



TEXAS TECH UNIVERSITY SYSTEM™

**Board of Regents Report  
for September 2019**

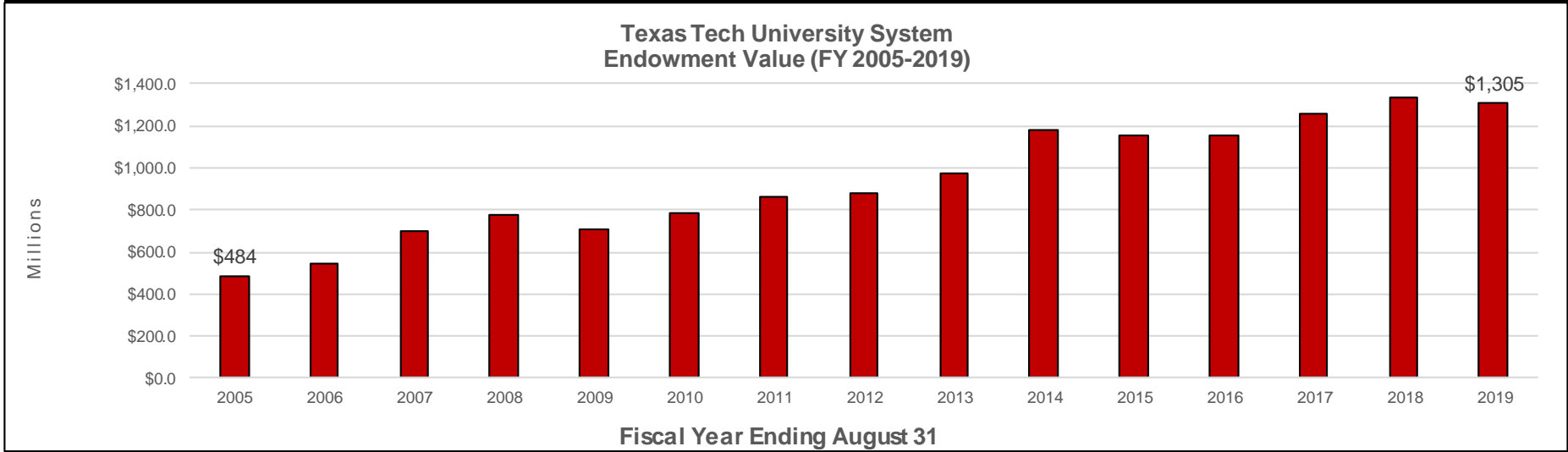
**Texas Tech University Investment Pools**

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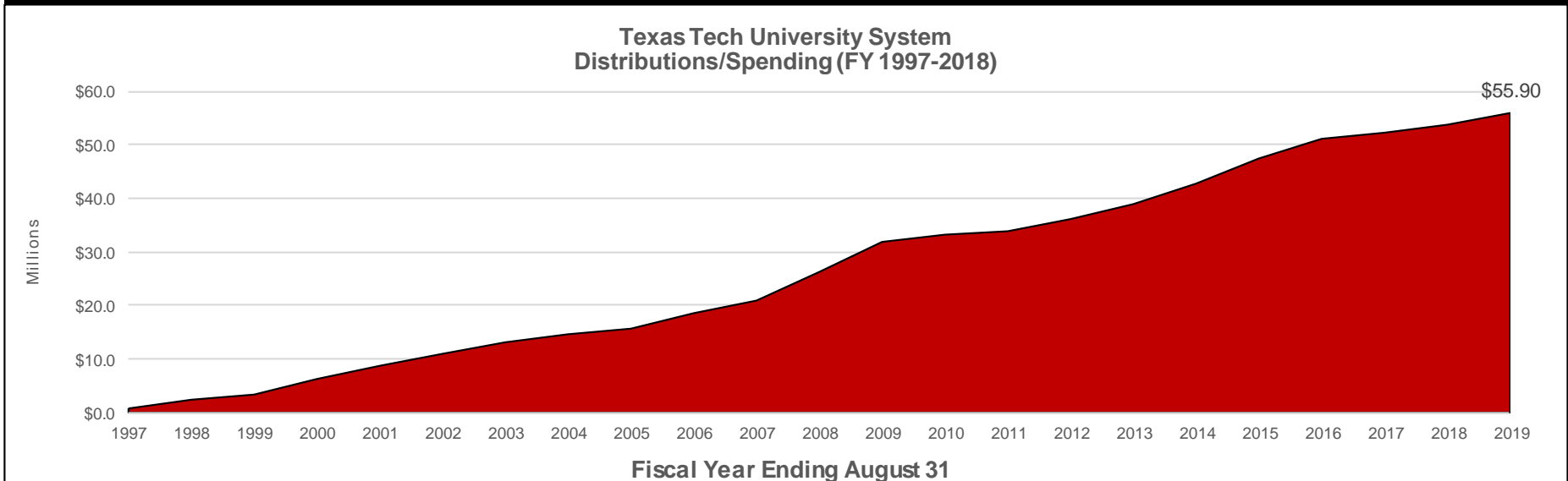


**Endowment Data\***

**HISTORICAL MARKET VALUE (Fiscal Year)**



**HISTORICAL SPENDING (Fiscal Year)**

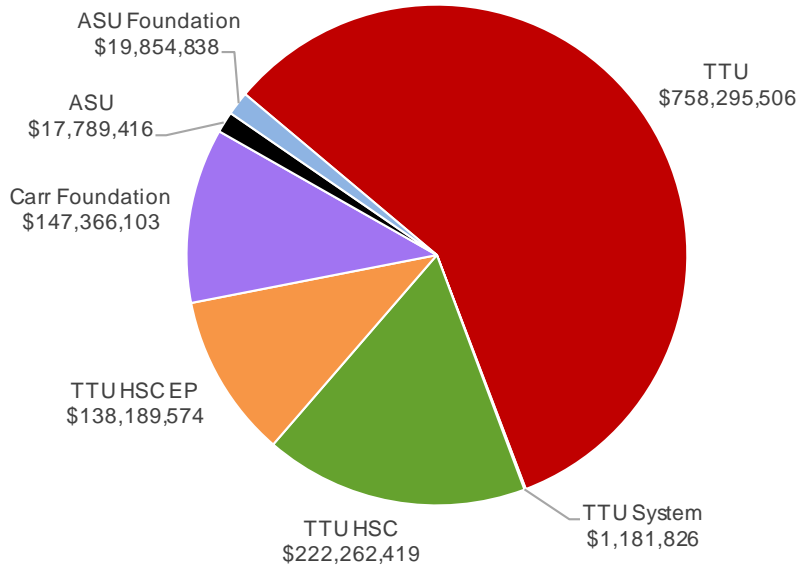


\*Data provided by the TTUS Office of Treasury  
The 4.5% distribution rate has been realized every year since inception.

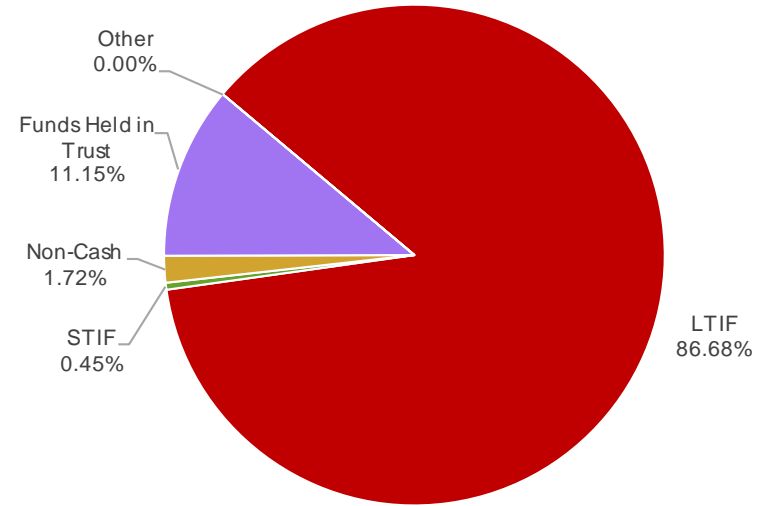
**Endowment Data\* (cont.)**

**TOTAL ENDOWMENT (Fiscal Year - Final)**

**Texas Tech University System  
Endowment Breakout  
by Institution**



**Texas Tech University System  
Endowment Breakout  
by Pool**



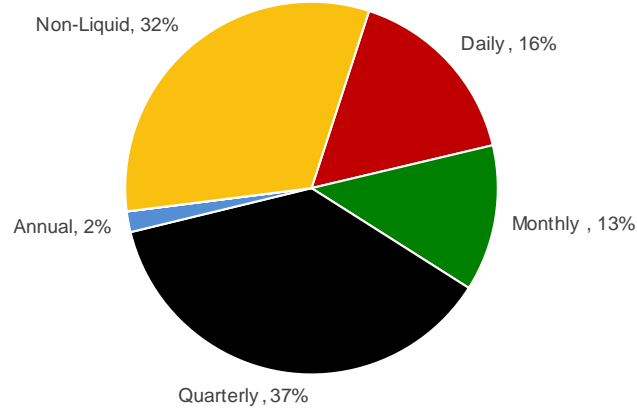
**Summary of Endowment**

	TTU	TTU System	TTU HSC	TTU HSC EP	Carr Foundation	ASU	ASU Foundation	Total
LTIF	\$705,149,883	\$1,181,826	\$153,319,656	\$104,032,341	\$130,131,476	\$17,395,908	\$19,854,838	\$1,131,065,929
STIF	\$2,451,731	-	\$2,536,741	\$441,000	-	\$393,469	-	\$5,822,941
Non-Cash	\$4,577,607	-	\$679,125	-	\$17,234,627	-	-	\$22,491,359
Funds Held in Trust	\$46,116,257	-	\$65,726,895	\$33,716,233	-	-	-	\$145,559,385
Other	\$28	-	-	-	-	\$39	-	\$67
<b>Total</b>	<b>\$758,295,506</b>	<b>\$1,181,826</b>	<b>\$222,262,419</b>	<b>\$138,189,574</b>	<b>\$147,366,103</b>	<b>\$17,789,416</b>	<b>\$19,854,838</b>	<b>\$1,304,939,681</b>

\*Data provided by the TTUS Office of Treasury

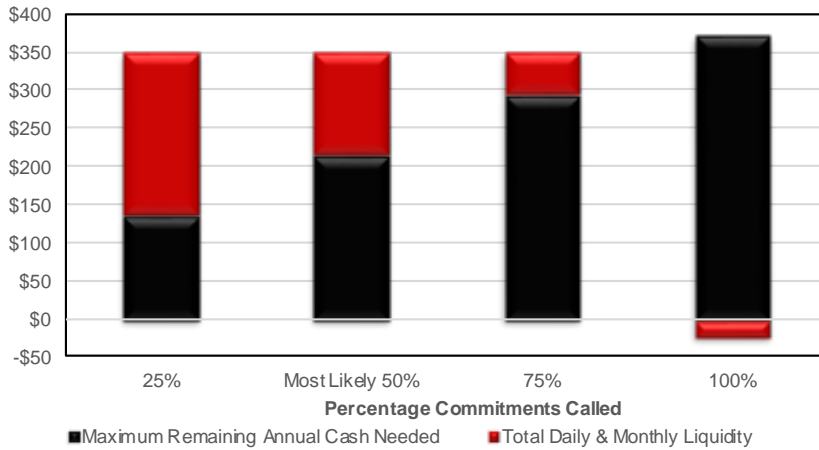
**LTIF Liquidity**

**LTIF Liquidity**



LTIF		Liquidity
Daily	\$196,275,364	16.3%
Monthly	\$152,926,204	12.7%
Quarterly	\$447,941,321	37.2%
Annual	\$21,674,580	1.8%
2-Year	\$0	0.0%
Non-Liquid	\$385,325,868	32.0%
<b>Total LTIF</b>	<b>1,204,143,336</b>	<b>100%</b>

**Liquidity Sensitivity**



	<u>Commitment</u>	<u>Capital Called</u>	<u>Distributions</u>	<u>Account Balance</u>	<u>Remaining Commitment</u>
Private Equity	\$293,858,695	\$191,552,758	\$78,096,575	\$154,768,761	\$102,305,937
Private Credit	\$485,190,298	\$319,809,146	\$87,095,357	\$118,448,100	\$165,381,152
Private Real Assets	\$284,316,339	\$241,150,189	\$246,621,274	\$93,226,809	\$43,166,150
<b>Total Illiquid Assets</b>	<b>\$1,063,365,332</b>	<b>\$752,512,093</b>	<b>\$411,813,206</b>	<b>\$366,443,670</b>	<b>\$310,853,239</b>
			<b>Annual Spending</b>		<b>\$61,000,000</b>
			<b>Total Committed Funds</b>		<b>\$371,853,239</b>

**Unfunded Commitments - Sensitivity Analysis**

Maximum Remaining Annual Cash Needed  
 Percentage of Daily & Monthly Liquidity

	<u>25% Called</u>	<u>Most Likely 50% Called</u>	<u>75% Called</u>	<u>100% Called</u>
Maximum Remaining Annual Cash Needed	\$138,713,310	\$216,426,620	\$294,139,929	\$371,853,239
Percentage of Daily & Monthly Liquidity	40%	62%	84%	106%



<b>Market Data</b>
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Benchmarks	Underlying	Weight	MTD Perf.	QTD Perf.	Calendar YTD	Fiscal YTD	Nacubo YTD	1 Year Perf.	3 Year Perf.	5 Year Perf.
<b>Policy Benchmarks</b>			<b>1.03%</b>	<b>1.01%</b>	<b>8.96%</b>	<b>1.03%</b>	<b>1.01%</b>	<b>4.17%</b>	<b>7.26%</b>	<b>6.03%</b>
Equity	Global Index (MSCI ACWI with USA Gross)	30%	2.15%	0.10%	16.71%	2.15%	0.10%	1.95%	10.07%	7.02%
Debt	Global Bonds (Barclays Global Agg)	20%	-1.02%	0.71%	6.32%	-1.02%	0.71%	7.60%	1.59%	1.99%
Div ersifying Assets	HFRX Global Hedge Fund	20%	0.45%	1.61%	5.90%	0.45%	1.61%	0.01%	2.16%	3.19%
Priv ate Investments	Priv ate Market Composite	30%	1.66%	1.66%	4.82%	1.66%	1.66%	6.03%	11.89%	9.74%
<b>Other Benchmarks</b>										
Equity	S&P 500 Total Return		1.87%	1.70%	20.55%	1.87%	1.70%	4.25%	13.39%	10.84%
Equity	Non US Developed Equity (MSCI EAFE)		2.87%	-1.07%	12.80%	2.87%	-1.07%	-1.34%	6.48%	3.27%
Equity	EM Equities (MSCI EMF)		1.91%	-4.25%	5.89%	1.91%	-4.25%	-2.02%	5.97%	2.33%
Debt	EM Bonds (JPMEM Bond Index)		-0.36%	1.34%	12.08%	-0.36%	1.34%	10.74%	3.84%	5.10%
Cash & Alpha Pool	90 Day T-Bills		0.16%	0.51%	1.72%	0.16%	0.51%	2.32%	1.59%	1.00%
Hedge Funds	HFR1 FOF Composite		-0.42%	-0.90%	5.21%	-0.42%	-0.90%	0.01%	3.16%	1.95%
Priv ate Investments	Priv ate Market Composite		1.66%	1.66%	4.82%	1.66%	1.66%	6.03%	11.89%	9.74%

**CIO NOTES:**

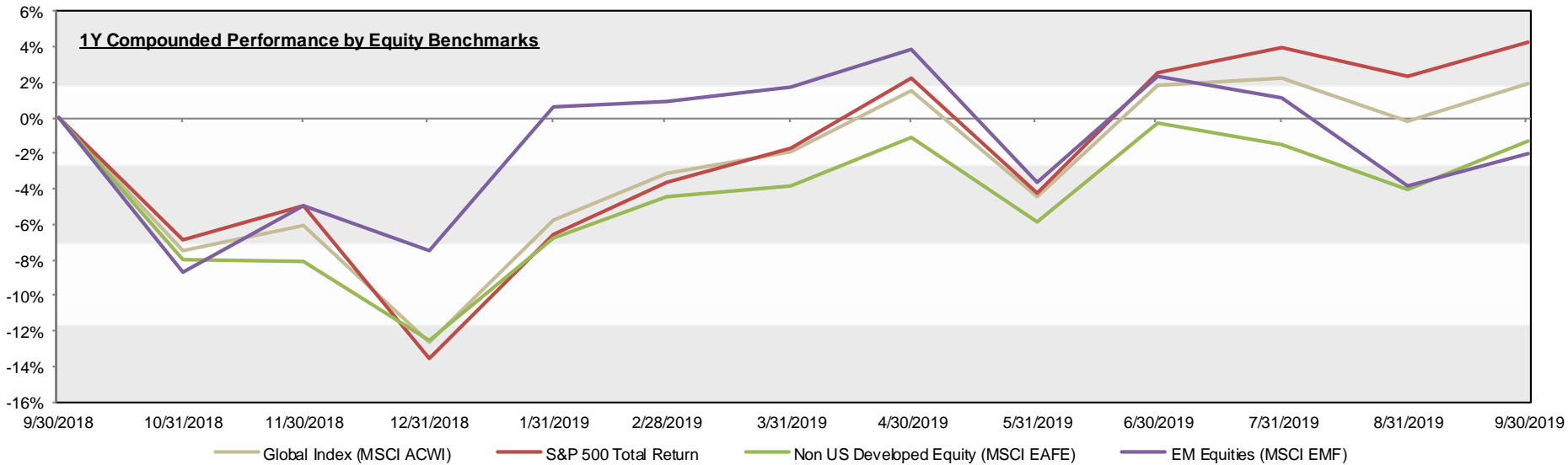
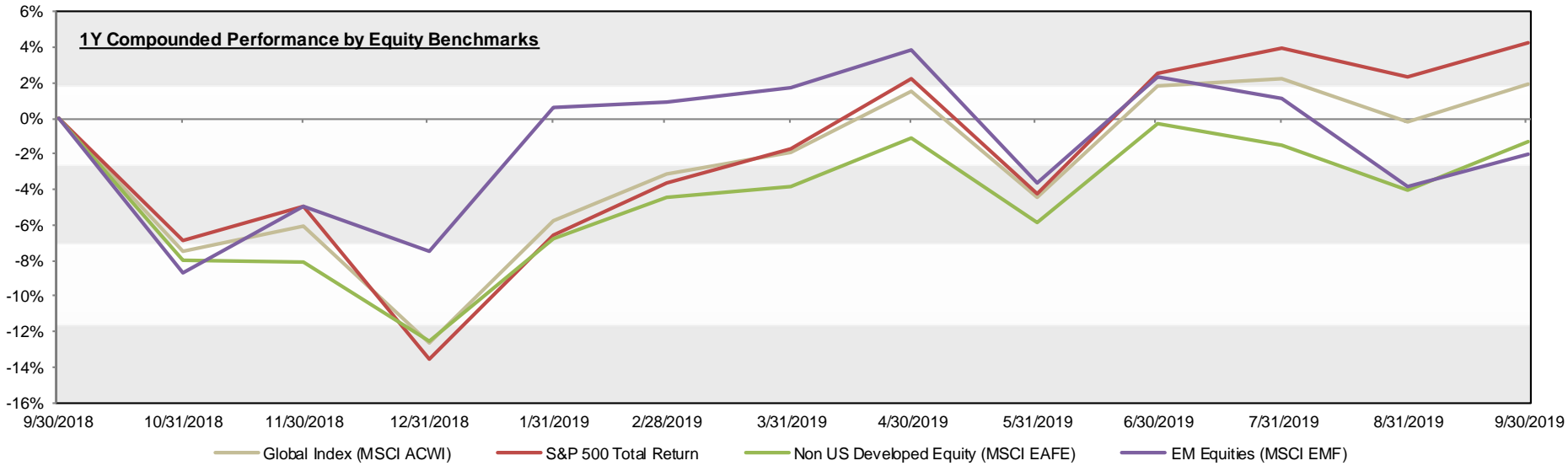
Risk assets were in the black in September following a challenging summer marked by an escalating trade war between the United States and China, and sluggish economic growth. Global equities rallied as central banks in the US and Europe eased monetary policy to offset concerns around an economic slowdown. The MSCI EAFE Index led the way, increasing 2.9% last month, on the back of a massive, open-ended stimulus plan from the European Central Bank. The S&P 500 Index and the MSCI EM Index gained 1.9% each in September.

Following a rate cut last month by the Federal Reserve, the short-end of the Treasury yield curve moved modestly lower. However, the curve steepened at the 10- and 30-year points by 18 and 16 basis points, respectively. As a result, the Barclays US Treasury Index and Long Treasury Index declined 0.8% and 2.5%, respectively, in September. Global rates also moved higher with the German bund increasing 13 basis points and the 10-year Japanese bond yield moving six basis points higher. In credit, spreads posted a moderate decline across domestic investment-grade indexes. The Barclays US High Yield Index eked out a 0.4% monthly return as spreads on lower-quality indexes fell.

Within real assets, spot WTI crude oil declined 1.7% during the month, with losses of 7.0% for the quarter; that said, year-to-date gains total 19.9% so far this year.



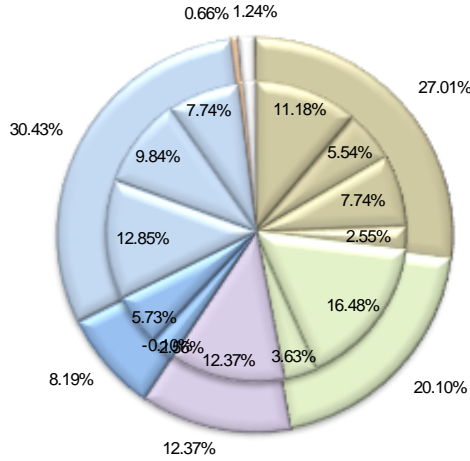
**Market Data (cont.)**



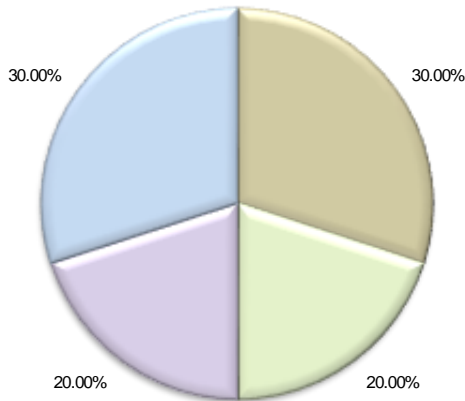


**LTIF: Asset Class Allocation: Actual vs. Target**

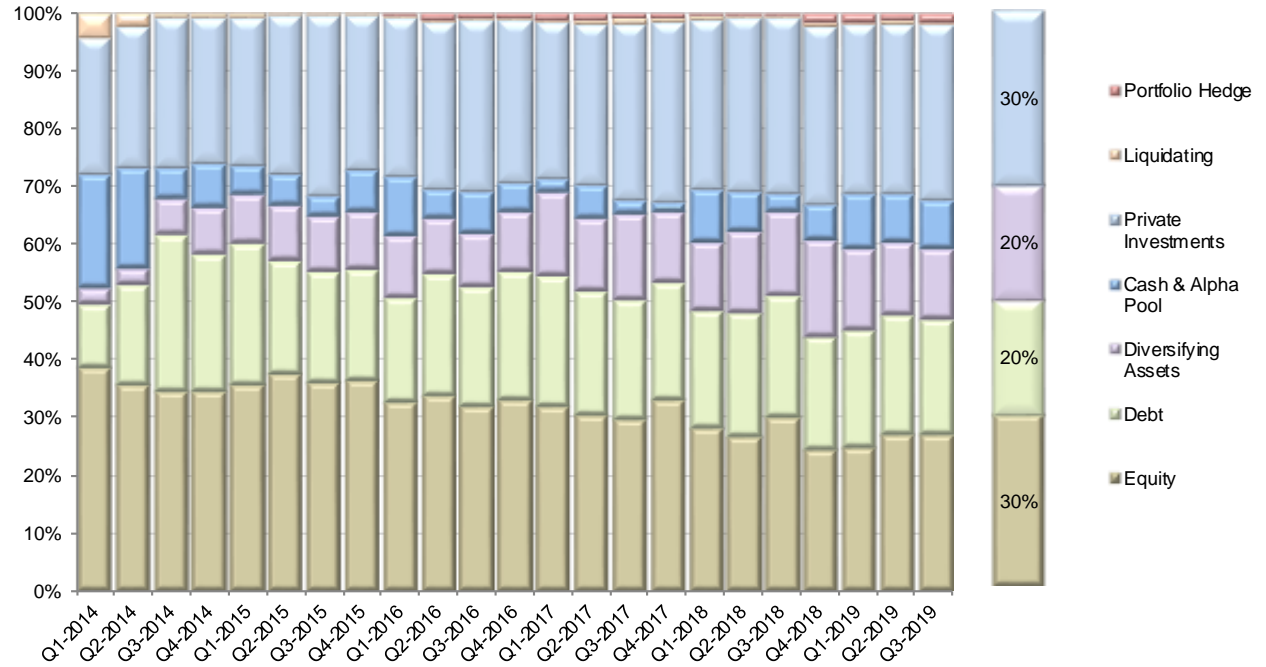
**Actual Allocation**



**Target Allocation**



Asset Class	Actual \$ Allocation			Total % Allocation	Target % Allocation	Target Range
	Physical	Synthetic	Total			
<b>Equity</b>	66,662,878	258,558,564	325,221,442	27.01%	30%	20% - 40%
<b>Debt</b>	242,087,374	0	242,087,374	20.10%	20%	10% - 30%
<b>Diversifying Assets</b>	130,285,338	18,693,608	148,978,945	12.37%	20%	10% - 30%
<b>Cash &amp; Alpha Pool</b>	380,620,252	-282,044,841	98,575,411	8.19%	0%	0% - 10%
<b>Private Investments</b>	366,443,670	0	366,443,670	30.43%	30%	20% - 40%
<b>Liquidating</b>	7,910,211	0	7,910,211	0.66%	0%	
<b>Portfolio Hedge</b>	10,133,614	4,792,669	14,926,282	1.24%	0%	
<b>Total</b>	1,204,143,336	0	1,204,143,336	100%	100%	

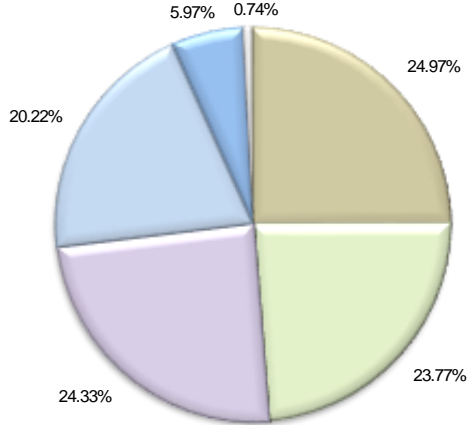






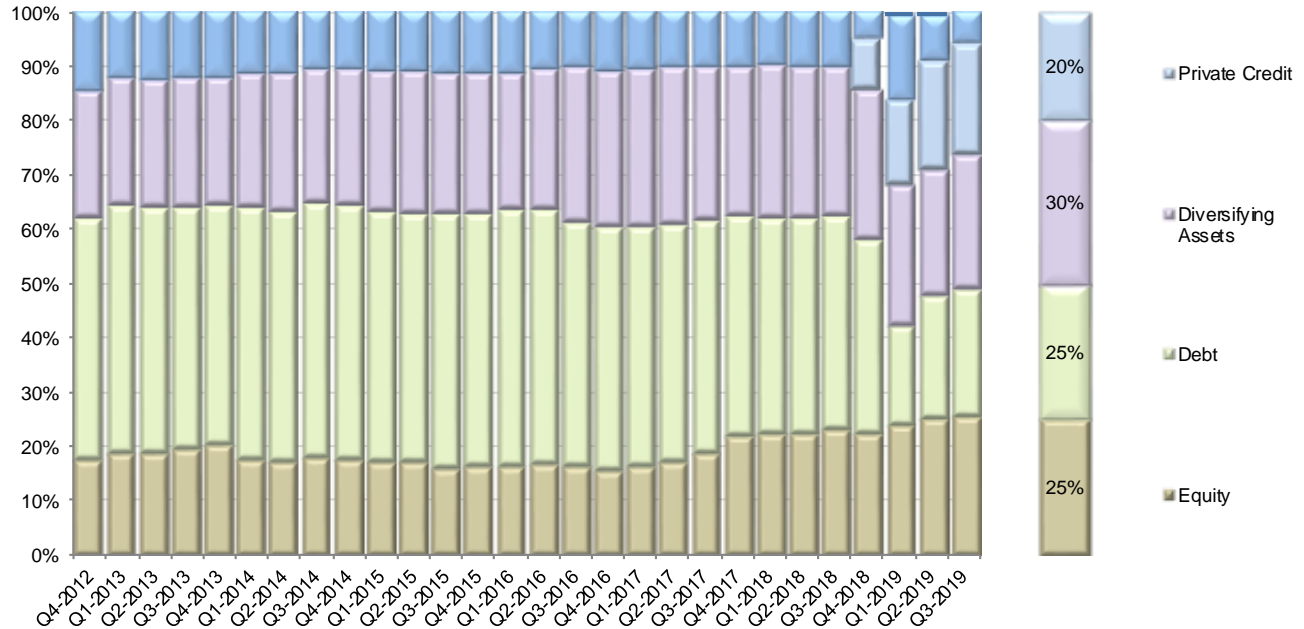
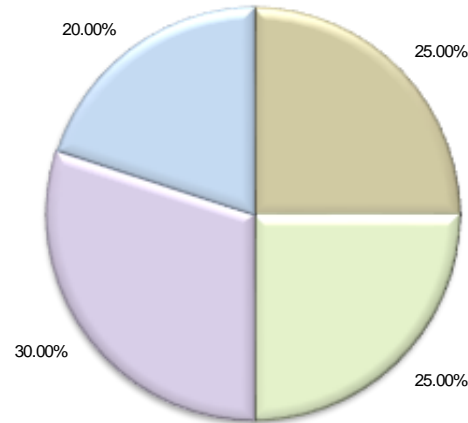
**ITIF Asset Class Allocation: Actual vs. Target**

**Actual Allocation**



Asset Class	Actual \$ Allocation	Total % Allocation	Target % Allocation	Target Range
Equity	200,287,939	24.97%	25%	20% - 30%
Debt	190,641,122	23.77%	25%	20% - 30%
Diversifying Assets	195,167,542	24.33%	30%	25% - 35%
Private Credit	162,144,179	20.22%	20%	15% - 25%
Cash	47,923,420	5.97%	0%	0% - 15%
Portfolio Hedge	5,927,214	0.74%	0%	0% - 15%
<b>Total Exposure</b>	<b>802,091,417</b>	<b>100%</b>	<b>100%</b>	

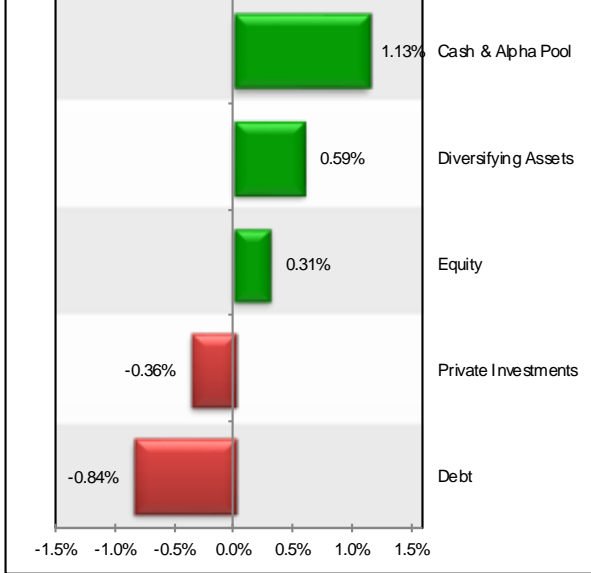
**Target Allocation**



\*Total Exposure value includes the synthetic portfolio hedge exposure.

**LTIF Asset Class Performance: Actual vs. Policy**

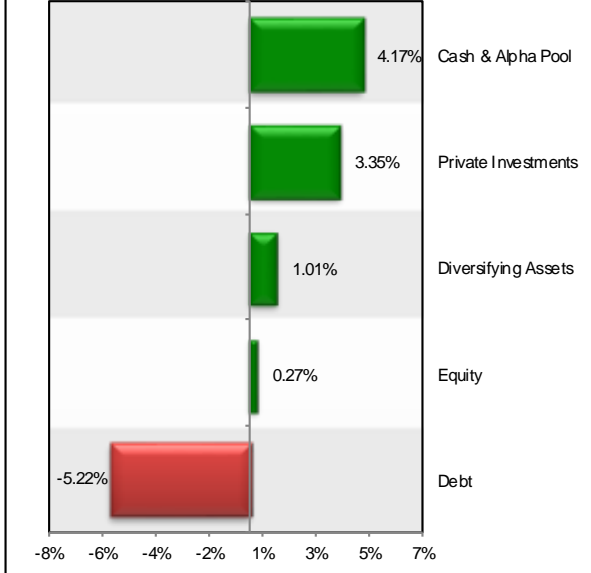
**QTD Performance**



Asset Class	Month				
	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy
Equity	1.86%	2.47%	0.28%	2.58%	2.15%
Debt	0.35%			0.35%	-1.02%
Diversifying Assets	0.54%	-0.79%	0.28%	0.40%	0.45%
Cash & Alpha Pool	0.28%			0.28%	
Private Investments	-0.42%			-0.42%	1.66%
Portfolio Hedge Contr.				-0.18%	
<b>Total</b>	<b>0.18%</b>	<b>2.26%</b>	<b>0.28%</b>	<b>0.59%</b>	<b>1.03%</b>

Asset Class	QTD				
	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy
Equity	-0.08%	-0.73%	1.13%	0.31%	0.10%
Debt	-0.84%			-0.84%	0.71%
Diversifying Assets	1.07%	-3.63%	1.13%	0.59%	1.61%
Cash & Alpha Pool	1.13%			1.13%	
Private Investments	-0.36%			-0.36%	1.66%
Portfolio Hedge Contr.				-0.03%	
<b>Total</b>	<b>-0.19%</b>	<b>-0.92%</b>	<b>1.13%</b>	<b>-0.12%</b>	<b>1.01%</b>

**One Year Performance**

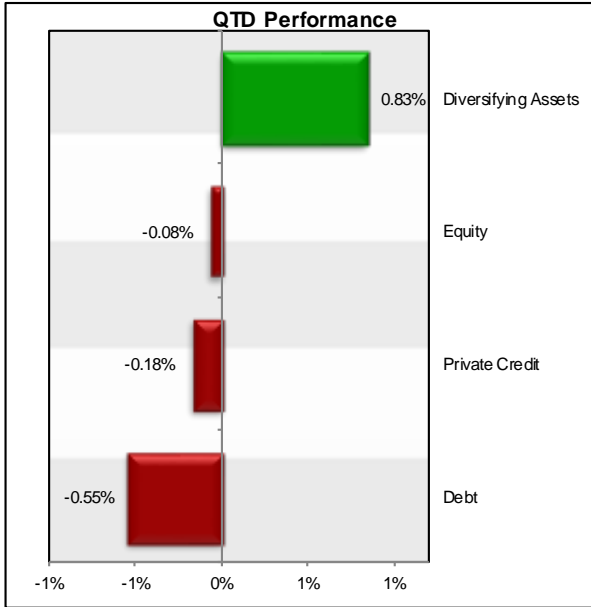


Asset Class	Calendar YTD				
	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy
Equity	19.03%	12.09%	4.17%	17.14%	16.71%
Debt	1.78%			1.78%	6.32%
Diversifying Assets	4.29%	-7.00%	4.17%	2.85%	5.90%
Cash & Alpha Pool	4.17%			4.17%	
Private Investments	2.89%			2.89%	4.82%
Portfolio Hedge Contr.				0.58%	
<b>Total</b>	<b>3.95%</b>	<b>9.28%</b>	<b>4.17%</b>	<b>6.87%</b>	<b>8.96%</b>

Asset Class	1 Year				
	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy
Equity	3.29%	-4.24%	4.10%	0.27%	1.95%
Debt	-5.22%			-5.22%	7.60%
Diversifying Assets	2.62%	-9.59%	4.10%	1.01%	0.01%
Cash & Alpha Pool	4.17%			4.17%	
Private Investments	3.35%			3.35%	6.03%
Portfolio Hedge Contr.				-0.18%	
<b>Total</b>	<b>0.77%</b>	<b>-4.83%</b>	<b>4.10%</b>	<b>-0.32%</b>	<b>4.17%</b>

**ITIF Asset Class Performance: Actual vs. Policy**

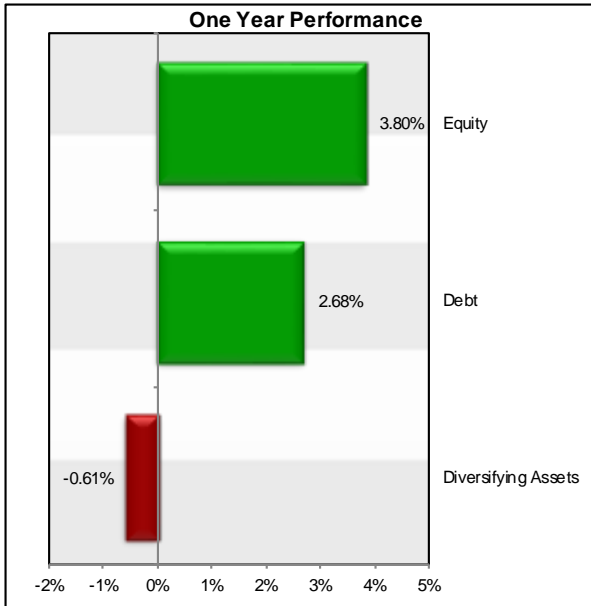
**QTD Performance**



Asset Class	Month	
	Total Return	Policy
Equity	1.86%	2.15%
Debt	0.31%	-1.02%
Diversifying Assets	0.29%	0.45%
Private Credit	-0.14%	1.37%
Portfolio Hedge Contribution	-0.10%	n/a
<b>Total</b>	<b>0.46%</b>	<b>0.69%</b>

Asset Class	QTD	
	Total Return	Policy
Equity	-0.08%	0.10%
Debt	-0.55%	0.71%
Diversifying Assets	0.83%	1.61%
Private Credit	-0.18%	1.37%
Portfolio Hedge Contribution	-0.02%	n/a
<b>Total</b>	<b>0.04%</b>	<b>0.98%</b>

**One Year Performance**



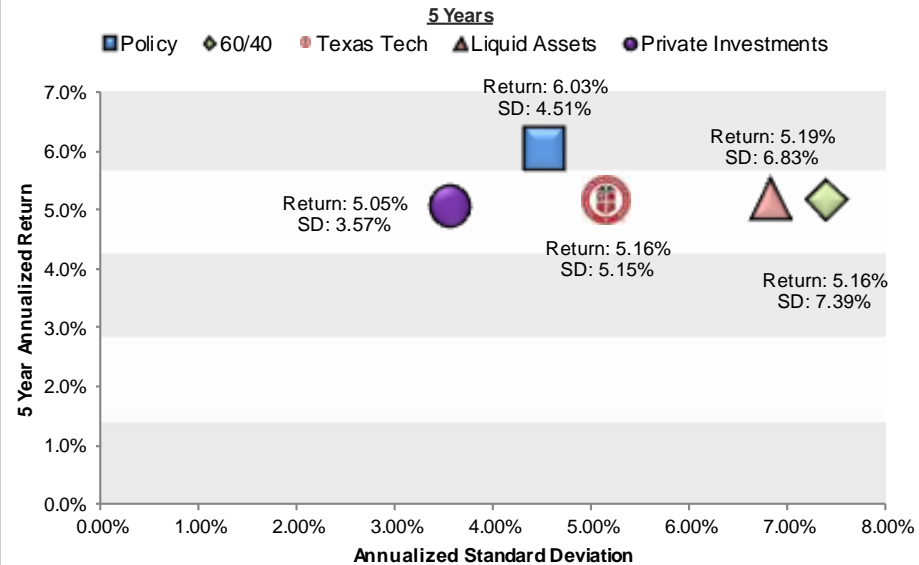
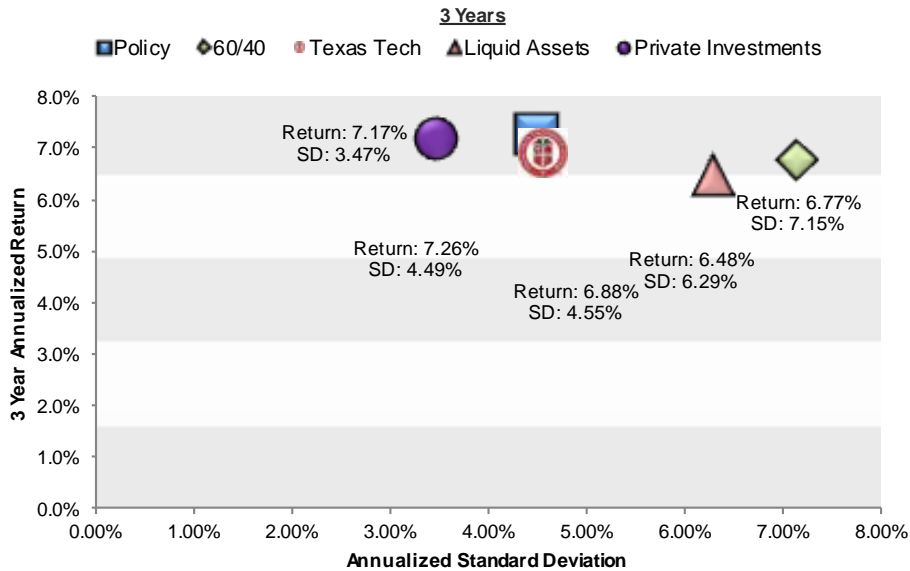
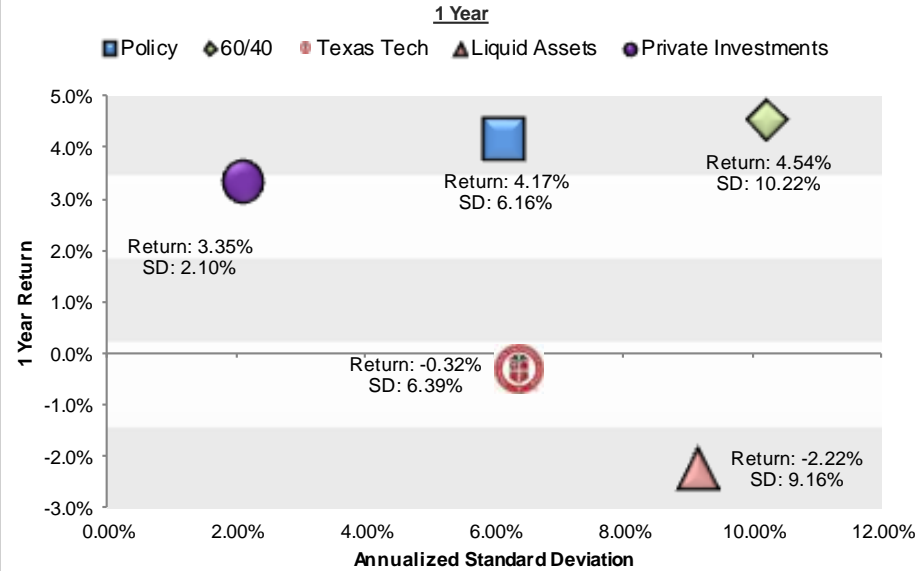
Asset Class	Calendar YTD	
	Total Return	Policy
Equity	19.13%	16.71%
Debt	4.39%	6.32%
Diversifying Assets	4.68%	5.90%
Private Credit	2.54%	3.86%
Portfolio Hedge Contribution	n/a	n/a
<b>Total</b>	<b>7.20%</b>	<b>8.34%</b>

Asset Class	1 Year	
	Total Return	Policy
Equity	3.80%	1.95%
Debt	2.68%	7.60%
Diversifying Assets	-0.61%	0.01%
Private Credit	n/a	n/a
Portfolio Hedge Contribution	n/a	n/a
<b>Total</b>	<b>2.10%</b>	<b>3.59%</b>

**LTIF: Risk/Return of Endowment vs. 60/40 Portfolio & Policy Returns**

*Commentary*

- The Texas Tech portfolio is less volatile than the 60/40 portfolio over all time horizons.
- The Texas Tech portfolio outperforms the 60/40 portfolio over the 3-year and 5-year horizons.
- Volatility (measured by standard deviation) on the Texas Tech portfolio has increased over the past 12 months compared with the annualized 5 year volatility.

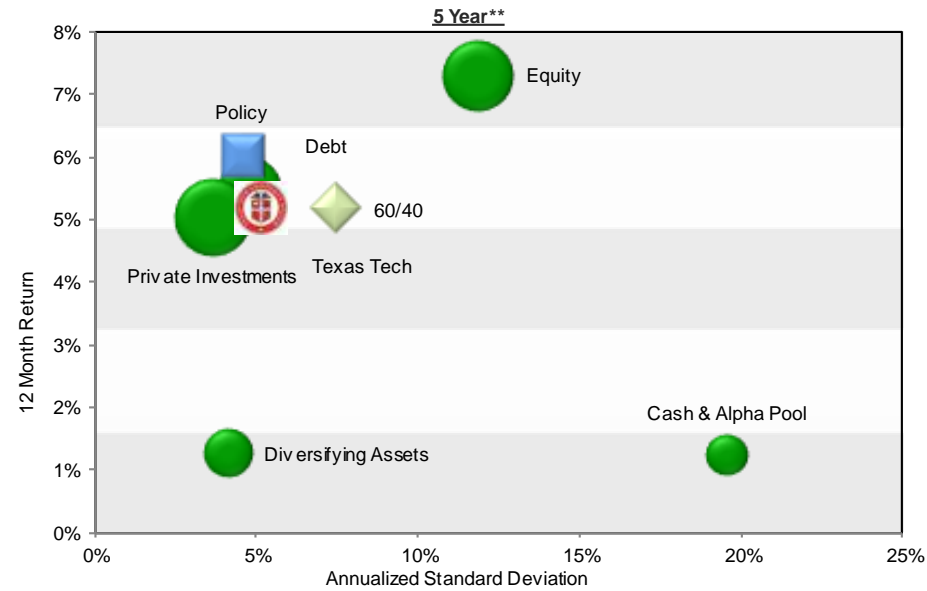
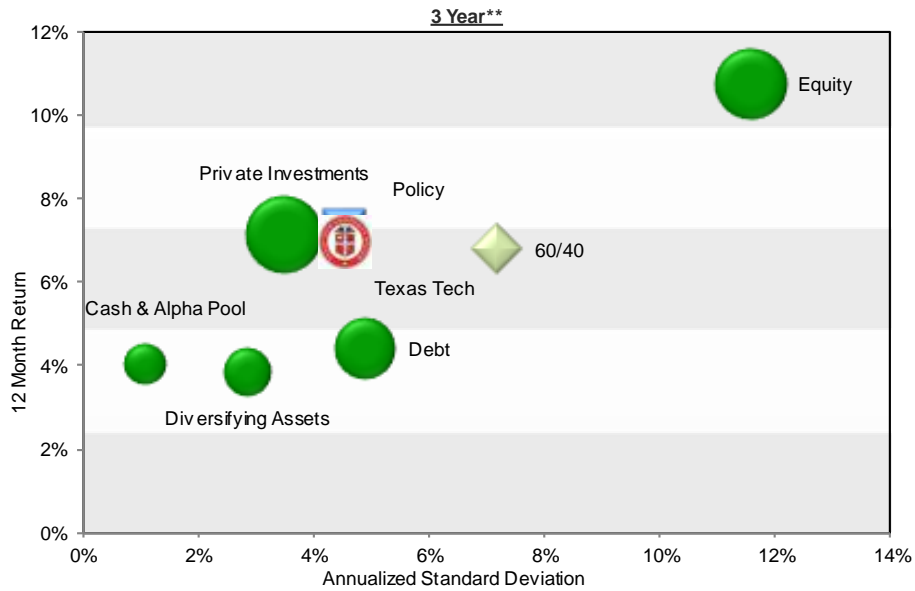
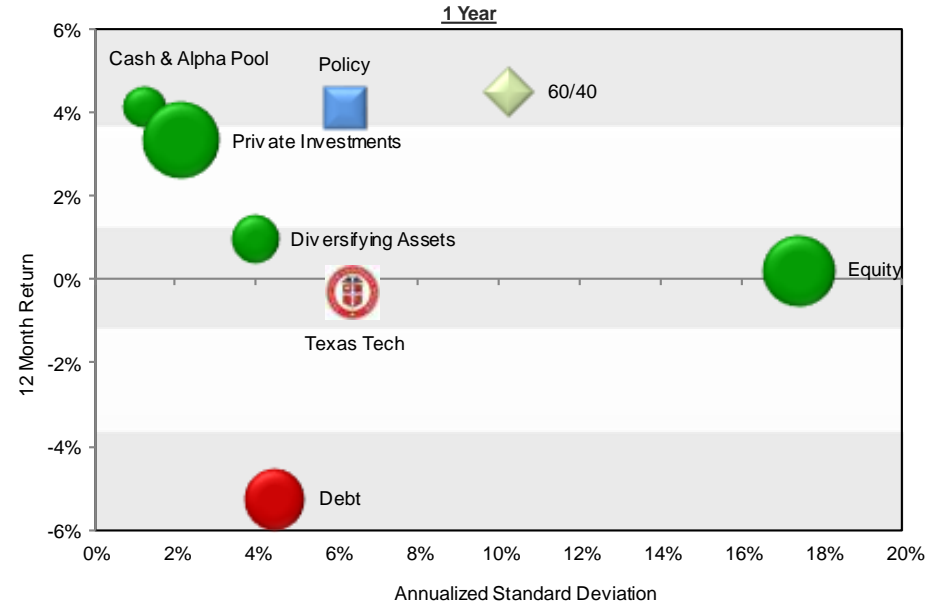




**LTIF: Risk Profile\***

*Commentary*

- Private Investments and Cash & Alpha Pool have provided the highest risk adjusted returns over the last 12 months
- Equity and Debt have generated the lowest risk adjusted returns over the last 12 months.



\* Excluding Liquidating

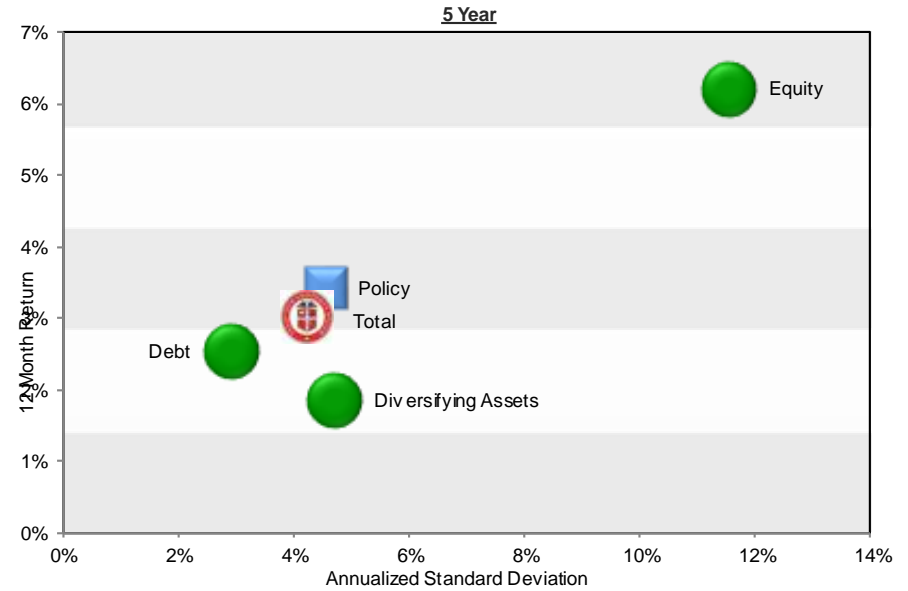
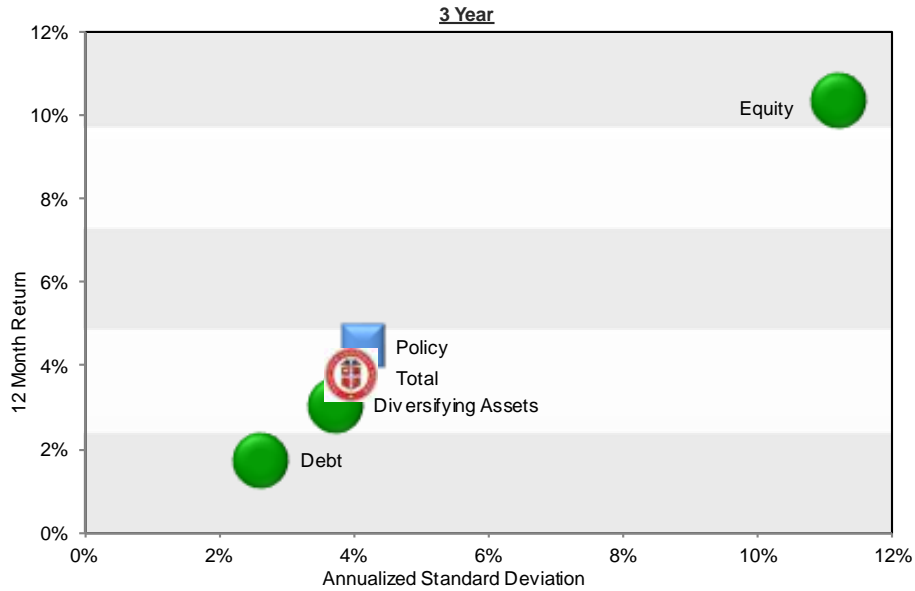
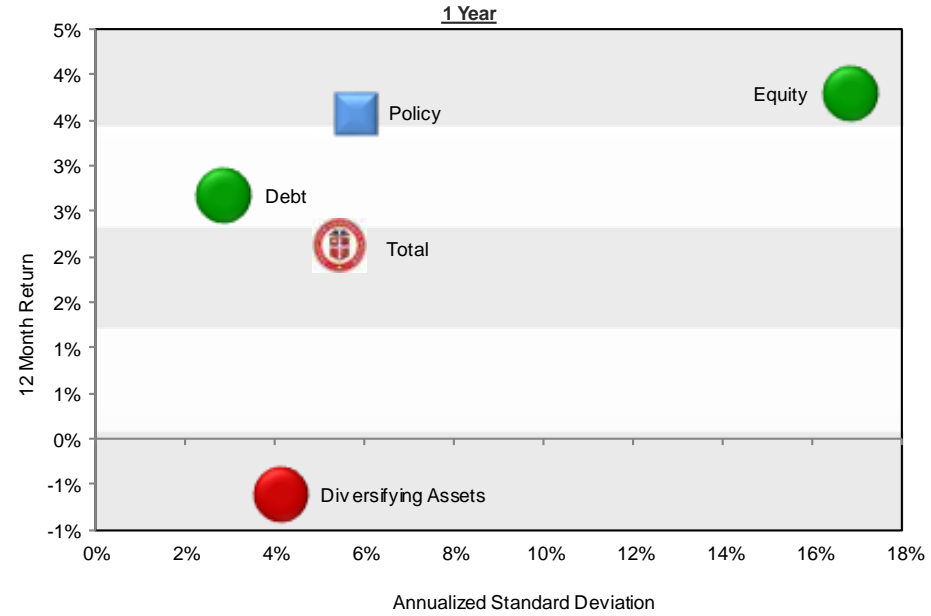
\*\* Cash & Alpha Pool values are post-Aegis



**ITIF: Risk Profile**

*Commentary*

- Equity has provided the highest risk adjusted returns, and Diversifying Assets has provided the lowest risk adjusted returns.





<b>LTIF: Appendix I – Sub-Asset Detail</b>
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Fund	Current Exposure	MTD Perf.	QTD Perf.	Calendar YTD	Fiscal YTD	Nacubo YTD	1 Year Perf.	3 Year Perf.	5 Year Perf.
<b>TOTAL</b>	<b>1,204,143,336</b>	<b>0.59%</b>	<b>-0.12%</b>	<b>6.87%</b>	<b>0.59%</b>	<b>-0.12%</b>	<b>-0.32%</b>	<b>6.88%</b>	<b>5.16%</b>
<b>Policy</b>		<b>1.03%</b>	<b>1.01%</b>	<b>8.96%</b>	<b>1.03%</b>	<b>1.01%</b>	<b>4.17%</b>	<b>7.26%</b>	<b>6.03%</b>
<b>Portfolio Hedge Contribution</b>	<b>14,926,282</b>	<b>-0.18%</b>	<b>-0.03%</b>	<b>0.58%</b>	<b>-0.18%</b>	<b>-0.03%</b>	<b>-0.18%</b>	<b>-0.21%</b>	<b>n/a</b>
<b>Equity</b>	<b>325,221,442</b>	<b>2.58%</b>	<b>0.31%</b>	<b>17.14%</b>	<b>2.58%</b>	<b>0.31%</b>	<b>0.27%</b>	<b>10.76%</b>	<b>7.31%</b>
<b>Equity Policy Benchmark (MSCI ACWI with USA Gross)</b>		<b>2.15%</b>	<b>0.10%</b>	<b>16.71%</b>	<b>2.15%</b>	<b>0.10%</b>	<b>1.95%</b>	<b>10.07%</b>	<b>7.02%</b>
<b>US Equity</b>	134,599,608	2.30%	1.73%	19.34%	2.30%	1.73%	0.26%	13.25%	10.90%
<i>Benchmark: S&amp;P 500 Total Return</i>		1.87%	1.70%	20.55%	1.87%	1.70%	4.25%	13.39%	10.84%
<b>Global Equity</b>	66,662,878	1.86%	-0.08%	19.09%	1.86%	-0.08%	2.97%	11.08%	8.62%
<i>Benchmark: MSCI ACWI with USA Gross</i>		2.15%	0.10%	16.71%	2.15%	0.10%	1.95%	10.07%	7.02%
<b>Non US Developed Equity</b>	93,200,626	3.79%	-0.60%	15.08%	3.79%	-0.60%	-1.68%	7.78%	3.69%
<i>Benchmark: MSCI EAFE (Net)</i>		2.87%	-1.07%	12.80%	2.87%	-1.07%	-1.34%	6.48%	3.27%
<b>Non US Emerging Markets Equity</b>	30,758,330	1.83%	-5.11%	6.92%	1.83%	-5.11%	-2.06%	10.89%	6.57%
<i>Benchmark: MSCI EMF (Net)</i>		1.91%	-4.25%	5.89%	1.91%	-4.25%	-2.02%	5.97%	2.33%
<b>Alternative Equity</b>	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Benchmark: MSCI ACWI with USA Gross</i>		2.15%	0.10%	16.71%	2.15%	0.10%	1.95%	10.07%	7.02%
<b>Debt</b>	<b>242,087,374</b>	<b>0.35%</b>	<b>-0.84%</b>	<b>1.78%</b>	<b>0.35%</b>	<b>-0.84%</b>	<b>-5.22%</b>	<b>4.40%</b>	<b>5.49%</b>
<b>Debt Policy Benchmark (Barclays Global Agg)</b>		<b>-1.02%</b>	<b>0.71%</b>	<b>6.32%</b>	<b>-1.02%</b>	<b>0.71%</b>	<b>7.60%</b>	<b>1.59%</b>	<b>1.99%</b>
<b>Sovereign/Investment Grade Bonds</b>	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<i>Benchmark: Barclays Global Aggregate</i>		-1.02%	0.71%	6.32%	-1.02%	0.71%	7.60%	1.59%	1.99%
<b>Credit</b>	198,417,930	0.41%	-0.08%	2.13%	0.41%	-0.08%	-3.28%	7.44%	7.14%
<i>Benchmark: Barclays Global Aggregate</i>		-1.02%	0.71%	6.32%	-1.02%	0.71%	7.60%	1.59%	1.99%
<b>Emerging Markets Debt</b>	43,669,443	0.09%	-4.22%	0.20%	0.09%	-4.22%	-11.98%	-3.31%	2.03%
<i>Benchmark: JP Morgan EM Bond Index</i>		-0.36%	1.34%	12.08%	-0.36%	1.34%	10.74%	3.84%	5.10%
<b>Diversifying Assets</b>	<b>148,978,945</b>	<b>0.40%</b>	<b>0.59%</b>	<b>2.85%</b>	<b>0.40%</b>	<b>0.59%</b>	<b>1.01%</b>	<b>3.83%</b>	<b>1.26%</b>
<i>Benchmark: HFRXGL Index</i>		0.45%	1.61%	5.90%	0.45%	1.61%	0.01%	2.16%	3.19%
<b>Cash &amp; Alpha Pool**</b>	<b>98,575,411</b>	<b>0.28%</b>	<b>1.13%</b>	<b>4.17%</b>	<b>0.28%</b>	<b>1.13%</b>	<b>4.17%</b>	<b>4.04%</b>	<b>3.63%</b>
<b>Cash Collateral</b>	88,285,245	0.16%	0.54%	1.67%	0.16%	0.54%	2.36%	1.29%	0.80%
<b>Collateral Held Elsewhere</b>	3,590,969	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	n/a
<b>Adjustments for Synthetic Exposure</b>	(282,044,841)								
<b>Alpha Pool</b>	254,110,676	0.36%	1.42%	5.34%	0.36%	1.42%	5.06%	5.41%	4.46%
<i>Benchmark: HFRI FOF Index</i>		-0.42%	-0.90%	5.21%	-0.42%	-0.90%	0.01%	3.16%	1.95%
<b>Cash</b>	<b>34,633,362</b>	<b>0.08%</b>	<b>0.51%</b>	<b>1.56%</b>	<b>0.08%</b>	<b>0.51%</b>	<b>2.12%</b>	<b>1.67%</b>	<b>-2.95%</b>
<b>Liquidating</b>	<b>7,910,211</b>	<b>1.69%</b>	<b>-4.37%</b>	<b>-1.46%</b>	<b>1.69%</b>	<b>-4.37%</b>	<b>-8.63%</b>	<b>27.33%</b>	<b>18.09%</b>
<b>Private Investments</b>	<b>366,443,670</b>	<b>-0.42%</b>	<b>-0.36%</b>	<b>2.89%</b>	<b>-0.42%</b>	<b>-0.36%</b>	<b>3.35%</b>	<b>7.17%</b>	<b>5.05%</b>
<i>Benchmark: Private Market Composite</i>		1.66%	0.00%	4.82%	1.66%	1.66%	6.03%	11.89%	9.74%
<b>Private Equity</b>	154,768,761	-0.10%	-0.03%	3.79%	-0.10%	-0.03%	4.00%	5.76%	4.68%
<b>Private Credit</b>	118,448,100	-0.14%	-0.17%	2.52%	-0.14%	-0.17%	5.24%	7.61%	5.88%
<b>Private Diversifying Assets</b>	93,226,809	-1.27%	-1.13%	1.92%	-1.27%	-1.13%	0.28%	7.59%	4.10%

\* Including Aegis

\*\* Excluding Aegis

Private Benchmark, as of 7/1/2018, is defined as the trailing 5 year return of 70% MIMUAWON Index, 15% LF98TRUU Index, 15% LG30TRUU Index, rolled quarterly, +250bps p/a



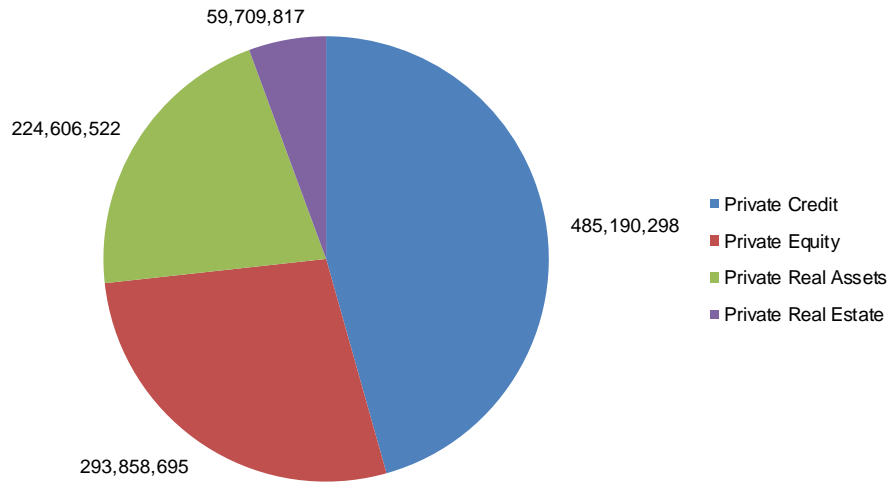
## ITIF: Appendix II – ITIF Sub-Asset Detail

Fund	Current Exposure	MTD Perf.	QTD Perf.	Calendar YTD	Fiscal YTD	Nacubo YTD	1 Year Perf.	3 Year Perf.	5 Year Perf.
<b>TOTAL</b>	<b>802,091,417</b>	<b>0.46%</b>	<b>0.04%</b>	<b>7.20%</b>	<b>0.46%</b>	<b>0.04%</b>	<b>2.10%</b>	<b>3.71%</b>	<b>2.97%</b>
Policy		0.69%	0.98%	8.34%	0.69%	0.98%	3.59%	4.47%	3.43%
Portfolio Hedge Contribution	5,927,214	-0.10%	-0.02%	n/a	-0.10%	-0.02%	n/a	n/a	n/a
Total Legacy Portfolio	61,524,770	-0.46%	0.20%	8.45%	-0.46%	0.20%	3.13%	4.06%	3.17%
Total Current Portfolio	740,566,647	0.53%	-0.03%	6.09%	0.53%	-0.03%	1.17%	n/a	n/a
<b>Equity</b>	<b>200,287,939</b>	<b>1.86%</b>	<b>-0.08%</b>	<b>19.13%</b>	<b>1.86%</b>	<b>-0.08%</b>	<b>3.80%</b>	<b>10.37%</b>	<b>6.22%</b>
Benchmark: MSCI ACWI with USA (Gross)		2.15%	0.10%	16.71%	2.15%	0.10%	1.95%	9.91%	6.77%
Legacy Equity	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Current Equity	200,287,939	1.86%	-0.08%	19.03%	1.86%	-0.08%	3.29%	n/a	n/a
<b>Debt</b>	<b>190,641,122</b>	<b>0.31%</b>	<b>-0.55%</b>	<b>4.39%</b>	<b>0.31%</b>	<b>-0.55%</b>	<b>2.68%</b>	<b>1.76%</b>	<b>2.55%</b>
Benchmark: Barclays Global Aggregate		-1.02%	0.71%	6.32%	-1.02%	0.71%	7.60%	2.95%	2.92%
Legacy Debt	27,737,438	0.07%	1.20%	9.94%	0.07%	1.20%	9.51%	3.96%	3.88%
Current Debt	162,903,684	0.35%	-0.84%	1.78%	0.35%	-0.84%	-5.22%	n/a	n/a
<b>Diversifying Assets</b>	<b>195,167,542</b>	<b>0.29%</b>	<b>0.83%</b>	<b>4.68%</b>	<b>0.29%</b>	<b>0.83%</b>	<b>-0.61%</b>	<b>3.04%</b>	<b>1.85%</b>
Benchmark: HFRXGL Index		0.45%	1.61%	5.90%	0.45%	1.61%	0.01%	5.09%	4.24%
Legacy Diversifying Assets	33,787,332	-0.89%	-0.42%	3.56%	-0.89%	-0.42%	n/a	n/a	n/a
Current Diversifying Assets	161,380,210	0.54%	1.07%	4.29%	0.54%	1.07%	n/a	n/a	n/a
<b>Private Credit</b>	<b>162,144,179</b>	<b>-0.14%</b>	<b>-0.18%</b>	<b>2.54%</b>	<b>-0.14%</b>	<b>-0.18%</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
Private Market Composite		1.37%	1.37%	3.86%	1.37%	1.37%	n/a	n/a	n/a
<b>Cash</b>	<b>47,923,420</b>	<b>0.05%</b>	<b>1.26%</b>	<b>2.16%</b>	<b>0.05%</b>	<b>1.26%</b>	<b>2.74%</b>	<b>n/a</b>	<b>n/a</b>

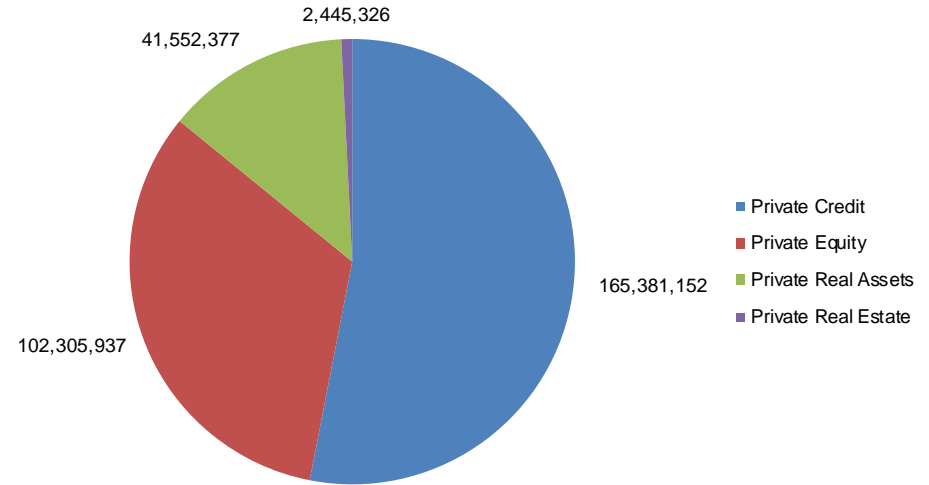


**Appendix III - Private Markets Report (as of September 2019) - Total Commitment**

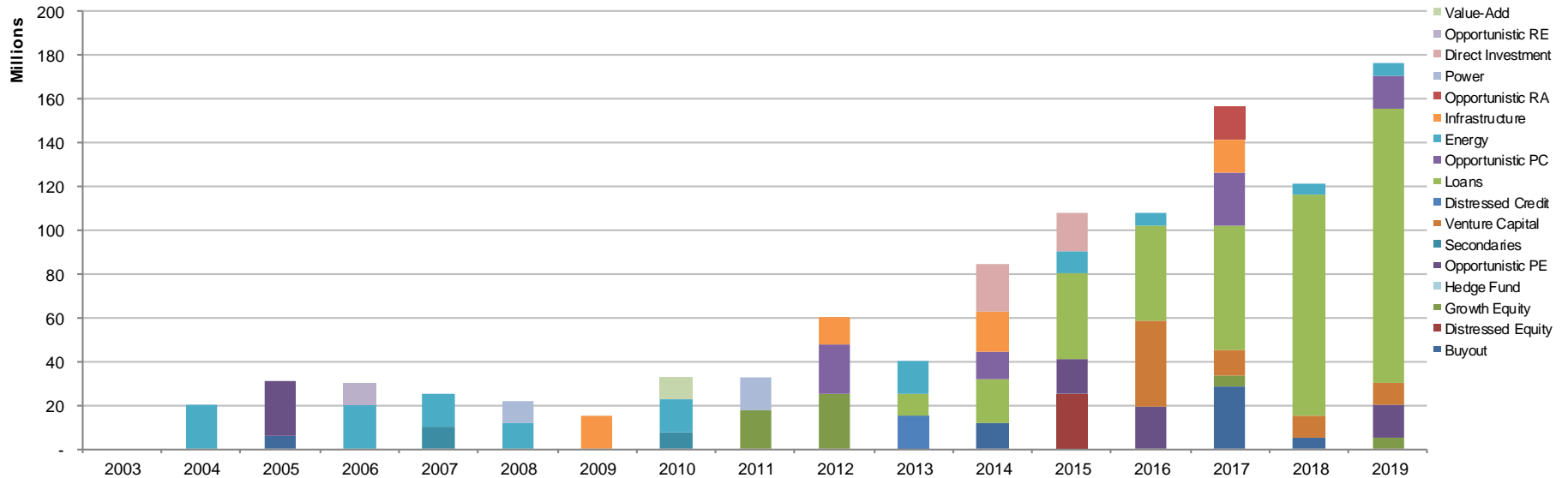
**Total Commitment**



**Total Unfunded**



**Commitment by Vintage Year**



Data provided by Texas Tech University System  
 Reported valuations use latest available statements for September 2019  
 Adjusted Valuations include all cashflows through September 2019



## Appendix III - Private Markets Report (as of September 2019) - Performance Analysis by Asset Class & Strategy Type

### Performance by Asset Class

Asset Class	# of Funds	Commitment	Funded	Paid-In Capital	Distributions	% Drawn	Reported Valuation	Adjusted Valuation	IRR	TVPI
Private Equity	26	\$293,858,695	\$191,552,758	\$200,422,514	\$78,096,575	68%	\$153,351,904	\$156,763,018	4.91%	1.17
Private Credit	25	\$485,190,298	\$319,809,146	\$327,010,434	\$87,095,357	67%	\$262,148,147	\$284,933,020	7.41%	1.14
Private Real Assets	18	\$224,606,522	\$183,885,698	\$200,246,765	\$209,810,429	89%	\$60,895,815	\$60,744,796	13.48%	1.36
Private Real Estate	4	\$59,709,817	\$57,264,491	\$59,428,622	\$36,810,845	100%	\$34,023,167	\$32,561,984	3.45%	1.17
<b>Total</b>	<b>73</b>	<b>\$1,063,365,332</b>	<b>\$752,512,093</b>	<b>\$787,108,335</b>	<b>\$411,813,206</b>	<b>74%</b>	<b>\$510,419,033</b>	<b>\$535,002,818</b>	<b>7.77%</b>	<b>1.21</b>

### Performance by Strategy Type

Asset Class	Strategy	# of Funds	Commitment	Funded	Paid-In Capital	Distributions	% Drawn	Reported Valuation	Adjusted Valuation	IRR	TVPI
Private Equity	Buy out	5	\$51,610,000	\$42,898,794	\$44,251,058	\$13,741,921	86%	\$38,023,888	\$37,420,639	6.53%	1.16
	Distressed Equity	1	\$25,000,000	\$8,887,492	\$9,524,992	\$1,162,372	38%	\$8,089,628	\$8,089,628	-1.60%	0.97
	Growth Equity	5	\$52,500,000	\$40,496,310	\$44,668,699	\$20,957,875	85%	\$35,084,806	\$35,905,155	7.43%	1.27
	Secondaries	5	\$75,047,195	\$46,456,320	\$47,089,970	\$25,241,947	63%	\$29,900,572	\$29,570,735	3.07%	1.16
	Venture Capital	2	\$17,500,000	\$16,405,508	\$17,259,760	\$15,508,595	99%	\$5,067,068	\$4,236,734	2.79%	1.14
	<b>Total</b>	<b>8</b>	<b>\$72,201,500</b>	<b>\$36,408,334</b>	<b>\$37,628,035</b>	<b>\$1,483,865</b>	<b>52%</b>	<b>\$37,185,942</b>	<b>\$41,540,127</b>	<b>10.92%</b>	<b>1.14</b>
Private Credit	Distressed Credit	<b>26</b>	<b>\$293,858,695</b>	<b>\$191,552,758</b>	<b>\$200,422,514</b>	<b>\$78,096,575</b>	<b>68%</b>	<b>\$153,351,904</b>	<b>\$156,763,018</b>	<b>4.91%</b>	<b>1.17</b>
	Loans	1	\$15,000,000	\$15,000,000	\$15,129,068	\$4,857,587	101%	\$9,827,116	\$9,827,116	-0.56%	0.97
	Opportunistic PC	18	\$395,672,251	\$251,951,863	\$257,964,719	\$47,279,422	65%	\$222,566,449	\$242,498,920	8.75%	1.12
	<b>Total</b>	<b>6</b>	<b>\$74,518,047</b>	<b>\$52,857,283</b>	<b>\$53,916,647</b>	<b>\$34,958,348</b>	<b>72%</b>	<b>\$29,754,582</b>	<b>\$32,606,984</b>	<b>-34.18%</b>	<b>1.66</b>
Private Real Assets	Energy	<b>25</b>	<b>\$485,190,298</b>	<b>\$319,809,146</b>	<b>\$327,010,434</b>	<b>\$87,095,357</b>	<b>67%</b>	<b>\$262,148,147</b>	<b>\$284,933,020</b>	<b>7.41%</b>	<b>1.14</b>
	Infrastructure	11	\$124,106,522	\$116,488,038	\$123,379,831	\$131,756,134	99%	\$31,406,757	\$31,693,394	13.40%	1.34
	Power	4	\$60,500,000	\$42,401,101	\$50,880,625	\$59,124,204	84%	\$21,484,268	\$21,606,229	26.90%	1.59
	Opportunistic RA	2	\$25,000,000	\$21,959,059	\$22,922,879	\$16,762,892	92%	\$6,852,528	\$6,292,911	0.14%	1.01
	<b>Total</b>	<b>1</b>	<b>\$15,000,000</b>	<b>\$3,037,500</b>	<b>\$3,063,430</b>	<b>\$2,167,199</b>	<b>20%</b>	<b>\$1,152,262</b>	<b>\$1,152,262</b>	<b>3.93%</b>	<b>1.08</b>
Private Real Estate	Direct Investment	<b>18</b>	<b>\$224,606,522</b>	<b>\$183,885,698</b>	<b>\$200,246,765</b>	<b>\$209,810,429</b>	<b>89%</b>	<b>\$60,895,815</b>	<b>\$60,744,796</b>	<b>13.48%</b>	<b>1.36</b>
	Opportunistic RE	2	\$39,709,817	\$39,709,817	\$41,637,448	\$26,349,348	105%	\$26,124,730	\$24,750,276	6.64%	1.23
	Growth Equity	1	\$10,000,000	\$10,000,000	\$10,000,000	\$0	100%	\$3,428,453	\$3,428,453	-10.35%	0.34
	<b>Total</b>	<b>1</b>	<b>\$10,000,000</b>	<b>\$7,554,674</b>	<b>\$7,791,174</b>	<b>\$10,461,497</b>	<b>78%</b>	<b>\$4,469,984</b>	<b>\$4,383,255</b>	<b>12.31%</b>	<b>1.91</b>

**Appendix IV – Glossary*****Major Asset Classes***

Alpha Pool: Investments that tend to be uncorrelated with “traditional” stock and bond investments. Not technically an asset class, but rather an investment construct within a \*portable alpha framework

Cash & Equivalents: Cash and short term investments held in lieu of cash and readily converted into cash within a short time span (i.e., CDs, commercial paper, Treasury bills, etc.)

Global Debt: Investments in debt instruments located in developed markets, may include various credit, mortgage-backed and emerging markets debt securities

Global Equity: Investments in companies domiciled in developed market countries and may include opportunistic investments in emerging market countries

Liquidating: The residual investment in terminated managers

Liquid Real Assets: Liquid investments in strategies whose values are sensitive to inflation

Private Equity: Investments in equity securities and debt in operating companies that are not publicly traded on a stock exchange

Private Real Assets: Investments in equity securities and debt in operating companies that are not publicly traded on a stock exchange and whose strategies are sensitive to inflation

***Sub-Asset Classes***

Alternative Equity: Investments in companies globally through both long and short positions and may include non-equity instruments such as fixed income, commodities, CDS, options, etc.

Credit: Investments in companies, often stressed or distressed, principally through the debt portion of capital structure

Emerging Market Debt: Investments in debt securities in emerging market countries, primarily in three categories - external sovereign, local sovereign, and corporate debt

Emerging Market Equity: Investments in companies located in emerging market countries

Investment Grade Bonds: Investments in investment grade rated debt securities

Non-US Developed Equity: Investments in companies domiciled in developed market countries

US Equity: Investments in companies domiciled in the US