

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

**Wednesday, December 6, 2023
10:30 a.m. or immediately following
previous meeting**

**Board Room
Tod Hall**

AGENDA

- A. Disposition of Minutes for Meeting**
- B. Old Business**
- C. Committee Item**

1. Discussion Item

- C.1.a. = Tab 1 a. December 6, 2023 Quarterly Portfolio Asset Allocation and Investment Performance Review**
John Colla, Clearstead, will report.

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



December 6, 2023

**YOUNGSTOWN STATE
UNIVERSITY**



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PUBLICATIONS	PODCAST & VIDEOS	PR, AWARDS, & INITIATIVES
<p style="text-align: center;">CLEARPOINT</p> <p style="text-align: center;"><u>Vacation Home Tax Considerations</u></p> <p><u>Today Isn't too Soon to Plan for Future Estate Tax Law Changes</u></p> <p><u>The Case for US Small Caps - Remastered for the 21st Century</u></p> <p style="text-align: center;">RESEARCH CORNER</p> <p style="text-align: center;"><u>Weekly Updates from our Investment Office</u></p> <p style="text-align: center;">MARKET MINUTE</p> <p style="text-align: center;"><u>Review of July 2023</u></p> <p style="text-align: center;"><u>Review of August 2023</u></p> <p style="text-align: center;"><u>Review of September 2023</u></p>	<div style="text-align: center;">  <p>Podcast Episode 12: <u>The Impact of AI on Investments</u></p> <p>Podcast Episode 13: <u>An Exploration of Emerging Markets</u></p> <p>VIDEOS</p> <p><u>3Q23 Quarterly Insights</u></p> <p><u>About Clearstead</u></p> <p><u>Private Wealth Management</u></p> <p><u>Institutional Investment Consulting</u></p> <p><u>The Investment Office</u></p> </div>	<p style="text-align: center;">PR</p> <p><u>Clearstead Advisors Acquires Santa Fe-Based Avalon Trust</u></p> <p><u>Clearstead Acquires the Business of CLS Consulting, LLC</u></p> <p style="text-align: center;">AWARD</p> <p style="text-align: center;"><u>2022 NAPA Top DC Advisor Teams*</u></p> <div style="text-align: center;">  </div> <p style="text-align: center;">BLOGS</p> <p><u>7/7: Governor Mike DeWine Signs Ohio's Fiscal Year 2024-2025 Budget Bill into Law</u></p> <p><u>7/11: Weathering What's to Come – Operational, Financial, & Investment Realignment for Challenges Facing Higher Education</u></p> <p><u>9/8: The Importance of Knowing Your Retirement Number</u></p>

*The National Association of Plan Advisors (NAPA) Top DC Advisor Teams list is an independent listing produced annually by NAPA. The data reported was as of 12/31/2022. The NAPA Top DC Advisor Teams list is based on self-reported data from RIA firms, regulatory disclosures and NAPA's research. The listing is based on RIAs that provide services to defined contribution plans in the following primary areas: assets under advisement for DC plans supported, total number of DC plans supported, % of total firm revenue from DC plan support. This award does not evaluate the quality of services provided to clients and is not indicative of the practice's future performance. While Clearstead is a member of NAPA, neither participating RIA firms nor their employees pay a fee to NAPA in exchange for inclusion in the NAPA Top DC Advisor Teams list.

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2. Capital Markets Update
3. Non-Endowment Assets: Performance & Asset Allocation Review

APPENDIX

Endowment Assets: Performance & Asset Allocation Review

Detailed Performance

Supporting Information



INITIATIVES

2023 CALENDAR YEAR INITIATIVES

		1Q	2Q	3Q	4Q	COMMENTS:
STRATEGIC / ADMINISTRATIVE	Investment Policy Review		✓			Updates with Discretion Decision
	Strategic Asset Allocation Review			✓		
	Peer Review					Pushed to CY24 until peer data is released for FY23
	2024 Oversight Dashboard					Follow up for March Meeting
	STAR Ohio/Plus Annual Review		✓			Completed in June 2023
PORTFOLIO	Fixed Income Review		✓			
	Alternative Investments Review	✓				March '23: Real Assets
	Global Equity Review					
	Invnt Manager Recommendation	✓				Infrastructure Manager Recommendation
PERFORMANCE	Capital Markets Review	✓	✓	✓	✓	
	Quarterly Performance Review	✓	✓	✓	✓	
	Endowed Account Review / Oversight	✓	✓	✓	✓	
OTHER	Fee Review			✓		
	ORC Compliance Review			✓		
	Clearstead Firm Update	✓				
	Investment Structure Review	✓				

LAST REVIEWED	
Investment Policy:	06/21/2023
Strategic Asset Allocation:	09/19/2023
Fee Review:	09/19/2023

MEETING SCHEDULE	
1Q:	March 1, 2023
2Q:	June 21, 2023
3Q:	September 19, 2023
4Q:	December 6, 2023



CAPITAL MARKETS UPDATE

QUARTERLY THEMES

WHAT HAPPENED LAST QUARTER?

- Negative quarter for most asset classes; Interest rates rose dampening outlook for growth stocks
- The Fed likely to continue tighter monetary policy amidst stronger than expected growth and headline inflation
 - Broad-based decline: 9 of 11 sectors negative; Energy stocks soared as crude oil prices rose 30%
 - Interest rate-sensitive utilities and real estate stocks suffered largest losses
- Global equities remain in positive territory following selloff in 3rd quarter:
 - **Quarter:** S&P 500 -3.3%; MSCI EAFE -4.1%; MSCI Emerging Markets -2.9%; Bloomberg US Agg -3.2%
 - **YTD:** S&P 500 +13.1%; MSCI EAFE +7.1%; MSCI Emerging Markets +1.8%; Bloomberg US Agg -1.2%

LOOKING FORWARD:

- Global economy exceeding expectations, pushing a potential recession into 2024
 - Good macroeconomic news may have a “negative effect” on markets
 - Technicals point to markets being range bound; Breakout above upper bound appears unlikely
- Corporate earnings and profit margin resiliency will be tested with slowing economic growth
 - Equity markets distorted by historic concentration of the “Magnificent Seven” in both price and valuation
 - Continued strength in labor markets and the U.S. consumer could provide support for markets
- New paradigm of higher interest rates for longer; Consumers and businesses adjusting to higher interest costs
 - Highly leveraged sectors will experience a gradual shake-out
- Emphasizing high-quality fixed income within client portfolios

Source: Clearstead, Federal Reserve, Bloomberg LP. As of 9/30/2023. Past performance is not an indicator of future results.

ASSET CLASS RETURNS

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 2023	Q2 2023	Q3 2023	2023 YTD
Sm/Mid 36.8%	Large Cap 13.7%	Large Cap 1.4%	Sm/Mid 17.6%	Em Mkt -37.3%	Cash 1.9%	Large Cap 31.5%	Sm/Mid 20.0%	Large Cap 28.7%	Cash 1.5%	Dev Intl 8.5%	Large Cap 8.7%	Cash 1.3%	Large Cap 13.1%
Large Cap 32.4%	Sm/Mid 7.1%	US Bonds 0.6%	Hi Yld 17.5%	Dev Intl 25.0%	US Bonds 0.0%	Sm/Mid 27.8%	Large Cap 18.4%	Sm/Mid 18.2%	Hdg Fnds -4.7%	Large Cap 7.5%	Sm/Mid 5.2%	Hdg Fnds 0.7%	Dev Intl 7.1%
Dev Intl 22.8%	US Bonds 6.0%	Cash 0.1%	Large Cap 12.0%	Large Cap 21.8%	Glb Bond -0.9%	Dev Intl 22.0%	Em Mkt 18.3%	Dev Intl 11.3%	Hi Yld -11.2%	Em Mkt 4.0%	Dev Intl 3.0%	Hi Yld 0.5%	Hi Yld 6.0%
Hdg Fnds 9.0%	Hdg Fnds 3.4%	Hdg Fnds -0.3%	Em Mkt 11.2%	Sm/Mid 16.8%	Hi Yld -2.3%	Em Mkt 18.4%	Hdg Fnds 10.9%	Hdg Fnds 6.5%	US Bonds -13.0%	Hi Yld 3.7%	Hi Yld 1.6%	Em Mkt -2.9%	Cash 3.7%
Hi Yld 7.4%	Hi Yld 2.5%	Dev Intl -0.8%	US Bonds 2.7%	Glb Bond 9.3%	Hdg Fnds -4.0%	Hi Yld 14.4%	Glb Bond 9.5%	Hi Yld 5.4%	Dev Intl -14.5%	Sm/Mid 3.4%	Hdg Fnds 1.5%	US Bonds -3.2%	Sm/Mid 3.6%
Cash 0.1%	Cash 0.0%	Sm/Mid -2.9%	Glb Bond 1.9%	Hdg Fnds 7.8%	Large Cap -4.4%	US Bonds 8.8%	Dev Intl 7.8%	Cash 0.1%	Large Cap -18.1%	Glb Bond 3.1%	Cash 1.2%	Large Cap -3.3%	Hdg Funds 3.0%
US Bonds -2.0%	Em Mkt -2.2%	Hi Yld -4.6%	Dev Intl 1.0%	Hi Yld 7.5%	Sm/Mid -10.0%	Hdg Fnds 8.4%	US Bonds 7.5%	US Bonds -1.5%	Sm/Mid -18.4%	US Bonds 3.0%	EM Mkt 0.9%	Dev Intl -4.4%	EM Mkt 1.8%
Em Mkt -2.6%	Glb Bond -2.8%	Glb Bond -4.8%	Hdg Fnds 0.5%	US Bonds 3.5%	Dev Intl -13.8%	Glb Bond 5.0%	Hi Yld 6.2%	Em Mkt -2.5%	Glb Bond -19.6%	Hdg Fnds 1.6%	US Bonds -0.8%	Glb Bond -4.7%	US Bonds -1.2%
Glb Bond -4.9%	Dev Intl -4.5%	Em Mkt -14.9%	Cash 0.3%	Cash 0.9%	Em Mkt -14.6%	Cash 2.3%	Cash 0.5%	Glb Bond -8.2%	Em Mkt -20.1%	Cash 1.1%	Glb Bonds -2.9%	Sm/Mid -4.8%	Glb Bonds -4.6%

ASSET CLASS PERFORMANCE

Past performance is not an indicator of future results. Asset classes represented by: Large Cap – S&P 500 Index; Sm/Mid – Russell 2500 Index; Dev Intl – MSCI EAFE Index; Em Mkt – MSCI Emerging Markets Index; Hi Yld – Bank of America Merrill Lynch U.S. High Yield Master II; US Bonds – Barclays Capital U.S. Aggregate; Glb Bond – Barclays Capital Global Treasury ex US; Hdg Fnds – HFRI FOF: Diversified Index; Cash – Merrill Lynch 91-day Tbill. Data as of 9/30/2023. Source: Morningstar Direct.



CONCENTRATED MARKET ENVIRONMENT

YTD Return

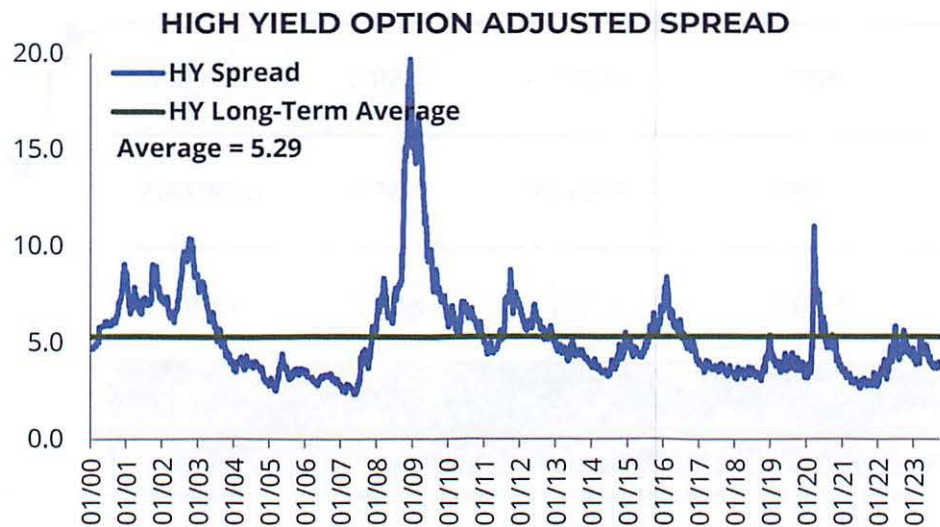
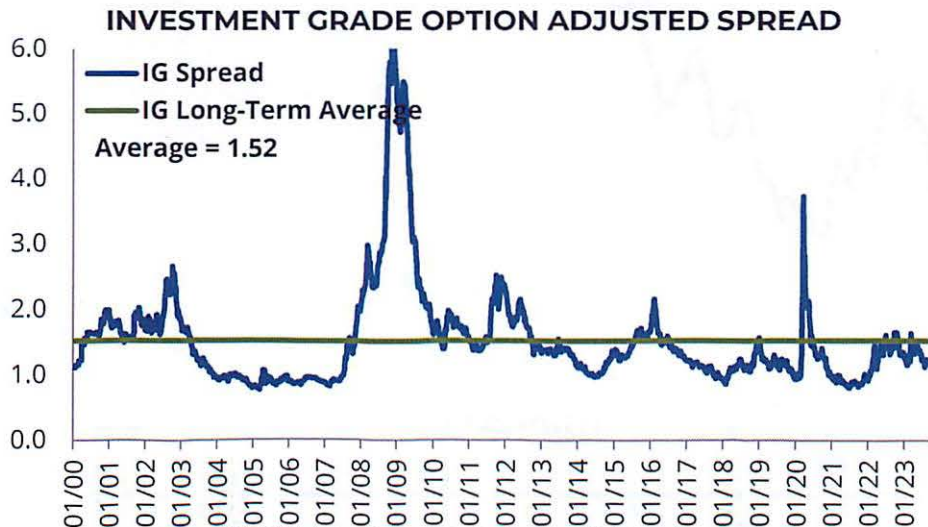
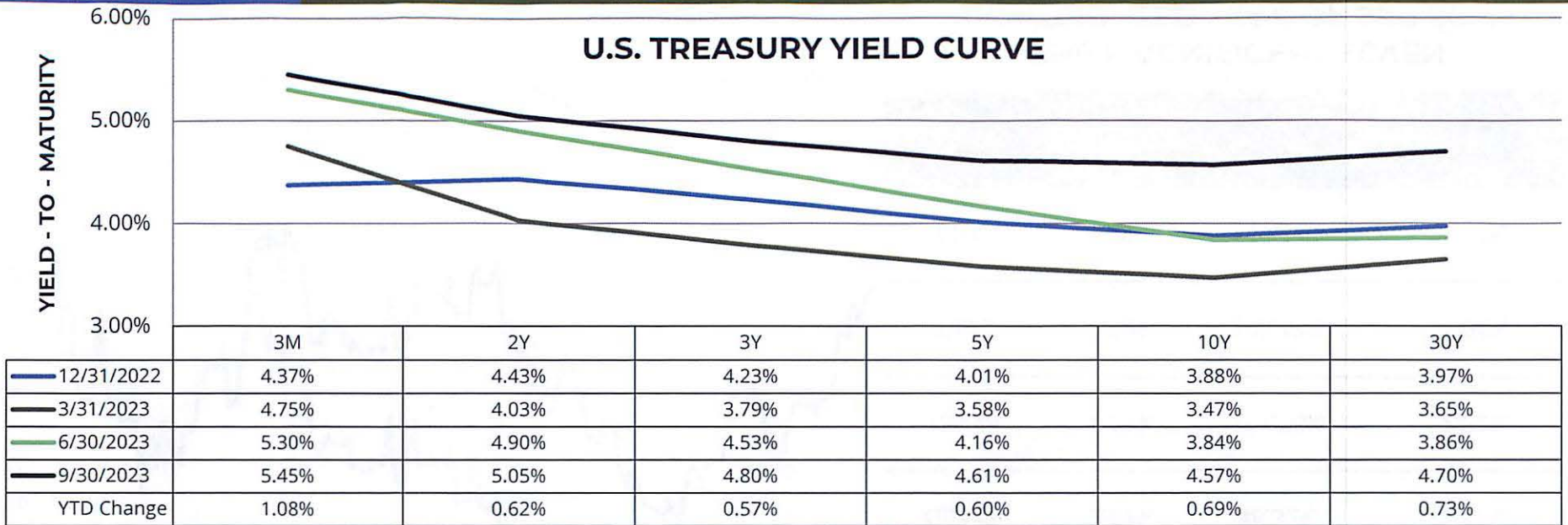


STOCK	AVG. WEIGHT	YTD RETURN	CONTRIBUTION
Apple	7.06%	32.33%	2.01%
Microsoft	6.30%	32.56%	1.86%
Amazon	2.89%	51.33%	1.20%
Google	3.57%	48.32%	1.47%
Nvidia	2.29%	197.76%	2.22%
Tesla	1.59%	103.13%	1.04%
Meta	1.49%	149.47%	1.24%
S&P 500		13.11%	11.04%

**THE MAGNIFICENT SEVEN
CONTRIBUTED >84% OF S&P 500'S
RETURN YEAR-TO-DATE**

Source: Clearstead, Morningstar
Data as of 10/2/2023. Past performance is not an indicator of future results.

FIXED INCOME



Source: Bloomberg. Data as of 9/30/2023. Past performance is not an indicator of future results.



NON-ENDOWMENT ASSETS: PERFORMANCE & ASSET ALLOCATION REVIEW

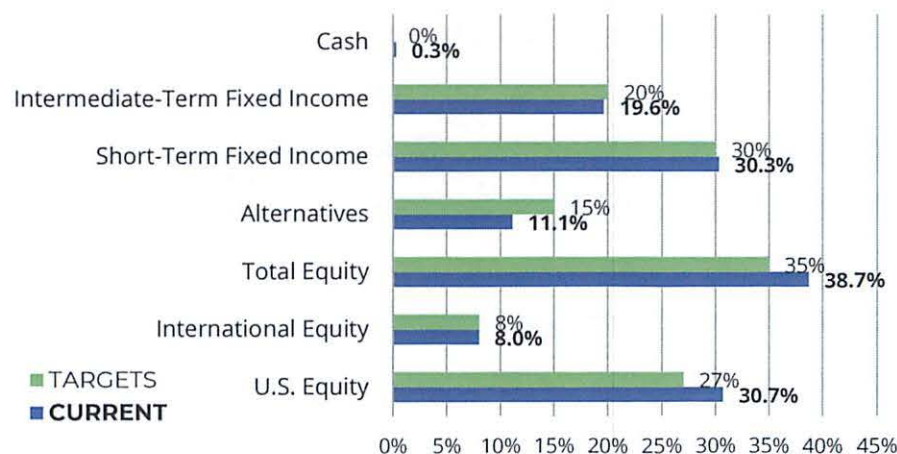
NON-ENDOWMENT PERFORMANCE REVIEW (AS OF 9/30/2023)

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NON-ENDOWMENT ASSETS	MARKET VALUE (\$MM)	TRAILING PERIODS								CALENDAR YEARS				SINCE INCEPTION ⁴
		QTD	FYTD	CYTD	1 YR	3 YR	5 YR	7 YR	10 YR	2022	2021	2020	2019	
Total Non-Endowment Assets	\$84.500	-1.0%	-1.0%	4.9%	8.1%	3.5%	4.1%	4.5%	3.9%	-7.8%	7.8%	9.5%	11.5%	3.9%
<i>Benchmark¹</i>		0.0%	0.0%	4.4%	7.2%	2.5%	3.1%	3.3%	2.9%	-4.7%	4.3%	5.9%	8.7%	3.1%
Operating & Short-Term Pool	\$22.104	1.3%	1.3%	3.6%	4.4%	1.7%	1.8%	1.6%	1.1%	1.4%	0.0%	1.1%	2.4%	0.9%
<i>Benchmark²</i>		1.3%	1.3%	3.5%	4.4%	1.6%	1.7%	1.5%	1.1%	1.2%	0.0%	0.8%	2.3%	0.9%
Long-Term Pool	\$62.396	-1.6%	-1.6%	4.9%	9.6%	3.1%	3.8%	4.7%	4.4%	-11.2%	9.5%	8.8%	15.3%	4.7%
<i>Benchmark³</i>		-1.0%	-1.0%	5.1%	9.5%	3.0%	4.1%	4.7%	4.4%	-9.7%	8.0%	10.0%	14.2%	4.4%

LONG-TERM POOL ASSET ALLOCATION

	CURRENT	TARGETS	RANGE	+ / -
U.S. Equity	30.7%	27%	20-35%	3.7%
International Equity	8.0%	8%	0-15%	0.0%
Total Equity	38.7%	35%	25-45%	3.7%
Alternatives	11.1%	15%	0-20%	-3.9%
Short-Term Fixed Income	30.3%	30%	25-45%	0.3%
Intermediate-Term Fixed Income	19.6%	20%	10-30%	-0.4%
Cash	0.3%	0%	0-5%	0.3%



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

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

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

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

LONG-TERM POOL PERFORMANCE REVIEW

	% of Portfolio	QTD (%)	FYTD (%)	YTD (%)	1 Yr (%)	2 Yr (%)	3 Yr (%)	5 Yr (%)	7 Yr (%)	10 Yr (%)	2022 (%)	2021 (%)	2020 (%)	Inception (%)	Inception Date
Total University Assets	100.0	-1.0	-1.0	4.9	8.1	-0.5	3.5	4.1	4.5	3.9	-7.8	7.8	9.5	3.9	Apr-04
<i>Total Policy Benchmark</i>		0.0	0.0	4.4	7.2	0.4	2.5	3.1	3.3	2.9	-4.7	4.3	5.9	3.1	
Total Operating & Short Term	26.2	1.3	1.3	3.6	4.4	2.5	1.7	1.8	1.6	1.1	1.4	0.0	1.1	0.9	Jul-10
<i>Total Operating & Short Term Benchmark</i>		1.3	1.3	3.5	4.4	2.3	1.6	1.7	1.5	1.1	1.2	0.0	0.8	0.9	
Federated Hermes Government Obligations Fund	100.0	1.2	1.2	3.4	4.3	2.4	1.6	1.5	1.3	0.9	1.4	0.0	0.3	2.5	Nov-21
<i>90 Day U.S. Treasury Bill</i>		1.3	1.3	3.6	4.5	2.5	1.7	1.7	1.5	1.1	1.5	0.0	0.7	2.6	
Total Long Term/ Reserves Pool	73.8	-1.6	-1.6	4.9	9.6	-2.1	3.1	3.8	4.6	4.4	-11.2	9.5	8.8	4.7	Jul-10
<i>Total Long Term/ Reserves Fund Benchmark</i>		-1.0	-1.0	5.1	9.5	-1.4	3.0	4.1	4.7	4.4	-9.7	8.0	10.0	4.4	
Total Domestic Equity	30.8	-3.6	-3.6	10.0	19.2	-0.3	10.1	8.7	11.3	10.9	-17.7	26.9	18.5	12.9	Jul-10
<i>Russell 3000 Index</i>		-3.3	-3.3	12.4	20.5	-0.4	9.4	9.1	11.6	11.3	-19.2	25.7	20.9	13.2	
Vanguard Institutional Index	20.9	-3.3	-3.3	13.0	21.6	1.4	10.1	9.9	12.2	11.9	-18.1	28.7	18.4	13.5	Jul-10
<i>S&P 500 Index</i>		-3.3	-3.3	13.1	21.6	1.4	10.2	9.9	12.2	11.9	-18.1	28.7	18.4	13.6	
Vanguard Mid Cap Index Adm	4.7	-5.1	-5.1	3.3	12.6	-4.8	7.3	6.5	8.7	9.0	-18.7	24.5	18.2	10.9	Oct-10
<i>Vanguard Mid Cap Index Benchmark</i>		-5.1	-5.1	3.3	12.6	-4.8	7.3	6.5	8.7	9.1	-18.7	24.5	18.2	10.9	
Loomis Sayles Sm Growth N	2.6	-5.2	-5.2	3.5	11.8	-8.3	3.2	3.9	10.1	8.2	-22.8	10.2	34.3	5.6	Sep-19
<i>Russell 2000 Growth Index</i>		-7.3	-7.3	5.2	9.6	-12.0	1.1	1.6	6.8	6.7	-26.4	2.8	34.6	4.3	
Victory Integrity Small Value Y	2.6	-1.4	-1.4	5.1	19.3	2.0	21.9	5.2	7.8	7.2	-7.7	33.6	1.2	9.8	Oct-10
<i>Russell 2000 Value Index</i>		-3.0	-3.0	-0.5	7.8	-5.8	13.3	2.6	5.9	6.2	-14.5	28.3	4.6	8.5	
Total International Equity	8.0	-4.8	-4.8	5.8	21.1	-5.8	4.8	3.9	5.6	4.2	-17.6	10.0	16.7	4.7	Oct-10
<i>MSCI EAFE (Net)</i>		-4.1	-4.1	7.1	25.6	-3.0	5.8	3.2	5.3	3.8	-14.5	11.3	7.8	4.9	
<i>MSCI AC World ex USA (Net)</i>		-3.8	-3.8	5.3	20.4	-5.1	3.7	2.6	4.7	3.3	-16.0	7.8	10.7	3.9	
William Blair International Growth I	3.5	-8.9	-8.9	1.4	14.1	-14.2	-2.7	2.7	4.9	4.0	-28.3	9.0	32.0	5.8	Jul-12
<i>MSCI AC World ex USA (Net)</i>		-3.8	-3.8	5.3	20.4	-5.1	3.7	2.6	4.7	3.3	-16.0	7.8	10.7	5.0	
Dodge & Cox Internat'l Stock	4.5	-1.3	-1.3	9.3	26.7	2.1	12.1	4.4	5.9	4.1	-6.8	11.0	2.1	5.1	Oct-10
<i>MSCI EAFE (Net)</i>		-4.1	-4.1	7.1	25.6	-3.0	5.8	3.2	5.3	3.8	-14.5	11.3	7.8	4.9	

LONG-TERM POOL PERFORMANCE REVIEW

	% of Portfolio	QTD (%)	FYTD (%)	YTD (%)	1 Yr (%)	2 Yr (%)	3 Yr (%)	5 Yr (%)	7 Yr (%)	10 Yr (%)	2022 (%)	2021 (%)	2020 (%)	Inception (%)	Inception Date
Total Alternatives	11.1	-0.3	-0.3	4.2	6.1	-2.2	2.9	1.2	1.9	-	-6.9	5.3	-3.7	1.3	Mar-15
<i>Total Alternatives Benchmark</i>		0.5	0.5	2.8	4.6	-1.1	3.8	2.9	3.3	-	-5.3	6.2	5.4	2.6	
Weatherlow Offshore Fund I Ltd CI IIA	7.5	-0.4	-0.4	3.3	4.9	-3.8	3.8	5.3	5.5	4.8	-8.9	5.6	24.7	-3.4	Jul-21
<i>HFRI Fund of Funds Composite Index</i>		0.5	0.5	2.8	4.6	-1.1	3.8	3.4	3.8	3.3	-5.3	6.2	10.9	-0.7	
H.I.G. Whitehorse Principal Lending Offshore Feeder Fd, L.P.	3.7	0.0	0.0	6.1	7.8	-	-	-	-	-	-	-	-	8.2	Jul-22
<i>Credit Suisse Leveraged Loan Index</i>		3.4	3.4	9.9	12.5	4.7	5.9	4.3	4.6	4.3	-1.1	5.4	2.8	10.9	
Total Fixed Income	50.0	-0.2	-0.2	1.9	3.3	-2.7	-1.3	1.4	1.2	1.4	-6.7	0.1	5.2	1.7	Jul-10
<i>Total Fixed Income Benchmark</i>		0.2	0.2	1.5	2.6	-2.3	-1.5	1.2	0.9	1.1	-5.4	-0.8	4.5	1.4	
JPMorgan Core Bond	7.9	-3.0	-3.0	-0.5	0.7	-6.7	-4.5	0.5	0.3	1.3	-12.3	-1.1	8.1	0.2	Sep-17
<i>Blmbg. U.S. Aggregate Index</i>		-3.2	-3.2	-1.2	0.6	-7.3	-5.2	0.1	-0.1	1.1	-13.0	-1.5	7.5	-0.2	
YSU Intermediate Term Bond	6.8	-0.9	-0.9	1.0	2.8	-3.9	-2.7	1.4	0.9	1.4	-8.0	-1.3	7.5	2.9	Apr-04
<i>Blmbg. Intermed. U.S. Government/Credit</i>		-0.8	-0.8	0.7	2.2	-4.2	-2.9	1.0	0.6	1.3	-8.2	-1.4	6.4	2.6	
PGIM High Yield R6	5.0	0.4	0.4	5.0	8.9	-3.3	1.6	3.1	4.0	4.5	-11.5	6.5	5.7	3.9	Jan-17
<i>Blmbg. U.S. Corp: High Yield Index</i>		0.5	0.5	5.9	10.3	-2.7	1.8	3.0	3.8	4.2	-11.2	5.3	7.1	3.7	
YSU Short Term Bond	20.5	0.7	0.7	2.1	3.2	-0.9	-0.5	1.5	1.2	1.2	-3.3	-0.4	3.7	2.1	Apr-04
<i>ICE BofA 1-3 Yr. Gov/Corp</i>		0.8	0.8	1.9	2.8	-1.2	-0.7	1.2	1.0	1.0	-3.8	-0.4	3.3	1.9	
Lord Abbett Short Duration Income I	9.9	1.0	1.0	2.7	3.8	-1.0	0.3	1.7	1.7	1.9	-4.6	1.1	3.2	1.7	Apr-18
<i>ICE BofA 1-3 Yr. Gov/Corp</i>		0.8	0.8	1.9	2.8	-1.2	-0.7	1.2	1.0	1.0	-3.8	-0.4	3.3	1.2	
Total Cash & Cash Equivalents	0.3	1.7	1.7	3.9	4.7	2.7	1.8	1.5	-	-	1.5	0.0	0.4	1.4	Apr-18
<i>90 Day U.S. Treasury Bill</i>		1.3	1.3	3.6	4.5	2.5	1.7	1.7	1.5	1.1	1.5	0.0	0.7	1.7	
Federated Hermes Government Obligations Fund	0.3	1.2	1.2	3.4	4.3	2.4	1.6	1.5	1.3	0.9	1.4	0.0	0.3	1.3	Dec-19
<i>90 Day U.S. Treasury Bill</i>		1.3	1.3	3.6	4.5	2.5	1.7	1.7	1.5	1.1	1.5	0.0	0.7	1.5	

LATE NOVEMBER UPDATE

YOUNGSTOWN STATE UNIVERSITY

AS OF NOVEMBER 27, 2023

	TICKER	INVESTMENT STRATEGY	MARKET VALUE (CURRENT)	% OF PORTFOLIO	POLICY TARGET	POLICY RANGE	TACTICAL +/-
Total Operating & Short Term			\$18,186,274	100.0%	100.0%		
Federated Hermes Govt Obligations	FOGXX	Money Market	\$18,186,274	100.0%			
Star Plus*	-	Cash Equivalent	\$0	0.0%			
Star Ohio*	-	Cash Equivalent	\$0	0.0%			
Total Long Term Reserves Pool			\$63,661,712	100.0%	100.0%		
Domestic Equity			\$20,102,017	31.6%	27.0%	20-35%	4.6%
Vanguard Instl Index	VINIX	Large Cap Core	\$13,845,380	21.7%			
Vanguard Mid Cap Index Adm	VIMAX	Mid-Cap Core	\$3,059,703	4.8%			
Loomis Sayles Small Growth N2	LSSNX	Small Cap Growth	\$1,583,221	2.5%			
Victory Integrity Small Cap Value Y	VSVIX	Small Cap Value	\$1,613,713	2.5%			
International Equity			\$5,150,986	8.1%	8.0%	0-15%	0.1%
William Blair International Growth I	BIGIX	Foreign Growth	\$2,313,250	3.6%			
Dodge & Cox International Stock	DODFX	Foreign Value	\$2,837,736	4.5%			
Total Equity			\$25,253,003	39.7%	35.0%	25-45%	4.7%
Alternatives			\$6,893,859	10.8%	15.0%	0-20%	-4.2%
H.I.G. Principal Lending Fund*	-	Private Credit	\$2,303,911	3.6%			
Apollo Infrastructure Opps Fund III	-	Real Assets	\$0	0.0%			
Weatherlow Fund*	-	Diversifying Strategy	\$4,589,948	7.2%			
Fixed Income			\$31,514,527	49.5%	50.0%	35-75%	-0.5%
Short Term Fixed Income			\$19,021,229	29.9%	30.0%	25-45%	-0.1%
YSU Short Term Bond	-	Short-Term Fixed	\$12,830,203	20.2%			
Lord Abbett Short Duration	LLDYX	Short-Term Fixed	\$6,191,026	9.7%			
Intermediate Fixed Income			\$12,493,298	19.6%	20.0%	10-30%	-0.4%
JPMorgan Core Bond Fund R6**	JCBUX	Core Plus Fixed	\$5,036,374	7.9%			
YSU Intermediate Term Fixed	-	Interm-Term Fixed	\$4,317,562	6.8%			
Prudential High Yield Bond R6	PHYQX	High Yield	\$3,139,361	4.9%			
Cash & Cash Equivalents			\$323	0.0%	0.0%	0-5%	0.0%
Equity Account Cash	-	Money Market	\$323	0.0%			
Total University Assets			\$81,847,985				

*As of 09/30 or 10/31.

**Held at JPMorgan.

DECEMBER UPDATE: PORTFOLIO CHANGES & REBALANCING

YOUNGSTOWN STATE UNIVERSITY

AS OF NOVEMBER 27, 2023

	TICKER	MARKET VALUE (CURRENT)	% OF PORTFOLIO	CHANGES	MARKET VALUE (POST CHANGES)	% OF PORTFOLIO	POLICY TARGET	POLICY RANGE	TACTICAL +/-
Total Operating & Short Term		\$18,186,274	100.0%	\$0	\$18,186,274	100.0%	100.0%		
Federated Hermes Govt Obligations	FOGXX	\$18,186,274	100.0%		\$18,186,274	100.0%			
Star Plus*	-	\$0	0.0%		\$0	0.0%			
Star Ohio*	-	\$0	0.0%		\$0	0.0%			
Total Long Term Reserves Pool		\$63,661,712	100.0%	\$0	\$63,661,712	100.0%	100.0%		
Domestic Equity		\$20,102,017	31.6%		\$18,141,378	28.5%	27.0%	20-35%	1.5%
Vanguard Instl Index	VINIX	\$13,845,380	21.7%	-\$1,380,639	\$12,464,741	19.6%			
Vanguard Mid Cap Index Adm	VIMAX	\$3,059,703	4.8%	-\$200,000	\$2,859,703	4.5%			
Loomis Sayles Small Growth N2	LSSNX	\$1,583,221	2.5%	-\$175,000	\$1,408,221	2.2%			
Victory Integrity Small Cap Value Y	VSVIX	\$1,613,713	2.5%	-\$205,000	\$1,408,713	2.2%			
International Equity		\$5,150,986	8.1%		\$5,150,986	8.1%	8.0%	0-15%	0.1%
William Blair International Growth I	BIGIX	\$2,313,250	3.6%		\$2,313,250	3.6%			
Dodge & Cox International Stock	DODFX	\$2,837,736	4.5%		\$2,837,736	4.5%			
Total Equity		\$25,253,003	39.7%		\$23,292,364	36.6%	35.0%	25-45%	1.6%
Alternatives		\$6,893,859	10.8%		\$8,793,859	13.8%	15.0%	0-20%	-1.2%
H.I.G. Principal Lending Fund*	-	\$2,303,911	3.6%		\$2,303,911	3.6%			
Cliffwater Corporate Lending Fund	CCLFX	\$0	0.0%	\$1,900,000	\$1,900,000	3.0%			
Apollo Infrastructure Opps Fund III	-	\$0	0.0%		\$0	0.0%			
Weatherlow Fund*	-	\$4,589,948	7.2%		\$4,589,948	7.2%			
Fixed Income		\$31,514,527	49.5%		\$31,575,165	49.6%	50.0%	35-75%	-0.4%
Short Term Fixed Income		\$19,021,229	29.9%		\$19,021,229	29.9%	30.0%	25-45%	-0.1%
YSU Short Term Bond	-	\$12,830,203	20.2%		\$12,830,203	20.2%			
Lord Abbett Short Duration	LLDYX	\$6,191,026	9.7%		\$6,191,026	9.7%			
Intermediate Fixed Income		\$12,493,298	19.6%		\$12,553,936	19.7%	20.0%	10-30%	-0.3%
JPMorgan Core Bond Fund R6**	JCBUX	\$5,036,374	7.9%		\$5,036,374	7.9%			
YSU Intermediate Term Fixed	-	\$4,317,562	6.8%		\$4,317,562	6.8%			
Fidelity Intermediate Treasury Index	FUAMX	\$0	0.0%	\$3,200,000	\$3,200,000	5.0%			
Prudential High Yield Bond R6	PHYQX	\$3,139,361	4.9%	-\$3,139,361	\$0	0.0%			
Cash & Cash Equivalents		\$323	0.0%		\$323	0.0%	0.0%	0-5%	0.0%
Equity Account Cash	-	\$323	0.0%		\$323	0.0%			
Total University Assets		\$81,847,985			\$81,847,985				

*As of 09/30 or 10/31. **Held at JPMorgan. Trades depicted are estimates to show hypothetical rebalancing to be implemented. Actual trade amounts may be slightly different than what is depicted above.

Clearstead is in the process of rebalancing the Long-Term Pool with includes two themes:

1) Trimming Gains from Equities

- The changes rebalance the Long-Term Pool taking gains from equities after a strong month of November and redeploys the proceeds into a new alternative strategy, Cliffwater Corporate Lending, a private credit investment
- The Cliffwater strategy makes loans to private companies that are short-term in length
 - Senior secure loans: 94%+ of the loans are first lien
 - Broadly diversified: 3,000+ underlying loans
 - Income generation: 11%+ current yield

2) Improving Credit Quality within Fixed Income

- The second theme the changes accomplish is improving the overall credit quality of the fixed income portfolio within the Long-Term Pool, removing the dedicated high yield position with a low cost, treasury index
- Given the backdrop of a potential recession in CY24 and other uncertainties, and the odds of spreads widening and credit exposure being affected, Clearstead believes it is prudent to add some defensive characteristics to this area of the portfolio
- The treasury position also supports the University's compliance with the Ohio Revised Code
- While the yield of the fixed income portfolio modestly decreases because of the change, the credit quality improves, and income generation of the total pool does not decrease because of the investment in the Cliffwater strategy



APPENDIX



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

ENDOWMENT ASSETS: PERFORMANCE & ASSET ALLOCATION (AS OF 9/30/2023)

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ENDOWMENT ASSETS	MARKET VALUE (\$MM)	TRAILING PERIODS								CALENDAR YEARS				SINCE INCEPTION ³
		QTD	FYTD	CYTD	1 YR	3 YR	5 YR	7 YR	10 YR	2022	2021	2020	2019	
YSU Endowment Fund	\$14.862	-2.0%	-2.0%	4.5%	10.3%	5.2%	7.0%	7.9%	7.8%	-15.7%	20.9%	16.3%	23.8%	7.8%
Benchmark ¹		-3.2%	-3.2%	9.4%	16.2%	6.3%	7.7%	9.3%	9.3%	-16.6%	20.6%	16.2%	25.6%	9.5%
Benchmark ²		-3.2%	-3.2%	7.2%	13.0%	4.0%	6.3%	7.4%	7.7%	-15.8%	15.9%	14.7%	22.2%	7.9%

COMPLIANCE

- Reporting & Oversight by Clearstead, Management/Implementation by Huntington
- Asset Allocation Guidelines: 70% Equities (60-80%) / 30% Cash & Fixed Income (20-40%) **(IN COMPLIANCE)**

HOLDINGS

- Equity Mutual Funds – 16% (Mutual Funds & ETFs)
- Stocks – 51% (30-60 Concentrated U.S. Large/Mid-Cap Stock Portfolio)
- Alternatives – 2% (Real Estate Mutual Fund)
- Fixed Income Mutual Funds – 2% (Federated High Yield)
- Individual Bonds – 24% (Individual Bond Portfolio: U.S. Corporate / Gov't / Asset Backed Debt)
- Cash – 6%

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

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

3) Inception date: 06/2013.



DETAILED PERFORMANCE

EXECUTIVE SUMMARY

	Market Value 07/01/2023	Market Value 09/30/2023	% of Portfolio	3rd Quarter 2023 (%)	YTD (%)
Total University Assets	\$77,367,011	\$84,499,784	100.0	-1.0	4.9
<i>Total Policy Benchmark¹</i>				0.0	4.4
Total Operating & Short Term	\$13,965,019	\$22,103,843	26.2	1.3	3.6
<i>Total Operating & Short Term Benchmark²</i>				1.3	3.5
Total Long Term/ Reserves Pool	\$63,401,993	\$62,395,941	73.8	-1.6	4.9
<i>Total Long Term/ Reserves Fund Benchmark³</i>				-1.0	5.1
Total Domestic Equity	\$19,851,345	\$19,142,506	22.7	-3.6	10.0
<i>Russell 3000 Index</i>				-3.3	12.4
Total International Equity	\$5,216,400	\$4,967,584	5.9	-4.8	5.8
<i>MSCI EAFE (Net)</i>				-4.1	7.1
Total Alternatives	\$7,010,467	\$6,922,258	8.2	-0.3	4.2
<i>Total Alternatives Benchmark</i>				0.5	2.8
Total Fixed Income	\$31,232,337	\$31,200,858	36.9	-0.2	1.9
<i>Total Fixed Income Benchmark⁴</i>				0.2	1.5
Total Cash & Cash Equivalents	\$91,445	\$162,736	0.2	1.7	3.9
<i>90 Day U.S. Treasury Bill</i>				1.3	3.6

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

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

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

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

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

ASSET ALLOCATION GUIDELINES COMPLIANCE

Total Plan Asset Allocation Policy	Range	Current
Operating & Short-Term Pool	0% - 50%	26%
Long Term/ Reserves Pool	50% - 100%	74%

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

Long Term/ Reserves Pool	Target	Range	Current
Domestic Equity	27%	20% - 35%	31%
International Equity	8%	0% - 15%	8%
Total Equity	35%	25% - 45%	39%
Alternatives	15%	0%-20%	11%
Short-Term Fixed Income	30%	25% - 45%	30%
Intermediate Fixed Income	20%	10% - 30%	20%
Cash & Cash Equivalents	0%	0% - 5%	0%

In Line Within Tolerance Review

SCHEDULE OF ASSETS

	Ticker	Account Type	Begin Market Value \$	Market Value 09/30/2023	% of Portfolio
Total University Assets			\$77,367,011	\$84,499,784	100.0
Total Operating & Short Term			\$13,965,019	\$22,103,843	26.2
Federated Hermes Government Obligations Fund	GOSXX	Cash	\$13,965,019	\$22,103,843	26.2
Total Long Term/ Reserves Pool			\$63,401,993	\$62,395,941	73.8
Total Domestic Equity			\$19,851,345	\$19,142,506	22.7
Vanguard Institutional Index	VINIX	US Stock Large Cap Core	\$13,457,064	\$13,015,865	15.4
Vanguard Mid Cap Index Adm	VIMAX	US Stock Mid Cap Core	\$3,107,711	\$2,950,232	3.5
Loomis Sayles Sm Growth N	LSSNX	US Stock Small Cap Growth	\$1,675,166	\$1,587,629	1.9
Victory Integrity Small Value Y	VSVIX	US Stock Small Cap Value	\$1,611,404	\$1,588,780	1.9
Total International Equity			\$5,216,400	\$4,967,584	5.9
William Blair International Growth I	BIGIX	International	\$2,384,004	\$2,172,574	2.6
Dodge & Cox Internat'l Stock	DODFX	International	\$2,832,396	\$2,795,010	3.3
Total Alternatives			\$7,010,467	\$6,922,258	8.2
Weatherlow Offshore Fund I Ltd CI IIA		Hedge Fund	\$4,637,098	\$4,618,347	5.5
H.I.G. Whitehorse Principal Lending Offshore Feeder Fd, L.P.		Direct Lending	\$2,373,369	\$2,303,911	2.7
Total Fixed Income			\$31,232,337	\$31,200,858	36.9
JPMorgan Core Bond	WOBDX	US Fixed Income Core	\$5,091,468	\$4,934,285	5.8
YSU Intermediate Term Bond		US Fixed Income Core	\$4,300,262	\$4,263,239	5.0
PGIM High Yield R6	PHYQX	US Fixed Income High Yield	\$3,084,329	\$3,095,765	3.7
YSU Short Term Bond		US Fixed Income Short Term	\$12,649,758	\$12,743,122	15.1
Lord Abbett Short Duration Income I	LLDYX	US Fixed Income Short Term	\$6,106,520	\$6,164,447	7.3
Total Cash & Cash Equivalents			\$91,445	\$162,736	0.2
Federated Hermes Government Obligations Fund	GOSXX	Cash	\$91,445	\$162,736	0.2

ATTRIBUTION OF MARKET VALUE

TOTAL UNIVERSITY ASSETS

	Q4-2022	Q1-2023	Q2-2023	Q3-2023	One Year
Total University Assets					
Beginning Market Value	\$89,310,042	\$73,068,111	\$88,538,544	\$77,367,011	\$89,310,042
Contributions	\$2,048	\$20,000,000	-	\$15,000,000	\$35,002,048
Distributions	-\$19,013,567	-\$7,041,880	-\$13,121,696	-\$7,000,050	-\$46,177,193
Net Cash Flows	-\$19,011,519	\$12,958,120	-\$13,121,696	\$7,999,950	-\$11,175,145
Net Investment Change	\$2,769,588	\$2,512,313	\$1,950,164	-\$867,177	\$6,364,887
Ending Market Value	\$73,068,111	\$88,538,544	\$77,367,011	\$84,499,784	\$84,499,784
Change \$	-\$16,241,932	\$15,470,433	-\$11,171,532	\$7,132,773	-\$4,810,258

LONG-TERM POOL

	Q4-2022	Q1-2023	Q2-2023	Q3-2023	One Year
Total Long Term/ Reserves Pool					
Beginning Market Value	\$56,949,726	\$59,507,519	\$61,709,542	\$63,401,993	\$56,949,726
Contributions	\$2,048	-	-	-	\$2,048
Distributions	-\$13,567	-\$41,880	-\$27,473	-\$50	-\$82,970
Net Cash Flows	-\$11,519	-\$41,880	-\$27,473	-\$50	-\$80,922
Net Investment Change	\$2,569,312	\$2,243,903	\$1,719,924	-\$1,006,001	\$5,527,137
Ending Market Value	\$59,507,519	\$61,709,542	\$63,401,993	\$62,395,941	\$62,395,941
Change \$	\$2,557,793	\$2,202,023	\$1,692,451	-\$1,006,051	\$5,446,216

PERFORMANCE SUMMARY

	QTD (%)	FYTD (%)	YTD (%)	1 Yr (%)	2 Yr (%)	3 Yr (%)	5 Yr (%)	7 Yr (%)	10 Yr (%)	2022 (%)	2021 (%)	2020 (%)	Inception (%)	Inception Date
Total University Assets	-1.0	-1.0	4.9	8.1	-0.5	3.5	4.1	4.5	3.9	-7.8	7.8	9.5	3.9	Apr-04
<i>Total Policy Benchmark¹</i>	<i>0.0</i>	<i>0.0</i>	<i>4.4</i>	<i>7.2</i>	<i>0.4</i>	<i>2.5</i>	<i>3.1</i>	<i>3.3</i>	<i>2.9</i>	<i>-4.7</i>	<i>4.3</i>	<i>5.9</i>	<i>3.1</i>	
Total Operating & Short Term	1.3	1.3	3.6	4.4	2.5	1.7	1.8	1.6	1.1	1.4	0.0	1.1	0.9	Jul-10
<i>Total Operating & Short Term Benchmark²</i>	<i>1.3</i>	<i>1.3</i>	<i>3.5</i>	<i>4.4</i>	<i>2.3</i>	<i>1.6</i>	<i>1.7</i>	<i>1.5</i>	<i>1.1</i>	<i>1.2</i>	<i>0.0</i>	<i>0.8</i>	<i>0.9</i>	
Total Long Term/ Reserves Pool	-1.6	-1.6	4.9	9.6	-2.1	3.1	3.8	4.6	4.4	-11.2	9.5	8.8	4.7	Jul-10
<i>Total Long Term/ Reserves Fund Benchmark³</i>	<i>-1.0</i>	<i>-1.0</i>	<i>5.1</i>	<i>9.5</i>	<i>-1.4</i>	<i>3.0</i>	<i>4.1</i>	<i>4.7</i>	<i>4.4</i>	<i>-9.7</i>	<i>8.0</i>	<i>10.0</i>	<i>4.4</i>	
Total Domestic Equity	-3.6	-3.6	10.0	19.2	-0.3	10.1	8.7	11.3	10.9	-17.7	26.9	18.5	12.9	Jul-10
<i>Russell 3000 Index</i>	<i>-3.3</i>	<i>-3.3</i>	<i>12.4</i>	<i>20.5</i>	<i>-0.4</i>	<i>9.4</i>	<i>9.1</i>	<i>11.6</i>	<i>11.3</i>	<i>-19.2</i>	<i>25.7</i>	<i>20.9</i>	<i>13.2</i>	
Total International Equity	-4.8	-4.8	5.8	21.1	-5.8	4.8	3.9	5.6	4.2	-17.6	10.0	16.7	4.7	Oct-10
<i>MSCI EAFE (Net)</i>	<i>-4.1</i>	<i>-4.1</i>	<i>7.1</i>	<i>25.6</i>	<i>-3.0</i>	<i>5.8</i>	<i>3.2</i>	<i>5.3</i>	<i>3.8</i>	<i>-14.5</i>	<i>11.3</i>	<i>7.8</i>	<i>4.9</i>	
Total Alternatives	-0.3	-0.3	4.2	6.1	-2.2	2.9	1.2	1.9	-	-6.9	5.3	-3.7	1.3	Mar-15
<i>Total Alternatives Benchmark⁴</i>	<i>0.5</i>	<i>0.5</i>	<i>2.8</i>	<i>4.6</i>	<i>-1.1</i>	<i>3.8</i>	<i>2.9</i>	<i>3.3</i>	<i>-</i>	<i>-5.3</i>	<i>6.2</i>	<i>5.4</i>	<i>2.6</i>	
Total Fixed Income	-0.2	-0.2	1.9	3.3	-2.7	-1.3	1.4	1.2	1.4	-6.7	0.1	5.2	1.7	Jul-10
<i>Total Fixed Income Benchmark⁵</i>	<i>0.2</i>	<i>0.2</i>	<i>1.5</i>	<i>2.6</i>	<i>-2.3</i>	<i>-1.5</i>	<i>1.2</i>	<i>0.9</i>	<i>1.1</i>	<i>-5.4</i>	<i>-0.8</i>	<i>4.5</i>	<i>1.4</i>	
Total Cash & Cash Equivalents	1.7	1.7	3.9	4.7	2.7	1.8	1.5	-	-	1.5	0.0	0.4	1.4	Apr-18
<i>90 Day U.S. Treasury Bill</i>	<i>1.3</i>	<i>1.3</i>	<i>3.6</i>	<i>4.5</i>	<i>2.5</i>	<i>1.7</i>	<i>1.7</i>	<i>1.5</i>	<i>1.1</i>	<i>1.5</i>	<i>0.0</i>	<i>0.7</i>	<i>1.7</i>	

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



SUPPORTING INFORMATION

U.S. ECONOMIC PROJECTIONS: HIGHER FOR LONGER

FEDERAL RESERVE BOARD MEMBERS & BANK PRESIDENTS

		2023	2024	2025	2026	LONG RUN*
GDP	September 2023	2.1%	1.5%	1.8%	1.8%	1.8%
	June 2023	1.0%	1.1%	1.8%		1.8%
	March 2023	0.4%	1.2%	1.9%		1.8%
	December 2022	0.5%	1.6%	1.8%		1.8%
Unemployment Rate	September 2023	3.8%	4.1%	4.1%	4.0%	4.0%
	June 2023	4.1%	4.5%	4.5%		4.0%
	March 2023	4.5%	4.6%	4.6%		4.0%
	December 2022	4.6%	4.6%	4.5%		4.0%
Core PCE Inflation	September 2023	3.7%	2.6%	2.3%	2.0%	
	June 2023	3.9%	2.6%	2.2%		
	March 2023	3.6%	2.6%	2.1%		
	December 2022	3.5%	2.5%	2.1%		
Federal Funds Rate	September 2023	5.6%	5.1%	3.9%	2.9%	2.5%
	June 2023	5.6%	4.6%	3.4%		2.5%
	March 2023	5.1%	4.3%	3.1%		2.5%
	December 2022	5.1%	4.1%	3.1%		2.5%
# of implied 25 bps rate changes year	September 2023	5	-2	-5		
	June 2023	5	-4	-5		
	March 2023	3	-3	-5		
	December 2022	3	-4	-4		

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

Source: Clearstead, U.S. Federal Reserve.
Data as of 09/30/2023. Past performance is not an indicator of future results.



HEADWINDS AND TAILWINDS



TAILWINDS

- S&P 500 enter seasonally strong quarter for performance
- Corporate America working through higher rates
- Services economy still expanding; though at a slower rate
- Earnings revisions for communication services, consumer discretionary, and information technology turn higher
- Job growth slowing but labor markets still strong; unemployment claims near 2023 lows









HEADWINDS

- Potential drag from student loan payments resuming and strikes
- Stopgap bill buys time to mid-November; McCarthy ousted in GOP civil war – sets stage for unclear budget process—potential shutdown still looms
- Consumers slowing, debt building, defaults rising in riskier cohorts (corporate and consumer)
- Manufacturing still in contraction
- Treasury supply surging; rates moving higher

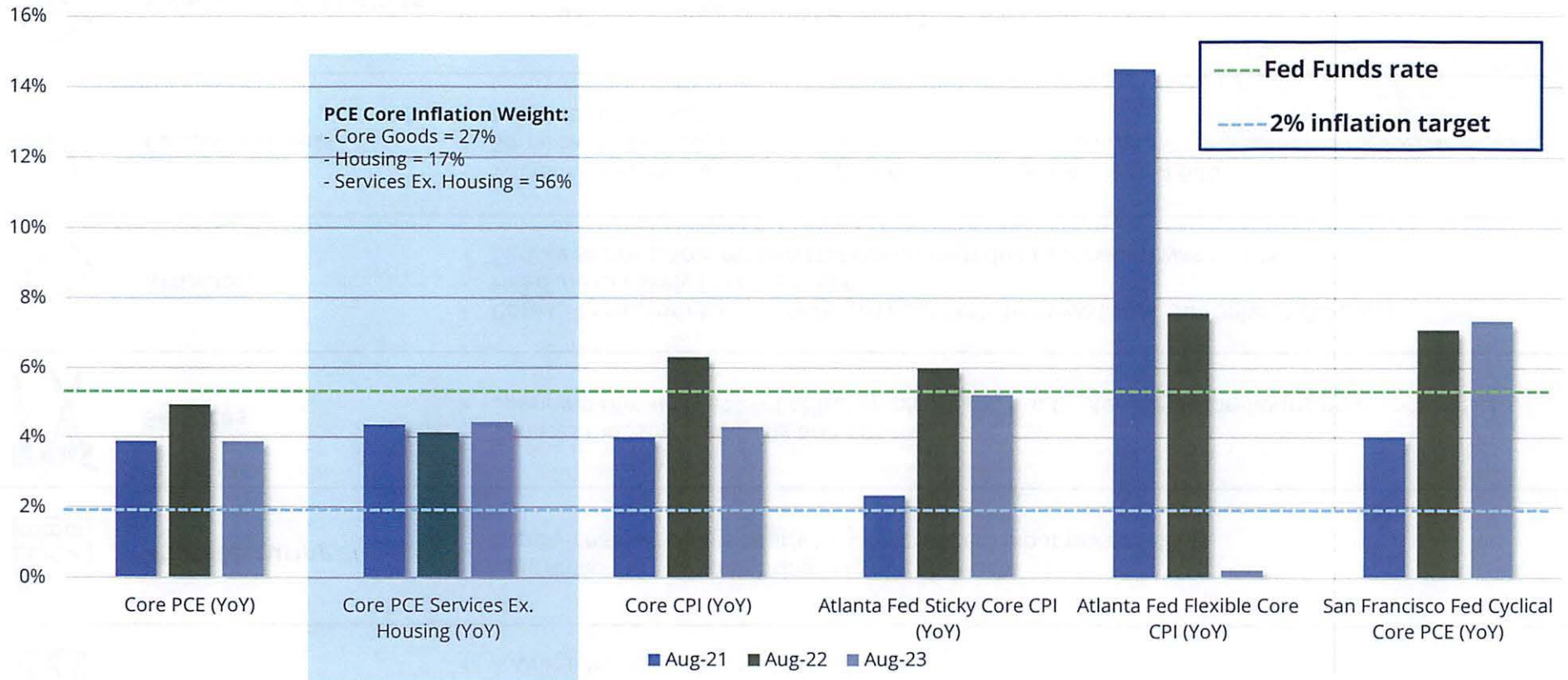
Image source: openai.com DALL-E

ECONOMIC OUTLOOK: 4Q 2023

AREA	EXPECTATIONS
 Labor Markets	<ul style="list-style-type: none">• U.S. may track to 75k-175k jobs per month in Q4-2023• Unemployment rate may rise but remain <4.0% by Dec-2023• Average hourly wages remain ≈4% YoY
 Manufacturing	<ul style="list-style-type: none">• Contraction in manufacturing activity continues• Supply-chain backlogs nearly fully normalized; input prices falling
 Services	<ul style="list-style-type: none">• Services industry stabilizing and positive• Spending remains resilient at full employment, but tighter credit conditions pose some risks
 Inflation	<ul style="list-style-type: none">• Core CPI remains elevated (>4% YoY) but likely to move lower throughout Q4-2023• Headline CPI likely to remain ≈3%• Service sector prices remain stubbornly high due to elevated wage costs
 Equity Markets	<ul style="list-style-type: none">• Volatility may increase in Q4-2023; new S&P range ≈ 4,200 to 4,600• Some technical support at the lower-end; market's assumption for a soft-landing scenario has become consensus.
 Fixed Income Markets	<ul style="list-style-type: none">• 10-Yr UST likely range bound between 3.5% and 4.5% this Fall• Uncertainty around Fed policy in Q4-2023, quantitative tightening continues unabated

Source: Clearstead, as of 9/30/2023.
Expectations for 4th quarter of calendar year 2023.

BROAD INFLATION STILL HIGH



- Inflation still high; Goods and “flexible” categories of inflation are decreasing
- Focus remains on Core Personal Consumption Expenditures price index (Example - Housing)
- Inflation expected to trend down but will remain above Fed’s target

Source: Clearstead, Bloomberg LP, PGIM Fixed Income, Federal Reserve Bank of Atlanta, Year-over-Year change for most recently available inflation statistics, as of 9/30/2023

GLOBAL ECONOMY

		Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	12M Trend
Global	Mfg	49.4	48.8	48.7	49.1	49.9	49.6	49.6	49.5	48.7	48.6	49.0	49.1	
	Serv	49.2	48.0	48.0	50.1	52.6	54.4	55.4	55.5	53.9	52.7	51.1	51.1	
US	Mfg	50.4	47.7	46.2	46.9	47.3	49.2	50.2	48.4	46.3	49.0	47.9	49.8	
	Serv	47.8	46.2	44.7	46.8	50.6	52.6	53.6	54.9	54.4	52.3	50.5	50.2	
Eurozone	Mfg	46.4	47.1	47.8	48.8	48.5	47.3	45.8	44.8	43.4	42.7	43.5	43.4	
	Serv	48.6	48.5	49.8	50.8	52.7	55.0	56.2	55.1	52.0	50.9	47.9	48.4	
UK	Mfg	46.2	46.5	45.3	47.0	49.3	47.9	47.8	47.1	46.5	45.3	43.0	44.3	
	Serv	48.8	48.8	49.9	48.7	53.5	52.9	55.9	55.2	53.7	51.5	49.5	47.2	
Japan	Mfg	50.7	49.0	48.9	48.9	47.7	49.2	49.5	50.6	49.8	49.6	49.6	48.5	
	Serv	53.2	50.3	51.1	52.3	54.0	55.0	55.4	55.9	54.0	53.8	54.3	53.3	
China	Mfg	49.2	49.4	49.0	49.2	51.6	50.0	49.5	50.9	50.5	49.2	51.0	50.6	
	Serv	48.4	46.7	48.0	52.9	55.0	57.8	56.4	57.1	53.9	54.1	51.8	50.2	
India	Mfg	55.3	55.7	57.8	55.4	55.3	56.4	57.2	58.7	57.8	57.7	58.6	57.5	
	Serv	55.1	56.4	58.5	57.2	59.4	57.8	62.0	61.2	58.5	62.3	60.1	60.1	
S. Korea	Mfg	48.2	49.0	48.2	48.5	48.5	47.6	48.1	48.4	47.8	49.4	48.9	48.9	

- Global manufacturing and service PMIs have converged many major economies in Q3-2023
 - Manufacturing and services PMIs are still signaling stagnation economic activity
 - Global services PMIs are mildly positive in select economies (US, Japan, and China);
- Whereas global manufacturing PMIs are consistent with a mild contraction in the manufacturing sector and slowing global trade
- China's services PMI had been robust at its re-opening post-Covid, have shifted quickly to neutral; India's PMIs show universal strength.

Source: Bloomberg, Markit/HIS.
Data as of 09/30/2023.

GLOBAL INFLATION MIXED

GLOBAL HEADLINE CPI

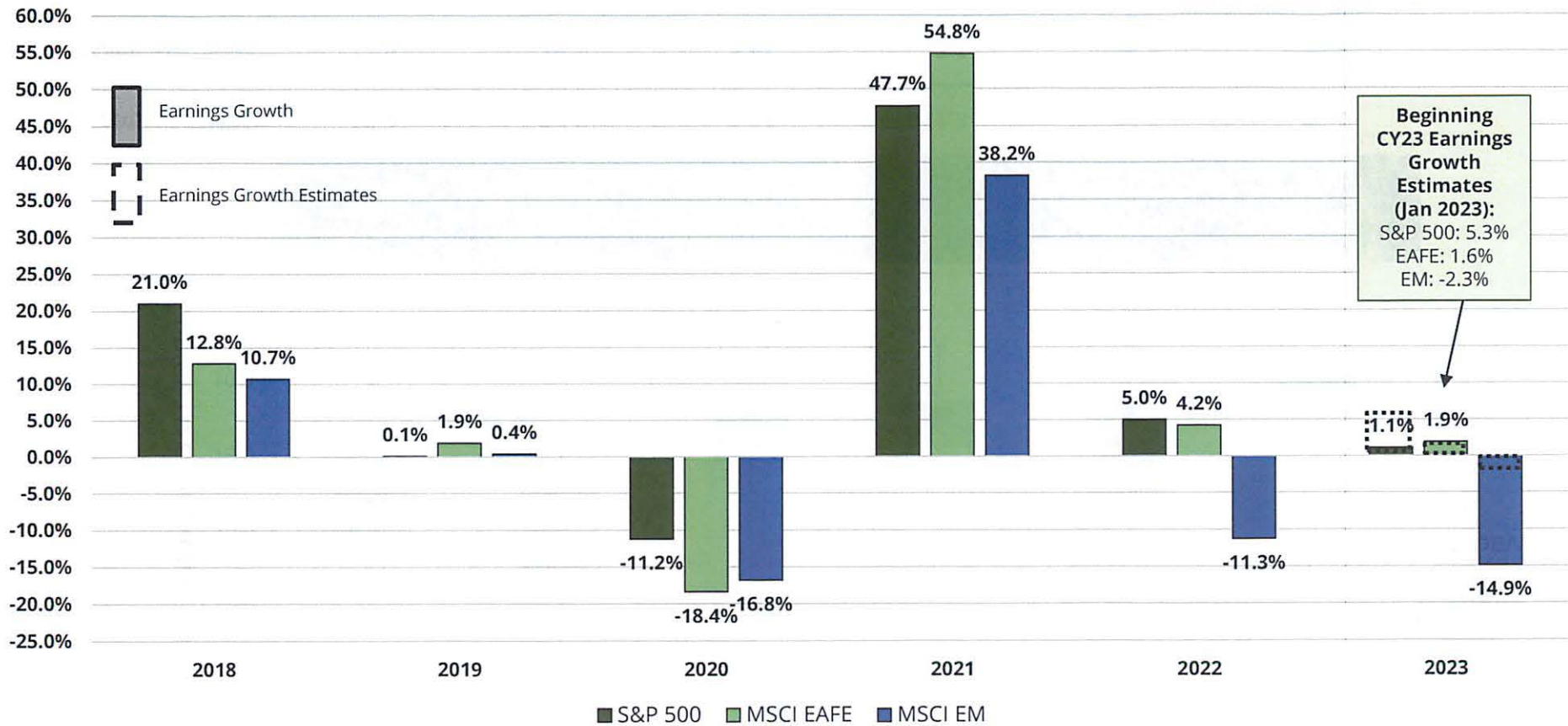
	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23
Dev. Markets																								
US	5.4	6.2	6.8	7.0	7.5	7.9	8.5	8.3	8.6	9.1	8.5	8.3	8.2	7.7	7.1	6.5	6.4	6.0	5.0	4.9	4.0	3.0	3.2	3.7
EU	3.4	4.1	4.9	5.0	5.1	5.9	7.5	7.5	8.1	8.6	8.9	9.1	10.0	10.7	10.0	9.2	8.5	8.5	6.9	7.0	6.1	5.5	5.3	5.3
Japan	0.2	0.1	0.6	0.8	0.5	0.9	1.2	2.5	2.5	2.4	2.6	3.0	3.0	3.7	3.8	4.0	4.3	3.3	3.2	3.5	3.2	3.3	3.3	3.2
UK	3.1	4.2	5.1	5.4	5.5	6.2	7.0	9.0	9.1	9.4	10.1	9.9	10.1	11.1	10.7	10.5	10.1	10.4	10.1	8.7	8.7	7.9	6.8	6.7
Canada	4.4	4.7	4.7	4.8	5.1	5.7	6.7	6.8	7.7	8.1	7.6	7.0	6.9	6.9	6.8	6.3	5.9	5.2	4.3	4.4	3.4	2.8	3.3	4.0
Australia	3.0	3.0	3.0	3.5	3.5	3.5	5.1	5.1	5.1	6.1	6.1	6.1	7.3	7.3	7.3	7.8	7.8	7.8	7.0	7.0	7.0	6.0	6.0	6.0
Switzerland	0.9	1.2	1.5	1.5	1.6	2.2	2.4	2.5	2.9	3.4	3.4	7.3	7.2	7.2	7.2	7.2	7.2	3.4	2.9	2.6	2.2	1.7	1.6	1.6
Norway	4.1	3.5	5.1	5.3	3.2	3.7	4.5	5.4	5.7	6.3	6.8	6.5	6.9	7.5	6.5	5.9	7.0	6.3	6.5	6.4	6.7	6.4	5.4	4.8
Sweden	2.5	2.8	3.3	3.9	3.7	4.3	6.0	6.4	7.3	8.7	8.5	8.9	10.8	10.9	11.5	12.3	11.7	12.0	10.6	10.5	9.7	9.3	9.3	7.5
Asia																								
China	0.7	1.5	2.3	1.5	0.9	0.9	1.5	2.1	2.1	2.5	2.7	2.5	2.8	2.1	1.6	1.8	2.1	1.0	0.7	0.1	0.2	0.0	-0.3	0.1
India	4.4	4.5	4.8	5.6	5.8	5.0	5.4	6.3	7.0	6.2	5.8	5.9	6.5	6.1	5.4	5.8	6.2	6.2	5.8	5.1	4.4	5.6	7.5	6.9
Indonesia	1.6	1.7	1.7	1.9	2.2	2.1	2.6	3.5	3.6	4.4	4.9	4.7	6.0	5.7	5.4	5.5	5.3	5.5	5.0	4.3	4.0	3.5	3.1	3.3
Malaysia	2.2	2.9	3.3	3.2	2.3	2.2	2.2	2.3	2.8	3.4	4.4	4.7	4.5	4.0	4.0	3.8	3.7	3.7	3.4	3.3	2.8	2.4	2.0	2.0
S Koreas	2.4	3.2	3.8	3.7	3.6	3.7	4.1	4.8	5.4	6.0	6.3	5.7	5.6	5.7	5.0	5.0	5.2	4.8	4.2	3.7	3.3	2.7	2.3	3.4
Taiwan	2.6	2.6	2.9	2.6	2.8	2.3	3.3	3.4	3.4	3.6	3.4	2.7	2.8	2.7	2.4	2.7	3.1	2.4	2.4	2.4	2.0	1.8	1.9	2.5
Latin America																								
Brazil	10.3	10.7	10.7	10.1	10.4	10.5	11.3	12.1	11.7	11.9	10.1	8.7	7.2	6.5	5.9	5.8	5.8	5.6	4.7	4.2	3.9	3.2	4.0	4.6
Chile	5.3	6.0	6.7	7.2	7.7	7.8	9.4	10.5	11.5	12.5	13.1	14.1	13.7	12.8	13.3	12.8	12.3	11.9	11.1	9.9	8.7	7.6	6.5	5.3
Colombia	4.5	4.6	5.3	5.6	6.9	8.0	8.5	9.2	9.1	9.7	10.2	10.8	11.4	12.2	12.5	13.1	13.3	13.3	13.3	12.8	12.4	12.1	11.8	11.4
Mexico	6.0	6.2	7.4	7.4	7.1	7.3	7.5	7.7	7.7	8.0	8.2	8.7	8.7	8.4	7.8	7.8	7.9	7.6	6.9	6.3	5.8	5.1	4.8	4.6

Inflation has started to ease in select markets but remains uncomfortably high in most countries.

- Only China and Taiwan have seen negligible rises in inflation
- The U.S., Brazil, and most of Europe have started to see declines in inflation

Bloomberg Inflation Monitor as of 9/1/2023.

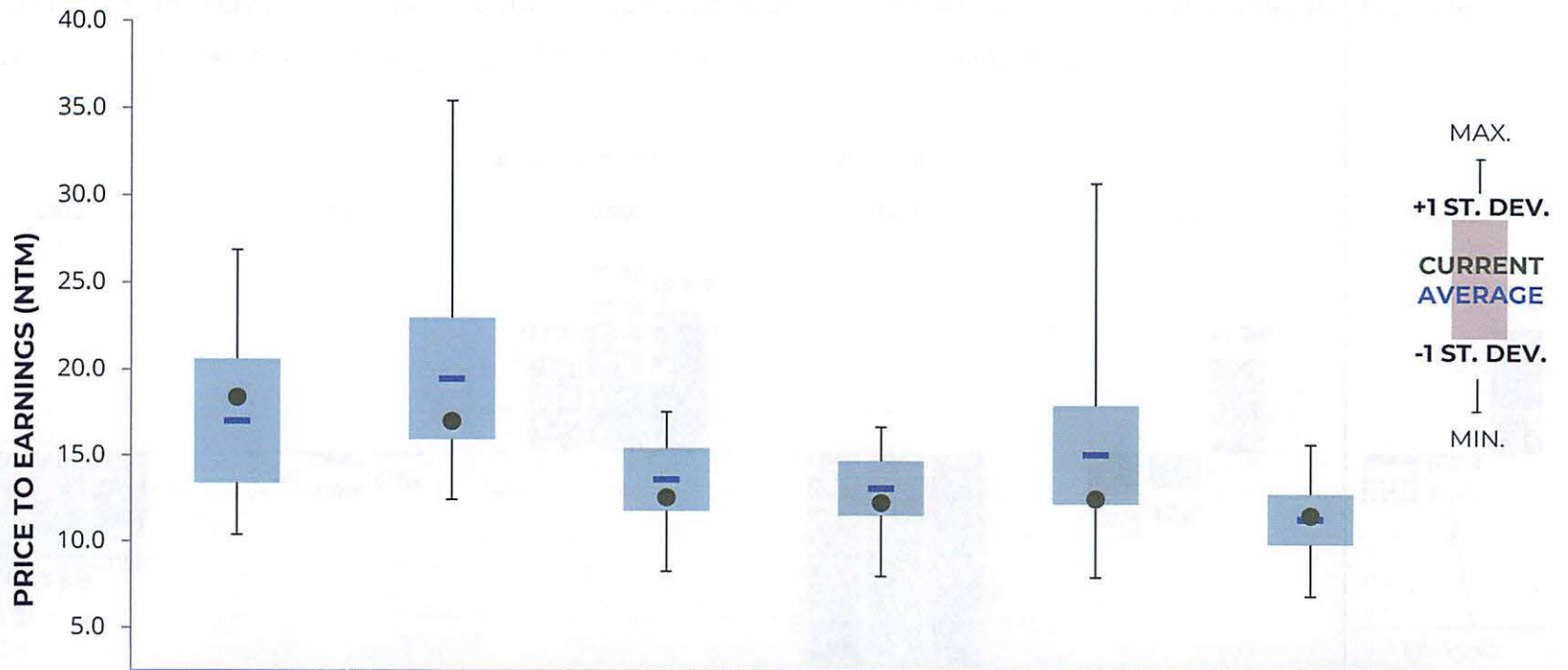
GLOBAL EARNINGS OUTLOOK



- Earnings expectations have been revised lower again as analysts downgrade their expectations
- Expectations for EM markets have eroded the most in the face of heightened energy costs, global monetary tightening, and the slowdown in the Chinese economy (CY2022 EM earnings ex Russia would be approximately -3%)

Source: Bloomberg, FactSet, Goldman Sachs.
Data as of 9/30/2023.

GLOBAL EQUITY VALUATIONS

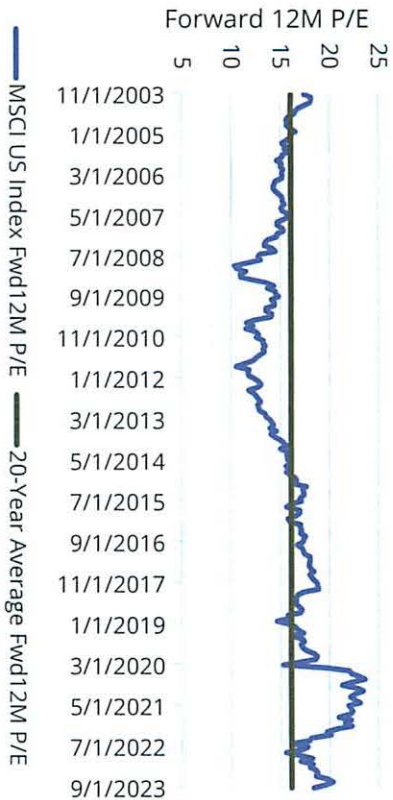


	MSCI USA	MSCI USA SMALL	MSCI EAFE	MSCI ACWI EX USA	MSCI ACWI EX USA SMALL	MSCI EM
Current P/E (NTM)	18.4	17.0	12.6	12.3	12.3	11.6
Average P/E (NTM)	17.0	19.5	13.6	13.1	15.1	11.3

Source: Bloomberg as of 09/30/2023. Average taken over full index history. MSCI USA- 1994 - Current; MSCI USA Small- 1994 - Current; MSCI EAFE- 2003 - Current; MSCI ACWI ex USA- 2003 - Current; MSCI ACWI ex USA Small- 1994 - Current; MSCI EM- 2003.

GLOBAL EQUITY VALUATIONS

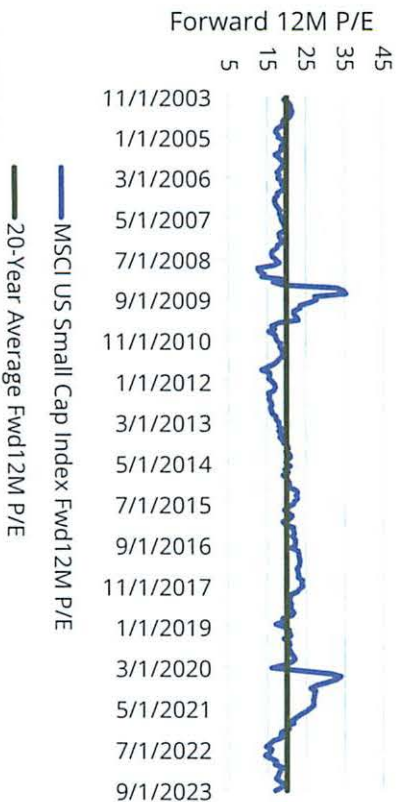
MSCI US Index Fwd12M P/E



MSCI ACWI ex US Index Fwd12M P/E



MSCI US Small Cap Index Fwd12M P/E



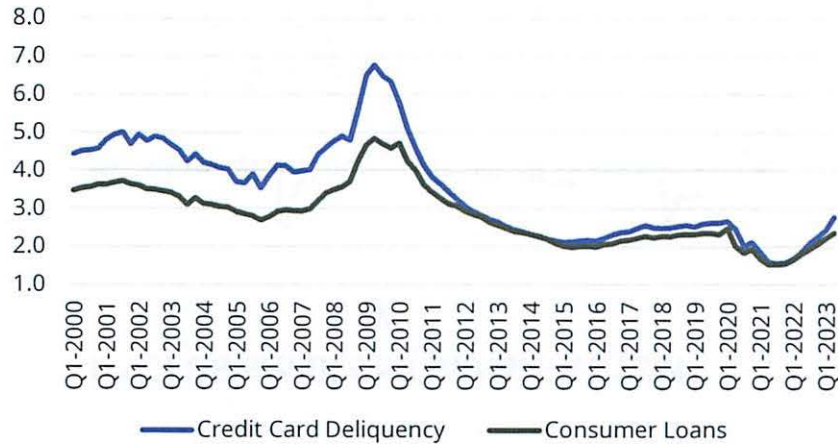
MSCI ACWI ex US Small Cap Index Fwd12M P/E



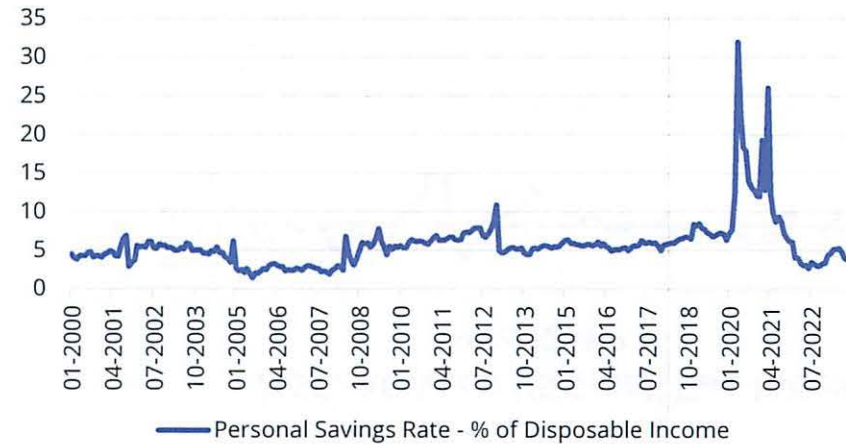
Source: Bloomberg as of 09/30/2023. Average taken over full index history. MSCI USA- 1994 - Current; MSCI USA Small- 1994 - Current; MSCI EAFE- 2003 - Current; MSCI ACWI ex USA- 2003 - Current; MSCI ACWI ex USA Small- 1994 - Current; MSCI EM- 2003.

CONSUMER HEADWINDS

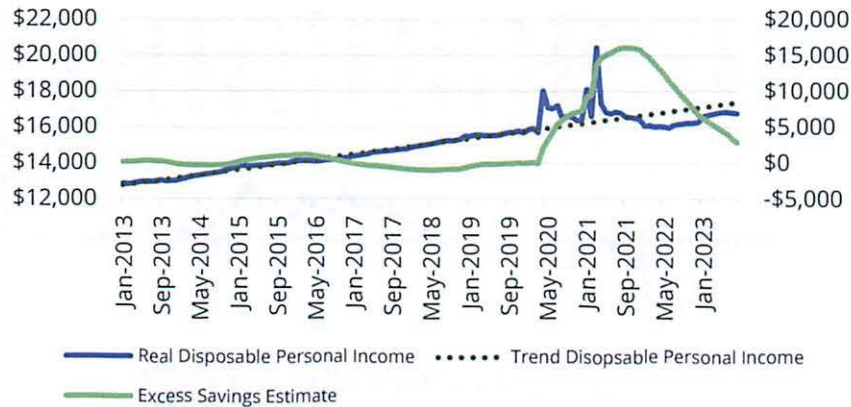
Distressed Loans



Personal Savings Rate



Excess Consumer Savings

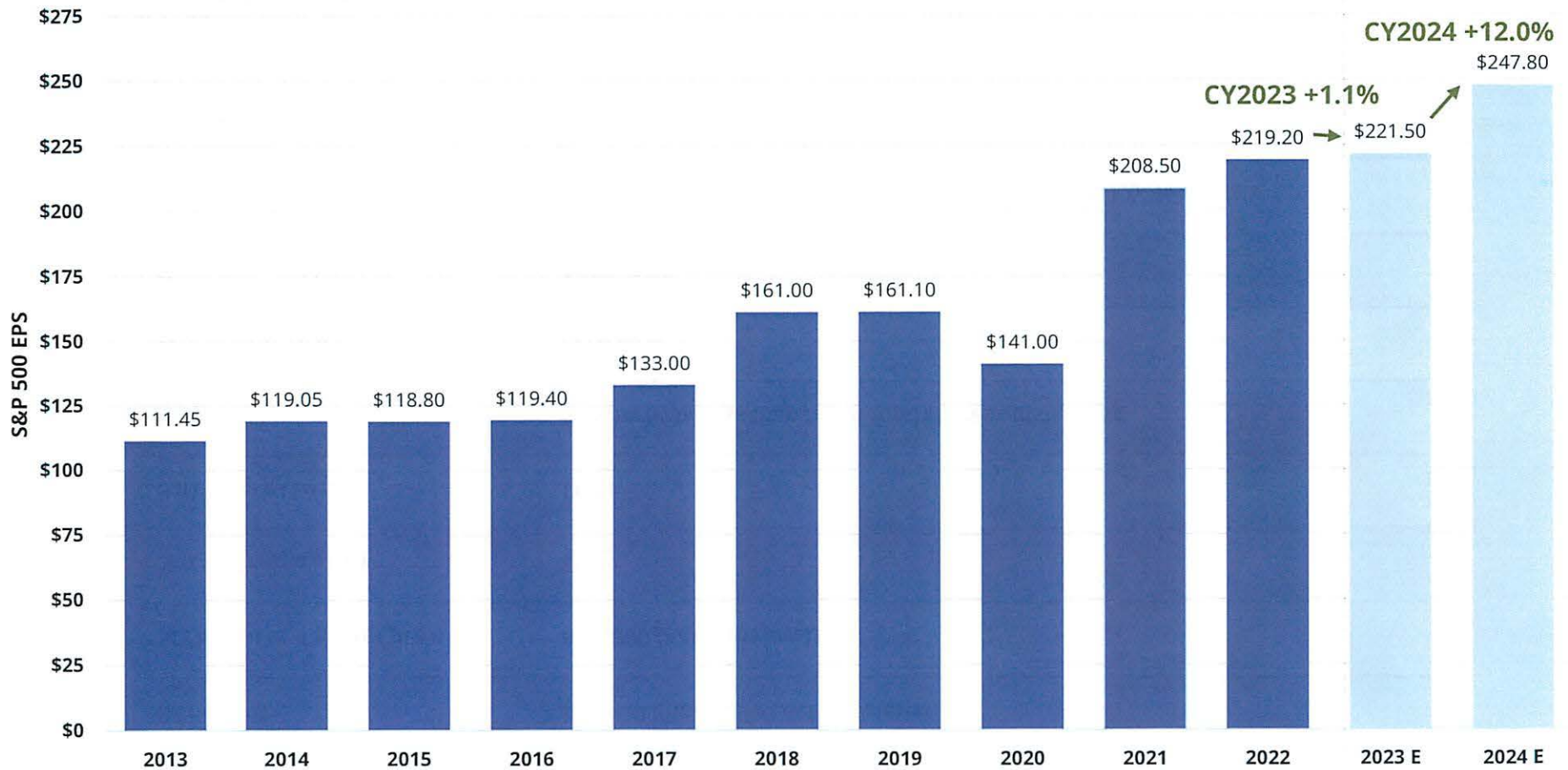


- Consumers are **being stretched** despite strong employment numbers as inflation bites into real spending.
- Delinquencies are **on the rise**, savings are falling, and household **spending cushions are set to be exhausted by Dec-2023.**

Source: Clearstead, St. Louis Federal Reserve
Data as of 9/30/2023.



CORPORATE EARNINGS



- Bottoms up earnings estimates for CY2023 may still be too optimistic.
 - Margin compression and Q1 downgrades has pushed CY2023 EPS towards ≈\$220.
 - Expectations for CY2023 could erode to zero; CY2024 estimates currently suggest +11.7% EPS growth.

Source: Factset, Clearstead, data as of 9/29/2023, Past performance is not an indicator of future results



CLIFFWATER CORPORATE LENDING FUND TERMS

Symbol / Ticker	CCLFX
Structure	Interval Fund (1940 Act-registered)
Minimum Investment	\$10,000,000 (firm level)
NAV Frequency	Daily
Subscriptions	Daily
Liquidity	Quarterly, no less than 5% of fund shares outstanding
Distributions	Quarterly ¹
Tax Reporting	1099-DIV
Expenses	Total Fees & Expenses (excluding borrowing costs): 1.63% ²
Investor Requirements	None
Net Assets	\$12.0B

¹ As a RIC, the Fund must distribute an amount equal to at least 90% of its taxable investment income, annually. There is no assurance a change in market conditions or other factors will not result in a change in future distributions.

² Fees shown exclude interest payments and expenses on borrowed funds of 1.69%. See disclosures at the end of this presentation.

CLIFFWATER DIRECT LENDING FUND

- Structure: '40 act interval fund with quarterly liquidity and the ability to limit withdrawals
- 350 firms comprise of the investor base (firms such as Clearstead that have directed client assets into the fund)
 - Cliffwater conducts due diligence on investors
 - Largest investment firm accounts for 7% of investor base
 - No broker share class
- 98% of underlying loans are PE (private equity) sponsored
- 73% of assets are direct loans (co-investments)
- Non-accrual rate is 0.07%
- Credit is getting tighter. However, we do not expect direct lending to lock up
 - Banks are going to have a hard time getting deals done
 - Broad syndicated market is widely closed
 - Larger borrowers are approaching middle market private lenders



clearstead **DEFINITIONS & DISCLOSURES**

DEFINITIONS & 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. Clearstead 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, 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 issue, 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, weather events, worldwide competition, government regulation, and economic conditions. Changes in real estate values or economic conditions can have a positive or negative effect on issues 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 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 Japan 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 debt; the index covers the following collateral types: credit cards, autos, home equity (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 treated 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 total 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 (CMBS-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 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 US High Yield Index** tracks the performance of US Dollar Denominated corporate bonds publicly issued in the US market. Qualifying bonds have at least one year remaining term to maturity, are fixed coupon schedule and minimum outstanding of \$100 million.

The **HFRF Funds Index (HFRF 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 those 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.

HFR Emerging Markets: Asia ex-Japan, Global Index, Latin America Index, Russia/Eastern Europe Index. The constituents of the HFR 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. **HFR 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. **HFR 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. **HFR 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. **HFR 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. **HFR 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.

HFR 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.

HFR 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. **HFR 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. **HFR 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. **HFR 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. **HFR 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. **HFR 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. **HFR RV: Multi-Strategies** employ an investment thesis is predicated on realization of a spread between related fixed income 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. **HFR 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.

The **S&P 500 Value Index**, **Index S&P 500 Index** and **S&P 500 Growth Index** are a broad-based market indices that measure the performance of large-capitalization value companies, large-capitalization companies and large-capitalization growth companies, respectively. The **S&P 400 MidCap Value Index**, **Index S&P 400 MidCap Index** and **S&P 400 MidCap Growth Index** are indices that measure the performance of mid-sized value companies, mid-sized companies and mid-sized growth companies, respectively. The **S&P 600 SmallCap Index** is a market value weighted index that consists of 600 small-cap U.S. stocks chosen for market size, liquidity and industry group representation. The **S&P 900 Index** combines the large-cap S&P 500 and the S&P MidCap 400. **S&P Completion Index TR** is a sub-index of the S&P Total Market Index (TMI), including all stocks eligible for the S&P TMI and excluding all current constituents of the S&P 500. **S&P Global Ex US Property Index** defines and measures the investable universe of publicly traded property companies domiciled in developed and emerging markets excluding the U.S.

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 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 **Russell Microcap Index** measures the performance of the microcap segment of the U.S. equity market. The **Russell Top 200 Value Index** measures the performance of the especially large cap segment of the U.S. equity universe represented by stocks in the largest 200 by market cap that exhibit value characteristics. The **Russell Developed ex-US Large Cap Index** measures the performance of the largest investable securities in developed countries globally, excluding companies assigned to the United States.

DEFINITIONS & DISCLOSURES

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 **Wilshire 4500 Index** is comprised of all stocks in the Wilshire 5000 minus the stocks in the S&P 500. The **Wilshire Real Estate Securities Index (RESI)** is comprised of publicly traded real estate equity securities.

All MSCI indices are gross, defined as With Gross Dividends. Gross total return indices reinvest as much as possible of a company's dividend distributions. The reinvested amount is equal to the total dividend amount distributed to persons residing in the country of the dividend-paying company. Gross total return indices do not, however, include any tax credits. The **MSCI EAFE (Europe, Australasia, Far East) Gross Index** is designed to measure developed market equity performance, excluding the U.S. and Canada. The **MSCI Emerging Markets (EM) Gross Index** is designed to measure global emerging market equity performance. The **MSCI World Gross Index** is designed to measure global developed market equity performance. The **MSCI EAFE (Europe, Australasia, Far East) Gross Index** is designed to measure the equity market performance of developed markets and excludes the U.S. The **MSCI Europe Gross Index** is an unmanaged index considered representative of developed European countries. The **MSCI Japan Gross Index** is an unmanaged index considered representative of stocks of Japan. The **MSCI Pacific ex Japan Gross Index** is an unmanaged index considered representative of stocks of Asia Pacific countries excluding Japan. The **MSCI AC (All Country) Asia ex Japan Gross Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of Asia, excluding Japan. The **MSCI ACWI Gross Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The **MSCI ACWI ex USA Gross Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets, excluding the U.S. The **MSCI ACWI ex US Small Cap Growth Gross Index** is a market capitalization weighted total return index measured in U.S. dollars based on share prices and reinvested net dividends that is designed to measure the performance of the large and midcap segments of the Canada market. The **MSCI EAFE Small Cap Gross Index** measures the performance of small cap stocks in European, Australasian, and Far Eastern markets. The **MSCI EAFE Value Gross Index** is a market capitalization-weighted index that monitors the performance of value stocks from Europe, Australasia, and the Far East. The **MSCI EM Latin America Gross Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of emerging markets in Latin America. The **MSCI Pacific Free ex Japan Gross Index** measures the performance of the Australian, Hong Kong, New Zealand, and Singapore equity markets. The **MSCI World Small Cap Gross Index** is designed to measure the equity market performance of the small cap segment of developed markets. The **MSCI US Small Cap 1750 Gross Index** represents the universe of small capitalization companies in the US equity market. The **MSCI US Mid Cap 450 Index** represents the universe of medium capitalization companies in the US equity market. The **MSCI US Mid Cap Value Index** represents the value companies of the MSCI US Mid Cap 450 Index. The **MSCI US Prime Market 750 Index** represents the growth companies of the MSCI US Prime Market 750 Index. The **MSCI US Prime Market Growth Index** represents the growth companies of the MSCI US Prime Market 750 Index.

The **Barclays Capital (BC) U.S. Treasury Index** is designed to cover public obligations of the U.S. Treasury with a remaining maturity of one year or more. The **BC Aggregate Bond Index** is an unmanaged, market value-weighted performance benchmark for investment-grade fixed-rate debt issues, including government, corporate, asset-backed, and mortgage-backed securities with maturities of at least one year. The **BC U.S. Credit Bond Index** is designed to cover publicly issued U.S. corporate and 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 ARM) 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 US TIPS Index** is an unmanaged 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 totals 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 (RMBS-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-EMISA 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 1-5 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 five years. The **BC Long-term Government Index** is an unmanaged index reflecting performance of the long-term government bond market. The **BC Intermediate Aggregate Index** measures the performance of intermediate-term investment grade bonds. The **BC Intermediate 1-3 Year Government Credit Index** measures the performance of U.S. dollar-denominated U.S. Treasury, government-related and investment grade U.S. corporate securities that have a remaining maturity of greater than one year and less than ten years. The **BC U.S. 1-3 Year Government Bond Index** is composed of treasury bond and agency bond and agency bond indices that have maturities of one to five years. The **BC 1-3 Year US Treasury Index** measures the performance of U.S. Treasury securities that have a maturity between 1 to 3 years. The **BC Government Credit Index** measures the performance of U.S. Government and corporate bonds rated investment grade or better, with maturities of at least one year.

The **BC High Yield Index** covers the universe of fixed rate, non-investment grade debt. Pay-in-kind (PIK) bonds, Eurobonds, and debt issues from countries designated as emerging markets (e.g. Argentina, Brazil, Venezuela, etc) are excluded, but Canadian and global bonds (SEC registered or issuers in non-EMG countries) are included. Original issue zeroes, step-up coupon structures, and 144As are also included. The **BC Intermediate Government Index** measures the performance of intermediate U.S. government securities. The **BC Intermediate Government Credit Bond Index** measures the performance of intermediate term U.S. government and corporate bonds. The **BC U.S. Long Term Corporate Index** measures the performance of investment-grade, fixed rate, taxable securities issued by industrial, utility, and financial companies, with maturities greater than 10 years. The **BC Global Credit Hedged USD Index** contains investment grade and high yield credit securities from the Multiverse represented in US Dollars on a hedged basis. The **BC Long A+ U.S. Credit Index** measures the performance of investment grade corporate debt and agency bonds that are dollar denominated and have a maturity of greater than 10 years. The **BC U.S. Gov/Credit 5-10 Year Index** includes all medium and larger issues of U.S. government, investment-grade corporate, and investment grade international dollar-denominated bonds that have maturities between 5 and 10 years and are publicly issued.

The **Cambridge U.S. Private Equity Index** is a representation of returns 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. Please Note: the performance of this index lags by 1 quarter.

The **Bank of America (BoFA) Merrill Lynch (ML) 91-day T-bill Index** includes U.S. Treasury bills with a remaining maturity from 1 up to 3 months. The **BoFA ML U.S. High Yield Master Index & Bank of America ML U.S. High Yield Master II Indices** track the performance of below investment grade US Dollar Denominated corporate bonds issued in the US market. Qualifying bonds have at least one year remaining term to maturity, are fixed coupon schedule and minimum outstanding of \$100 million. The **BoFA ML All US Convertibles Index** consists of convertible bonds traded in the U.S. dollar denominated investment grade and non investment grade convertible securities sold into the U.S. market and publicly traded in the United States. The **BoFA ML US Corp & Govt 1-3 Yrs Index** tracks the performance of U.S. dollar-denominated investment grade government and corporate public debt issued in the U.S. domestic bond market with at least 1 yr. and less than 3 yrs remaining to maturity, including U.S. Treasury, U.S. agency, foreign government, supranational and corporate securities. The **BoFA ML U.S. High Yield BB-B Constrained Index** is a modified market capitalization-weighted index of U.S. dollar-denominated, below-investment-grade corporate debt publicly issued in the U.S. domestic market. The **BoFA Merrill Lynch US Treasury 1-3 Year Index** tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year and less than three years. The **BoFA ML Treasuries 1 Year Index** tracks the performance of the direct sovereign debt of the U.S. Government having a maturity of at least one year. The **BoFA ML CMBS Fixed Rate AAA Index** is a subset of the BoFA ML U.S. Fixed Rate CMBS Index including all securities rated AAA. The **BoFA ML U.S. Fixed Rate CMBS Index** tracks the performance of U.S. dollar-denominated investment grade fixed rate commercial mortgage-backed securities publicly issued in the U.S. domestic market. The **BoFA ML U.S. Dollar 3-Month LIBOR Index** represents the London interbank offered rate (LIBOR) with a constant 3-month average maturity.

The **Citi Select MLP Index** is a USD denominated, price return index, comprised of the common units of up to 30 of the most liquid master limited partnerships in the Energy Sector. The **Citigroup World Government Bond Index (WGBI) 1-5 Year Hedged USD Index** is a comprehensive measure of the total return performance of the government bond markets of approximately 22 countries with maturities ranging from one to five years. The **Citigroup WGBI Index** is a market capitalization weighted bond index consisting of the government bond markets of the multiple countries. The **Citigroup WGBI ex US Index** is a market capitalization weighted bond index consisting of the government bond markets of the multiple countries, excluding the U.S. The **Citigroup 3-Month U.S. Treasury Bill Index** performance is an average of the last 3-Month Treasury Bill issues.

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. Please Note: the performance of this index lags by 1 quarter. The **NCREIF Timberland Index** is a quarterly time series composite return measure of investment performance of a large pool of individual timber properties acquired in the private market for investment purposes only.

The **Ibbotson Intermediate Government Bond Index** is measured using a one-bond portfolio with a maturity near 5 years.

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

The **HFRF Funds of Funds Index (HFRF 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. **HFR Relative Value Index** tracks investment managers who maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative or other security types. Fixed income 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. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction. **HFRF Fund of Funds Conservative Index** is an equal-weighted index representing funds or funds that invest with investment managers focused on consistent performance and lower volatility via absolute strategies. **HFRF 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.

The **FSE All-World ex US Index** comprises large and midcap stocks providing coverage of developed and emerging markets, excluding the U.S. The **FSE NAREIT Developed Index** is a global market capitalization weighted index composed of listed real estate securities from developed market countries in North America, Europe, and Asia. The **FSE NAREIT Developed ex U.S. Index** is a global market capitalization weighted index composed of listed real estate securities from developed market countries in North America, Europe, and Asia, excluding the U.S. The **FSE High Dividend Yield Index** comprises stocks that are characterized by higher than average dividend yields, and is based on the US component of the FSE Global Equity Index Series (GEIS). The **FSE 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 **FSE NAREIT Equity REIT Index** is an unmanaged index reflecting performance of the U.S. real estate investment trust market.

The **Consumer Price Index (CPI)** is an inflationary indicator that measures the change in the cost of a fixed basket of products and services, including housing, electricity, food, and transportation. The CPI is published monthly. Please Note: the performance of this index lags by 1 month.

The **Citigroup 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 (DJ) 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. The **DJ U.S. Total Stock Market Index** is an all-inclusive measure composed of all U.S. equity securities with readily available prices. The **DJ U.S. Completion Total Stock Market Index** is a subset of the DJ U.S. Total Stock Market Index that excludes components of the S&P 500. The **Dow Jones U.S. Select Real Estate Securities Index** is a four-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 **Dow Jones Target Date (Today, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055) Indices** were created to benchmark portfolios of stocks, bonds and cash. Each index is made up of composite indices representing these three asset classes. The asset class indices are weighted differently within each target date index depending on the time horizon. Each month, the allocations among the asset class indices are reallocated to reflect an increasingly conservative asset mix.

The **Morningstar Lifetime Allocation Index** series consists of 13 indexes (Income, 2000, 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050, 2055) available in three risk profiles: aggressive, moderate, and conservative. The indexes are built on asset allocation methodologies developed by Ibbotson Associates, a leader in asset allocation research and a Morningstar company since 2006. The indexes provide pure asset-class exposure to global equities, global fixed-income, commodities, and Treasury Inflation-Protected Securities (TIPS) by using existing Morningstar Indexes as allocation building blocks. The portfolio allocations are held in proportions appropriate to the U.S. investor's number of years until retirement. The Conservative, Moderate and Aggressive risk profiles are for investors who are comfortable with below-average exposure to equity market volatility, investors who are comfortable with average exposure to equity market volatility and well-funded investors who are comfortable with above average exposure to equity market volatility, respectively.

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

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

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

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

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