



TTUS Investment Performance Update

Gary Barnes, *TTUS Vice Chancellor and CFO*

February 24, 2022

CAPITAL MARKETS OVERVIEW



TEXAS TECH UNIVERSITY SYSTEM

February 24th, 2022

Timothy Bruce, Partner



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

AGENDA

THREE BROAD TOPICS

▪ **We are going to cover three broad topics:**

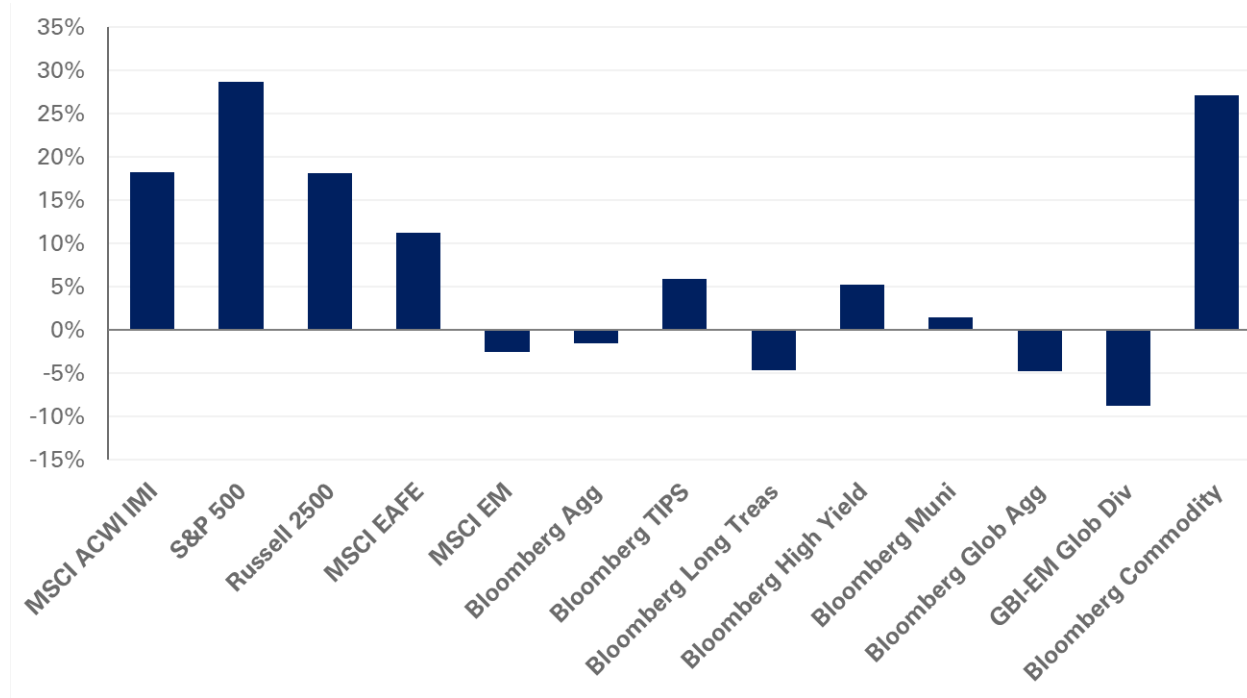
- 1. Review of 2021 capital markets**
- 2. Discuss some 2022 macroeconomic issues**
- 3. Brief review of endowment investing**

2021 MARKET REVIEW

NEPC, LLC

RISK ASSETS OUTPERFORMED

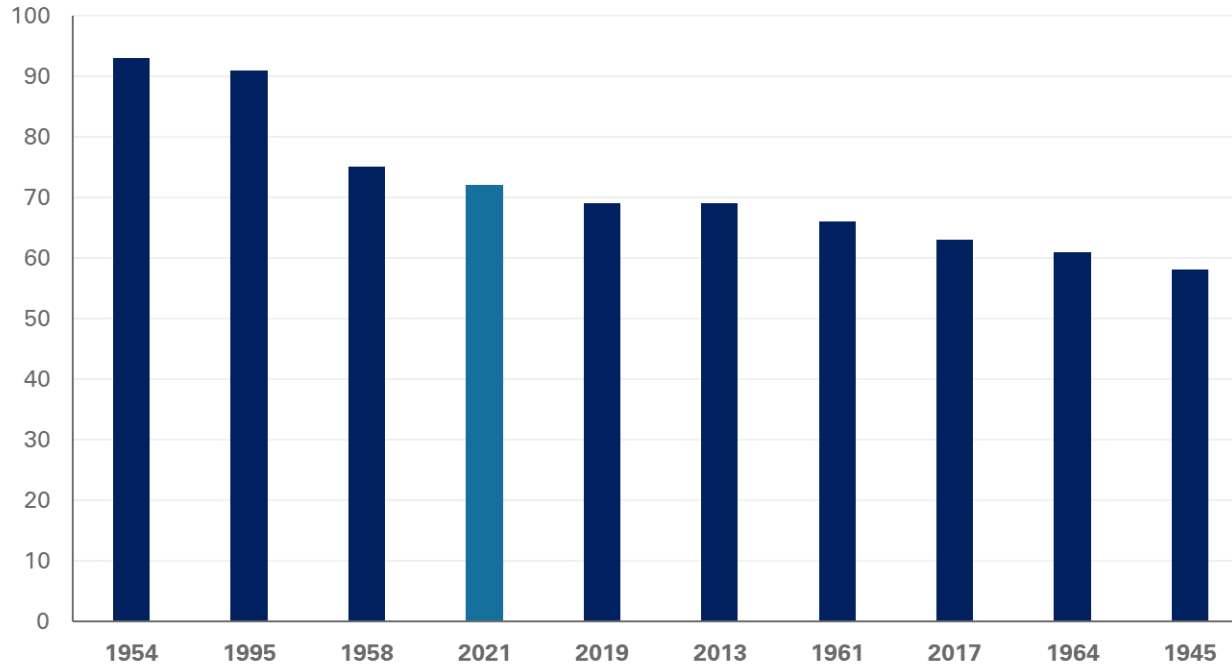
ANNUAL TOTAL RETURNS



Source: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, FactSet

U.S. EQUITIES TRENDED HIGHER

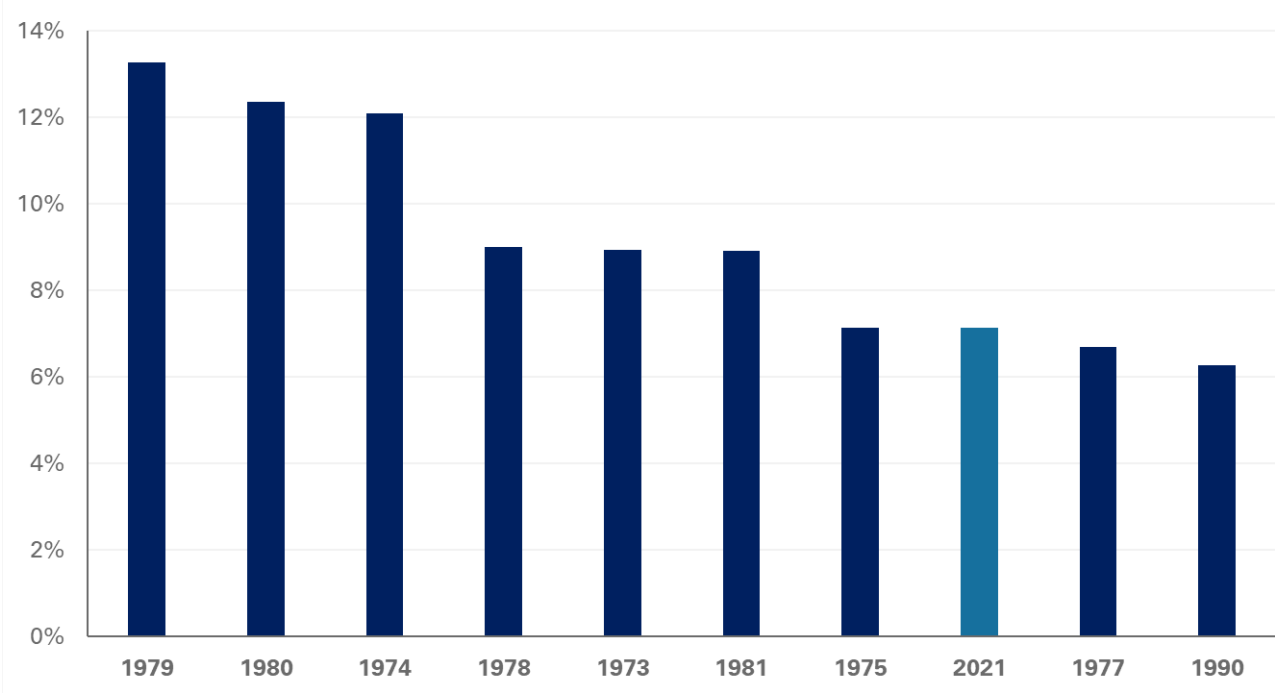
NUMBER OF DAILY NEW RECORD HIGHS FOR THE S&P 500



Source: S&P, FactSet

INFLATION ROSE AT HIGHEST LEVEL SINCE 1981

TOP 10 ANNUAL U.S. CPI-U CHANGES



Source: Bureau of Labor Statistics, FactSet

TREASURY YIELDS WERE VOLATILE

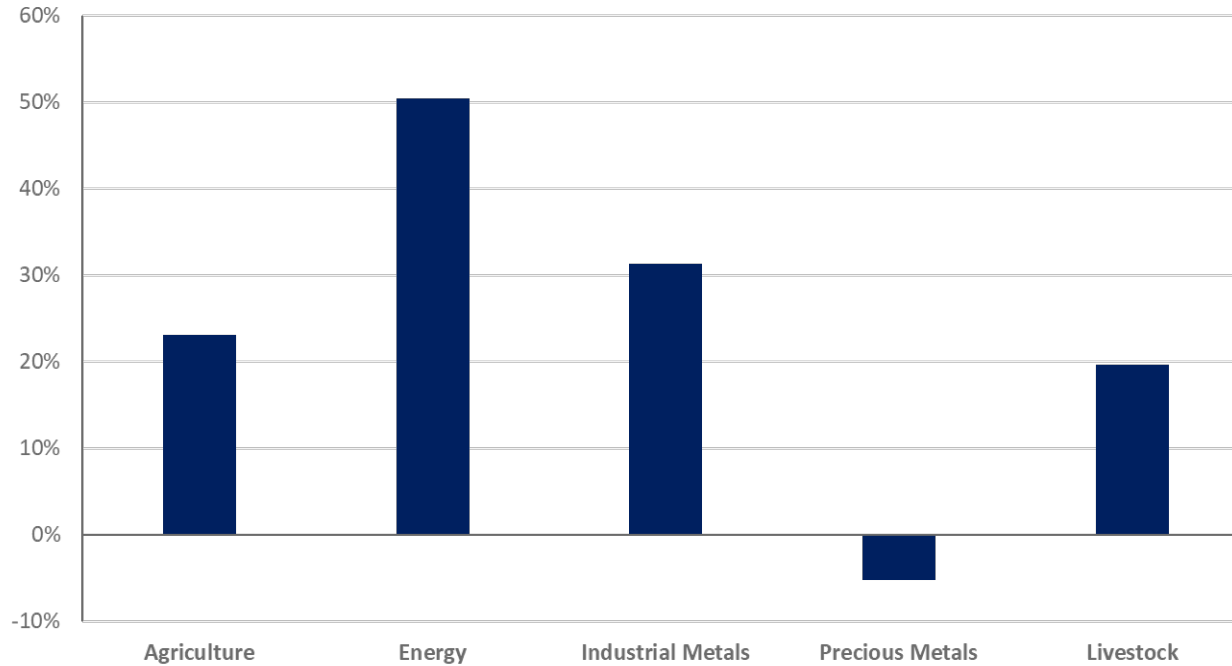
10- AND 2-YEAR U.S. TREASURY SPREADS



Source: FactSet

COMMODITY PRICES RALLIED DURING 2021

TRAILING 1 YEAR SPOT RETURNS

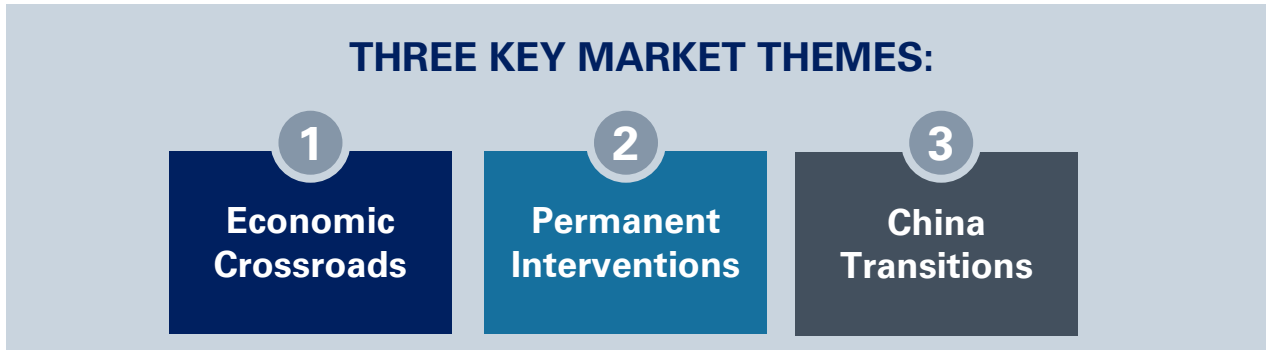


Source: Bloomberg, FactSet

2022 MACRO CONSIDERATIONS

KEY MARKET THEMES

- **Key Market Themes influence global markets and may remain relevant for an extended period with significant implications for capital markets**
 - While there are many, we highlight three for consideration



1. ECONOMIC CROSSROADS

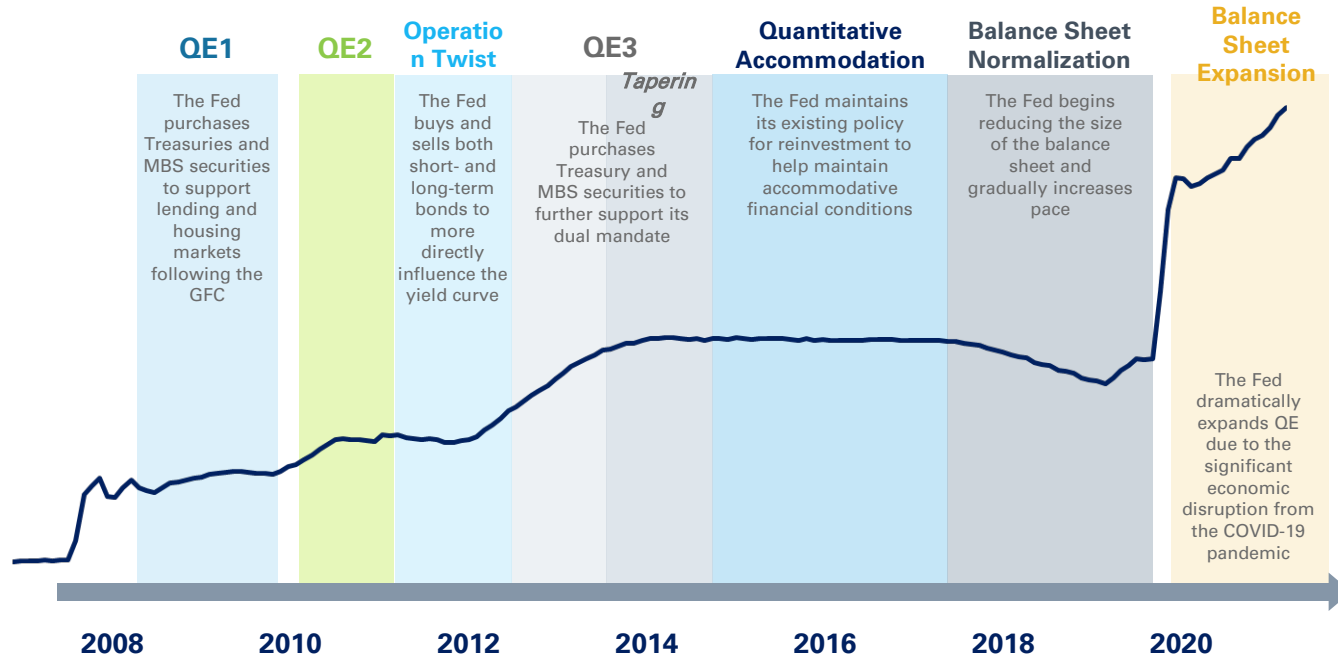
DEFINING THE THEME

- **Central bank activity and monetary policy have been the driving force behind economic and market momentum since the 2008 Financial Crisis**
- **Market sentiment and asset pricing have derived from central bank support and abundant liquidity instead of economic fundamentals**
- **The pendulum is swinging from Fed policy as the dominant input for capital markets to growth and inflation forces driving market dynamics**
 - Transition is occurring due to both diminishing policy support (and potential tightening) with higher levels of inflation and growth
 - Moving across this spectrum from Fed Policy to economic fundamentals will dramatically influence the pricing of risk premia across capital markets



2. PERMANENT INTERVENTIONS

HISTORY OF FOMC OPEN MARKET OPERATIONS



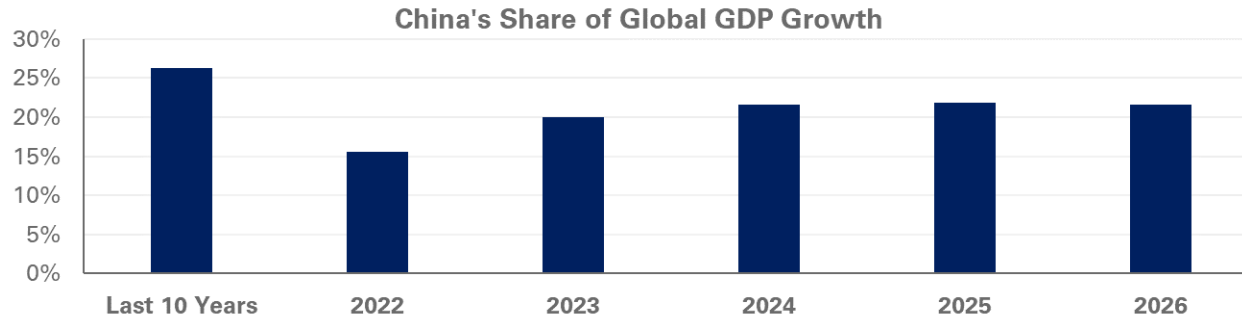
Notes: Blue line reflects total asset size of the Federal Reserve
Sources: Federal Reserve, FactSet, NEPC



3. CHINA TRANSITIONS

DEFINING THE THEME

- **China is undergoing a multi-faceted advancement as the economy transitions to a consumption-oriented model**
 - China's socioeconomic profile is changing with rising income levels, increased urbanization, but also a challenging demographic profile
 - The country's influence on the global stage has shifted, reflecting its status as an ascending geopolitical power
- **Disruption of these transitions will be transmitted widely due to China's ever-expanding role in the world economy**



Sources: IMF, FactSet

ENDOWMENT INVESTING

NEPC, LLC

ENDOWMENT INVESTING

OBJECTIVES OF AN ENDOWMENT

Objective of TTUS Endowment:

Provide a consistent, growing, inflation adjusted revenue stream to provide funding for student scholarships, academic chairs, and professorships.

ENDOWMENT INVESTING

HOW IT DIFFERS FROM PERSONAL, CORPORATE, PENSION, ETC.

- Endowment funds, by design, are unique gifts given by donors that are invested over the long term with the purpose of producing earnings that will support the strategic goals of the institution and fulfill the philanthropic goals of individual donors.

- Endowment funds benefit both current and future generations and represent the institution's promise to donors to use the income and investment gains generated by their gifts to support an aspect of the university's mission into perpetuity as specified by the donor.

- Uniform state laws provide fundamental rules for the investment and expenditures of endowment funds. The rules support two general principles:
 1. Assets would be invested prudently in diversified investments that sought growth as well as income, with low volatility over time with stable funding, and
 2. Appreciation of assets could prudently be spent for the purposes of the endowment.

INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

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TTUS Office of Investments Performance Update

Tim Barrett, Associate Vice Chancellor and Chief Investment Officer
February 24, 2022

Long Term Investment Fund (LTIF)

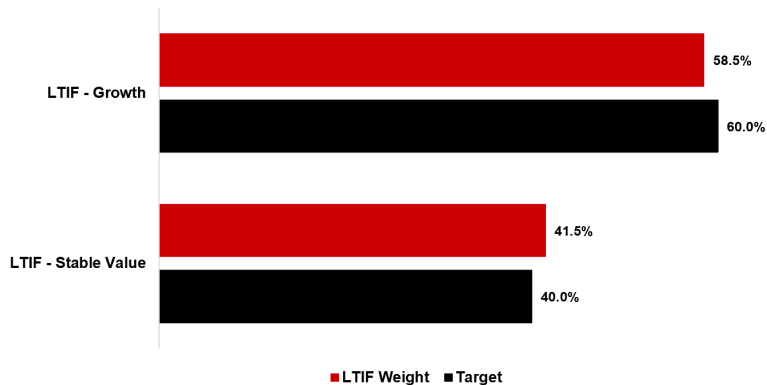
as of November 30, 2021



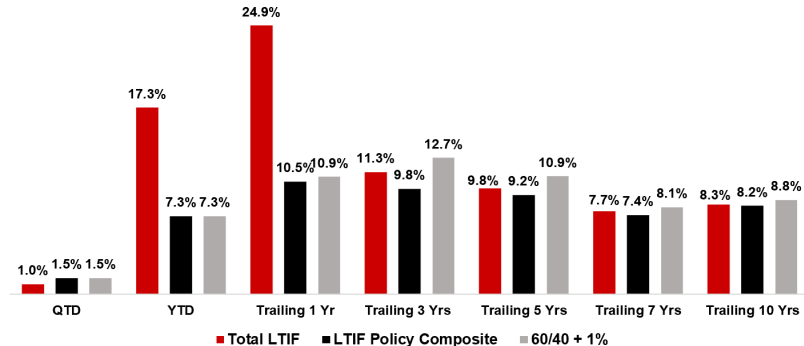
Portfolio Holdings & Performance Overview – November 2021

Portfolio Composition	Balance	LTIF Weight	Target	QTD	YTD	Trailing 1 Yr	Trailing 3 Yrs	Trailing 5 Yrs	Trailing 7 Yrs	Trailing 10 Yrs
Total LTIF	1,580,131,852.26	100.00%	100.00%	0.96%	17.31%	24.90%	11.33%	9.84%	7.72%	8.32%
LTIF Policy Composite				1.52%	7.25%	10.46%	9.79%	9.22%	7.36%	8.20%
60/40 + 1%				1.52%	7.25%	10.91%	12.65%	10.94%	8.08%	8.75%
LTIF - Growth	924,670,230.21	58.52%	60.00%	1.51%	26.39%	39.43%	18.85%	15.60%	11.69%	12.26%
MSCI ACWI TR Net USD				2.57%	13.98%	19.27%	15.96%	13.99%	9.98%	11.39%
LTIF - Stable Value	655,461,622.05	41.48%	40.00%	0.08%	4.96%	7.23%	3.15%	3.72%	3.96%	4.07%
Barclays Global Aggregate USD				-0.53%	-4.57%	-3.29%	4.34%	3.29%	2.14%	1.85%

LTIF Weight vs Target



LTIF Performance vs Benchmarks



Long Term Investment Fund (LTIF)

as of November 30, 2021



Portfolio Composition – November 2021

	Balance	Weight	Trailing 1 Yr	Trailing 3 Yrs	Trailing 5 Yrs	Trailing 7 Yrs	Trailing 10 Yrs
Total	1,580,131,852.26	100.00%					
LTIF Policy Composite			24.90%	11.33%	9.84%	7.72%	8.32%
Global 60/40 + 1%			10.46%	9.79%	9.22%	7.36%	8.20%
			10.91%	12.65%	10.94%	8.08%	8.75%
LTIF - Growth	924,670,230.21	58.52%					
MSCI ACWI TR Net USD			39.43%	18.85%	15.60%	11.69%	12.26%
LTIF - Public Equity	504,837,173.18	31.95%	19.27%	15.96%	13.99%	9.98%	11.39%
Public Equity - Synthetic - with Alpha Pool P&L	349,088,647.00	22.09%	28.88%	21.73%	17.91%	12.84%	13.52%
Public Equity - Active	140,279,923.83	8.88%	31.19%	21.93%	18.14%	12.57%	
Public Equity - Passive	14,888,999.36	0.94%	19.82%	17.43%	15.76%	11.38%	12.39%
Public Equity - Equity Distributions	579,602.99	0.04%	19.43%				
			-65.63%				
LTIF - Private Equity	336,631,551.56	21.30%	65.30%	23.13%	15.49%	11.65%	11.26%
LTIF - Private Diversifying	83,201,505.47	5.27%	28.62%	-2.25%	2.78%	3.85%	6.26%
LTIF - Stable Value	655,461,622.05	41.48%					
Bloomberg Global Aggregate USD			7.23%	3.15%	3.72%	3.96%	4.07%
LTIF - Public Diversifying Assets	230,585,997.92	14.59%	-3.29%	4.34%	3.29%	2.14%	1.85%
Public Diversifying Assets	126,892,300.95	8.03%	0.95%	5.25%	4.31%	3.03%	3.00%
LTIF - Public Diversifying Assets - Absolute Return	103,693,696.97	6.56%	-3.36%	1.24%	2.36%	0.83%	-0.75%
			14.34%	12.05%	8.95%	7.62%	7.74%
LTIF - Private Debt	165,428,780.24	10.47%	12.20%	6.84%	7.52%	6.33%	7.95%
LTIF - Public Debt	134,412,676.21	8.51%	11.58%	0.85%	1.87%	3.55%	4.65%
LTIF Cash	81,461,365.43	5.16%	0.01%				
LTIF - Cash Collateral Net	38,052,089.69	2.41%	-0.16%	0.81%	0.77%	0.58%	0.52%
LTIF Liquidating Funds	5,520,712.56	0.35%	11.81%	-7.15%	11.58%	10.05%	7.36%

Long Term Investment Fund (LTIF)

preliminary as of December 31, 2021

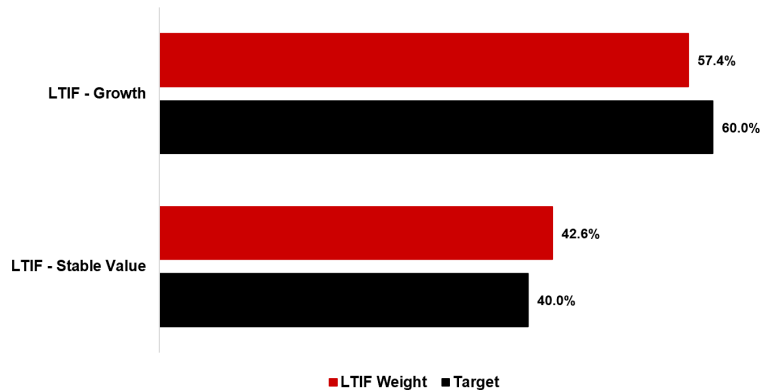


Portfolio Holdings & Performance Overview – December 2021 – Preliminary

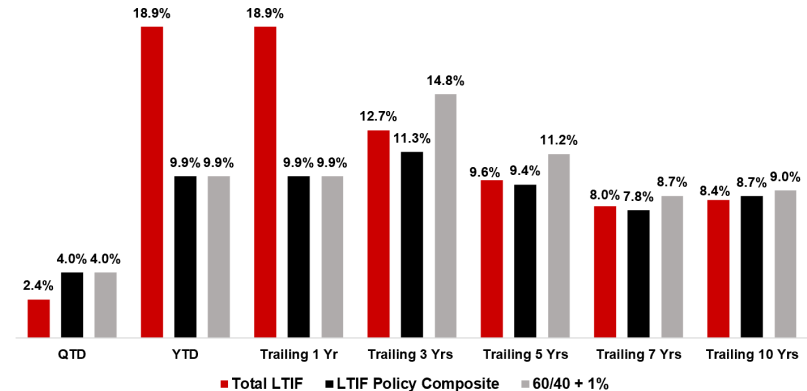
% of NAV Reported: 56%

Portfolio Composition	Balance	LTIF Weight	Target	QTD	YTD	Trailing 1 Yr	Trailing 3 Yrs	Trailing 5 Yrs	Trailing 7 Yrs	Trailing 10 Yrs
Total LTIF	1,644,608,685.22	100.00%	100.00%	2.36%	18.94%	18.94%	12.65%	9.62%	8.05%	8.40%
LTIF Policy Composite				3.99%	9.86%	9.86%	11.32%	9.35%	7.77%	8.65%
60/40 + 1%				3.99%	9.86%	9.86%	14.85%	11.21%	8.66%	8.99%
LTIF - Growth	943,408,509.81	57.36%	60.00%	3.82%	29.27%	29.27%	21.27%	15.36%	12.13%	12.37%
MSCI ACWI TR Net USD				6.68%	18.54%	18.54%	20.38%	14.40%	10.90%	11.85%
LTIF - Stable Value	701,200,175.41	42.64%	40.00%	0.29%	5.19%	5.19%	3.04%	3.48%	4.05%	4.05%
Barclays Global Aggregate USD				-0.67%	-4.71%	-4.71%	3.59%	3.36%	2.22%	1.77%

LTIF Weight vs Target



LTIF Performance vs Benchmarks

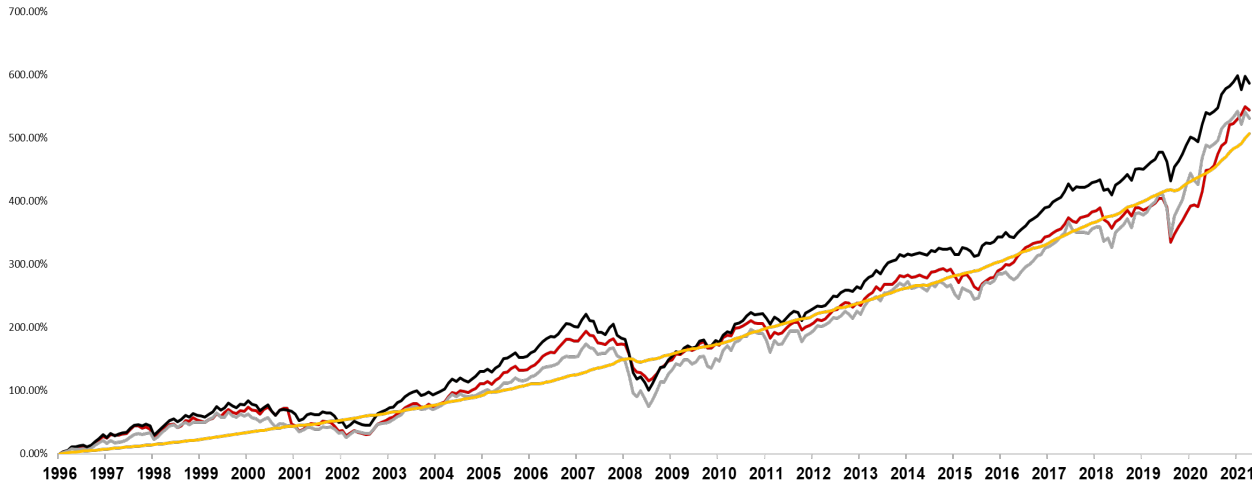


Long Term Investment Fund (LTIF)

Benchmark Comparisons, as of November 30, 2021



Cumulative Returns



The portfolio since inception in 1996 has met the primary objective of covering the spending (Distribution) rate of 4.5%, while simultaneously growing the endowment.

LTIF Policy Benchmarks:

60% Equity Global (MSCI ACWI with USA net)
40% Debt Global Bonds (Barclays Global Agg)

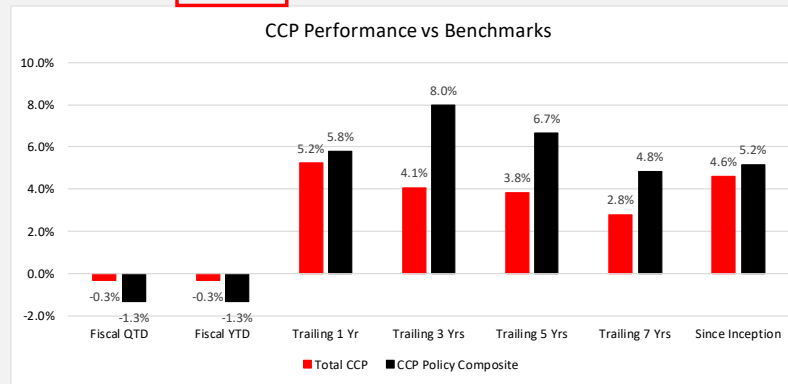
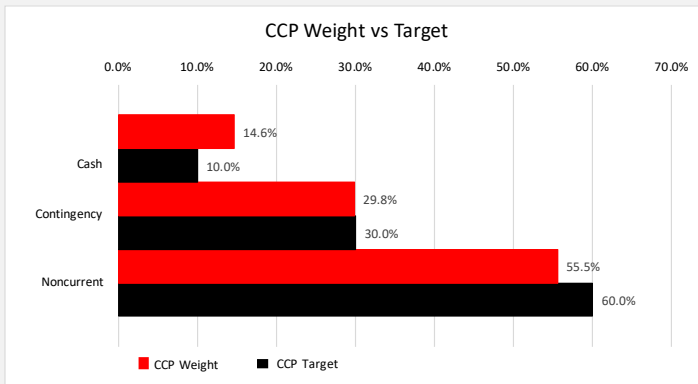
Returns are since inception of the LTIF (9/1/1996)

Fund	Total Return	Annualized Return	Annualized Volatility
LTIF	543.95%	7.65%	9.18%
LTIF Policy Composite	586.95%	7.93%	9.13%
Global 60/40 + 1%	531.28%	7.57%	10.15%
CPI + 5	506.72%	7.40%	0.99%

Comprehensive Cash Pool (CCP) as of November 30, 2021



Portfolio Holdings & Performance Overview - November 2021											Reported valuation % of Nav : ~93%
Portfolio Composition	Balance	Weight	Target	Fiscal QTD	Fiscal YTD	Trailing 1 Yr	Trailing 3 Yrs	Trailing 5 Yrs	Trailing 7 Yrs	Since Inception	Inception Date
Total Comprehensive Cash Pool	\$ 1,791,826,055	100.0%	100.0%	-0.34%	-0.34%	5.24%	4.08%	3.84%	2.79%	4.60%	11/30/2008
60% Global 60/40, 40% Bloomberg 1-3 Yr Gov Composite				-1.32%	-1.32%	5.80%	7.97%	6.67%	4.84%	5.17%	
Cash and Contingency Segment	796,952,755	44.5%	40.0%	-0.47%	-0.47%	0.27%	1.57%	1.30%	1.02%	0.79%	01/31/2012
Cash & Contingency Policy Composite				0.01%	0.13%	0.13%	2.58%	2.46%	2.08%	2.04%	
Cash Segment	262,492,932	14.6%	10.0%	0.06%	0.25%	0.25%	0.88%	0.83%	0.62%	0.44%	11/30/2010
Contingency Segment	534,459,824	29.8%	30.0%	-0.67%	-0.67%	0.22%	1.86%	1.45%	1.15%	0.94%	02/29/2012
Noncurrent Segment	994,873,300	55.5%	60.0%	-0.23%	-0.23%	9.13%	6.23%	5.12%	3.70%	5.10%	12/31/2008
Global 60/40				-1.87%	-1.87%	9.82%	11.55%	9.85%	7.01%	8.25%	
ITIF Legacy	533,108,077	29.8%		-0.23%	-0.23%	9.13%	6.23%	5.12%	3.70%	5.10%	04/30/2012
NCS-Only	461,765,223	25.8%		-0.95%	-0.95%	3.05%				3.05%	05/31/2021





TTUS Office of Investments Intern & Associate Program

Tim Barrett, Associate Vice Chancellor and Chief Investment Officer
February 24, 2022

Intern Program Overview



- Restarting Intern program (post COVID)
 - Positions will run from (May 23 – August 5)
 - All system institutions included in postings (will include MSU in 2023)
- Become familiarized with the investment process of a large institution gaining exposure to multiple asset classes and investment types
- Get experience across multiple office functions that can be translated to any industry / organization not just investments
- Complete a couple of capstone projects to build up resume
 - Example 1) (Operations): Create a customized dashboard/report going through the full data management process
 - Example 2) (Investments): Written research project on prospective manager

2022 Intern Program



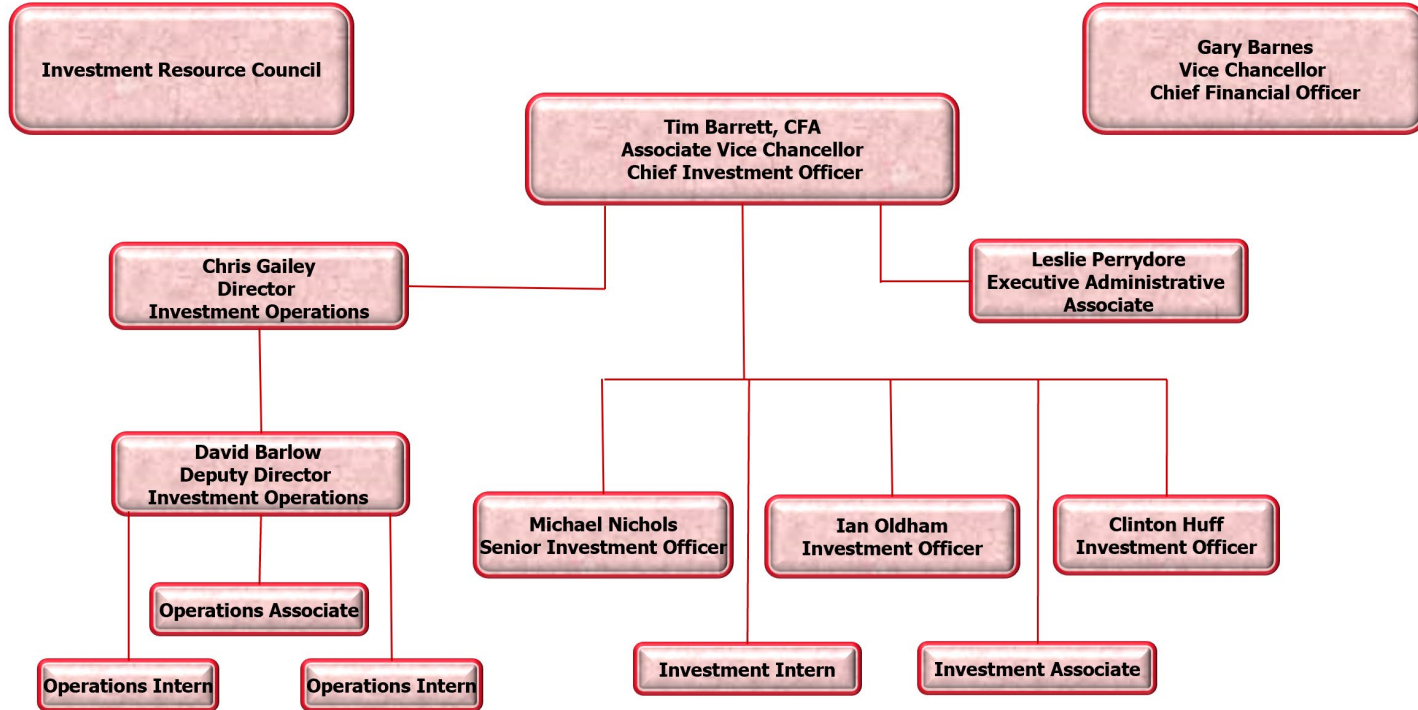
- Current Openings (3)
 - Investment Operations Intern: (2) split between TTU & ASU
 - Investment Intern: (1) from TTU
 - Intern Duration: May 23 – August 5
 - Job posting closes on 2/18
 - Begin selection process on 2/21
- Undergraduate : Must be currently enrolled with a major in Business Administration, Finance, Accounting, MIS, or a related area and will complete the junior year (90 hours) by the end of Summer 2022 semester
- Graduate Student: Must be currently enrolled a graduate program in Finance, Accounting, Business Administration or a related area

Associate Program Overview



- Beginning in 2023, we will have the option to offer an Associate position to one Operations and one Investment candidate after completion of internship
 - Offered by CFO as a direct appointment to Investment Office
 - Up to a 3-year appointment, renewed annually upon evaluation
- Upon completion of Associate Program candidate could feed into a permanent Analyst position if available
- This position offers significant opportunity for a candidate looking to gain experience across an array of Investment Management & Operational functions.
 - Build up resume
 - Gain industry experience
 - Make contacts and build relationships

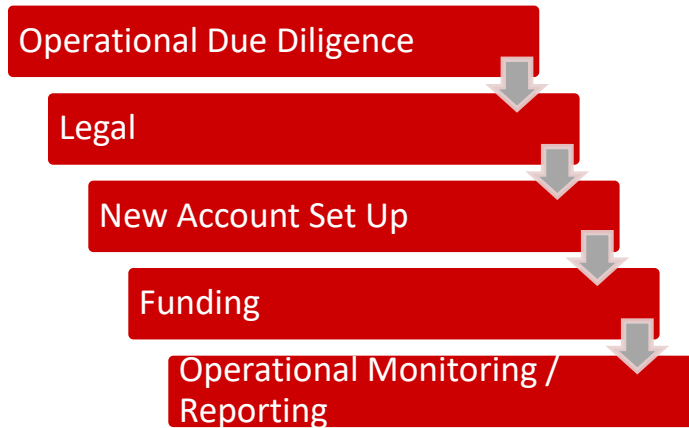
Office of Investments Org Chart



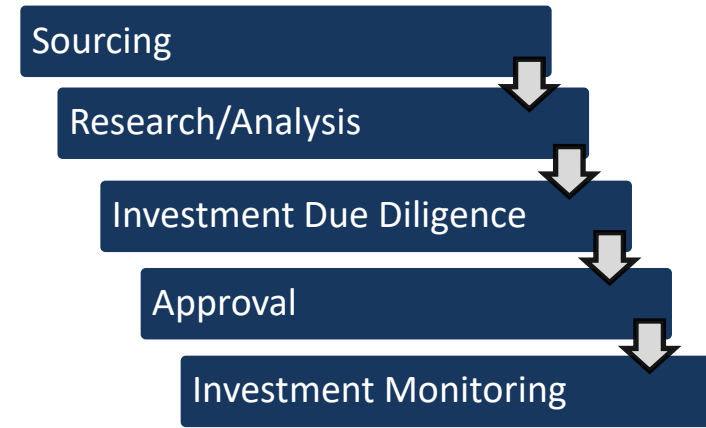
Investment/Operations Process



Operations Team



Investment Team





Questions?