



**YOUNGSTOWN  
STATE  
UNIVERSITY**

**BOARD OF TRUSTEES  
INVESTMENT COMMITTEE  
Allen L. Ryan, Jr., Chair  
Charles T. George, Vice Chair  
All Trustees are Members**

**Wednesday, June 22, 2022  
10:30 a.m. or immediately following  
previous meeting**

**Board Room  
Tod Hall**

**AGENDA**

- A. Disposition of Minutes for Meeting Held March 2, 2022**
- B. Old Business**
- C. Committee Items**

- 1. Discussion Item**

- C.1.a. = Tab 1      a. June 22, 2022 Quarterly Portfolio Asset Allocation and Investment Performance Review**  
Sarah Parker and John Colla, will report.

- 2. Action Item**

- C.2.a. = Tab 2      a. Resolution to Approve Clearstead's Recommendation to Rebalance the Non-Endowment Long-Term Investment Pool**  
Sarah Parker and John Colla, will report.

- D. New Business**
- E. Adjournment**



*June 22, 2022*

**YOUNGSTOWN STATE  
UNIVERSITY**



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# CURRENT INSIGHTS & NEWS

PUBLICATIONS	PODCAST	BLOG & AWARDS
<p><b>CLEARPOINT</b> <a href="#">Stealing From the Future</a> <a href="#">Playbook of Tax Planning Strategies</a> <a href="#">Why Investors Should Consider Emerging Managers in Private Market Allocations</a></p> <p><b>RESEARCH CORNER</b> <a href="#">Weekly Updates from our Investment Office</a></p> <p><b>MARKET MINUTE</b> <a href="#">Review of December 2021</a> <a href="#">Review of January 2022</a> <a href="#">Review of February 2022</a> <a href="#">Review of March 2022</a></p>	 <p>Episode 5: <a href="#">Crypto &amp; Blockchain</a></p> <p>Episode 6: <a href="#">Driving Factors of Oil &amp; Gas Trends</a></p>	<p><b>BLOG</b> <a href="#">Clearstead EmpowHER 2021 Woman of the Year</a></p> <p><b>AWARD</b> <a href="#">2021 NAPA Top DC Advisor Teams</a></p> 

# CONTENTS

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1. Initiatives
2. Capital Markets Update
3. Non-Endowment Assets: Performance & Asset Allocation Review
  - Fixed Income Review
  - Portfolio Recommendations (**ACTION**)

## **APPENDIX**

Endowment Assets: Performance & Asset Allocation Review

Supporting Information

 clearstead INITIATIVES

# 2022 OVERSIGHT DASHBOARD

		1Q	2Q	3Q	4Q	COMMENTS:
STRATEGIC / ADMINISTRATIVE	Investment Policy Review	✓				Asset Allocation Guidelines Edit
	Strategic Asset Allocation Review				<input type="checkbox"/>	
	Peer Review				<input type="checkbox"/>	
	2023 Oversight Dashboard				<input type="checkbox"/>	
	STAR Ohio/Plus Annual Review			<input type="checkbox"/>		
PORTFOLIO	Fixed Income Review		✓			
	Alternative Investments Review	✓				Private Credit Asset Class
	Global Equity Review					
	Invnt Manager Recommendation	✓				H.I.G. WhiteHorse Principal Lending Fund
PERFORMANCE	Capital Markets Review	✓	✓	<input type="checkbox"/>	<input type="checkbox"/>	
	Quarterly Performance Review	✓	✓	<input type="checkbox"/>	<input type="checkbox"/>	
	Endowed Account Review / Oversight	✓	✓	<input type="checkbox"/>	<input type="checkbox"/>	
OTHER	Fee Review			<input type="checkbox"/>		
	ORC Compliance Review			<input type="checkbox"/>		
	Clearstead Firm Update	✓				

LAST REVIEWED	
Investment Policy:	03/02/2022
Strategic Asset Allocation:	09/01/2021
Fee Review:	09/01/2021

MEETING SCHEDULE	
1Q:	March 2, 2022
2Q:	June 22, 2022
3Q:	September 7, 2022
4Q:	December 7, 2022



## **CAPITAL MARKETS UPDATE**

# QUARTERLY THEMES

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## WHAT HAPPENED LAST QUARTER?

- Russia's invasion of Ukraine impacted investors' risk appetite, particularly in non-dollar assets
- Capital markets under pressure across the board; only commodities were positive
  - S&P 500 -4.6%, MSCI EAFE -5.9%, MSCI Emerging Markets -7.0%, Bloomberg U.S. Aggregate Bond -5.9%
- Swift movement in global economy reacting to world events and economic environment
  - U.S. Federal Reserve signals "hawkish" stance and raises the Federal Funds rate
  - New pricing pressures present challenges to inflation trending lower in the near-term
  - Global growth (and markets) receive a "one-two punch": global liquidity tightening, spiking commodity prices, continual supply chain disruptions lower real growth forecasts
  - China continues to face headwinds due to COVID lockdowns and property-sector deleveraging

## WHAT WE ARE FOCUSING ON:

- Volatility to continue; potential consecutive down years for fixed income coupled with challenging equity markets
- Monetary policy begins a regime change amidst a likely prolonged higher inflationary cycle
  - Federal Reserve tightening as U.S./global economy slows, U.S. corporations facing threat to profit margins
  - Probability of recessionary environment rising in both Europe and the U.S.
- Allocating to areas of the capital market universe that are poised to perform in current economic landscape
- Reaffirming objectives and staying disciplined to long-term strategy

Source: Clearstead, Bloomberg LP. As of 3/31/2022. Past performance is not an indicator of future results.



# HISTORICAL ASSET CLASS RETURNS

2013	2014	2015	2016	2017	2018	2019	2020	2021	Q1 2022	2022
Sm/Mid 36.8%	Large Cap 13.7%	Large Cap 1.4%	Sm/Mid 17.6%	Em Mkt 37.3%	Cash 1.9%	Large Cap 31.5%	Sm/Mid 20.0%	Large Cap 28.7%	Cash 0.0%	Cash 0.0%
Large Cap 32.4%	Sm/Mid 7.1%	US Bonds 0.6%	Hi Yld 17.5%	Dev Intl 25.0%	US Bonds 0.0%	Sm/Mid 27.8%	Large Cap 18.4%	Sm/Mid 18.2%	Hdg Fnds -2.7%	Hdg Fnds -2.7%
Dev Intl 22.8%	US Bonds 6.0%	Cash 0.1%	Large Cap 12.0%	Large Cap 21.8%	Glb Bond -0.9%	Dev Intl 22.0%	Em Mkt 18.3%	Dev Intl 11.3%	Hi Yld -4.5%	Hi Yld -4.5%
Hdg Fnds 9.0%	Hdg Fnds 3.4%	Hdg Fnds -0.3%	Em Mkt 11.2%	Sm/Mid 16.8%	Hi Yld -2.3%	Em Mkt 18.4%	Hdg Fnds 10.9%	Hdg Fnds 6.5%	Large Cap -4.6%	Large Cap -4.6%
Hi Yld 7.4%	Hi Yld 2.5%	Dev Intl -0.8%	US Bonds 2.7%	Glb Bond 9.3%	Hdg Fnds -4.0%	Hi Yld 14.4%	Glb Bond 9.5%	Hi Yld 5.4%	Sm/Mid -5.8%	Sm/Mid -5.8%
Cash 0.1%	Cash 0.0%	Sm/Mid -2.9%	Glb Bond 1.9%	Hdg Fnds 7.8%	Large Cap -4.4%	US Bonds 8.8%	Dev Intl 7.8%	Cash 0.1%	Dev Intl -5.9%	Dev Intl -5.9%
US Bonds -2.0%	Em Mkt -2.2%	Hi Yld -4.6%	Dev Intl 1.0%	Hi Yld 7.5%	Sm/Mid -10.0%	Hdg Fnds 8.4%	US Bonds 7.5%	US Bonds -1.5%	US Bonds -5.9%	US Bonds -5.9%
Em Mkt -2.6%	Glb Bond -2.8%	Glb Bond -4.8%	Hdg Fnds 0.5%	US Bonds 3.5%	Dev Intl -13.8%	Glb Bond 5.0%	Hi Yld 6.2%	Em Mkt -2.5%	Glb Bond -6.5%	Glb Bond -6.5%
Glb Bond -4.9%	Dev Intl -4.5%	Em Mkt -14.9%	Cash 0.3%	Cash 0.9%	Em Mkt -14.6%	Cash 2.3%	Cash 0.5%	Glb Bond -8.2%	Em Mkt -7.0%	Em Mkt -7.0%

Past performance is not an indicator of future results. Asset classes represented by: Large Cap – S&P 500 Index; Sm/Mid – Russell 2500 Index; Dev Intl – MSCI EAFE Index; Em Mkt – MSCI Emerging Markets Index; Hi Yld – Bank of America Merrill Lynch U.S. High Yield Master II; U.S. Bonds – Barclays Capital U.S. Aggregate; Glb Bond – Barclays Capital Global Treasury ex U.S.; REITS – NAREIT ALL REITS; Hdg Fnds – HFRI FOF: Diversified Index; Cash – Merrill Lynch 91-day Tbill. Data as of 3/31/2022. Source: Morningstar Direct.

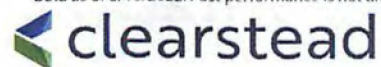
# U.S. ECONOMIC PROJECTIONS

## FEDERAL RESERVE BOARD MEMBERS & BANK PRESIDENTS

		2022	2023	2024	LONGER RUN*
<b>GDP</b>	March 2022	2.8%	2.2%	2.0%	1.8%
	December 2021	4.0%	2.2%	2.0%	1.8%
	September 2021	3.8%	2.5%	2.0%	1.8%
<b>Unemployment Rate</b>	March 2022	3.5%	3.5%	3.6%	4.0%
	December 2021	3.5%	3.5%	3.5%	4.0%
	September 2021	3.8%	3.5%	3.5%	4.0%
<b>Core PCE Inflation</b>	March 2022	4.1%	2.6%	2.3%	
	December 2021	2.7%	2.3%	2.1%	
	September 2021	2.3%	2.2%	2.1%	
<b>Federal Funds Rate</b>	March 2022	1.9%	2.8%	2.8%	2.4%
	December 2021	0.9%	1.6%	2.1%	2.5%
	September 2021	0.3%	1.0%	1.8%	2.5%
<b># of implied 25 bps rate changes year</b>	March 2022	7	4	0	
	December 2021	3	3	2	
	September 2021	1	3	3	

\*Longer-run projections: The rates to which a policymaker expects the economy to converge over time – maybe in five or six years – in the absence of further shocks and under appropriate monetary policy.

Source: Federal Reserve.  
Data as of 3/16/2022. Past performance is not an indicator of future results.



# LOOKING BEYOND FED RATE HIKES AND RECESSIONS

## S&P 500 AFTER RATE HIKE CYCLE BEGINS

FIRST FED RATE HIKE	MONTHS AFTER FIRST RATE HIKE TO RECESSION START	1 YEAR	3 YEARS	5 YEARS	10 YEARS
April 25, 1946	31	-18.9%	-2.4%	+11.2%	+16.8%
April 15, 1955	28	+31.4%	+7.9%	+12.3%	+12.6%
September 12, 1958	19	+22.3%	+15.6%	+12.2%	+11.1%
July 17, 1963	No Recession	+25.6%	+11.5%	+11.7%	+7.8%
November 20, 1967	25	+19.5%	+0.4%	+8.2%	+4.2%
January 15, 1973	10	-17.9%	-2.8%	-1.4%	+7.1%
August 31, 1977	29	+12.5%	+14.1%	+9.6%	+18.5%
September 26, 1980	10	-6.3%	+16.3%	+12.9%	+13.9%
September 4, 1987	34	-13.4%	+4.3%	+9.3%	+14.7%
February 4, 1994	No Recession	+4.8%	+21.9%	+24.2%	+11.10%
June 30, 1999	21	+7.2%	-9.2%	-2.3%	-2.2%
June 30, 2004	42	+6.3%	+11.7%	-2.1%	+7.8%
December 16, 2015	No Recession	+11.3%	+10.7%	+14.5%	n/a
March 16, 2022	TBD	TBD	TBD	TBD	TBD
<b>Average</b>	<b>25 Months</b>	<b>+6.5%</b>	<b>+7.7%</b>	<b>+9.3%</b>	<b>+10.3%</b>

**Avoiding the temptation to react to the prospects of recession favors long-term investors.**

Source: Clearstead, Bloomberg LP, Charles Schwab, as of 3/31/2022. All periods greater than one year are annualized returns. Past performance is not an indicator of future results.



**NON-ENDOWMENT ASSETS:  
PERFORMANCE & ASSET ALLOCATION  
REVIEW**

# NON-ENDOWMENT PERFORMANCE REVIEW (AS OF 3/31/2022)

NON-ENDOWMENT ASSETS	MARKET VALUE (\$MM)	TRAILING PERIODS								CALENDAR YEARS			SINCE INCEPTION <sup>4</sup>
		QTD	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	10 YR	2021	2020	2019	
<b>Total Non-Endowment Assets</b>	\$102.270	-3.4%	-3.4%	2.0%	11.6%	6.6%	5.7%	4.7%	4.4%	7.8%	9.5%	11.5%	4.2%
	<i>Benchmark<sup>1</sup></i>	-2.1%	-2.1%	1.0%	6.4%	4.2%	4.0%	3.3%	3.1%	4.3%	5.9%	8.7%	3.2%
<b>Operating &amp; Short-Term Pool</b>	\$38.216	0.0%	0.0%	0.0%	0.2%	1.0%	1.2%	0.9%	0.6%	0.0%	1.1%	2.4%	0.6%
	<i>Benchmark<sup>2</sup></i>	-0.1%	-0.1%	-0.1%	0.0%	0.8%	1.1%	0.9%	0.6%	0.0%	0.8%	2.3%	0.6%
<b>Long-Term Pool</b>	\$64.054	-4.5%	-4.5%	1.8%	13.3%	7.1%	6.3%	5.4%	5.5%	9.5%	8.8%	15.3%	5.5%
	<i>Benchmark<sup>3</sup></i>	-3.9%	-3.9%	1.8%	11.9%	7.0%	6.2%	5.3%	5.2%	8.0%	10.0%	14.2%	5.1%

Value equity managers and alternatives provided downside protection during a volatile quarter where both equity and fixed income markets were down approximately -5-6%.

Fixed Income positioning of having lower duration (interest rate sensitivity) helped protect against rising interest rates, though was not immune to the challenges that were presented to fixed income investments. The fixed income portfolio returned -3.6% while core fixed income (Bloomberg Aggregate Index) was down -5.9%.

1) 45% BofA Merrill Lynch 91-Day T-Bill / 17% BofA Merrill Lynch US Corp & Gov 1-3 Yrs / 11% BBgBarc US Govt/Credit Int TR / 8% Total Alternatives Benchmark / 15% Russell 3000 / 4% MSCI EAFE.

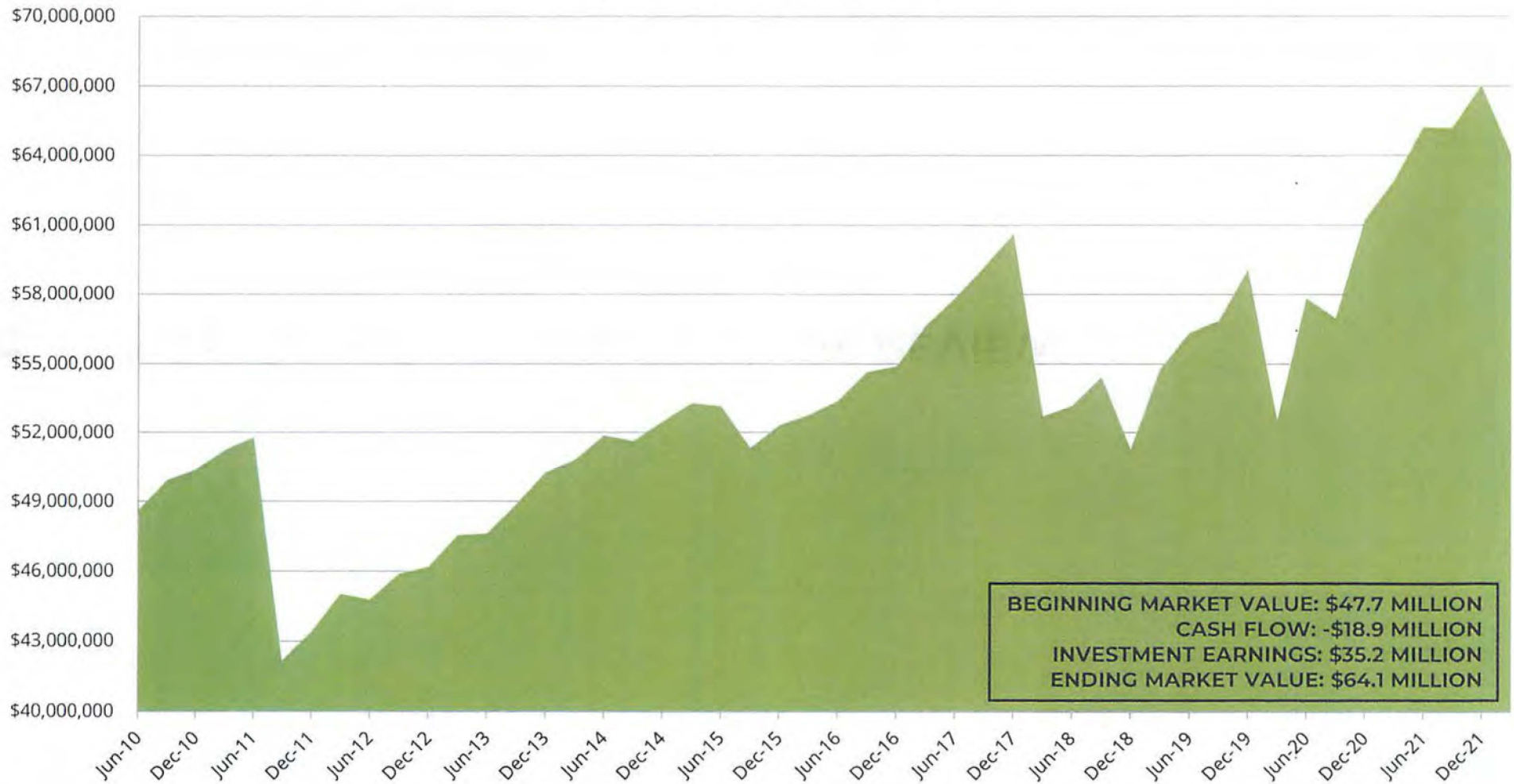
2) 95% BofA Merrill Lynch 91-Day T-Bill / 5% Barclays 1-3 Yr. Govt.

3) 27% Russell 3000 / 8% MSCI EAFE / 15% Total Alternatives Benchmark / 30% BofA Merrill Lynch US Corp & Gov 1-3 Yrs / 20% BBgBarc US Govt/Credit Int TR.

4) Inception date for Long-Term and Short-Term Pools: June 2010, Inception Date for Total Non-Endowment Assets: March 2004.

# ATTRIBUTION OF MARKET VALUE CHANGE: LONG-TERM POOL

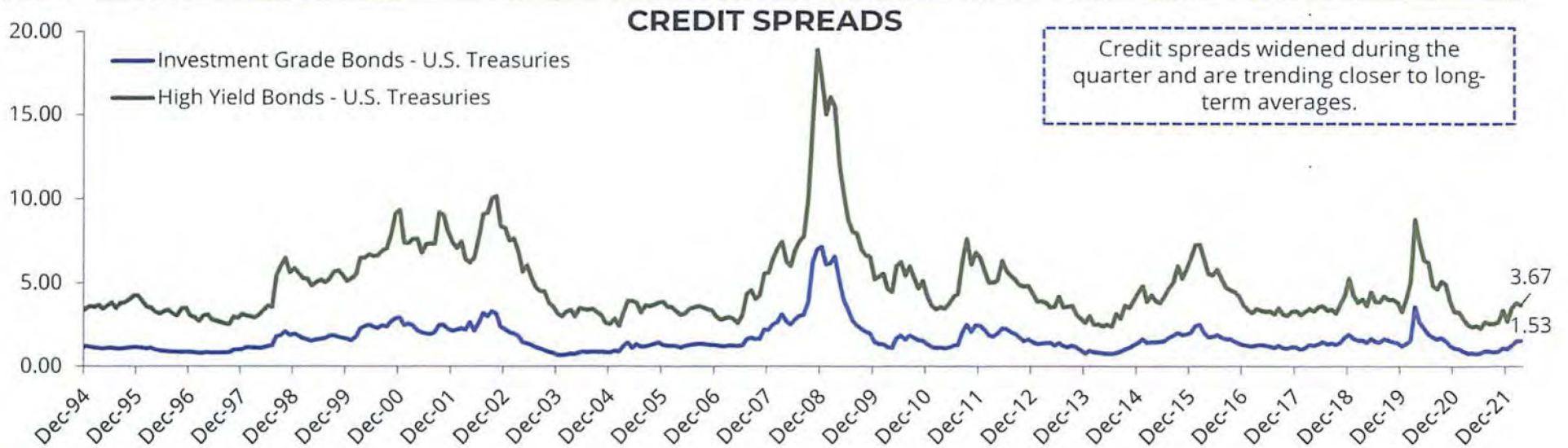
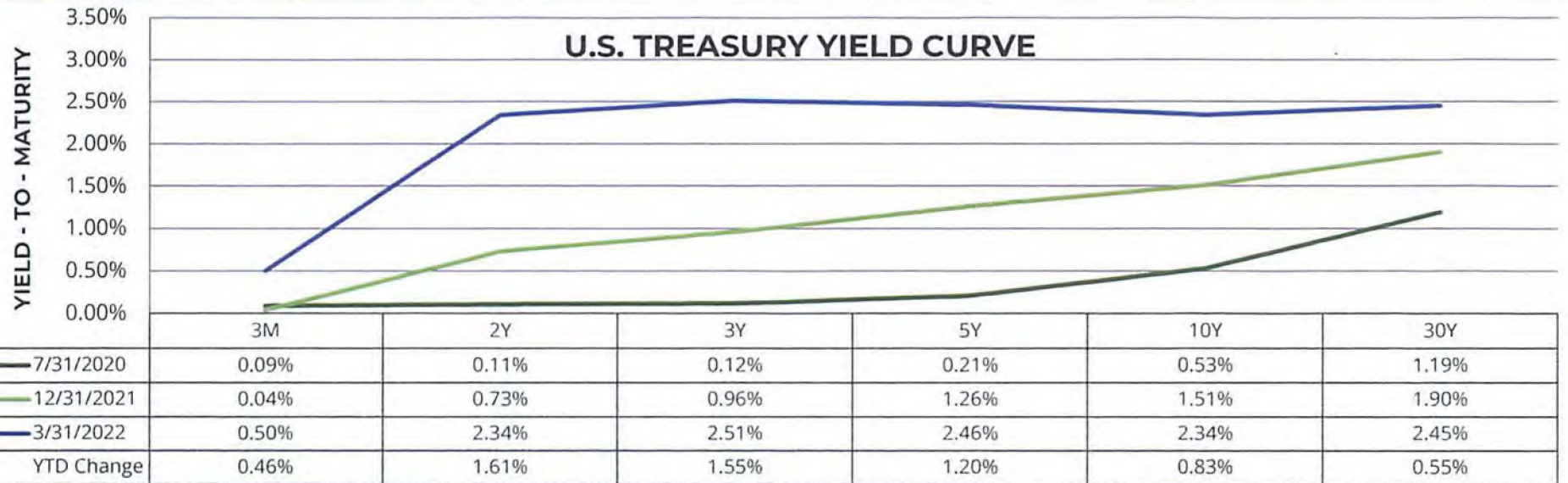
**LONG-TERM POOL MARKET VALUE CHANGE  
(07/01/2010 - 3/31/2022)**





## **FIXED INCOME REVIEW**

# FIXED INCOME: RATES SPIKE AND SPREADS WIDEN

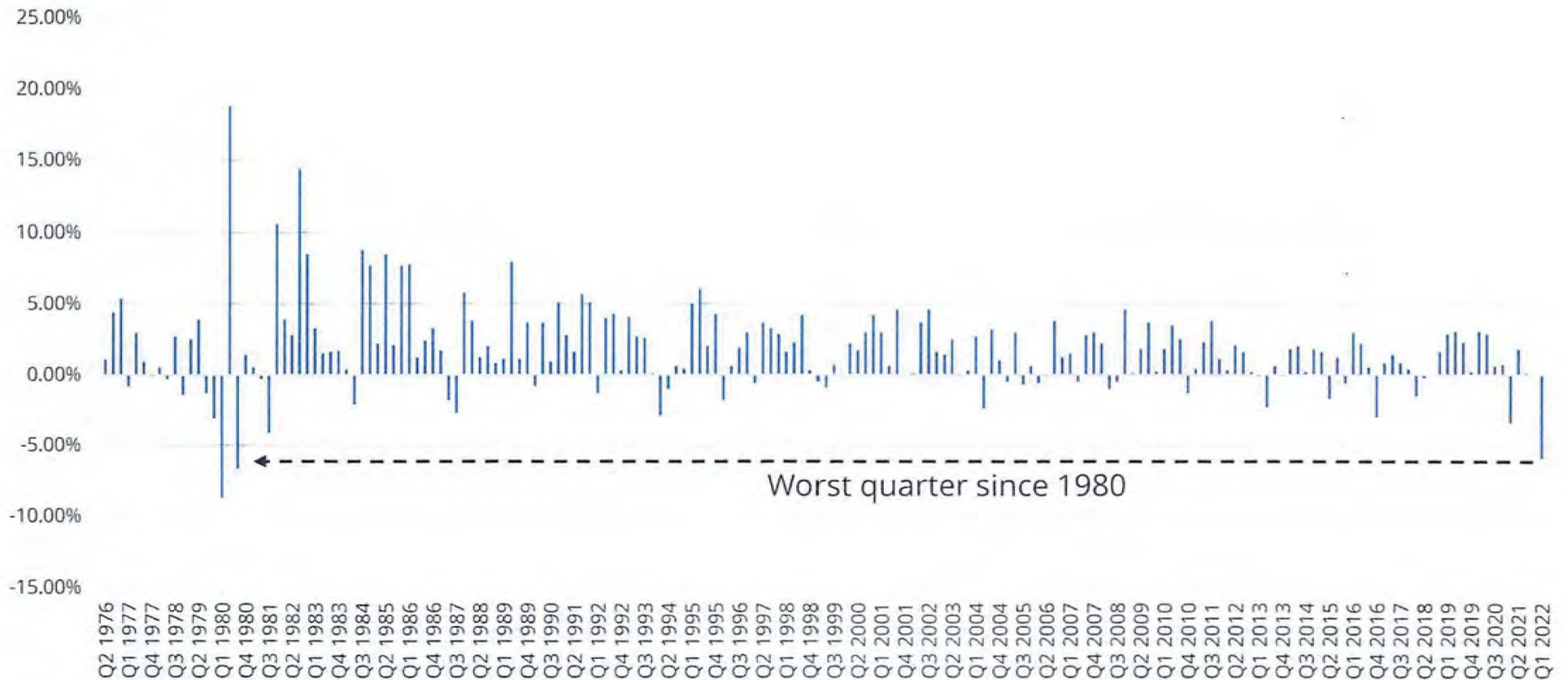


Source: Bloomberg. Data as of 3/31/2022. US Treasuries - BarCap US Gov't 10-Yr Treasury; Investment Grade Bonds - BarCap BAA Corp; High Yield Bonds - BarCap US High Yield. Past performance is not an indicator of future results.



# FIXED INCOME CHALLENGES

BARCLAYS AGGREGATE BOND INDEX QUARTERLY TOTAL RETURN



The 10-year yield increased from 1.51% to 2.34% during the first quarter, negatively affecting bond prices which pushed the aggregate bond market to its worst quarterly loss since Q3-1980.

Source: Clearstead, Bloomberg LP, as of 3/31/2022. Past performance is not an indicator of future results.

# FIXED INCOME PERFORMANCE

	% of Portfolio	QTD (%)	1 Yr (%)	2 Yr (%)	3 Yr (%)	5 Yr (%)	7 Yr (%)	10 Yr (%)	2021 (%)	2020 (%)	2019 (%)	Inception (%)	Inception Date
<b>Total Fixed Income</b>	<b>30.5</b>	<b>-3.6</b>	<b>-2.8</b>	<b>1.1</b>	<b>1.9</b>	<b>2.1</b>	<b>1.8</b>	<b>1.8</b>	<b>0.1</b>	<b>5.2</b>	<b>6.6</b>	<b>2.1</b>	<b>Jul-10</b>
<i>Total Fixed Income Benchmark</i>		-3.3	-3.4	-0.8	1.2	1.5	1.3	1.4	-0.8	4.5	5.0	1.6	
JPMorgan Core Bond	5.2	-5.3	-3.6	-0.6	2.1	2.5	2.1	2.4	-1.1	8.1	8.3	2.0	Sep-17
<i>Bloomberg U.S. Aggregate Index</i>		-5.9	-4.2	-1.8	1.7	2.1	1.9	2.2	-1.5	7.5	8.7	1.7	
YSU Intermediate Term Bond	4.3	-4.5	-4.0	-0.4	1.9	2.1	1.8	2.0	-1.3	7.5	7.2	3.3	Apr-04
<i>Bloomberg Intermed. U.S. Government/Credit</i>		-4.5	-4.1	-1.1	1.5	1.8	1.6	1.8	-1.4	6.4	6.8	3.0	
PGIM High Yield R6	3.1	-4.7	0.0	11.8	5.2	5.3	5.5	6.0	6.5	5.7	16.3	5.5	Jan-17
<i>Bloomberg U.S. Corp. High Yield Index</i>		-4.8	-0.7	10.9	4.6	4.7	5.0	5.7	5.3	7.1	14.3	5.0	
YSU Short Term Bond	11.7	-2.3	-2.7	-0.2	1.3	1.5	1.3	1.2	-0.4	3.7	4.3	2.3	Apr-04
<i>ICE BofA 1-3 Yr. Gov/Corp</i>		-2.6	-3.0	-0.7	1.0	1.3	1.2	1.1	-0.4	3.3	4.1	2.1	
Lord Abbett Short Duration Income I	4.4	-2.5	-1.8	3.7	1.7	2.1	2.1	2.4	1.1	3.2	5.6	2.2	Apr-18
<i>ICE BofA 1-3 Yr. Gov/Corp</i>		-2.6	-3.0	-0.7	1.0	1.3	1.2	1.1	-0.4	3.3	4.1	1.5	
DFA Five-Yr Global Fxd-Inc I	1.8	-4.6	-5.6	-2.2	-0.6	0.5	0.7	1.2	-1.0	1.5	4.0	1.2	Jul-13
<i>FTSE World Government Bond Index 1-5 (Hedged)</i>		-2.4	-2.8	-1.1	0.9	1.3	1.3	1.4	-0.8	3.2	3.9	1.4	

Total Fixed Income Benchmark: 64% ICE BofA 1-3 Yr US Corp & Govt / 36% BBgBarc US Govt/Credit Int.



# FIXED INCOME LOOK-THROUGH

	17.0%	14.1%	14.4%	38.4%	10.2%	5.9%	100.0%		
Current Portfolio	17.0%	14.1%	14.4%	38.4%	10.2%	5.9%	100.0%		
Proposed Portfolio	17.0%	14.1%	17.5%	41.2%	10.2%	0.0%		100.0%	
	JP Morgan Core Bond	YSU Int Term Bond	Lord Abbett Short Duration Income	YSU Short-Term Bond	PGIM High Yield	DFA Five-Yr Global Fixed Income	Current Portfolio	Proposed Portfolio	Bloomberg Aggregate Bond Index
Expense Ratio	0.50%	0.15%	0.39%	0.15%	0.41%	0.24%	0.28%	0.28%	
Strategy AUM (\$1,000,000)	\$34,310	-	\$69,884	-	\$22,893	\$11,600			
Current Wgtd. Avg. Coupon	2.94%	-	3.02%	-	5.90%	1.21%	1.61%	1.63%	2.60%
Yield to Maturity	3.28%	2.41%	3.84%	1.97%	6.15%	2.73%	3.00%	3.01%	2.92%
Average Maturity	8.09	5.71	2.31	2.78	6.30	3.47	4.43	4.37	8.77
Effective Duration	6.09	5.44	1.98	2.49	4.00	3.35	3.65	3.58	6.84
Quality Issue							AA	AA	
AAA	55%	69%	40%	74%	6%	53%	57%	57%	72%
AA	4%	26%	5%	20%	0%	43%	15%	13%	3%
A	15%	1%	9%	7%	0%	4%	7%	7%	11%
BBB	18%	4%	27%	0%	5%	0%	8%	9%	14%
BB	0%	0%	10%	0%	44%	0%	6%	6%	0%
B	0%	0%	5%	0%	32%	0%	4%	4%	0%
CCC & Below & Not Rated	7%	0%	5%	0%	14%	0%	3%	4%	0%
U.S. Treasury	20%	40%	5%	49%	0%	0%	29%	30%	40%
U.S. Agency	1%	11%	0%	6%	0%	0%	4%	4%	2%
Invnt. Grade Corporates	32%	48%	30%	43%	5%	0%	34%	36%	25%
High Yield Corporates	0%	0%	12%	0%	83%	0%	10%	10%	0%
Non-Agency ABS/CMOs	5%	0%	21%	0%	0%	0%	4%	4%	0%
Non-Agency MBS/CMBS	11%	0%	19%	0%	0%	0%	5%	5%	2%
Mort.-Passthrough	29%	0%	5%	1%	0%	0%	6%	6%	28%
Leveraged/Bank Loans	0%	0%	9%	0%	5%	0%	2%	2%	0%
Municipals	0%	0%	0%	0%	0%	0%	0%	0%	0%
Non-U.S. Developed	0%	0%	0%	0%	0%	86%	5%	0%	3%
Emerging Markets	0%	0%	0%	0%	3%	0%	0%	0%	0%
Non-Dollar	0%	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cash	3%	1%	-1%	1%	4%	14%	2%	1%	0%

## Recommendation:

Remove global bond exposure from the fixed income portfolio and reallocate to two (U.S.) short-term managers.

## Proposed portfolio:

- Focuses on a better opportunity set today (U.S. markets) for fixed income
- Maintains yield advantage compared to Bloomberg Aggregate Bond Index and high credit quality
- Modestly decreases duration, or interest rate sensitivity



## **PORTFOLIO RECOMMENDATIONS**

# PORTFOLIO RECOMMENDATIONS (ACTION)

YOUNGSTOWN STATE UNIVERSITY

AS OF MAY 18, 2022

	TICKER	MARKET VALUE (CURRENT)	% OF PORTFOLIO	CHANGES	MARKET VALUE (POST CHANGES)	% OF PORTFOLIO	POLICY TARGET	POLICY RANGE	TACTICAL +/-
<b>Total Operating &amp; Short Term</b>		<b>\$28,221,531</b>	<b>100.0%</b>	<b>\$0</b>	<b>\$28,221,531</b>	<b>100.0%</b>	<b>100.0%</b>		
<b>Operating Assets</b>		<b>\$28,220,632</b>	<b>100.0%</b>		<b>\$28,220,632</b>	<b>100.0%</b>		<b>60-100%</b>	
JPMorgan MM / Fed Hermes Gov Ob	JTSXX	\$28,129,404	99.7%		\$28,129,404	99.7%			
Star Plus*	-	\$0	0.0%		\$0	0.0%			
Star Ohio*	-	\$91,228	0.3%		\$91,228	0.3%			
<b>Short-Term Assets</b>		<b>\$899</b>	<b>0.0%</b>		<b>\$899</b>	<b>0.0%</b>		<b>0-40%</b>	
Vanguard Short-Term Federal Adm	VSGDX	\$899	0.0%		\$899	0.0%			
<b>Total Long Term Reserves Pool</b>		<b>\$60,078,330</b>	<b>100.0%</b>	<b>\$0</b>	<b>\$60,078,330</b>	<b>100.0%</b>	<b>100.0%</b>		
<b>Domestic Equity</b>		<b>\$17,870,680</b>	<b>29.7%</b>		<b>\$18,170,680</b>	<b>30.2%</b>	<b>27.0%</b>	<b>20-35%</b>	<b>3.2%</b>
<b>Large Cap</b>		<b>\$11,906,278</b>	<b>19.8%</b>		<b>\$11,906,278</b>	<b>19.8%</b>			
Vanguard Instl Index	VINIX	\$11,906,278	19.8%		\$11,906,278	19.8%			
<b>Small/Mid Cap</b>		<b>\$5,964,402</b>	<b>9.9%</b>		<b>\$6,264,402</b>	<b>10.4%</b>			
Vanguard Mid Cap Index Adm	VIMAX	\$3,024,352	5.0%		\$3,024,352	5.0%			
Loomis Sayles Small Growth N2	LSSNX	\$1,273,779	2.1%	\$300,000	\$1,573,779	2.6%			
Victory Integrity Small Cap Value Y	VSVIX	\$1,666,271	2.8%		\$1,666,271	2.8%			
<b>International Equity</b>		<b>\$4,877,690</b>	<b>8.1%</b>		<b>\$4,877,690</b>	<b>8.1%</b>	<b>8.0%</b>	<b>0-15%</b>	<b>0.1%</b>
William Blair International Growth I	BIGIX	\$2,136,912	3.6%		\$2,136,912	3.6%			
Dodge & Cox International Stock	DODFX	\$2,740,778	4.6%		\$2,740,778	4.6%			
<b>Total Equity</b>		<b>\$22,748,370</b>	<b>37.9%</b>		<b>\$23,048,370</b>	<b>38.4%</b>	<b>35.0%</b>	<b>25-45%</b>	<b>3.4%</b>
<b>Alternatives</b>		<b>\$6,767,949</b>	<b>11.3%</b>		<b>\$6,767,949</b>	<b>11.3%</b>	<b>15.0%</b>	<b>0-20%</b>	<b>-3.7%</b>
JPMorgan Strategic Income Opps Fd	JSOSX	\$1,038,690	1.7%		\$1,038,690	1.7%			
Allspring Adv Absolute Return	WABIX	\$1,016,669	1.7%		\$1,016,669	1.7%			
H.I.G. Principal Lending Fund	-	\$0	0.0%		\$0	0.0%			
Weatherlow Fund*	-	\$4,712,590	7.8%		\$4,712,590	7.8%			
<b>Fixed Income</b>		<b>\$30,543,413</b>	<b>50.8%</b>		<b>\$30,261,792</b>	<b>50.4%</b>	<b>50.0%</b>	<b>35-75%</b>	<b>0.4%</b>
<b>Short Term Fixed Income</b>		<b>\$18,150,562</b>	<b>30.2%</b>		<b>\$17,868,941</b>	<b>29.7%</b>	<b>30.0%</b>	<b>25-45%</b>	<b>-0.3%</b>
YSU Short Term Bond	-	\$11,821,010	19.7%	\$670,000	\$12,491,010	20.8%			
Lord Abbett Short Duration	LLDYX	\$4,492,931	7.5%	\$885,000	\$5,377,931	9.0%			
DFA Five-Year Global	DFGBX	\$1,836,621	3.1%	-\$1,836,621	\$0	0.0%			
<b>Intermediate Fixed Income</b>		<b>\$12,392,851</b>	<b>20.6%</b>		<b>\$12,392,851</b>	<b>20.6%</b>	<b>20.0%</b>	<b>10-30%</b>	<b>0.6%</b>
JPMorgan Core Bond Fund R6**	JCBUX	\$5,151,140	8.6%		\$5,151,140	8.6%			
YSU Intermediate Term Fixed	-	\$4,273,210	7.1%		\$4,273,210	7.1%			
Prudential High Yield Bond R6	PHYQX	\$2,968,501	4.9%		\$2,968,501	4.9%			
<b>Cash &amp; Cash Equivalents</b>		<b>\$18,599</b>	<b>0.0%</b>		<b>\$220</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0-5%</b>	<b>0.0%</b>
Equity Account Cash	-	\$18,599	0.0%	-\$18,379	\$220	0.0%			
<b>Total University Assets</b>		<b>\$88,299,862</b>			<b>\$88,299,862</b>				

## SUMMARY OF RECOMMENDATIONS

- Remove DFA Global Bond strategy reallocating most proceeds to two short-term managers
- Modest rebalance into equities adding to short-term growth manager Loomis Sayles

\*As of 3/31/2022



## **APPENDIX**



**ENDOWMENT ASSETS:  
PERFORMANCE & ASSET ALLOCATION  
REVIEW**

# ENDOWMENT HOLDINGS

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## YSU ENDOWMENT (HUNTINGTON)

- **Equity Mutual Funds** – 13% (4 Mutual Funds & ETFs)
- **Stocks** – 62% (40-60 U.S. Large/Mid-Cap Stocks)
- **Alternatives** – 3% (Real Estate Mutual Fund)
- **Fixed Income Mutual Funds** – 5% (Federated Total High Yield, Vanguard Inflation Pro Sec)
- **Individual Bonds** – 15% (8-12 Individual Bonds: U.S. Corporate / Gov't / Asset Backed Debt)
- **Cash** – 2%



# ENDOWMENT ASSETS: PERFORMANCE & ASSET ALLOCATION (AS OF 3/31/2022)

ENDOWMENT ASSETS	MARKET VALUE (\$MM)	ASSET ALLOCATION	COMPOSITION	TRAILING PERIODS							CALENDAR YEARS			SINCE INCEPTION <sup>3</sup>
				QTD	YTD	1 YR	2 YR	3 YR	5 YR	7 YR	2021	2020	2019	
YSU Endowment Fund	\$15.091	75% Equity / 3% Alts / 22% Fixed Income & Cash	Stocks, Bonds, Mutual Funds	-4.7%	-4.7%	12.2%	25.0%	14.7%	11.7%	10.1%	20.9%	16.3%	23.8%	10.1%
			<i>Benchmark<sup>1</sup></i>	-4.9%	-4.9%	10.5%	24.6%	14.7%	12.6%	11.1%	20.6%	16.2%	25.6%	11.8%
			<i>Benchmark<sup>2</sup></i>	-5.1%	-5.1%	7.5%	19.0%	12.1%	10.6%	9.3%	15.9%	14.7%	22.2%	9.9%

## COMPLIANCE

- Asset Allocation Guidelines: 70% Equities (60-80%) / 30% Cash & Fixed Income (20-40%)
  - YSU Endowment (In Compliance at Quarter End)

1) Benchmark: 75% S&P 500 / 25% BBG US Aggregate.

2) Benchmark: 60% S&P 500 / 40% BBG US Aggregate.

3) Inception date: 06/2013.



**SUPPORTING INFORMATION**

# GLOBAL ECONOMY OUTLOOK: 2022-2023 FORECASTS

	Q1 - 2022	2022 REAL GDP GROWTH ESTIMATES					2023 REAL GDP GROWTH ESTIMATES				
	BBG EST.	IMF	NOMURA	BBG	GOLDMAN	AVG.	IMF	NOMURA	BBG	GOLDMAN	AVG.
U.S.	4.2%	4.0%	4.6%	3.3%	3.1%	3.8%	2.6%	1.9%	2.2%	2.1%	2.2%
EU	5.0%	3.9%	5.2%	3.0%	2.5%	3.7%	2.5%	3.1%	2.5%	2.2%	2.6%
China	4.4%	4.8%	4.3%	5.0%	4.5%	4.7%	5.2%	4.7%	5.2%	5.0%	5.0%
Japan	1.0%	3.3%	4.3%	2.3%	1.5%	2.9%	1.8%	2.0%	1.7%	1.8%	1.8%
UK	8.5%	4.7%	4.2%	3.8%	4.1%	4.2%	2.3%	2.0%	1.8%	1.8%	2.0%
India	4.0%	9.0%	8.5%	8.9%	8.3%	8.7%	7.1%	6.0%	7.7%	5.9%	6.7%
As of		01/22	01/22	03/22	03/22		01/22	01/22	03/22	03/22	

Global growth is slowing in the face of higher energy / commodity prices and supply-chain disruptions.

Forecasts at the beginning of the calendar year (pre-invasion of Ukraine) from IMF and Nomura are generally higher than (post-invasion) updated forecasts (Bloomberg, Goldman Sachs).

- U.S. GDP real growth estimates have been updated to ~3% for 2022, while Europe's growth estimates have significantly decreased with the threat of a potential recession in the near-term

Source: Clearstead, Nomura, Goldman Sachs, Bloomberg. 2022 Projections are Bloomberg Consensus figures except India = IMF figure. Forecasts updated for Bloomberg and Goldman as of 3/31/2022, while IMF and Nomura are as of 01/2022.

# GLOBAL ECONOMY: SOFTENING TREND

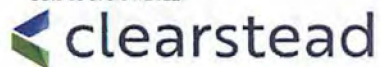
		Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	12M Trend
Global	Mfg	55.9	56.0	55.5	55.4	54.1	54.1	54.2	54.2	54.3	53.2	53.7	53.0	
	Serv	57.0	59.5	57.5	56.3	52.8	53.8	55.6	55.6	54.7	51.0	54.0	53.4	
US	Mfg	60.5	62.1	62.1	63.4	61.1	60.7	58.4	58.3	57.7	55.5	57.3	58.8	
	Serv	64.7	70.4	64.6	59.9	55.1	54.9	58.7	58.0	57.6	51.2	56.5	58.0	
Eurozone	Mfg	62.9	63.1	63.4	62.8	61.4	58.6	58.3	58.4	58.0	58.7	58.2	56.5	
	Serv	50.5	55.2	58.3	59.8	59.0	56.4	54.6	55.9	53.1	51.1	55.5	55.6	
UK	Mfg	60.9	65.6	63.9	60.4	60.3	57.1	57.8	58.1	57.9	57.3	58.0	55.2	
	Serv	61.0	62.9	62.4	59.6	55.0	55.4	59.1	58.5	53.6	54.1	60.5	62.6	
Japan	Mfg	53.6	53.0	52.4	53.0	52.7	51.5	53.2	54.5	54.3	55.4	52.7	54.1	
	Serv	49.5	46.5	48.0	47.4	42.9	47.8	50.7	53.0	52.1	47.6	44.2	49.4	
China	Mfg	51.9	52.0	51.3	50.3	49.2	50.0	50.6	49.9	50.9	49.1	50.4	48.1	
	Serv	56.3	55.1	50.3	54.9	46.7	53.4	53.8	52.1	53.1	51.4	50.2	42.0	
India	Mfg	55.5	50.8	48.1	55.3	52.3	53.7	55.9	57.6	55.5	54.0	54.9	54.0	
	Serv	54.0	46.4	41.2	45.4	56.7	55.2	58.5	58.1	55.5	51.5	51.8	53.6	
S. Korea	Mfg	54.6	53.7	53.9	53.0	51.2	52.4	50.2	50.9	51.9	52.8	53.8	51.2	

Global manufacturing PMIs have steadily declined from mid-2021 due widespread supply-chain disruptions and a slowing China.

- China's ongoing COVID lockdowns coupled with the Russian invasion of Ukraine are likely to lead to further weakness in PMI data into late spring/early summer
- Outside of China, service sector PMIs are generally increasing as impact/cases of COVID fades

PMI readings generally supports modest global growth for 2022.

Source: Bloomberg, Markit/HIS.  
Data as of 3/31/2022.



# GLOBAL EARNINGS OUTLOOK

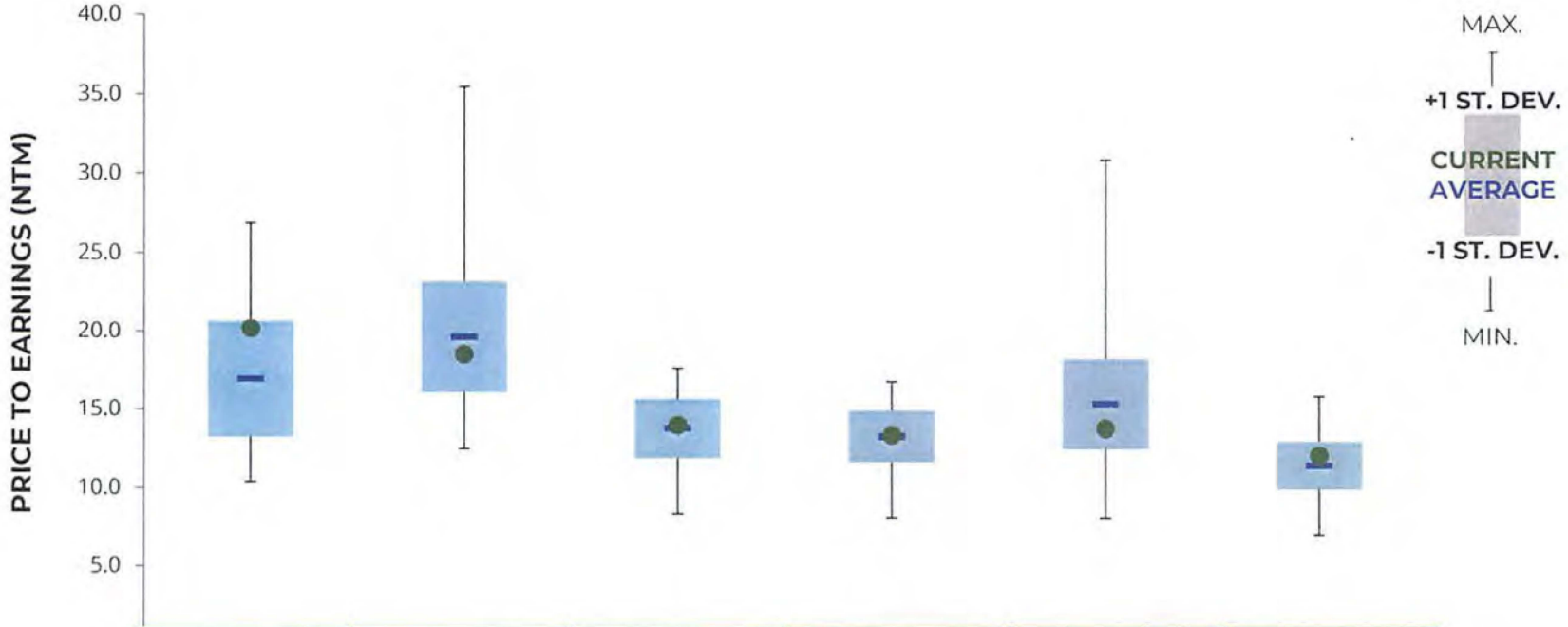
## EARNINGS OUTLOOK BY YEAR



- Earning expectations are beginning to ebb for Q1-2022 as analysts downgrade their expectations
  - CY-2022 EPS growth estimates are largely unchanged for U.S. markets
- Expectations for EM markets have eroded in the face of heightened energy costs and slowing Chinese growth

Source: Bloomberg, FactSet, Goldman Sachs.  
Data as of 3/31/2022.

# GLOBAL EQUITY VALUATIONS



	MSCI USA	MSCI USA SMALL	MSCI EAFE	MSCI ACWI EX USA	MSCI ACWI EX USA SMALL	MSCI EM
<b>Current P/E (NTM)</b>	<b>20.2</b>	<b>18.5</b>	<b>13.9</b>	<b>13.3</b>	<b>13.7</b>	<b>11.9</b>
<b>Average P/E (NTM)</b>	<b>16.9</b>	<b>19.6</b>	<b>13.7</b>	<b>13.2</b>	<b>15.2</b>	<b>11.3</b>

Source: Bloomberg as of 3/31/2022. Average taken over full index history. MSCI USA- 1994 - Current; MSCI USA Small- 1994 - Current; MSCI EAFE- 2003 - Current; MSCI ACWI ex USA- 2003 - Current; MSCI ACWI ex USA Small- 1994 - Current; MSCI EM- 2003 - Current.

# EXECUTIVE SUMMARY

	Market Value 01/01/2022	Market Value 03/31/2022	% of Portfolio	1st Quarter 2022 (%)
<b>Total University Assets</b>	<b>\$87,254,985</b>	<b>\$102,270,324</b>	<b>100.0</b>	<b>-3.4</b>
<i>Total Policy Benchmark<sup>1</sup></i>				-2.1
<b>Total Operating &amp; Short Term</b>	<b>\$20,212,398</b>	<b>\$38,216,395</b>	<b>37.4</b>	<b>0.0</b>
<i>Total Operating &amp; Short Term Benchmark<sup>2</sup></i>				-0.1
<b>Total Long Term/ Reserves Pool</b>	<b>\$67,042,588</b>	<b>\$64,053,928</b>	<b>62.6</b>	<b>-4.5</b>
<i>Total Long Term/ Reserves Fund Benchmark<sup>3</sup></i>				-3.9
<b>Total Domestic Equity</b>	<b>\$21,708,578</b>	<b>\$20,582,352</b>	<b>20.1</b>	<b>-5.2</b>
<i>Russell 3000 Index</i>				-5.3
<b>Total International Equity</b>	<b>\$5,933,065</b>	<b>\$5,446,519</b>	<b>5.3</b>	<b>-8.2</b>
<i>MSCI EAFE (Net)</i>				-5.9
<b>Total Alternatives</b>	<b>\$6,992,333</b>	<b>\$6,768,529</b>	<b>6.6</b>	<b>-3.2</b>
<i>Total Alternatives Benchmark</i>				-2.6
<b>Total Fixed Income</b>	<b>\$32,390,166</b>	<b>\$31,238,082</b>	<b>30.5</b>	<b>-3.6</b>
<i>Total Fixed Income Benchmark<sup>4</sup></i>				-3.3
<b>Total Cash &amp; Cash Equivalents</b>	<b>\$18,445</b>	<b>\$18,447</b>	<b>0.0</b>	<b>0.0</b>
<i>90 Day U.S. Treasury Bill</i>				0.0

1) Total Policy Benchmark: 45% ICE BofA 91 Days T-Bills / 17% ICE BofA 1-3 Yr US Corp & Govt / 11% BBgBarc US Govt/Credit Int / 8% Total Alternatives Benchmark / 15% Russell 3000 / 4% MSCI EAFE.

2) Total Operating & Short-Term Benchmark: 95% ICE BofA 91 Days T-Bills / 5% BBgBarc US Govt 1-3 Yr.

3) Total Long-Term / Reserves Fund Benchmark: 27% Russell 3000 / 8% MSCI EAFE / 15% Total Alternatives Benchmark / 30% ICE BofA 1-3 Yr US Corp & Govt / 20% BBgBarc US Govt/Credit Int,

4) Total Alternatives Benchmark: 100% HFRI Fund of Funds Composite.

5) Total Fixed Income Benchmark: 64% ICE BofA 1-3 Yr US Corp & Govt / 36% BBgBarc US Govt/Credit Int.

# ASSET ALLOCATION GUIDELINES COMPLIANCE

Total Plan Asset Allocation Policy	Range	Current
Operating & Short-Term Pool	0% - 50%	37%
Long Term/ Reserves Pool	50% - 100%	63%

Operating & Short-Term Pool	Range	Current
Operating Assets	60% - 100%	100%
Short-Term Assets	0% - 40%	0%

Long Term/ Reserves Pool	Target	Range	Current
Domestic Equity	27%	20% - 35%	32%
International Equity	8%	0% - 15%	9%
Total Equity	35%	25% - 45%	41%
Alternatives	15%	0%-20%	11%
Short-Term Fixed Income	30%	25% - 45%	29%
Intermediate Fixed Income	20%	10% - 30%	20%
Cash & Cash Equivalents	0%	0% - 5%	0%

In Line   Within Tolerance   Review



# SCHEDULE OF ASSETS

	Ticker	Account Type	Begin Market Value \$	Market Value 03/31/2022	% of Portfolio
<b>Total University Assets</b>			<b>\$87,254,985</b>	<b>\$102,270,324</b>	<b>100.0</b>
<b>Total Operating &amp; Short Term</b>			<b>\$20,212,398</b>	<b>\$38,216,395</b>	<b>37.4</b>
Federated Hermes Government Obligations Fund		Cash	\$20,038,480	\$38,042,459	37.2
JPMorgan 100% U.S. Tr Sec MM Inst	JTSXX	Cash	\$81,798	\$81,803	0.1
Vanguard Short-Term Federal Adm	VSGDX	US Fixed Income Short Term	\$932	\$905	0.0
STAR Ohio		Cash	\$91,188	\$91,228	0.1
<b>Total Long Term/ Reserves Pool</b>			<b>\$67,042,588</b>	<b>\$64,053,928</b>	<b>62.6</b>
<b>Total Domestic Equity</b>			<b>\$21,708,578</b>	<b>\$20,582,352</b>	<b>20.1</b>
Vanguard Institutional Index	VINIX	US Stock Large Cap Core	\$14,382,478	\$13,720,303	13.4
Vanguard Mid Cap Index Adm	VIMAX	US Stock Mid Cap Core	\$3,723,998	\$3,488,562	3.4
Loomis Sayles Sm Growth N	LSSNX	US Stock Small Cap Growth	\$1,755,632	\$1,523,349	1.5
Victory Integrity Small Value Y	VSVIX	US Stock Small Cap Value	\$1,846,470	\$1,850,138	1.8
<b>Total International Equity</b>			<b>\$5,933,065</b>	<b>\$5,446,519</b>	<b>5.3</b>
William Blair International Growth I	BIGIX	International	\$2,989,358	\$2,520,242	2.5
Dodge & Cox Internat'l Stock	DODFX	International	\$2,943,706	\$2,926,277	2.9
<b>Total Alternatives</b>			<b>\$6,992,333</b>	<b>\$6,768,529</b>	<b>6.6</b>
JPMorgan Strategic Income Opps Sel	JSOSX	Absolute Return	\$1,043,408	\$1,039,270	1.0
Allspring Adv Absolute Return Instl	WABIX	All Assets	\$1,037,437	\$1,016,669	1.0
Weatherlow Offshore Fund I Ltd. CI IA		Hedge Fund	\$4,911,488	\$4,712,590	4.6
<b>Total Fixed Income</b>			<b>\$32,390,166</b>	<b>\$31,238,082</b>	<b>30.5</b>
JPMorgan Core Bond	WOBDX	US Fixed Income Core	\$5,646,341	\$5,344,155	5.2
YSU Intermediate Term Bond		US Fixed Income Core	\$4,587,827	\$4,380,909	4.3
PGIM High Yield R6	PHYQX	US Fixed Income High Yield	\$3,332,105	\$3,176,445	3.1
YSU Short Term Bond		US Fixed Income Short Term	\$12,211,944	\$11,930,080	11.7
Lord Abbett Short Duration Income I	LLDYX	US Fixed Income Short Term	\$4,666,220	\$4,549,867	4.4
DFA Five-Yr Global Fxd-Inc I	DFGBX	Global Fixed Income	\$1,945,729	\$1,856,626	1.8
<b>Total Cash &amp; Cash Equivalents</b>			<b>\$18,445</b>	<b>\$18,447</b>	<b>0.0</b>
PNC Govt MMkt	PKIXX	Cash	\$18,445	\$18,447	0.0

# ATTRIBUTION OF MARKET VALUE

## TOTAL UNIVERSITY ASSETS

	Q2-2021	Q3-2021	Q4-2021	Q1-2022	One Year
Total University Assets					
Beginning Market Value	\$73,087,043	\$75,443,318	\$75,380,975	\$87,254,985	\$73,087,043
Contributions	\$54,212	-	\$30,000,000	\$24,000,000	\$54,054,212
Distributions	-	-	-\$20,000,000	-\$6,000,000	-\$26,000,000
Net Cash Flows	\$54,212	-	\$10,000,000	\$18,000,000	\$28,054,212
Net Investment Change	\$2,302,063	-\$62,342	\$1,874,010	-\$2,984,662	\$1,129,069
Ending Market Value	\$75,443,318	\$75,380,975	\$87,254,985	\$102,270,324	\$102,270,324
Change \$	\$2,356,275	-\$62,342	\$11,874,010	\$15,015,338	\$29,183,281

## LONG-TERM POOL

	Q2-2021	Q3-2021	Q4-2021	Q1-2022	One Year
Total Long Term/ Reserves Pool					
Beginning Market Value	\$62,931,975	\$65,233,293	\$65,170,297	\$67,042,588	\$62,931,975
Contributions	-	-	-	-	-
Distributions	-	-	-	-	-
Net Cash Flows	-	-	-	-	-
Net Investment Change	\$2,301,319	-\$62,996	\$1,872,290	-\$2,988,659	\$1,121,954
Ending Market Value	\$65,233,293	\$65,170,297	\$67,042,588	\$64,053,928	\$64,053,928
Change \$	\$2,301,319	-\$62,996	\$1,872,290	-\$2,988,659	\$1,121,954

# PERFORMANCE SUMMARY

	QTD (%)	1 Yr (%)	2 Yr (%)	3 Yr (%)	5 Yr (%)	7 Yr (%)	10 Yr (%)	2021 (%)	2020 (%)	2019 (%)	Inception (%)	Inception Date
<b>Total University Assets</b>	<b>-3.4</b>	<b>2.0</b>	<b>11.6</b>	<b>6.6</b>	<b>5.7</b>	<b>4.7</b>	<b>4.4</b>	<b>7.8</b>	<b>9.5</b>	<b>11.5</b>	<b>4.2</b>	<b>Apr- 04</b>
<i>Total Policy Benchmark<sup>1</sup></i>	<i>-2.1</i>	<i>1.0</i>	<i>6.4</i>	<i>4.2</i>	<i>4.0</i>	<i>3.3</i>	<i>3.1</i>	<i>4.3</i>	<i>5.9</i>	<i>8.7</i>	<i>3.2</i>	
<b>Total Operating &amp; Short Term</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>1.0</b>	<b>1.2</b>	<b>0.9</b>	<b>0.6</b>	<b>0.0</b>	<b>1.1</b>	<b>2.4</b>	<b>0.6</b>	<b>Jul- 10</b>
<i>Total Operating &amp; Short Term Benchmark<sup>2</sup></i>	<i>-0.1</i>	<i>-0.1</i>	<i>0.0</i>	<i>0.8</i>	<i>1.1</i>	<i>0.9</i>	<i>0.6</i>	<i>0.0</i>	<i>0.8</i>	<i>2.3</i>	<i>0.6</i>	
<b>Total Long Term/ Reserves Pool</b>	<b>-4.5</b>	<b>1.8</b>	<b>13.3</b>	<b>7.1</b>	<b>6.3</b>	<b>5.4</b>	<b>5.5</b>	<b>9.5</b>	<b>8.8</b>	<b>15.3</b>	<b>5.5</b>	<b>Jul- 10</b>
<i>Total Long Term/ Reserves Fund Benchmark<sup>3</sup></i>	<i>-3.9</i>	<i>1.8</i>	<i>11.9</i>	<i>7.0</i>	<i>6.2</i>	<i>5.3</i>	<i>5.2</i>	<i>8.0</i>	<i>10.0</i>	<i>14.2</i>	<i>5.1</i>	
<b>Total Domestic Equity</b>	<b>-5.2</b>	<b>11.8</b>	<b>35.7</b>	<b>17.7</b>	<b>15.0</b>	<b>13.0</b>	<b>14.0</b>	<b>26.9</b>	<b>18.5</b>	<b>30.4</b>	<b>15.2</b>	<b>Jul- 10</b>
<i>Russell 3000 Index</i>	<i>-5.3</i>	<i>11.9</i>	<i>34.9</i>	<i>18.2</i>	<i>15.4</i>	<i>13.4</i>	<i>14.3</i>	<i>25.7</i>	<i>20.9</i>	<i>31.0</i>	<i>15.4</i>	
<b>Total International Equity</b>	<b>-8.2</b>	<b>-1.8</b>	<b>25.5</b>	<b>10.2</b>	<b>7.5</b>	<b>5.3</b>	<b>6.9</b>	<b>10.0</b>	<b>16.7</b>	<b>26.7</b>	<b>5.8</b>	<b>Oct- 10</b>
<i>MSCI EAFE (Net)</i>	<i>-5.9</i>	<i>1.2</i>	<i>20.9</i>	<i>7.8</i>	<i>6.7</i>	<i>5.1</i>	<i>6.3</i>	<i>11.3</i>	<i>7.8</i>	<i>22.0</i>	<i>5.8</i>	
<b>Total Alternatives</b>	<b>-3.2</b>	<b>-2.8</b>	<b>9.1</b>	<b>1.4</b>	<b>2.1</b>	<b>1.8</b>	<b>-</b>	<b>5.3</b>	<b>-3.7</b>	<b>14.3</b>	<b>1.6</b>	<b>Mar- 15</b>
<i>Total Alternatives Benchmark<sup>4</sup></i>	<i>-2.6</i>	<i>1.3</i>	<i>12.5</i>	<i>4.4</i>	<i>4.3</i>	<i>3.1</i>	<i>-</i>	<i>6.2</i>	<i>5.4</i>	<i>11.7</i>	<i>3.1</i>	
<b>Total Fixed Income</b>	<b>-3.6</b>	<b>-2.8</b>	<b>1.1</b>	<b>1.9</b>	<b>2.1</b>	<b>1.8</b>	<b>1.8</b>	<b>0.1</b>	<b>5.2</b>	<b>6.6</b>	<b>2.1</b>	<b>Jul- 10</b>
<i>Total Fixed Income Benchmark<sup>5</sup></i>	<i>-3.3</i>	<i>-3.4</i>	<i>-0.8</i>	<i>1.2</i>	<i>1.5</i>	<i>1.3</i>	<i>1.4</i>	<i>-0.8</i>	<i>4.5</i>	<i>5.0</i>	<i>1.6</i>	
<b>Total Cash &amp; Cash Equivalents</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0</b>	<b>0.4</b>	<b>1.5</b>	<b>0.7</b>	<b>Apr- 18</b>
<i>90 Day U.S. Treasury Bill</i>	<i>0.0</i>	<i>0.1</i>	<i>0.1</i>	<i>0.8</i>	<i>1.1</i>	<i>0.9</i>	<i>0.6</i>	<i>0.0</i>	<i>0.7</i>	<i>2.3</i>	<i>1.1</i>	

1) Total Policy Benchmark: 45% ICE BofA 91 Days T-Bills / 17% ICE BofA 1-3 Yr US Corp & Govt / 11% BBgBarc US Govt/Credit Int / 8% Total Alternatives Benchmark / 15% Russell 3000 / 4% MSCI EAFE.

2) Total Operating & Short-Term Benchmark: 95% ICE BofA 91 Days T-Bills / 5% BBgBarc US Govt 1-3 Yr.

3) Total Long-Term / Reserves Fund Benchmark: 27% Russell 3000 / 8% MSCI EAFE / 15% Total Alternatives Benchmark / 30% ICE BofA 1-3 Yr US Corp & Govt / 20% BBgBarc US Govt/Credit Int.

4) Total Alternatives Benchmark: 100% HFRI Fund of Funds Composite.

5) Total Fixed Income Benchmark: 64% ICE BofA 1-3 Yr US Corp & Govt / 36% BBgBarc US Govt/Credit Int.

# PERFORMANCE REPORT CARD

	% of Portfolio	QTD (%)	1 Yr (%)	2 Yr (%)	3 Yr (%)	5 Yr (%)	7 Yr (%)	10 Yr (%)	2021 (%)	2020 (%)	2019 (%)	Inception (%)	Inception Date
<b>Total University Assets</b>	<b>100.0</b>	<b>-3.4</b>	<b>2.0</b>	<b>11.6</b>	<b>6.6</b>	<b>5.7</b>	<b>4.7</b>	<b>4.4</b>	<b>7.8</b>	<b>9.5</b>	<b>11.5</b>	<b>4.2</b>	<b>Apr-04</b>
<i>Total Policy Benchmark</i>		-2.1	1.0	6.4	4.2	4.0	3.3	3.1	4.3	5.9	6.7	3.2	
<b>Total Operating &amp; Short Term</b>	<b>37.4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.2</b>	<b>1.0</b>	<b>1.2</b>	<b>0.9</b>	<b>0.6</b>	<b>0.0</b>	<b>1.1</b>	<b>2.4</b>	<b>0.6</b>	<b>Jul-10</b>
<i>Total Operating &amp; Short Term Benchmark</i>		-0.1	-0.1	0.0	0.8	1.1	0.9	0.6	0.0	0.8	2.3	0.6	
Federated Hermes Government Obligations Fund	37.2	0.0	0.0	0.0	0.5	0.8	0.6	0.4	0.0	0.3	1.8	0.0	Nov-21
<i>90 Day U.S. Treasury Bill</i>		0.0	0.1	0.1	0.8	1.1	0.9	0.6	0.0	0.7	2.3	0.1	
JPMorgan 100% U.S. Tr Sec MM Inst	0.1	0.0	0.0	0.0	0.6	0.9	0.7	0.5	0.0	0.3	2.0	0.5	Oct-11
<i>90 Day U.S. Treasury Bill</i>		0.0	0.1	0.1	0.8	1.1	0.9	0.6	0.0	0.7	2.3	0.6	
Vanguard Short-Term Federal Adm	0.0	-2.9	-3.2	-0.8	1.3	1.4	1.2	1.2	-0.5	4.5	4.2	1.2	Oct-10
<i>Blmbg. 1-5 Year Government</i>		-3.4	-4.0	-2.0	0.9	1.1	1.0	1.0	-1.2	4.3	4.2	1.1	
STAR Ohio	0.1	0.0	0.1	0.2	0.9	-	-	-	0.1	0.7	2.3	1.1	Jul-18
<i>90 Day U.S. Treasury Bill</i>		0.0	0.1	0.1	0.8	1.1	0.9	0.6	0.0	0.7	2.3	1.1	
<b>Total Long Term/ Reserves Pool</b>	<b>62.6</b>	<b>-4.5</b>	<b>1.8</b>	<b>13.3</b>	<b>7.1</b>	<b>6.3</b>	<b>5.4</b>	<b>5.5</b>	<b>9.5</b>	<b>8.8</b>	<b>15.3</b>	<b>5.5</b>	<b>Jul-10</b>
<i>Total Long Term/ Reserves Fund Benchmark</i>		-3.9	1.8	11.9	7.0	6.2	5.3	5.2	8.0	10.0	14.2	5.1	
<b>Total Domestic Equity</b>	<b>20.1</b>	<b>-5.2</b>	<b>11.8</b>	<b>35.7</b>	<b>17.7</b>	<b>15.0</b>	<b>13.0</b>	<b>14.0</b>	<b>26.9</b>	<b>18.5</b>	<b>30.4</b>	<b>15.2</b>	<b>Jul-10</b>
<i>Russell 3000 Index</i>		-5.3	11.9	34.9	18.2	15.4	13.4	14.3	25.7	20.9	31.0	15.4	
Vanguard Institutional Index	13.4	-4.6	15.6	34.4	18.9	16.0	14.0	14.6	28.7	18.4	31.5	15.7	Jul-10
<i>S&amp;P 500 Index</i>		-4.6	15.6	34.5	18.9	16.0	14.0	14.6	28.7	18.4	31.5	15.7	
Vanguard Mid Cap Index Adm	3.4	-6.3	8.8	36.3	15.7	13.0	10.9	12.9	24.5	18.2	31.0	13.4	Oct-10
<i>Vanguard Mid Cap Index Benchmark</i>		-6.3	8.9	36.3	15.7	13.0	10.9	13.0	24.5	18.2	31.1	13.5	
Loomis Sayles Sm Growth N	1.5	-13.2	-7.1	30.0	12.2	13.9	11.1	12.6	10.2	34.3	26.7	12.5	Sep-19
<i>Russell 2000 Growth Index</i>		-12.6	-14.3	27.7	9.9	10.3	8.5	11.2	2.8	34.6	28.5	11.9	
Victory Integrity Small Value Y	1.8	0.2	9.2	50.8	14.1	8.6	7.9	10.8	33.6	1.2	23.1	11.5	Oct-10
<i>Russell 2000 Value Index</i>		-2.4	3.3	42.7	12.7	8.6	8.8	10.5	28.3	4.6	22.4	11.0	
<b>Total International Equity</b>	<b>5.3</b>	<b>-8.2</b>	<b>-1.8</b>	<b>25.5</b>	<b>10.2</b>	<b>7.5</b>	<b>5.3</b>	<b>6.9</b>	<b>10.0</b>	<b>16.7</b>	<b>26.7</b>	<b>5.8</b>	<b>Oct-10</b>
<i>MSCI EAFE (Net)</i>		-5.9	1.2	20.9	7.8	6.7	5.1	6.3	11.3	7.8	22.0	5.8	
<i>MSCI AC World ex USA (Net)</i>		-5.4	-1.5	21.3	7.5	6.8	5.2	5.6	7.8	10.7	21.5	5.1	
William Blair International Growth I	2.5	-15.7	-6.9	23.0	11.7	9.5	6.5	7.5	9.0	32.0	30.7	8.4	Jul-12
<i>MSCI AC World ex USA (Net)</i>		-5.4	-1.5	21.3	7.5	6.8	5.2	5.6	7.8	10.7	21.5	6.6	
Dodge & Cox Internat'l Stock	2.9	-0.6	3.0	27.3	8.0	5.2	3.8	6.2	11.0	2.1	22.8	5.6	Oct-10
<i>MSCI EAFE (Net)</i>		-5.9	1.2	20.9	7.8	6.7	5.1	6.3	11.3	7.8	22.0	5.8	

# PERFORMANCE REPORT CARD

	% of Portfolio	QTD (%)	1 Yr (%)	2 Yr (%)	3 Yr (%)	5 Yr (%)	7 Yr (%)	10 Yr (%)	2021 (%)	2020 (%)	2019 (%)	Inception (%)	Inception Date
<b>Total Alternatives</b>	<b>6.6</b>	<b>-3.2</b>	<b>-2.8</b>	<b>9.1</b>	<b>1.4</b>	<b>2.1</b>	<b>1.8</b>	<b>-</b>	<b>5.3</b>	<b>-3.7</b>	<b>14.3</b>	<b>1.6</b>	<b>Mar-15</b>
<i>Total Alternatives Benchmark</i>		-2.6	1.3	12.5	4.4	4.3	3.1	-	6.2	5.4	11.7	3.1	
JPMorgan Strategic Income Opps Sel	1.0	-0.4	0.0	2.8	1.2	1.7	2.2	2.5	0.6	1.6	4.0	1.2	Oct-18
<i>Blmbg. U.S. Universal Index</i>		-6.1	-4.2	-0.7	1.9	2.3	2.2	2.6	-1.1	7.6	9.3	2.9	
Allspring Adv Absolute Return Instl	1.0	-2.0	-4.0	7.8	1.0	2.0	1.6	2.7	2.6	-2.9	11.2	1.3	Mar-15
<i>HFRI Fund of Funds Composite Index</i>		-2.6	1.3	12.1	5.9	4.6	3.3	3.9	6.2	10.9	8.4	3.4	
Weatherlow Offshore Fund I Ltd. CI IA	4.6	-4.0	-1.7	15.7	10.5	7.7	5.4	6.4	5.6	24.7	13.6	-5.8	Jul-21
<i>HFRI Fund of Funds Composite Index</i>		-2.6	1.3	12.1	5.9	4.6	3.3	3.9	6.2	10.9	8.4	-1.5	
<b>Total Fixed Income</b>	<b>30.5</b>	<b>-3.6</b>	<b>-2.8</b>	<b>1.1</b>	<b>1.9</b>	<b>2.1</b>	<b>1.8</b>	<b>1.8</b>	<b>0.1</b>	<b>5.2</b>	<b>6.6</b>	<b>2.1</b>	<b>Jul-10</b>
<i>Total Fixed Income Benchmark</i>		-3.3	-3.4	-0.8	1.2	1.5	1.3	1.4	-0.8	4.5	5.0	1.6	
JPMorgan Core Bond	5.2	-5.3	-3.6	-0.6	2.1	2.5	2.1	2.4	-1.1	8.1	8.3	2.0	Sep-17
<i>Blmbg. U.S. Aggregate Index</i>		-5.9	-4.2	-1.8	1.7	2.1	1.9	2.2	-1.5	7.5	8.7	1.7	
YSU Intermediate Term Bond	4.3	-4.5	-4.0	-0.4	1.9	2.1	1.8	2.0	-1.3	7.5	7.2	3.3	Apr-04
<i>Blmbg. Intermed. U.S. Government/Credit</i>		-4.5	-4.1	-1.1	1.5	1.8	1.6	1.8	-1.4	6.4	6.8	3.0	
PGIM High Yield R6	3.1	-4.7	0.0	11.8	5.2	5.3	5.5	6.0	6.5	5.7	16.3	5.5	Jan-17
<i>Blmbg. U.S. Corp: High Yield Index</i>		-4.8	-0.7	10.9	4.6	4.7	5.0	5.7	5.3	7.1	14.3	5.0	
YSU Short Term Bond	11.7	-2.3	-2.7	-0.2	1.3	1.5	1.3	1.2	-0.4	3.7	4.3	2.3	Apr-04
<i>ICE BofA 1-3 Yr. Gov/Corp</i>		-2.6	-3.0	-0.7	1.0	1.3	1.2	1.1	-0.4	3.3	4.1	2.1	
Lord Abbett Short Duration Income I	4.4	-2.5	-1.8	3.7	1.7	2.1	2.1	2.4	1.1	3.2	5.6	2.2	Apr-18
<i>ICE BofA 1-3 Yr. Gov/Corp</i>		-2.6	-3.0	-0.7	1.0	1.3	1.2	1.1	-0.4	3.3	4.1	1.5	
DFA Five-Yr Global Fxd-Inc I	1.8	-4.6	-5.6	-2.2	-0.6	0.5	0.7	1.2	-1.0	1.5	4.0	1.2	Jul-13
<i>FTSE World Government Bond Index 1-5 (Hedged)</i>		-2.4	-2.8	-1.1	0.9	1.3	1.3	1.4	-0.8	3.2	3.9	1.4	
<b>Total Cash &amp; Cash Equivalents</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0</b>	<b>0.4</b>	<b>1.5</b>	<b>0.7</b>	<b>Apr-18</b>
<i>90 Day U.S. Treasury Bill</i>		0.0	0.1	0.1	0.8	1.1	0.9	0.6	0.0	0.7	2.3	1.1	
PNC Govt MMkt	0.0	0.0	0.0	0.1	0.7	-	-	-	0.0	0.4	2.0	-	Apr-18
<i>90 Day U.S. Treasury Bill</i>		0.0	0.1	0.1	0.8	1.1	0.9	0.6	0.0	0.7	2.3	1.1	

1) Total Policy Benchmark: 45% ICE BofA 91 Days T-Bills / 17% ICE BofA 1-3 Yr US Corp & Govt / 11% BBgBarc US Govt/Credit Int / 8% Total Alternatives Benchmark / 15% Russell 3000 / 4% MSCI EAFE.  
 2) Total Operating & Short-Term Benchmark: 95% ICE BofA 91 Days T-Bills / 5% BBgBarc US Govt 1-3 Yr.  
 3) Total Long-Term / Reserves Fund Benchmark: 27% Russell 3000 / 8% MSCI EAFE / 15% Total Alternatives Benchmark / 30% ICE BofA 1-3 Yr US Corp & Govt / 20% BBgBarc US Govt/Credit Int.  
 4) Total Alternatives Benchmark: 100% HFRI Fund of Funds Composite.  
 5) Total Fixed Income Benchmark: 64% ICE BofA 1-3 Yr US Corp & Govt / 36% BBgBarc US Govt/Credit Int.



## **DEFINITIONS & DISCLOSURES**

# DEFINITIONS & DISCLOSURES

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Past performance is no guarantee of future results. Investing involves risk, including risk of loss. Diversification does not ensure a profit or guarantee against loss. All indices are unmanaged and performance of the indices includes reinvestment of dividends and interest income, unless otherwise noted. An investment cannot be made in any index.

Although bonds generally present less short-term risk and volatility than stocks, bonds do contain interest rate risk as interest rates rise, bond prices usually fall and vice versa and the risk of default, or the risk that an issuer will be unable to make income or principal payments. Additionally, bonds and short-term investments entail greater inflation risk, or the risk that the return of an investment will not keep up with increases in the prices of goods and services, than stocks.

Lower quality debt securities generally offer higher yields, but also involve greater risk of default or price changes due to potential changes in the credit quality of the issuer. Any fees on other security sold in redeeming prior to maturity may be subject to loss.

The municipal market is volatile and can be significantly affected by adverse tax, legislative, or political changes and by the financial condition of the issuers of municipal securities. Interest rate increases can cause the price of a debt security to decrease. A portion of the dividends you receive may be subject to federal, state, or local income tax or may be subject to the federal alternative minimum tax. Generally, tax exempt municipal securities are not appropriate holdings for tax advantaged accounts such as IRAs and 401(k)s.

Stock markets, especially foreign markets, are volatile and can decline significantly in response to adverse issuer, political, regulatory, market, or economic developments. Foreign securities are subject to interest rate, currency exchange rate, economic, and political risks, all of which are magnified in emerging markets. The securities of smaller, less well-known companies can be more volatile than those of larger companies as they can perform differently from the market as a whole and other types of stocks and can be more volatile than other types of stocks. Value stocks can perform differently than other types of stocks and can continue to be undervalued by the market for long periods of time.

The commodities industry can be significantly affected by commodity prices, world events, import controls, worldwide competition, government regulations, and economic conditions. Changes in real estate values or economic conditions can have a positive or negative effect on issuers in the real estate industry, which may affect your investment.

## Index Definitions

The **S&P 500 Index** is a broad based market index, comprised of 500 large cap companies, generally considered representative of the stock market as a whole. The **S&P 400 Index** is an unmanaged index considered representative of mid-size U.S. companies. The **S&P 600 Index** is a market value weighted index that consists of 600 small-cap U.S. stocks chosen for market size, liquidity and industry group representation.

The **Russell 1000 Value Index**, **Russell 1000 Index** and **Russell 2000 Growth Index** are indices that measure the performance of the large capitalization value stocks, large capitalization stocks and large capitalization growth stocks, respectively. The **Russell 2000 Value Index**, **Russell 2000 Index** and **Russell 2000 Growth Index** are indices that measure the performance of small-capitalization value stocks, small-capitalization stocks and small-capitalization growth stocks, respectively. The **Russell MidCap Value Index**, **Russell MidCap Index** and **Russell MidCap Growth Index** are indices that measure the performance of mid-capitalization value stocks, mid-capitalization stocks and mid-capitalization growth stocks, respectively. The **Russell 2500 Value Index**, **Russell 2500 Index** and **Russell 2500 Growth Index** measure the performance of small to mid cap value stocks, small to mid cap stocks and small to mid cap growth stocks, respectively, commonly referred to as "mid" cap. The **Russell 3000 Value Index**, **Russell 3000 Index** and **Russell 3000 Growth Index** measure the performance of the 3,000 largest U.S. value stocks, 3,000 largest U.S. stocks and 3,000 largest U.S. growth stocks, respectively, based on total market capitalization.

The **Wilshire 5000 Index** represents the broadest index for the U.S. equity market, measuring the performance of all U.S. equity securities with publicly available price data. The **Wilshire Micro Cap Index** is a market capitalization-weighted index that tracks all stocks in the Wilshire 5000 Index below the 250 million market cap.

The **MSCI EAFE (Europe, Australasia, Far East) Index** is designed to measure developed market equity performance, excluding the U.S. and Canada. The **MSCI Emerging Markets (EM) Index** is designed to measure global emerging market equity performance. The **MSCI World Index** is designed to measure global developed market equity performance. The **MSCI World Index Ex-U.S. Index** is designed to measure the equity market performance of developed markets and excludes the U.S. The **MSCI Europe Index** is an unmanaged index (considered representative of developed European countries). The **MSCI Japan Index** is an unmanaged index considered representative of stocks of Japan. The **MSCI Pacific ex Japan Index** is an unmanaged index considered representative of stocks of Asia Pacific countries excluding Japan.

The **U.S. 10 Year Treasury Yield** is generally considered to be a barometer for long term interest rates.

**Merrill Lynch 91-day T-Bill Index** includes U.S. Treasury bills with a remaining maturity from 1 to 90 days.

The **Barclays Capital (BC) U.S. Treasury Index** is designed to cover public obligations of the U.S. Treasury with a remaining maturity of one year or more. The **BC Aggregate Bond Index** is an unmanaged, market value-weighted performance benchmark for investment grade fixed rate debt issues, including government, corporate, asset backed, and mortgage backed securities with maturities of at least one year. The **BC U.S. Credit Bond Index** is designed to cover publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements; bonds must be SEC registered to qualify. The **BC U.S. Agency Index** is designed to cover publicly issued debt of U.S. Government agencies, quasi federal corporations, and corporate or foreign debt guaranteed by the U.S. Government. The **BC CMBS Index** is designed to mirror commercial mortgage backed securities that investment grade quality (AAA/BBB/BBB- or above) using Moody's, S&P, and Fitch, respectively, with maturity of at least one year. The **BC MBS Index** covers agency mortgage-backed pass-through securities (both fixed rate and hybrid ARMs) issued by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The **BC U.S. Municipal Bond Index** covers the U.S. dollar-denominated, single-tier tax-exempt bond market with four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The **BC TIPS Index** is an unmanaged market index made up of Treasury Inflation Linked Index securities. The **BC U.S. Government Bond Index** is a market value-weighted index of U.S. Government fixed-rate debt issues with maturities of one year or more. The **BC ABS Index** is a market value-weighted index that covers fixed-rate asset backed securities with average lives greater than or equal to one year and that are part of a public debt; the index covers the following collateral types: credit cards, auto, home equity loans, and manufactured housing. The **BC Global Aggregate Index** is a composite of three sub-indices: the U.S. Aggregate Index, Euro European Aggregate Index, and the Asian Pacific Aggregate Index. In aggregate the index is created to be a broad-based measure of the performance of investment grade fixed rate debt on a global scale. The **BC US Corporate Long AA Index** is an unmanaged index representing index ratings of U.S. corporate and specified foreign debentures and secured notes with a remaining maturity of 10 years or more. The **BC U.S. Corporate High-Yield Index** measures the market of USD denominated, non-investment grade fixed-rate, taxable, corporate bonds. The **BC Intermediate Corporate Index** includes dollar-denominated debt from U.S. and non-U.S. industrial, utility, and financial institutions (with a duration of 1 to 10 years). The **BC U.S. Treasury Long Index** is an unmanaged index representing public obligations of the U.S. Treasury with a remaining maturity of one year or more. The **BC U.S. Government 10 Year Treasury Index** measures the performance of U.S. Treasury securities that have a remaining maturity of less than 15 years. The **BC BAA Corporate Index** measures the performance of the broader fixed-rate fixed-rate U.S. dollar-denominated corporate bond market. The **BC Global Treasury ex US Index** includes government bonds issued by monthly and quarterly countries outside the United States, in local currencies, that have a remaining maturity of one year or more and are rated investment grade or higher. The **BC Emerging Market Bond Index** is an unmanaged index that consists of all emerging market instruments of the emerging markets. The **BC U.S. Securitized Bond Index** is a composite of asset-backed securities, collateralized mortgage-backed securities (CMBS) and fixed rate mortgage-backed securities. The **BC Quality Distribution AAA, B, and CC-D Indices** measure the respective credit qualities of U.S. corporate and specified foreign debentures and secured notes. The **BC Bond Index** measures the amount of the U.S. Aggregate Index, the U.S. High Yield Corporate Index, the AAA Index, the Eurozone Index, the Emerging Markets Index, and the non-EMBA portion of the EMBA Index. The **BC 1-3 Year Government Credit Index** is an unmanaged index considered representative of performance of short-term U.S. corporate bonds and U.S. government bonds with maturities from one to three years. The **BC Long-Term Government Index** is an unmanaged index reflecting performance of the long-term government bond market. The **BC Intermediate Aggregate Index** measures the performance of 1000 individual-trust, unimproved public bonds. The **BC Intermediate 1-3 Year Government Credit Index** measures the performance of U.S. dollar-denominated U.S. Industries, government-related and investment grade U.S. corporate securities that have a remaining maturity of one year or more.

The **Bank of America ML US High Yield Index** tracks the performance of debt investment grade US Dollar Denominated corporate bonds publicly issued in the US market. Qualifying bonds have at least one year remaining term to maturity, are fixed coupon schedule and minimum outstanding of \$100 million.

The **HFRI Funds of Funds Index (HFRI FOF)** is an equal weighted index designed to measure the performance of hedge fund of fund managers. The more than 800 multi-strategy constructs are required to have at least \$50 million in assets under management and a trading track record spanning at least 12 months. The index includes both on and offshore funds and all returns are reported in USD.

The **NCREIF Property Index (NPI)** represents quarterly time series composite total rate of return measure of a very large pool of individual commercial real estate properties acquired in the private market. The index represents apartments, hotels, industrial properties, office buildings and retail properties which are at least 60% occupied and owned or controlled, at least in part by tax exempt institutional investors or its designated agent. In addition, those properties that are included must be investment grade, non-agricultural and income producing and all development projects are excluded. Constructively included in the NPI are properties, either internally or externally, using standard commercial real estate appraisal methodology. Each property must be independently appraised a minimum of once every three years.

The **FISV NAREIT All REITs Index** is a market capitalization-weighted index that is designed to measure the performance of all tax-qualified Real Estate Investment Trusts (REITs) that are listed on the New York Stock Exchange, the American Stock Exchange, or the NASDAQ National Market List.

The **Dow Jones U.S. Select Real Estate Securities Index** is a float-adjusted market capitalization-weighted index of publicly traded real estate securities such as real estate investment trusts (REITs) and real estate operating companies (REOCs).

The **Cambridge PE Index** is a representation of returns for over 70% of the total dollars raised by U.S. leveraged buyout, subordinated debt and special situation managers from 1986 to December 2007. Returns are calculated based on the post-ipo time-weighted return and are net of all fees. These pooled means represent the end to end rate of return calculated on the aggregate of all cash flows and market values reported by the general partners of the underlying constructs in the quarterly and annual reports.

The **University of Michigan Consumer Sentiment Index** is a consumer confidence index published monthly by the University of Michigan and Thomson Reuters. The index is normalized to have a value of 100 in December 1964.

**VIX** - The CBOE Volatility Index (VIX) is based on the prices of eight S&P 500 index put and call options.

**Gold** - represented by the dollar spot price of one Troy ounce.

**WTI Crude** - West Texas Intermediate is a grade of crude oil traded as a benchmark oil pricing.

The **Affordability Index** measures a population's ability to afford to purchase a particular item, such as a house, indexed to the population's income.

The **Homeownership %** is computed by dividing the number of owner-occupied housing units by the number of occupied housing units or households.

**HFRI Emerging Markets: Asia ex Japan, Global Index, Latin America Index, Russia/Eastern Europe Index** - The sub-indices of the HFRI Emerging Markets Index are selected according to their Regional Investment Association. There is no investment strategy criteria for inclusion in these indices. Funds classified as Emerging Markets have a regional investment focus in one of the following geographic areas: Asia ex Japan, Russia/Eastern Europe, Latin America, Africa or the Middle East. **HFRI EH: Energy/Basis Materials** strategies which employ investment processes designed to identify opportunities in securities in specific geographic areas of the world. The manager maintains a level of expertise which enables that of a market generalist, understands asset classes or companies engaged in development, production and application of technology, biotechnology and/or related to production of pharmaceuticals and healthcare industry.

**HFRI EH: Diversified Restructuring** strategies which employ an investment process focused on opportunities in equity and equity related securities of companies which are currently engaged in a corporate transaction. **HFRI ED: Private Issue/Regulation D** strategies which employ an investment process in private or restricted public securities of companies which are generally private and illiquid in nature. **HFRI Macro: Systematic Diversified** strategies that incorporate a systematic approach to investment in a wide range of macroeconomic, algorithmic, and technical markets, with the goal of outperforming individual over the period of positioning. **HFRI RV: Fixed Income - Asset Backed** includes strategies in which the investment thesis is predicated on realization of a spread between related structured instruments in which one or multiple components of the spread is a subprime fixed income instrument.

**HFRI RV: Fixed Income - Corporate** includes strategies in which the investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread include a fixed income, dividend-paying, real estate, MLP or combination of these other instruments. **HFRI RV: Yield Alternatives** strategies employ all investment thesis is predicated on realization of a spread between related instruments which are generally private and illiquid in nature. **HFRI Macro: Systematic Diversified** strategies that incorporate a systematic approach to investment in a wide range of macroeconomic, algorithmic, and technical markets, with the goal of outperforming individual over the period of positioning. **HFRI RV: Fixed Income - Asset Backed** includes strategies in which the investment thesis is predicated on realization of a spread between related structured instruments in which one or multiple components of the spread is a subprime fixed income instrument.

**HFRI RV: Fixed Income - Corporate** includes strategies in which the investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread include a fixed income, dividend-paying, real estate, MLP or combination of these other instruments. **HFRI RV: Yield Alternatives** strategies employ all investment thesis is predicated on realization of a spread between related instruments which are generally private and illiquid in nature. **HFRI Macro: Systematic Diversified** strategies that incorporate a systematic approach to investment in a wide range of macroeconomic, algorithmic, and technical markets, with the goal of outperforming individual over the period of positioning. **HFRI RV: Fixed Income - Asset Backed** includes strategies in which the investment thesis is predicated on realization of a spread between related structured instruments in which one or multiple components of the spread is a subprime fixed income instrument.

The **Consumer Price Index (CPI)** is an inflationary indicator that measures the change in the cost of a fixed basket of products and services, including housing, electricity, food and transportation. The CPI is published monthly. Unless otherwise noted, the CPI figure is as of the date this report is created. The **Credit Suisse Leveraged Loan Index** is a market value-weighted index designed to represent the investable universe of the U.S. dollar-denominated leveraged loan market.

The **Dow Jones UBS Commodity Index** measures the performance of all commodities market. It consists of exchange traded futures contracts on physical commodities that are weighted to account for the economic significance and market liquidity of each commodity. The **S&P 500 Value Index**, **Russell 1000 Value Index**, **Russell 2000 Value Index** and **S&P 500 Growth Index** are indices that measure the performance of mid-size value companies, mid-size companies and mid-size growth companies, respectively. The **S&P 600 SmallCap Value Index** is a market value-weighted index that consists of 600 small cap U.S. stocks chosen for market size, liquidity and industry group representation. The **S&P 900 Index** consists of the large cap S&P 500 and the S&P MidCap with S&P Completion Index TR is a sub-index of the S&P Total Market Index (TMI) including all stocks eligible for the S&P 1300 and excluding all current constituents of the S&P 500. **S&P Global Ex US Property Index** defines and measures the investable universe of publicly traded property companies located in developed and emerging markets excluding the US.

The **Russell 1000 Value Index**, **Russell 1000 Index** and **Russell 2000 Growth Index** are indices that measure the performance of large capitalization value stocks, large capitalization stocks and large value growth stocks, respectively. The **Russell 2000 Value Index**, **Russell 2000 Index** and **Russell 2000 Growth Index** are indices that measure the performance of small-capitalization value stocks, small-capitalization stocks and small-capitalization growth stocks, respectively. The **Russell MidCap Value Index**, **Russell MidCap Index** and **Russell MidCap Growth Index** are indices that measure the performance of mid-capitalization value stocks, mid-capitalization stocks and mid-capitalization growth stocks, respectively. The **Russell 2500 Value Index**, **Russell 2500 Index** and **Russell 2500 Growth Index** measure the performance of small to mid cap value stocks, small to mid cap stocks and small to mid cap growth stocks, respectively, commonly referred to as "mid" cap. The **Russell 3000 Value Index**, **Russell 3000 Index** and **Russell 3000 Growth Index** measure the performance of the 3,000 largest U.S. value stocks, 3,000 largest U.S. stocks and 3,000 largest U.S. growth stocks, respectively, based on total market capitalization. The **Russell Microcap Index** measures the performance of the microcap segment of the U.S. equity market. The **Russell Top 200 Value Index** measures the performance of the twenty largest value companies with the highest 20% by market cap that are value characteristics. The **Russell Developed ex-US Large Cap Index** measures the performance of the largest 100 value stocks in developed countries globally, excluding companies located in the United States.

# DEFINITIONS & DISCLOSURES

The **Wilshire 5000 Index** represents the total return for the U.S. equity market, including the performance of all U.S. equity securities with readily available price data. The **Wilshire Micro Cap Index** is market capitalization weighted index comprised of all stocks in the Wilshire 5000 index below the 250 million. The **Wilshire 4500 Index** is comprised of all stocks in the Wilshire 5000 minus the stocks in the S&P 500. The **Wilshire Real Estate Securities Index (RESI)** is comprised of publicly traded real estate equity securities.

All MSCI indices are gross, defined as Wilshire (Dewar), Gross (total return) index minus an amount equal to the sum of a company's deferred distributions. The respective amounts equal the total amount distributed to common holders in the country of the dividend-paying company. Gross returns include dividends, however, do not include interest. The **MSCI EAFE (Europe, Australasia, Far East) Gross Index** is designed to measure developed market equity performance, including the U.S. and Canada. The **MSCI Emerging Markets (EM) Gross Index** is designed to measure global emerging market equity performance. The **MSCI World Gross Index** is designed to measure global developed market equity performance. The **MSCI World Index** is an unmanaged index comprised representative of stocks of Japan. The **MSCI Pacific Ex-U.S. Gross Index** is designed to measure the equity market performance of developed markets in Latin America. The **MSCI Japan Gross Index** is an unmanaged index comprised representative of developed European equities. The **MSCI Japan Index** is an unmanaged index comprised representative of stocks of Japan. The **MSCI Pacific ex-U.S. Gross Index** is an unmanaged index comprised representative of all developed markets in the Pacific region excluding Japan. The **MSCI AC (All Country) Asia ex Japan Gross Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets, excluding U.S. The **MSCI ACWI ex US Small Cap Growth Gross Index** is a market capitalization weighted total return index measured in U.S. dollars based on share prices and reinvested dividends that is designed to measure the equity market performance of the small cap growth segments of developed and emerging markets, excluding the U.S. The **MSCI Canada Gross Index** is designed to measure the performance of the large and midcap segments of the Canada market. The **MSCI EAFE Small Cap Gross Index** measures the performance of small cap stocks in European, Australian, and Far Eastern markets. The **MSCI EAFE Value Gross Index** is a market capitalization weighted index that monitors the performance of value stocks from Europe, Australasia, and the Far East. The **MSCI EM Latin America Gross Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of emerging markets in Latin America. The **MSCI Pacific Free ex Japan Gross Index** measures the performance of the Australian, Hong Kong, New Zealand, and Singapore equity markets. The **MSCI World Small Cap Gross Index** is designed to measure the equity market performance of the small cap segment of developed markets. The **MSCI US Small Cap 1750 Gross Index** represents the universe of small capitalization companies in the U.S. equity market. The **MSCI US Mid Cap 450 Index** represents the universe of medium capitalization companies in the U.S. equity market. The **MSCI US Mid Cap Value Index** represents the value component of the MSCI US Mid Cap 450 index. The **MSCI US Prime Market 750 Index** represents the universe of large and medium capitalization companies in the U.S. equity market. The **MSCI US Prime Market Value Index** represents the value component of the MSCI US Prime Market 750 Index. The **MSCI US Prime Market Growth Index** represents the growth component of the MSCI US Prime Market 750 Index.

The **Barclays Capital (BC) U.S. Treasury Index** is designed to cover public obligations of the U.S. Treasury with a remaining maturity of one year or more. The **BC Aggregate Bond Index** is an unmanaged, market value-weighted performance benchmark for investment-grade fixed rate debt issues, including government, corporate, asset backed and mortgage-backed securities with maturities of at least one year. The **BC U.S. Credit Bond Index** is designed to cover publicly issued U.S. corporate and structured foreign debentures and secured notes that meet the specified maturity, industry, and equity requirements. Bonds that do not meet these criteria are not included. The **BC U.S. Agency Index** is designed to cover publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government. The **BC CMBIS Index** is designed to track commercial mortgage-backed securities of investment-grade quality (BBB+/BBB- or above) using Moody's, S&P, and Fitch respectively, with maturity of at least one year. The **BC BMCB Index** covers agency mortgage-backed securities through insurers (both fixed rate and floating ARM) issued by Fannie Mae (FNM), Freddie Mac (FMC), and GovSec (GSE). The **BC U.S. Municipal Bond Index** covers the U.S. dollar-denominated, long-term municipal bond market with four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds. The **BC U.S. TIPS Index** is an unmanaged index that tracks up to U.S. Treasury Inflation-Linked Note securities. The **BC U.S. Government Bond Index** is a market value-weighted index of U.S. government fixed rate debt issues with maturities of one year or more. The **BC U.S. Treasury Long Term Index** is a market value-weighted index that covers fixed rate asset-backed securities with average lives greater than or equal to one year and that are part of a public debt. The index covers the following collateral types: credit cards, auto, home equity loans, student debt, utility rate reduction bonds, and manufactured housing. The **BC Global Aggregate Index** is comprised of three sub-indices: the U.S. Aggregate Index, the European Aggregate Index, and the Asian Pacific Aggregate Index. In aggregate the index is designed to be a broad-based measure of the performance of investment grade fixed rate debt on a global scale. The **BC U.S. Corporate High Yield Index** is an unmanaged index representing public obligations of U.S. corporate and structured foreign debentures and secured notes with a remaining maturity of 10 years or more. The **BC U.S. Corporate High Yield Index** measures the market of US dollar-denominated, non-investment grade, floating rate, variable rate corporate bonds. The **BC Intermediate Corporate Index** includes dollar-denominated debt from U.S. and non-U.S. industrial, utility, and financial institutions issues with a duration of 1-10 years. The **BC U.S. Treasury Long Term Index** is an unmanaged index representing public obligations of the U.S. Treasury with a remaining maturity of one year or more. The **BC U.S. Government 10 Year Treasury Index** measures the performance of U.S. Treasury securities that have a remaining maturity of less than 10 years. The **BC BAA Corporate Index** measures the performance of the taxable, dollar-denominated, U.S. dollar-denominated corporate bond market. The **BC Global Treasury ex US Index** includes government bonds issued by investment grade countries outside the United States. The **BC Currencies** that have a remaining maturity of one year or more and are rated investment grade or higher. The **BC Emerging Market Bond Index** is an unmanaged index that tracks returns for external currency denominated debt instruments of the emerging markets. The **BC U.S. Securitized Bond Index** is a composite of asset-backed securities, collateralized mortgage-backed securities (CMBS), asset backed and fixed rate mortgage-backed securities. The **BC Quality Distribution AAB, B, and C/D** indices measure the respective credit qualities of U.S. corporate and structured foreign debentures and secured notes. The **BC Universal Index** represents the union of the U.S. Aggregate Index, the U.S. High Yield Corporate Index, the AAA Universal Index, the Eurozone Index, the Emerging Markets Index, and the non-EMU portion of the CMBIS Index. The **BC 1-3 Year Government Credit Index** is an unmanaged index comprised representative of performance of short term (1-3), corporate bonds and U.S. government bonds with maturities from one to three years. The **BC 1-5 Year Government Credit Index** is an unmanaged index comprised representative of performance of 1-5 year term U.S. corporate bonds and U.S. government bonds with maturities from one to five years. The **BC U.S. Long Term Corporate Index** measures the performance of investment grade, fixed rate, U.S. dollar-denominated, long-term (greater than 10 years), government, government-related, and investment grade U.S. corporate securities that have a remaining maturity of greater than one year and less than ten years. The **BC Intermediate Aggregate Index** measures the performance of investment grade corporate debt and agency bonds. The **BC Intermediate 1-3 Year Government/Credit Index** measures the performance of U.S. dollar-denominated U.S. Treasury, government-related, and investment grade U.S. corporate securities that have a remaining maturity of one to three years. The **BC U.S. 1-5 Year Government Bond Index** is a composite of Treasury, bond and agency bond and agency bond issues that have maturities of one to five years. The **BC 1-3 Year US Treasury Index** measures the performance of U.S. Treasury securities that have a maturity between 0.1 to 3 years. The **BC Government Credit Index** measures the performance of U.S. Government and corporate bonds rated investment grade or better with maturities of at least one year.

The **BC High Yield Index** covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and asset issues from countries designated as emerging markets (e.g., Argentina, Brazil, Venezuela, etc.) are excluded, but Canadian and global bonds (i.e., registered in issues from EMU countries) are included. Original issue price, step-up coupon structures, and LBOs are also included. The **BC Intermediate Government Index** measures the performance of intermediate term U.S. government bonds with maturities from one to five years. The **BC Long Term Government Index** is an unmanaged index reflecting performance of the long term government bond market. The **BC Intermediate Aggregate Index** measures the performance of investment grade corporate debt and agency bonds that are dollar-denominated and have a maturity of greater than 10 years. The **BC U.S. Gov/Credit 5-10 Year Index** includes all medium and long-term issues of U.S. government, investment grade corporate, and investment grade international dollar-denominated bonds that have maturities between 5 and 10 years and are publicly issued.

The **Cambridge U.S. Private Equity Index** is a representation of returns from 700 of the top dollar raised by U.S.-based, buy-out, leveraged, semi-leveraged and special situation managers from 1986 to December 2017. Returns are calculated based on the realized one-weighted return and are net of all fees. These board matters require the end investor to be a qualified institutional investor.

The **Bank of America (BoFA) Merrill Lynch (ML) 91-day T-Bill Index** tracks U.S. Treasury bills with a remaining maturity from 1 up to 3 months. The **BoFA ML US High Yield Master Index & Bank of America ML US High Yield Master II Index** track the performance of below investment grade US dollar-denominated investment grade and non-investment grade convertible securities issued into the U.S. market and corporate bonds in the United States. The **BoFA ML US Corp & Govt 1-5 Year Index** tracks the performance of U.S. dollar-denominated investment grade government and corporate bonds with a maturity of at least one year and less than five years. The **BoFA ML US High Yield BB-B Constrained Index** is a fixed-float market capitalization-weighted index of U.S. dollar-denominated, non-investment grade corporate debt publicly issued into the U.S. domestic market. The **BoFA Merrill Lynch US Treasury 1-3 Year Index** tracks the performance of the short term Treasury debt of the U.S. Government having a maturity of at least one year. The **BoFA ML Treasury Current 2 Year Index** tracks the most recently mature 2 year U.S. Treasury note. The **BoFA ML CMBIS Fixed Rate AAA Index** is a subset of the BoFA ML U.S. Fixed Rate CMBIS Index at rating level AAA. The **BoFA ML U.S. Fixed Rate CMBIS Index** tracks the performance of U.S. dollar-denominated, investment grade fixed rate collateralized mortgage-backed securities publicly issued into the U.S. domestic market. The **BoFA ML U.S. Dollar 3-Month LIBOR Index** represents the London interbank offered rate (LIBOR) with a constant 3-month average maturity.

The **Citi Select MLP Index** is a USD-denominated, price return index, comprising of the returns on up to 40 of the most liquid master limited partnerships in the energy sector. The **Citigroup World Government Index (WGBI) 1-5 Year Hedged USD Index** is a comprehensive measure of the total return performance of the government bond markets of approximately 37 countries with maturities ranging from one to five years. The **Citigroup WGBI Index** is a market capitalization-weighted bond index consisting of the government bond markets of the multiple countries. The **Citigroup WGBI ex US Index** is a market capitalization-weighted bond index consisting of the government bond markets of the multiple countries, excluding the U.S. The **Citigroup 3-Month U.S. Treasury Bill Index** represents an average of the last 3-Month Treasury Bill issues.

The **NCREIF Property Index (NPI)** performance quarterly time series composite index of individual commercial real estate properties acquired in the private market. The index represents apartments, hotels, industrial properties, office buildings and retail properties which are at least 50% occupied and owned or controlled, at least in part, by tax- exempt institutional investors in designated areas. In certain cases properties that are included must be investment grade, non-appraised and income producing, and all developments reported are stable. Constituents included in the NPI are valued at least quarterly, either internally or externally, using standard commercial real estate appraisal methodology. Such properties should be independently appraised a minimum of once every three years. Please Note: the performance of this index lags 1 quarter. The **NCREIF Timberland Index** is a quarterly time series composite return measure of investment performance of a large pool of individual timber securities acquired in the private market for investment purposes only.

The **Ironstone International Government Bond Index** is measured using a one-third portfolio with a maturity near 3 years.

The **JP Morgan Emerging Markets Bond Index Plus (EMBI+) Index** tracks total returns for traded external debt instruments (external floating foreign currency denominated fixed income) in the emerging markets. The **JP Morgan GBI Global ex-US Index** displays the total return performance of major non-US bond markets.

The **HFR Funds of Funds Index (HFR FDI)** is an equal-weighted index designed to measure the performance of hedge funds of fund managers. The more than 800 multi-strategy components are required to have at least \$10 million in assets under management and a trading track record spanning at least 12 months. The index includes both pure alpha affiliate funds and all returns are reported quarterly. **HFR Relative Value Index** tracks investment managers who maintain positions in which the investment thesis is presented on a long/short or relative value basis. Managers employ a variety of fundamental and quantitative techniques to identify and manage arbitrage, relative value, and other strategies that typically have lower volatility than the underlying market. Managers include but are not limited to: fixed income, convertible arbitrage, and other strategies that typically have lower volatility than the underlying market. Managers include but are not limited to: fixed income, convertible arbitrage, and other strategies that typically have lower volatility than the underlying market. Managers include but are not limited to: fixed income, convertible arbitrage, and other strategies that typically have lower volatility than the underlying market. Managers include but are not limited to: fixed income, convertible arbitrage, and other strategies that typically have lower volatility than the underlying market.

The **FTSE All-World ex US Index** comprises large and midsize stocks providing coverage of developed and emerging markets, excluding the U.S. The **FTSE NAREIT Developed Index** is a global market capitalization weighted index comprised of listed real estate securities from developed market countries in North America, Europe, and Asia. The **FTSE NAREIT Developed ex US Index** is a global market capitalization weighted index comprised of listed real estate securities from developed market countries in North America, Europe, and Asia, excluding the U.S. The **FTSE High Dividend Yield Index** comprises stocks that are characterized by higher than average dividend yields, and is based on the US components of the FTSE Standard Equity Index Series (SPS). The **FTSE NAREIT All REITs Index** is a market capitalization-weighted index that is designed to measure the performance of all publicly traded Real Estate Investment Trusts (REITs) that are listed on the New York Stock Exchange, the American Stock Exchange, or the NASDAQ National Market List. The **FTSE NAREIT Equity REIT Index** is an unmanaged index reflecting performance of listed U.S. real estate investment trust market.

The **Consumer Price Index (CPI)** is an inflationary indicator that measures the change in the cost of a fixed basket of products and services, including housing, electricity, food, and transportation. The CPI is published monthly. Please Note: the performance of this index lags 3 months. The **Credit Suisse Leveraged Loan Index** is a market value-weighted index designed to represent the investment universe of all U.S. dollar-denominated leveraged loan market. It consists of exchange-traded futures contracts, corporate convertible debt, and convertible preferred securities that are eligible for investment in the leveraged loan market. The **Dow Jones (DJ) S&P 500 Commodity Index** measures the performance of the commodities market. It consists of exchange-traded futures contracts, corporate convertible debt, and convertible preferred securities that are eligible for investment in the leveraged loan market. The **Dow Jones (DJ) US Total Stock Market Index** is an all-caps, equity composite of all U.S. equity securities with readily available prices. The **DJ U.S. Completion Total Stock Market Index** is a subset of the DJ U.S. Total Stock Market Index that excludes components of the S&P 500. The **Dow Jones U.S. Selected Real Estate Securities Index** is a float-adjusted market capitalization-weighted index of publicly traded real estate securities from real estate investment trusts (REITs) and real estate operating companies (REOCs).

The **Dow Jones Target Date (Today, 2010, 2020, 2030, 2040, 2050, 2060, 2070) Indices** were created to represent the long-term portfolios of stocks, bonds and cash. Each index is made up of comparable assets representing these three asset classes. The asset classes are weighted differently within each target date index depending on the time horizon. Each month, the allocations among the asset class indices are rebalanced to reflect an underlying investment assumption.

The **Morningstar Lifetime Allocation Index** series consists of 11 indexes (the one, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, and 100%) available in three risk profiles: aggressive, moderate, and conservative. The indexes are built on an asset allocation methodology developed by Morningstar Associates, a leader in asset allocation research and a Morningstar company since 2006. The indexes provide pure asset class exposure to global equities, global fixed income, international, and Treasury Inflation Protected Securities (TIPS) by using Morningstar Indices as allocation building blocks. The portfolio allocations are held by proprietary vehicles available to the U.S. investor's number of years until retirement. The Conservative, Moderate and Aggressive risk profiles are for investors who are comfortable with lower average exposure to equity market volatility, investors who are comfortable with average exposure to equity market volatility and well-fortified investors who are comfortable with above average exposure to equity market volatility, respectively.

These reports are not to be construed as an offer or a solicitation of an offer by or for securities mentioned herein. Information contained in these reports are based on sources and data believed reliable. The information used to construct these reports was received via a variety of sources. These reports are for informational purposes only and are not intended to satisfy any regulatory requirements set forth by any governing body of the securities industry. These reports do not take the price of any brokerage statements, any fund company statements, or fact books. You are urged to compare this report with the statements you receive from your custodian covering the same period. Differences in positions may occur due to reporting dates used and whether certain assets are not measured without cost-basis. There may also be differences in the investment values shown due to the use of netting, allocation, buy-sell and other factors. Past performance is no guarantee of future results. Investing involves risk, including the risk of loss. Government does not insure a profit or guarantee any return.

The evaluation report has been prepared for the disclosure of a specific client and is not to be used for any other investment manager without the consent of the client and Clearstead.

Evaluation of investment managers covers both quantitative and qualitative aspects. In addition to the investment performance evaluation, we monitor ownership structure, track key employee information, and hold regular meetings with key investment management organizations sponsored by our clients.

The data presented in this report have been calculated on a time-weighted rate of return basis. All returns are net of investment advisory fees and gross of Clearstead advisory fees and custodian fees (unless otherwise noted). The deduction of Clearstead advisory fees and custodian fees would have the effect of decreasing the indicated investment performance.

The performance data shown represent past performance. Past performance is not indicative of future results. Current performance data may be lower or higher than the performance data presented.

Returns for periods longer than one year are annualized. Each number is independently rounded.

A current copy of Harland & Co.'s ADV Part 2 is available to all clients upon request.





**YOUNGSTOWN  
STATE  
UNIVERSITY**

**RESOLUTION TO APPROVE  
CLEARSTEAD'S RECOMMENDATION TO REBALANCE THE  
NON-ENDOWMENT LONG-TERM INVESTMENT POOL**

**WHEREAS**, the Investment Committee of the Board of Trustees of Youngstown State University is responsible for identification of asset classes, strategic asset allocation, acceptable asset ranges above and below the strategic asset allocation, and selecting investment managers, pursuant to University policy 3356-3-10; and

**WHEREAS**, the Investment Committee has consulted with the University's investment advisors and recommends rebalancing the Non-Endowment Long-Term Investment Pool.

**NOW, THEREFORE, BE IT RESOLVED**, that the Investment Committee of the Board of Trustees of Youngstown State University does hereby approve the rebalance, attached hereto.

**Board of Trustees Meeting  
June 23, 2022  
YR 2022-**

# PORTFOLIO RECOMMENDATIONS (ACTION)

YOUNGSTOWN STATE UNIVERSITY

AS OF MAY 18, 2022

	TICKER	MARKET VALUE (CURRENT)	% OF PORTFOLIO	CHANGES	MARKET VALUE (POST CHANGES)	% OF PORTFOLIO	POLICY TARGET	POLICY RANGE	TACTICAL +/-
<b>Total Operating &amp; Short Term</b>		<b>\$28,221,531</b>	<b>100.0%</b>	<b>\$0</b>	<b>\$28,221,531</b>	<b>100.0%</b>	<b>100.0%</b>		
<b>Operating Assets</b>		<b>\$28,220,632</b>	<b>100.0%</b>		<b>\$28,220,632</b>	<b>100.0%</b>		<b>60-100%</b>	
JPMorgan MM / Fed Hermes Gov Ob Star Plus*	JTSXX	\$28,129,404	99.7%		\$28,129,404	99.7%			
Star Ohio*	-	\$0	0.0%		\$0	0.0%			
Star Ohio*	-	\$91,228	0.3%		\$91,228	0.3%			
<b>Short-Term Assets</b>		<b>\$899</b>	<b>0.0%</b>		<b>\$899</b>	<b>0.0%</b>		<b>0-40%</b>	
Vanguard Short-Term Federal Adm	VSGDX	\$899	0.0%		\$899	0.0%			
<b>Total Long Term Reserves Pool</b>		<b>\$60,078,330</b>	<b>100.0%</b>	<b>\$0</b>	<b>\$60,078,330</b>	<b>100.0%</b>	<b>100.0%</b>		
<b>Domestic Equity</b>		<b>\$17,870,680</b>	<b>29.7%</b>		<b>\$18,170,680</b>	<b>30.2%</b>	<b>27.0%</b>	<b>20-35%</b>	<b>3.2%</b>
<b>Large Cap</b>		<b>\$11,906,278</b>	<b>19.8%</b>		<b>\$11,906,278</b>	<b>19.8%</b>			
Vanguard Instl Index	VINIX	\$11,906,278	19.8%		\$11,906,278	19.8%			
<b>Small/Mid Cap</b>		<b>\$5,964,402</b>	<b>9.9%</b>		<b>\$6,264,402</b>	<b>10.4%</b>			
Vanguard Mid Cap Index Adm	VIMAX	\$3,024,352	5.0%		\$3,024,352	5.0%			
Loomis Sayles Small Growth N2	LSSNX	\$1,273,779	2.1%	\$300,000	\$1,573,779	2.6%			
Victory Integrity Small Cap Value Y	VSVIX	\$1,666,271	2.8%		\$1,666,271	2.8%			
<b>International Equity</b>		<b>\$4,877,690</b>	<b>8.1%</b>		<b>\$4,877,690</b>	<b>8.1%</b>	<b>8.0%</b>	<b>0-15%</b>	<b>0.1%</b>
William Blair International Growth I	BIGIX	\$2,136,912	3.6%		\$2,136,912	3.6%			
Dodge & Cox International Stock	DODFX	\$2,740,778	4.6%		\$2,740,778	4.6%			
<b>Total Equity</b>		<b>\$22,748,370</b>	<b>37.9%</b>		<b>\$23,048,370</b>	<b>38.4%</b>	<b>35.0%</b>	<b>25-45%</b>	<b>3.4%</b>
<b>Alternatives</b>		<b>\$6,767,949</b>	<b>11.3%</b>		<b>\$6,767,949</b>	<b>11.3%</b>	<b>15.0%</b>	<b>0-20%</b>	<b>-3.7%</b>
JPMorgan Strategic Income Opps Fd	JSOSX	\$1,038,690	1.7%		\$1,038,690	1.7%			
Allspring Adv Absolute Return	WABIX	\$1,016,669	1.7%		\$1,016,669	1.7%			
H.I.G. Principal Lending Fund	-	\$0	0.0%		\$0	0.0%			
Weatherflow Fund*	-	\$4,712,590	7.8%		\$4,712,590	7.8%			
<b>Fixed Income</b>		<b>\$30,543,413</b>	<b>50.8%</b>		<b>\$30,261,792</b>	<b>50.4%</b>	<b>50.0%</b>	<b>35-75%</b>	<b>0.4%</b>
<b>Short Term Fixed Income</b>		<b>\$18,150,562</b>	<b>30.2%</b>		<b>\$17,868,941</b>	<b>29.7%</b>	<b>30.0%</b>	<b>25-45%</b>	<b>-0.3%</b>
YSU Short Term Bond	-	\$11,821,010	19.7%	\$670,000	\$12,491,010	20.8%			
Lord Abbett Short Duration	LLDYX	\$4,492,931	7.5%	\$885,000	\$5,377,931	9.0%			
DFA Five-Year Global	DFGBX	\$1,836,621	3.1%	-\$1,836,621	\$0	0.0%			
<b>Intermediate Fixed Income</b>		<b>\$12,392,851</b>	<b>20.6%</b>		<b>\$12,392,851</b>	<b>20.6%</b>	<b>20.0%</b>	<b>10-30%</b>	<b>0.6%</b>
JPMorgan Core Bond Fund R6**	JCBUX	\$5,151,140	8.6%		\$5,151,140	8.6%			
YSU Intermediate Term Fixed	-	\$4,273,210	7.1%		\$4,273,210	7.1%			
Prudential High Yield Bond R6	PHYQX	\$2,968,501	4.9%		\$2,968,501	4.9%			
<b>Cash &amp; Cash Equivalents</b>		<b>\$18,599</b>	<b>0.0%</b>		<b>\$220</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0-5%</b>	<b>0.0%</b>
Equity Account Cash	-	\$18,599	0.0%	-\$18,379	\$220	0.0%			
<b>Total University Assets</b>		<b>\$88,299,862</b>			<b>\$88,299,862</b>				

## SUMMARY OF RECOMMENDATIONS

- Remove DFA Global Bond strategy reallocating most proceeds to two short-term managers
- Modest rebalance into equities adding to short-term growth manager Loomis Sayles

\*As of 3/31/2022