



TEXAS TECH UNIVERSITY SYSTEM

Board of Regents Report for May 2014

Texas Tech University Endowment

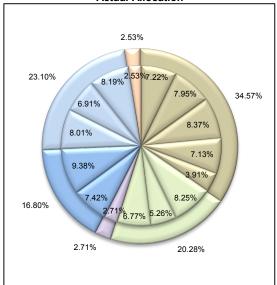


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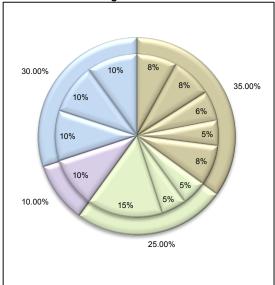
Asset Class Allocation: Actual vs. Target

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Actual Allocation



Target Allocation

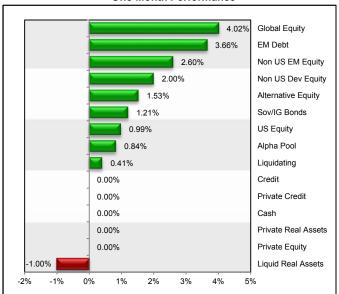


A (O		Ad	ctual \$ Allocation		Total %	Target %	
Asset Class	Sub-Asset Class	Physical	Synthetic	Total	Allocation	Allocation	Target Range
	US Equity	36,817,779	36,508,500	73,326,279	7.22%	8%	
	Global Equity	80,693,327		80,693,327	7.95%	8%	
	Non US Developed Equity	84,991,237		84,991,237	8.37%	6%	
Equity	Non US Emerging Markets Equity	72,371,806		72,371,806	7.13%	5%	
	Alternative Equity	39,684,062		39,684,062	3.91%	8%	
	Sub-Total	314,558,211	36,508,500	351,066,711	34.57%	35%	30% - 40%
	Sovereign/Investment Grade Bonds	33,602,262	50,202,422	83,804,684	8.25%	5%	
Debt	Credit	53,418,359		53,418,359	5.26%	15%	
Debt	Emerging Markets Debt	68,723,482		68,723,482	6.77%	5%	
	Sub-Total	155,744,103	50,202,422	205,946,525	20.28%	25%	20% - 30%
Liquid Re	eal Assets	27,564,880	0	27,564,880	2.71%	10%	5% - 15%
	Cash	92,678,216	-17,342,184	75,336,031	7.42%		
Cash & Alpha Pool	Alpha Pool	164,612,063	-69,368,738	95,243,326	9.38%		
	Sub-Total	257,290,279	-86,710,922	170,579,357	16.80%	0%	0% - 10%
	Private Equity	81,312,429		81,312,429	8.01%	10%	
	Private Credit	70,120,115		70,120,115	6.91%	10%	
Private Investments	Private Real Assets	83,176,882		83,176,882	8.19%	10%	
	Sub-Total	234,609,426	0	234,609,426	23.10%	30%	10% - 55%
Liquid	dating	25,713,059	0	25,713,059	2.53%	0%	
Total		1,015,479,958	0	1,015,479,958	100%	100%	

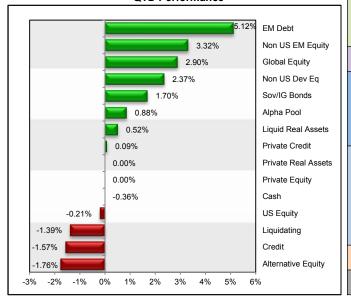
Asset Class Performance: Actual vs. Policy

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One Month Performance



QTD Performance

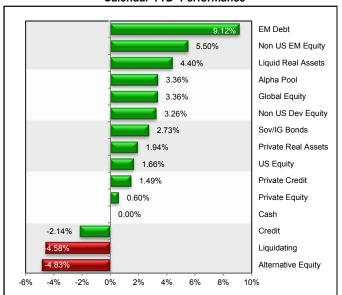


				Month					QTD		
Asset Class	Sub-Asset Class	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy
	US Equity	0.20%	2.17%	0.67%	0.99%		-0.99%	2.17%	0.67%	-0.21%	
	Global Equity	4.02%			4.02%		2.90%			2.90%	
Equity	Non US Developed Equity	2.00%			2.00%		2.37%			2.37%	
Equity	Non US Emerging Markets Equity	2.60%			2.60%		3.32%			3.32%	
	Alternative Equity	1.53%			1.53%		-1.76%			-1.76%	
	Sub-Total	2.08%	2.17%	0.67%	2.14%	2.21%	1.48%	2.17%	0.67%	1.55%	3.24%
	Sovereign/Investment Grade Bonds	1.25%	0.52%	0.67%	1.21%		2.00%	0.80%	0.71%	1.70%	
Debt	Credit	0.00%			0.00%		-1.57%			-1.57%	
3021	Emerging Markets Debt	3.66%			3.66%		5.12%			5.12%	
	Sub-Total	2.31%	0.52%	0.67%	1.99%	1.14%	2.91%	0.80%	0.71%	2.50%	1.99%
Liquid	Real Assets	-1.00%			-1.00%	0.68%	0.52%			0.52%	1.35%
	Cash	0.00%			0.00%		0.00%			0.00%	
Cash & Alpha Pool	Alpha Pool	0.84%			0.84%		0.88%			0.88%	
	Sub-Total	0.67%			0.67%	0.00%	0.69%			0.69%	0.01%
	Private Equity	0.00%			0.00%		0.00%			0.00%	
Private	Private Credit	0.00%			0.00%		0.09%			0.09%	
Investments	Private Real Assets	0.00%			0.00%		0.00%			0.00%	
	Sub-Total	0.00%			0.00%	0.00%	0.03%			0.03%	0.00%
Liq	uidating	0.41%			0.41%		-1.39%			-1.39%	
Total		1.20%	1.21%	0.67%	1.26%	1.13%	1.02%	1.49%	0.71%	1.10%	1.73%

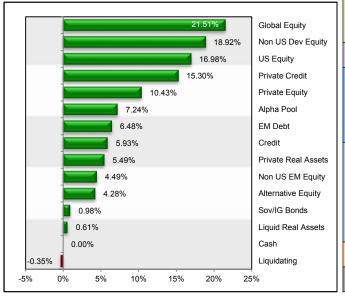
Asset Class Performance: Actual vs. Policy (cont.)

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Calendar YTD Performance

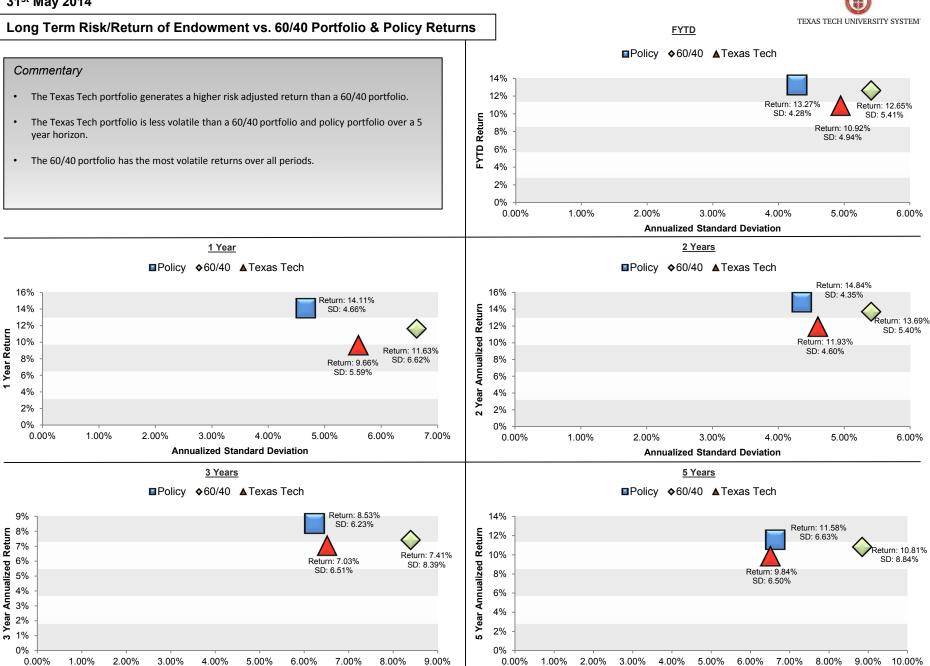


One Year Performance



			Cal	lendar Y	TD				1 Year		
Asset Class	Sub-Asset Class	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy	Physical Return	Synthetic Overlay	Alpha Pool + Cash	Total Return	Policy
	US Equity	0.86%	2.17%	0.67%	1.66%		16.06%	2.17%	0.67%	16.98%	
	Global Equity	3.36%			3.36%		21.51%			21.51%	
Equity	Non US Developed Equity	3.26%			3.26%		18.92%			18.92%	
Equity	Non US Emerging Markets Equity	5.50%			5.50%		4.49%			4.49%	
	Alternative Equity	-4.83%			-4.83%		4.28%			4.28%	
	Sub-Total	2.28%	2.17%	0.67%	2.34%	4.49%	14.70%	2.17%	0.67%	14.77%	17.75%
	Sovereign/Investment Grade Bonds	3.03%	0.80%	0.71%	2.73%		1.27%	0.80%	0.71%	0.98%	
Debt	Credit	-2.14%			-2.14%		5.93%			5.93%	
Debt	Emerging Markets Debt	9.12%			9.12%		6.48%			6.48%	
	Sub-Total	5.31%	0.80%	0.71%	4.88%	3.87%	5.59%	0.80%	0.71%	5.16%	2.71%
Liquid Re	eal Assets	4.40%			4.40%	3.78%	0.61%			0.61%	6.28%
	Cash	0.00%			0.00%		0.00%			0.00%	
Cash & Alpha Pool	Alpha Pool	3.36%			3.36%		7.24%			7.24%	
	Sub-Total	2.07%			2.07%	0.02%	4.96%			4.96%	0.05%
	Private Equity	0.60%			0.60%		10.43%			10.43%	
Private Investments	Private Credit	1.49%			1.49%		15.30%			15.30%	
i iivate iiivestiiielits	Private Real Assets	1.94%			1.94%		5.49%			5.49%	
	Sub-Total	1.32%			1.32%	6.66%	9.78%			9.78%	20.27%
Liquid	dating	-4.58%			-4.58%		-0.35%			-0.35%	
Total		1.85%	1.49%	0.71%	1.94%	4.84%	9.57%	1.49%	0.71%	9.66%	14.11%

Annualized Standard Deviation



Annualized Standard Deviation

Performance - Best/Worst (Absolute)

The total NAV as of May 31st 2014 is \$1,015,479,958



One Month Performance

· Sub-Asset Class : Best Performing

Sub-Asset Class	Asset Class	May Perf	ormance
oud Asset Glass	About Glass	\$	%
Global Equity	Equity	3,115,095	4.02%
Emerging Markets Debt	Debt	2,427,448	3.66%
Non US EM Equity	Equity	1,836,266	2.60%

Sub-Asset Class: Worst Performing

Sub-Asset Class	Asset Class	May Performance		
oub-Asset olass	Asset Olass	\$	%	
Liquid Real Assets	Liquid Real Assets	(279,438)	-1.00%	
Credit	Debt	0	0.00%	
Alpha Pool	Cash & Alpha Pool	1,368,118	0.84%	

Trailing Three Month Performance

• Sub Asset Class : Best Performing

Sub-Asset Class	Asset Class	Perform	nance
Sub-Asset Glass	ASSEL CIASS	\$	%
Non US EM Equity	Equity	4,778,316	7.06%
Emerging Markets Debt	Debt	3,973,930	6.54%
Non US Developed Equity	Equity	1,535,361	1.33%

· Sub Asset Class: Worst Performing

Sub-Asset Class	Asset Class	Performance		
Sub-Asset Glass	Asset Class	\$	%	
Alternative Equity	Equity	(3,239,037)	-7.18%	
Credit	Debt	(326,669)	-1.38%	
Global Equity	Equity	(580,073)	-0.71%	

Performance - Best/Worst (Relative)

One Month Performance

• Sub-Asset Class : Best Performing

Sub-Asset Class	Asset Class	May Relative Return
Sub-Asset Class	ASSEL CIASS	%
Global Equity	Equity	1.81%
Emerging Markets Debt	Debt	0.46%
Non US Developed Equity	Equity	0.25%

· Sub-Asset Class: Worst Performing

Sub-Asset Class	Asset Class	May Relative Return
Sub-Asset Class	ASSEL CIASS	%
Liquid Real Assets	Liquid Real Assets	-1.69%
US Equity	Equity	-1.36%
Credit	Debt	-1.14%

Trailing Three Month Performance

· Sub Asset Class : Best Performing

Sub-Asset Class	Asset Class	Relative Return
Sub-Asset Class	ASSEL CIASS	%
Alpha Pool	Cash & Alpha Pool	1.49%
Emerging Markets Debt	Debt	0.41%
Non US Emerging Markets Equity	Equity	-0.05%

Sub Asset Class: Worst Performing

Sub-Asset Class	Asset Class	Relative Return
		%
Alternative Equity	Equity	-10.93%
Global Equity	Equity	-4.46%
US Equity	Equity	-4.33%

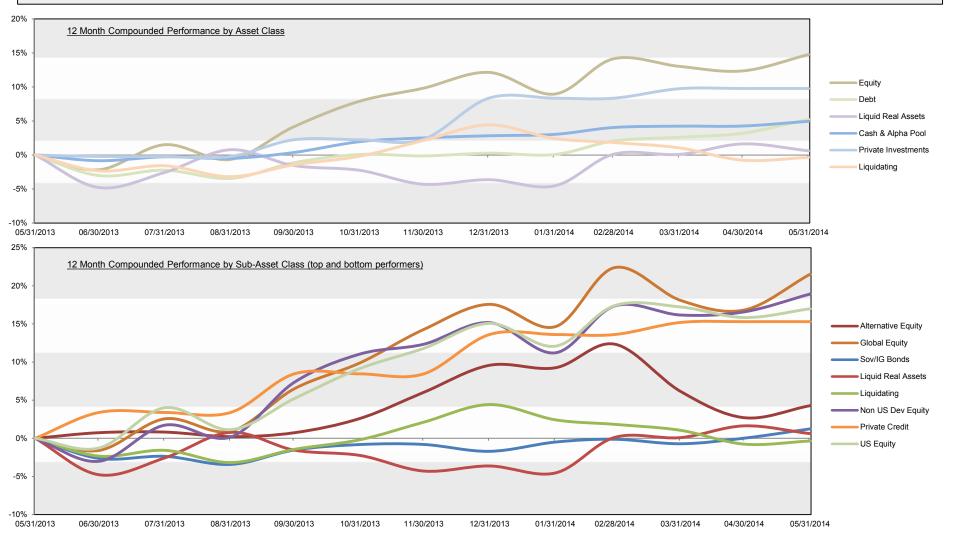
TEXAS TECH UNIVERSITY SYSTEM

Asset Class & Sub Asset Class Twelve Month Performance

Commentary

- May was a largely positive month for equity and fixed income markets. Economic data for May met or exceeded expectations, and perceived geopolitical risk in Ukraine and Thailand seemed to fade.
- Central banks were also at the forefront of positive sentiment in markets, as the European Central Bank cut the official policy rate to 0.15%, and announced a negative deposit rate of -0.1%.
- Emerging markets outperformed developed markets.
- Unemployment in the US dropped to 6.3%, with 217k jobs added in May. UK unemployment also decreased, with the jobless rate the lowest since 2008.
- European Union Quarter 1 growth disappointed at 0.2% Quarter on Quarter, and Purchasing Managers Index declined but stayed above 50.
- The International Monetary Fund forecasted global growth of 3.6% for 2014, up from 3% in 2013.

Source - JP Morgan



Risk Profile (VaR)

- The Texas Tech portfolio has a 5% chance of losing \$42 million (or more) in a month with a 1% chance of losing \$63 million (or more) in a month based on observed portfolio volatility.
- Non US Emerging Markets Equity, Private Real Assets and Emerging Market Debt have generated the lowest risk adjusted returns.
- The Texas Tech portfolio exhibits less value at risk than the policy portfolio and a 60/40 portfolio.

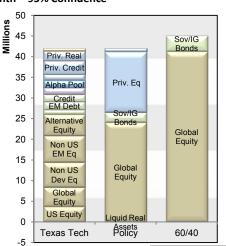
Value at Risk – One Month – 95% Confidence

Sub Asset Classes with large Value at Risk:

Sub-Asset Class	5 % chance of losing
Non US Emerging Markets Equity	6,477,070
Non US Developed Equity	5,978,266
Alternative Equity	5,095,800

Sub Asset Classes with small Value at Risk:

Sub-Asset Class	5 % chance of losing \$
Sovereign/Investment Grade Bonds	1,191,220
Private Equity	1,565,739
Credit	1,687,277

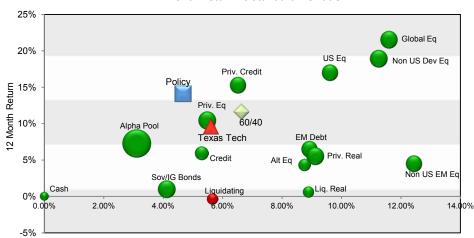


Risk Profile



- Alpha Pool, Private Equity and Private Credit have provided the highest risk adjusted returns.
- Non US Emerging Market Equity, Private Real Assets and Emerging Market Debt have generated the lowest risk adjusted returns.

12 Month Return vs Standard Deviation



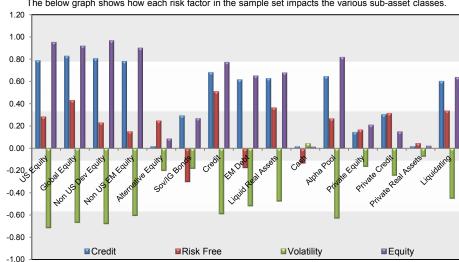
Annualized Standard Deviation

Factor Analysis

- The model analyses historical returns of the portfolio against the returns and volatility of key indicators:
 - Credit is benchmarked against the High Yield North American CDX Index.
 - Risk-Free is benchmarked against the US 10 Year Treasury Bond.
 - Volatility is benchmarked against the VIX Index.
 - Equity Markets is benchmarked against the MSCI AC World IMI (Gross).
- The model shows that performance and volatility of both the Texas Tech portfolio and a 60/40 portfolio are well explained by the 4 factor model.
- The Texas Tech portfolio exhibits a lower correlation to the Equities and Credit markets than the 60/40 portfolio and a higher correlation to the risk free index.
- The model shows that Investment Grade Bonds and Private Real Assets look like a good hedge on the Equity markets.

Portfolio	Credit	Risk Free	Volatility	Equity	R ²
Texas Tech	0.79	0.31	-0.72	0.93	0.84
60/40	0.81	0.18	-0.69	0.99	0.84
Policy	0.76	0.21	-0.65	0.95	0.80

The below graph shows how each risk factor in the sample set impacts the various sub-asset classes.



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

31st May 2014

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Three Month Performance



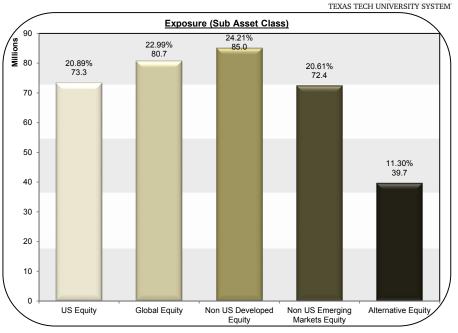
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Overview and Risk Profile by Asset Class

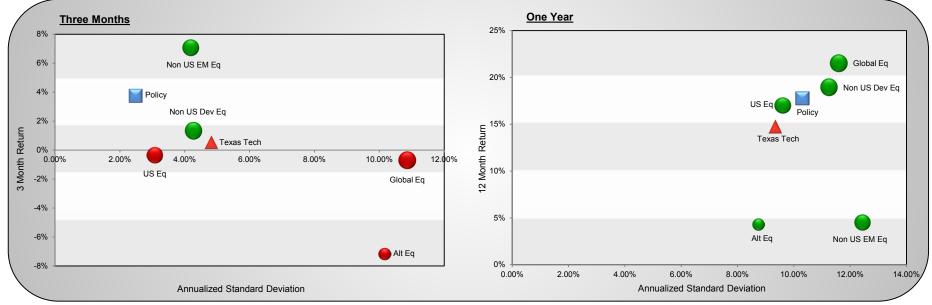
Commentary Source - JP Morgan

- Globally, equities again produced positive returns for the month of May.
- Emerging Market equities outperformed developed markets. Latin America lagged in the emerging markets in the terms of performance.
- Japanese and Hong Kong markets led developed markets in terms of performance.

2010	2011	2012	2013	YTD	May
MSCI Asia ex	US S&P 500	Japan TOPIX	Japan TOPIX	MSCI Europe ex	MSCI Asia ex
Japan				UK	Japan
15.60%	2.10%	20.90%	54.40%	7.90%	3.40%
US S&P 500	UK FTSE 100	MSCI Europe ex	US S&P 500	US S&P 500	Japan TOPIX
		UK			
15.10%	-2.20%	20.00%	32.40%	5.00%	3.40%
MSCI EM	MSCI Europe ex	MSCI Asia ex	MSCI Europe ex	UK FTSE 100	MSCI EM
	UK	Japan	UK		
14.40%	-12.10%	19.70%	24.20%	3.20%	2.90%
UK FTSE 100	MSCI EM	MSCI EM	UK FTSE 100	MSCI Asia ex	MSCI Europe ex
				Japan	UK
12.60%	-12.50%	17.40%	18.70%	2.80%	2.90%
MSCI Europe e	x MSCI Asia ex	US S&P 500	MSCI Asia ex	MSCI EM	US S&P 500
UK	Japan		Japan		
5.10%	-14.60%	16.00%	6.20%	2.30%	2.30%
Japan TOPIX	Japan TOPIX	UK FTSE 100	MSCI EM	Japan TOPIX	UK FTSE 100
1.00%	-17.00%	10.00%	3.80%	-6.80%	1.40%



Risk vs. Return (Sub Assets)



^{*}Performance is calculated using time weighted Cash on Cash returns. This is an industry standard and allows direct comparison between manager returns and policy returns.

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Overview and Risk Profile by Asset Class

Commentary

Global bond yields fell in May

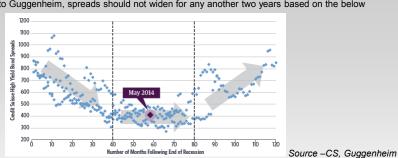
- In May, Most major developed markets saw a decrease in 10 year government bond yields.
- US 10yr yield declined 17bps to 2.48%.

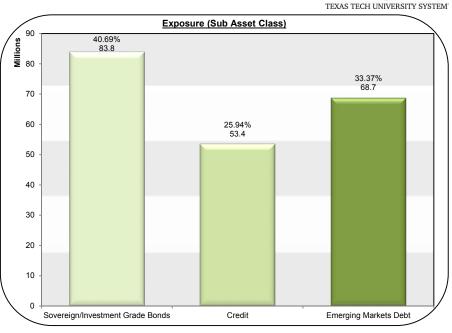
Investment Grade Bonds posted strong performance in May.

- In May, Investment Grade securities outperformed Government debt.
- High Yield led Government bonds, but lagged Investment Grade
- Emerging Market debt performance was particularly strong in May.

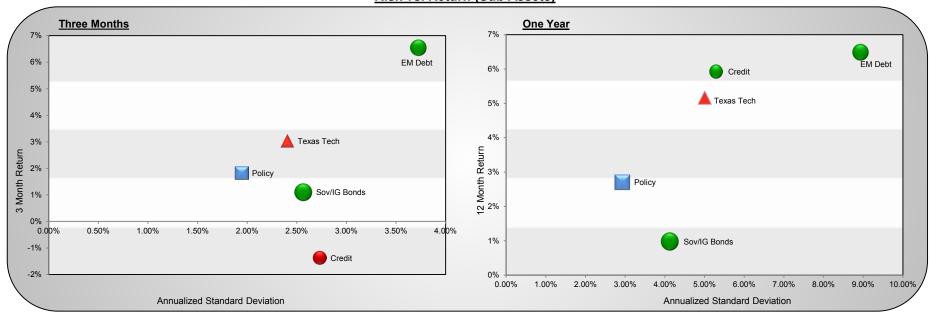
According to Guggenheim, spreads should not widen for any another two years based on the below

analysis:





Risk vs. Return (Sub Assets)



^{*}Performance is calculated using time weighted Cash on Cash returns. This is an industry standard and allows direct comparison between manager returns and policy returns.

Liquid Real Assets

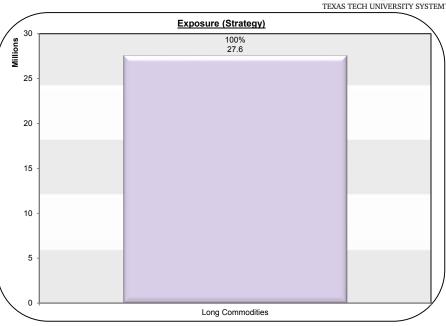
(Total NAV: \$27,564,880)

Overview and Risk Profile by Asset Class

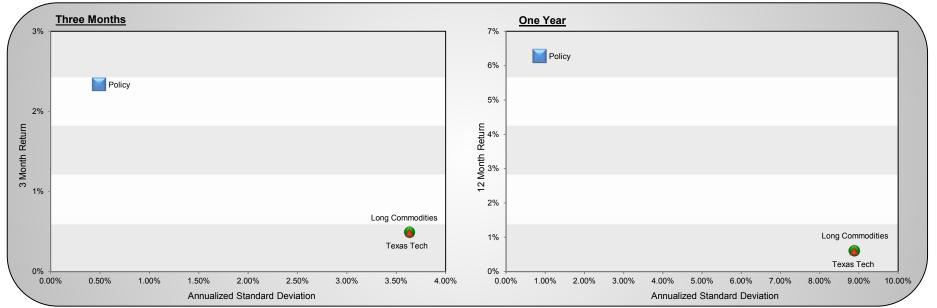
Commentary

- Commodities posted a performance decline of 2.9% in May, narrowing the year to date advantage held over
- Natural Gas prices fell 5.7% after gaining 10% in April.
- Precious metals were performance was dragged down by gold and silver, down 3.9 and 2.6% respectively.
- Infrastructure stocks gained 3.2%, as measured by the Dow Jones Brookfield Infrastructure Index.
- Rising natural liquid gas prices and demand during the unusually cold winter led to good first quarter earnings for pipeline companies.
- The precious metals sector (-3.6%) was pulled lower by gold and silver, down 3.9% and 2.6%, respectively. Investors moved away from these safe-haven assets amid more-positive leading economic indicators.
- Grains (-8.0%) mostly declined as farmers made measurable planting progress in the U.S. and as winter wheat crop conditions stabilized.

Source - Cohen & Steers



Risk vs. Return (Strategy)



*Performance is calculated using time weighted Cash on Cash returns. This is an industry standard and allows direct comparison between manager returns and policy returns.

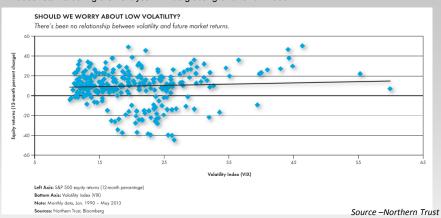
Cash & Alpha Pool

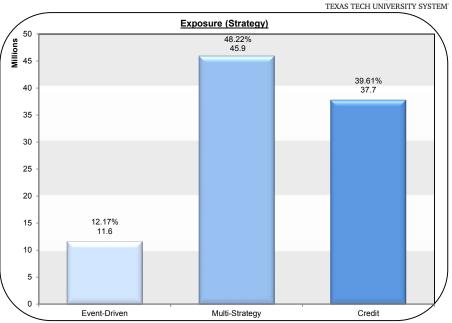
(Total NAV: \$170,579,357)

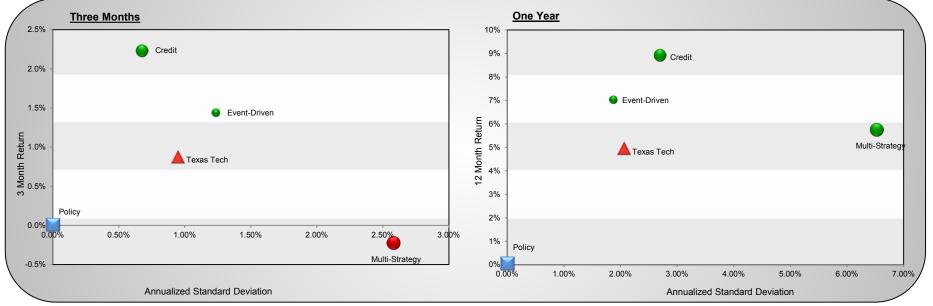




A recent article by Northern Trusts' Chief Investment Strategist includes a study that shows little
relationship between market volatility and the subsequent returns of the equity market at a time when
Investor uncertainty is at a multi year low. The article goes on to predict that the key drivers of asset
class returns during the next year will be global growth and inflation.







^{*}Performance is calculated using time weighted Cash on Cash returns. This is an industry standard and allows direct comparison between manager returns and policy returns.

Private Equity (Total NAV: \$81,312,429)

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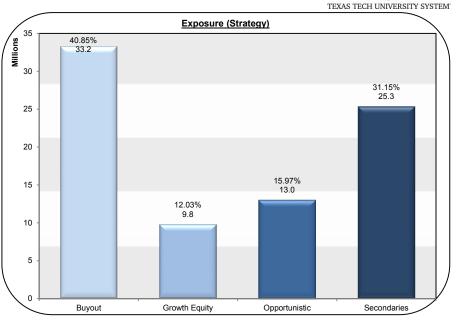
Overview and Risk Profile by Asset Class

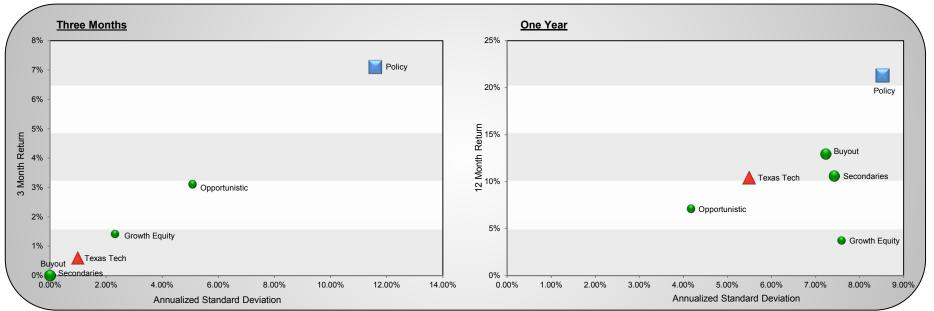
Commentary

Source - Wall Street Journal

- A recent article by the Wall Street Journal shows that Private Equity dry powder reached a record high in 2013. Dry powder is defined as the amount of money raised by private equity firms but not yet invested.
- According to the article, The economic recovery is making it harder for PE firms to put money to work and achieving a high exit multiple.

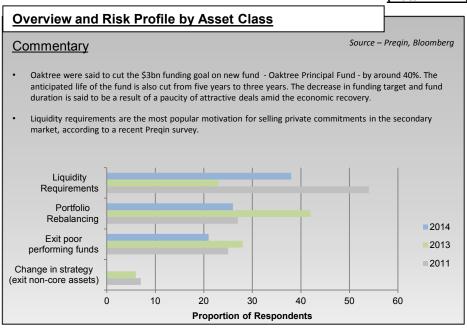
Fund Type	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Buyout	176.6	258.5	379.9	439.3	482.9	482.0	424.0	389.4	354.4	397.2
Distressed	18.5	20.4	36.7	61.0	55.5	55.9	68.1	72.1	64.5	74.3
Growth	10.7	16.4	25.5	36.7	45.9	47.5	55.2	69.7	69.8	75.9
Mezzanine	18.2	21.5	33.6	34.2	42.3	40.5	38.6	45.8	38.6	42.6
Real Estate	55.1	98.1	132.6	166.9	171.4	180.5	154.3	166.9	156.4	185.4
Venture Capital	91.4	93.0	103.0	123.6	121.3	114.8	109.5	114.5	110.9	114.4
Other	34.7	51.1	86.9	139.3	148.1	139.9	137.8	148.0	148.6	183.8
Total	405.2	559.0	798.2	1,001.0	1,067.4	1,061.1	987.5	1,006.4	943.2	1,073.6

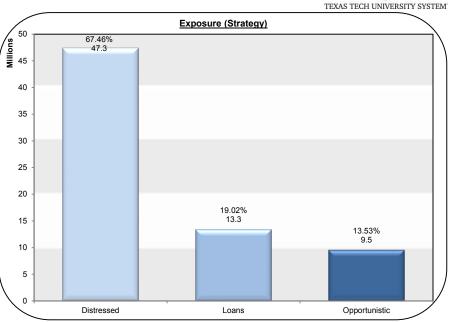


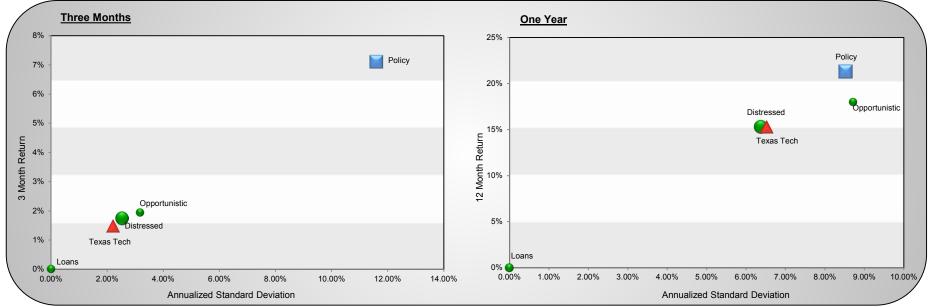


^{*}Performance is calculated using time weighted Cash on Cash returns. This is an industry standard and allows direct comparison between manager returns and policy returns. IRR returns can be seen in appendix 2.

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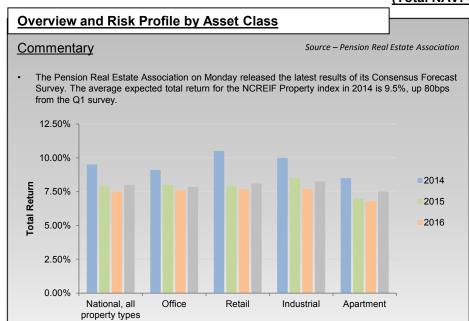


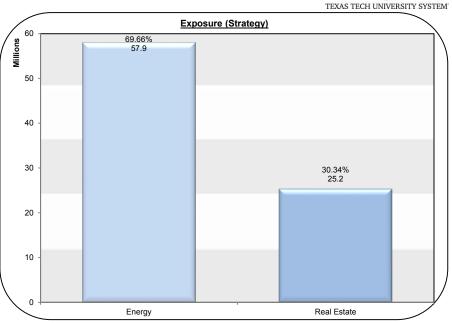


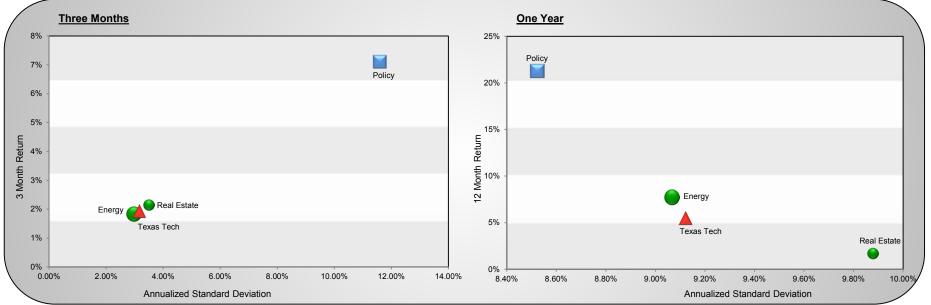
*Performance is calculated using time weighted Cash on Cash returns. This is an industry standard and allows direct comparison between manager returns and policy returns. IRR returns can be seen in appendix 2.

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(Total NAV: \$83,176,882)







*Performance is calculated using time weighted Cash on Cash returns. This is an industry standard and allows direct comparison between manager returns and policy returns. IRR returns can be seen in appendix 2.

31st May 2014

Appendix 1 - Sub-Asset Detail



Fund	Current Exposure	MTD Perf.	3 Mo. Perf.	Calendar YTD	Fiscal YTD	Nacubo YTD	1 Year Perf.	3 Year Perf.	5 Year Perf.
TOTAL	1,180,092,022	1.26%	1.02%	1.94%	10.92%	11.66%	9.66%	7.03%	9.84%
Policy		1.13%	3.67%	4.84%	13.27%	14.69%	14.11%	8.53%	11.58%
Equity	351,066,711	2.14%	0.55%	2.34%	15.53%	17.32%	14.77%	10.01%	13.12%
US Equity	73,326,279	0.99%	-0.36%	1.66%	15.68%	18.49%	16.98%	9.78%	13.71%
Benchmark: S&P 500 Total Return		2.35%	3.97%	4.97%	19.64%	22.09%	20.45%	15.15%	18.40%
Global Equity	80,693,327	4.02%	-0.71%	3.36%	20.39%	23.48%	21.51%	18.49%	10.71%
Benchmark: MSCI ACWI		2.21%	3.75%	4.49%	18.08%	21.24%	17.75%	9.58%	14.32%
Non US Developed Equity	84,991,237	2.00%	1.33%	3.26%	18.73%	22.61%	18.92%	8.83%	12.09%
Benchmark: MSCI EAFE		1.76%	2.73%	4.11%	18.26%	22.87%	18.54%	7.79%	11.92%
Non US Emerging Markets Equity	72,371,806	2.60%	7.06%	5.50%	13.43%	11.06%	4.49%	0.74%	7.46%
Benchmark: MSCI EMF		3.51%	7.11%	3.52%	12.34%	11.67%	4.61%	-1.44%	8.71%
Alternative Equity	39,684,062	1.53%	-7.18%	-4.83%	4.05%	3.52%	4.28%	26.12%	16.29%
Benchmark: MSCI ACWI		2.21%	3.75%	4.49%	18.08%	21.24%	17.75%	9.58%	14.32%
Debt	205,946,525	1.99%	3.04%	4.88%	8.91%	8.44%	5.16%	7.21%	9.97%
Sovereign/Investment Grade Bonds	83,804,684	1.21%	1.10%	2.73%	4.56%	3.71%	0.98%	3.07%	4.28%
Benchmark: Barclays Global Aggregate		1.14%	1.82%	3.87%	4.71%	4.32%	2.71%	3.55%	4.96%
Credit	53,418,359	0.00%	-1.38%	-2.14%	5.16%	7.08%	5.93%	9.76%	12.71%
Benchmark: Barclays Global Aggregate		1.14%	1.82%	3.87%	4.71%	4.32%	2.71%	3.55%	4.96%
Emerging Markets Debt	68,723,482	3.66%	6.54%	9.12%	13.98%	12.17%	6.48%	8.49%	8.92%
Benchmark: JP Morgan EM Bond Index		3.19%	6.13%	8.45%	12.36%	10.39%	4.84%	7.82%	10.59%
Liquid Real Assets	27,564,880	-1.00%	0.49%	4.40%	-0.16%	5.66%	0.61%	-8.10%	0.17%
Benchmark: CPI + 4%		0.68%	2.34%	3.78%	4.81%	5.67%	6.28%	5.87%	6.31%
Cash & Alpha Pool	335,191,421	0.67%	0.88%	2.07%	5.49%	5.84%	4.96%	4.84%	4.76%
Cash*	170,579,357	0.67%	0.88%	0.00%	5.49%	5.84%	4.96%	4.84%	4.76%
Benchmark: Citigroup 3 month Tbill		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.07%
Alpha Pool	164,612,063	0.84%	1.14%	3.36%	8.00%	8.64%	7.24%	7.21%	8.67%
Benchmark: HFRI FOF Index		1.16%	-0.35%	0.87%	6.01%	6.32%	4.84%	2.44%	4.07%
Liquidating	25,713,059	0.41%	-2.14%	-4.58%	2.92%	2.03%	-0.35%	-1.39%	4.03%

^{*}Cash is adjusted for synthetic exposures.

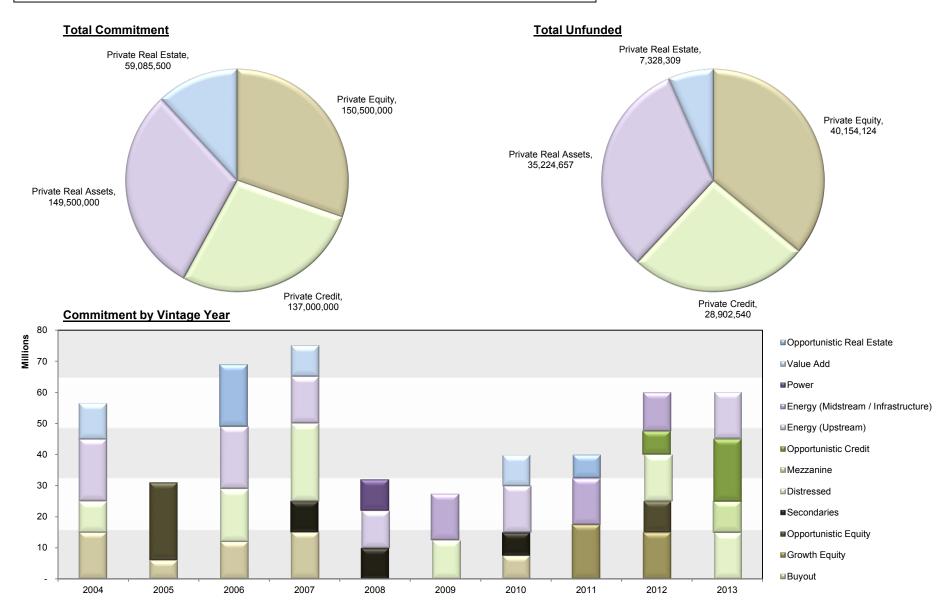
Appendix 1 - Sub-Asset Detail



Fund	Current Exposure	1 Year Performance	3 Year Performance	5 Year Performance
Private Investments	234,609,426	9.78%	9.68%	12.42%
Benchmark: Private Market Index (90% VE, 10% NCREIF)		20.27%	14.22%	9.77%
Private Equity	81,312,429	10.43%	8.94%	10.20%
Private Credit	70,120,115	15.30%	9.65%	16.63%
Private Real Assets	83,176,882	5.49%	10.30%	11.46%

Appendix 2 - Private Markets Report (as of March 31st 2014) - Total Commitment





TEXAS TECH UNIVERSITY SYSTEM

Appendix 2 - Private Markets Report (as of March 31st 2014) - Performance Analysis by Strategy Type & Asset Class

Performance by Strategy Type

Asset Class	Strategy	# of Funds	Commitment	Contributions	Distributions	% Drawn	Reported Valuation	Adjusted Valuation	IRR	МОС
Private Equity	Buyout	6	\$61,500,000	\$53,807,598	\$57,578,016	87%	\$38,128,266	\$34,733,936	14.73%	1.67
	Growth Equity	2	\$32,500,000	\$8,591,598	\$72,459	26%	\$8,660,621	\$9,592,385	3.12%	1.04
	Opportunistic	2	\$35,000,000	\$30,400,000	\$14,248,734	87%	\$18,341,240	\$18,850,510	2.16%	1.09
	Secondaries	3	\$27,500,000	\$20,542,750	\$10,345,015	75%	\$19,324,575	\$18,604,021	9.42%	1.39
	Total	13	\$156,500,000	\$113,341,946	\$82,244,224	72%	\$84,454,702	\$81,780,852	10.24%	1.41
Private Credit	Distressed	10	\$99,500,000	\$89,147,883	\$80,184,481	90%	\$46,327,934	\$47,624,854	13.11%	1.43
	Mezzanine	1	\$10,000,000	\$1,603,725	\$578,416	16%	\$1,761,263	\$1,825,549	11.89%	1.13
	Opportunistic	2	\$27,500,000	\$16,608,962	\$255,833	60%	\$6,044,301	\$17,500,963	8.93%	1.06
	Total	13	\$137,000,000	\$107,360,570	\$81,018,730	78%	\$54,133,498	\$66,951,366	12.97%	1.37
Private Real Assets	Upstream	7	\$112,000,000	\$93,656,468	\$115,531,468	84%	\$31,506,503	\$30,578,571	27.13%	1.53
	Midstream	3	\$42,500,000	\$27,167,828	\$20,675,858	64%	\$20,817,981	\$22,337,907	35.69%	1.52
	Power	1	\$10,000,000	\$8,231,817	\$2,997,000	82%	\$2,543,927	\$2,890,650	-17.03%	0.7
	Total	11	\$164,500,000	\$129,056,113	\$139,204,326	78%	\$54,868,411	\$55,807,128	25.84%	1.48
Private Real Estate	Value Add	3	\$31,585,500	\$28,824,135	\$22,210,443	91%	\$14,413,138	\$11,952,759	4.09%	1.18
	Opportunistic	3	\$27,500,000	\$22,790,580	\$2,936,579	83%	\$11,884,132	\$11,676,588	-9.96%	0.64
	Total	6	\$59,085,500	\$51,614,715	\$25,147,022	87%	\$26,297,270	\$23,629,347	-1.46%	0.94

Performance by Asset Class

Asset Class	# of Funds	Commitment	Contributions	Distributions	% Drawn	Reported Valuation	Adjusted Valuation	IRR	мос
Private Equity	13	\$156,500,000	\$113,341,946	\$82,244,224	72%	\$84,454,701	\$81,780,852	10.24%	1.41
Private Credit	13	\$137,000,000	\$107,360,570	\$81,018,730	78%	\$54,133,498	\$66,951,366	12.97%	1.37
Private Real Assets	11	\$164,500,000	\$129,056,113	\$139,204,326	78%	\$54,868,411	\$55,807,128	25.84%	1.48
Private Real Estate	6	\$59,085,500	\$51,614,715	\$25,147,022	87%	\$26,297,270	\$23,629,347	-1.46%	0.94
Total	43	\$517,085,500	\$401,373,344	\$327,614,302	78%	\$219,753,880	\$228,168,693	12.04%	1.36

Appendix 3 – 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

<u>Liquid Real Assets</u>: 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 3 - 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)]

<u>Capital Commitment:</u> 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

<u>Drawdown:</u> 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 3 – 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