



PORTFOLIO REVIEW

3Q17

Littleton Public Schools

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Prepared by: Thomas Martin

Our History

- Founded in 1996 by Richard Todd and Wendy Dominguez who lead the firm today
- Independent, privately held and employee-owned
- SEC Registered Investment Advisor
- Currently more than \$18 billion in firm assets*

Our Professionals

- 46 employees
- Long-term relationships with top tier managers, vendors, and service providers
- 94% employee retention rate
- Demonstrated ability to hire and retain top quality talent

Alignment of Interest with Our Clients

- 99% client retention
- Conflict-free, independent and objective advocate
- A consistent investment philosophy since the firm's inception
- A client-centered, risk-focused, and performance-driven culture
- Year-over-year revenue growth 19 of the last 20 years
- 2016 Client Survey Results: *Overall Client Satisfaction 4.7* (5-point Scale)

Award-Winning Team

- Innovest named one of the Best Places to Work in the nation, 2016, 2014, *Pensions & Investments*
- Innovest ranked *Forbes* #3 Fastest Growing RIA Firms
- Ranked #1 among 2015 Investment Managers in Colorado**
- Recognized for 403(b) Plan Conversion Campaign, 2016, The Eddy Awards
- Finalist for the Colorado Top Company Award, 2015, *ColoradoBiz*
- Top 100 Wealth Managers in the nation, 2015, *Forbes*
- 2014 Retirement Plan Adviser Team of the Year, *PLANSPONSOR*
- 19th Fastest Growing RIA in the nation, 2015, *Financial Advisor*

Fiduciary Expertise

- One of the first investment firms in the Rocky Mountain region rooted in prudent fiduciary principles
- Accreditations through Investment Management Consultants Association and Center for Fiduciary Studies
- Process-oriented approach with a focus on investment and spending policies
- Expert Witness in nearly 60 cases involving fiduciary investment responsibilities
- Numerous fiduciary certifications: AIF™, AIFA™, CIMA®, CFA, QPFC, RF™, RPS

Money Management Experience

- 7 member Investment Committee with median experience of nearly 20 years
- Partners have more than 25 years of experience managing large pension and foundation portfolios
- Disciplined and opportunistic approach to forward-looking portfolio design
- Experts in many investment strategies: active, passive, hedge funds, and other alternatives
- Emphasis on downside risk quantification in developing portfolio design

Client Access and Transparency

- Direct access to Innovest's investment and operational heads at all times
- Routine access to closed products, waived investment minimums, lower product fees, and socially responsible mandates
- Customized asset allocation, benchmarking and reporting

Diverse Client Base

- 250+ clients in 21 states
- Retirement Plans
- Foundations, Endowments and Nonprofits
- Wealthy Families

*As of October 2017

***Denver Business Journal* – assets under management as of 10/1/16

INNOVEST'S HISTORY WITH LITTLETON PUBLIC SCHOOLS

2014-2017

- Signed contract between LPS and Innovest Portfolio Solutions, LLC in the 4th Quarter of 2014
- Negotiated new contract with TIAA after RFI process
- Assisted with conversion
- Created new investment menu
- Coordinated the education efforts of the rollout
- Designed custom model portfolios as education tool for asset allocation.
- Replaced money market fund due to money market reforms.
- Replaced Blackrock Mid Cap Value fund with Vanguard Selected Value fund.

RETIREMENT PLAN TOPICS AND TRENDS

Highlighting the retirement plan regulatory and legislative environment

Diversification in Plan Offerings

- Recent lawsuits concerning retirement plans have been about a large number of existing offerings that confused employees.
- However, offering a diverse lineup is also important.
 - To qualify for ERISA 404(c), the investment alternatives offered in a plan must provide participants the opportunity to diversify their individual accounts so as to minimize the risk of large losses and to materially affect the potential return and degree of risk of a participant's portfolio
 - Each option must be diversified, offer risk/return characteristics different from the others, and offer diversification for a participant's overall portfolio when combined

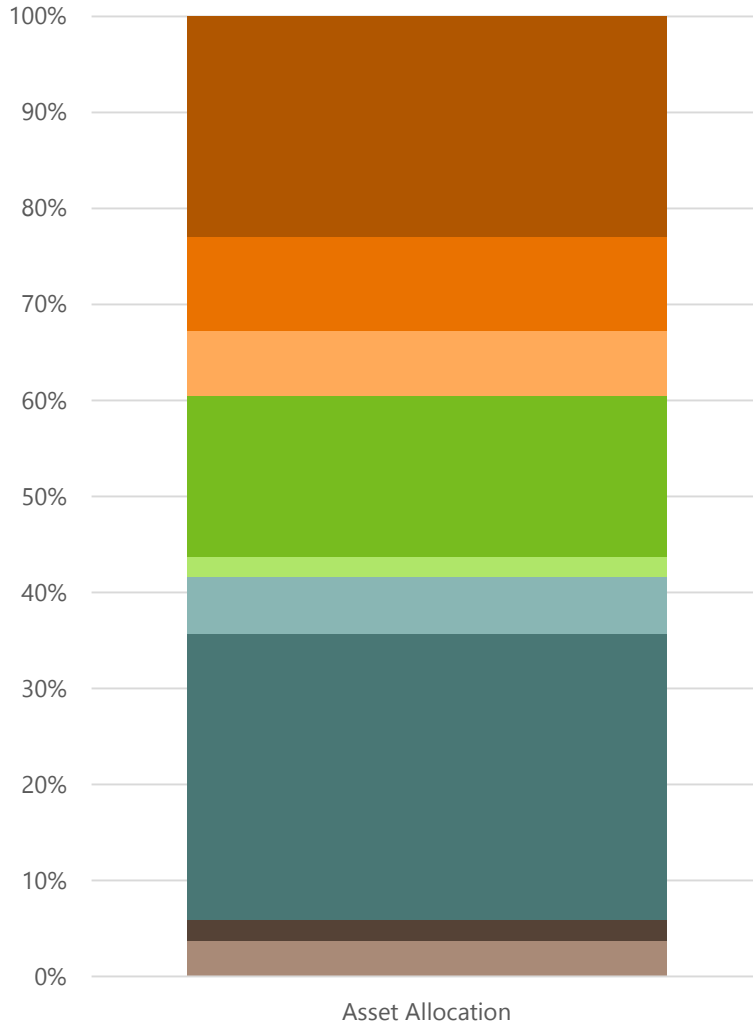
Diversification in Plan Assets

- Plan assets are becoming concentrated in asset allocation products.
 - Approximately \$0.50 of every \$1.00 contributed is invested in target date funds¹
 - These products provide proper diversification with minimal decisions made by participants, if properly used

¹Vanguard Defined Contribution Plans - 2016 plan contributions
Vanguard Center for Investor Research, February 2017

RETIREMENT PLAN TOPICS AND TRENDS

Highlighting the retirement plan regulatory and legislative environment



Callan DC Index™ Asset Allocation

As of June 30, 2017

U.S. Large Cap	23.0%
U.S. Small/Mid Cap	9.7%
International Equity	6.8%
Fixed Income	16.8%
Money Market	2.0%
U.S. / Global Balanced	6.0%
Target Date Funds	29.8%
Brokerage Window	2.2%
Specialty	3.7%

The Callan DC Index™ is an equally weighted index tracking the cash flows and performance of nearly 90 plans, representing more than one million DC participants and over \$135 billion in assets. The Index is updated quarterly.

LITTLETON PUBLIC SCHOOLS 401(A) PLAN SUMMARY

	Current Structure	Considerations and Next Steps
Plan Provisions	<ul style="list-style-type: none"> • Plan Type: 401(a) • Vesting Schedule: Immediate • Eligibility Requirements: Employment • Roth: N/A • Safe Harbor: N/A • Normal Retirement Age: 65 years 	
Governance	<ul style="list-style-type: none"> • IPS Updated: March 2017 • Governance Documents: • Plan Documents: Established April 2, 1996, Amended and effective July 1, 2012 • Fiduciary Education: • Recordkeeper Contract: TIAA, May 13, 2006, amended 2015 • Innovest Contract: December 2014 	<ul style="list-style-type: none"> • Fiduciary Education
Contributions	<ul style="list-style-type: none"> • Contribution Rate: Dependent on employee classification: Superintendent – Per annual employment contract; Superintendent staff: 2.5% + \$7,496.64; Administrators: 2.5% + \$1,300; Administrative Staff 2.5%; Technical support 2.0% • Match Provision: N/A • Enrollment: Mandatory • Automatic Enrollment: N/A • Auto-Escalation: N/A 	
Distributions	<ul style="list-style-type: none"> • Loans: No • Hardships: No • Installments: Yes • In-Service Withdrawals: No 	
Costs	<ul style="list-style-type: none"> • Fee Leveling: No, fee 0.42% - excess revenue sharing sent to Revenue Credit Account • Annual Plan Fee Analysis: December 2016 • Competitive Pricing April 2015 • Other Fees: Brokerage fees • Share Class Review: March 2017 	
Investments	<ul style="list-style-type: none"> • Investment Direction: Participant • # of Investment Options: 19 • QDIA/DIA: Yes, age-appropriate target date fund • Re-enrollment: No • Managed Accounts: No • Self-Directed Brokerage Window: Yes • GMWB Options: TIAA Traditional 	
Education	<ul style="list-style-type: none"> • Participant Education Plan: TIAA – 27 days of on-site education • Participant Retirement Readiness Review: Yes 	

LITTLETON PUBLIC SCHOOLS 403(b) PLAN SUMMARY

	Current Structure	Considerations and Next Steps
Plan Provisions	<ul style="list-style-type: none"> Plan Type: 403(b) Vesting Schedule: Immediate Eligibility Requirements: Immediately Eligible Roth: Yes, effective July 1, 2017 Safe Harbor: No Normal Retirement Age: 65 years 	
Governance	<ul style="list-style-type: none"> IPS Updated: March 2017 Governance Documents: Plan Documents: Effective: July 1 1983; amended and restated January 1, 2015 Fiduciary Education: Recordkeeper Contract: TIAA, May 13, 2006, amended 2015 Innovest Contract: December 2014 	<ul style="list-style-type: none"> Fiduciary Education
Contributions	<ul style="list-style-type: none"> Contribution Rate: EE - voluntary up to \$18,000; catch-up contribution up to \$6,000 Match Provision: Yes, discretionary set by PERA Enrollment: Participant Elected Automatic Enrollment: No Auto-Escalation: No 	
Distributions	<ul style="list-style-type: none"> Loans: Yes Unforeseen Emergencies: Yes Installments: Yes In-Service Withdrawals: Yes at age 59.5 	
Costs	<ul style="list-style-type: none"> Fee Leveling: No, fee 0.42% - excess revenue sharing sent to Revenue Credit Account Annual Plan Fee Analysis: December 2016 Competitive Pricing April 2015 Other Fees: Brokerage fees Share Class Review: March 2017 	
Investments	<ul style="list-style-type: none"> Investment Direction: Participant # of Investment Options: 19 QDIA/DIA: Yes, age-appropriate target date fund Re-enrollment: No Managed Accounts: No Self-Directed Brokerage Window: Yes GMWB Options: TIAA Traditional 	
Education	<ul style="list-style-type: none"> Participant Education Plan: TIAA, 27 on-site meetings Participant Retirement Readiness Review: Yes 	

LITTLETON PUBLIC SCHOOLS 457(b) PLAN SUMMARY

	Current Structure	Considerations and Next Steps
Plan Provisions	<ul style="list-style-type: none"> • Plan Type: 457(b) • Vesting Schedule: Immediate • Eligibility Requirements: Immediately Eligible • Roth: Yes, effective July 1, 2017 • Safe Harbor: N/A • Normal Retirement Age: Combination of age + years of service credit specified by PERA 	
Governance	<ul style="list-style-type: none"> • IPS Updated: March 2017 • Governance Documents: • Plan Documents: Effective: July 1, 2002; restated July 1, 2005; restated July 1, 2008, amended November 2015 • Fiduciary Education: • Recordkeeper Contract: TIAA, May 13, 2006, amended 2015 • Innovest Contract: December 2014 	<ul style="list-style-type: none"> • Fiduciary Education
Contributions	<ul style="list-style-type: none"> • Contribution Rate: EE – voluntary up to \$18,000; catch up contribution up to \$6,000 • Match Provision: • Enrollment: Participant Elected • Automatic Enrollment: No • Auto-Escalation: No 	
Distributions	<ul style="list-style-type: none"> • Loans: No • Unforeseen Emergencies: No • Installments: Yes • In-Service Withdrawals: No 	
Costs	<ul style="list-style-type: none"> • Fee Leveling: No, fee 0.42% - excess revenue sharing sent to Revenue Credit Account • Annual Plan Fee Analysis: December 2016 • Competitive Pricing April 2015 • Other Fees: Brokerage fees • Share Class Review: March 2017 	
Investments	<ul style="list-style-type: none"> • Investment Direction: Participant • # of Investment Options: 19 • QDIA/DIA: Yes, age-appropriate target date fund • Re-enrollment: No • Managed Accounts: No • Self-Directed Brokerage Window: Yes • GMWB Options: TIAA Traditional 	
Education	<ul style="list-style-type: none"> • Participant Education Plan: TIAA, 27 on-site meetings • Participant Retirement Readiness Review: Yes 	

Littleton Public Schools Combined Annual Fee Review

	Plan	Benchmark*
Plan assets as of 12/31/2016	\$ 8,595,900	Similarly Sized
Investment, Recordkeeping and Administrative Costs	0.63%	1.46%
Estimated Total Plan Expenses	0.95%	N/A

	Provider	Employer Paid		Employee Paid		Total	
		Fee (in \$)	Fee (in %)	Fee (in \$)	Fee (in %)	Fee (in \$)	Fee (in %)
Expense ratio retained by fund manager	Fund Managers			\$ 17,904	0.21%	\$ 17,904	0.21%
Revenue sharing sent to recordkeeper	TIAA			\$ 1,811	0.02%	\$ 1,811	0.02%
Gross Investment Management Fees		\$ -	0.00%	\$ 19,716	0.23%	\$ 19,716	0.23%
Recordkeeping/Administration Fee	TIAA			\$ 34,292	0.40%	\$ 34,292	0.40%
Gross Recordkeeping and Administrative Fees		\$ -	0.00%	\$ 34,292	0.40%	\$ 34,292	0.40%
Total Investment, Recordkeeping and Administrative Costs		\$ -	0.00%	\$ 54,007	0.63%	\$ 54,007	0.63%
Investment Consultant	Innovest	\$ 27,775	0.32%			\$ 27,775	0.32%
Total Plan Expenses		\$ 27,775	0.32%	\$ 54,007	0.63%	\$ 81,782	0.95%

*The plan's estimated investment, recordkeeping and administrative costs of 0.63% as shown above, compare favorably to 401(k) Source data, a universe of 60 similarly sized 401(k) plans with an average investment, recordkeeping and administrative cost of 1.46%.

This review illustrates estimated plan costs based on available data.

401(a) Retirement Plan Statistics and Menu Coverage

Industry Averages*

Average Number Investment Options	19
Average Contribution Rate	5.5%/7.0%*
Average Account Balance	\$114,465

Plan Averages

Number Investment Options	18
Average Contribution Rate	NA
Average Account Balance	\$20,647

*Contribution rate for lower compensated/higher compensated employees as defined by ADP tests
Source: PCSA's 59th Annual Survey of Profit Sharing and 401(k) Plans (2015)

Menu Coverage

Fixed Income		Domestic Equity			Specialty
Metropolitan West Total Return Bond	Vanguard Total Bond Market Index	Value	Core	Growth	TIAA-CREF Social Choice Equity
TIAA Traditional Retirement Choice		Large Dodge & Cox Stock	Vanguard S&P 500 Index	Harbor Capital Appreciation	
		Mid Vanguard Selected Value	Vanguard Mid Cap Index	Janus Enterprise	
		Small DFA U.S. Small Cap Value	Vanguard Small Cap Index	Voya Small Cap Opportunities	
Cash Equivalents		International Equity			
Vanguard Federal Money Market		Value	Core	Growth	
		American Beacon International	Vanguard Total International Stock Index	American Funds Europacific	
Target Date Portfolios					
Vanguard Target Retirement Income	Vanguard Target Retirement 2015	Vanguard Target Retirement 2020	Vanguard Target Retirement 2025	Vanguard Target Retirement 2030	
Vanguard Target Retirement 2035	Vanguard Target Retirement 2040	Vanguard Target Retirement 2045	Vanguard Target Retirement 2050	Vanguard Target Retirement 2055	

403(b) & 457 Retirement Plan Statistics and Menu Coverage

Industry Averages*

Average Number Investment Options	19
Average Contribution Rate	5.5%/7.0%*
Average Account Balance	\$114,465

Plan Averages

Number Investment Options	19
Average Account Balance-403(b)	\$25,774
Average Account Balance-457	\$45,364

*Contribution rate for lower compensated/higher compensated employees as defined by ADP tests
Source: PCSA's 59th Annual Survey of Profit Sharing and 401(k) Plans (2015)

Menu Coverage

Fixed Income

Metropolitan West Total Return Bond	Vanguard Total Bond Market Index
TIAA Traditional Retirement Social Choice Plus	

Domestic Equity

	Value	Core	Growth
Large	Dodge & Cox Stock	Vanguard S&P 500 Index	Harbor Capital Appreciation
	Vanguard Selected Value	Vanguard Mid Cap Index	Janus Enterprise
Small	DFA U.S. Small Cap Value	Vanguard Small Cap Index	Voya Small Cap Opportunities

Specialty

TIAA-CREF Social Choice Equity

Cash Equivalents

Vanguard Federal Money Market

International Equity

Value	Core	Growth
American Beacon International	Vanguard Total International Stock Index	American Funds Europacific

Target Date Portfolios				
Vanguard Target Retirement Income	Vanguard Target Retirement 2015	Vanguard Target Retirement 2020	Vanguard Target Retirement 2025	Vanguard Target Retirement 2030
Vanguard Target Retirement 2035	Vanguard Target Retirement 2040	Vanguard Target Retirement 2045	Vanguard Target Retirement 2050	Vanguard Target Retirement 2055

Asset Allocation - 401(a)

Asset Allocation

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Large Cap Equity				
Dodge & Cox Stock	28,024	0.97	31,908	0.94
Vanguard S&P 500	210,581	7.30	250,777	7.41
Harbor Capital Appreciation Instl	71,996	2.50	80,551	2.38
Total Large Cap Equity	310,601	10.76	363,236	10.73
Mid Cap Equity				
BlackRock Mid Cap Value Opportunities	1,334	0.05	1,777	0.05
Vanguard Mid Cap Index	8,148	0.28	9,312	0.28
Janus Enterprise	57,524	1.99	64,856	1.92
Total Mid Cap Equity	67,006	2.32	75,945	2.24
Small Cap Equity				
DFA US Small Cap Value	7,260	0.25	8,584	0.25
Vanguard Small Cap Index	31,313	1.09	36,201	1.07
Voya Small Cap Opportunities	-	0.00	-	0.00
Total Small Cap Equity	38,572	1.34	44,785	1.32
International Equity				
American Beacon Intl Equity Instl	13,099	0.45	15,548	0.46
Vanguard Total Intl Stock Index	96,447	3.34	113,718	3.36
American Funds EuroPacific Gr	49,871	1.73	60,868	1.80
Total International Equity	159,417	5.52	190,134	5.62
Fixed Income				
Met West Total Return	37,413	1.30	43,472	1.28
Vanguard Total Bond Market Idx	26,793	0.93	26,913	0.79
TIAA Traditional Retirement Choice	66,081	2.29	84,043	2.48
Total Fixed Income	130,287	4.52	154,428	4.56

Asset Allocation

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Specialty				
TIAA-CREF Social Choice	3,618	0.13	7,032	0.21
Cash & Equivalents				
Vanguard Federal Money Market	509	0.02	1,025	0.03
Target Date Funds				
Vanguard Target Retirement Income	-	0.00	221,108	6.53
Vanguard Target Retirement 2010	197,148	6.83	-	0.00
Vanguard Target Retirement 2015	258,629	8.96	280,438	8.28
Vanguard Target Retirement 2020	257,854	8.94	292,108	8.63
Vanguard Target Retirement 2025	358,118	12.41	399,534	11.80
Vanguard Target Retirement 2030	232,653	8.06	295,122	8.72
Vanguard Target Retirement 2035	516,357	17.90	584,350	17.26
Vanguard Target Retirement 2040	248,582	8.62	321,360	9.49
Vanguard Target Retirement 2045	86,614	3.00	126,121	3.72
Vanguard Target Retirement 2050	16,392	0.57	24,406	0.72
Vanguard Target Retirement 2055	3,081	0.11	5,014	0.15
Total Target Date Funds	2,175,427	75.39	2,549,562	75.29
LPS 401(a) Total Fund	2,885,437	100.00	3,386,147	100.00

Asset Allocation - 403(b)

Asset Allocation

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Large Cap Equity				
Dodge & Cox Stock	93,827	2.00	100,324	1.87
Vanguard S&P 500	441,609	9.41	516,482	9.63
Harbor Capital Appreciation Instl	152,326	3.25	179,510	3.35
Total Large Cap Equity	687,762	14.66	796,316	14.85
Mid Cap Equity				
BlackRock Mid Cap Value Opportunities	2,653	0.06	2,825	0.05
Vanguard Mid Cap Index	41,136	0.88	44,751	0.83
Janus Enterprise	179,450	3.83	219,367	4.09
Total Mid Cap Equity	223,239	4.76	266,943	4.98
Small Cap Equity				
DFA US Small Cap Value	20,436	0.44	22,298	0.42
Vanguard Small Cap Index	90,911	1.94	125,095	2.33
Voya Small Cap Opportunities	2,117	0.05	2,432	0.05
Total Small Cap Equity	113,465	2.42	149,825	2.79
International Equity				
American Beacon Intl Equity Instl	30,053	0.64	33,577	0.63
Vanguard Total Intl Stock Index	185,393	3.95	209,046	3.90
American Funds EuroPacific Gr	112,834	2.41	163,839	3.06
Total International Equity	328,279	7.00	406,461	7.58
Fixed Income				
Met West Total Return	134,570	2.87	128,826	2.40
Vanguard Total Bond Market Idx	62,153	1.32	125,118	2.33
TIAA Traditional Retirement Choice Plus	368,233	7.85	621,936	11.60
Total Fixed Income	564,956	12.04	875,880	16.34

Asset Allocation

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Specialty				
TIAA-CREF Social Choice	34,980	0.75	41,254	0.77
Cash & Equivalents				
Vanguard Federal Money Market	7,145	0.15	9,367	0.17
Target Date Funds				
Vanguard Target Retirement Income	164,268	3.50	304,846	5.69
Vanguard Target Retirement 2010	156,453	3.33	-	0.00
Vanguard Target Retirement 2015	81,644	1.74	84,438	1.58
Vanguard Target Retirement 2020	483,648	10.31	505,833	9.44
Vanguard Target Retirement 2025	553,990	11.81	594,510	11.09
Vanguard Target Retirement 2030	159,033	3.39	171,866	3.21
Vanguard Target Retirement 2035	449,848	9.59	484,736	9.04
Vanguard Target Retirement 2040	483,152	10.30	447,087	8.34
Vanguard Target Retirement 2045	71,420	1.52	79,257	1.48
Vanguard Target Retirement 2050	125,061	2.67	138,900	2.59
Vanguard Target Retirement 2055	3,032	0.06	3,476	0.06
Total Target Date Funds	2,731,550	58.22	2,814,949	52.51
LPS 403(b) Total Fund	4,691,375	100.00	5,360,995	100.00

Asset Allocation - 457

Asset Allocation

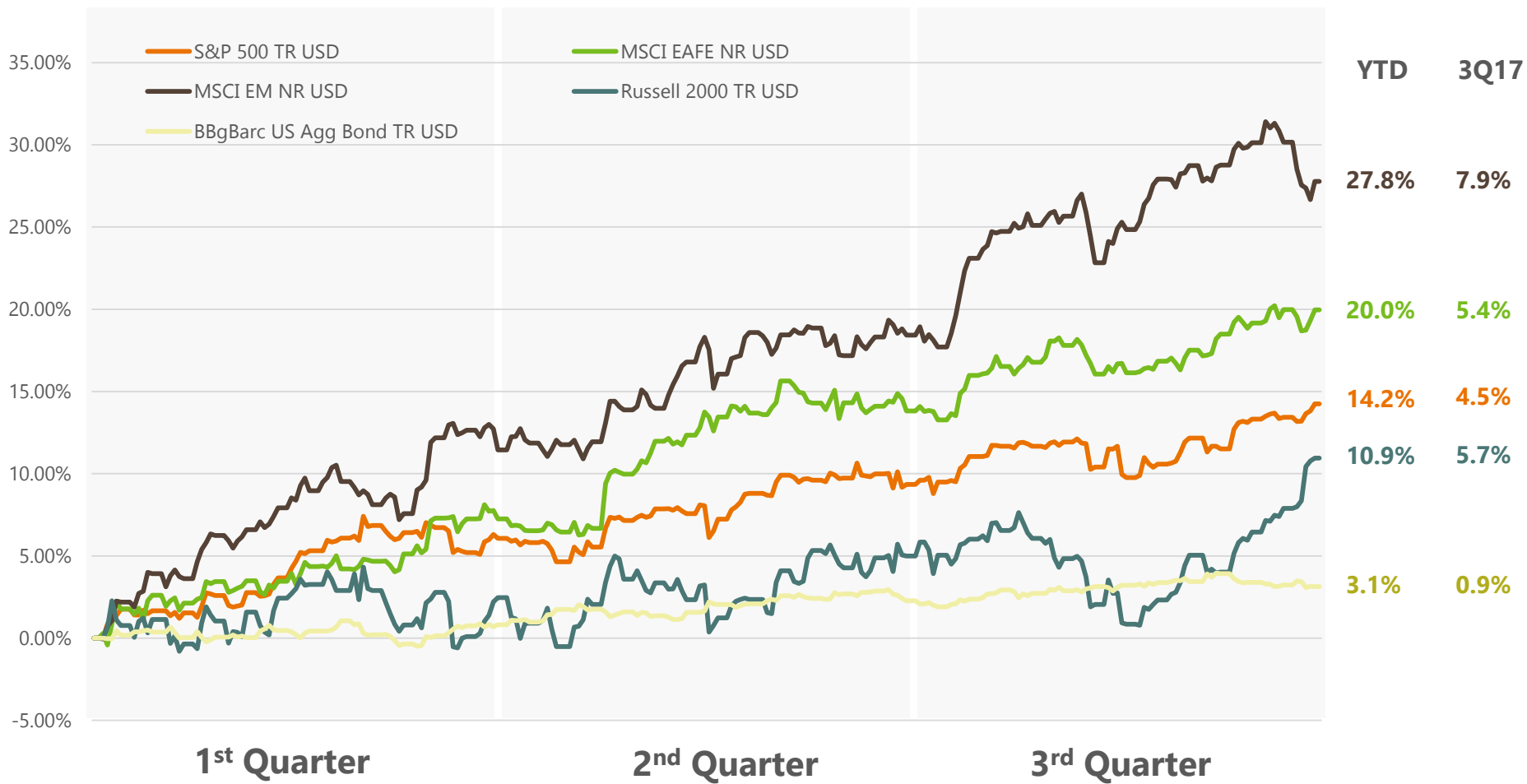
	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Large Cap Equity				
Dodge & Cox Stock	22,075	1.03	24,276	1.11
Vanguard S&P 500	144,226	6.74	106,961	4.91
Harbor Capital Appreciation Instl	535,602	25.03	588,004	27.00
Total Large Cap Equity	701,902	32.81	719,241	33.03
Mid Cap Equity				
BlackRock Mid Cap Value Opportunities	886	0.04	947	0.04
Vanguard Mid Cap Index	3,876	0.18	4,024	0.18
Janus Enterprise	34,081	1.59	36,893	1.69
Total Mid Cap Equity	38,843	1.82	41,863	1.92
Small Cap Equity				
DFA US Small Cap Value	755	0.04	831	0.04
Vanguard Small Cap Index	32,222	1.51	37,075	1.70
Voya Small Cap Opportunities	977	0.05	1,088	0.05
Total Small Cap Equity	33,954	1.59	38,994	1.79
International Equity				
American Beacon Intl Equity Instl	-	0.00	25	0.00
Vanguard Total Intl Stock Index	69,465	3.25	60,267	2.77
American Funds EuroPacific Gr	29,717	1.39	32,673	1.50
Total International Equity	99,183	4.64	92,965	4.27
Fixed Income				
Met West Total Return	39,824	1.86	39,220	1.80
Vanguard Total Bond Market Idx	63,088	2.95	66,360	3.05
TIAA Traditional Retirement Choice Plus	139,536	6.52	142,236	6.53
Total Fixed Income	242,448	11.33	247,816	11.38

Asset Allocation

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Specialty				
TIAA-CREF Social Choice	2,746	0.13	3,015	0.14
Cash & Equivalents				
Vanguard Federal Money Market	4,850	0.23	5,266	0.24
Target Date Funds				
Vanguard Target Retirement Income	-	0.00	217,791	10.00
Vanguard Target Retirement 2010	244,791	11.44	-	0.00
Vanguard Target Retirement 2015	274,355	12.82	281,209	12.91
Vanguard Target Retirement 2020	197,185	9.22	204,764	9.40
Vanguard Target Retirement 2025	56,799	2.65	62,766	2.88
Vanguard Target Retirement 2030	34,662	1.62	35,969	1.65
Vanguard Target Retirement 2035	-	0.00	-	0.00
Vanguard Target Retirement 2040	76,745	3.59	84,711	3.89
Vanguard Target Retirement 2045	65,628	3.07	71,417	3.28
Vanguard Target Retirement 2050	65,410	3.06	69,684	3.20
Vanguard Target Retirement 2055	-	0.00	-	0.00
Total Target Date Funds	1,015,574	47.47	1,028,311	47.23
LPS 457 Total Fund	2,139,500	100.00	2,177,470	100.00

THE MARKETS

Investment Returns First Nine Months of 2017



2017's RAGING BULL



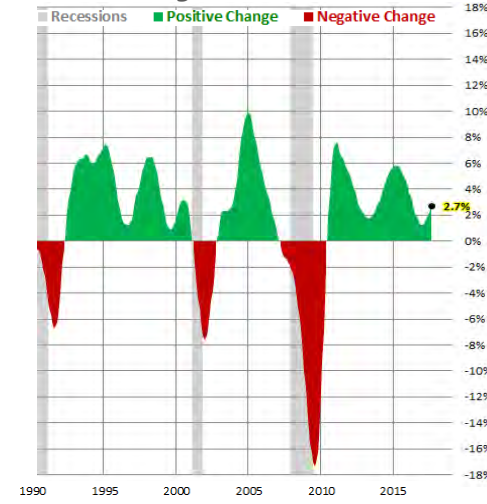
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ECONOMICS

The Resilience of the U.S. Economy

- Recent readings of the U.S. Leading Economic Index (LEI) point to expected growth in the U.S. economy in the coming months, despite an aging economic recovery and recent hurricanes.
- The LEI is composed of 10 factors, including unemployment claims, new orders for consumer and capital goods, building permits, and credit conditions.
- In the last 25 years, the LEI dropping into negative territory has signaled a significantly weaker economy ahead.

U.S. Leading Economic Index



Recessions and Lead / Lag Times

July 1990 to March 1991:

3 months

March 2001 to November 2001:

0 months

December 2007 to June 2009:

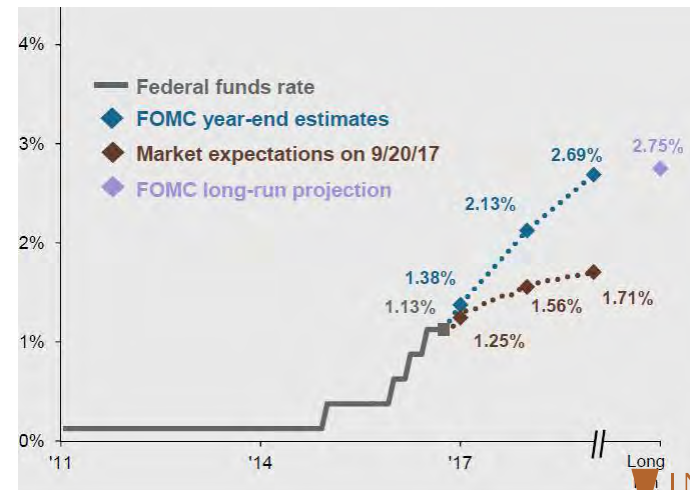
9 months

Reported September 2017. 12-Month Moving Average of the 12-Month Rate of Change. Sources: dshort.com and the Conference Board.

Markets Cautious About Rate Hikes

- The FOMC projects the long-term Fed Funds Rate to be close to 2.75%, while the market expects more modest rate increases.
- Janet Yellen recently stressed that, despite the weakness of core inflation this year, the Fed still intends to push ahead with further interest rate hikes.
- The market's implied probability of a December rate hike rose to 60% at quarter-end.

Fed Funds Rate and Expectations



Data are as of 9/30/2017. Market expectations are the federal funds rates priced into the fed futures market as of the date of the September 2017 FOMC meeting. Sources: FactSet, Federal Reserve, Bloomberg, and J.P. Morgan Asset Management.

ASSET CLASS FUNDAMENTALS

The Aging U.S. Bull Market

- The current bull market that began on March 9, 2009, is the second-longest since World War II.
- The cumulative return on the S&P 500 Index since 3/9/2009 has been 272% excluding dividends, and 346% with dividends reinvested.
- On 3/9/2009, the S&P 500 Index was priced at 10.3 times expected earnings, and on 9/30/2017 at 17.7 times.

U.S. Bull Markets Since WWII

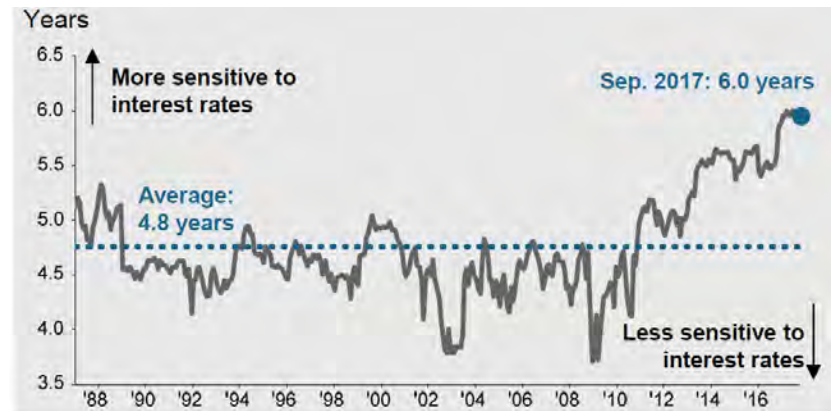


Reported 9/7/2017. Sources: Yahoo Finance, St. Louis Federal Reserve, S&P Capital IQ, and WSJ Daily Shot.

High-Quality Bonds and Rising Rates

- High-quality bonds' duration, a measure of interest rate sensitivity, has increased significantly in recent years.
- The yield on the Bloomberg Barclays U.S. Aggregate Bond Index was 2.55% as of 9/30/2017.
- If interest rates increase by 1.0% across the yield curve and spreads hold steady, the total return on the Bloomberg Barclays Aggregate Bond Index would be -3.3% in the next 12 months.

Duration of the Bloomberg Barclays US Aggregate Bond Index



As of 9/30/2017. Sources: Bloomberg, Barclays, and J.P. Morgan Asset Management.

ASSET CLASS FUNDAMENTALS, CONTINUED

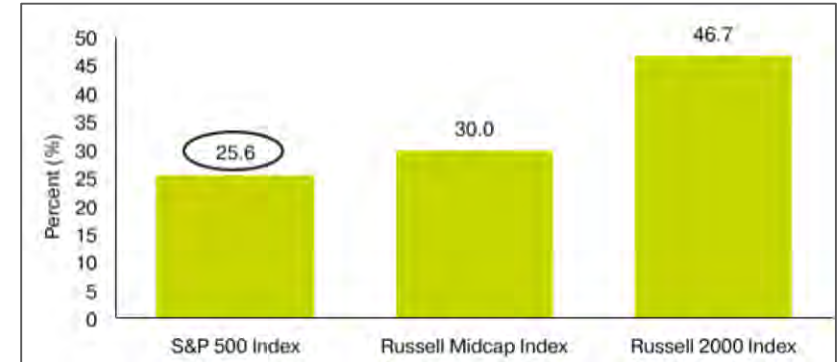
Stocks: Hoping for Tax Relief

- Republicans have proposed sweeping tax reforms, including reducing corporate tax rates.
- On average, smaller companies have higher effective tax rates than larger ones, so they would benefit most from corporate tax rate reductions.
- Changes to tax legislation are hotly contested and the outcomes are far from certain.

MLPs: Guilty by Association (with Oil)

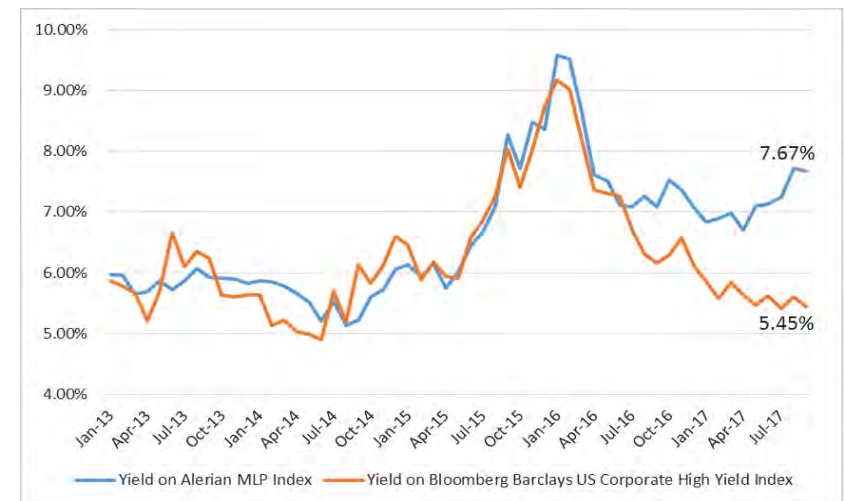
- Following recent underperformance, MLPs' distribution yields are notably higher than those of high yield fixed income.
- Despite improving earnings quality and resilient US oil production, MLPs have lagged in part due to negative investor sentiment associated with energy price volatility.
- MLPs' current valuations and distribution yields are compelling on both an absolute and relative basis.

US Corporations' Average 2016 Federal Tax Rates



Reported 7/31/2017. Sources: Strategas Research Partners and Oppenheimer Funds.

MLPs' Income Outpaces High Yield Bonds



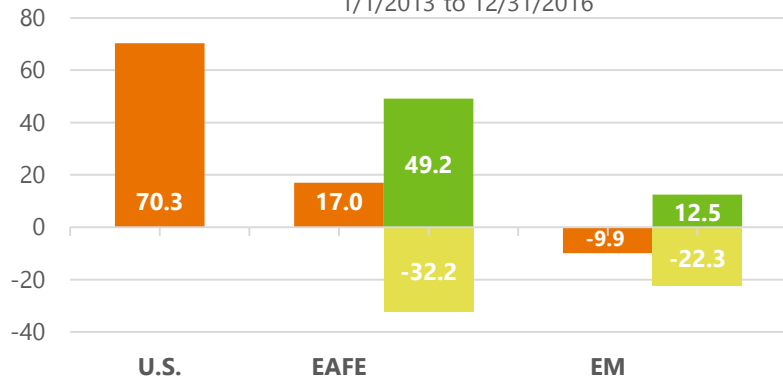
Reported 9/30/2017. Sources: Alerian and Morningstar.

ASSET CLASS FUNDAMENTALS, CONTINUED

The Upside of the Dollar's Downslide

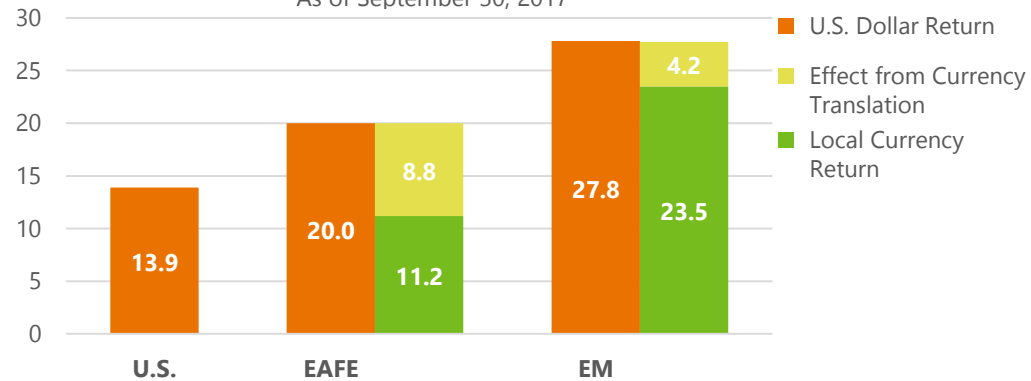
2013 to 2016 Equity Cumulative Returns

1/1/2013 to 12/31/2016



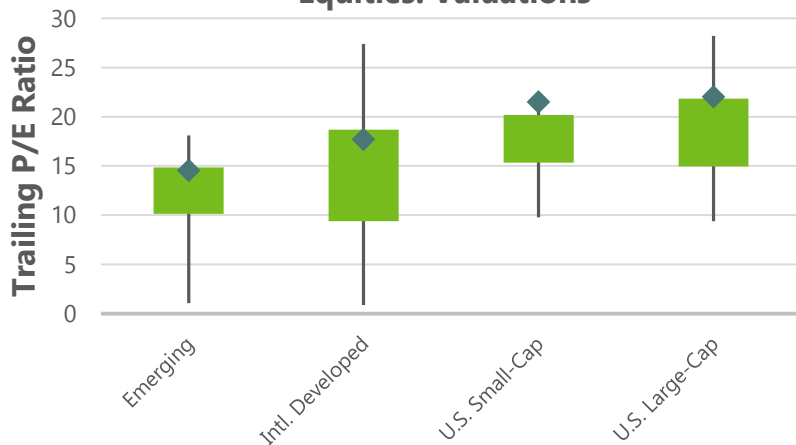
Year-to-Date Equity Returns

As of September 30, 2017



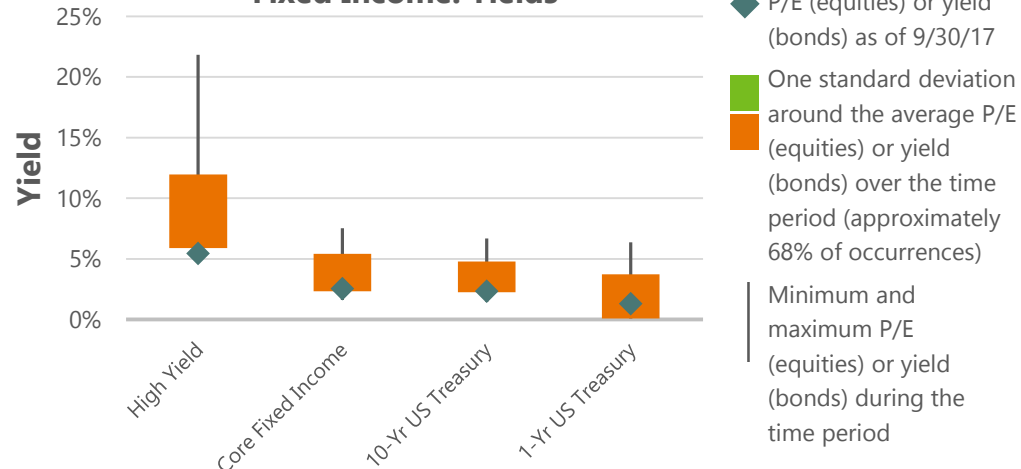
Valuations are Stretched

Equities: Valuations



Data from 11/1/1999 to 9/30/2017. Emerging: MSCI EM, International Developed: MSCI EAFE, U.S. Small Cap: Russell 2000, U.S. Mid-Cap: Russell Mid-Cap, U.S. Large Cap: S&P 500. Source: Morningstar Direct.

Fixed Income: Yields



Data from January 2000 to 9/30/2017. High Yield: BbgBarc US Corporate High Yield, Core Fixed Income: BbgBarc US Agg Bond. Source: Morningstar Direct.

GLOBAL EQUITY INDICES

3rd Quarter 2017

Domestic Equity			
	Value	Core	Growth
Large	3.5%	4.5%	5.3%
Mid	2.1%	3.5%	5.3%
Small	5.1%	5.7%	6.2%
Developed International Equity			
	Value	Core	Growth
	5.9%	5.4%	4.9%
Emerging Markets			
	7.9%		

YTD as of September 30, 2017

Domestic Equity			
	Value	Core	Growth
Large	8.5%	14.2%	19.3%
Mid	7.4%	11.7%	17.3%
Small	5.7%	10.9%	16.8%
Developed International Equity			
	Value	Core	Growth
	17.6%	20.0%	22.4%
Emerging Markets			
	27.8%		

1 Year

Domestic Equity			
	Value	Core	Growth
Large	16.5%	18.6%	19.9%
Mid	13.4%	15.3%	17.8%
Small	20.5%	20.7%	21.0%
Developed International Equity			
	Value	Core	Growth
	22.5%	19.1%	15.7%
Emerging Markets			
	22.5%		

3 Year Annualized

Domestic Equity			
	Value	Core	Growth
Large	8.9%	10.8%	12.2%
Mid	9.2%	9.5%	10.0%
Small	12.1%	12.2%	12.2%
Developed International Equity			
	Value	Core	Growth
	3.5%	5.0%	6.5%
Emerging Markets			
	4.9%		

5 Years Annualized

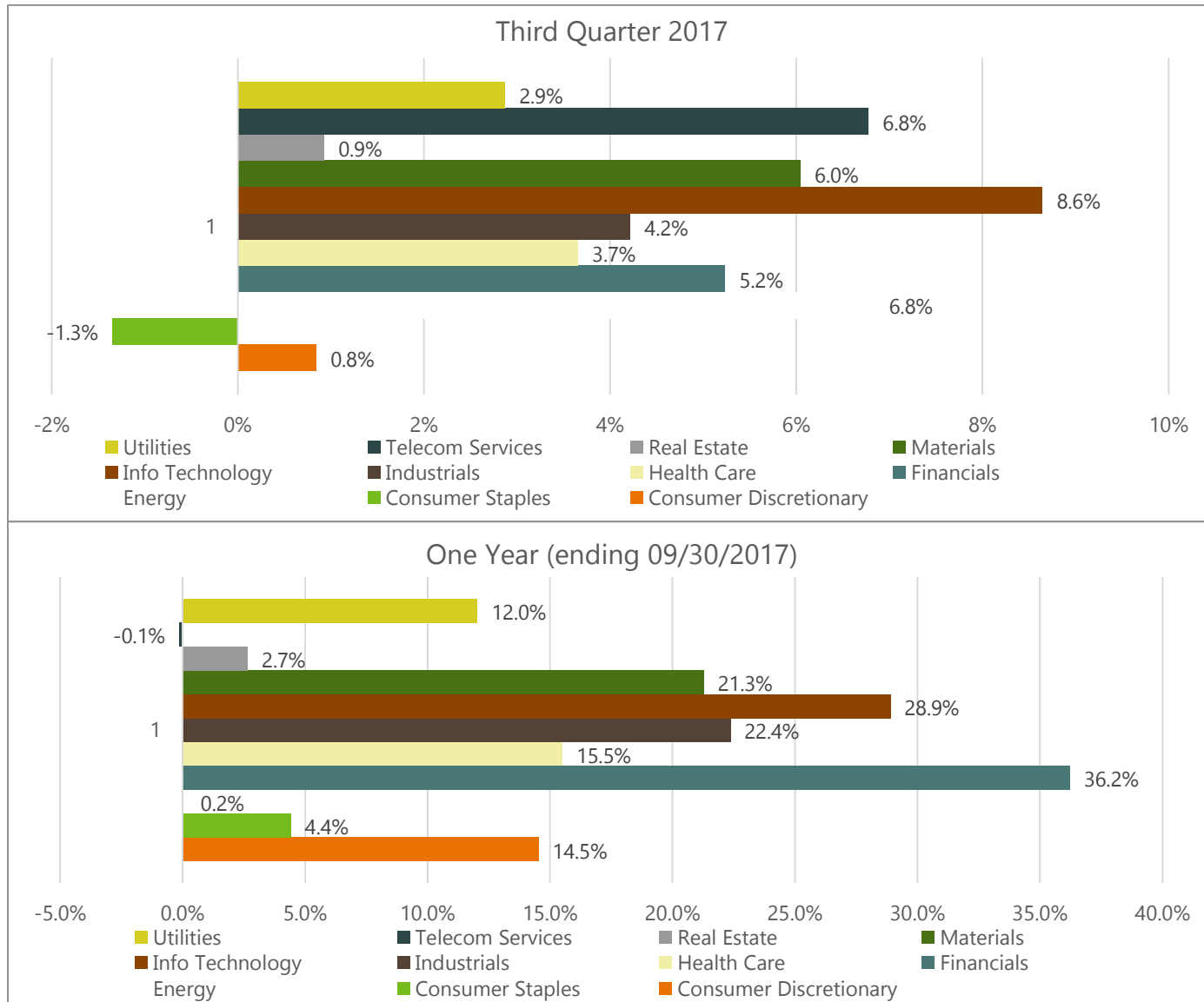
Domestic Equity			
	Value	Core	Growth
Large	13.2%	14.2%	15.0%
Mid	14.3%	14.3%	14.2%
Small	13.3%	13.8%	14.3%
Developed International Equity			
	Value	Core	Growth
	7.8%	8.4%	8.9%
Emerging Markets			
	4.0%		

10 Years Annualized

Domestic Equity			
	Value	Core	Growth
Large	5.6%	7.4%	9.1%
Mid	7.8%	8.1%	8.2%
Small	7.1%	7.8%	8.5%
Developed International Equity			
	Value	Core	Growth
	0.5%	1.3%	2.1%
Emerging Markets			
	1.3%		

Returns sourced from the S&P 500, S&P 500 Value, S&P 500 Growth, Russell Mid Cap, Russell Mid Cap Value, Russell Mid Cap Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EAFE Value, MSCI EAFE Growth, and MSCI EM indices. Dark green indicates returns at or greater than 10%, light green indicates returns 0-4%, light pink indicates returns 0% to -5%, light dark red indicates returns down more than 10. Returns for time periods of 3 years or longer are annualized. Source: Morningstar Direct.

DOMESTIC EQUITY SECTOR PERFORMANCE



Returns are based off return data for the eleven sectors according to the S&P 500. Source: Morningstar Direct.

FIXED INCOME AND ADDITIONAL ASSET CLASSES

FIXED INCOME INDICES

Barclays Agg U.S. Bond					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
0.8%	3.1%	0.1%	2.7%	2.1%	4.3%

Barclays U.S. Government 1-3 Year					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
0.2%	0.7%	0.2%	0.8%	0.6%	1.7%

Barclays Municipal Bond					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
1.1%	4.7%	0.9%	3.2%	3.0%	4.5%

Credit Suisse Leveraged Loan					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
1.1%	3.0%	5.4%	4.0%	4.4%	4.4%

Barclays U.S. Corporate High Yield					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
2.0%	7.0%	8.9%	5.8%	6.4%	7.8%

Credit Spreads				
Category	Current	Median	High	Low
FR Corp Loans	416	547	2474	222
High Yield Corporate	356	491	2147	241

ADDITIONAL ASSET CLASSES

HFRI Fund of Fund Index					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
2.2%	5.5%	6.4%	2.2%	3.8%	1.1%

Bloomberg Commodity					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
2.5%	-2.9%	-0.3%	-10.4%	-10.5%	-6.8%

Alerian MLP Infrastructure					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
-4.2%	-7.2%	-4.9%	-12.3%	0.3%	7.4%

S&P Developed Property					
QTD	YTD	1 Year	3 Year	5 Year	10 Year
2.2%	8.9%	3.4%	7.5%	8.4%	3.1%

Returns sourced from the BBgBarc US Agg Bond, BBgBarc US Corporate High Yield, BBgBarc US Govt 1-3 Yr, Credit Suisse Leveraged Loan, BBgBarc Municipal, Bloomberg Commodity, Alerian MLP Infrastructure, HFRI Fund of Fund Index, and the S&P Developed Property indices. Dark green indicates returns at or greater than 4%, light green indicates returns 0-4%, light pink indicates returns 0% to -5%, light dark red indicates returns down more than 10%. Returns for time periods of 3 years or longer are annualized. Source: Morningstar Direct and InvestmentMetrics Credit spreads source: Eaton Vance and Factset as of 9/30/17. Spread history measures past 15 years. All fixed-income spreads are measured in basis points and measure option-adjusted yield spread relative to comparable US Treasuries using daily data. Loan index spread represents the three-year discounted spread over LIBOR. Floating-Rate Loans represented by S&P/LSTA Leveraged Loan Index. High Yield represented by BofA Merrill Lynch US High Yield index. Dark green indicates current spreads greater than 1.25x the median, light green indicates spreads from 0.76 to 1.24x the median, and red indicates spreads at 0.75x the median or less.

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Table of Returns

	Last Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Large Cap Equity									
Dodge & Cox Stock	4.76 (20)	11.89 (14)	23.88 (3)	9.83 (6)	15.65 (1)	14.73 (2)	6.59 (19)	19.11 (5)	10/01/2015
S&P 500 Value	3.48 (60)	8.49 (69)	16.47 (57)	8.93 (22)	13.21 (24)	13.10 (26)	5.57 (47)	16.22 (22)	
IM U.S. Large Cap Value Equity (MF) Median	3.70	9.47	16.85	7.87	12.37	12.16	5.49	14.88	
Vanguard S&P 500									
Vanguard S&P 500	4.48 (47)	14.20 (38)	18.57 (44)	10.78 (17)	14.18 (18)	14.34 (13)	7.43 (20)	16.97 (20)	10/01/2015
S&P 500 Index	4.48 (47)	14.24 (38)	18.61 (43)	10.81 (16)	14.22 (16)	14.38 (13)	7.44 (20)	17.01 (19)	
IM U.S. Large Cap Core Equity (MF) Median	4.43	13.58	18.24	9.40	13.12	13.06	6.60	15.54	
Harbor Capital Appreciation Instl									
Harbor Capital Appreciation Instl	8.62 (2)	27.40 (10)	24.93 (8)	13.04 (14)	15.90 (12)	15.53 (11)	9.47 (9)	16.72 (29)	10/01/2015
S&P 500 Growth	5.29 (55)	19.33 (73)	19.90 (52)	12.24 (27)	15.00 (25)	15.45 (13)	9.13 (16)	17.29 (19)	
IM U.S. Large Cap Growth Equity (MF) Median	5.47	21.65	20.00	11.11	13.92	13.82	7.91	15.63	
Mid Cap Equity									
BlackRock Mid Cap Value									
BlackRock Mid Cap Value	2.74 (56)	3.73 (92)	11.73 (79)	6.90 (77)	12.02 (73)	11.77 (62)	7.50 (39)	13.65 (47)	10/01/2015
Russell Midcap Value Index	2.14 (69)	7.43 (45)	13.37 (67)	9.19 (23)	14.33 (17)	13.76 (10)	7.85 (30)	15.30 (31)	
IM U.S. Mid Cap Value Equity (MF) Median	2.92	6.90	14.45	7.98	12.92	12.42	7.04	13.45	
Vanguard Mid Cap Index									
Vanguard Mid Cap Index	3.43 (49)	12.88 (15)	15.30 (48)	9.72 (21)	14.39 (15)	13.72 (16)	7.95 (19)	13.96 (46)	10/01/2015
CRSP U.S. Mid Cap TR Index	3.43 (49)	12.92 (15)	15.33 (48)	9.77 (20)	14.45 (13)	13.82 (13)	7.89 (22)	14.00 (44)	
IM U.S. Mid Cap Core Equity (MF) Median	3.40	9.46	15.23	8.59	12.90	12.20	6.78	13.58	
Janus Enterprise									
Janus Enterprise	5.20 (24)	20.02 (25)	20.45 (29)	14.53 (1)	16.61 (5)	N/A	N/A	18.84 (2)	10/01/2015
Russell Midcap Growth Index	5.28 (22)	17.29 (54)	17.82 (56)	9.96 (38)	14.18 (26)	13.84 (22)	8.20 (20)	14.48 (36)	
IM U.S. Mid Cap Growth Equity (MF) Median	4.46	17.54	18.29	9.25	12.44	12.50	6.90	13.42	
Small Cap Equity									
DFA US Small Cap Value									
DFA US Small Cap Value	5.97 (32)	3.96 (54)	19.62 (43)	9.47 (54)	13.67 (29)	13.47 (15)	7.47 (30)	16.56 (56)	10/01/2015
Russell 2000 Value Index	5.11 (48)	5.68 (38)	20.55 (35)	12.12 (20)	13.27 (34)	12.80 (30)	7.14 (41)	19.68 (24)	
IM U.S. Small Cap Value Equity (MF) Median	5.02	4.35	19.09	9.93	12.20	12.30	6.93	17.67	
Vanguard Small Cap Index									
Vanguard Small Cap Index	4.57 (76)	10.60 (31)	17.35 (72)	10.44 (59)	13.94 (46)	13.88 (37)	8.58 (21)	16.15 (61)	10/01/2015
CRSP U.S. Small Cap TR Index	4.58 (76)	10.59 (31)	17.33 (72)	10.41 (59)	14.12 (42)	14.08 (32)	8.94 (13)	16.13 (61)	
IM U.S. Small Cap Core Equity (MF) Median	5.81	8.58	20.25	11.26	13.70	12.89	7.11	17.10	
Voya Small Cap Opportunities									
Voya Small Cap Opportunities	4.33 (79)	14.59 (54)	17.65 (61)	11.46 (48)	N/A	N/A	N/A	16.79 (31)	10/01/2015
Russell 2000 Growth Index	6.22 (58)	16.81 (46)	20.98 (37)	12.17 (43)	14.28 (38)	14.17 (45)	8.47 (32)	16.47 (32)	
IM U.S. Small Cap Growth Equity (MF) Median	6.61	14.89	18.92	11.30	12.62	13.82	7.70	14.69	
International Equity									
American Beacon Intl Equity Instl									
American Beacon Intl Equity Instl	5.48 (73)	19.35 (54)	18.70 (86)	3.74 (32)	7.81 (11)	6.45 (13)	1.85 (16)	10.84 (77)	10/01/2015
MSCI EAFE Value Index (Net)	5.87 (68)	17.64 (68)	22.55 (5)	3.50 (52)	7.80 (11)	5.71 (48)	0.49 (43)	12.63 (3)	
IM International Large Cap Value Equity (MF) Median	6.03	20.15	21.18	3.53	7.13	5.57	0.23	11.45	

TIAA Traditional Annuity Returns show current quarter's credit rate.

Table of Returns

	Last Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Vanguard Total Intl Stock Index	5.95 (55)	21.62 (61)	19.27 (51)	5.31 (52)	7.49 (51)	5.50 (56)	N/A	14.36 (45)	10/01/2015
FTSE Global ex USA All Cap Index	6.09 (53)	21.22 (64)	19.72 (47)	5.56 (47)	7.77 (47)	5.94 (47)	2.06 (38)	14.88 (42)	
IM International Equity (MF) Median	6.22	23.09	19.31	5.38	7.50	5.77	1.44	13.95	
American Funds EuroPacific Gr	6.86 (24)	25.85 (15)	20.63 (7)	7.56 (11)	9.51 (4)	7.28 (9)	N/A	14.42 (13)	10/01/2015
MSCI EAFE Growth Index (Net)	4.94 (56)	22.45 (53)	15.68 (68)	6.48 (34)	8.89 (13)	6.98 (20)	2.12 (52)	12.53 (41)	
IM International Large Cap Growth Equity (MF) Median	5.26	22.87	17.30	5.43	7.41	6.15	2.17	11.90	
Fixed Income									
Met West Total Return	0.81 (52)	3.03 (63)	0.31 (55)	2.45 (53)	2.73 (12)	4.11 (4)	5.76 (1)	2.54 (62)	10/01/2015
Bloomberg Barclays U.S. Aggregate Index	0.85 (42)	3.14 (57)	0.07 (63)	2.71 (31)	2.06 (44)	2.95 (52)	4.27 (42)	2.60 (58)	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.81	3.26	0.47	2.50	2.00	2.99	4.17	2.74	
Vanguard Total Bond Market Idx	0.73 (71)	3.14 (57)	-0.13 (74)	2.62 (39)	1.97 (55)	2.86 (58)	4.22 (47)	2.56 (61)	10/01/2015
Bloomberg Barclays U.S. Aggregate Index	0.85 (42)	3.14 (57)	0.07 (63)	2.71 (31)	2.06 (44)	2.95 (52)	4.27 (42)	2.60 (58)	
IM U.S. Broad Market Core Fixed Income (MF) Median	0.81	3.26	0.47	2.50	2.00	2.99	4.17	2.74	
TIAA Traditional Annuity RC-401(a)	1.07 (1)	3.23 (1)	4.27 (1)	4.17 (1)	4.08 (1)	4.05 (1)	4.25 (1)	4.23 (1)	10/01/2015
Ryan 3 Yr GIC Master Index	0.41 (96)	1.18 (95)	1.54 (92)	1.33 (100)	1.23 (100)	1.50 (100)	2.36 (76)	1.44 (96)	
IM U.S. GIC/Stable Value (SA+CF) Median	0.47	1.37	1.81	1.84	1.80	2.10	2.57	1.84	
TIAA Traditional Annuity RCP-403(b) & 457	0.88 (1)	2.66 (1)	3.50 (1)	3.40 (1)	3.31 (1)	3.28 (1)	3.45 (2)	3.45 (1)	10/01/2015
Ryan 3 Yr GIC Master Index	0.41 (96)	1.18 (95)	1.54 (92)	1.33 (100)	1.23 (100)	1.50 (100)	2.36 (76)	1.44 (96)	
IM U.S. GIC/Stable Value (SA+CF) Median	0.47	1.37	1.81	1.84	1.80	2.10	2.57	1.84	
Specialty									
TIAA-CREF:Soc Ch Eq;Inst	4.39 (46)	13.88 (41)	18.49 (39)	9.50 (37)	13.89 (36)	13.27 (38)	7.39 (24)	16.87 (11)	10/01/2015
S&P 500 Index	4.48 (43)	14.24 (34)	18.61 (37)	10.81 (12)	14.22 (22)	14.38 (11)	7.44 (22)	17.01 (10)	
IM U.S. Multi-Cap Core Equity (MF) Median	4.28	13.21	17.35	8.98	13.24	12.69	6.38	14.40	
Cash & Equivalents									
Vanguard Federal Money Market	0.24 (16)	0.54 (17)	0.63 (17)	0.30 (14)	0.18 (14)	0.13 (15)	0.51 (17)	4.26 (36)	08/01/1981
90 Day U.S. Treasury Bill	0.27 (11)	0.57 (15)	0.64 (16)	0.28 (16)	0.20 (12)	0.16 (11)	0.45 (31)	4.32 (25)	
IM U.S. Taxable Money Market (MF) Median	0.17	0.35	0.39	0.14	0.09	0.07	0.37	4.17	
Target Date Funds									
Vanguard Target Retirement Income	1.96 (81)	6.31 (79)	5.26 (91)	4.28 (68)	4.68 (86)	5.52 (79)	4.87 (16)	6.39 (83)	10/01/2015
Vanguard Target Income Composite Index	2.04 (77)	6.40 (78)	5.44 (85)	4.47 (63)	4.87 (84)	5.67 (78)	4.93 (12)	6.61 (82)	
IM Retirement Income (MF) Median	2.52	8.24	8.32	4.91	6.63	6.95	4.21	8.48	
Vanguard Target Retirement 2015	2.61 (58)	8.55 (55)	7.95 (71)	5.35 (39)	6.92 (32)	7.46 (26)	4.88 (11)	8.49 (59)	10/01/2015
Vanguard Target 2015 Composite Index	2.65 (54)	8.53 (56)	8.16 (65)	5.54 (24)	7.10 (22)	7.58 (16)	4.92 (9)	8.75 (49)	
IM Mixed-Asset Target 2015 (MF) Median	2.69	8.66	8.56	5.01	6.53	6.97	4.05	8.70	

TIAA Traditional Annuity Returns show current quarter's credit rate.

Table of Returns

	Last Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Vanguard Target Retirement 2020	3.14 (29)	10.37 (21)	10.17 (30)	6.23 (7)	8.08 (8)	8.36 (7)	5.15 (4)	10.11 (16)	10/01/2015
Vanguard Target 2020 Composite Index	3.20 (23)	10.33 (22)	10.32 (27)	6.42 (5)	8.29 (5)	8.58 (4)	5.28 (2)	10.36 (12)	
IM Mixed-Asset Target 2020 (MF) Median	2.90	9.48	9.22	5.02	6.19	6.75	3.92	9.08	
Vanguard Target Retirement 2025	3.52 (35)	11.62 (33)	11.74 (34)	6.76 (11)	8.85 (14)	9.02 (17)	5.21 (12)	11.21 (22)	10/01/2015
Vanguard Target 2025 Composite Index	3.58 (28)	11.61 (34)	11.97 (28)	6.94 (5)	9.06 (11)	9.24 (9)	5.37 (10)	11.49 (15)	
IM Mixed-Asset Target 2025 (MF) Median	3.37	11.05	11.24	5.81	7.59	8.01	4.48	10.38	
Vanguard Target Retirement 2030	3.88 (38)	12.77 (40)	13.25 (39)	7.19 (19)	9.58 (15)	9.63 (13)	5.27 (13)	12.20 (26)	10/01/2015
Vanguard Target 2030 Composite Index	3.91 (34)	12.69 (42)	13.44 (36)	7.37 (13)	9.79 (10)	9.85 (8)	5.41 (10)	12.48 (19)	
IM Mixed-Asset Target 2030 (MF) Median	3.70	12.43	12.92	6.30	8.34	8.35	4.21	11.44	
Vanguard Target Retirement 2035	4.18 (43)	13.87 (45)	14.76 (42)	7.61 (29)	10.30 (19)	10.22 (17)	5.46 (20)	13.19 (32)	10/01/2015
Vanguard Target 2035 Composite Index	4.24 (38)	13.77 (48)	14.94 (36)	7.78 (23)	10.50 (10)	10.45 (10)	5.60 (16)	13.47 (24)	
IM Mixed-Asset Target 2035 (MF) Median	4.11	13.72	14.46	7.04	9.08	9.12	4.75	12.61	
Vanguard Target Retirement 2040	4.51 (31)	14.96 (32)	16.26 (31)	7.97 (24)	10.80 (11)	10.58 (12)	5.73 (12)	14.16 (20)	10/01/2015
Vanguard Target 2040 Composite Index	4.57 (27)	14.86 (34)	16.45 (28)	8.20 (15)	11.04 (7)	10.85 (6)	5.87 (10)	14.46 (12)	
IM Mixed-Asset Target 2040 (MF) Median	4.33	14.39	15.49	7.16	9.45	9.25	4.46	13.22	
Vanguard Target Retirement 2045	4.66 (35)	15.40 (34)	16.84 (32)	8.14 (26)	10.91 (14)	10.68 (16)	5.77 (19)	14.47 (22)	10/01/2015
Vanguard Target 2045 Composite Index	4.71 (31)	15.30 (40)	17.01 (25)	8.38 (13)	11.16 (10)	10.93 (7)	5.92 (16)	14.78 (12)	
IM Mixed-Asset Target 2045 (MF) Median	4.52	14.99	16.11	7.59	9.91	9.72	4.92	13.83	
Vanguard Target Retirement 2050	4.66 (41)	15.40 (38)	16.84 (37)	8.15 (25)	10.91 (13)	10.67 (14)	5.78 (19)	14.46 (24)	10/01/2015
Vanguard Target 2050 Composite Index	4.71 (34)	15.30 (41)	17.01 (32)	8.38 (13)	11.16 (9)	10.93 (7)	5.92 (16)	14.78 (13)	
IM Mixed-Asset Target 2050 (MF) Median	4.58	15.04	16.50	7.57	10.02	9.69	4.64	13.79	
Vanguard Target Retirement 2055	4.69 (45)	15.41 (46)	16.86 (50)	8.11 (38)	10.88 (24)	10.71 (26)	N/A	14.47 (33)	10/01/2015
Vanguard Target 2055 Composite Index	4.71 (42)	15.30 (50)	17.01 (43)	8.38 (22)	11.16 (17)	10.93 (16)	N/A	14.78 (20)	
IM Mixed-Asset Target 2055+ (MF) Median	4.65	15.26	16.85	7.85	10.34	9.98	N/A	14.03	
Vanguard Target Retirement 2060	4.65 (51)	15.39 (46)	16.84 (51)	8.09 (39)	10.87 (25)	N/A	N/A	14.46 (34)	10/01/2015
Vanguard Target 2060 Composite Index	4.71 (42)	15.30 (50)	17.01 (43)	8.38 (22)	11.16 (17)	N/A	N/A	14.78 (20)	
IM Mixed-Asset Target 2055+ (MF) Median	4.65	15.26	16.85	7.85	10.34	9.98	N/A	14.03	

TIAA Traditional Annuity Returns show current quarter's credit rate.

Manager Score Card

	Criteria								Costs		
	Organization	People	Philosophy & Process	Style Consistency	Asset Base	Performance	Expenses	Overall	Exp Ratio (%)	Median Exp Ratio (%)	Ratio of Exp to Median (%)
Dodge & Cox Stock (DODGX)	█	█	█	█	█	█	█	█	0.52	1.04	50.00
Vanguard 500 Index;Adm (VFIAX)	█	█	█	█	█	█	█	█	0.04	0.99	4.04
Harbor:Cap Apprec;Inst (HACAX)	█	█	█	█	█	█	█	█	0.65	1.08	60.19
BlackRock:Md Cp Div;I (MARFX)	█	█	█	█	█	█	█	█	0.94	1.16	81.03
Vanguard Md-Cp Idx;Adm (VIMAX)	█	█	█	█	█	█	█	█	0.06	1.20	5.00
Jns Hndsn:Enterprise;N (JDMNX)	█	█	█	█	█	█	█	█	0.67	1.27	52.76
DFA US Small Cap Val;I (DFSVM)	█	█	█	█	█	█	█	█	0.52	1.25	41.60
Vanguard Sm-Cp Idx;Adm (VSMAX)	█	█	█	█	█	█	█	█	0.06	1.19	5.04
Voya:SmCp Oppty;R6 (ISOZX)	█	█	█	█	█	█	█	█	0.97	1.46	66.44
Am Beacon:Intl Eq;Inst (AAIEX)	█	█	█	█	█	█	█	█	0.70	1.14	61.40
Vanguard Tot I Stk;Adm (VTIAX)	█	█	█	█	█	█	█	█	0.11	1.16	9.48
American Funds EuPc;R6 (RERGX)	█	█	█	█	█	█	█	█	0.50	1.13	44.24
Met West:Total Return;I (MWTIX)	█	█	█	█	█	█	█	█	0.44	0.76	57.89
Vanguard Tot Bd;Adm (VBTLX)	█	█	█	█	█	█	█	█	0.05	0.76	6.58
TIAA-Traditional	█	█	█	█	█	█	█	█	0.00	0.00	0.00
TIAA-CREF:Soc Ch Eq;Inst (TISCX)	█	█	█	█	█	█	█	█	0.18	1.19	15.13
Vanguard Fed MM;Inv (VMFXX)	█	█	█	█	█	█	█	█	0.11	0.55	16.36
Vanguard Target Date (VTHR)	█	█	█	█	█	█	█	█	0.15	0.87	17.24

█	No/Minimum Concerns	█	New No/Minimum Concerns
█	Minor Concern	█	Upgrade to Minor Concern
█	Major Concern	█	Downgrade to Minor Concern
█	Under Review	█	New Major Concern

Manager	Score Factor	Comments
Harbor:Cap Apprec;Inst (HACAX)	Style Consistency	The fund has a significant overweight to IT and recently it's weighting in the sector has hit the highest level since inception. The significant overweight warrants additional monitoring and due diligence, although we remain confident in the manager's ability to perform over the long term.
BlackRock:Md Cp Div;I (MARFX)	People	Because of a change of the entire investment team, we are recommending that clients replace it.
BlackRock:Md Cp Div;I (MARFX)	Philosophy & Process	Both the investment team and the investment approach are changing, and so we are recommending that clients replace the fund.
BlackRock:Md Cp Div;I (MARFX)	Performance	This fund's performance has been hampered by stock selection, especially in the consumer discretionary, materials, and industrials sectors.
BlackRock:Md Cp Div;I (MARFX)	Overall	Due to the dramatic changes to the fund, we are recommending that clients replace it.
Jns Hndsn:Enterprise;N (JDMNX)	Organization	Janus Capital Group and Henderson Group completed their merger during the second quarter of 2017. We will continue to monitor the newly formed firm, Janus Henderson Investors, to ensure the strategy's philosophy, process, and team remain unaffected by the merger.
Voya:SmCp Oppty;R6 (ISOZX)	Asset Base	The fund has experienced significant inflows over a short period of time. In response to inflows, the fund is now closed to large mandates, which was a prudent decision by management.

The Expense Ratio and Median Expense Ratio for Hedge Fund of Funds and Private Equity Fund of Funds excludes underlying fund expenses; the expenses shown are only at the Fund of Funds level.

Manager Score Card

Manager	Score Factor	Comments
TIAA-Traditional	Organization	TIAA was recently portrayed in the media as having questionable sales practices for the individuals who provide advice and guidance to plan participants. Innovest had an open conversation about this portrayal with TIAA. We believe that the article's allegations of conflicts are concerning but likely fall into the category of "normal" during the course of business for a large, diversified, and evolving financial organization. That said, there is a pending subpoena related to their sales practices by the New York Attorney General's Office. While a subpoena is only a formal request for information and constitutes no wrongdoing, we believe the combination of headline risk illustrated through this article, and the ongoing subpoena warrant a minor concern. We will continue to monitor this situation going forward.
TIAA-Traditional	Exp Ratio (Basis Points)	Expenses cannot be determined as it is a spread product.
TIAA-CREF:Soc Ch Eq;Inst (TISCX)	Organization	In a pending whistle-blower complaint to the SEC, TIAA has been accused of pushing retirement plan clients from self-managed accounts to more expensive, TIAA-managed accounts. While the complaint is alleged and unproven, Innovest continues to monitor the developing situation.

The Expense Ratio and Median Expense Ratio for Hedge Fund of Funds and Private Equity Fund of Funds excludes underlying fund expenses; the expenses shown are only at the Fund of Funds level.

Asset Allocation - 401(a) Legacy

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Large Cap Equity				
CREF Equity Index	85,263	3.67	87,420	3.79
CREF Growth	100,237	4.31	98,903	4.28
Total Large Cap Equity	185,500	7.98	186,323	8.07
Global Equity				
CREF Global Equities	205,467	8.84	211,262	9.15
CREF Stock	691,609	29.76	708,250	30.67
Total Global Equity	897,076	38.60	919,513	39.82
Fixed Income				
CREF Bond Market	40,795	1.76	41,153	1.78
CREF Inflation-Linked Bond	10,404	0.45	10,460	0.45
Total Fixed Income	51,199	2.20	51,613	2.24
Fixed Account				
TIAA Traditional GRA	836,058	35.98	800,504	34.67
Real Estate				
TIAA Real Estate	159,765	6.87	155,234	6.72
Specialty Equity				
CREF Social Choice	46,512	2.00	47,950	2.08
Cash				
CREF Money Market	147,829	6.36	147,953	6.41
LPS 401(a) Legacy Total Fund	2,323,939	100.00	2,309,088	100.00

Asset Allocation - 403(b) Legacy

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Large Cap Equity				
CREF Equity Index	469,026	5.96	489,752	6.21
CREF Growth	263,759	3.35	275,426	3.49
Large Cap Equity	732,785	9.31	765,178	9.71
Global Equity				
CREF Global Equities	460,799	5.86	487,068	6.18
CREF Stock	1,941,137	24.67	1,993,902	25.30
Global Equity	2,401,936	30.52	2,480,970	31.48
Fixed Income				
CREF Bond Market	231,286	2.94	228,832	2.90
CREF Inflation-Linked Bond	95,883	1.22	94,977	1.21
Fixed Income	327,169	4.16	323,809	4.11
Fixed Account				
TIAA Traditional GSRA	3,578,999	45.48	3,512,671	44.57
Real Estate				
TIAA Real Estate	398,164	5.06	391,021	4.96
Specialty Equity				
CREF Social Choice	213,868	2.72	220,477	2.80
Cash & Equivalents				
CREF Money Market	208,823	2.65	179,695	2.28
Loan Default Fund	7,482	0.10	7,560	0.10
Cash & Equivalents	216,305	2.75	187,255	2.38
LPS 403(b) Legacy	7,869,226	100.00	7,881,381	100.00

Asset Allocation - 457 Legacy

	Jun-2017		Sep-2017	
	(\$)	%	(\$)	%
Large Cap Equity				
CREF Equity Index	94,080	3.70	98,237	4.00
CREF Growth	95,387	3.76	101,313	4.13
Total Large Cap Equity	189,466	7.46	199,550	8.12
Global Equity				
CREF Global Equities	43,899	1.73	46,408	1.89
CREF Stock	409,756	16.13	344,812	14.04
Total Global Equity	453,656	17.86	391,220	15.93
Fixed Income				
CREF Bond Market	77,628	3.06	60,820	2.48
CREF Inflation-Linked Bond	40,710	1.60	35,527	1.45
Total Fixed Income	118,338	4.66	96,347	3.92
Fixed Account				
TIAA Traditional GSRA	1,620,127	63.79	1,612,682	65.66
Real Estate				
TIAA Real Estate	107,302	4.22	104,122	4.24
Specialty Equity				
CREF Social Choice	42,596	1.68	43,912	1.79
Cash				
CREF Money Market	8,347	0.33	8,174	0.33
457(b) Legacy Total Fund	2,539,832	100.00	2,456,008	100.00

Table of Returns

	Last Quarter	Year To Date	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Large Cap Equity									
CREF Equity Index	4.50	13.65	18.35	10.39	13.80	13.85	7.18	9.40	05/01/1994
S&P 500 Index	4.48	14.24	18.61	10.81	14.22	14.38	7.44	9.75	
CREF Growth	6.29	22.15	21.93	12.21	15.23	15.12	8.65	8.58	05/01/1994
S&P 500 Growth	5.29	19.33	19.90	12.24	15.00	15.45	9.13	10.18	
Global Equity									
CREF Global Equities	5.79	17.65	19.64	7.69	10.91	9.97	4.20	7.70	05/01/1992
MSCI World (net)	4.84	16.01	18.17	7.69	10.99	10.08	4.22	7.53	
CREF Stock	5.23	16.69	19.09	8.88	11.87	11.28	5.55	9.87	08/01/1952
MSCI AC World IMI (Net)	5.32	17.24	18.73	7.72	10.43	9.34	4.18	N/A	
Fixed Income									
CREF Bond Market	0.96	3.55	0.73	2.93	2.21	3.08	4.03	5.92	04/01/1990
Bloomberg Barclays U.S. Aggregate Index	0.85	3.14	0.07	2.71	2.06	2.95	4.27	6.16	
CREF Inflation-Linked Bond	0.61	1.21	-0.50	1.12	-0.42	2.15	3.43	4.99	06/01/1997
Bloomberg Barclays U.S. TIPS Index	0.86	1.72	-0.73	1.62	0.02	2.64	3.90	5.44	
Fixed Account									
TIAA Traditional GRA-401(a)	1.00	3.04	4.01	3.89	3.76	3.72	3.91	3.73	06/01/2010
Ryan 3 Yr GIC Master Index	0.41	1.18	1.54	1.33	1.23	1.50	2.36	1.59	
TIAA Traditional GSRA-403(b) & 457	0.77	2.80	3.82	3.84	3.73	3.70	N/A	3.69	04/01/2012
Ryan 3 Yr GIC Master Index	0.41	1.18	1.54	1.33	1.23	1.50	2.36	1.25	
Real Estate									
TIAA Real Estate	1.08	3.04	4.33	6.75	9.20	10.42	3.14	6.63	11/01/1995
NCREIF ODCE	1.86	5.43	7.66	10.85	11.59	12.52	5.03	9.25	
Specialty Equity									
CREF Social Choice	3.17	10.40	10.78	6.17	8.28	8.27	5.58	8.33	04/01/1990
20%S&P500,20%S&P500V,60%BCAgg	2.26	7.36	7.13	5.93	6.86	7.61	5.94	7.91	
Cash & Equivalents									
CREF Money Market	0.22	0.50	0.58	0.27	0.17	0.13	0.56	1.89	08/01/1999
90 Day U.S. Treasury Bill	0.27	0.57	0.64	0.28	0.20	0.16	0.45	1.78	

TIAA Traditional Annuity Returns show current quarter's credit rate.