

**BOARD OF TRUSTEES
INVESTMENT SUBCOMMITTEE
Delores E. Crawford, Chair
Carole S. Weimer, Vice Chair
Harry Meshel
Sudershan K. Garg, *Ex-Officio*
Ikram Khawaja, *Ex-Officio***

**Thursday, May 29, 2014
1:00 p.m.**

**Tod Hall
Board Meeting Room**

AGENDA

A. Disposition of Minutes for Meeting Held February 20, 2014

B. Old Business

C. Subcommittee Item

1. Discussion Items

a. Hartland & Co. May 29, 2014 Non-Endowment Assets Update
Mike Shebak and Sarah Parker will report.

Tab 1

**b. Hartland & Co. May 29, 2014 Recommendation for Fund Custodian for
Endowed Assets**
Mike Shebak and Sarah Parker will report.

Tab 2

D. New Business

E. Adjournment

AGENDA ITEM: C.1.a.

AGENDA TOPIC: Hartland and Co. May 29, 2014 Non-Endowment Assets Update

CONTACT(S): Mike Shebak and Sarah Parker from Hartland and Co.

BACKGROUND: Investment review of the YSU Non-Endowment Assets.

SUMMARY AND ANALYSIS:

- I. Market Update
 - U.S. stocks and U.S. bonds both returned +1.8% in the first quarter of 2014, as measured by the S&P 500 and Barclays U.S. Aggregate Indices
 - 1-year U.S. stock returns = +21.9%, 1-year U.S. bond returns = -0.1%
- II. Recent Accomplishments
 - Asset allocation changes to the Long-Term Pool
 - Increased allocation to stocks from 25% to 35% and decreased allocation to bonds from 75% to 65%
- III. Investment Policy Statement and Asset Allocation Guidelines
 - Investments compliant with both documents
- IV. Market Values and Asset Allocation as of 3/31/2014
 - Long-Term Pool Market Value = \$50.799 million, Short-Term Pool = \$25.744 million
 - Total Non-Endowment Market Value = \$76.543 million
 - Long-Term Pool: 32% stocks/68% bonds
 - Short-Term Pool: 96% cash/4% bonds
- V. Investment Results as of 3/31/2014
 - Long-Term Pool returned +1.1% in the quarter, Short-Term Pool returned +0.0%
 - Total Non-Endowment assets return = +0.6%
 - Long-Term Pool returned +6.8% on a 1-year basis (represents investment earnings of \$3.249 million)
- VI. Investment Manager Commentary
 - The Long-Term Pool is invested in the PIMCO Low Duration Fund (\$3.3 million or 4.3% of total Non-Endowment assets)
 - PIMCO has experienced recent team changes (Mohamed El-Erian, CEO/co-CIO, stepped down in mid-March; Hartland will continue to monitor fund flows and employee turnover)

RESOLUTION: N/A – DISCUSSION ITEM ONLY

REVIEWED AS TO FORM AND CONTENT:


Ikram Khawaja, Interim President



May 29, 2014

Youngstown State University Non-Endowment Assets Update

HARTLAND & Co.
Investment Consultants

INDEPENDENCE || EXPERTISE || RESULTS





Executive Summary



I. Market Update

- U.S. stocks and U.S. bonds both returned **+1.8%** in the first quarter of 2014, as measured by the S&P 500 and Barclays U.S. Aggregate Indices
- 1-year U.S. stock returns = **+21.9%**, 1-year U.S. bond returns = **-0.1%**

II. Recent Accomplishments

- Asset allocation changes to the Long-Term Pool
- Increased allocation to stocks from 25% to 35% and decreased allocation to bonds from 75% to 65%

III. Investment Policy Statement and Asset Allocation Guidelines

- Investments compliant with both documents

IV. Market Values and Asset Allocation as of 3/31/2014

- Long-Term Pool Market Value = \$50.799 million, Short-Term Pool = \$25.744 million
 - Total Non-Endowment Market Value = **\$76.543 million**
- Long-Term Pool: 32% stocks/68% bonds
- Short-Term Pool: 96% cash/4% bonds

V. Investment Results as of 3/31/2014

- Long-Term Pool returned **+1.1%** in the quarter, Short-Term Pool returned +0.0%
 - Total Non-Endowment assets return = **+0.6%**
- Long-Term Pool returned **+6.8%** on a 1-year basis (represents investment earnings of \$3.249 million)

VI. Investment Manager Commentary

- The Long-Term Pool is invested in the PIMCO Low Duration Fund (\$3.3 million or 4.3% of total Non-Endowment assets)
- PIMCO has experienced recent team changes (Mohamed El-Erian, CEO/co-CIO, stepped down in mid-March; Hartland will continue to monitor fund flows and employee turnover



Appendix





Accomplishments & Future Initiatives



2013	1Q2013	2Q2013	3Q2013	4Q2013
Strategic/Administrative				- Asset Allocation Review
Investment Opportunities		- Global Fixed Income		
Manager Reviews	- PIMCO Low Duration	- Fixed Income Portfolio Review - DFA Global Bond	- PNC Update	
Fiduciary Responsibilities			- Fee Review	- Investment Policy

2014	1Q2014	2Q2014	3Q2014	4Q2014
Strategic/Administrative		- Endowed /Restricted Assets Review		- Asset Allocation Review
Investment Opportunities				
Manager Reviews	- PIMCO Update	- PIMCO Update		
Fiduciary Responsibilities			- Fee Review	- Investment Policy



Market Update





Asset Class Performance

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Q1 2014
Em Mkt	56.3%	30.4%	34.5%	34.3%	39.8%	9.4%	79.0%	27.6%	7.8%	20.1%	36.8%	8.6%
Sm/Mid	45.5%	26.0%	14.0%	32.6%	11.6%	5.2%	57.5%	26.7%	7.3%	18.6%	32.4%	3.1%
Dev Intl	39.2%	20.7%	8.3%	26.9%	10.9%	2.1%	34.4%	19.2%	5.2%	17.9%	23.3%	3.0%
REITs	38.5%	18.3%	8.1%	16.2%	9.7%	-20.8%	32.5%	15.2%	4.4%	17.9%	9.0%	2.3%
Large Cap	28.7%	12.1%	7.5%	15.8%	7.0%	-26.4%	27.5%	15.1%	2.1%	16.0%	7.4%	1.8%
Hi Yld	28.2%	10.9%	4.9%	11.8%	5.5%	-36.8%	26.5%	10.6%	0.1%	15.6%	3.2%	1.8%
Glb Bond	18.2%	10.9%	3.1%	10.2%	5.0%	-37.0%	11.5%	8.2%	-2.5%	5.4%	0.1%	0.8%
Hdg Fnds	11.4%	7.2%	2.7%	7.3%	2.2%	-37.3%	5.9%	6.6%	-4.9%	4.2%	-2.0%	0.1%
US Bonds	4.1%	4.3%	2.4%	4.9%	1.4%	-43.1%	4.4%	6.1%	-11.7%	1.8%	-2.3%	0.0%
Cash	1.2%	1.3%	-8.8%	4.3%	-17.8%	-53.2%	0.2%	0.1%	-18.2%	0.1%	-4.9%	-0.4%

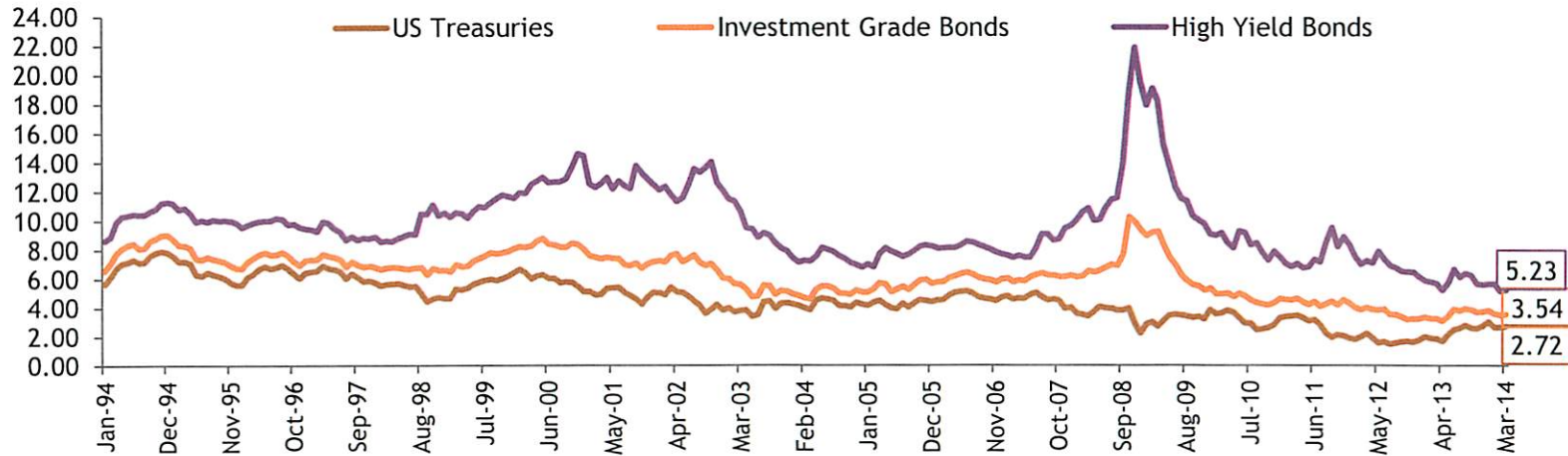
Past performance is no guarantee of future results. Asset classes represented by: Large Cap - S&P 500 Index; Sm/Mid - Russell 2500 Index; Dev Intl - MSCI EAFE Index; Em Mkt - MSCI Emerging Markets Index; Hi Yld - Bank of America Merrill Lynch U.S. High Yield Master II; US Bonds - Barclays Capital U.S. Aggregate; Glb Bond - Barclays Capital Global Treasury ex US; REITs - NAREIT ALL REITs; Hdg Fnds - HFRI FOF; Diversified Index; Cash - Merrill Lynch 91-day Tbill . Data as of 3/31/2014 Source: Zephyr Associates.



Yields and Interest Rate Sensitivity



Historical Bond Yields



One Year Change in Nominal Interest Rates

	Down 25 bps	No Change	Up 25 bps	Up 50 bps	Up 100 bps
High Yield Corp.	6.24%	5.23%	4.23%	3.22%	1.21%
Emerging Market	6.57%	5.11%	3.65%	2.20%	-0.72%
U.S. Aggregate	3.80%	2.39%	0.98%	-0.44%	-3.26%
3-Yr TSY	1.61%	0.88%	0.15%	-0.59%	-2.05%
10-Yr TSY	4.94%	2.73%	0.52%	-1.70%	-6.12%

Federal Reserve

- Reduced monthly asset purchases to \$55 billion beginning in April
- Implied that the asset purchase program would wind down throughout the year

Past performance is not a guarantee of future results. US Treasuries - BarCap US Gov't 10-Yr Treasury; Investment Grade Bonds - BarCap BAA Corp; High Yield Bonds - BarCap US High Yield. High Yield Corp - Barclay's High Yield Corporate Index; Emerging Market - Barclay's Emerging Market Aggregate Index; U.S. Aggregate - Barclay's U.S. Aggregate Index; 3-Yr & 10-Yr TSY represent constant maturity treasuries. Data as of 3/31/2014 Source: Bloomberg, Barclays



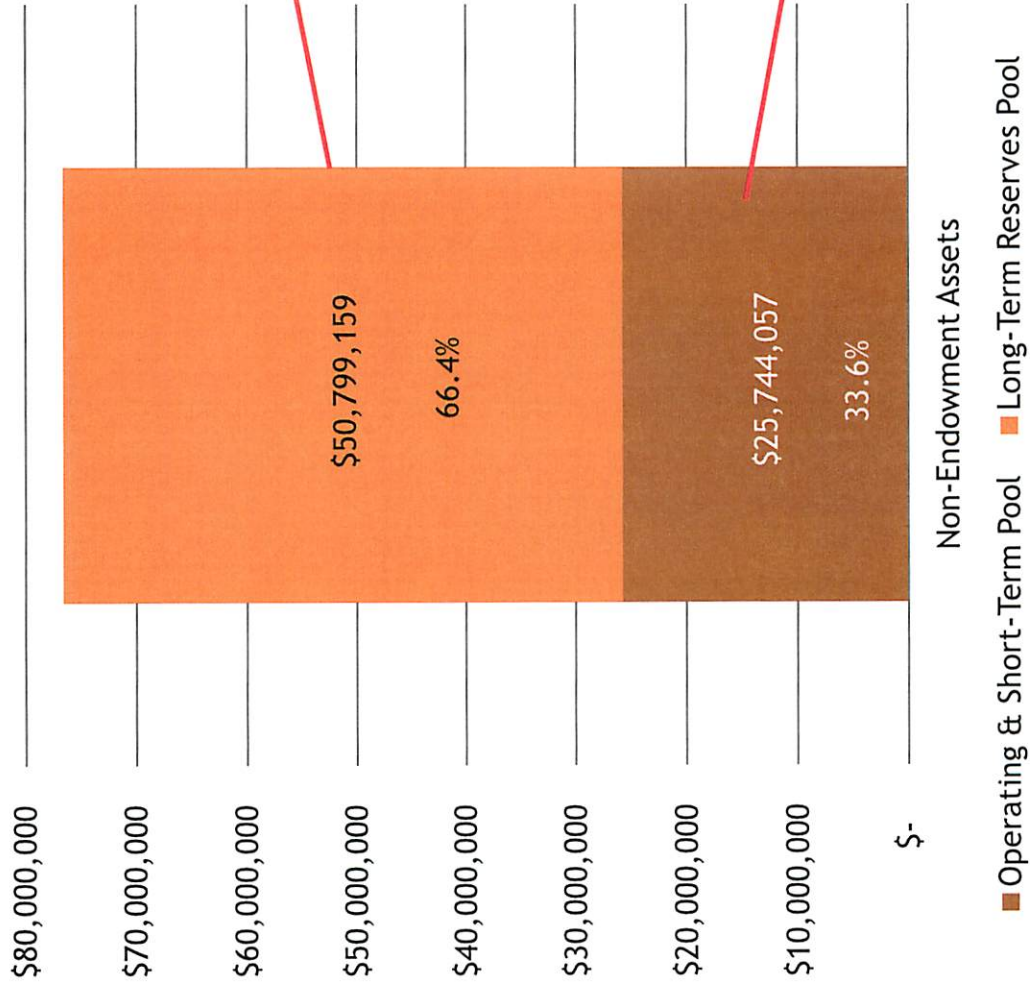
First Quarter 2014

Performance and Asset Allocation Update

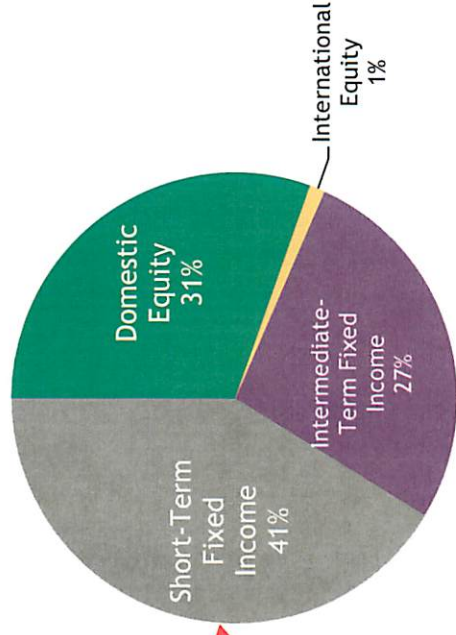




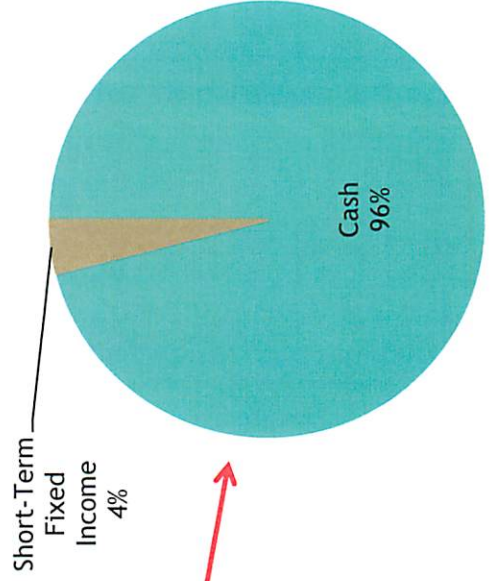
Quarterly Market Values and Asset Allocation (as of 3/31/2014)



Long-Term Reserves Pool



Operating & Short-Term Pool





Performance of Long-Term Pool and Short-Term Pool



	Ending March 31, 2014								Calendar Years			Inception	
	2014 Q1 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2013 (%)	2012 (%)	2011 (%)	Return (%)	Since
Total University Assets	0.6	0.6	4.4	4.0	3.5	4.4	4.2	4.0	5.6	4.1	1.2	4.0	Mar-04
<i>YSU Policy Benchmark</i>	0.4	0.4	2.7	2.6	2.4	3.1	3.2	3.2	3.6	2.8	1.1	3.2	Mar-04
Total Operating & Short Term	0.0	0.0	0.0	0.0	0.1	--	--	--	0.0	0.0	0.2	0.1	Jun-10
<i>YSU Total Operating & Short Term Benchmark</i>	0.0	0.0	0.1	0.1	0.1	0.1	0.9	1.7	0.1	0.1	0.2	0.1	Jun-10
Total Long Term/ Reserves Pool	1.1	1.1	6.8	6.1	5.4	--	--	--	8.7	6.4	1.9	5.9	Jun-10
<i>YSU Total Long Term/ Reserves Fund Benchmark</i>	0.8	0.8	5.3	5.1	4.7	5.3	4.9	4.3	7.1	5.5	1.9	4.9	Jun-10
Total Domestic Equity	1.8	1.8	23.5	18.7	14.3	--	--	--	35.2	15.3	0.8	20.3	Jun-10
<i>Russell 3000</i>	2.0	2.0	22.6	18.5	14.6	21.9	6.6	7.9	33.6	16.4	1.0	20.2	Jun-10
Total International Equity	1.0	1.0	20.0	15.5	5.8	--	--	--	23.4	20.1	-18.9	7.8	Sep-10
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7	9.6	Sep-10
<i>MSCI ACWI ex USA Gross</i>	0.6	0.6	12.8	10.8	4.6	16.0	2.2	7.6	15.8	17.4	-13.3	7.1	Sep-10
Total Fixed Income	0.8	0.8	0.4	1.5	2.4	--	--	--	-0.1	3.2	3.8	2.5	Jun-10
<i>YSU Fixed Income Benchmark</i>	0.5	0.5	0.4	1.3	2.0	2.9	3.6	3.3	0.1	2.4	3.2	2.0	Jun-10

- YSU Policy Benchmark = BofA Merrill Lynch 91-Day T-Bill 45% / Barclays 1-3 Yr. Govt. 27.5% / Barclays Int Govt/Credit 15% / Russell 3000 10% / MSCI EAFE Gross 2.5%
- YSU Total Operating & Short Term Benchmark = BofA Merrill Lynch 91-Day T-Bill 95% / Barclays 1-3 Yr. Govt. 5%
- YSU Total Long Term/ Reserves Fund Benchmark = Russell 3000 20% / MSCI EAFE Gross 5% / Barclays Int Govt/Credit 30% / Barclays 1-3 Yr. Govt. 45%
- YSU Fixed Income Benchmark = BofA Merrill Lynch US Corp & Gov 1-3 Yrs 60% / Barclays Int Govt/Credit 40%

Long-Term Pool: 1-Year Investment Earnings = \$3.249 million



Schedule of Assets



Asset Class	Market Value 12/31/13 (\$)	Market Value 3/31/14 (\$)	% of Total Plan	% of Pool	
Total University Assets	58,185,438	76,543,216	100.0	--	
Total Operating & Short Term	7,935,984	25,744,057	33.6	--	
JPMorgan 100% U.S. Tr Sec MM Inst	Cash	3,825,620	15,825,665	20.7	61.5
JPMorgan Sweep Account	Cash	3,078,381	3,880,432	5.1	15.1
Star Plus	Cash	--	5,002,217	6.5	19.4
Vanguard Short-Term Federal Adm	US Fixed Income Short Term	1,031,983	1,035,742	1.4	4.0
Total Long Term/ Reserves Pool	50,249,454	50,799,159	66.4	--	
Total Domestic Equity	13,776,585	14,028,284	18.3	27.6	
TRP Instl US Structured Rsch	US Stock Large Cap Core	4,544,012	4,599,024	6.0	9.1
Vanguard 500 Index Signal	US Stock Large Cap Core	4,549,281	4,631,081	6.1	9.1
Vanguard Mid Cap Index Signal	US Stock Mid Cap Core	2,304,682	2,379,703	3.1	4.7
Loomis Sayles Sm Growth Instl	US Stock Small Cap Growth	1,240,592	1,260,155	1.6	2.5
Munder Veracity Sm-Cap Value Y	US Stock Small Cap Value	1,138,018	1,158,320	1.5	2.3
Total International Equity	3,186,147	4,536,497	5.9	8.9	
William Blair Int'l Gr I	International	1,427,660	2,190,371	2.9	4.3
Dodge & Cox Internat'l Stock	International	1,758,487	2,346,126	3.1	4.6
Total Fixed Income	33,286,722	32,234,379	42.1	63.5	
JPMorgan Core Bond Ultra	US Fixed Income Core	6,292,777	5,905,162	7.7	11.6
YSU Intermediate Term Bond	US Fixed Income Core	5,619,959	5,431,320	7.1	10.7
PIMCO Low Duration Instl	US Fixed Income Short Term	3,303,035	3,316,330	4.3	6.5
YSU Short Term Bond	US Fixed Income Short Term	14,723,277	14,214,536	18.6	28.0
Vanguard Short-Term Bond Instl	US Fixed Income Short Term	1,848,814	1,856,258	2.4	3.7
DFA Five-Yr Global Fxd-Inc I	Global Fixed Income	1,498,860	1,510,772	2.0	3.0



Policy Compliance



Total Plan Asset Allocation Policy	Range	Current
Operating & Short-Term Pool	25% - 50%	34%
Long Term/ Reserves Pool	50% - 75%	66%

Operating & Short-Term Pool	Range	Current
Operating Assets	60% - 100%	96%
Short-Term Assets	0% - 40%	4%

Long Term/ Reserves Pool	Target	Range	Current
Domestic Equity	27%	0% - 35%	28%
International Equity	8%	0% - 15%	9%
Total Equity	35%	0% - 45%	37%
Short-Term Fixed Income	40%	35% - 55%	38%
Intermediate Fixed Income	25%	20% - 40%	25%
Cash & Cash Equivalents	0%	0% - 5%	0%

In Line
 Within Tolerance
 Review



Performance Report Card



	Ending March 31, 2014								Calendar Years			Inception	
	2014 Q1 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2013 (%)	2012 (%)	2011 (%)	Return (%)	Since
Total University Assets	0.6	0.6	4.4	4.0	3.5	4.4	4.2	4.0	5.6	4.1	1.2	4.0	Mar-04
<i>YSU Policy Benchmark</i>	0.4	0.4	2.7	2.6	2.4	3.1	3.2	3.2	3.6	2.8	1.1	3.2	Mar-04
Total Operating & Short Term	0.0	0.0	0.0	0.0	0.1	--	--	--	0.0	0.0	0.2	0.1	Jun-10
<i>YSU Total Operating & Short Term Benchmark</i>	0.0	0.0	0.1	0.1	0.1	0.1	0.9	1.7	0.1	0.1	0.2	0.1	Jun-10
JPMorgan 100% U.S. Tr Sec MM Inst	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	0.0	0.0	0.0	0.0	Sep-11
<i>BofA Merrill Lynch 91-Day T-Bill</i>	0.0	0.0	0.1	0.1	0.1	0.1	0.9	1.7	0.1	0.1	0.1	0.1	Sep-11
JPMorgan Sweep Account													
Vanguard Short-Term Federal Adm	0.4	0.4	0.0	0.7	1.5	2.0	3.4	3.2	-0.2	1.5	2.9	1.1	Sep-10
<i>Barclays 1-5 Yr. Govt.</i>	0.2	0.2	0.0	0.6	1.4	1.7	3.3	3.0	-0.1	1.0	3.2	1.0	Sep-10
Star Plus	--	--	--	--	--	--	--	--	--	--	--	0.0	Jan-14
Total Long Term/ Reserves Pool	1.1	1.1	6.8	6.1	5.4	--	--	--	8.7	6.4	1.9	5.9	Jun-10
<i>YSU Total Long Term/ Reserves Fund Benchmark</i>	0.8	0.8	5.3	5.1	4.7	5.3	4.9	4.3	7.1	5.5	1.9	4.9	Jun-10
Total Domestic Equity	1.8	1.8	23.5	18.7	14.3	--	--	--	35.2	15.3	0.8	20.3	Jun-10
<i>Russell 3000</i>	2.0	2.0	22.6	18.5	14.6	21.9	6.6	7.9	33.6	16.4	1.0	20.2	Jun-10
TRP Instl US Structured Rsch	1.2	1.2	21.8	17.3	14.4	20.7	--	--	32.9	16.2	1.4	19.4	Jun-10
<i>S&P 500</i>	1.8	1.8	21.9	17.8	14.7	21.2	6.3	7.4	32.4	16.0	2.1	19.8	Jun-10
Vanguard 500 Index Signal	1.8	1.8	21.8	17.8	14.6	21.1	6.3	7.4	32.3	16.0	2.1	19.7	Jun-10
<i>S&P 500</i>	1.8	1.8	21.9	17.8	14.7	21.2	6.3	7.4	32.4	16.0	2.1	19.8	Jun-10
Vanguard Mid Cap Index Signal	3.3	3.3	23.6	19.5	13.6	25.0	7.5	10.0	35.1	16.0	-2.0	18.3	Sep-10
<i>Vanguard Mid Cap Index Benchmark</i>	3.3	3.3	23.8	19.6	13.7	25.1	7.5	10.0	35.3	16.0	-1.9	18.4	Sep-10
Loomis Sayles Sm Growth Instl	1.6	1.6	31.7	21.8	15.0	26.5	11.1	11.6	47.7	10.3	3.2	22.2	Sep-10
<i>Russell 2000 Growth</i>	0.5	0.5	27.2	20.7	13.6	25.2	8.6	8.9	43.3	14.6	-2.9	19.7	Sep-10



Performance Report Card



	Ending March 31, 2014								Calendar Years			Inception	
	2014 Q1 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2013 (%)	2012 (%)	2011 (%)	Return (%)	Since
Munder Veracity Sm-Cap Value Y	1.8	1.8	26.5	22.3	14.2	26.8	8.5	--	41.0	14.0	-2.6	19.6	Sep-10
<i>Russell 2000 Value</i>	1.8	1.8	22.6	20.3	12.7	23.3	5.4	8.1	34.5	18.1	-5.5	17.6	Sep-10
Total International Equity	1.0	1.0	20.0	15.5	5.8	--	--	--	23.4	20.1	-18.9	7.8	Sep-10
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7	9.6	Sep-10
<i>MSCI ACWI ex USA Gross</i>	0.6	0.6	12.8	10.8	4.6	16.0	2.2	7.6	15.8	17.4	-13.3	7.1	Sep-10
William Blair Int'l Gr I	-0.7	-0.7	13.3	13.2	7.9	18.8	2.3	7.6	19.0	24.0	-14.2	19.1	Jun-12
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7	22.0	Jun-12
<i>MSCI ACWI ex USA Gross</i>	0.6	0.6	12.8	10.8	4.6	16.0	2.2	7.6	15.8	17.4	-13.3	17.5	Jun-12
Dodge & Cox Internat'l Stock	2.8	2.8	25.2	18.1	8.8	20.5	3.3	9.3	26.3	21.0	-16.0	10.7	Sep-10
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7	9.6	Sep-10
Total Fixed Income	0.8	0.8	0.4	1.5	2.4	--	--	--	-0.1	3.2	3.8	2.5	Jun-10
<i>YSU Fixed Income Benchmark</i>	0.5	0.5	0.4	1.3	2.0	2.9	3.6	3.3	0.1	2.4	3.2	2.0	Jun-10
JPMorgan Core Bond Ultra	1.8	1.8	0.0	2.2	4.0	5.5	5.6	4.9	-1.6	5.2	7.4	3.7	Apr-11
<i>Barclays Aggregate</i>	1.8	1.8	-0.1	1.8	3.7	4.8	5.0	4.5	-2.0	4.2	7.8	3.4	Apr-11
YSU Intermediate Term Bond	1.1	1.1	0.3	2.2	3.3	4.6	5.1	4.4	-0.5	5.2	4.6	4.4	Mar-04
<i>Barclays Int Govt/Credit</i>	1.0	1.0	-0.1	1.7	3.1	4.2	4.5	3.9	-0.9	3.9	5.8	3.9	Mar-04
PIMCO Low Duration Instl	0.4	0.4	0.1	2.4	2.4	5.3	4.4	3.9	0.1	6.2	1.7	0.3	Mar-13
<i>BofA Merrill Lynch US Treasuries 1-3 Yrs</i>	0.1	0.1	0.4	0.5	0.8	1.1	2.6	2.5	0.4	0.4	1.5	0.4	Mar-13
YSU Short Term Bond	0.3	0.3	0.7	1.0	1.3	2.4	3.1	3.1	0.6	1.8	1.5	3.1	Mar-04
<i>BofA Merrill Lynch US Corp & Gov 1-3 Yrs</i>	0.2	0.2	0.7	1.0	1.3	2.0	2.9	2.8	0.7	1.5	1.6	2.8	Mar-04
Vanguard Short-Term Bond Instl	0.4	0.4	0.4	1.1	--	--	--	--	0.2	2.1	--	1.2	Dec-11
<i>Barclays 1-5 Yr. Govt/Credit</i>	0.4	0.4	0.4	1.2	1.9	2.8	3.6	3.3	0.3	2.2	3.1	1.3	Dec-11
DFA Five-Yr Global Fxd-Inc I	0.8	0.8	0.0	1.8	3.1	3.8	3.9	3.4	-0.4	4.8	4.5	1.6	Jun-13
<i>Citi WGBI 1-5 Yr Hdg USD</i>	0.6	0.6	0.9	1.4	1.9	1.8	3.0	3.1	0.6	2.1	2.3	1.3	Jun-13



Team Changes

- Mohamed El-Erian stepped down in mid-March (CEO and Co-CIO)
 - Remains an advisor to Pimco's parent (Allianz)
- Bill Gross will remain as CIO and six Managing Directors have been named Deputy CIOs
- Doug Hodge CEO / Jay Jacobs President

Conclusion

- PIMCO has a formal succession planning process, a deep and talented bench and a proven investment process with a long-term record of success
- The most immediate risk to PIMCO is headline risk from unflattering media articles
- Hartland will continue to monitor fund flows and employee turnover



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. Hartland 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 magnified in emerging markets. The securities of smaller, less well-known companies 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 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-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 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 "smid" 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 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. 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 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 (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The BC U.S. Municipal Bond Index covers the U.S. dollar-denominated, long-term 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 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 that covers fixed-rate asset-backed securities with 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. 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 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-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 (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 144A Index, the 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 and less than ten years.

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.

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. 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 and Moody's BAA 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 Black-Litterman model, and one is qualitative, 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).

AGENDA ITEM: C.1.b.

AGENDA TOPIC: Hartland & Co. May 29, 2014 Endowed Funds & Custodian Review

CONTACT(S): Mike Shebak and Sarah Parker from Hartland and Co.

BACKGROUND: Investment review and recommendations of the YSU Endowed Assets.

Oversight of the YSU Foundation Funds (Kilcawley Center Fund, Alumni License Plate Fund, and YSU Endowment Fund) was transferred to YSU on 11/1/2013).

SUMMARY AND ANALYSIS:

The Endowed Funds are as follows:

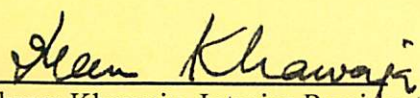
- Kilcawley Center Fund - \$91K: Will be used to support the costs of the student union/center renovation
- Alumni License Plate Fund - \$393K: Provides general scholarships
- YSU Endowment Fund - \$8.076 million: Used for marketing and recruiting efforts

After a review of each Fund, Hartland is proposing the following:

- I. Custodian Recommendation
 - Move custodial relationships from Huntington and Farmers Trust Company to PNC
- II. Asset Allocation Recommendation
 - 70% stocks/30% bonds target weighting for each Fund
 - Current asset allocation:
 - Kilcawley Center Fund = 90% stocks/10% cash
 - Alumni License Plate Fund = 50% stocks/50% cash
 - YSU Endowment Fund = 75% stocks/35% cash & fixed income
- III. Asset Allocation Guidelines Recommendation
 - Create a separate Asset Allocation Guidelines document for the YSU managed Endowed Funds
 - Investment Policy Statement accounts for the investment of the University's Non-Endowment and Endowment Funds
- IV. Investment Manager Recommendation
 - Move to a portfolio of mutual funds similar to the YSU Non-Endowment Long-Term Pool

RESOLUTION: N/A – DISCUSSION ITEM ONLY

REVIEWED AS TO FORM AND CONTENT:


Ikram Khawaja, Interim President



May 29, 2014

Youngstown State University Endowed Funds & Custodian Review

HARTLAND & Co.
Investment Consultants

INDEPENDENCE || EXPERTISE || RESULTS





Executive Summary



- I. **Review of Endowed Funds (oversight transferred to YSU from Foundation on 11/1/2013)**
 - **Kilcawley Center Fund - \$91K:** Will be used to support the costs of the student union/center renovation
 - **Alumni License Plate Fund - \$393K:** Provides general scholarships
 - **YSU Endowment Fund - \$8.076 million:** Used for marketing and recruiting efforts
- II. **Custodian Recommendation**
 - Move custodial relationships from Huntington and Farmers to PNC
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 - 70% stocks/30% bonds target weighting for each Fund
 - Current asset allocation:
 - **Kilcawley Center Fund = 90% stocks/10% cash**
 - **Alumni License Plate Fund = 50% stocks/50% cash**
 - **YSU Endowment Fund = 75% stocks/35% cash & fixed income**
- IV. **Asset Allocation Guidelines Recommendation**
 - Create a separate Asset Allocation Guidelines document for the YSU managed Endowed Funds (see Appendix)
 - Investment Policy Statement accounts for the investment of the University's Non-Endowment and Endowment Funds
- V. **Investment Manager Recommendation**
 - Move to a portfolio of mutual funds similar to the YSU Non-Endowment Long-Term Pool



Appendix





Endowed Funds



On November 1, 2013, oversight of the below Funds were transferred from the Foundation to YSU.

- **Kilcawley Center Fund:** Will be used to support the costs of the student union/center renovation
- **Alumni License Plate Fund:** Provides general scholarships
- **YSU Endowment Fund:** Used for marketing and recruiting efforts

The Funds are held at Farmers Trust Company and Huntington Bank and are currently allocated as follows:

- **Kilcawley Center Fund** = 90% stocks/10% cash
- **Alumni License Plate Fund** = 50% stocks/50% cash
- **YSU Endowment Fund** = 75% stocks/35% cash & fixed income

	Market Value	Ending March 31, 2014								Calendar Years			Inception	
		2014 Q1 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2013 (%)	2012 (%)	2011 (%)	Return (%)	Since
Total Endowment/Designated Accounts		1.9	1.9	--	--	--	--	--	--	--	--	--	9.9	Jun-13
YSU Endowment Fund	\$91,068	1.8	1.8	--	--	--	--	--	--	--	--	--	9.8	Jun-13
60/40 S&P 500/Barclays Aggregate		1.9	1.9	12.7	11.3	10.4	14.6	6.1	6.5	17.6	11.3	4.7	11.8	Jun-13
Kilcawley Center	\$382,889	2.6	2.6	--	--	--	--	--	--	--	--	--	14.8	Jun-13
60/40 S&P 500/Barclays Aggregate		1.9	1.9	12.7	11.3	10.4	14.6	6.1	6.5	17.6	11.3	4.7	11.8	Jun-13
The Alumni License Plate Account Endowment	\$8,075,795	3.2	3.2	--	--	--	--	--	--	--	--	--	--	May-13
60/40 S&P 500/Barclays Aggregate		1.9	1.9	12.7	11.3	10.4	14.6	6.1	6.5	17.6	11.3	4.7	10.2	May-13



Custodian Review



YSU issued a Request for Information (RFI) to 12 banks in the Youngstown area for custody services for the \$8 million Endowment Fund; 6 responses were received.

Custody fee responses ranged from 3-21 basis points (PNC was the lowest at 3 basis points - \$2,400/year; same price for YSU Non-Endowment Assets).

	Farmers Trust Company	PNC	US Bank	Charter One	Key Bank	Huntington (current)
Annual Custody Fee for YSU Assets	\$12,000 (15bps)	\$2,400 (3bps)	\$6,200 (10 bps on first \$7 million; 6 bps on balance)	\$16,800 (21bps)	\$8,000 (10 bps on first \$10 million; 7.5 bps on balance)	\$5,600 (7bps)
Number of Custody Clients	1,100	17,550	3,977	550	615	623
Median Custody Client Size	\$1,000,000	\$7,500,000	\$251,445,813	\$20,000,000	\$2,200,000	\$3,875,824

Hartland would recommend YSU consider a move to PNC to maintain the same custodian as other YSU assets and lower custody fees by \$3,200/year.



Asset Allocation Review



	Kilcawley Fund	License Plate Fund	YSU Endowment Fund
Current Asset Allocation	90% stocks/10% cash	50% stocks/50% cash	70% stocks/20% bonds/ 10% cash
Projected Return/Risk	9.5%/13.6%	6.5%/7.6%	8.1%/10.7%
Investment Objective	Growth & Capital Appreciation	Growth & Capital Appreciation	Growth & Capital Appreciation
Cash Flow Needs	Minimal; pending renovation of student union	Ongoing Scholarships	Ongoing Recruitment/ Marketing Efforts
Risk Tolerance	Moderate/High	Moderate/High	Moderate/High
Scenario 1 Return/Risk: 90% Stocks/10% Bonds		9.5%/13.7%	
Scenario 2 Return/Risk: 80% Stocks/20% Bonds		8.8%/12.2%	
Scenario 3 Return/Risk: 70% Stocks/30% Bonds		8.5%/11.5%	
Scenario 4 Return/Risk: 60% Stocks/40% Bonds		7.4%/9.3%	

Hartland recommend establishing target allocations of **70% stocks/30% bonds** for each Fund to continue ongoing support and future growth needs.



Investment Policy Statement & Asset Allocation Guidelines Review



- Investment Policy Statement
 - No changes: the document accounts for the Investment of the University's Non-Endowment and Endowment Funds
 - Last revised on June 5, 2012; last reviewed by Hartland in December 2013
- Asset Allocation Guidelines

Hartland recommends creating a separate *Asset Allocation Guidelines* document for the YSU managed Endowed Funds (See Appendix).



Underlying Investments



	Kilcawley Fund	License Plate Fund	YSU Endowment Fund
Current Stock Exposure	Individual Stocks (3)	Mutual Funds (2) and Individual Stocks (1)	Mutual Funds (2), ETFs (1), and Individual Stocks (approx 50)
Current Bond Exposure	None	None	CDs and Corporate Bonds (approx. 12)

Hartland recommends increasing diversification and investing exclusively in mutual funds similar to the YSU Non-Endowment Long-Term Pool; allow Hartland, YSU staff, and custodian to implement.

Recommendations	Kilcawley Fund	License Plate Fund	YSU Endowment Fund
Stock Mutual Funds	Vanguard 500 Index	Vanguard 500 Index	<ol style="list-style-type: none"> 1. T. Rowe Price US Structured Research 2. Vanguard 500 Index 3. Vanguard Mid Cap Index 4. Loomis Sayles Small Cap Growth* 5. Munder-Veracity Small Cap Value* 6. William Blair International 7. Dodge & Cox International
Bond Mutual Funds	JPMorgan Core Bond	JPMorgan Core Bond	<ol style="list-style-type: none"> 1. JPMorgan Core Bond 2. Vanguard Short-Term Bond 3. DFA Five-Year Global



Manager Performance



	Ending March 31, 2014								Calendar Years		
	2014 Q1 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2013 (%)	2012 (%)	2011 (%)
TRP Instl US Structured Rsch	1.2	1.2	21.8	17.3	14.4	20.7	--	--	32.9	16.2	1.4
<i>S&P 500</i>	1.8	1.8	21.9	17.8	14.7	21.2	6.3	7.4	32.4	16.0	2.1
Vanguard 500 Index Signal	1.8	1.8	21.8	17.8	14.6	21.1	6.3	7.4	32.3	16.0	2.1
<i>S&P 500</i>	1.8	1.8	21.9	17.8	14.7	21.2	6.3	7.4	32.4	16.0	2.1
Vanguard Mid Cap Index Signal	3.3	3.3	23.6	19.5	13.6	25.0	7.5	10.0	35.1	16.0	-2.0
<i>Vanguard Mid Cap Index Benchmark</i>	3.3	3.3	23.8	19.6	13.7	25.1	7.5	10.0	35.3	16.0	-1.9
Loomis Sayles Sm Growth Instl	1.6	1.6	31.7	21.8	15.0	26.5	11.1	11.6	47.7	10.3	3.2
<i>Russell 2000 Growth</i>	0.5	0.5	27.2	20.7	13.6	25.2	8.6	8.9	43.3	14.6	-2.9
Munder Veracity Sm-Cap Value Y	1.8	1.8	26.5	22.3	14.2	26.8	8.5	--	41.0	14.0	-2.6
<i>Russell 2000 Value</i>	1.8	1.8	22.6	20.3	12.7	23.3	5.4	8.1	34.5	18.1	-5.5
William Blair Int'l Gr I	-0.7	-0.7	13.3	13.2	7.9	18.8	2.3	7.6	19.0	24.0	-14.2
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7
<i>MSCI ACWI ex USA Gross</i>	0.6	0.6	12.8	10.8	4.6	16.0	2.2	7.6	15.8	17.4	-13.3
Dodge & Cox Internat'l Stock	2.8	2.8	25.2	18.1	8.8	20.5	3.3	9.3	26.3	21.0	-16.0
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7
JPMorgan Core Bond Ultra	1.8	1.8	0.0	2.2	4.0	5.5	5.6	4.9	-1.6	5.2	7.4
<i>Barclays Aggregate</i>	1.8	1.8	-0.1	1.8	3.7	4.8	5.0	4.5	-2.0	4.2	7.8
Vanguard Short-Term Bond Instl	0.4	0.4	0.4	1.1	--	--	--	--	0.2	2.1	--
<i>Barclays 1-5 Yr. Govt/Credit</i>	0.4	0.4	0.4	1.2	1.9	2.8	3.6	3.3	0.3	2.2	3.1
DFA Five-Yr Global Fxd-Inc I	0.8	0.8	0.0	1.8	3.1	3.8	3.9	3.4	-0.4	4.8	4.5
<i>Citi WGBI 1-5 Yr Hdq USD</i>	0.6	0.6	0.9	1.4	1.9	1.8	3.0	3.1	0.6	2.1	2.3



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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 magnified in emerging markets. The securities of smaller, less well-known companies 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 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-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 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 "smid" 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 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. 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 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 (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The BC U.S. Municipal Bond Index covers the U.S. dollar-denominated, long-term 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 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 that covers fixed-rate asset-backed securities with 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. 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 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-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 (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 144A Index, the 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 and less than ten years.

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.

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. 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 and Moody's BAA 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 Black-Litterman model, and one is qualitative, 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 specific niche areas of the market in which the Manager maintains a level of expertise which exceeds that of a market generalist. **HFRI EH: Equity Market Neutral** 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: 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 of 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.

YOUNGSTOWN STATE UNIVERSITY
 Asset Allocation and Other Investment Guidelines
 Investment of YSU Endowed Funds
DRAFT

OVERVIEW/OBJECTIVES

The investment guidelines outlined within apply to the YSU Endowed Funds managed by the University (Kicawley Center Fund, Alumni License Plate Fund, and YSU Endowment Fund). The investment objective of each Fund shall be long-term capital appreciation.

ASSET CLASS GUIDELINES

Based on the investment objectives, the following asset allocation strategy is considered appropriate for the YSU Endowed Funds managed by the University:

Asset Class	Target	Range
Equities	70%	60%-80%
Fixed Income	30%	20%-40%

The equity component should normally represent 70% of the total market value of each Fund. Although the actual percentage of equities will vary with market conditions, equity levels in excess of 80% or below 60% will result in rebalancing the equity component of the fund to its equity target level. The Subcommittee will review the equity allocation on a quarterly basis.

Fixed income should normally represent 30% of the total market value of each Fund. Although the actual percentage will fluctuate with market conditions, short-term fixed income levels in excess of 40% or below 20% will result in rebalancing the fixed income component of the Fund to its fixed income target level. The Subcommittee will review the fixed income allocation on a quarterly basis.

Depending upon market conditions, the percentage allocation to each asset class may fluctuate within the above policy ranges. Such strategic allocations should be reviewed and approved by the Investment Subcommittee on an ongoing basis.

As it relates to the selection and retention decisions regarding mutual funds, the stated equity and fixed income guidelines below should be used as references.

EQUITY GUIDELINES

The objective of the equity portion of the Funds shall be to provide for potential growth of principal with a long-term time horizon. The use of both passively managed equity

index strategies and actively managed comingled funds is permitted. The following acceptable sub asset classes will serve as a guideline for equity investments:

- A. Large Cap Domestic - common stocks or equivalents listed on an established stock market (e.g., NYSE, AMEX, NASDAQ) and readily marketable with market capitalization generally exceeding \$5 billion. Non-marketable securities may not be purchased or held without prior approval from the Subcommittee. As used herein, “generally exceeding \$5 billion” means that greater than 67% of the value of the portfolio is invested in securities when the market capitalization of which exceeds \$5 billion.
- B. Small/Mid Cap Domestic - common stocks or equivalents listed on an established stock market (e.g., NYSE, AMEX, NASDAQ) and readily marketable with market capitalization generally exceeding \$500 million. Non-marketable securities may not be purchased or held without prior approval from the Subcommittee. As used herein, “generally exceeding \$500 million” means that greater than 67% of the value of the portfolio is invested in securities when the market capitalization of which exceeds \$500 million.
- C. International - common stocks or equivalents listed on an established stock market (e.g., NYSE, AMEX, NASDAQ, FTSE, NIKKEI, DAX) and readily marketable with market capitalization generally exceeding \$1 billion. Non-marketable securities may not be purchased or held without prior approval from the Subcommittee. As used herein, “generally exceeding \$1 billion” means that greater than 50% of the value of the portfolio is invested in securities when the market capitalization of which exceeds \$1 billion.

Equity Diversification

Each investment manager should diversify the portfolio in an attempt to minimize the impact of substantial losses in any specific industry or issue. Therefore, each equity account:

- May not invest more than approximately 5% of the account valued at cost in a given issuer
- May not invest more than approximately 10% of the account valued at market in a given issuer
- Large Cap, Mid Cap and Small Cap Domestic - Shall be broadly diversified by industry or sector groups and not represent over concentration relative to the mandate’s relevant benchmark. Additionally, domestic equity managers shall limit international-domiciled securities to 10% of their portfolio value, absent Subcommittee approval.
- International – Shall be broadly diversified by county, industry or sector groups and not represent over concentration relative to the mandate’s

relevant benchmark; and limit emerging market exposure to 25% of total international exposure.

FIXED INCOME GUIDELINES

The objective of the fixed-income portion of the Funds shall be both to provide a secure, above-average stream of income (i.e., income in excess of U.S. Treasury Bill rates) and to provide a relatively stable market value base. The following directions are intended to apply to all fixed-income investment managers:

- Fixed-income investments may include U.S. and Non-U.S. issues of Government and Agency obligations, marketable corporate bonds, mortgage or asset-backed bonds, and preferred stocks with sinking funds as deemed prudent by the investment managers.
- Fixed income investments are to be prudently diversified by security type, with an emphasis toward avoiding concentrated positions in any one fixed income sector or security type.
- Fixed-income portfolio maturity, as measured by portfolio duration, should be in the range of 80% to 120% of the applicable benchmark.
- Fixed-income investments shall be rated “BAA” (investment grade) or better by Moody’s and BBB (investment grade) or better by Standard & Poor’s with emphasis toward “A” or better issues. Regarding below investment grade holdings, YSU will target the use of investment managers that, as a part of their investment process, strategy and risk controls, do not initially purchase bonds that are below investment grade. However, it is understood that, from time to time, individual bonds or holdings may fall below investment grade. It is expected that investment managers will handle these instances consistent with their stated investment process, strategy and risk controls. Therefore, it is accepted that from time to time, a nominal amount of the non-endowment assets may be held in a below investment grade bond.
- No more than 5% of the fixed income investments, at market, shall be invested in securities of any one issuer, except Government and Agency obligations, without the Subcommittee's prior approval.
- Cash equivalent investments (maturities less than one year) are permitted, up to 10% of the total market value of the account, when the managers' investment policies discourage longer-term commitments. However, the Subcommittee must be consulted in the event that the manager chooses to increase its cash equivalent position beyond 10% of the assets under its supervision.
- Investment assets allocated to fixed income investment management firms and institutions shall be properly diversified so as to avoid over concentration with any one investment manager or institution.

PROHIBITED INVESTMENTS

The following categories of securities and strategies are not considered appropriate at the present time:

- Private Placements
- Unregistered or Restricted Stock
- Margin Trading/Short Sales
- Commodities, Commodity Contracts, Precious Metals, or Gems
- Real Estate Property (excluding REITs)
- Guaranteed Insurance Contracts
- Securities Lending; pledging or hypothecating securities

VOTING OF PROXIES AND TRADE EXECUTION

The investment manager shall vote proxies for all portfolios managed. The Investment Subcommittee will vote all mutual fund proxies.

The Subcommittee expects the purchase and sale of its securities to be made in a manner designed to receive the combination of best price and execution.

RESPONSIBILITIES OF THE INVESTMENT CONSULTANT

The investment consultant is responsible for providing information and analysis to assist the University with the following:

- reviewing asset allocation and investment strategy on an annual basis to determine if the current strategy meets the cash flow needs of the University and is maximizing the long-term total return of the Funds;
- communicating with all investment management organizations on a quarterly basis to determine portfolio composition and to ascertain information concerning organizational change. (Each portfolio is to be reviewed for style drift through portfolio holdings and returns-based style analysis. Additionally, each portfolio is to be reviewed for prohibited investments on an ongoing basis);
- providing a quarterly performance evaluation report and assessment of the Funds;
- monitoring the equity holdings of the total portfolio to determine if any one holding represents a percentage weighting that exceeds 10% of the total portfolio and alerting the Subcommittee when the portfolio violates these guidelines;
- reviewing asset allocation on a quarterly basis to determine if the current levels are consistent with the asset allocation guidelines stated in this document;

- monitoring the performance of each investment manager retained by the University to determine if the investment product is out-performing the appropriate benchmark over rolling 3 and 5-year time periods; and
- monitoring the performance of the total portfolio to determine if the collective investment strategy is outperforming the appropriate benchmarks over rolling 3 and 5-year time periods.

EVALUATION AND REVIEW

The objective of the evaluation and review process is to monitor the progress of the Assets in achieving the overall investment objectives. Performance will be measured and reviewed periodically by the Subcommittee and their consultants. Particular attention will be directed toward:

- determining whether the total funds are achieving their stated objectives;
- determining whether the investment managers are performing satisfactorily in relation to both the objectives set forth in this document, as a primary consideration, and to other investment organizations managing similar pools of capital and the recognized market indices;
- determining whether the investment managers are adhering to the guidelines set forth herein;
- the relative total portfolio return and volatility versus established benchmarks and peers;
- any issue involving the management of the investment assets;
- asset allocation structure in light of evolving markets, strategies, and fund requirements;
- reviewing benchmarks at least annually to determine appropriateness;
- determining whether the investment managers are adhering to their stated philosophy and style; and
- determining whether the overall policies and objectives continue to be appropriate, reasonable, and achievable.

REVIEW OF INVESTMENT RESULTS

On a regular basis, but not less than once annually, the Subcommittee will review actual progress of the funds versus the investment environment. The regular review will include:

- absolute market and total portfolio returns;
- relative total portfolio return and volatility versus established benchmarks and peers;
- asset allocation structure in light of evolving markets, strategies, and fund requirements;
- adherence to guidelines;
- individual manager performance versus established benchmarks and peers;
- the continuing appropriateness of this document; and
- any issue involving the management of the funds' assets.

The performance of each individual investment manager will be reviewed on a quarterly basis with appropriate benchmarks as agreed upon from time to time by the Investment Subcommittee. The Total Fund and asset class returns will be measured using a blended benchmark of major market indices.

AGENDA ITEM: C.1.b.

AGENDA TOPIC: Hartland & Co. May 29, 2014 Endowed Funds & Custodian Review

CONTACT(S): Mike Shebak and Sarah Parker from Hartland and Co.

BACKGROUND: Investment review and recommendations of the YSU Endowed Assets.

Oversight of the YSU Foundation Funds (Kilcawley Center Fund, Alumni License Plate Fund, and YSU Endowment Fund) was transferred to YSU on 11/1/2013).

SUMMARY AND ANALYSIS:

The Endowed Funds are as follows:

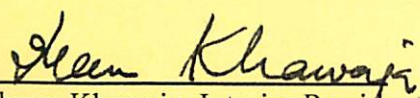
- Kilcawley Center Fund - \$91K: Will be used to support the costs of the student union/center renovation
- Alumni License Plate Fund - \$393K: Provides general scholarships
- YSU Endowment Fund - \$8.076 million: Used for marketing and recruiting efforts

After a review of each Fund, Hartland is proposing the following:

- I. Custodian Recommendation
 - Move custodial relationships from Huntington and Farmers Trust Company to PNC
- II. Asset Allocation Recommendation
 - 70% stocks/30% bonds target weighting for each Fund
 - Current asset allocation:
 - Kilcawley Center Fund = 90% stocks/10% cash
 - Alumni License Plate Fund = 50% stocks/50% cash
 - YSU Endowment Fund = 75% stocks/35% cash & fixed income
- III. Asset Allocation Guidelines Recommendation
 - Create a separate Asset Allocation Guidelines document for the YSU managed Endowed Funds
 - Investment Policy Statement accounts for the investment of the University's Non-Endowment and Endowment Funds
- IV. Investment Manager Recommendation
 - Move to a portfolio of mutual funds similar to the YSU Non-Endowment Long-Term Pool

RESOLUTION: N/A – DISCUSSION ITEM ONLY

REVIEWED AS TO FORM AND CONTENT:


Ikram Khawaja, Interim President



May 29, 2014

Youngstown State University Endowed Funds & Custodian Review

HARTLAND & Co.
Investment Consultants

INDEPENDENCE || EXPERTISE || RESULTS





Executive Summary



- I. **Review of Endowed Funds (oversight transferred to YSU from Foundation on 11/1/2013)**
 - **Kilcawley Center Fund - \$91K:** Will be used to support the costs of the student union/center renovation
 - **Alumni License Plate Fund - \$393K:** Provides general scholarships
 - **YSU Endowment Fund - \$8.076 million:** Used for marketing and recruiting efforts

- II. **Custodian Recommendation**
 - Move custodial relationships from Huntington and Farmers to PNC

- III. **Asset Allocation Recommendation**
 - 70% stocks/30% bonds target weighting for each Fund
 - Current asset allocation:
 - **Kilcawley Center Fund = 90% stocks/10% cash**
 - **Alumni License Plate Fund = 50% stocks/50% cash**
 - **YSU Endowment Fund = 75% stocks/35% cash & fixed income**

- IV. **Asset Allocation Guidelines Recommendation**
 - Create a separate Asset Allocation Guidelines document for the YSU managed Endowed Funds (see Appendix)
 - Investment Policy Statement accounts for the investment of the University's Non-Endowment and Endowment Funds

- V. **Investment Manager Recommendation**
 - Move to a portfolio of mutual funds similar to the YSU Non-Endowment Long-Term Pool



Appendix





Endowed Funds



On November 1, 2013, oversight of the below Funds were transferred from the Foundation to YSU.

- **Kilcawley Center Fund:** Will be used to support the costs of the student union/center renovation
- **Alumni License Plate Fund:** Provides general scholarships
- **YSU Endowment Fund:** Used for marketing and recruiting efforts

The Funds are held at Farmers Trust Company and Huntington Bank and are currently allocated as follows:

- **Kilcawley Center Fund** = 90% stocks/10% cash
- **Alumni License Plate Fund** = 50% stocks/50% cash
- **YSU Endowment Fund** = 75% stocks/35% cash & fixed income

	Market Value	Ending March 31, 2014								Calendar Years			Inception	
		2014 Q1 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2013 (%)	2012 (%)	2011 (%)	Return (%)	Since
Total Endowment/Designated Accounts		1.9	1.9	--	--	--	--	--	--	--	--	--	9.9	Jun-13
YSU Endowment Fund	\$91,068	1.8	1.8	--	--	--	--	--	--	--	--	--	9.8	Jun-13
60/40 S&P 500/Barclays Aggregate		1.9	1.9	12.7	11.3	10.4	14.6	6.1	6.5	17.6	11.3	4.7	11.8	Jun-13
Kilcawley Center	\$382,889	2.6	2.6	--	--	--	--	--	--	--	--	--	14.8	Jun-13
60/40 S&P 500/Barclays Aggregate		1.9	1.9	12.7	11.3	10.4	14.6	6.1	6.5	17.6	11.3	4.7	11.8	Jun-13
The Alumni License Plate Account Endowment	\$8,075,795	3.2	3.2	--	--	--	--	--	--	--	--	--	--	May-13
60/40 S&P 500/Barclays Aggregate		1.9	1.9	12.7	11.3	10.4	14.6	6.1	6.5	17.6	11.3	4.7	10.2	May-13



Custodian Review



YSU issued a Request for Information (RFI) to 12 banks in the Youngstown area for custody services for the \$8 million Endowment Fund; 6 responses were received.

Custody fee responses ranged from 3-21 basis points (PNC was the lowest at 3 basis points - \$2,400/year; same price for YSU Non-Endowment Assets).

	Farmers Trust Company	PNC	US Bank	Charter One	Key Bank	Huntington (current)
Annual Custody Fee for YSU Assets	\$12,000 (15bps)	\$2,400 (3bps)	\$6,200 (10 bps on first \$7 million; 6 bps on balance)	\$16,800 (21bps)	\$8,000 (10 bps on first \$10 million; 7.5 bps on balance)	\$5,600 (7bps)
Number of Custody Clients	1,100	17,550	3,977	550	615	623
Median Custody Client Size	\$1,000,000	\$7,500,000	\$251,445,813	\$20,000,000	\$2,200,000	\$3,875,824

Hartland would recommend YSU consider a move to PNC to maintain the same custodian as other YSU assets and lower custody fees by \$3,200/year.



Asset Allocation Review



	Kilcawley Fund	License Plate Fund	YSU Endowment Fund
Current Asset Allocation	90% stocks/10% cash	50% stocks/50% cash	70% stocks/20% bonds/ 10% cash
Projected Return/Risk	9.5%/13.6%	6.5%/7.6%	8.1%/10.7%
Investment Objective	Growth & Capital Appreciation	Growth & Capital Appreciation	Growth & Capital Appreciation
Cash Flow Needs	Minimal; pending renovation of student union	Ongoing Scholarships	Ongoing Recruitment/ Marketing Efforts
Risk Tolerance	Moderate/High	Moderate/High	Moderate/High
Scenario 1 Return/Risk: 90% Stocks/10% Bonds		9.5%/13.7%	
Scenario 2 Return/Risk: 80% Stocks/20% Bonds		8.8%/12.2%	
Scenario 3 Return/Risk: 70% Stocks/30% Bonds		8.5%/11.5%	
Scenario 4 Return/Risk: 60% Stocks/40% Bonds		7.4%/9.3%	

Hartland recommend establishing target allocations of **70% stocks/30% bonds** for each Fund to continue ongoing support and future growth needs.



Investment Policy Statement & Asset Allocation Guidelines Review



- Investment Policy Statement
 - No changes: the document accounts for the Investment of the University's Non-Endowment and Endowment Funds
 - Last revised on June 5, 2012; last reviewed by Hartland in December 2013
- Asset Allocation Guidelines

Hartland recommends creating a separate *Asset Allocation Guidelines* document for the YSU managed Endowed Funds (See Appendix).



Underlying Investments



	Kilcawley Fund	License Plate Fund	YSU Endowment Fund
Current Stock Exposure	Individual Stocks (3)	Mutual Funds (2) and Individual Stocks (1)	Mutual Funds (2), ETFs (1), and Individual Stocks (approx 50)
Current Bond Exposure	None	None	CDs and Corporate Bonds (approx. 12)

Hartland recommends increasing diversification and investing exclusively in mutual funds similar to the YSU Non-Endowment Long-Term Pool; allow Hartland, YSU staff, and custodian to implement.

Recommendations	Kilcawley Fund	License Plate Fund	YSU Endowment Fund
Stock Mutual Funds	Vanguard 500 Index	Vanguard 500 Index	<ol style="list-style-type: none"> 1. T. Rowe Price US Structured Research 2. Vanguard 500 Index 3. Vanguard Mid Cap Index 4. Loomis Sayles Small Cap Growth* 5. Munder-Veracity Small Cap Value* 6. William Blair International 7. Dodge & Cox International
Bond Mutual Funds	JPMorgan Core Bond	JPMorgan Core Bond	<ol style="list-style-type: none"> 1. JPMorgan Core Bond 2. Vanguard Short-Term Bond 3. DFA Five-Year Global



Manager Performance



	Ending March 31, 2014								Calendar Years		
	2014 Q1 (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	2013 (%)	2012 (%)	2011 (%)
TRP Instl US Structured Rsch	1.2	1.2	21.8	17.3	14.4	20.7	--	--	32.9	16.2	1.4
<i>S&P 500</i>	1.8	1.8	21.9	17.8	14.7	21.2	6.3	7.4	32.4	16.0	2.1
Vanguard 500 Index Signal	1.8	1.8	21.8	17.8	14.6	21.1	6.3	7.4	32.3	16.0	2.1
<i>S&P 500</i>	1.8	1.8	21.9	17.8	14.7	21.2	6.3	7.4	32.4	16.0	2.1
Vanguard Mid Cap Index Signal	3.3	3.3	23.6	19.5	13.6	25.0	7.5	10.0	35.1	16.0	-2.0
<i>Vanguard Mid Cap Index Benchmark</i>	3.3	3.3	23.8	19.6	13.7	25.1	7.5	10.0	35.3	16.0	-1.9
Loomis Sayles Sm Growth Instl	1.6	1.6	31.7	21.8	15.0	26.5	11.1	11.6	47.7	10.3	3.2
<i>Russell 2000 Growth</i>	0.5	0.5	27.2	20.7	13.6	25.2	8.6	8.9	43.3	14.6	-2.9
Munder Veracity Sm-Cap Value Y	1.8	1.8	26.5	22.3	14.2	26.8	8.5	--	41.0	14.0	-2.6
<i>Russell 2000 Value</i>	1.8	1.8	22.6	20.3	12.7	23.3	5.4	8.1	34.5	18.1	-5.5
William Blair Int'l Gr I	-0.7	-0.7	13.3	13.2	7.9	18.8	2.3	7.6	19.0	24.0	-14.2
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7
<i>MSCI ACWI ex USA Gross</i>	0.6	0.6	12.8	10.8	4.6	16.0	2.2	7.6	15.8	17.4	-13.3
Dodge & Cox Internat'l Stock	2.8	2.8	25.2	18.1	8.8	20.5	3.3	9.3	26.3	21.0	-16.0
<i>MSCI EAFE Gross</i>	0.8	0.8	18.1	14.9	7.7	16.6	1.8	7.0	23.3	17.9	-11.7
JPMorgan Core Bond Ultra	1.8	1.8	0.0	2.2	4.0	5.5	5.6	4.9	-1.6	5.2	7.4
<i>Barclays Aggregate</i>	1.8	1.8	-0.1	1.8	3.7	4.8	5.0	4.5	-2.0	4.2	7.8
Vanguard Short-Term Bond Instl	0.4	0.4	0.4	1.1	--	--	--	--	0.2	2.1	--
<i>Barclays 1-5 Yr. Govt/Credit</i>	0.4	0.4	0.4	1.2	1.9	2.8	3.6	3.3	0.3	2.2	3.1
DFA Five-Yr Global Fxd-Inc I	0.8	0.8	0.0	1.8	3.1	3.8	3.9	3.4	-0.4	4.8	4.5
<i>Citi WGBI 1-5 Yr Hdq USD</i>	0.6	0.6	0.9	1.4	1.9	1.8	3.0	3.1	0.6	2.1	2.3



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. Hartland 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 magnified in emerging markets. The securities of smaller, less well-known companies 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 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-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 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 "smid" 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 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. 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 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 (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The BC U.S. Municipal Bond Index covers the U.S. dollar-denominated, long-term 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 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 that covers fixed-rate asset-backed securities with 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. 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 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-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 (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 144A Index, the 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 and less than ten years.

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.

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. 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 and Moody's BAA 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 Black-Litterman model, and one is qualitative, 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 specific niche areas of the market in which the Manager maintains a level of expertise which exceeds that of a market generalist. **HFRI EH: Equity Market Neutral** 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: 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 of 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.

YOUNGSTOWN STATE UNIVERSITY
 Asset Allocation and Other Investment Guidelines
 Investment of YSU Endowed Funds
DRAFT

OVERVIEW/OBJECTIVES

The investment guidelines outlined within apply to the YSU Endowed Funds managed by the University (Kicawley Center Fund, Alumni License Plate Fund, and YSU Endowment Fund). The investment objective of each Fund shall be long-term capital appreciation.

ASSET CLASS GUIDELINES

Based on the investment objectives, the following asset allocation strategy is considered appropriate for the YSU Endowed Funds managed by the University:

Asset Class	Target	Range
Equities	70%	60%-80%
Fixed Income	30%	20%-40%

The equity component should normally represent 70% of the total market value of each Fund. Although the actual percentage of equities will vary with market conditions, equity levels in excess of 80% or below 60% will result in rebalancing the equity component of the fund to its equity target level. The Subcommittee will review the equity allocation on a quarterly basis.

Fixed income should normally represent 30% of the total market value of each Fund. Although the actual percentage will fluctuate with market conditions, short-term fixed income levels in excess of 40% or below 20% will result in rebalancing the fixed income component of the Fund to its fixed income target level. The Subcommittee will review the fixed income allocation on a quarterly basis.

Depending upon market conditions, the percentage allocation to each asset class may fluctuate within the above policy ranges. Such strategic allocations should be reviewed and approved by the Investment Subcommittee on an ongoing basis.

As it relates to the selection and retention decisions regarding mutual funds, the stated equity and fixed income guidelines below should be used as references.

EQUITY GUIDELINES

The objective of the equity portion of the Funds shall be to provide for potential growth of principal with a long-term time horizon. The use of both passively managed equity

index strategies and actively managed comingled funds is permitted. The following acceptable sub asset classes will serve as a guideline for equity investments:

- A. Large Cap Domestic - common stocks or equivalents listed on an established stock market (e.g., NYSE, AMEX, NASDAQ) and readily marketable with market capitalization generally exceeding \$5 billion. Non-marketable securities may not be purchased or held without prior approval from the Subcommittee. As used herein, “generally exceeding \$5 billion” means that greater than 67% of the value of the portfolio is invested in securities when the market capitalization of which exceeds \$5 billion.
- B. Small/Mid Cap Domestic - common stocks or equivalents listed on an established stock market (e.g., NYSE, AMEX, NASDAQ) and readily marketable with market capitalization generally exceeding \$500 million. Non-marketable securities may not be purchased or held without prior approval from the Subcommittee. As used herein, “generally exceeding \$500 million” means that greater than 67% of the value of the portfolio is invested in securities when the market capitalization of which exceeds \$500 million.
- C. International - common stocks or equivalents listed on an established stock market (e.g., NYSE, AMEX, NASDAQ, FTSE, NIKKEI, DAX) and readily marketable with market capitalization generally exceeding \$1 billion. Non-marketable securities may not be purchased or held without prior approval from the Subcommittee. As used herein, “generally exceeding \$1 billion” means that greater than 50% of the value of the portfolio is invested in securities when the market capitalization of which exceeds \$1 billion.

Equity Diversification

Each investment manager should diversify the portfolio in an attempt to minimize the impact of substantial losses in any specific industry or issue. Therefore, each equity account:

- May not invest more than approximately 5% of the account valued at cost in a given issuer
- May not invest more than approximately 10% of the account valued at market in a given issuer
- Large Cap, Mid Cap and Small Cap Domestic - Shall be broadly diversified by industry or sector groups and not represent over concentration relative to the mandate’s relevant benchmark. Additionally, domestic equity managers shall limit international-domiciled securities to 10% of their portfolio value, absent Subcommittee approval.
- International – Shall be broadly diversified by county, industry or sector groups and not represent over concentration relative to the mandate’s

relevant benchmark; and limit emerging market exposure to 25% of total international exposure.

FIXED INCOME GUIDELINES

The objective of the fixed-income portion of the Funds shall be both to provide a secure, above-average stream of income (i.e., income in excess of U.S. Treasury Bill rates) and to provide a relatively stable market value base. The following directions are intended to apply to all fixed-income investment managers:

- Fixed-income investments may include U.S. and Non-U.S. issues of Government and Agency obligations, marketable corporate bonds, mortgage or asset-backed bonds, and preferred stocks with sinking funds as deemed prudent by the investment managers.
- Fixed income investments are to be prudently diversified by security type, with an emphasis toward avoiding concentrated positions in any one fixed income sector or security type.
- Fixed-income portfolio maturity, as measured by portfolio duration, should be in the range of 80% to 120% of the applicable benchmark.
- Fixed-income investments shall be rated “BAA” (investment grade) or better by Moody’s and BBB (investment grade) or better by Standard & Poor’s with emphasis toward “A” or better issues. Regarding below investment grade holdings, YSU will target the use of investment managers that, as a part of their investment process, strategy and risk controls, do not initially purchase bonds that are below investment grade. However, it is understood that, from time to time, individual bonds or holdings may fall below investment grade. It is expected that investment managers will handle these instances consistent with their stated investment process, strategy and risk controls. Therefore, it is accepted that from time to time, a nominal amount of the non-endowment assets may be held in a below investment grade bond.
- No more than 5% of the fixed income investments, at market, shall be invested in securities of any one issuer, except Government and Agency obligations, without the Subcommittee's prior approval.
- Cash equivalent investments (maturities less than one year) are permitted, up to 10% of the total market value of the account, when the managers' investment policies discourage longer-term commitments. However, the Subcommittee must be consulted in the event that the manager chooses to increase its cash equivalent position beyond 10% of the assets under its supervision.
- Investment assets allocated to fixed income investment management firms and institutions shall be properly diversified so as to avoid over concentration with any one investment manager or institution.

PROHIBITED INVESTMENTS

The following categories of securities and strategies are not considered appropriate at the present time:

- Private Placements
- Unregistered or Restricted Stock
- Margin Trading/Short Sales
- Commodities, Commodity Contracts, Precious Metals, or Gems
- Real Estate Property (excluding REITs)
- Guaranteed Insurance Contracts
- Securities Lending; pledging or hypothecating securities

VOTING OF PROXIES AND TRADE EXECUTION

The investment manager shall vote proxies for all portfolios managed. The Investment Subcommittee will vote all mutual fund proxies.

The Subcommittee expects the purchase and sale of its securities to be made in a manner designed to receive the combination of best price and execution.

RESPONSIBILITIES OF THE INVESTMENT CONSULTANT

The investment consultant is responsible for providing information and analysis to assist the University with the following:

- reviewing asset allocation and investment strategy on an annual basis to determine if the current strategy meets the cash flow needs of the University and is maximizing the long-term total return of the Funds;
- communicating with all investment management organizations on a quarterly basis to determine portfolio composition and to ascertain information concerning organizational change. (Each portfolio is to be reviewed for style drift through portfolio holdings and returns-based style analysis. Additionally, each portfolio is to be reviewed for prohibited investments on an ongoing basis);
- providing a quarterly performance evaluation report and assessment of the Funds;
- monitoring the equity holdings of the total portfolio to determine if any one holding represents a percentage weighting that exceeds 10% of the total portfolio and alerting the Subcommittee when the portfolio violates these guidelines;
- reviewing asset allocation on a quarterly basis to determine if the current levels are consistent with the asset allocation guidelines stated in this document;

- monitoring the performance of each investment manager retained by the University to determine if the investment product is out-performing the appropriate benchmark over rolling 3 and 5-year time periods; and
- monitoring the performance of the total portfolio to determine if the collective investment strategy is outperforming the appropriate benchmarks over rolling 3 and 5-year time periods.

EVALUATION AND REVIEW

The objective of the evaluation and review process is to monitor the progress of the Assets in achieving the overall investment objectives. Performance will be measured and reviewed periodically by the Subcommittee and their consultants. Particular attention will be directed toward:

- determining whether the total funds are achieving their stated objectives;
- determining whether the investment managers are performing satisfactorily in relation to both the objectives set forth in this document, as a primary consideration, and to other investment organizations managing similar pools of capital and the recognized market indices;
- determining whether the investment managers are adhering to the guidelines set forth herein;
- the relative total portfolio return and volatility versus established benchmarks and peers;
- any issue involving the management of the investment assets;
- asset allocation structure in light of evolving markets, strategies, and fund requirements;
- reviewing benchmarks at least annually to determine appropriateness;
- determining whether the investment managers are adhering to their stated philosophy and style; and
- determining whether the overall policies and objectives continue to be appropriate, reasonable, and achievable.

REVIEW OF INVESTMENT RESULTS

On a regular basis, but not less than once annually, the Subcommittee will review actual progress of the funds versus the investment environment. The regular review will include:

- absolute market and total portfolio returns;
- relative total portfolio return and volatility versus established benchmarks and peers;
- asset allocation structure in light of evolving markets, strategies, and fund requirements;
- adherence to guidelines;
- individual manager performance versus established benchmarks and peers;
- the continuing appropriateness of this document; and
- any issue involving the management of the funds' assets.

The performance of each individual investment manager will be reviewed on a quarterly basis with appropriate benchmarks as agreed upon from time to time by the Investment Subcommittee. The Total Fund and asset class returns will be measured using a blended benchmark of major market indices.