

University of Illinois
Third Quarter 2016 Investment Update
Board Report

Reported to the Board of Trustees January 19, 2017

November 2016



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### **Market Overview and University Assets**



# Capital Markets Review September 30, 2016

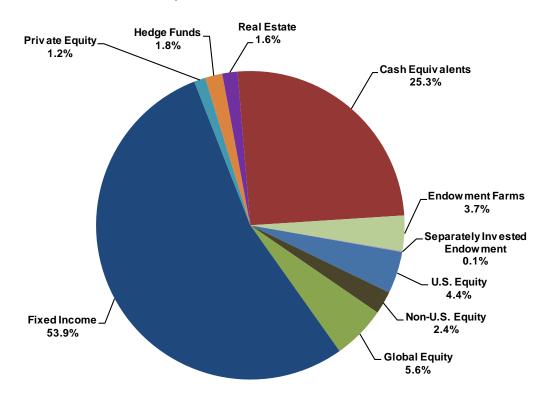
	Quarter Ending Sep-2016	Year To Date	One Year	Three Years	Five Years	Ten Years
DJ U.S. Total Stock Market Index	4.4	8.1	14.9	10.4	16.3	7.5
MSCI AC World ex USA IMI Index	7.1	6.1	9.8	0.6	6.4	2.5
MSCI AC World IMI Index	5.6	7.0	12.3	5.2	10.9	4.6
Bloomberg Barclays U.S. Aggregate	0.5	5.8	5.2	4.0	3.1	4.8
HFRI Fund Weighted Composite Index	3.0	4.2	4.9	3.2	4.4	3.8
NCREIF ODCE Index	1.8	5.8	9.1	11.4	11.3	5.0

- Global equity markets rose sharply over the quarter with all regions ending in positive territory. Initially, equities rallied with markets absorbing the UK's decision to leave the European Union and economic data pointing to a more positive environment. However, uncertainties around major central banks' policies limited the gains.
- Emerging markets were the best performer over the quarter as easing of monetary policy across developed markets helped fuel capital inflows to the region. Equity returns were supported by better than expected economic data from China over the quarter.
- Expectations of a rise in interest rates shifted the Treasury yield curve upward over the third quarter with yields rising across the maturities. The yield curve flattened over the quarter, driven by short maturity bonds rising faster than long maturity bonds. Credit spreads tightened with high yield bonds outperforming investment grade corporate bonds.
- Hedge fund performance was positive across strategies with the exception of Global Macro. Distressed-Restructuring was the best performer during the quarter.
- U.S. Core real estate returns year-to-date continued to moderate in the third quarter and are now performing back in line with the sector's long run average. Underlying real estate fundamentals began showing wider spread signs of moderating but remained generally healthy. As the supply-demand gap has now largely inverted for most property types, continued occupancy gains and outsized net operating income growth will become more challenging.



### University Assets: September 30, 2016

### University Of Illinois Endowment & Operating Assets \$2.79 Billion as of 9/30/2016





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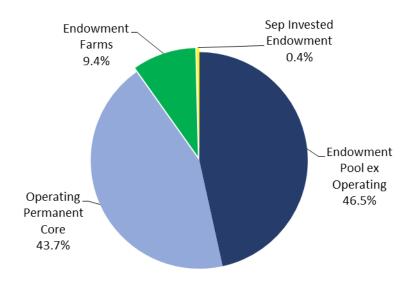


### Endowment Fund Update: September 30, 2016



# Total Endowment Assets by Type September 30, 2016

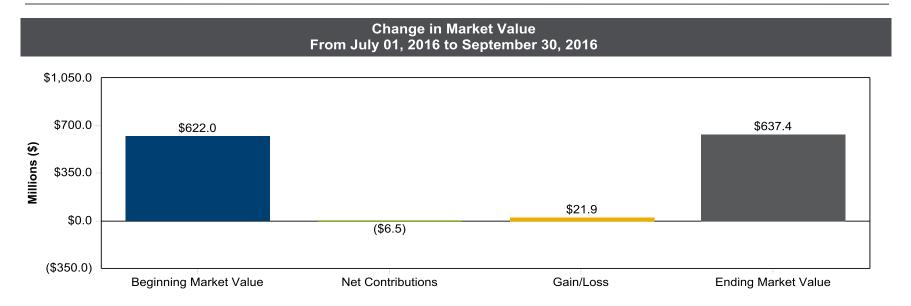
#### \$706.7 Million



- The Total Endowment Fund is valued at \$706.7 million as of September 30, 2016.
- The Operating Pool maintains a permanent core investment in the Endowment Pool (light-blue pie slice); this is a long-term investment to enhance Operating Pool returns.
- The combined Endowment Pool is valued at \$637.4 million (dark- and light- blue pie slices) and discussed further on the following pages.



#### Total Fund Asset Growth: Endowment Pool

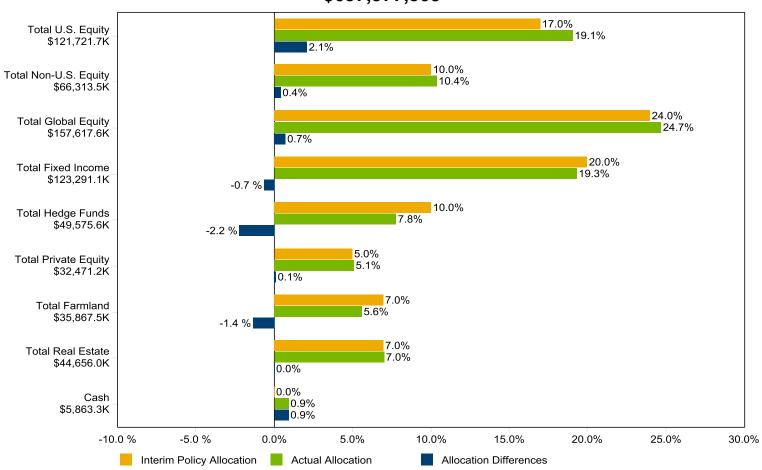


- During the third quarter ending September 30, 2016, the Endowment Pool assets increased by approximately \$15.4 million, from \$622.0 million to \$637.4 million.
- This increase was the net result of investment gains and negative fund flows. For this period, net outflows were approximately \$6.5 million, and the absolute return of 3.5% in Endowment assets resulted in investment gains of \$21.9 million.



# Market Value and Asset Allocation: Endowment Pool September 30, 2016



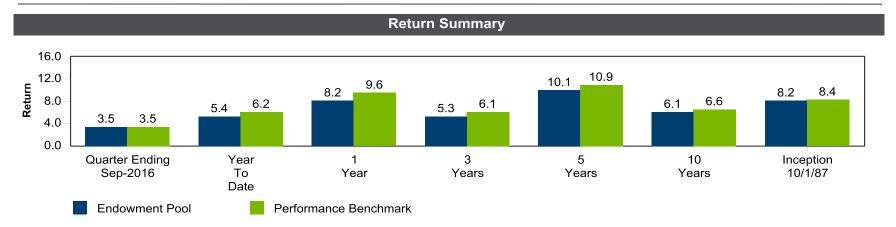


Note: Long-Term Policy Allocations: U.S. Equity 14%, Non-U.S. Equity 10%, Global Equity 24%, Private Equity 8%, Hedge Funds 10%, Fixed Income 20%, Farmland 7%, and Core Real Estate 7%



<sup>\*</sup>Total sum of actual allocations referenced in the above table may not equal 100.0% due to rounding.

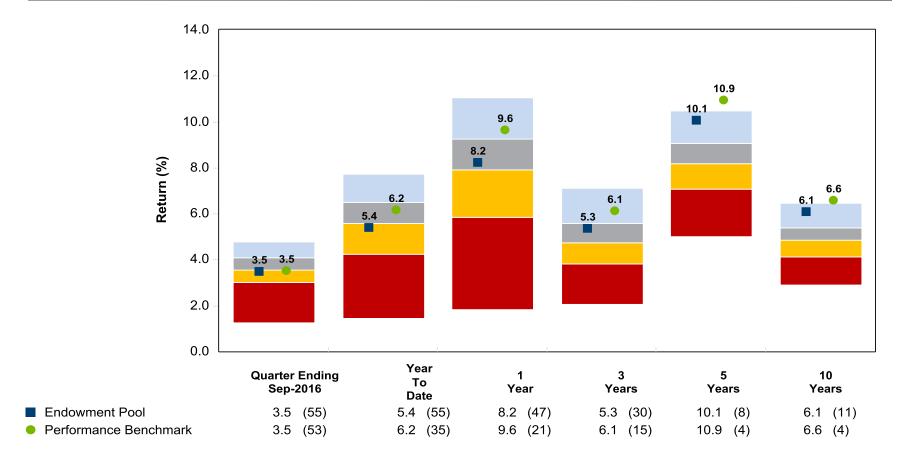
# Total Fund Performance: Endowment Pool September 30, 2016



- During the quarter ending September 30, 2016, the Endowment Pool gained 3.5 percentage points while performing inline with the benchmark.
- Below are the main drivers of the Endowment Pool's quarterly return:
  - U.S. Equity investments outperformed the Dow Jones U.S. Total Stock Market by 0.8 percentage points during the quarter, returning 5.2%.
  - On an absolute basis, public equities drove the positive absolute performance during the quarter with Non-U.S. Equity generating the highest return at 7.0%.
  - The Hedge Fund portfolio underperformed its benchmark by 1.0 percentage point during the quarter, returning 2.0%.
- Over the trailing one-year period ending September 30, 2016, the Endowment Pool returned 8.2%, relatively underperforming its benchmark.
  - The largest detractors of relative performance were U.S. Equity, Hedge Funds, and Private Equity.

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# Peer Rankings: Endowment Pool September 30, 2016



 Over the trailing one-year time period, the return of the University of Illinois's Endowment Pool ranked in the top 47% of the Investment Metrics/BNY Mellon Endowment Fund and Foundation Universe returns, and the three- and five-year returns ranked in the top 30% and 8% of the Universe, respectively.

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# Asset Class Performance: Endowment Pool September 30, 2016

	Quarter Ending Sep-	Year To Date	One Year	Three Years	Five Years	Ten Years	Since Inception	Inception Date
Endowment Pool	3.5	5.4	8.2	5.3	10.1	6.1	8.2	Oct-1987
Performance Benchmark	3.5	6.2	9.6	6.1	10.9	6.6	8.4	
Total U.S. Equity	5.2	6.5	12.7	9.3	15.9	7.4	9.0	Oct-1987
DJ U.S. Total Stock Market Index	4.4	8.1	14.9	10.4	16.3	7.5	9.3	
Total Non-U.S. Equity	7.0	6.0	9.7	0.6	6.8	1.9	5.1	Oct-1993
Non-U.S. Equity Benchmark	7.1	6.1	9.8	0.6	6.3	2.3	5.2	
Total Global Equity	5.3	7.2	11.7	4.3	-	-	8.6	Jul-2012
Global Equity Benchmark	5.6	7.0	12.3	5.3	_	_	9.4	
Total Fixed Income	0.5	5.9	5.0	4.0	4.3	5.4	7.3	Oct-1987
Bloomberg Barclays U.S. Aggregate	0.5	5.8	5.2	4.0	3.1	4.8	6.8	
Total Hedge Funds	2.0	2.2	2.7	4.3	-	-	3.8	Jun-2013
HFRI Fund Weighted Composite Index	3.0	4.2	4.9	3.2	_	_	3.1	
Total Private Equity¹	2.9	3.6	4.0	10.5	7.5	6.3	1.7	Feb-2004
Private Equity Benchmark	5.2	10.5	18.3	13.7	19.8	10.7	11.2	
Total Real Estate	1.2	7.4	12.1	14.0	-	_	14.8	Sep-2013
Real Estate Benchmark	1.0	7.6	12.3	14.3	-	-	15.1	•
Total Farmland²	0.0	-3.0	-3.0	-2.0	5.9	-	10.0	Jan-2007
NCREIF Cornbelt Index	0.0	-3.7	-3.7	2.4	10.5	_	11.4	

<sup>&</sup>lt;sup>1</sup>The combined Adams Street Partners IRR at June 30, 2016 was 9.0%.

<sup>&</sup>lt;sup>2</sup>Farmland is valued annually on June 30th. As such, the one-year return reflected above is the one-year return for Farmland as of June 30, 2016.



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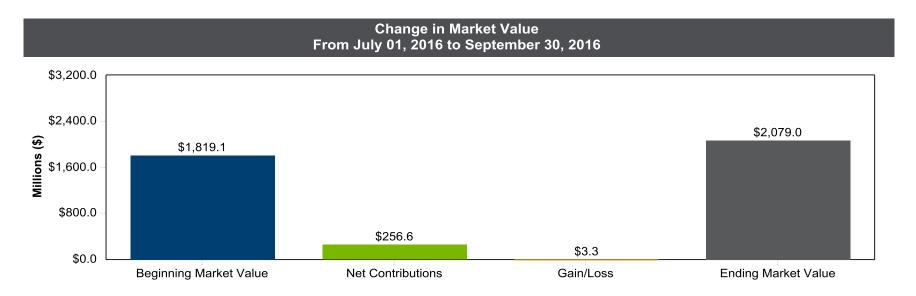




### Operating Pool Update: September 30, 2016



#### Total Fund Asset Growth: Operating Pool



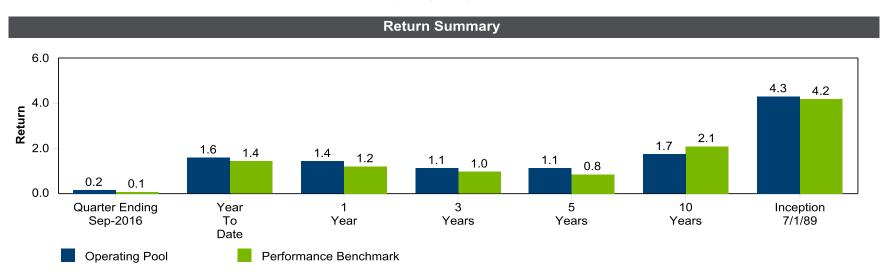
- During the third quarter ending September 30, 2016, the Operating Pool assets increased by approximately \$259.9 million, from \$1.819 billion to \$2.079 billion.
- This increase was the result of \$256.6 million in net inflows and transfers and \$3.3 million in investment gains.

Note: The Total Fund's beginning and ending market values include bank balances in which the University earns credit to offset bank fees.



# Total Fund Performance: Operating Pool September 30, 2016

#### Total Fund \$2,078,974,815



- The Operating Pool's performance during the third quarter was 0.2%, outperforming its benchmark return for this time period.
- All of the Operating Pool's managers approximated or outperformed their respective benchmarks during the quarter.

Note: Total Fund performance excludes the JP Morgan bank balance.



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## **Appendix:**

### **Market Environment**



### Market Highlights

	Retu	ırns of the Major Cap	ital Markets			
	Third Quarter	Year-to-Date	1-Year	3-Year¹	Period 5-Year¹	s Ending 09/30/201 10-Year¹
Equity	mina Quarter	T car-to-bate	1-1 Cui	J-1 car-	J-1 Cal	10-1001-
MSCI All Country World IMI	5.57%	7.00%	12.25%	5.24%	10.87%	4.63%
MSCI All Country World	5.30%	6.60%	11.96%	5.17%	10.63%	4.34%
Dow Jones U.S. Total Stock Market	4.43%	8.14%	14.93%	10.39%	16.30%	7.49%
Russell 3000	4.40%	8.18%	14.96%	10.44%	16.36%	7.37%
S&P 500	3.85%	7.84%	15.43%	11.16%	16.37%	7.24%
Russell 2000	9.05%	11.46%	15.47%	6.71%	15.82%	7.07%
MSCI All Country World ex-U.S. IMI	7.05%	6.08%	9.81%	0.62%	6.38%	2.47%
MSCI All Country World ex-U.S.	6.91%	5.82%	9.26%	0.18%	6.04%	2.16%
MSCIEAFE	6.43%	1.73%	6.52%	0.48%	7.39%	1.82%
MSCI EAFE (Local Currency)	6.04%	-1.61%	4.62%	5.30%	11.21%	2.20%
MSCI Emerging Markets	9.03%	16.02%	16.78%	-0.56%	3.03%	3.94%
Fixed Income	5.55,7				5.557	
Bloomberg Barclays Global Aggregate	0.82%	9.85%	8.83%	2.13%	1.74%	4.26%
Bloomberg Barclays Aggregate	0.46%	5.80%	5.19%	4.03%	3.08%	4.79%
Bloomberg Barclays Long Gov't	-0.29%	14.61%	13.02%	11.07%	5.48%	7.97%
Bloomberg Barclays Long Credit	2.26%	16.50%	15.73%	9.53%	7.05%	7.63%
Bloomberg Barclays Long Gov't/Credit	1.24%	15.74%	14.66%	10.08%	6.32%	7.84%
Bloomberg Barclays US TIPS	0.96%	7.27%	6.58%	2.40%	1.93%	4.48%
Bloomberg Barclays High Yield	5.55%	15.11%	12.73%	5.28%	8.34%	7.71%
Citi Group Non-U.S. WGBI	0.60%	14.18%	12.61%	1.21%	0.24%	3.94%
JP Morgan EMBI Global (Emerging Markets)	3.73%	15.04%	16.82%	7.44%	7.42%	7.62%
Commodities						
Bloomberg Commodity Index	-3.86%	8.85%	-2.59%	-12.35%	-9.37%	-5.33%
Goldman Sachs Commodity Index	-4.15%	5.30%	-12.21%	-22.16%	-12.61%	-9.04%
Hedge Funds						
HFRI Fund-Weighted Composite <sup>2</sup>	2.97%	4.21%	4.95%	3.17%	4.43%	3.78%
HFRI Fund of Funds <sup>2</sup>	2.44%	-0.20%	0.52%	2.17%	3.17%	1.78%
Real Estate						
NAREIT U.S. Equity REITS	-1.43%	11.75%	19.86%	14.22%	15.91%	6.35%
NCREIF NFI - ODCE <sup>3</sup>	2.05%	6.50%	10.06%	12.42%	12.38%	6.01%
Private Equity						
Burgiss Private iQ Global Private Equity4	-0.47%	-0.47%	4.30%	10.74%	9.96%	10.12%
Infrastructure			40.000		4.0.00	
Macquarie Global Infrastructure - North America	-1.94%	22.63%	18.63%	9.74%	10.88%	7.85%

MSCI Indices shownet returns.

All other indices show total returns.



<sup>&</sup>lt;sup>1</sup> Periods are annualized.

<sup>&</sup>lt;sup>2</sup> Latest 5 months of HFR data are estimated by HFR and may change in the future.

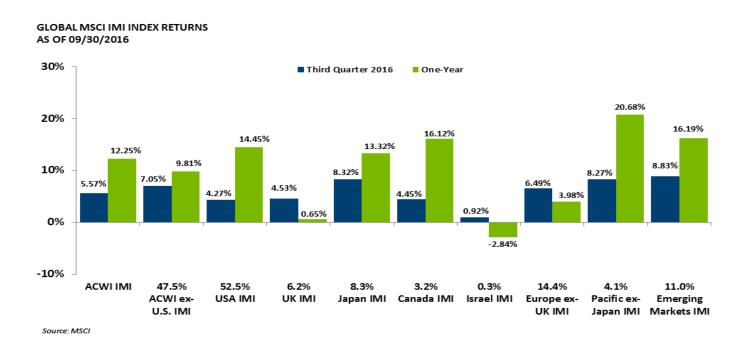
<sup>&</sup>lt;sup>3</sup> Third quarter results are preliminary and gross of fees.

<sup>&</sup>lt;sup>4</sup> Source: Burgiss Private iQ. Benchmark is as of 03/31/2016

#### Market Highlights



#### **Global Equity Markets**

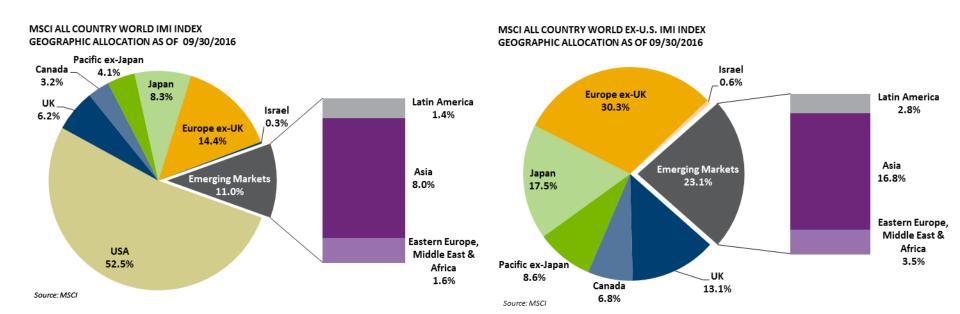


- Global equity markets rose sharply over the quarter with all regions ending in positive territory. Initially, equities rallied with markets absorbing the UK's decision to leave the European Union and economic data pointing to a more positive environment. However, uncertainties around major central banks' policies limited the gains.
- Global equity markets returned 5.57% in Q3 2016. Emerging markets was the best performer with a return of 8.83% over the quarter as easing of monetary policy across developed markets helped fuel capital inflows to the region. Equity returns were supported by better than expected economic data from China over the quarter.

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Note: Percentages along the bottom of the graph show the proportion of the sub-index within the ACWI IMI Index.

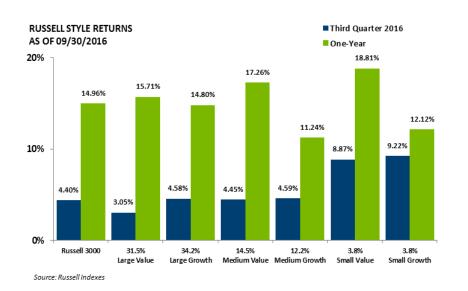
#### **Global Equity Markets**

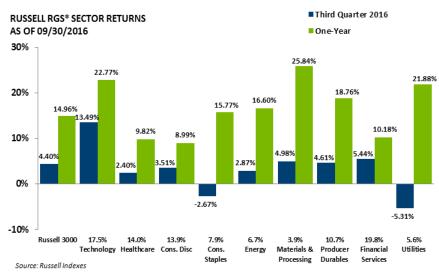


The two exhibits on this slide illustrate the percentage that each country/region represents of the global equity market as measured by the MSCI All Country World IMI Index and the MSCI All Country World ex-U.S. IMI Index.



#### U.S. Equity Markets



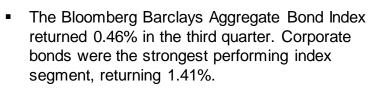


- The Russell 3000 Index returned 4.40% during the third quarter and returned 14.96% over the one-year period.
- Performance across the market capitalization spectrum was positive over the quarter. Small cap stocks outperformed the other segments in growth and value stocks. Growth stocks outperformed value stocks across the capitalizations.
- During the third quarter, the technology sector was the strongest performer, posting returns of 13.49%. The utilities
  and consumer staples sectors were the weakest performers, producing returns of -5.31% and -2.67%, respectively.



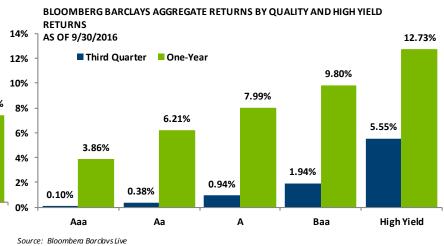
#### U.S. Fixed Income Markets

#### **BLOOMBERG BARCLAYS AGGREGATE RETURNS BY SECTOR** AS OF 9/30/2016 10.0% 8.56% 9.0% ■ Third Quarter ■ One-Year 8.0% 7.0% 6.0% 5.19% 5.22% 5.0% 4.00% 3.61% 4.0% 3.0% 2.16% 1.41% 2.0% 0.60% 0.59% 0.46% 1.0% 0.20% 0.0% -1.0% -0.25% 44.1% 26.0% 27.7% 0.5% 1.7% **Bloomberg** ABS **CMBS** Barclays Agg. Gov't Corp. MBS

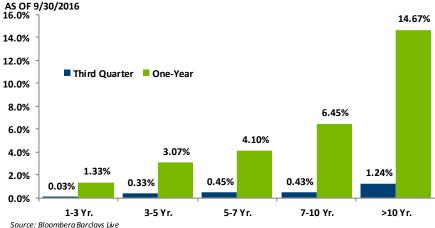


**Bond** Source: Bloomberg Barclays Live

- High yield bonds outperformed investment grade corporate bonds.
- Longest duration bonds outperformed all other bonds in different maturities.

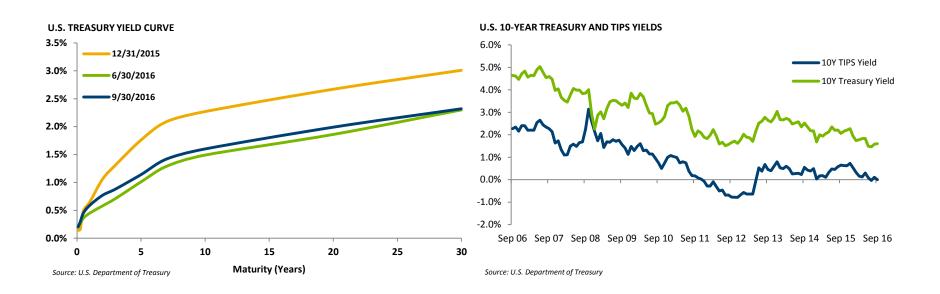








#### U.S. Fixed Income Markets



- The Treasury yield curve shifted upward over the third quarter with yields rising across the maturities. The yield curve flattened over the quarter, driven by short maturity bonds rising faster than long maturity bonds.
- Expectations of a rise in interest rates drove the yields higher.
- The 10-year U.S. Treasury yield ended the quarter at 1.60%, 11 basis points higher than its level at the beginning of the quarter.
- The 10-year TIPS yield fell by 9 basis points over the quarter and ended the period at 0.00%.



#### **Credit Spreads**

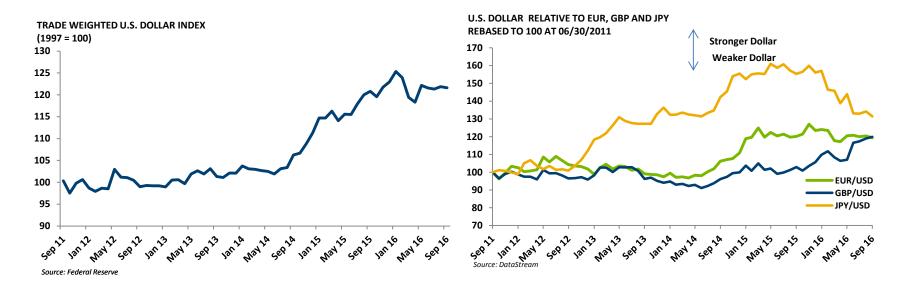
Spread (bps)	9/30/2016	6/30/2016	9/30/2015	Quarterly Change (bps)	1-Year Change (bps)
U.S. Aggregate	47	55	59		-12
Long Gov't	3	3	4	0	-1
Long Credit	195	215	230	-20	-35
Long Gov't/Credit	118	130	143	-12	-25
MBS	14	27	31	-13	-17
CMBS	84	98	108	-14	-24
ABS	55	61	69	-6	-14
Corporate	138	156	169	-18	-31
High Yield	480	594	630	-114	-150
Global Emerging Markets	299	345	418	-46	-119

Source: Bloomberg Barclays Live

- During the third quarter, credit spreads fell across all areas of the bond market with the exception of Long-Term Government bonds.
- High yield spreads fell by 114 basis points, the most over the quarter. Global Emerging Markets and Long Credit spreads followed, falling by 46 and 20 basis points, respectively.



#### Currency

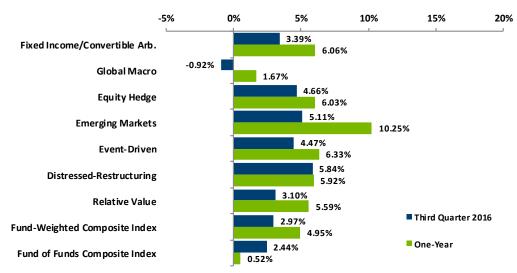


- As measured through the broad trade weighted U.S. dollar index, the U.S. dollar was almost flat over the quarter.
- The U.S. dollar appreciated sharply against the pound but depreciated against the euro and the yen. The pound weakened on confirmation of Brexit and after the Bank of England (BOE) lowered its official rates to 0.25% (the first change since March 2009). As for the yen, a pick up in risk aversion and an unchanged stance in monetary policy by the Bank of Japan increased the demand for yen, strengthening the currency against the dollar.



#### Hedge Fund Markets Overview

#### HEDGE FUND PERFORMANCE AS OF 09/30/2016



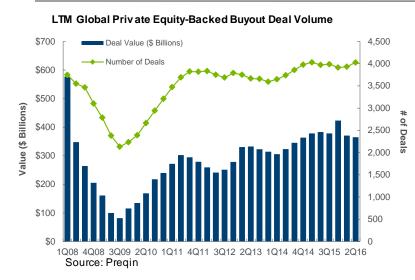
Note: Latest 5 months of HFR data are estimated by HFR and may change in the future.

Source: HFR

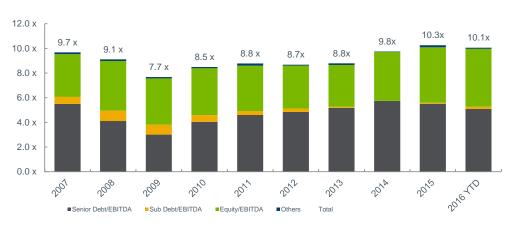
- Hedge fund performance was positive across strategies with the exception of Global Macro.
- The HFRI Fund-Weighted Composite Index and the HFRI Fund of Funds Composite Index produced returns of 2.97% and 2.44%, respectively, during the quarter.
- Distressed-Restructuring was the best performer, with a return of 5.84% in the third quarter.



#### **Private Equity Market Overview**



#### Purchase Price Multiples - All Transactions Sizes



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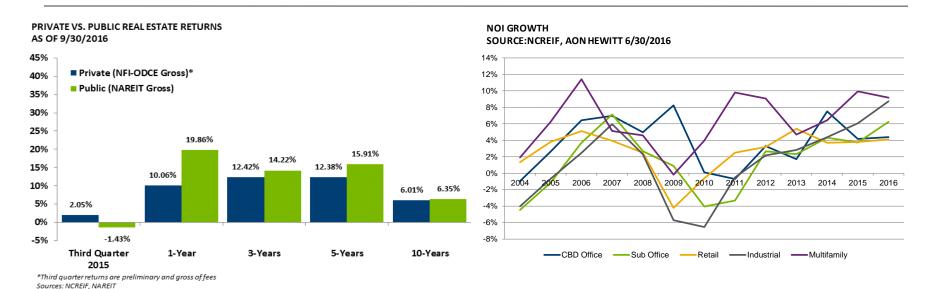
Source: S&P

- In Q2 2016, \$130.9 billion was raised by 250 funds, which was down 25.7% and 16.4% on a capital basis compared to the prior quarter and the same period last year, respectively.
  - Over the last twelve months, private equity fundraising totaled \$478.1 billion, which was up 4.0% quarter-over-quarter and remained well above the five-year annual average of \$395.5 billion<sup>1</sup>.
  - Dry powder was up 4.7% compared to Q1 2016's peak of \$1.1 trillion and remained well above the five-year average level of \$910.4 billion<sup>1</sup>.
- Global private equity-backed buyout deals totaled \$89.5 billion in the second quarter, which was up 79.8% and 8.8% from the prior quarter and the five-year quarterly average, respectively<sup>1</sup>.
  - Over the last twelve months, 4,028 deals were completed as of Q2 2016 for an aggregate deal value of \$364.8 billion compared to 3,931 transactions totaling \$370.7 billion at Q1 2016<sup>1</sup>.
  - Second quarter entry multiples for all buyout transaction sizes stood at 10.1x EBITDA, down from 10.5x as of the end of Q1 2016. Both large cap and middle-market purchase price multiples decreased quarter over quarter.
  - Middle-market purchase price multiples matched their lowest quarterly level since Q3 2012 (7.2x EBITDA) and stood at 8.2x through 1H 2016<sup>2</sup>.

Sources: 1 Pregin 2 Standard & Poors

Notes: LTM: Last twelve months (trailing twelve months); PPM: Purchase Price Multiples: Total Purchase Price /EBITDA.

#### U.S. Commercial Real Estate Market



- U.S. Core real estate returned 2.05%\* this quarter, which is roughly inline with the second quarter and the sector's long run average.
- The income return (+1.12%) again outpaced appreciation (+0.94%) illustrating our expectation that net income growth will be a larger driver of returns at this mature point in the real estate cycle.
- The U.S. REIT sector fell 1.4% in the third quarter (FTSE NAREIT Equity REIT Index), resulting in a still robust 11.8% gain year-to-date ending September 30, 2016. U.S. REITs ended the quarter trading at an approximate 7% premium to net asset values. Public valuations remained above private valuations largely due to sector's perceived defensive characteristics and their attractive dividends.
- Underlying real estate fundamentals began showing wider spread signs of moderating but remained generally healthy. As the supplydemand gap has now largely inverted for most property types, continued occupancy gains and outsized net operating income growth will become more challenging.



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## **Explanatory Notes**



#### **Explanatory Notes**

<u>Note:</u> Market values are used in this report to calculate performance for the Endowment and Operating pools. Market values reflect trade date accounting provided by the custodial bank Northern Trust.

<u>Peer Universe Comparison Floating Bar Chart</u>: In this chart, the universe returns are shown in percentiles, with the lowest percentile/rank representing the best performance in that time period. The shaded blocks shown for each time period represent the range of returns in the peer universe from the 95<sup>th</sup> percentile to the 5<sup>th</sup> percentile. Returns below the red boxes fall in the worst 5 percent for that period, and returns above the light-blue boxes fall in the top 5 percent. The Investment Metrics/BNY Mellon Universe includes reported performance from 398 Endowment and Foundations. The average market value within the Endowment and Foundations universe was \$861.1 million as of quarter-end.

