

BOARD OF TRUSTEES INVESTMENT SUBCOMMITTEE

John R. Jakubek, Chair Delores E. Crawford, Vice Chair Charles R. Bush Samuel W. Grooms Allan K. Metz

Wednesday, March 15, 2017 1:00 p.m. or immediately following previous meeting

Tod Hall Board Meeting Room

AGENDA

- A. Disposition of Minutes for Meetings Held June 1, 2016; and November 30, 2016
- B. Old Business
- C. Committee Items
 - 1. Discussion Item
- Tab C.1.a.
- March 15, 2017 Quarterly Portfolio Asset Allocation and Investment Performance Review
 Mike Shebak and Sarah Parker will report.
- 2. Action Item
- Tab C.2.a.
- Resolution to Approve Hartland's Recommendation to Rebalance the Non-Endowment Long-Term Investment Pool Mike Shebak and Sarah Parker will report.
- D. New Business
- E. Adjournment



March 15, 2017

YOUNGSTOWN STATE UNIVERSITY

NON-ENDOWMENT & ENDOWMENT ASSETS

Cleveland, Ohio 44114
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CONTENTS

- I. Accomplishments and Future Initiatives
- II. Market Update
- III. Non-Endowment Assets
 - 4Q16 Performance & Asset Allocation Review
 - Fixed Income Review
 - Rebalance Recommendation (Action)
- IV. Endowment Assets
 - 4Q16 Performance & Asset Allocation Review



ACCOMPLISHMENTS & FUTURE INITIATIVES

- 1400年世界的工具	2016	1Q2017	2Q2017	3Q2017	4Q2017
Strategic/Administrative	 Endowment Allocation/ Management Review Non-Endowment Asset Allocation Review 		 Active vs. Passive/ Domestic Equity Framework 	• Peer Comparisons	 Strategic Asset Allocation Review
Investment Opportunities	 Alternative Investments/GARS High Yield Fixed Income Education and Recommendation 	Fixed Income Portfolio Review			
Manager Reviews	PNC Fixed Income Review		Voya Global Real Estate/ Brookfield Global Real Estate	PNC Fixed Income Review	
Fiduciary Responsibilities	Asset Allocation Guidelines ReviewFee Review				 Fee Review Asset Allocation Guidelines Review



MARKET UPDATE



PERIODIC CHART: ASSET CLASSES

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	01/07 Annual	- 12/16 <u>Volatility</u>
REITs 34.3%	Em Mkt 39.8%	Glb Bond 9.4%	Em Mkt 79.0%	REITs 27.6%	US Bonds 7.8%	REITs 20.1%	Sm/Mid 36.8%	REITs 27.2%	REITs 2.3%	Sm/Mid 17.6%	Sm/Mid 7.7%	REITs 24.1%
Em Mkt	Dev Intl	US Bonds	Hi Yld	Sm/Mid	REITs	Em Mkt	Large Cap	Large Cap	Large Cap	Hi Yld	Hi Yld	Em Mkt
32.6%	11.6%	5.2%	57.5%	26.7%	7.3%	18.6%	32.4%	13.7%	1.4%	17.5%	7.3%	23.4%
Dev Intl	Glb Bond	Cash	Sm/Mid	Em Mkt	Glb Bond	Dev Intl	Dev Intl	Balanced	Balanced	Large Cap	Large Cap	Sm/Mid
26.9%	10.9%	2.1%	34.4%	19.2%	5.2%	17.9%	23.3%	10.6%	1.0%	12.0%	7.0%	19.0%
Sm/Mid 16.2%	Hdg Fnds 9.7%	Hdg Fnds -20.8%	Dev Intl 32.5%	Hi Yld 15.2%	Balanced 5.0%	Sm/Mid 17.9%	Balanced 17.6%	Sm/Mid 7.1%	US Bond 0.6%	Em Mkt 11. 6 %	Balanced 6.5%	Dev Intl 18.6%
Large Cap 15.8%	US Bonds 7.0%	Balanced -21.6%	REITs 27.5%	Large Cap 15.1%	Hi Yld 4,4%	Large Cap 16.0%	Hdg Inds	US Bonds 6.0%	Cash 0.1%	REITs 9.3%	REITs 4.7%	Large Cap 15.3%
Hi Yld	Balarced	Hi Nd	Large Cap	Balanced	Large Cap	Hi Yld	Hi Yld	Hdg Fnds	Dev Intl	Balanced	US Bonds	Hi Yld
11.8%	6.2%	-26.4%	26.5%	12.2%	2.1%	5.6%	7.4%	3.4%	-0.4%	a.4%	4.3%	10.7%
Balanced	Large Cap	Sm/Mid	Salanced	Hdg Fnds	Cash	Balanced	REITs	Hi Yld	Hdg Fnds	US Bonds	Glb Bond	Balanced
11.1%	5.5%	-36.8%	18,5%	10.6%	0.1%	11.4%	3.2%	2.5%	-0.4%	2.7%	2.6%	9.2%
Hdg Fnds	Cash	Large Cap	Hdg Fnds	Dev Intl	Sm/Mid	Hdg Fnds	Cash	Cash	Sm/Mid	Glb Bond	Em Mkt	Glb Bond
10.2%	5.0%	-37.0%	11.5%	8.2%	-2.5%	5.4%	0.1%	0.0%	-2.9%	1.9%	2.2%	8.4%
Glb Bond 7.3%	Hi Yld 2.2%	REITs -37.3%	US Bonds 5.9%	US Bonds	Hdg Fnds -4.9%	US Bonds 4.2%	US Bonds -2.0%	Em Mkt -1.8%	Hi Yld -4.6%	Dev Intl 1.5%	Hdg Fnds 1.4%	Hdg Fnds 5.1%
Cash	Sm/Mid	Dev Intl	Glb Bond	Glb Bond	Dev Intl	Glb Bond	Em Mkt	Glb Bond	Glb Bond	Cash	Dev Intl	US Bonds
4.9%	1.4%	-43.1%	4.4%	6.1%	-11.7%	1.8%	-2.3%	-2.8%	-4.8%	0.3%	1.2%	3.3%
US Bonds	REITs -17.8%	Em Mkt	Cash	Cash	Em Mkt	Cash	Glb Bond	Dev Intl	Em Mkt	Hdg Fnds	Cash	Cash
4.3%		-53.2%	0.2%	0.1%	-18.2%	0.1%	-4.9%	-4.5%	-14.6%	0.2%	0.8%	0.5%

Past performance is not a guarantee 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; US Bonds – Barclays Capital U.S. Aggregate; Glb Bond – Barclays Capital Global Treasury ex US; REITs – NAREIT ALL REITs; Balanced – 60% S&P 500/40% BarCap US Aggregate; Hdg Fnds – HFRI FOF: Diversified Index; Cash – Merrill Lynch 91-day Tbill (rebalanced quarterly). Data as of 12/31/2016 Source: Zephyr Associates.



THOUGHTS ON THE CURRENT ENVIRONMENT

<u>Trump</u>: The market has incorporated expectations for stimulus, higher inflation and higher interest rates.

<u>Capital Markets:</u> Strong quarter for risk assets as Developed Markets meaningfully outpaced Emerging Markets. A strong US\$, higher interest rates and expectations of more protectionist US trade policy impacted Emerging Markets. The S&P 500 returned 3.8%, Developed International -0.7%, and Emerging Markets -4.1%.

Currencies: Large currency fluctuations for the year with the US\$ strengthening led to currency translation losses.

<u>Fixed Income:</u> A bond bull and bear market--all in one year. Global government bonds sold-off further with US Treasuries experiencing one of their worst quarters in several decades. Intermediate Fixed Income lost 3.0% this quarter.

Fed: The Fed hiked for the first time in a year while signaling a more aggressive approach could be warranted for 2017.

Rate Impact (The Good): Value stocks and cyclicals outperformed, driven in large part by Financials.

Rate Impact (The Bad): Higher rates hurt long duration and yield oriented assets; long government bonds, REITs, Utilities and Consumer Staples.

<u>Valuations:</u> U.S. equity valuations remain elevated vs. long-term averages; 17.3x one year forward P/E on MSCI US Equity Index. Continued easy monetary policies support growth asset prices.

<u>Earnings</u>: 2017 earnings estimates reflect an 11.5% year-over-year increase. Changes to tax policy and repatriotiation of cash could boost earnings and M&A activity. The Energy sector headwind from low commodity prices should also roll-off.

Economy: Low global growth persisted although modest shoots of growth appeared. Q3 GDP growth increased to 3.5% from 1.4% last quarter. ISM surveys (both service and manufacturing) reflect strength, which along with consumer confidence and wage growth, support expansion.

<u>Risks:</u> Populism's impact on elections, changes to easy monetary policy and valuations.

<u>Looking Forward:</u> We are living in a lower return world; modest growth, low yields, and valuations pose challenges. Risk assets should perform relatively well in a modest growth, easy monetary policy environment. Defensive assets provide downside protection during bouts of volatility.

Past performance is not a guarantee of future results. Asset classes represented by: Large Cap – S&P 500 Index; Dev Intl – MSCI EAFE Index; Emerging Markets – MSCI EM Index; Intermediate Fixed Income – Barclay's Capital U.S. Aggregate Index, High Yield – Barclay's Capital High Yield Corporate Index. Data as of 12/31/2016. Source: Zephyr Associates, Factset as of 12/31/16.



ECONOMIC PROJECTIONS

Federal Reserve Board Members and Bank Presidents

	2016	2017	2018	2019	Longer Run*
GDP	1.9%	2.1%	2.0%	1.9%	1.8%
Unemployment Rate	4.7%	4.5%	4.5%	4.5%	4.8%
Core PCE Inflation	1.7%	1.8%	2.0%	2.0%	
Federal Funds Rate	0.6%	1.4%	2.1%	2.9%	3.0%
# of Implied 25 bps Rate Hikes		3	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.



NON-ENDOWMENT ASSETS



4Q16 PERFORMANCE & ASSET ALLOCATION REVIEW

Non- Endowment Assets	Market Value	4Q2016	YTD	1 Yr	3 Yrs	5 Yrs	2015	2014	2013	Since Inception****
Operating & Short-Term Pool	\$8.115 Million	0.0%	0.3%	0.3%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%
500 500 1000 1000	Benchmark*	0.1%	0.3%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
Long-Term Pool	\$54.892 Million	0.4%	4.9%	4.9%	3.0%	4.8%	-0.3%	4.5%	8.7%	4.6%
	Benchmark**	0.5%	4.7%	4.7%	3.0%	4.3%	0.6%	4.0%	7.1%	4.1%
Total Non- Endowment Assets	\$63.007 Million	0.4%	4.0%	4.0%	2.1%	3.2%	-0.5%	2.9%	5.6%	3.6%
	Benchmark***	0.3%	2.7%	2.7%	1.7%	2.3%	0.4%	2.3%	3.6%	2.9%

1-Year Net Investment Change of \$2,572,754

^{*95%} BofA Merrill Lynch 91-Day T-Bill / 5% Barclays 1-3 Yr. Govt

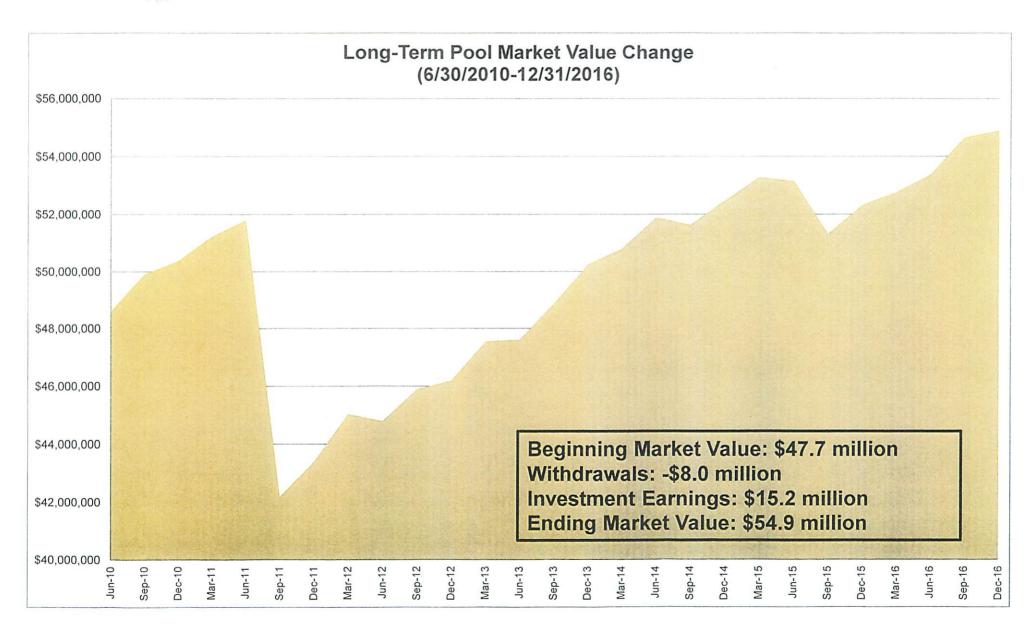
^{**27%} Russell 3000 / 8% MSCI EAFE Gross / 15% Total Alternatives Benchmark / 30% BofA Merrill Lynch US Corp & Gov 1-3 Yrs /20% BBgBarc US Govt/Credit Int TR

^{***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 Gross

^{****}Inception date for Long-Term and Short-Term Pools: June 2010, Inception Date for Total Non-Endowment Assets: March 2004



4Q16 PERFORMANCE & ASSET ALLOCATION REVIEW





4Q16 PERFORMANCE & ASSET ALLOCATION REVIEW (MANAGER DETAILS CONTAINED IN APPENDIX)

Non-Endowment Asset Pool	Current Asset Allocation	Compliance with Policy?	Investment Manager Comments
Short-Term Pool	87% Cash13% Short-Term Fixed Income	In-Line	Liquidity; modest return overtime (+0.1%/year for 5-years); investments include Star Plus money market.
Long-Term Pool	 Domestic Equities = 29% International Equities = 8% Alternatives = 16% Short-Term Fixed Income = 26% Intermediate-Term Fixed Income = 22% 	In-Line Overweight Domestic Equities by 2%. Underweight Short- Term Fixed Income by 4%. Overweight Intermediate-Term Fixed Income by 2%.	Domestic Equity (+11.7% YTD): Large/mid cap passive funds continue to outpace the majority of actively managed strategies; Small cap managers (Loomis Sayles, Victory) lagged year-to-date, but continue to outpace over longer time periods. International Equity (+2.7% YTD): Value outpaced growth oversees as Dodge & Cox Int'l (value bias) returned +8.3% for the year; William Blair (growth bias) was impacted by stock selection and sector allocations year-to-date, but continue to outpace over longer time periods. Alternative Investments (+3.5% YTD): Diamond Hill returned over +10% year-to-date, while John Hancock was impacted by a few trading strategies that detracted from annual results (e.g., U.S. Large Cap vs. Small Cap). Fixed Income (+1.6% YTD): Managers performed mostly in-line with benchmarks; high yield delivered double digit returns (Prudential returned +15.3% for the year).



FIXED INCOME PORTFOLIO REVIEW (AS OF 12/31/16)

在1000年中,1000年中的1000年代	Total Portfolio	BarCap Aggregate Bond Index
Expense Ratio	0.23%	
Yield to Maturity	2.45%	2.61%
Average Maturity	3.66	8.19
Effective Duration	3.08	5.89
Average Quality Issue	AA	AA
AAA	56%	71%
AA	9%	5%
A	11%	11%
BBB	15%	14%
BB	4%	0%
B	4% - 10% to high	0%
CCC & Below & Not Rated	2% yield	0%
U.S. Treasury	28%	36%
U.S. Agency	2%	4%
nvt. Grade Corporates	33%	26%
High Yield Corporates	9%	0%
Non-Agency ABS/CMOs	17%	0%
Non-Agency MBS/CMBS	1%	2%
MortPassthrough	8%	28%
Non-U.S. Developed	1%	4%
Cash	2%	0%

The fixed income portfolio is positioned to have a yield similar to the Barclays Aggregate Index with less interest rate sensitivity, while maintaining an overall average credit quality of AA.



REBALANCE RECOMMENDATIONS

Youngstown State University								
		as of 2/6/2017		New Alloc				
	\$	%	Change	\$		Policy Target	Policy Range	Difference
Total Operating & Short Term	\$33,122,220	100.0%	\$0	\$33,122,220	100.0%	100.0%		
Operating Assets	\$32,052,408	96.8%	\$0	\$32,052,408	96.8%		60-100%	
JPMorgan 100% U.S. Treas. MM Instl	\$27,022,073	81.6%		\$27,022,073	81.6%			
JPMorgan Sweep Account*	\$0	0.0%		\$0	0.0%			
Star Plus Account*	\$5,030,335	15.2%		\$5,030,335	15.2%			
Short-Term Assets	\$1,069,813	3.2%	<u>\$0</u>	\$1,069,813	3.2%		0-40%	
Vanguard Short-Term Federal Adm	\$1,069,813	3.2%		\$1,069,813	3.2%			
Total Long Term Reserves Pool	\$55,702,436	100.0%	\$0	\$55,702,436	100.0%	100.0%		
Domestic Equity	\$16,197,994	29.1%	<u>\$0</u>	\$16,197,994	29.1%	27.0%	20-35%	2.1%
Large Cap	\$10,396,691	18.7%	\$250,000	\$10,646,691	19.1%			
TRP InstI US Structured Research	\$5,178,715	9.3%		\$5,178,715	9.3%			
Vanguard 500 Index Adm	\$5,217,976	9.4%	\$250,000	\$5,467,976	9.8%			
Small/Mid Cap	\$5,801,304	10.4%	-\$250,000	\$5,551,304	10.0%			
Vanguard Mid Cap Index Adm	\$2,979,327	5.3%	-\$200,000	\$2,779,327	5.0%			
Loomis Sayles Small Growth Instl	\$1,385,348	2.5%		\$1,385,348	2.5%			
Victory Integrity Small Cap Value Y	\$1,436,629	2.6%	-\$50,000	\$1,386,629	2.5%			
International Equity	\$4,482,416	8.0%	<u>\$0</u>	\$4,482,416	8.0%	8.0%	0-15%	0.0%
William Blair International Growth I	\$2,174,037	3.9%		\$2,174,037	3.9%			
Dodge & Cox International Stock	\$2,308,379	4.1%		\$2,308,379	4.1%			
Total Equity	\$20,680,410	37.1%	<u>\$0</u>	\$20,680,410	37.1%	35.0%	25-45%	2.1%
Alternatives	\$8,650,985	15.5%	\$0	\$8,650,985	15.5%	15.0%	0-20%	0.5%
Jhancock Global Absolute Return I	\$2,005,946	3.6%		\$2,005,946	3.6%			
Wells Fargo Adv Absolute Return I	\$2,417,000	4.3%		\$2,417,000	4.3%			
Diamond Hill Long-Short I	\$2,591,636	4.7%		\$2,591,636	4.7%			
Voya Global Real Estate I	\$1,636,403	2.9%		\$1,636,403	2.9%			
Fixed Income	\$26,371,041	47.3%	\$0	\$26,371,041	47.3%	50.0%		
Short Term Fixed Income	\$15,837,168	28.4%	\$0 \$0	\$15,837,168	28.4%	30.0%	25-45%	-1.6%
YSU Short Term Bond	\$12,752,186	22.9%		\$12,752,186	22.9%			
DFA Five-Year Global	\$1,805,090	3.2%		\$1,805,090	3.2%			
Vanguard Short Term Bond Index	\$1,279,893	2.3%		\$1,279,893	2.3%			
Intermediate Fixed Income	\$10,533,873	18.9%	\$0	\$10,533,873	18.9%	20.0%	10-30%	-1.1%
JPMorgan Core Bond Ultra R6	\$4,055,661	7.3%		\$4,055,661	7.3%			
YSU Intermediate Term Bond	\$3,920,150	7.0%		\$3,920,150	7.0%			
Prudential High Yield	\$2,558,061	4.6%		\$2,558,061	4.6%			
Total University Assets	\$88,824,657			\$88,824,657				



ENDOWMENT ASSETS



4Q16 PERFORMANCE & ASSET ALLOCATION REVIEW

Endowment Assets	Market Value	Asset Allocation	Composition	4Q2016	YTD	2-Yr	3-Yr
YSU Endowment	\$8.7 million	65% Equities/ 35% Fixed Income	Stocks, Bonds, Mutual Funds	-1.8%	4.2%	1.9%	4.7%
60 S&P 500 Index/409		1.1%	8.3%	4.7%	6.7%		
Kilcawley Center	\$95,566	60% Equities/ 40% Fixed Income	40% Fixed Mutual Funds		4.9%	-0.3%	2.6%
60 S&P 500 Index/409	% Barclays Index			1.1%	8.3%	4.7%	6.7%
Alumni License Plate	\$482,707	67% Equities/ 33% Fixed Income & Cash	Stocks, Mutual Funds	3.1%	13.8%	6.6%	6.8%
60 S&P 500 Index/409	% Barclays Index			1.1%	8.3%	4.7%	6.7%

Compliance

- Asset Allocation Guidelines: 70% Equities (60-80%)/30% Cash & Fixed Income (20-40%)
 - YSU Endowment (In-Line)
 - Kilcawley Center (In-Line)
 - Alumni (In-Line)
- Equity and Fixed Income Guidelines
 - YSU Endowment (In-Line)
 - Kilcawley Center (In-Line)
 - Alumni (In-Line)

See page 22 in appendix for detail on holdings



APPENDIX



NON-ENDOWMENT ASSETS: POLICY COMPLIANCE

As of December 31, 2016

Total Plan Asset Allocation Policy	Range	Current
Operating & Short-Term Pool	25% - 50%	13%
Long Term/ Reserves Pool	50% - 75%	87%

Operating & Short-Term Pool	Range	Current
Operating Assets	60% - 100%	87%
Short-Term Assets	0% - 40%	13%

Long Term/ Reserves Pool	Target	Range	Current
Domestic Equity	27%	20% - 35%	29%
International Equity	8%	0% - 15%	8%
Total Equity	35%	25% - 45%	37%
Alternatives	15%	0%-20%	16%
Short-Term Fixed Income	30%	25% - 45%	26%
Intermediate Fixed Income	20%	10% - 30%	22%
Cash & Cash Equivalents	0%	0% - 5%	0%

In Line Within Tolerance Review



NON-ENDOWMENT ASSETS: REPORT CARD

		Endi	ng Dec	ember	31, 201	16			Calendar Years			Inception	
	2016 Q4 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2016 (%)	2015 (%)	2014 (%)	Return (%)	Since
Total University Assets	0.4	4.0	4.0	1.7	2.1	3.2	3.2	3.7	4.0	-0.5	2.9	3.6	Mar-04
Total Policy Benchmark	0.3	27	2.7	1.5	1.7	2.3	2.3	2.8	2.7	0.2	2.3	2.9	Mar-04
Total Operating & Short Term	0.0	0.3	0.3	0.2	0.2	0.1	-		0.3	0.1	0.1	0.1	Jun-10
Total Operating & Short Term Benchmark	0.1	0.4	0.4	0.2	0.2	0.1	0.1	0.8	0.4	0.1	0.1	0.1	Jun-10
JPMorgan 100% U.S. Tr Sec MM Inst	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.6	0.2	0.0	0.0	0.0	Sep-11
BofA Merrill Lynch 91-Day T-Bill	0.1	0.3	0.3	0.2	0.1	0.1	0.1	0.8	0.3	0.1	0.0	0.1	Sep-11
Vanguard Short-Term Federal Adm	-0.8	1.2	1.2	1.0	1.1	0.9	1.5	2.8	1.2	8.0	1.3	1.1	Sep-10
BBgBarc US Govt 1-5 Yr TR	-1.1	1.0	1.0	1.0	1.0	0.8	1.5	2.8	1.0	0.9	1.2	1.0	Sep-10
Star Plus	0.1	0.4	0.4	0.3	_	_	-		0.4	0.2	_	0.3	Jan-14
BofA Merrill Lynch 91-Day T-Bill	0.1	0.3	0.3	0.2	0.1	0.1	0.1	0.8	0.3	0.1	0.0	0.1	Jan-14
Total Long Term/ Reserves Pool	0.4	4.9	4.9	2.3	3.0	4.8	-		4.9	-0.3	4.5	4.6	Jun-10
Total Long Term/ Reserves Fund Benchmark	0.5	4.7	4.7	2.5	3.0	4.3	4.2	4.4	4.7	0.3	4.0	4.1	Jun-10
Total Domestic Equity	4.0	11.7	11.7	6.1	7.9	14.4	_	-	11.7	0.7	11.6	14.9	Jun-10
Russell 3000	4.2	127	12.7	6.4	8.4	14.7	12.9	7.1	12.7	0.5	12.6	15.1	Jun-10
TRP Insti US Structured Rsch	3.1	10.4	10.4	6.6	8.5	14.5	12.4	_	10.4	2.9	12.4	14.8	Jun-10
S&P 500	3.8	120	12.0	6.5	8.9	14.7	12.8	6.9	12.0	1.4	13.7	15.1	Jun-10
Vanguard 500 Index Adm	3.8	11.9	11.9	6.5	8.8	14.6	12.8	6.9	11.9	1.4	13.6	15.1	Jun-10
S&P 500	3.8	12.0	12.0	6.5	8.9	14.7	12.8	6.9	12.0	1.4	13.7	15.1	Jun-10
Vanguard Mid Cap Index Adm	2.1	11.2	11.2	4.8	7.7	14.4	13.4	7.7	11.2	-1.3	13.8	13.3	Sep-10
Vanguard Mid Cap Index Benchmark	2.1	11.2	11.2	4.8	7.7	14.4	13.5	7.7	11.2	-1.3	13.8	13.3	Sep-10
Loomis Sayles Sm Growth Instl	2.3	5.7	5.7	3.4	2.6	12.0	13.2	8.9	5.7	1.1	1.1	13.0	Sep-10
Russell 2000 Growth	3.6	11.3	11.3	4.8	5.1	13.7	13.2	7.8	11.3	-1.4	5.6	13.2	Sep-10



NON-ENDOWMENT ASSETS: REPORT CARD

	Ending December 31, 2016						Calendar Years			Inception			
	2016 Q4 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2016 (%)	2015 (%)	2014 (%)	Return (%)	Since
Victory Integrity Sm-Cap Value Y	14.1	24.4	24.4	7.8	7.6	14.9	14.2	8.1	24.4	-6.7	7.3	14.2	Sep-10
Russell 2000 Value	14.1	31.7	31.7	10.4	8.3	15.1	13.1	6.3	31.7	-7.5	4.2	13.4	Sep-10
Total International Equity	-0.5	2.7	2.7	-1.7	-1.6	7.2	-	-	2.7	-5.9	-1.4	3.4	Sep-10
MSCI EAFE Gross	-0.7	1.5	1.5	0.6	-1.2	7.0	4.3	1.2	1.5	-0.4	-4.5	4.6	Sep-10
MSCI ACWI ex USA Gross	-1.2	5.0	5.0	-0.3	-1.3	5.5	3.4	1.4	5.0	-5.3	-3.4	3.2	Sep-10
William Blair International Growth I	-4.2	-2.5	-2.5	-1.3	-1.8	6.9	5.4	1.5	-2.5	0.0	-2.9	5.9	Jun-12
MSCI ACWI ex USA Gross	-1.2	5.0	5.0	-0.3	-1.3	5.5	3.4	1.4	5.0	-5.3	-3.4	5.4	Jun-12
Dodge & Cox Internat'i Stock	3.4	8.3	8.3	-2.0	-1.3	8.0	5.0	2.1	8.3	-11.4	0.1	4.7	Sep-10
MSCI EAFE Gross	-0.7	1.5	1.5	0.6	-1.2	7.0	4.3	1.2	1.5	-0.4	-4.5	4.6	Sep-10
Total Alternatives	0.2	3.5	3.5	-	-	_	-	-	3.5		_	-1.0	Mar-15
Total Alternatives Benchmark	-0.7	1.6	1.6					-	1.6				Mar-15
John Hancock Global Absolute Return I	1.7	-2.5	-2.5	-0.4	1.0	3.1	-	_	-2.5	1.7	4.0	1.0	Mar-16
HFRI Relative Value (Total) Index	1.9	7.7	7.7	3.6	3.7	5.7	5.7	5.2	7.7	-0.3	4.0	8.0	Mar-16
Wells Fargo Adv Absolute Return Instl	-1.3	3.0	3.0	-0.9	-0.3	-	_	_	3.0	-4.6	0.9	-3.0	Mar-15
CPI +3%	1.0	4.7	4.7	4.1	4.2	4.3	4.6	4.9	4.7	3.5	4.4	4.8	Mar-15
GMO Benchmark-Free Alloc III	-1.2	3.4	3.4	-0.5	0.1	4.1	4.2	4.7	3.4	-4.3	1.2	-2.6	Mar-15
Diamond Hill Long-Short I	5.5	10.5	10.5	4.4	5.4	9.5	7.2	4.3	10.5	-1.4	7.5	4.5	Mar-15
HFRI Equity Hedge (Total) Index	1.2	5.5	5.5	2.2	2.1	5.5	4.0	2.9	5.5	-1.0	1.8	1.5	Mar-15
Voya Global Real Estate I	-6.6	0.4	0.4	-0.6	4.0	8.0	7.0	1.6	0.4	-1.7	14.0	-2.9	Mar-15
FTSE NAREIT Developed	-5.6	4.1	4.1	1.6	5.9	9.5	8.4	1.5	4.1	-0.8	15.0	-0.5	Mar-15
Total Fixed Income	-1.4	1.6	1.6	1.2	1.5	1.5			1.6	8.0	2.1	2.0	Jun-10
Total Fixed Income Benchmark	-1.0	1.6	1.6	1.2	1.4	1.3	2.0	3.0	1.6	0.8	1.7	1.7	Jun-10



NON-ENDOWMENT ASSETS: REPORT CARD

	Ending December 31, 2016						Calendar Years			Inception			
	2016 Q4 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2016 (%)	2015 (%)	2014 (%)	Return (%)	Since
JPMorgan Core Bond Ultra	-3.1	2.5	2.5	1.8	3.0	2.5	3.9	4.8	2.5	1.0	5.4	3.2	Apr-11
BBgBarc US Aggregate TR	-3.0	2.6	2.6	1.6	3.0	2.2	3.6	4.3	2.6	0.6	6.0	3.0	Apr-11
YSU Intermediate Term Bond	-2.1	2.0	2.0	1.2	1.8	2.0	3.0	4.2	2.0	0.5	3.0	3.8	Mar-04
BBgBarc US Govt/Credit Int TR	-2.1	2.1	2.1	1.6	2.1	1.8	3.0	3.8	2.1	1.1	3.1	3.5	Mar-04
Prudential High Yield Z	1.4	15.3	15.3	6.0	4.9	7.2	7.9	7.3	15.3	-2.6	2.8	1.9	Dec-16
BBgBarc US High Yield TR	1.8	17.1	17.1	5.8	4.7	7.4	8.1	7.5	17.1	-4.5	2.5	1.8	Dec-16
YSU Short Term Bond	-0.4	1.1	1.1	0.9	0.8	1.0	1.3	2.6	1.1	0.6	0.7	2.6	Mar-04
BofA Merrill Lynch US Corp & Gov 1-3 Yrs	-0.4	1.3	1.3	1.0	0.9	1.0	1.3	2.5	1.3	0.7	0.8	2.4	Mar-04
Vanguard Short-Term Bond Instl	-1.1	1.5	1.5	1.2	1.2	1.2	-	-	1.5	1.0	1.3	1.2	Dec-11
BBgBarc US Govt/Credit 1-5 Yr. TR	-1.1	1.6	1.6	1.3	1.3	1.3	1.9	3.0	1.6	1.0	1.4	1.3	Dec-11
DFA Five-Yr Global Fxd-Inc I	-1.7	1.8	1.8	1.6	2.0	2.1	2.9	3.4	1.8	1.4	2.9	2.0	Jun-13
Citi WGBI 1-5 Yr Hdg USD	-0.5	1.5	1.5	1.2	1.5	1.4	1.6	2.6	1.5	1.0	1.9	1.5	Jun-13

⁻ Total Policy Benchmark = 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 Gross

- Total Alternatives Benchmark = 25% FTSE NAREIT Developed / 75% HFRI Fund of Funds Composite Index
- CPI +3% = Consumer Price Index Shifted
- GMO Benchmark-Free Alloc III = GMO Benchmark-Free Allocation Fu
- Total Fixed Income Benchmark = 64% BofA Merrill Lynch US Corp & Gov 1-3 Yrs / 36% BBgBarc US Govt/Credit Int TR

⁻ Total Operating & Short Term Benchmark = 95% BofA Merrill Lynch 91-Day T-Bill / 5% BBgBarc US Govt 1-3 Yr TR

⁻ Total Long Term/ Reserves Fund Benchmark = 27% Russell 3000 / 8% MSCI EAFE Gross / 15% Total Alternatives Benchmark / 30% BofA Merrill Lynch US Corp & Gov 1-3 Yrs / 20% BBgBarc US Govt/Credit Int TR

⁻ Vanguard Mid Cap Index Benchmark = 100% CRSP US Mid Cap TR USD



ENDOWMENT HOLDINGS

- YSU Endowment (Huntington)
 - Equity Mutual Funds 10% (12 Mutual Funds)
 - Stocks 67% (50-60 Stocks, U.S. Large Cap)
 - Fixed Income Mutual Funds 2% (Federated Total Return Bond)
 - o Bonds 18% (9 Bonds, U.S. Corporate Debt)
 - o Cash 3%
- Kilcawley (SunTrust)
 - Vanguard Balanced Index Fund (Inv) 98%
 - o Cash 2%
- Alumni License Plate (SunTrust)
 - Equity Mutual Funds 56% (WisdomTree Midcap, Small Cap, and European Small Cap)
 - Stocks 11% (Merck (8%) and Verizon(3%)
 - Fixed Income Mutual Funds 10% (Federated Ultra Short)
 - Cash 23%



DEFINITIONS AND DISCLOSURES

Information provided is general in nature, is provided for informational purposes only, and should not be construed as investment advice. Any views expressed are based upon the data available at the time the information was produced and are subject to change at any time based on market or other conditions. Hardland disclaims any liability for any direct or incidental loss incurred by applying any of the information in this presentation. All investment decisions must be evaluated as to whether it is consistent with their investment objectives, risk tolerance, and financial situation.

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 and, 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 fixed income security sold or redeemed 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 marginified in emerging markets. The securities of smaller, less west smaller, less west of stocks and can be more volatile than those of larger companies. Growth stocks can perform differently from the market as a whole and 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-sized 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 1000 Growth Index are indices that measure the performance of 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 stocks and small-capitalization growth stocks, respectively. The Russell Midcap Value Index, Russell Midcap Growth Index are indices that measure the performance of small to mid-capitalization value stocks, and capitalization growth stocks, respectively. The Russell 2500 Value Index, Russell 2500 Index and Russell 2500 Index a

The Wilshire 5000 Index represents the broadest index for the U.S. equity market, measuring the performance of all U.S. equity securities with readily available price data. The Wilshire Micro Cap Index is a market capitalization-weighted index comprised of all stocks in the Wilshire 5000 Index below the 2,501st rank.

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 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 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 up to 3 months.

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 of investment-grade quality (Baa3/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 (FNMA), and Freddie Mac (FHLMC). The BC U.S. Municipal Bond Index covers the U.S. dollardenominated, long-term tax-exempt bond market with four main sectors; state and local general obligation bonds, revenue bonds, and pre-refunded bonds. The BC TIPS Index is an unmanaged market index made up of U.S. 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 of U.S. Government fixed-rate debt issues with maturities of one year or more. average lives greater than or equal to one year and that are part of a public deal; the index covers the following collateral types; credit cards, autos, home equity loans, stranded-cost utility (rate-reduction bonds), and manufactured housing. The BC Global Aggregate Index is composed of three sub-indices; the U.S. Aggregate Index, Pan-European Aggregate Index, and the Asian-Pacific Aggregate 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 public obligations 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 issuers with a duration of 1-10 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 10 years. The BC BAA Corporate Index measures the performance of the taxable Baa rated fixed-rate 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, 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 total returns for external-currencydenominated debt instruments of the emerging markets. The BC U.S. Securitized Bond Index is a composite of asset-backed securities (ERISA-eligible) 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 Universal Index represents the union of the U.S. Aggregate Index, the U.S. High Yield Corporate Index, the U.S. High Yield Corporate Index, the U.S. Aggregate Index I Eurodollar Index, the Emerging Markets Index, and the non-ERISA portion of the CMBS 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 intermediate-term investment grade bonds. The BC Intermediate 1-3 Year Government/Credit Index measures the performance of U.S. Dollar denominated U.S. Treasuries, government-related and investment grade U.S. corporate securities that have a remaining maturity of greater than one year

The Bank of America ML U.S. High Yield Index tracks the performance of below 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.



DEFINITIONS AND DISCLOSURES

Signal Identification Model (SIM) - The balance between fixed income and equity securities is guided by a proprietary, quantitative modeling technique we call "SIM". SIM is a four factor model that measures short-term under or over-valuation of equity markets. When SIM is negative, for example, the Investment Review Committee (IRC) may recommend that Consultants reduce equity ratios within prescribed ranges in client portfolios; when positive, that Consultants increase equity ratios within prescribed ranges in client portfolios; when positive, that Consultants increase equity ratios within prescribed ranges. Other judgments, such as short-term, relative weights between different asset classes often come from fundamental assessments of IRC members. Unemployment — Total labor force seasonally adjusted (U.S. Bureau of Labor Statistics'); ISM - An index based on surveys of more than 300 manufacturing firms by the Institute of Supply Management; Spread – indicates the difference in yield between Moody's AAA corporate bonds; S&P Earnings Yield – earnings per share for the most recent 12-month period divided by the current market price per share of the stocks in the S&P 500.

Hartland Research Portfolio (HPR) - Our Optimal Long-Term Strategic Asset Allocation, called the Hartland Research Portfolio, sets forth our best thinking on the mix of different asset classes; it is the benchmark we use in considering appropriate asset allocation for all client portfolios. The Hartland Research Portfolio is developed with two major inputs. One is quantitative, based on the input of the professionals on our Investment Research Committee (IRC). The Hartland & Co research team begins with the Black-Litterman model, a mathematical model that seeks asset allocations that are optimal; those that produce the best results with the lowest level of volatility or risk. Black-Litterman is more dynamic than other models and builds on traditional mean-variance techniques to create stable and consistent return forecasts for a set of asset classes. The IRC assess the quantitative output from Black-Litterman and integrate it with their own fundamental or qualitative judgments. The result is the Hartland Research Portfolio, which combines quantitative and qualitative inputs and our capital market projections.

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 constituents 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 these properties that are included must be investment grade, non-agricultural and income producing and all development projects are excluded. Constituents included in the NPI be valued at least quarterly, 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 FTSE 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 pooled 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 constituents 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 used as a benchmark in oil pricing.

The Affordability Index measures of 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 constituents of the HFRI Emerging Markets Indices are selected according to their Regional Investment Focus only. 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/Basic Materials strategies which employ investment processes designed to identify opportunities in securities in sec employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. HFRI EH: Quantitative Directional strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. HFRI EH: Short-Biased strategies employ analytical techniques in which the investment thesis is predicated on assessment of the valuation characteristics on the underlying companies with the goal of identifying overvalued companies. HFRI EH: Technology/Healthcare strategies employ investment processes designed to identify opportunities in securities in specific niche areas of the market in which the Manager maintain a level of expertise which exceeds that of a market generalist in identifying opportunities in companies engaged in all development, production and application of technology, biotechnology and as related to production of pharmaceuticals and healthcare industry. HFRI ED: Distressed Restructuring strategies which employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings. HFRI ED: Merger Arbitrage strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction. HFRI ED: Private Issue/Regulation D strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are primarily private and illiquid in nature. HFRI Macro: Systematic Diversified strategies have investment processes typically as function of mathematical, algorithmic and technical models, with little or no influence of individuals over the portfolio positioning. HFRI RV: Fixed Income - Asset Backed 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 is a fixed income instrument backed physical collateral or other financial obligations (loans, credit cards) other than those of a specific corporation. HFRI RV: Fixed Income - Convertible Arbitrage 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 is a convertible 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 is a corporate fixed income instrument. HFRI RV: Multi-Strategies employ an investment thesis is predicated on realization of a spread between related yield instruments in which one or multiple components of the spread contains a fixed income, derivative, equity, real estate, MLP or combination of these or other instruments. HFRI RV; Yield Alternatives Index strategies employ an investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread contains a derivative, equity, real estate, MLP or combination of these or other instruments, Strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager

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 the 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.



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

WHEREAS, the Investment Subcommittee 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 3356-03-10; and

WHEREAS, the Investment Subcommittee 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 Subcommittee of the Board of Trustees of Youngstown State University does hereby approve the rebalance, as shown on page 13 of the March 15, 2017, Investment Subcommittee Agenda item C.1.a.



REBALANCE RECOMMENDATIONS

Youngstown State University	M d alvela	60/0/0047		NI All	NII 4:					
	Market Value as	of 2/6/2017 %	Change	New Alloc	Marie Control of the	Policy Target	Policy Range	Difference		
Total Operating & Short Term	\$33,122,220	100.0%	\$0	\$33,122,220	100.0%	100.0%	-			
Operating Assets	\$32,052,408	96.8%	\$0	\$32,052,408	96.8%		60-100%			
JPMorgan 100% U.S. Treas. MM Instl	\$27,022,073	81.6%		\$27,022,073	81.6%					
JPMorgan Sweep Account*	\$0	0.0%		\$0	0.0%					
Star Plus Account*	\$5,030,335	15.2%		\$5,030,335	15.2%					
Short-Term Assets	\$1,069,813	3.2%	<u>\$0</u>	\$1,069,813	3.2%		0-40%			
Vanguard Short-Term Federal Adm	\$1,069,813	3.2%		\$1,069,813	3.2%					
Total Long Term Reserves Pool	\$55,702,436	100.0%	\$0	\$55,702,436	100.0%	100.0%				
Domestic Equity	\$16,197,994	29.1%	<u>\$0</u>	\$16,197,994	29.1%	27.0%	20-35%	2.1%		
Large Cap	\$10,396,691	18.7%	\$250,000	\$10,646,691	19.1%					
TRP Instl US Structured Research	\$5,178,715	9.3%		\$5,178,715	9.3%					
Vanguard 500 Index Adm	\$5,217,976	9.4%	\$250,000	\$5,467,976	9.8%					
Small/Mid Cap	\$5,801,304	10.4%	-\$250,000	\$5,551,304	10.0%					
Vanguard Mid Cap Index Adm	\$2,979,327	5.3%	-\$200,000	\$2,779,327	5.0%					
Loomis Sayles Small Growth Instl	\$1,385,348	2.5%		\$1,385,348	2.5%					
Victory Integrity Small Cap Value Y	\$1,436,629	2.6%	-\$50,000	\$1,386,629	2.5%					
International Equity	\$4,482,416	8.0%	<u>\$0</u>	\$4,482,416	8.0%	8.0%	0-15%	0.0%		
William Blair International Growth I	\$2,174,037	3.9%		\$2,174,037	3.9%					
Dodge & Cox International Stock	\$2,308,379	4.1%		\$2,308,379	4.1%					
Total Equity	\$20,680,410	37.1%	<u>\$0</u>	\$20,680,410	37.1%	35.0%	25-45%	2.1%		
Alternatives	\$8,650,985	15.5%	\$0	\$8,650,985	15.5%	15.0%	0-20%	0.5%		
Jhancock Global Absolute Return I	\$2,005,946	3.6%		\$2,005,946	3.6%					
Wells Fargo Adv Absolute Return I	\$2,417,000	4.3%		\$2,417,000	4.3%					
Diamond Hill Long-Short I	\$2,591,636	4.7%		\$2,591,636	4.7%					
Voya Global Real Estate I	\$1,636,403	2.9%		\$1,636,403	2.9%					
Fixed Income	\$26,371,041	47.3%	<u>\$0</u>	\$26,371,041	47.3%	50.0%				
Short Term Fixed Income	\$15,837,168	28.4%	\$0	\$15,837,168	28.4%	30.0%	25-45%	-1.6%		
YSU Short Term Bond	\$12,752,186	22.9%		\$12,752,186	22.9%					
DFA Five-Year Global	\$1,805,090	3.2%		\$1,805,090	3.2%					
Vanguard Short Term Bond Index	\$1,279,893	2.3%		\$1,279,893	2.3%					
Intermediate Fixed Income	\$10,533,873	18.9%	\$0	\$10,533,873	18.9%	20.0%	10-30%	-1.1%		
JPMorgan Core Bond Ultra R6	\$4,055,661	7.3%		\$4,055,661	7.3%					
YSU Intermediate Term Bond	\$3,920,150	7.0%		\$3,920,150	7.0%					
Prudential High Yield	\$2,558,061	4.6%		\$2,558,061	4.6%					
Total University Assets	\$88,824,657			\$88,824,657						