



**Board of Regents Report for February 2015** 

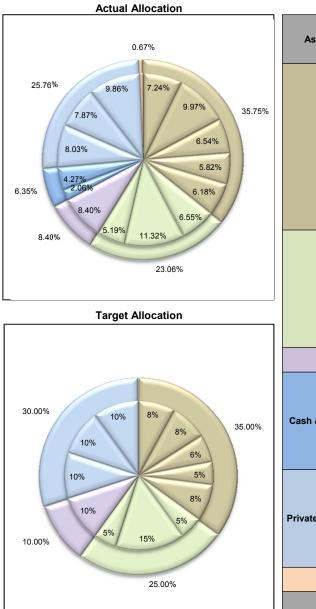
**Texas Tech University Endowment** 



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# Asset Class Allocation: Actual vs. Target



Annual Oliver			Actual \$ Allocation	1	Total         Allocation         Allocation           ,302,700         7.24%         8%           3,464,956         9.97%         8%           3,851,567         6.54%         6%           ,129,416         5.82%         5%           ,981,270         6.18%         8%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,986,938         6.55%         5%           ,661,531         8.40%         10%           ,948,193         2.06%         25%           ,551,299         4.27%            ,787,880         6.35%         0%           ,787,880         6.35%         0%           ,315,427         9.86%         10%           5,315,427         9.86%         10%      <	Target %	Tannat D
Asset Class	Sub-Asset Class	Physical	Synthetic	Total	Allocation	Allocation	Target Range
	US Equity	0	Synthetic         Total         Allocation           77,302,700         77,302,700         7.24%           707         20,725,249         106,464,956         9.97%           367         39,951,200         69,851,567         6.54%           410         7,044,006         62,129,416         5.82%           270         65,981,270         6.18%           755         145,023,155         381,729,910         35.75%           192         120,846,192         11.32%           192         120,846,192         11.32%           767         55,432,767         5.19%           960         69,986,938         246,265,897         23.06%           363         9,801,168         89,661,531         8.40%           193         0         21,948,193         2.06%           341         -44,962,252         288,389         0.03%           307         -179,849,009         45,551,299         4.27%           141         -224,811,261         67,787,880         6.35%           388         85,745,688         8.03%           349         84,031,549         7.87%           427         105,315,427         9.86% <td< td=""><td>8%</td><td></td></td<>	8%			
	Global Equity	85,739,707	20,725,249	106,464,956	9.97%	8%	
Fourity	Non US Developed Equity	29,900,367	39,951,200	69,851,567	6.54%	6%	
Equity	Non US Emerging Markets Equity	55,085,410	7,044,006	62,129,416	5.82%	5%	
	Alternative Equity	65,981,270		65,981,270	6.18%	8%	
	Sub-Total	236,706,755	145,023,155	381,729,910	35.75%	35%	30% - 40%
	Sovereign/Investment Grade Bonds	0	69,986,938	69,986,938	6.55%	5%	
Debt	Credit	120,846,192		120,846,192	11.32%	15%	
Debt	Emerging Markets Debt	55,432,767		55,432,767	5.19%	5%	
	Sub-Total	176,278,960	69,986,938	246,265,897	23.06%	Allocation           %         8%           %         8%           %         8%           %         6%           %         5%           %         5%           %         5%           %         5%           %         5%           %         5%           %         5%           %         5%           %         5%           %         25%           %         10%           %         10%           %         10%           %         10%           %         10%           %         30%	20% - 30%
Liquid R	eal Assets	79,860,363	9,801,168	89,661,531	8.40%	10%	5% - 15%
	Cash	21,948,193	0	21,948,193	Allocation         Allocation           ,700         7.24%         8%           ,956         9.97%         8%           ,567         6.54%         6%           ,416         5.82%         5%           ,270         6.18%         8%           ,938         6.55%         5%           ,938         6.55%         5%           ,6,192         11.32%         15%           ,767         5.19%         5%           ,5897         23.06%         25%           ,531         8.40%         10%           ,193         2.06%         2           ,880         6.35%         0%           ,688         8.03%         10%           ,549         7.87%         10%           ,549         7.87%         10%           ,5427         9.86%         10%           ,663         25.76%         30%		
Orah & Alaha Daal	Cash Collateral	45,250,641	-44,962,252	288,389	0.03%	Allocation       I         8%       8%         8%       6%         5%       8%         35%       15%         15%       25%         15%       10%         0%       10%         10%       10%         10%       0%         0%       0%	
Cash & Alpha Pool	Alpha Pool	225,400,307	-179,849,009	45,551,299	4.27%		
	Sub-Total	292,599,141	-224,811,261	67,787,880	6.35%	0%	0% - 10%
	Private Equity	85,745,688		85,745,688	8.03%	10%	
Duitante la contracta	Private Credit	84,031,549		84,031,549	7.87%	10%	
Private Investments	Private Real Assets	105,315,427		105,315,427	9.86%	10%	
	Sub-Total	275,092,663	0	275,092,663	25.76%	30%	10% - 55%
Liqui	dating	7,188,101	0	7,188,101	0.67%	0%	
Т	otal	1,067,725,982	0	1,067,725,982	100%	100%	

\*Please see Appendix I (page 23) for details on composition of synthetic exposure.

# Asset Class Performance: Actual vs. Policy



#### QTD Performance

	]	Month							QTD					
3.64%	Equity	Asset Class		Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy	Asset Class		Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy	
1.61%	Debt	Equity	3.91%	4.20%	1.00%	4.49%	5.57%	Equity	4.10%	1.23%	1.35%	3.64%	3.92%	
1.29%	Cash & Alpha Pool	Debt	2.34%	-0.64%	1.00%	1.76%	-0.94%	Debt	1.49%	0.63%	1.35%	1.61%	1.14%	
0.53%	Liquid Real Assets	Liquid Real Assets	0.41%	-5.39%	1.00%	-0.13%	0.54%	Liquid Real Assets	0.58%	-2.99%	1.35%	0.53%	0.19%	
		Cash & Alpha Pool	0.96%			0.96%	0.00%	Cash & Alpha Pool	1.29%			1.29%	0.00%	
0.25%	Liquidating	Private Investments	0.14%			0.14%	0.00%	Private Investments	0.07%			0.07%	0.00%	
0.07%	Private Investments	Liquidating	2.10%			2.10%		Liquidating	0.25%			0.25%		
0 <sup>°</sup> 1 <sup>°</sup> 1 <sup>°</sup> 2 <sup>°</sup> 2 <sup>°</sup> 3 <sup>°</sup> 3 <sup>°</sup> 4 <sup>°</sup> 4	%	Total	1.58%	2.57%	1.00%	1.98%	1.77%	Total	1.55%	1.30%	1.35%	1.83%	1.71%	

#### One Year Performance

				Ca	llendar Y	ſD					1 Year		
9.55%	Private Investments	Asset Class		Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy	Asset Class		Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy
5.94%	Equity				Casir						Casir		
		Equity	4.10%	1.23%	1.35%	3.64%	3.92%	Equity	5.73%	5.74%	2.87%	5.94%	7.55%
3.93%	Debt	Debt	1.49%	0.63%	1.35%	1.61%	1.14%	Debt	2.83%	2.00%	2.98%	3.93%	5.05%
2.69%	Cash & Alpha Pool	Liquid Real Assets	0.58%	-2.99%	1.35%	0.53%	0.19%	Liquid Real Assets	1.02%	-1.40%	1.08%	0.57%	3.95%
		Cash & Alpha Pool	1.29%			1.29%	0.00%	Cash & Alpha Pool	2.69%			2.69%	0.03%
0.57%	Liquid Real Assets	Private Investments	0.07%			0.07%	0.00%	Private Investments	9.55%			9.55%	17.84%
-3.71%	Liquidating	Liquidating	0.25%			0.25%		Liquidating	-3.71%			-3.71%	
-6% -4% -2% 0% 2% 4% 6% 8% 10% 12	2%	Total	1.55%	1.30%	1.35%	1.83%	1.71%	Total	4.57%	4.19%	2.98%	4.93%	9.27%

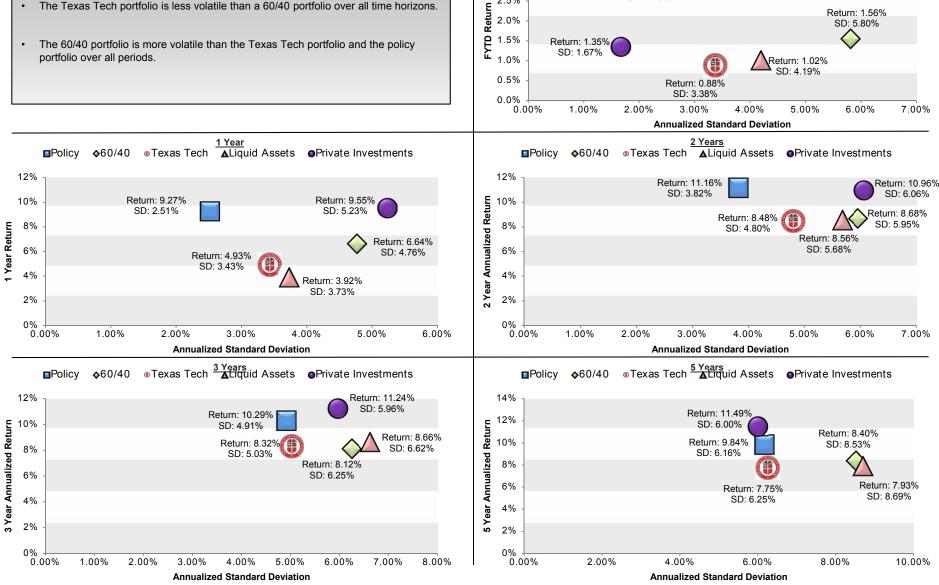
Commentary

Long Term Risk/Return of Endowment vs. 60/40 Portfolio & Policy Returns

The Texas Tech portfolio is less volatile than a 60/40 portfolio over all time horizons.

The 60/40 portfolio is more volatile than the Texas Tech portfolio and the policy

TEXAS TECH UNIVERSITY SYSTEM FYTD **6**0/40 Texas Tech ▲Liquid Assets Private Investments Return: 3.26% SD: 2.19% Return: 1.56% SD: 5.80% Return: 1.35% Return: 1.02% Ē SD: 4.19% Return: 0.88% SD: 3.38%



Policy

SD: 1.67%

3.5%

3.0%

2.5%

2.0%

1.5%

## **Risk Profile (VaR)**

Private Equity

Emerging Markets Debt

indicators:

Portfolio

Texas Tech

60/40

Policy

•

- The Texas Tech portfolio has a 5% chance of losing \$44 million (or more) in a month with a 1% chance of losing \$67 million (or more) in a month based on observed portfolio volatility.
- The Texas Tech portfolio has lower VaR than the 60/40 portfolio.



1,624,358

1,676,349

Volatility is benchmarked against the VIX Index.

**Risk Free** 

0.31

0.19

0.22

portfolio are well explained by the 4 factor model.

Credit

0.80

0.81

0.76

The model analyses historical returns of the portfolio against the returns and volatility of key

Risk-Free is benchmarked against the US 10 Year Treasury Bond.

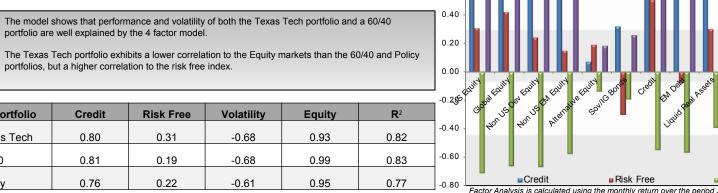
Equity Markets is benchmarked against the MSCI AC World IMI (Net).

Credit is benchmarked against the High Yield North American CDX Index.

0

Texas Tech

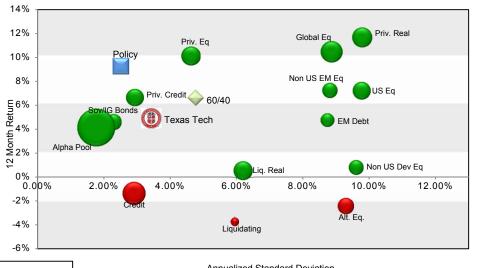
Policy



# Liquidating, Credit and Alternative Equity have generated the lowest risk adjusted returns.

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**Risk Profile** 



Alpha Pool, Private Credit and Private Equity have provided the highest risk adjusted returns.

#### **Factor Analysis**

Sov/IG

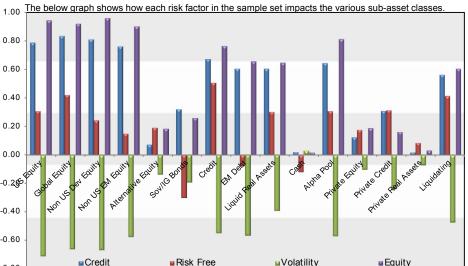
Bonds

Global

Equity

60/40

Annualized Standard Deviation



Factor Analysis is calculated using the monthly return over the period January 2009 - current month.

TEXAS TECH UNIVERSITY SYSTEM

# Equity (Total NAV: \$381,729,910)

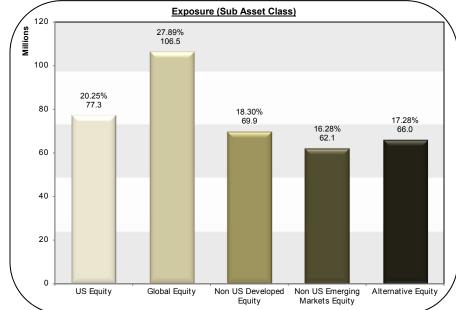


#### **Overview and Risk Profile by Asset Class**

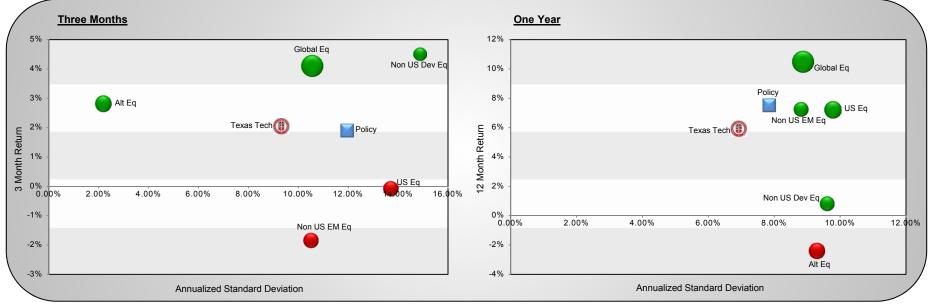
#### Commentary

- When valuing energy equities, we use a relative price-to-book (P/B) metric: the MSCI ACWI Energy
  versus the MSCI ACWI, backfilled prior to 1995 with Datastream World Oil & Gas vs Datastream
  World Market (both include emerging markets). As of mid-January 2015, this metric was at the 10<sup>th</sup>
  percentile, a level not seen since the late 1980s
- Currently, energy equity valuations are depressed versus history on the basis of price to earnings (P/E), cyclically adjusted P/E, and dividend yield. Conclusions for the analysis are similar across the different valuation metrics. However, we have chosen P/B for this analysis because it is simple and commonly used and because the denominator is more stable





## Risk vs. Return (Sub Assets)

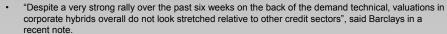


# <u>Debt</u> (Total NAV: \$246,265,897)

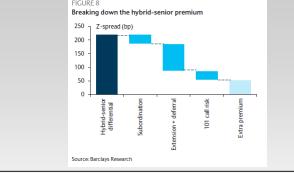
#### TEXAS TECH UNIVERSITY SYSTEM

#### **Overview and Risk Profile by Asset Class**

#### **Commentary**



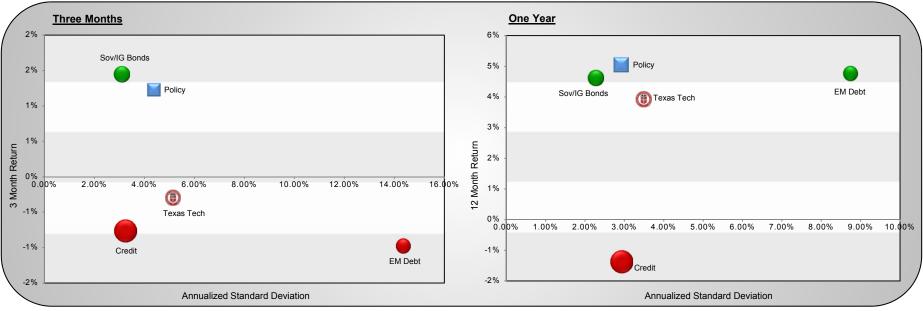
- "First, the rally in hybrids remains well behind the moves seen in the matched senior debt. We also
  take comfort from the performance of corporate hybrids relative to BB-rated non-financial HY credit"
- From a fair value perspective the hybrid-senior spread gap should reflect the compensation for subordination, extension, deferral and "101 call" risk. After accounting for these risks, we think that investors in the sector are left with at least 50bp of extra spread premium.





## **Risk vs. Return (Sub Assets)**

Source – Barclays



# Liquid Real Assets (Total NAV: \$89,661,531)

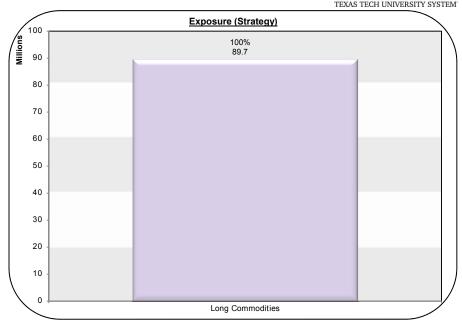


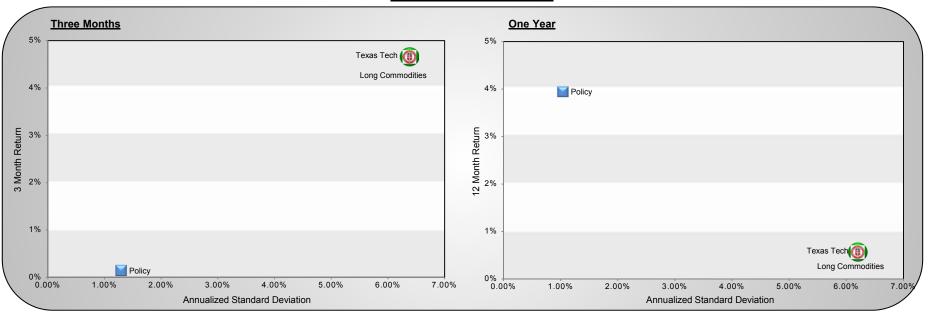
#### **Overview and Risk Profile by Asset Class**

#### Commentary

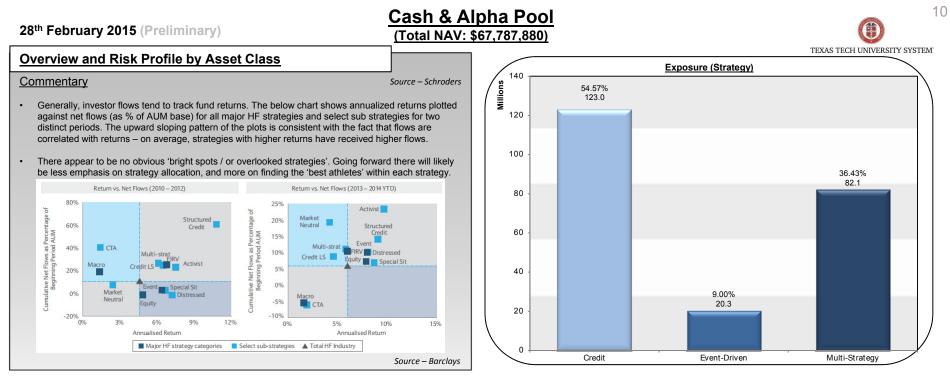
- Commodity prices advanced in February, aided by a rebound in the energy sector. •
- Regarding subsector performance, the energy group advanced. There was some speculation that a reduction in oil rig counts and capital expenditures would eventually lead to weaker U.S. supply, which caused prices for North Sea Brent (+14.8% total return in the index) and West Texas Intermediate (WTI) (+3.8%) crude oil to rally off their January lows. However, Department of Energy reports revealed that U.S. oil production reached its highest level in 32 years. Total U.S. inventories are at alltime highs as inventories in Cushing, Oklahoma and the Gulf Coast grew aggressively. This raised concerns that storage levels could be breached this summer and helped widen WTI's discount to North Sea Brent crude oil.
- Natural gas prices (+0.5%) were volatile but ended the month largely flat. U.S. production continued to remain near all-time highs with changing weather forecasts driving near-term price swings. Current natural gas storage levels appeared to be more than adequate. largely a result of strong onshore production.
- The precious metals sector (-4.9%) declined largely driven by a firm U.S. dollar. A stronger-thanexpected U.S. employment report increased perceptions of a potential U.S. rate hike later this year, helping to send gold (-5.2%) and silver (-4.0%) lower. The announcement of a deal between Greece and its lenders and subdued demand during the Chinese Lunar New Year holiday also pressured precious metals prices. In the platinum group metals (PGMs), the fundamental picture continued to be favorable. Palladium (+5.9%) was a standout; Swiss trade data suggested that supply growth was constrained as Russian state palladium stockpiles neared depletion.

Source - Cohen & Steers

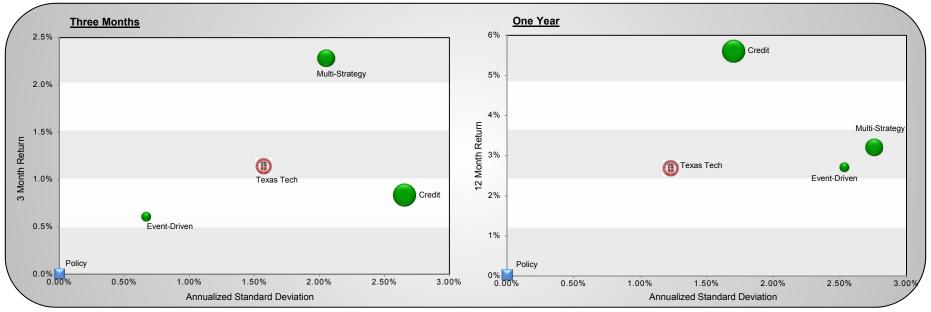


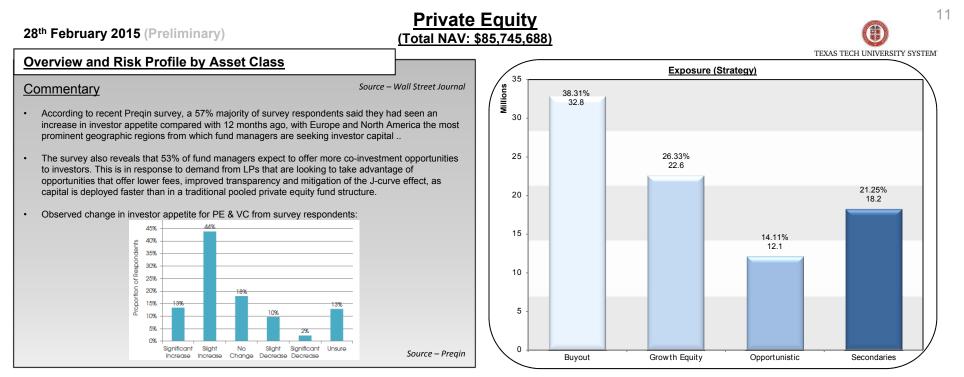


Risk vs. Return (Strategy)

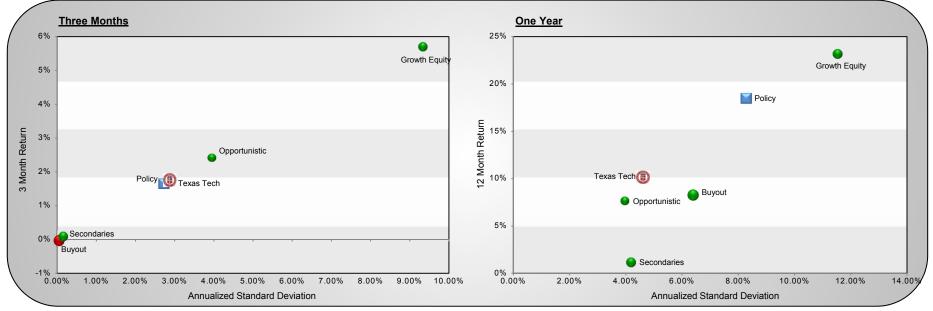


## Risk vs. Return (Strategy)





## Risk vs. Return (Strategy)



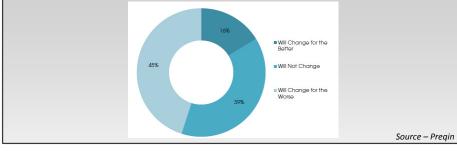
# Private Credit (Total NAV: \$84,031,549)

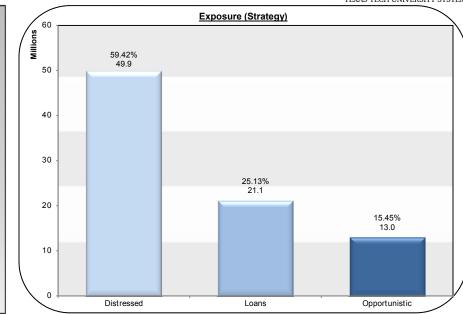


#### **Overview and Risk Profile by Asset Class**

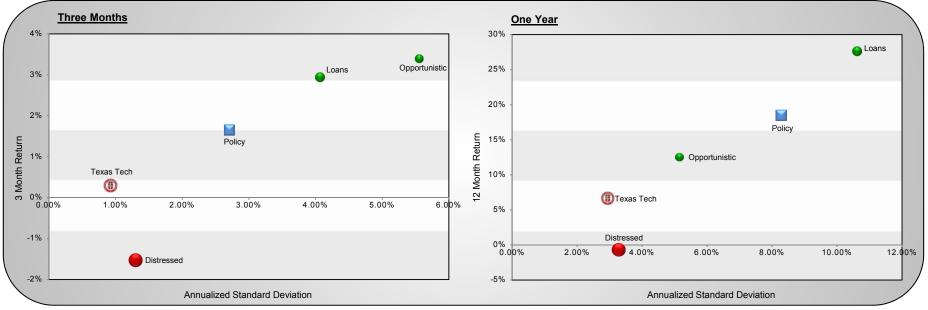
#### Commentary

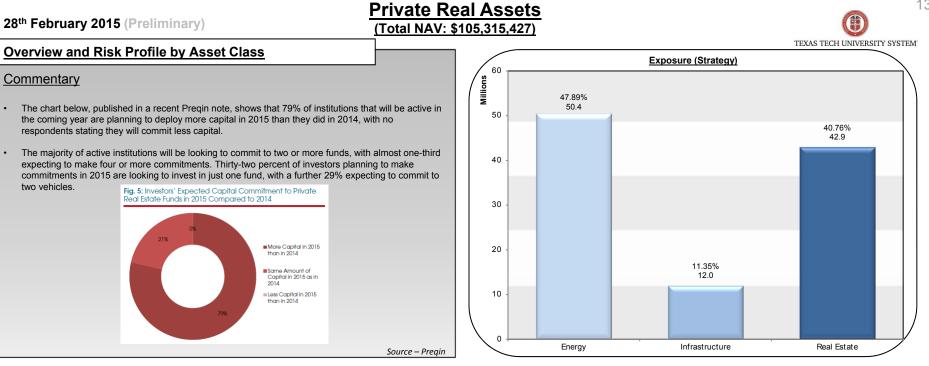
- In a recent Preqin survey, the largest proportion of fund managers surveyed (45%) believe that the change will be for the worse. A number of respondents specifically stated that the increased bureaucracy heralded by new laws complicates the processes, and highlighted the fact that fund managers are under pressure from a number of regulations.
- As of November 2014, over a quarter (28%) of fund managers surveyed were already compliant with the AIFMD, with a further 13% stating their funds will be compliant by the end of H1 2015. A significant 24% are awaiting fi nal changes and guidance before implementation. Some of those that are not planning to market under the AIFMD have quoted the minimum threshold size which makes their vehicles non-applicable and the fund managers are therefore not required to comply.



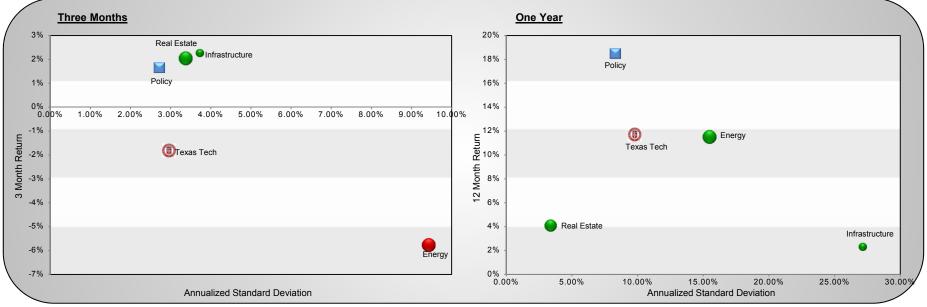


## Risk vs. Return (Strategy)





## Risk vs. Return (Strategy)



# Appendix I – Sub-Asset Detail

TEXAS TECH UNIVERSITY SYSTE	M

Fund	Current Exposure	MTD Perf.	3 Mo. Perf.	Calendar YTD	Fiscal YTD	Nacubo YTD	1 Year Perf.	3 Year Perf.	5 Year Perf.
TOTAL	1,067,725,982	1.98%	1.28%	1.83%	0.88%	1.09%	4.93%	8.32%	7.75%
Policy		1.77%	1.59%	1.71%	3.26%	3.89%	9.27%	10.29%	9.84%
Equity	381,729,910	4.49%	2.04%	3.64%	1.93%	3.07%	5.94%	11.96%	11.15%
US Equity	77,302,700	4.85%	-0.08%	-0.21%	2.67%	4.17%	7.23%	14.70%	13.12%
Benchmark: S&P 500 Total Return		5.75%	2.31%	2.57%	6.12%	8.85%	15.51%	18.00%	16.18%
Global Equity	106,464,956	5.57%	4.11%	5.81%	6.60%	8.88%	10.50%	18.78%	n/a
Benchmark: MSCI ACWI		5.57%	1.91%	3.92%	0.96%	1.94%	7.55%	11.57%	10.71%
Non US Developed Equity	69,851,567	7.31%	4.51%	7.76%	-0.48%	-1.90%	0.82%	10.90%	9.17%
Benchmark: MSCI EAFE		5.99%	2.85%	6.52%	-1.16%	-3.24%	0.39%	9.90%	8.27%
Non US Emerging Markets Equity	62,129,416	2.42%	-1.84%	3.03%	-6.03%	-2.28%	7.27%	1.48%	5.29%
Benchmark: MSCI EMF		3.11%	-1.00%	3.73%	-8.20%	-4.20%	5.38%	0.01%	3.97%
Alternative Equity	65,981,270	1.22%	2.82%	1.28%	5.91%	4.36%	-2.40%	10.83%	n/a
Benchmark: MSCI ACWI		5.57%	1.91%	3.92%	0.96%	1.94%	7.55%	11.57%	10.71%
Debt	246,265,897	1.76%	-0.30%	1.61%	-0.56%	-0.34%	3.93%	5.66%	6.86%
Sovereign/Investment Grade Bonds	69,986,938	0.36%	1.45%	1.99%	2.32%	2.93%	4.62%	3.20%	4.57%
Benchmark: Barclays Global Aggregate		-0.94%	1.23%	1.14%	2.25%	3.12%	5.05%	2.76%	4.29%
Credit	120,846,192	1.01%	-0.76%	0.49%	-1.61%	-1.40%	-1.36%	7.95%	9.41%
Benchmark: Barclays Global Aggregate		-0.94%	1.23%	1.14%	2.25%	3.12%	5.05%	2.76%	4.29%
Emerging Markets Debt	55,432,767	5.35%	-0.97%	3.74%	-2.58%	-3.45%	4.77%	5.49%	7.85%
Benchmark: JP Morgan EM Bond Index		1.25%	-1.32%	1.59%	-2.49%	-1.73%	4.91%	4.26%	7.22%
Liquid Real Assets	89,661,531	-0.13%	4.66%	0.53%	0.63%	-2.30%	0.57%	-4.74%	-1.61%
Benchmark: CPI + 4%		0.54%	0.14%	0.19%	0.96%	1.51%	3.95%	5.04%	5.65%
Cash & Alpha Pool	67,787,880	0.96%	1.14%	1.29%	1.10%	1.35%	2.69%	5.17%	4.06%
Cash	(202,863,068)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.27%	0.23%
Cash Collateral	45,250,641	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	n/a	n/a
Alpha Pool	225,400,307	1.25%	1.47%	1.68%	1.51%	1.96%	4.17%	7.47%	6.46%
Benchmark: HFRI FOF Index		1.73%	2.28%	1.90%	2.68%	3.16%	4.07%	5.19%	3.74%
Liquidating	7,188,101	2.10%	-3.89%	0.25%	-4.27%	-4.20%	-3.71%	-0.80%	-0.37%

\*Cash is adjusted for synthetic exposures.

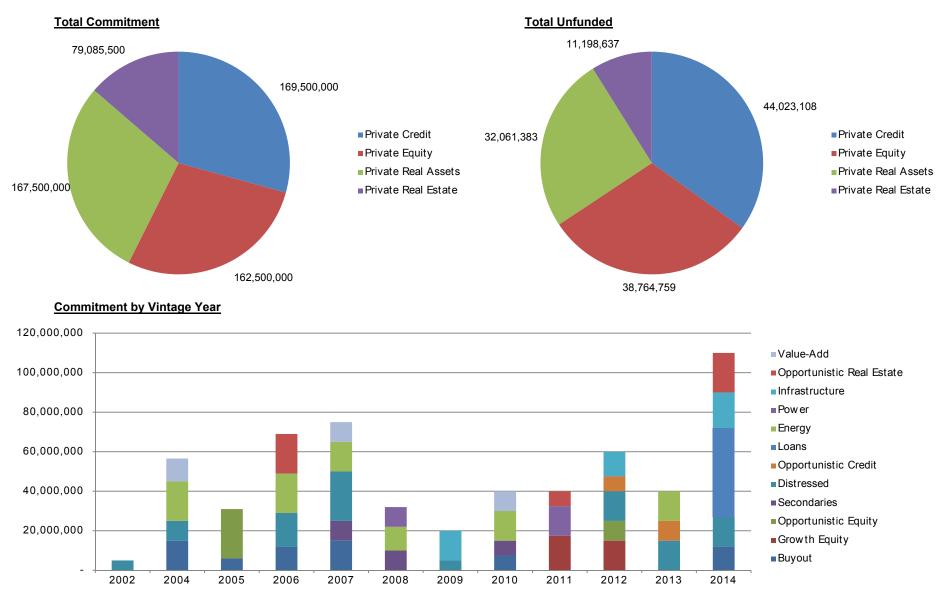
## Appendix I – Sub-Asset Detail (cont.)



Fund	Current Exposure	1 Year Performance	3 Year Performance	5 Year Performance
Private Investments	275,092,663	9.55%	11.24%	11.49%
Benchmark: Private Market Index (90% VE, 10% NCREIF)		17.84%	15.78%	15.01%
Private Equity	85,745,688	10.14%	11.28%	11.03%
Private Credit	84,031,549	6.67%	13.37%	10.46%
Private Real Assets	105,315,427	11.70%	10.03%	12.83%

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## Appendix VII - Private Markets Report (as of February 2015) - Total Commitment



Data provided by Texas Tech University System

Reported valuations use latest available statements ranging from September 30, 2014 to January 31, 2015. Adjusted Valuations include all cashflows through February 2015



# Appendix VII - Private Markets Report (as of February 2015) - Performance Analysis by Strategy Type & Asset Class

## Performance by Strategy Type

Asset Class	Strategy	# of Funds	Commitment	Funded	Paid-In Capital	Distributions	% Drawn	Reported Valuation	Adjusted Valuation	IRR	мос
	Buyout	6	\$67,500,000	\$55,342,451	\$58,696,430	\$60,330,717	87%	\$31,620,324	\$33,054,662	12.21%	1.59
	Growth Equity	2	\$32,500,000	\$11,814,701	\$13,082,317	\$2,938,089	40%	\$13,169,225	\$11,261,304	5.70%	1.09
Private Equity	Opportunistic Equity	2	\$35,000,000	\$31,950,000	\$31,957,850	\$15,916,021	91%	\$22,635,305	\$21,794,160	3.94%	1.18
	Secondaries	3	\$27,500,000	\$21,846,083	\$22,417,231	\$12,957,203	82%	\$19,079,496	\$18,684,424	9.51%	1.41
	Total	13	\$162,500,000	\$120,953,235	\$126,153,828	\$92,142,030	78%	\$86,504,350	\$84,794,550	9.34%	1.40
	Distressed	10	\$107,000,000	\$97,384,997	\$97,449,145	\$87,394,861	91%	\$47,147,405	\$49,353,955	12.62%	1.40
Private Credit	Loans	2	\$45,000,000	\$17,272,219	\$17,272,219	\$480,000	38%	\$18,367,800	\$17,887,800	7.13%	1.06
Filvate Credit	Opportunistic Credit	2	\$17,500,000	\$9,833,875	\$10,927,257	\$1,235,917	62%	\$11,822,012	\$12,178,947	14.19%	1.23
	Total	14	\$169,500,000	\$124,491,091	\$125,648,621	\$89,110,778	74%	\$77,337,217	\$79,420,702	12.57%	1.34
	Energy	6	\$97,000,000	\$82,681,932	\$86,482,189	\$97,361,395	89%	\$32,168,279	\$32,869,258	17.87%	1.51
Private Real Assets	Infrastructure	3	\$45,500,000	\$30,894,758	\$35,298,649	\$34,122,710	78%	\$25,810,988	\$15,136,449	35.13%	1.40
Filvale Real Assels	Power	2	\$25,000,000	\$18,161,152	\$18,682,947	\$6,496,734	75%	\$14,588,096	\$12,394,384	0.52%	1.01
	Total	11	\$167,500,000	\$131,737,842	\$140,463,785	\$137,980,839	84%	\$72,567,363	\$60,400,091	17.78%	1.41
	Opportunistic Real Estate	4	\$47,500,000	\$38,298,098	\$39,263,777	\$3,711,610	83%	\$13,508,296	\$26,397,956	-9.70%	0.77
Private Real Estate	Value-Add	3	\$31,585,500	\$28,561,157	\$28,623,086	\$23,017,997	91%	\$14,216,362	\$12,745,830	5.01%	1.25
	Total	7	\$79,085,500	\$66,859,255	\$67,886,863	\$26,729,607	86%	\$27,724,658	\$39,143,786	-0.88%	0.97

## Performance by Asset Class

Asset Class	# of Funds	Commitment	Funded	Paid-In Capital	Distributions	% Drawn	Reported Valuation	Adjusted Valuation	IRR	мос
Private Equity	13	\$162,500,000	\$120,953,235	\$126,153,828	\$92,142,030	78%	\$86,504,350	\$84,794,550	9.34%	1.40
Private Credit	14	\$169,500,000	\$124,491,091	\$125,648,621	\$89,110,778	74%	\$77,337,217	\$79,420,702	12.57%	1.34
Private Real Assets	11	\$167,500,000	\$131,737,842	\$140,463,785	\$137,980,839	84%	\$72,567,363	\$60,400,091	17.78%	1.41
Private Real Estate	7	\$79,085,500	\$66,859,255	\$67,886,863	\$26,729,607	86%	\$27,724,658	\$39,143,786	-0.88%	0.97
Total	45	\$578,585,500	\$444,041,423	\$460,153,097	\$345,963,254	80%	\$264,133,588	\$263,759,129	10.31%	1.33

## Appendix III – Glossary



## Major Asset Classes

<u>Alpha Pool:</u> 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

Appendix III – Glossary (cont.)



#### Investment Terms/Performance Statistics

Active Premium: A measure of the investment's annualized return minus the benchmark's annualized return

Alpha: Return generated by the manager that is not explained by the returns of the benchmark. A measure of a fund's performance beyond what its benchmark would predict

Annual Return: The annual rate at which an investment would have grown, if it had grown at a steady rate. Also called "Compound Annual Growth Rate" (CAGR), or the "Compound Rate of Return Annualized" (Compound RoR)

Annual Volatility: A statistical measure of the dispersion of returns around the average (mean) return. Often used as a measure of investment risk with a higher value indicating higher risk

Arbitrage: The simultaneous purchase and sale of an asset in order to profit from a difference in the price

Beta: A measure of the risk of the fund relative to the benchmark. Beta describes the sensitivity of the investment to benchmark movements where the benchmark is always assigned a beta of 1.0

Calmar Ratio: A return/risk ratio calculated over the last three year period as [annual compounded return / (Maximum Drawdown)]

Capital Commitment: Every investor in a private equity fund commits to investing a specified sum of money in the fund partnership over a specified period of time.

Capital Distribution: The returns that an investor in a private equity fund receives; the income and capital realized from investments less expenses and liabilities

Carried Interest: The share of profits that the fund manager is due once it has returned the cost of investment to investors

Catch up: A clause that allows the general partner to take, for a limited period of time, a greater share of the carried interest than would normally be allowed. This continues until the time when the carried interest allocation, as agreed in the limited partnership, has been reached.

Clawback: Ensures that a general partner does not receive more than its agreed percentage of carried interest over the life of the fund

Correlation: A measure between +1 and -1 that explains the degree to which the returns of the fund and a benchmark are related

Down Capture: Measures how much of the benchmark's return the fund captures when the benchmark is negative

Down Number: The percentage of the time the fund was down when the benchmark was down

Drawdown: When a private equity firm has decided where it would like to invest, it will approach its own investors in order to draw down the money. The money will already have been pledged to the fund but this is the actual act of transferring the money so that it reaches the investment target

Excess Kurtosis: Measures the distribution of observed data around the mean with an emphasis on "outlier" data, both positive and negative

Exit: The means by which a fund is able to realize its investment in a company – by an initial public offering, a trade sale, selling to another private equity firm or a company buy-back

Fundraising: The process by which a private equity firm solicits financial commitments from limited partners for a fund

General Partner: This can refer to the top-ranking partner(s) at a private equity firm as well as the firm managing the private equity fund

Appendix III - Glossary (cont.)



#### Investment Terms/Performance Statistics (cont.)

Gross Exposure: Aggregate of long and short investment positions in relation to the Net Asset Value (NAV)

Holding Period: The length of time that an investment is held

Information Ratio: The Active Premium divided by the Tracking Error. This measure explicitly relates the degree by which an investment has beaten the benchmark to the consistency by which the investment has beaten the benchmark

Internal Rate of Return: A time-weighted return expressed as a percentage that uses the present sum of cash drawdowns (money invested), the present value of distributions (money returned from investments) and the current value of unrealized investments and applies a discount

Leverage: Increasing exposure to markets (both long and short) by borrowing or the use of derivatives

Limited Partnership: The standard vehicle for investment in private equity funds

Long Position: Owning a security

Management Fee: The annual fee paid to the general partner

Max Drawdown: The largest percentage loss of Net Asset Value (NAV) as measured from peak-to-trough

Net Exposure: Difference between the long and short positions, representing the exposure to market fluctuations

Preferred Return: This is the minimum amount of return that is distributed to the limited partners until the time when the general partner is eligible to deduct carried interest

Omega Ratio: The weighted gain/loss ratio relative to the average monthly historical return; captures the effects of extreme returns and conveys the preference for positive volatility versus negative volatility

Sharpe Ratio: A return/risk ratio calculated as: [(annual compounded return - risk-free rate) / (annual volatility of returns)]

Skewness: A measure of the symmetry of return distribution, as compared with a normal (bell-shaped) distribution

Sortino Ratio: A return/risk ratio calculated as such: [(annual compounded return – minimum acceptable return (MAR) / (downside deviation of returns below MAR)]. This ratio was developed to differentiate between good (upside) and bad (downside) volatility

Standard Deviation: Measures the dispersal or uncertainty in a random variable (in this case, investment returns). It measures the degree of variation of returns around the mean (average) return

Short Position: Selling a security

Tracking Error: A measure of the unexplained portion of an investments performance relative to a benchmark

Up Capture: Measures the percentage of the benchmark's return the fund captures when the benchmark is positive

Up Number: The percentage of the time the fund was up when the benchmark was up

Value at Risk (VAR): The maximum loss that can be expected within a specified holding period with a specified confidence level