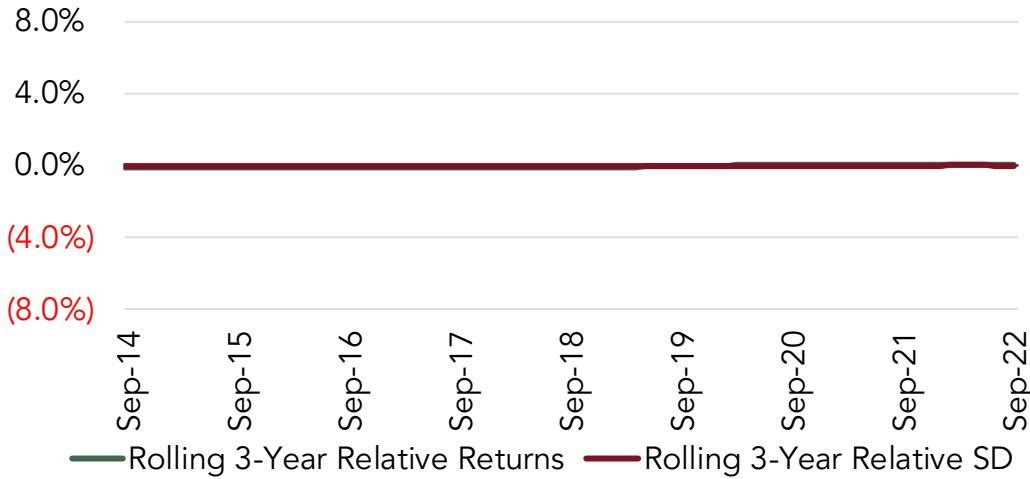


CARDINAL

# Characteristics Vanguard Russell 1000 Value

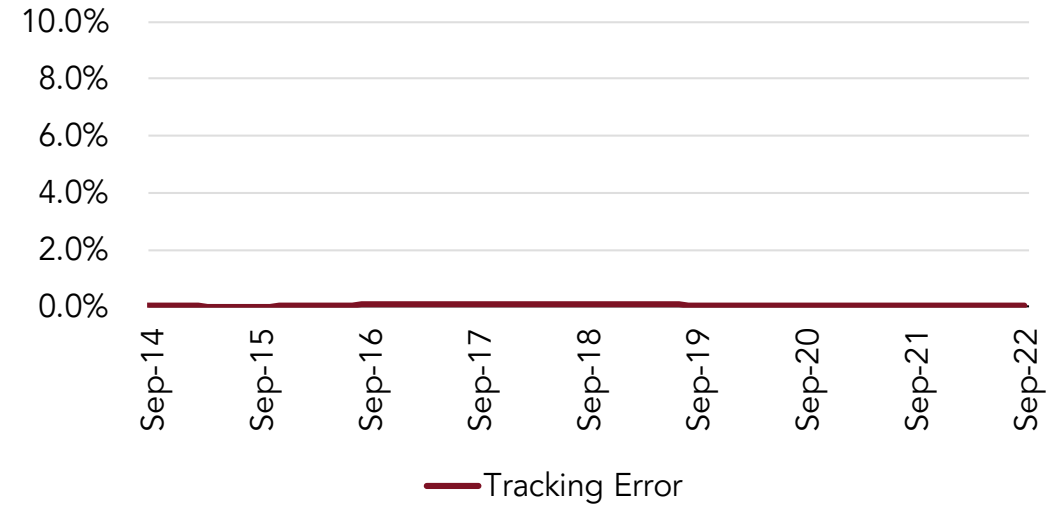
September 30, 2022

## Relative Returns & Risk



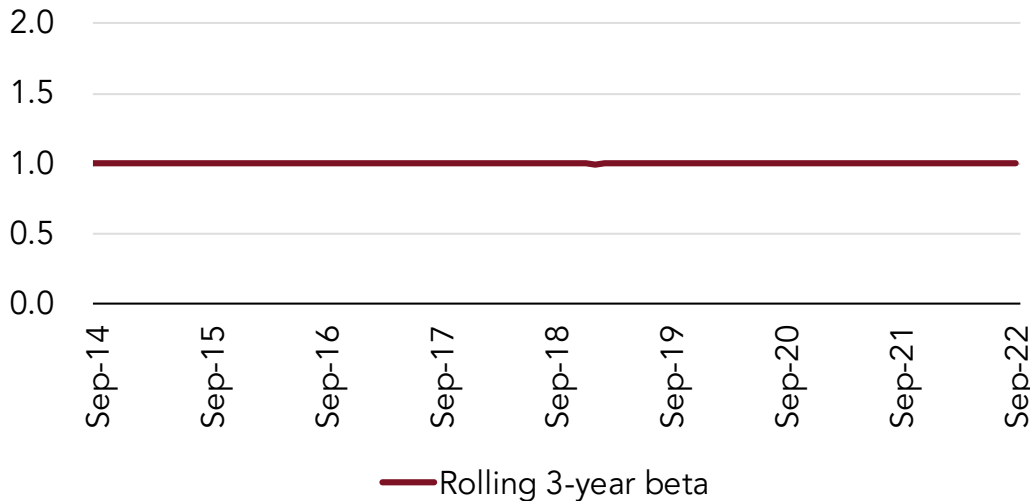
Manager Above

## Tracking Error



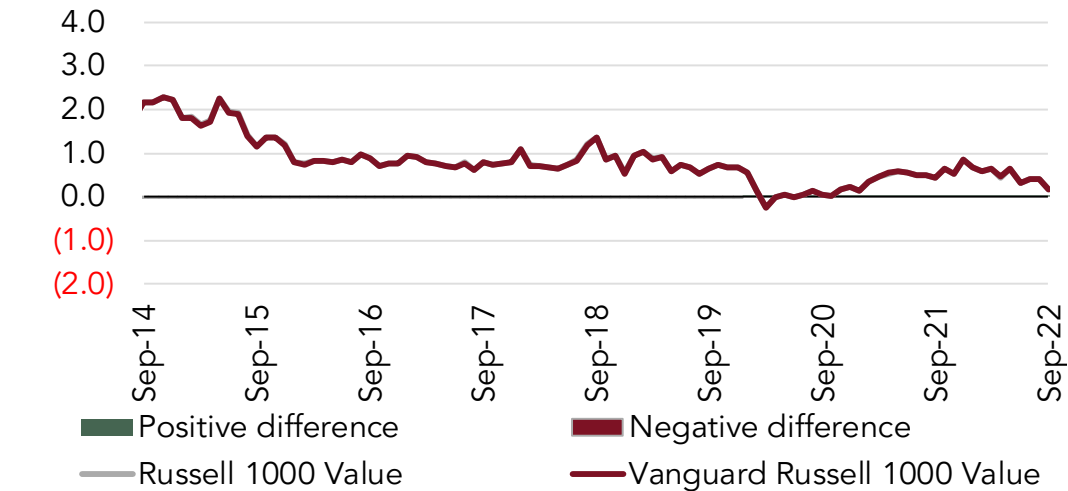
Manager Above

## Beta



Manager Above

## Sharpe Ratio



Manager Above



CARDINAL

Characteristics  
Vanguard Small Cap S&P 600  
Fund

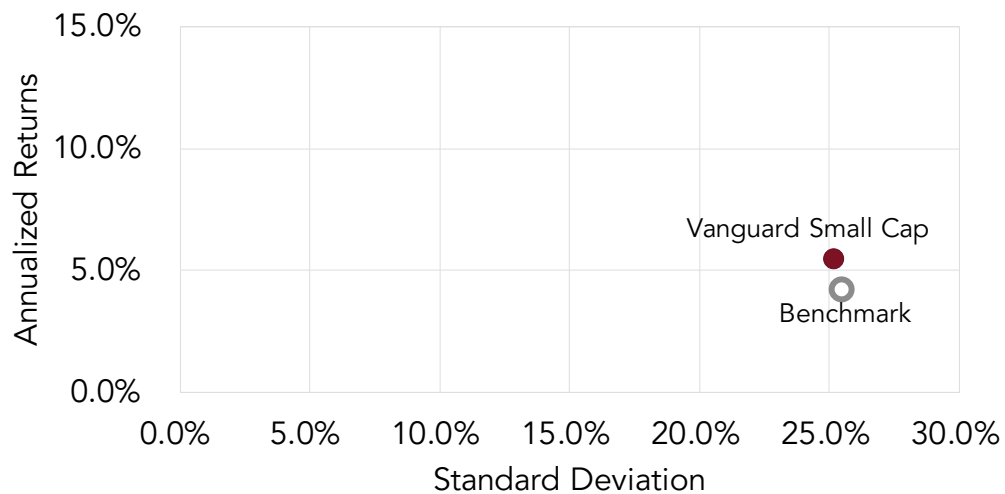
September 30, 2022

## Characteristics

Characteristic	Vanguard Small Cap		Russell 2000
	6/30/22	9/30/22	9/30/22
No. of Securities	603	606	2,000
P/E Ratio	11.4x	10.4x	12.2x
Price/Book Ratio	1.6x	1.5x	1.9x
Avg Mkt Cap (\$B)	\$2.1	\$2.1	\$2.6
% in Top 10 Holdings	5.9%	6.2%	3.1%

Vanguard, Russell

## Three-Year Risk/Return



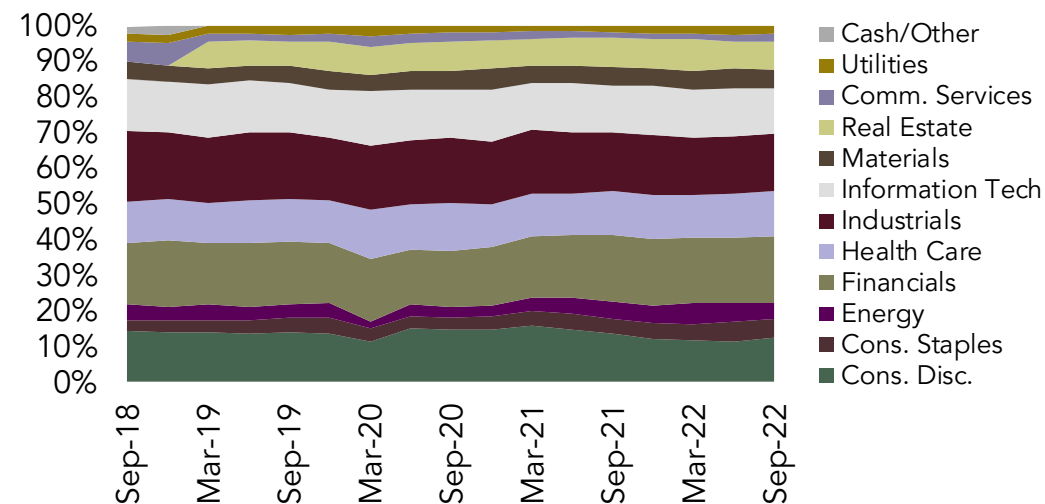
Vanguard, Russell

## Mandate

- Passively managed equity index fund (VSMSX)
- Inception: March 2018
- Objective: Exceed performance of the Russell 2000 Index
- Annual Fee = 0.08%

Vanguard

## Historical Sector Distribution



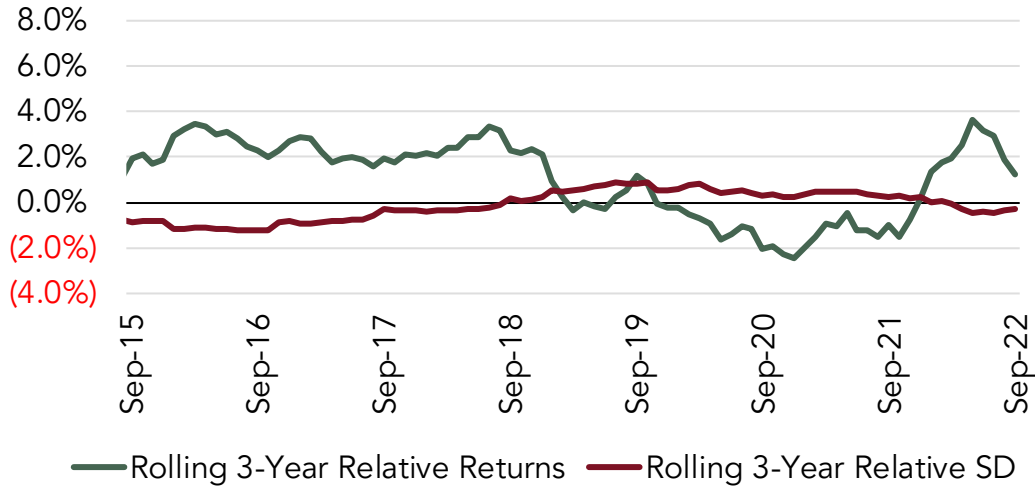
Vanguard



Characteristics  
Vanguard Small Cap S&P 600  
Fund

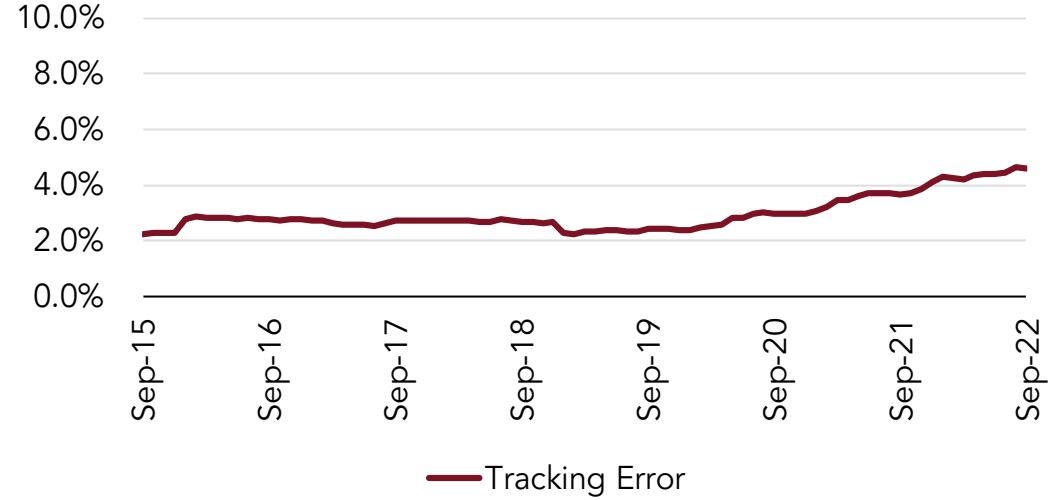
September 30, 2022

Relative Returns & Risk



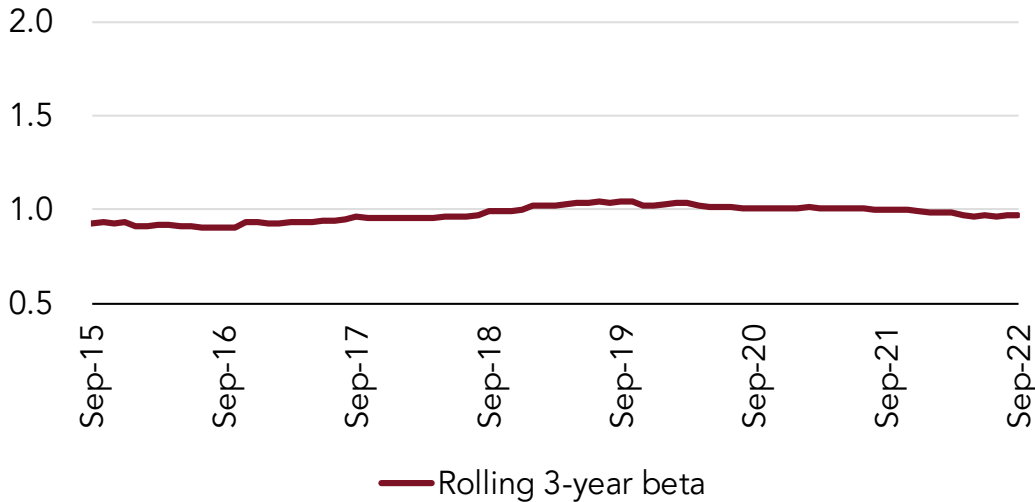
Manager Above

Tracking Error



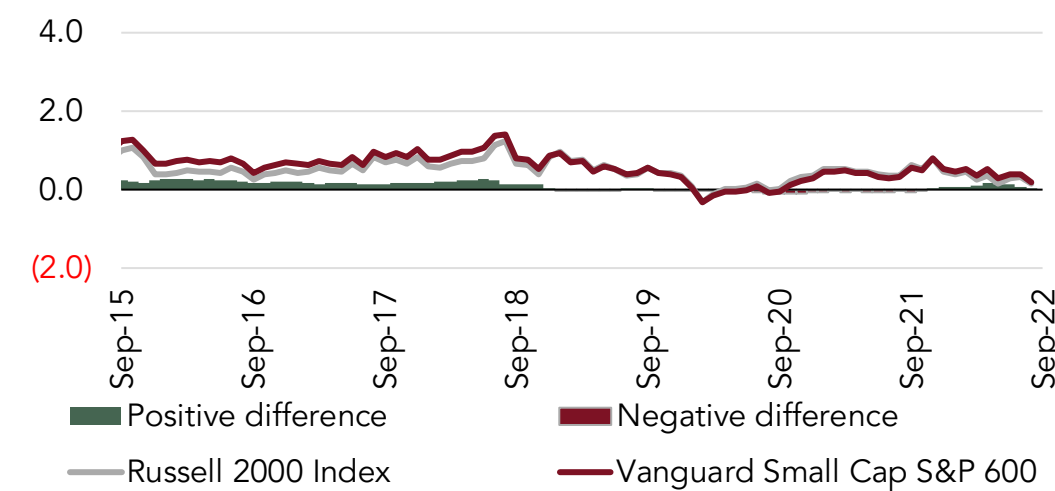
Manager Above

Beta



Manager Above

Sharpe Ratio



Manager Above



CARDINAL

Characteristics  
Virtus Kar Small Cap Fund

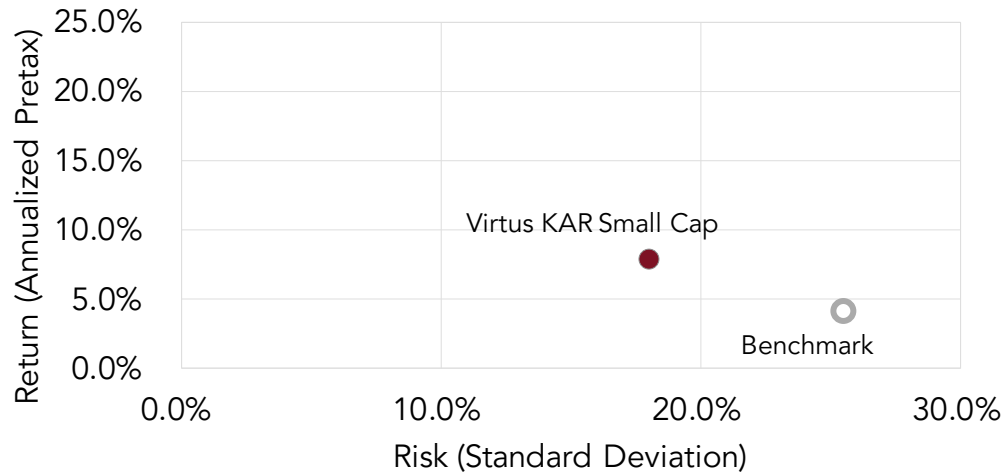
September 30, 2022

### Characteristics

Characteristic	Virtus KAR Small Cap		Russell 2000
	6/30/22	9/30/22	9/30/22
No. of Securities	30	30	2,000
P/E Ratio	17.8x	17.3x	12.2x
Price/Book Ratio	3.5x	3.4x	1.9x
Avg Mkt Cap (\$B)	\$5.8	\$6.1	\$2.6
% in Top 10 Holdings	47.2%	48.0%	3.1%

Vanguard, Russell

### Three-Year Risk/Return



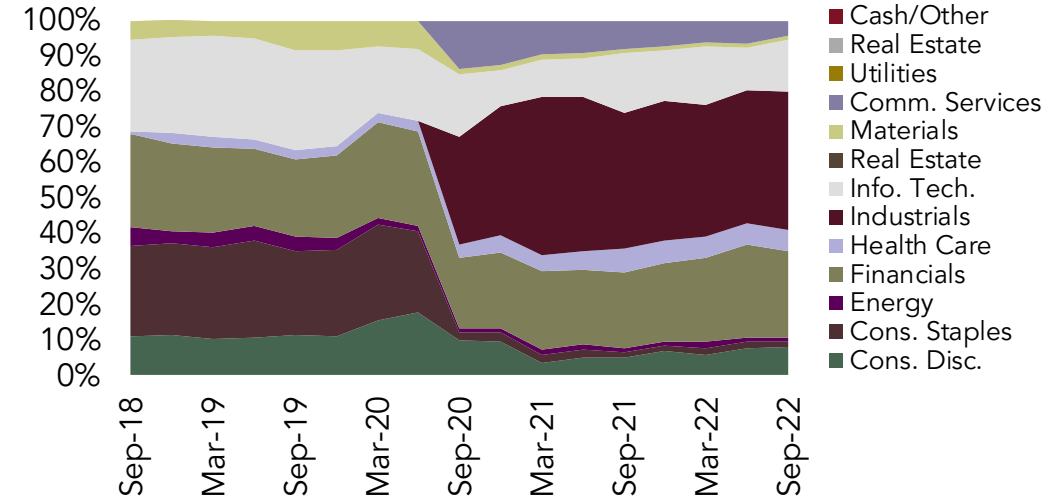
Vanguard, Russell

### Mandate and Objective

- Actively managed equity index fund (PKSFX)
- Inception: March 2018
- Objective: Exceed performance of the Russell 2000 index.
- Annual Fee = 1.02%

Vanguard, Russell

### Historical Sector Distribution



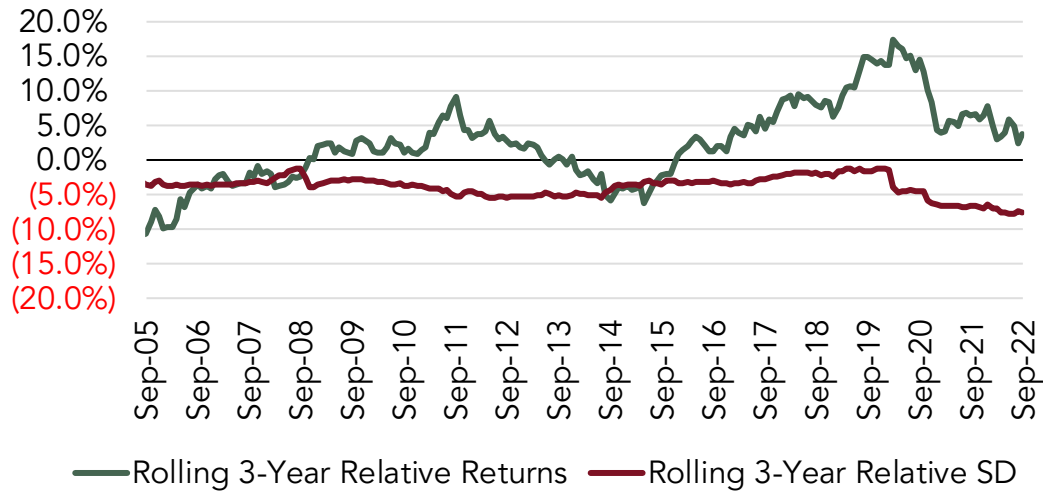
Vanguard, Russell



# Characteristics Virtus Kar Small Cap Fund

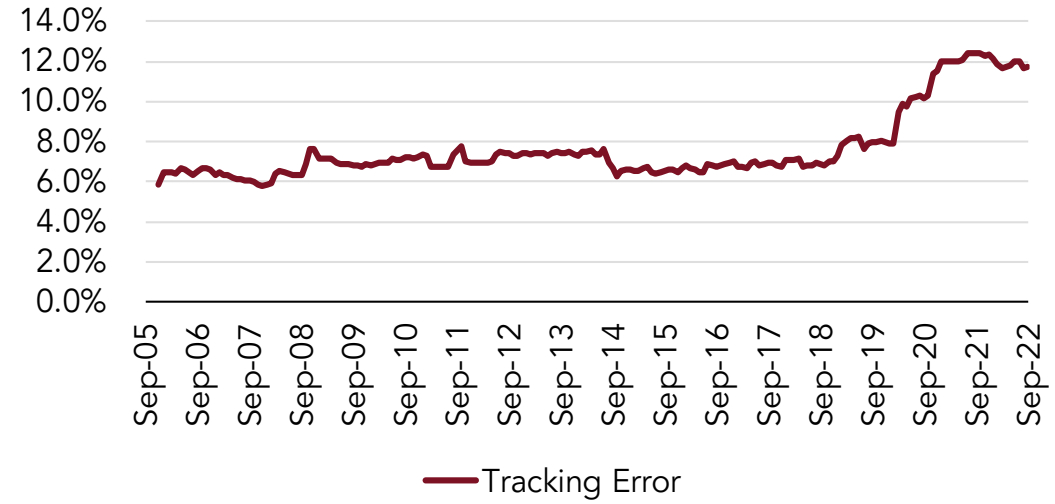
September 30, 2022

## Relative Returns & Risk



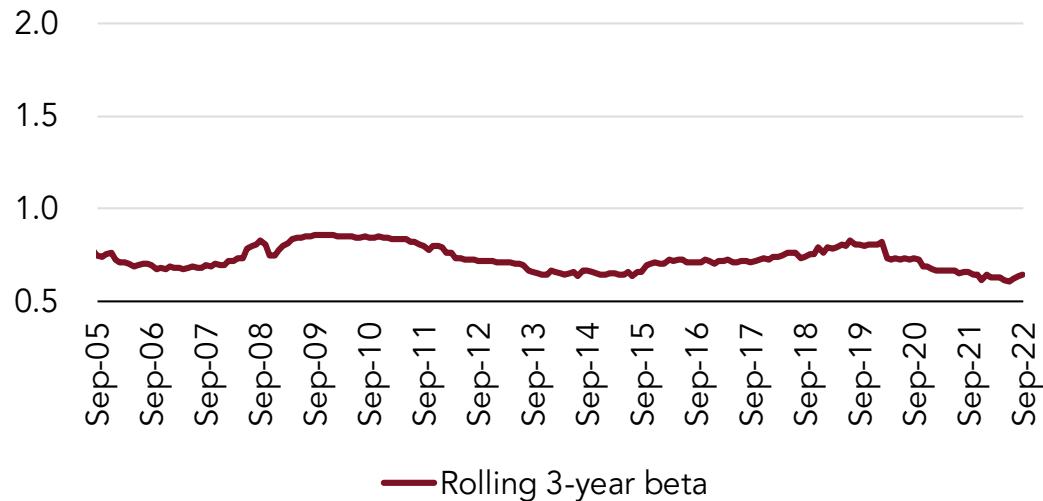
Manager Above

## Tracking Error



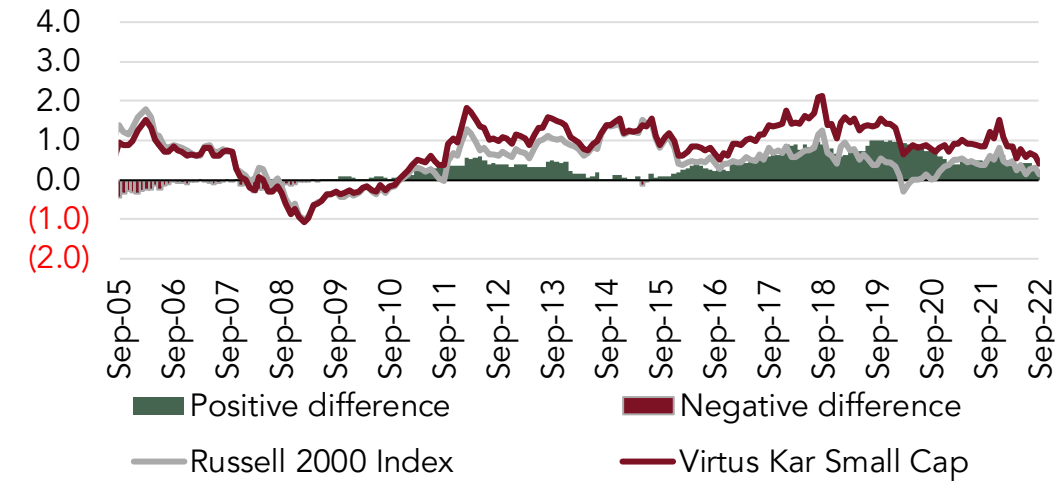
Manager Above

## Beta



Manager Above

## Sharpe Ratio



Manager Above



CARDINAL

Performance

September 30, 2022

## International Equity

Net of Fees

Composite	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>International Equity Composite</b>	\$43,978	3.7%	(10.29%)	(29.46%)	(28.53%)	(0.52%)	(0.43%)	-	2.08%	May-13
Blended Benchmark <sup>2</sup>			<u>(9.68%)</u>	<u>(26.54%)</u>	<u>(25.26%)</u>	<u>(1.02%)</u>	<u>(0.85%)</u>	-	<u>1.99%</u>	
Relative Performance			(0.60%)	(2.92%)	(3.26%)	0.50%	0.42%	-	0.09%	
Vanguard Total International Stock Fd	\$23,157	1.9%	(10.51%)	(26.76%)	(25.21%)	(1.15%)	(0.66%)	-	2.15%	May-13
FTSE Global All Cap ex US Index			<u>(9.69%)</u>	<u>(26.55%)</u>	<u>(25.27%)</u>	<u>(1.03%)</u>	<u>(0.59%)</u>	-	<u>2.14%</u>	
Relative Performance			(0.82%)	(0.21%)	0.06%	(0.12%)	(0.07%)	-	0.00%	
City of London	\$10,223	0.9%	(10.62%)	(32.97%)	(31.79%)	0.43%	-	-	(1.24%)	Aug-18
FTSE Global All Cap ex US Index			<u>(9.69%)</u>	<u>(26.55%)</u>	<u>(25.27%)</u>	<u>(1.03%)</u>	-	-	<u>(1.57%)</u>	
Relative Performance			(0.94%)	(6.42%)	(6.52%)	1.46%	-	-	0.33%	
EuroPacific Growth Fund	\$10,597	0.9%	(9.35%)	(32.10%)	(32.86%)	(1.24%)	-	-	(0.78%)	Jul-18
FTSE Global All Cap ex US Index			<u>(9.69%)</u>	<u>(26.55%)</u>	<u>(25.27%)</u>	<u>(1.03%)</u>	-	-	<u>(1.03%)</u>	
Relative Performance			0.34%	(5.55%)	(7.59%)	(0.21%)	-	-	0.24%	





CARDINAL

Characteristics  
Vanguard Total International  
Stock Fund

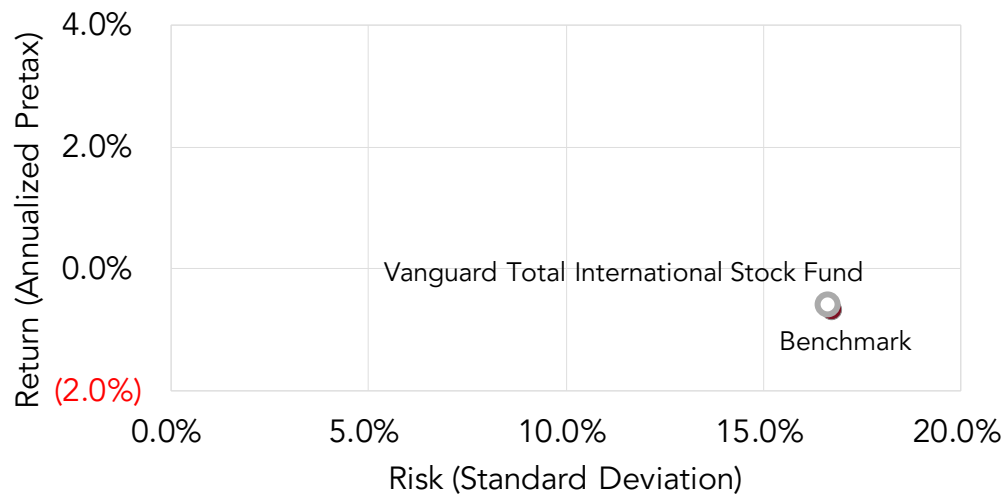
September 30, 2022

### Characteristics

Characteristic	Vanguard Total Intl Stock Fund		FTSE Global All Cap ex US Index 9/30/22
	6/30/22	9/30/22	
No. of Holdings	7,842	7,991	7,718
P/E Ratio	11.1x	10.6x	10.6x
Price/Book Ratio	1.6x	1.5x	1.5x
Avg Mkt Cap (billion)	\$28.8	\$25.8	\$60.0
Dividend Yield	3.2%	3.5%	3.5%
Return on Equity	12.4%	12.3%	12.4%
% in Top 10 Holdings	9.3%	9.1%	9.1%

Vanguard, FTSE

### Five-Year Risk/Return



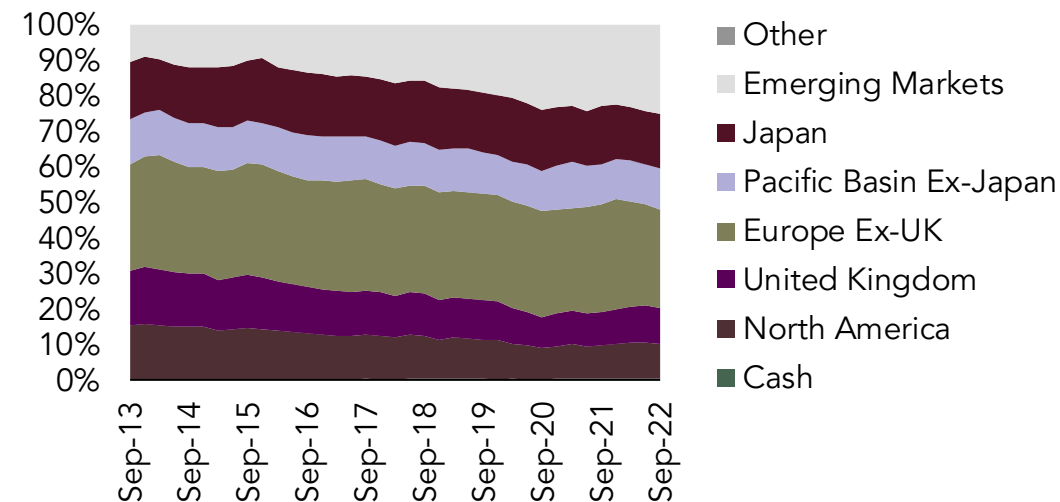
Vanguard, FTSE

### Mandate and Objective

- Passively managed equity index fund (VTSNX)
- Inception: May 2013
- Objective: Match performance of the FTSE Global All Cap ex U.S. Index
- Annual Fee = 0.08%

Vanguard, FTSE

### Historical Regions Distribution



Vanguard, FTSE

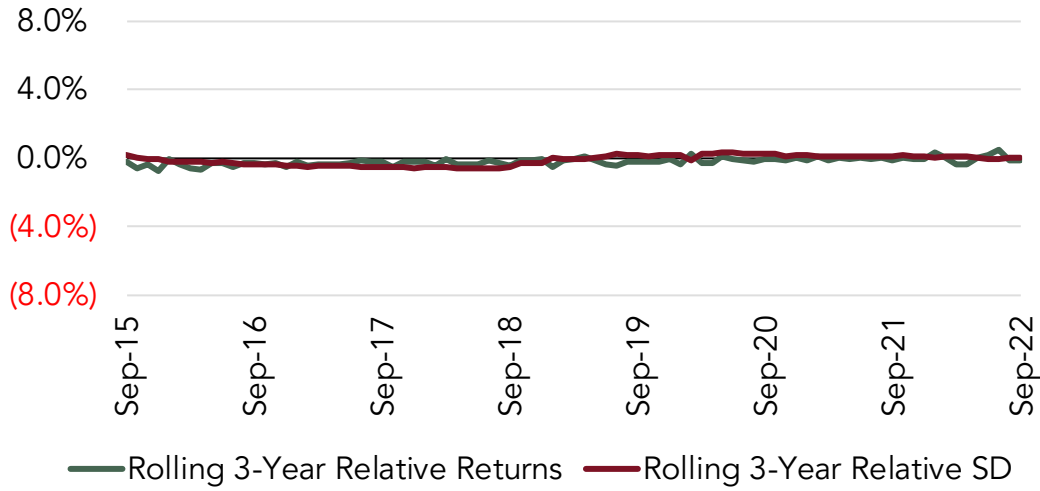


CARDINAL

# Characteristics Vanguard Total International Stock Fund

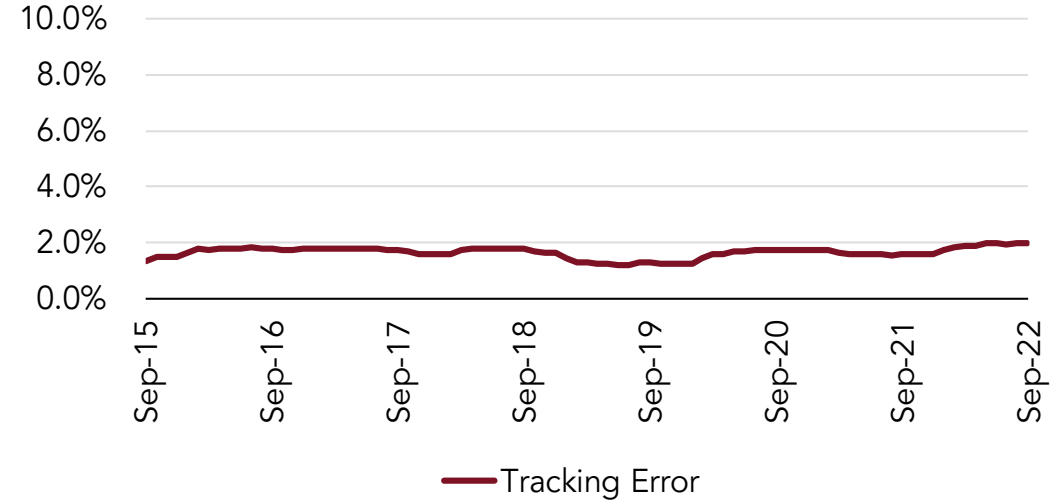
September 30, 2022

## Relative Returns & Risk



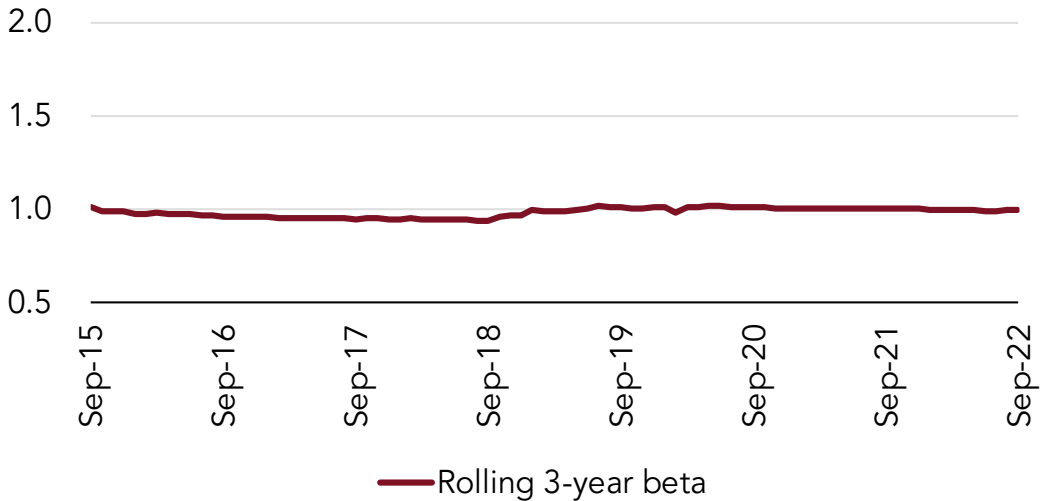
Vanguard, FTSE

## Tracking Error



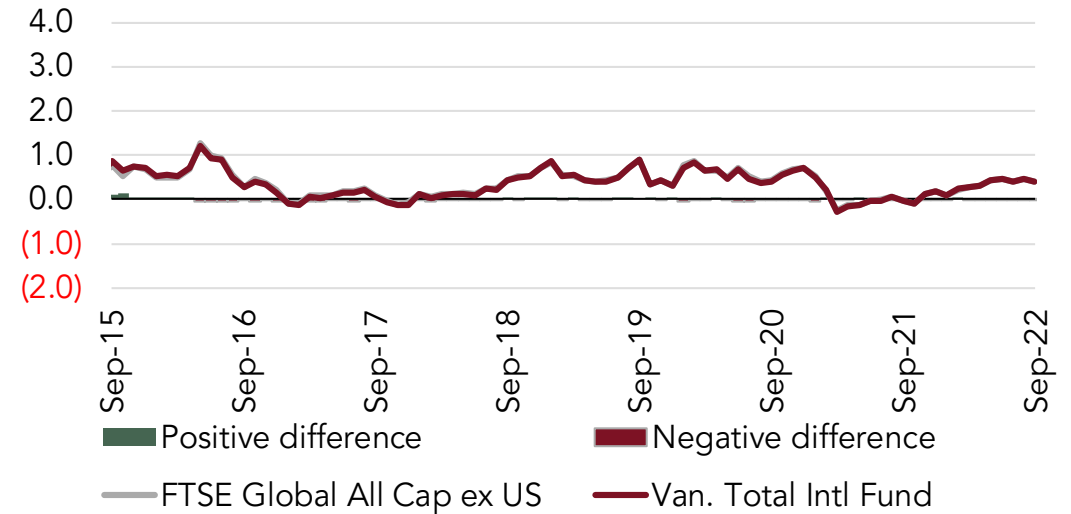
Vanguard, FTSE

## Beta



Vanguard, FTSE

## Sharpe Ratio



Vanguard, FTSE



CARDINAL

Characteristics  
City of London

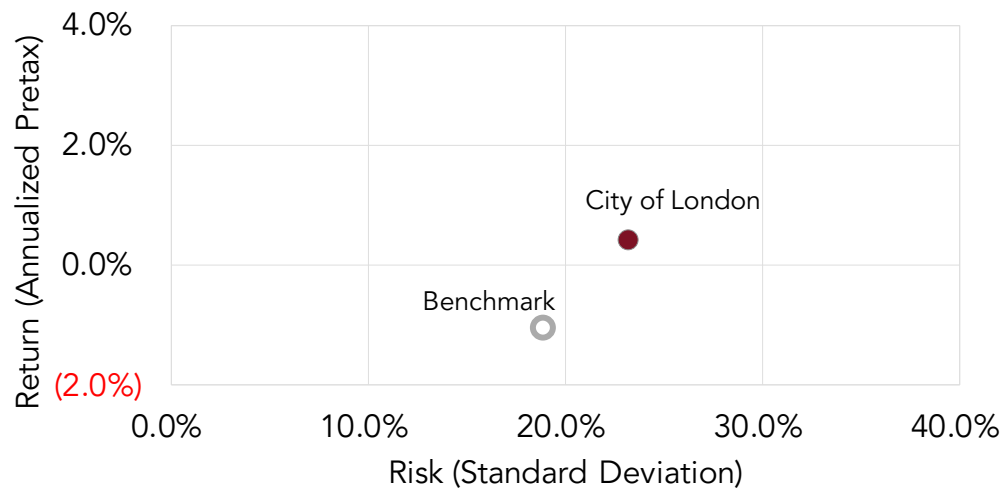
September 30, 2022

### Characteristics

Characteristic	City of London		FTSE Global All Cap ex-US Index 9/30/22
	6/30/22	9/30/22	
No. of Holdings	51	50	7,718
P/E Ratio	13.4x	12.5x	10.6x
Price/Book Ratio	1.7x	1.5x	1.5x
Avg Mkt Cap (\$B)	\$15.8	\$15.4	\$21.2
Dividend Yield	2.4%	2.6%	3.5%
Return on Equity	12.3%	12.3%	12.4%
% in Top 10 Holdings	35.3%	35.8%	9.1%

City of London, FTSE

### Three-Year Risk/Return



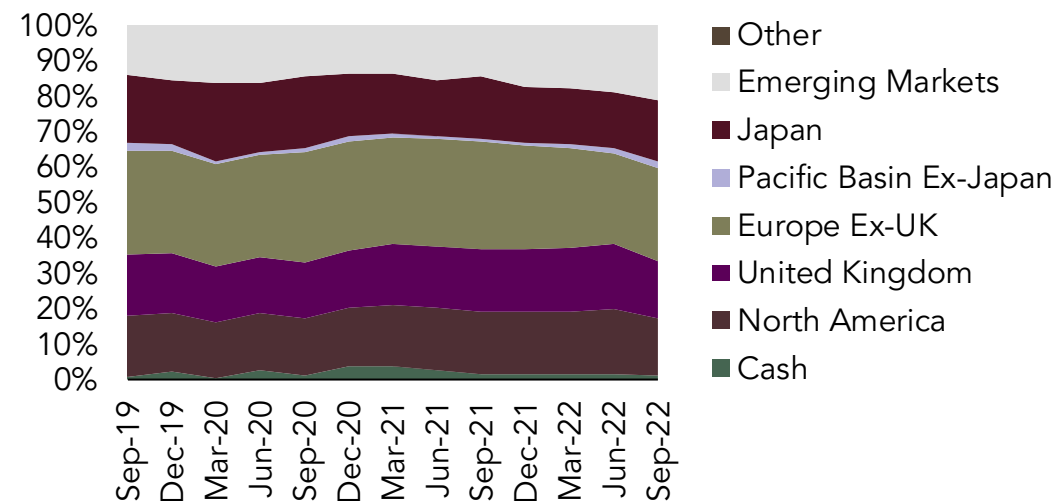
City of London, FTSE

### Mandate and Objective

- Actively managed International Equity Commingled Fund
- Inception: August 2018
- Objective: Exceed total return of the FTSE Global All Cap ex U.S.
- Annual Fee = 0.70%

City of London, FTSE

### Historical Regions Distribution



City of London, FTSE

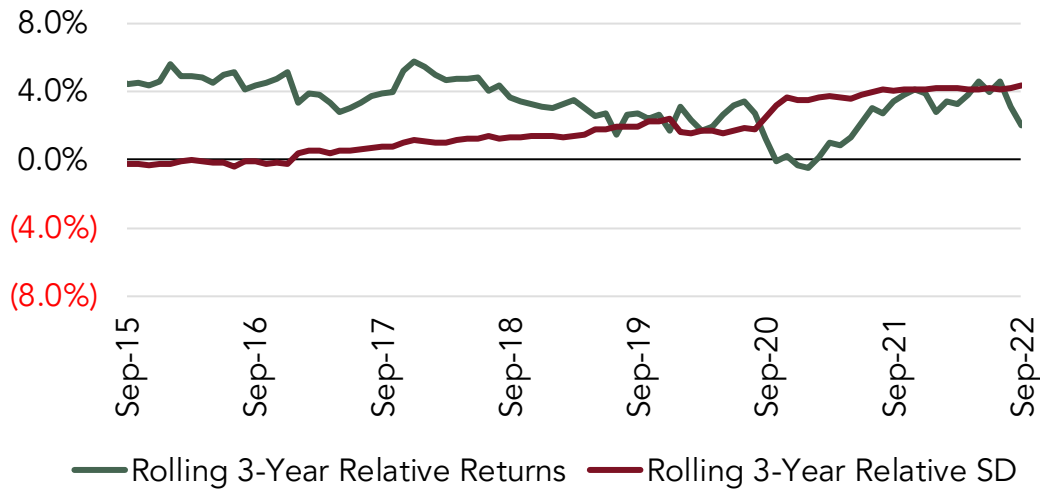


CARDINAL

# Characteristics City of London

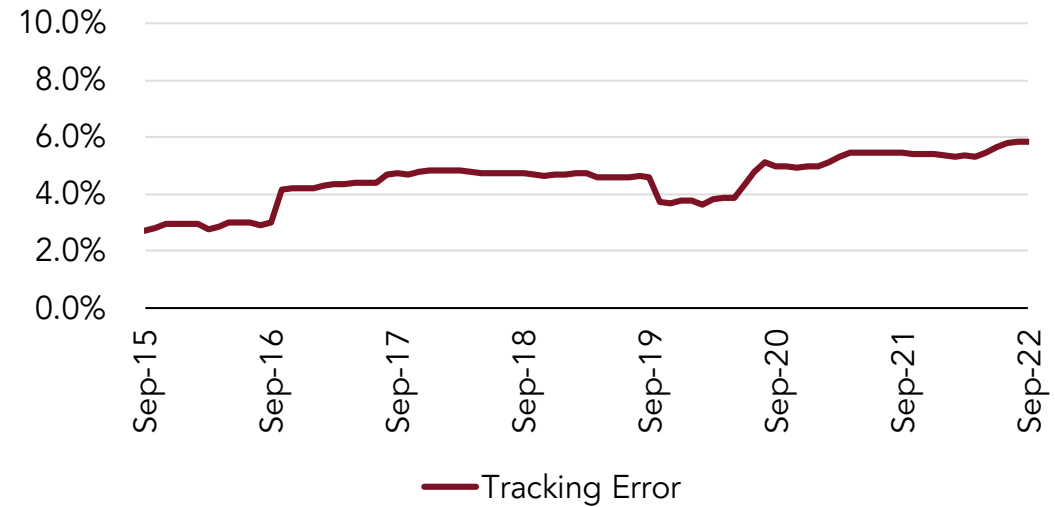
September 30, 2022

## Relative Returns & Risk



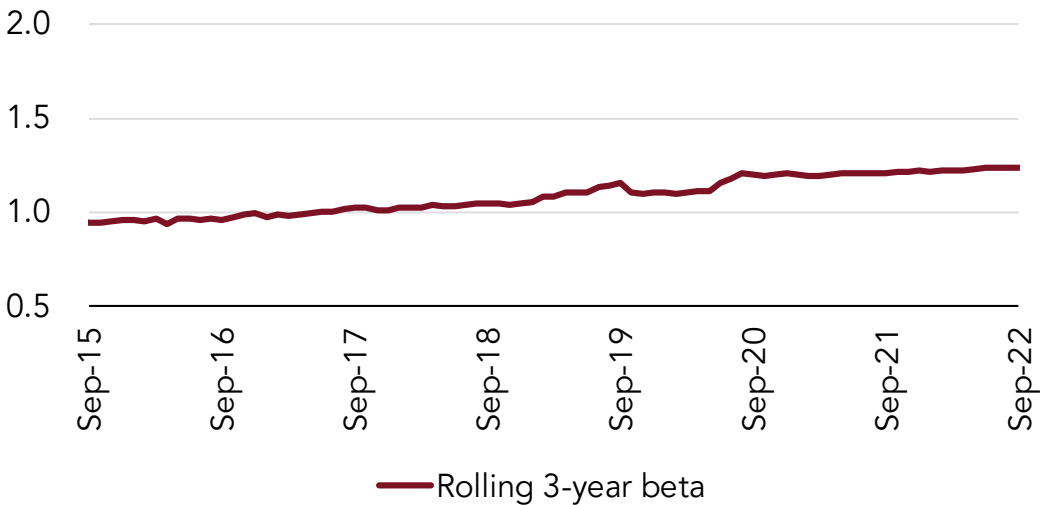
City of London

## Tracking Error



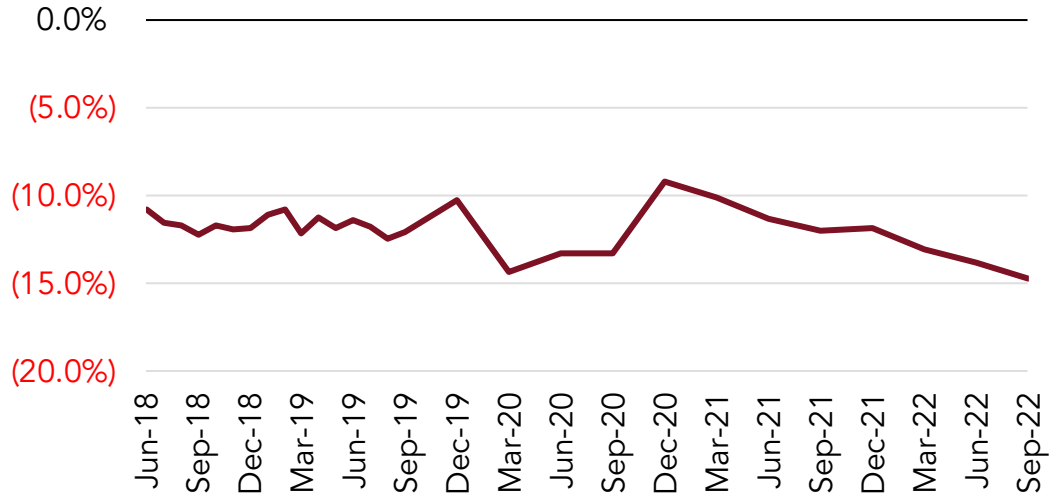
City of London

## Beta



City of London

## Discount to NAV



City of London



CARDINAL

Characteristics  
EuroPacific Growth Fund

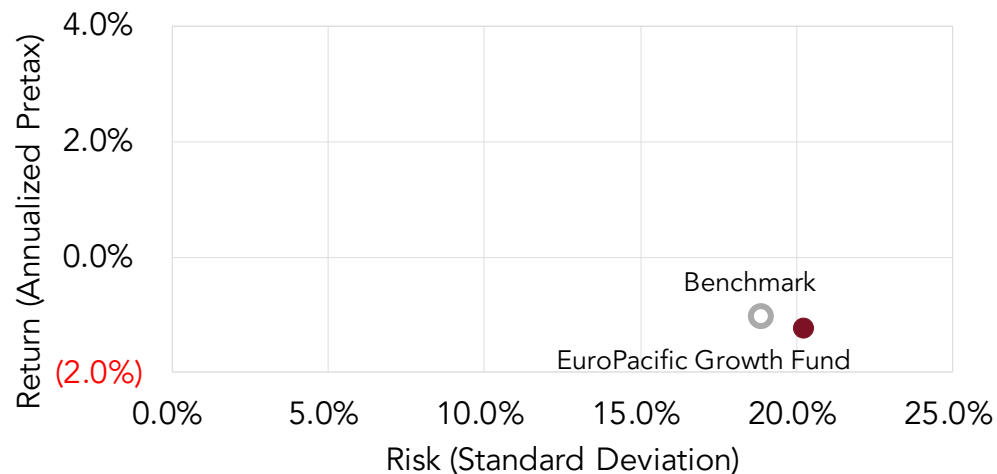
September 30, 2022

### Characteristics

Characteristic	EuroPacific		FTSE Global All Cap ex US Index
	6/30/22	9/30/22	9/30/22
No. of Holdings	359	348	7,718
P/E Ratio	15.2x	14.2x	10.6x
Book Ratio	2.4x	2.2x	1.5x
Mkt Cap (\$B)	\$49.5	\$46.7	\$21.2
Dividend Yield	0.7%	0.8%	3.5%
Return on Equity	16.5%	18.0%	12.4%
Top 10 Holdings	21.5%	22.3%	9.1%

American Funds, FTSE

### Three-Year Risk/Return



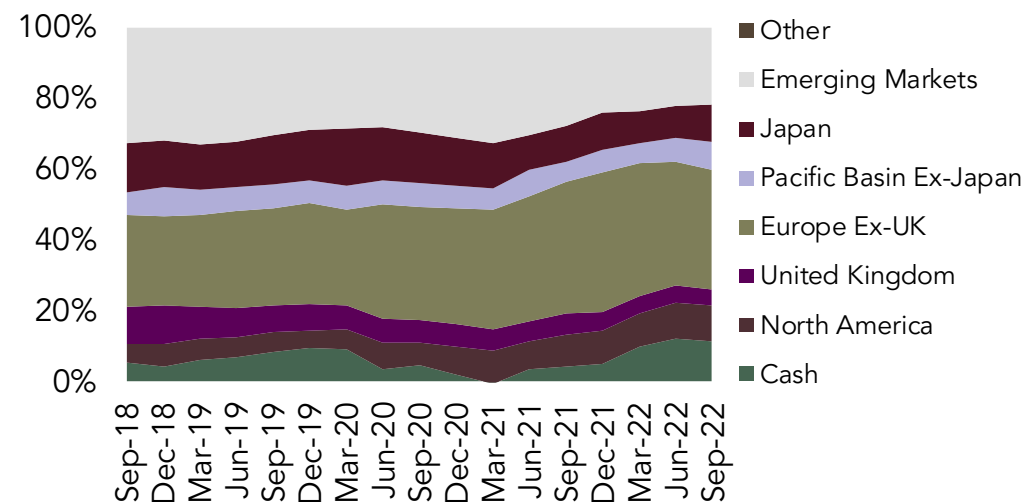
American Funds, FTSE

### Mandate and Objective

- Actively managed International equity fund (FEUPX)
- Inception: July 2018
- Objective: Exceed total return of the FTSE Global All Cap ex U.S.
- Annual Fee = 0.47%

American Funds, FTSE

### Historical Country Distribution



American Funds, FTSE

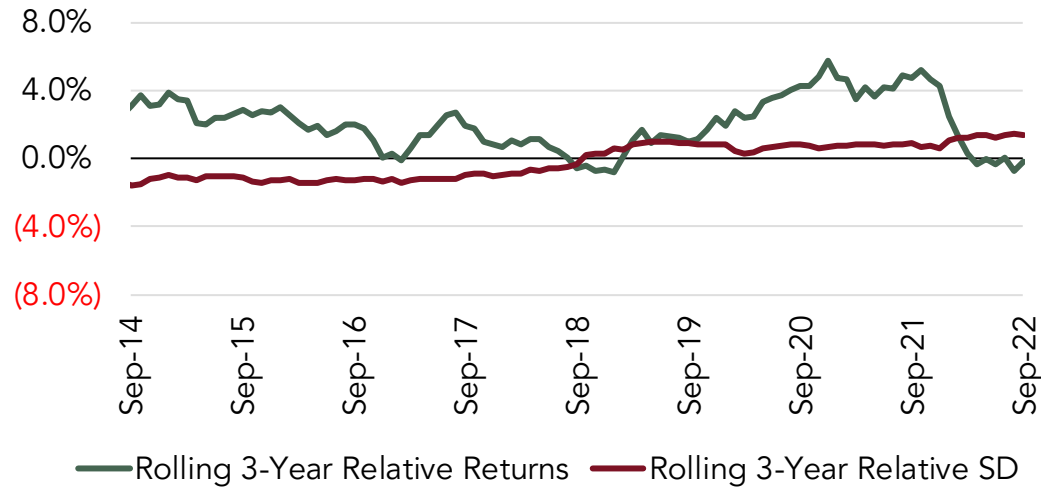


CARDINAL

# Characteristics EuroPacific Growth Fund

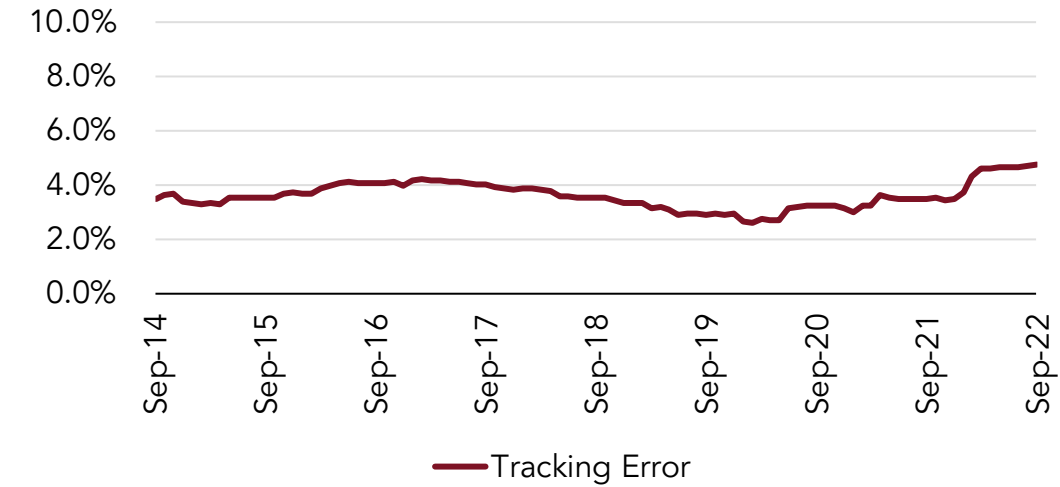
September 30, 2022

## Relative Returns & Risk



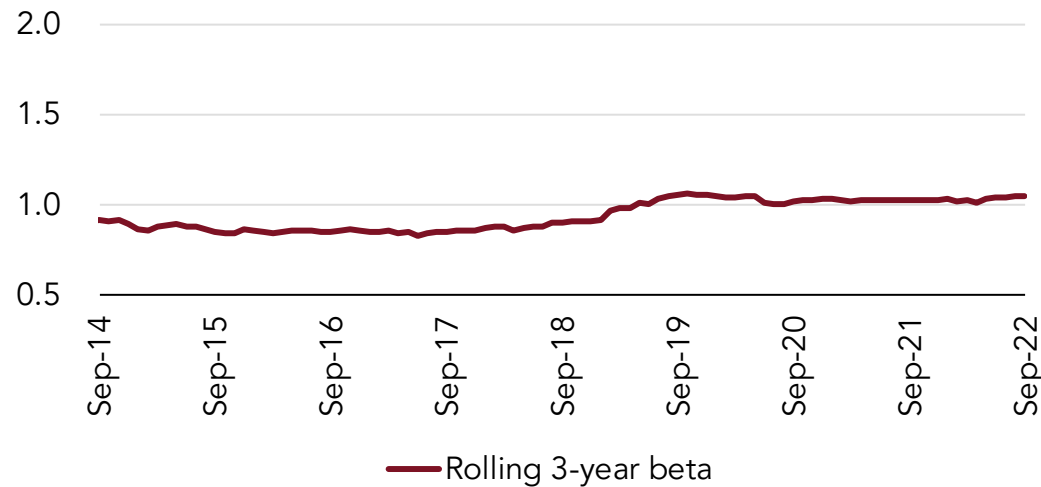
Manager Above

## Tracking Error



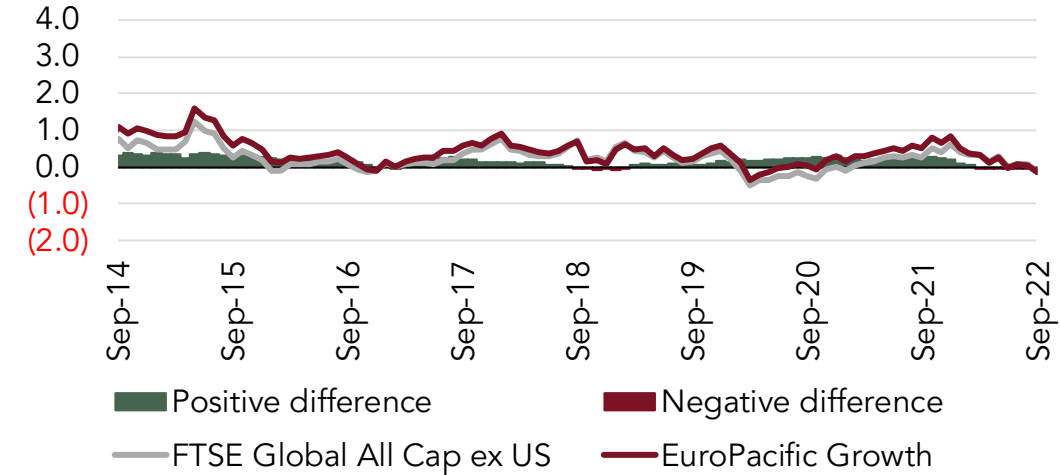
Manager Above

## Beta



Manager Above

## Sharpe Ratio



Manager Above



CARDINAL

Performance

## Low Volatility

Portfolio	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>Vanguard Global Minimum Volatility</b>	\$58,457	4.9%	(5.43%)	(12.72%)	(7.44%)	-	-	-	(1.68%)	Dec-19
FTSE All-World Index			(6.91%)	(25.53%)	(20.67%)	-	-	-	1.99%	
Relative Performance			1.48%	12.81%	13.23%	-	-	-	(3.67%)	

Wells Fargo, Vanguard, Cardinal

- The Vanguard Global Minimum has outperformed for all reporting time periods except since inception.

September 30, 2022



CARDINAL

Characteristics  
Vanguard Minimum Volatility

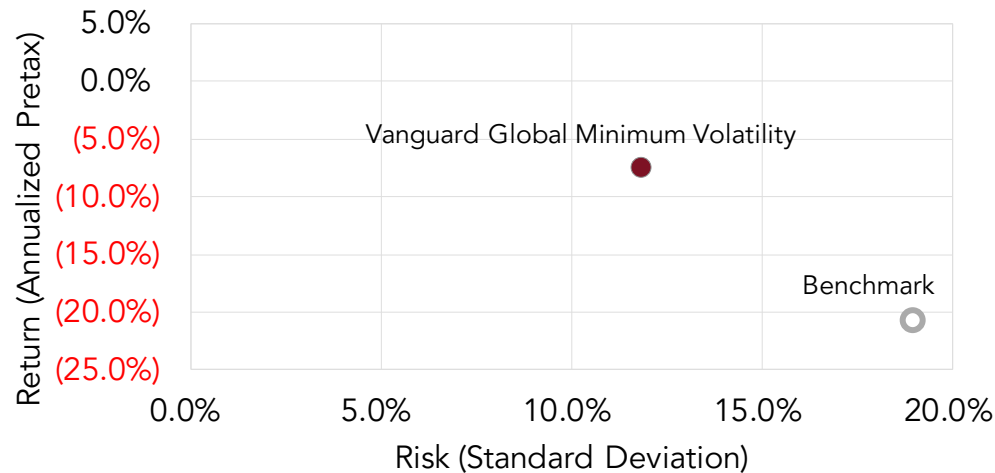
September 30, 2022

### Characteristics

Characteristic	Vanguard Min. Vol.		FTSE All-World
	6/30/22	9/30/22	9/30/22
No. of Securities	287	316	4,173
P/E Ratio	15.3x	13.8x	14.3x
Price/Book Ratio	2.3x	2.1x	2.3x
Avg Mkt Cap (\$B)	\$30.6	\$24.8	\$52.1
% in Top 10 Holdings	16.3%	16.2%	15.8%

Vanguard, FTSE

### One-Year Risk/Return



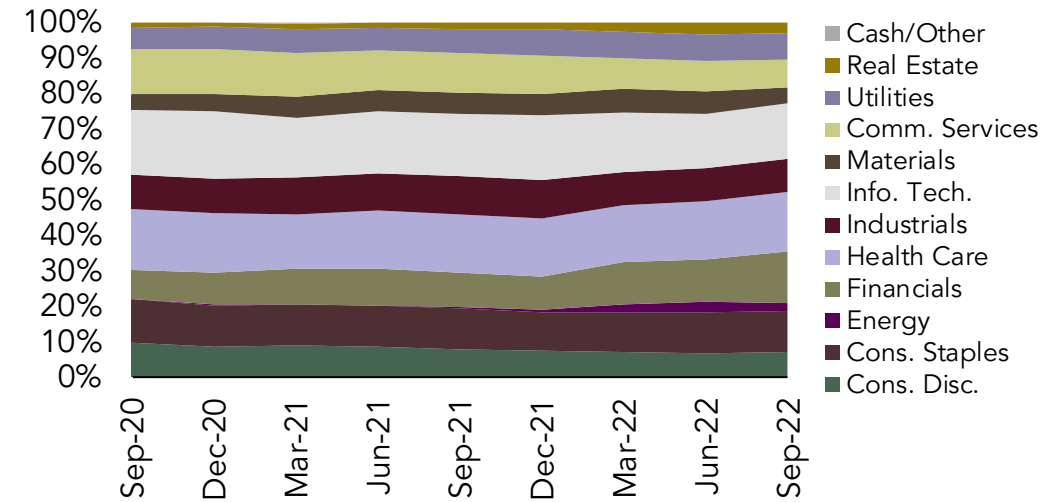
Vanguard, FTSE

### Mandate and Objective

- Passively managed equity index fund (VMNVX)
- Inception: November 2019
- Objective: Exceed total return of the FTSE All-World Index
- Annual Fee = 0.14%

Vanguard, FTSE

### Historical Sector Distribution



Vanguard, FTSE



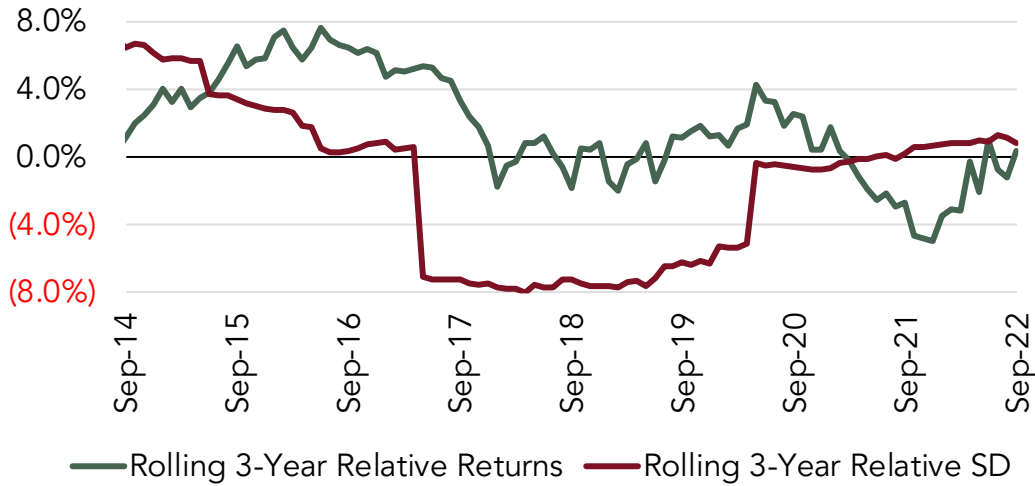


CARDINAL

# Characteristics Vanguard Minimum Volatility

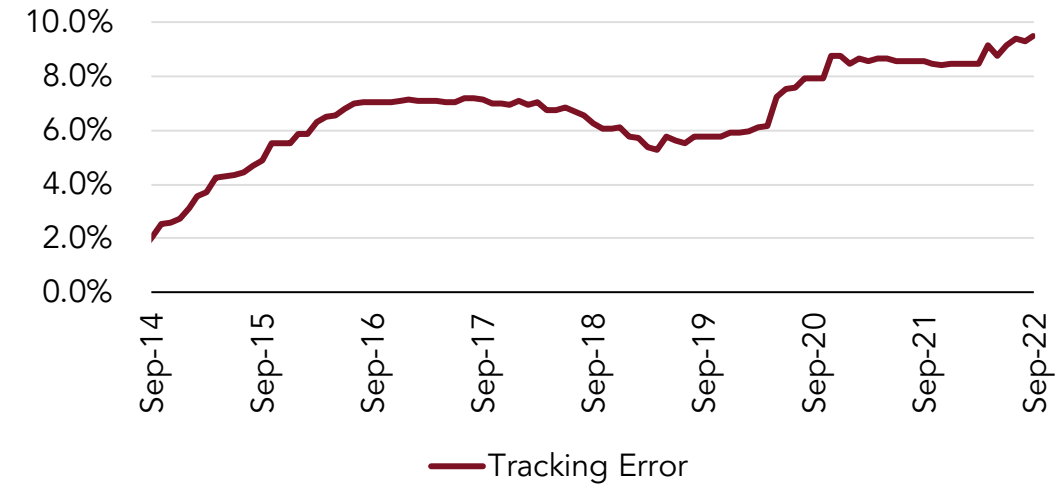
September 30, 2022

## Relative Returns & Risk



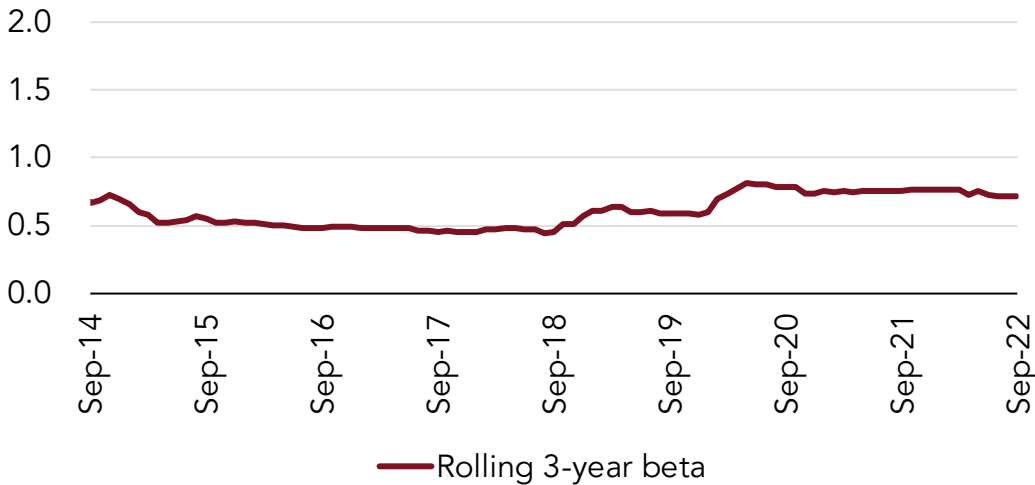
Manager Above

## Tracking Error



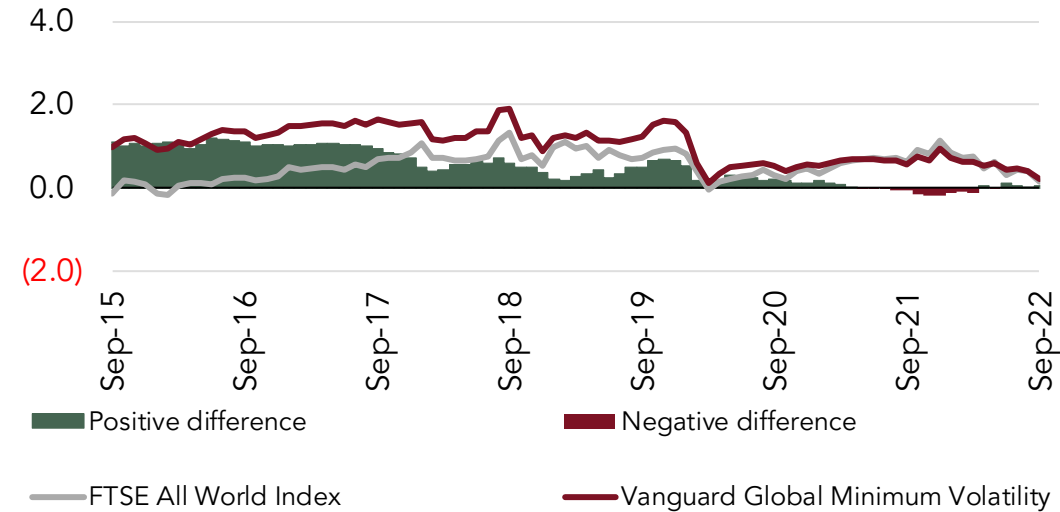
Manager Above

## Beta



Manager Above

## Sharpe Ratio



Manager Above



CARDINAL

Performance

## Private Real Estate – Modified Dietz

Portfolio	Market Value (\$000s)	% Weight	Quarter	YTD	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
<b>Private Real Estate Composite</b>	\$118,000	9.9%	2.38%	14.90%	24.08%	-	-	-	13.91%	Jan-20
Blended Benchmark <sup>2</sup>			<u>0.35%</u>	<u>12.47%</u>	<u>21.12%</u>	-	-	-	<u>12.51%</u>	
Relative Performance			2.03%	2.43%	2.96%	-	-	-	1.40%	
<b>Invesco US Income Fund LP</b>	\$29,712	2.5%	2.69%	17.81%	24.54%	-	-	-	16.42%	Jan-20
NCREIF Open End Diversified Core			<u>0.35%</u>	<u>12.47%</u>	<u>21.12%</u>	-	-	-	<u>12.51%</u>	
Relative Performance			2.34%	5.34%	3.42%	-	-	-	3.91%	
<b>AEW Core Property Trust</b>	\$88,288	7.4%	2.28%	13.99%	24.05%	-	-	-	16.41%	Jul-20
NCREIF Open End Diversified Core			<u>0.35%</u>	<u>12.47%</u>	<u>21.12%</u>	-	-	-	<u>15.42%</u>	
Relative Performance			1.93%	1.52%	2.93%	-	-	-	0.98%	

Wells Fargo, AEW, Invesco, Cardinal

- Invesco and AEW outperformed for all reporting time periods. Since inception Invesco outperformed the relative benchmark by 391 bps, while AEW outperformed by 98 bps.

September 30, 2022



CARDINAL

Characteristics  
Invesco U.S. Income Fund

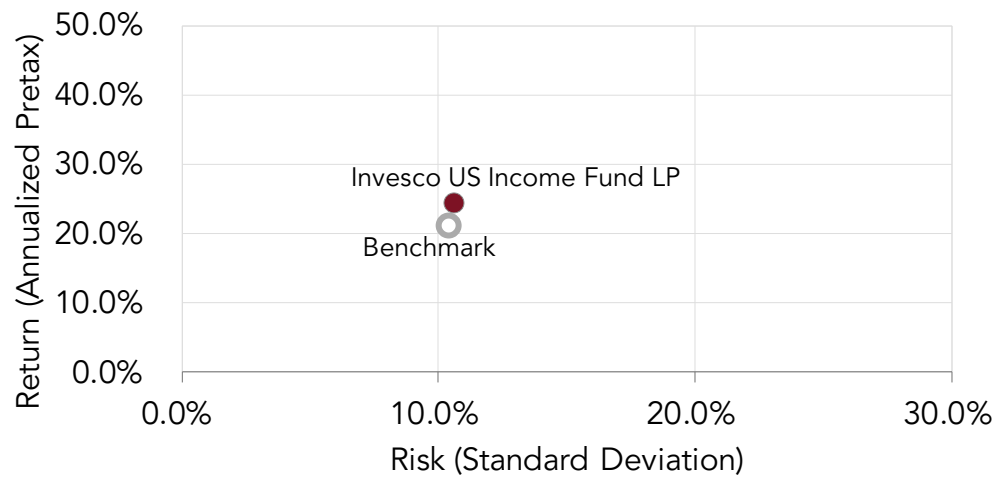
September 30, 2022

### Characteristics

Characteristic	Invesco U.S. Income Fund	
	6/30/22	9/30/22
Investors	31	34
Gross Asset Value	\$4.7M	\$5.0M
Portfolio Leased	95.1%	94.5%
Contributions	\$205.2	\$369.9
Trailing 4Q Gross Dist. Yield	5.1%	5.0%

Invesco

### One-Year Risk/Return



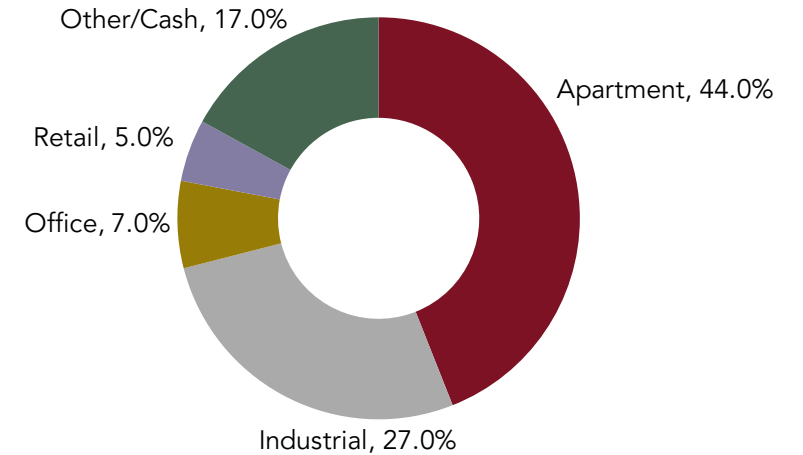
Invesco

### Mandate

- Actively managed private real estate fund
- Inception: January 2020
- Objective: Exceed total return of the MSCI U.S. REIT
- Annual Fee = 1.20% on the first \$50M, 1.10% from \$50M-100M, 1.00% for the remaining.

Invesco

### Property Type Breakdown



Invesco



## Characteristics

Characteristic	AEW Core Trust Fund	
	6/30/22	9/30/22 *
Investors	414	414
Gross Asset Value	\$10.7M	\$10.7M
Portfolio Leased	97.0%	97.0%
Contributions	\$58.0M	\$58.0M
Weighted Avg Int. Rate	3.4%	3.4%

\* 06/30/22 Data, 9/30 Numbers have not been released

AEW

## One-Year Risk/Return



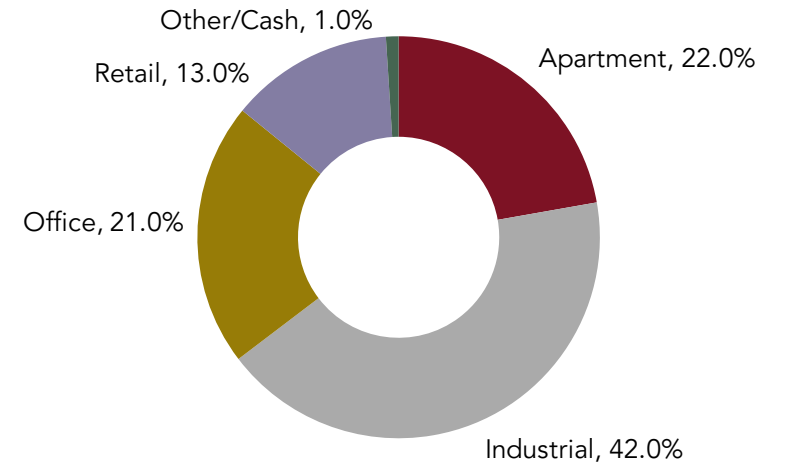
AEW

## Mandate

- Actively managed private real estate fund
- Inception: July 2020
- Objective: Exceed total return of the MSCI U.S. REIT
- Annual Fee = 1.10% on the first \$10M, and 1.10% from \$10M-25M and then 0.85% from \$25-\$50M, 0.80% from \$50M-\$100M, and 0.75 over \$100M

AEW

## Property Type Breakdown



AEW



## Endnotes

<sup>1</sup>The blended benchmark consists of a target-weighted blend of the underlying portfolio benchmarks.

<sup>2</sup>The blended benchmark consists of a market-weighted blend of the underlying portfolio benchmarks.