

U - M INVESTMENT FUNDS UPDATE

Average Annualized Compound Return (%) 3 Months 1 Year 3 Years 5 Years 10 Years Average Annualized Compound Return (%) 3 Months 1 Year 3 Years 5 Years 10 Years

Total Returns as of December 31, 2018

Stock Fund Choices

Russell 3000 Index*	-14.30	-5.24	8.97	7.91	13.18
Standard & Poor's 500 Stock Index*	-13.52	-4.38	9.26	8.49	13.12

U.S. Large Capitalization Stock Fund Choices

Russell 1000 Index*	-13.82	-4.78	9.09	8.21	13.28
CREF Equity Index Account	-14.29	-5.37	8.75	7.66	12.83
CREF Growth Account	-16.78	-2.46	9.79	9.87	14.81
CREF Stock Account	-14.56	-9.65	6.78	5.14	10.83
TIAA-CREF Equity Index	-14.25	-5.22	8.97	7.90	13.15
TIAA-CREF Growth and Income	-17.34	-7.11	7.74	7.56	12.79
TIAA-CREF Large-Cap Growth	-16.50	0.04	10.09	10.14	15.19
TIAA-CREF Large-Cap Growth Index	-15.88	-1.55	11.09	10.34	15.21
TIAA-CREF S&P 500 Index	-13.51	-4.45	9.18	8.43	13.04
TIAA-CREF Social Choice Equity	-13.72	-5.53	9.05	7.08	12.71
TIAA-CREF Large-Cap Value	-16.30	-14.10	4.66	3.59	10.84
TIAA-CREF Large-Cap Value Index	-11.69	-8.31	6.89	5.90	11.11
Fidelity	-15.03	-5.16	7.24	7.59	11.97
Fidelity Blue Chip Growth	-15.99	1.16	11.91	11.34	16.97
Fidelity Blue Chip Value	-11.16	-8.65	5.28	5.30	9.97
Fidelity Capital Appreciation	-16.54	-4.84	6.84	6.61	13.77
Fidelity Contrafund	-16.24	-2.07	10.28	9.40	14.02
Fidelity Convertible Securities	-7.96	-1.49	4.61	2.54	11.68
Fidelity Disciplined Equity	-15.91	-9.96	5.21	5.55	10.33
Fidelity Dividend Growth	-11.61	-7.08	6.53	6.14	13.52
Fidelity Equity Dividend Income	-12.30	-9.65	6.18	5.47	10.39
Fidelity Equity-Income	-11.19	-8.33	6.92	5.14	10.67
Fidelity Export & Multinational	-11.48	-7.12	7.38	6.52	11.58
Fidelity Focused Stock	-14.59	5.32	12.58	8.65	14.30
Fidelity Four-in-One Index	-11.60	-6.58	6.47	5.21	9.98
Fidelity Growth & Income	-15.03	-8.85	7.43	6.03	11.88
Fidelity Mega Cap Stock	-14.09	-7.23	7.48	6.44	12.59
Fidelity Growth Company	-20.84	-4.46	11.55	11.41	17.06
Fidelity Growth Discovery	-15.42	-0.14	10.73	10.18	15.25
Fidelity Independence	-17.18	-6.56	5.34	5.55	12.96
Fidelity Large Cap Stock	-16.29	-9.15	7.80	5.96	14.66
Fidelity Large-Cap Value	-11.71	-8.26	-	-	-
Fidelity Large Cap Core Enhanced Index	-12.97	-3.35	9.24	8.04	12.64
Fidelity Large Cap Growth Enhanced Index	-15.51	-3.77	9.80	9.26	14.39
Fidelity Large Cap Growth Index	-15.97	-1.64	-	-	-
Fidelity Large Cap Value Enhanced Index	-11.68	-7.53	7.62	6.61	11.22
Fidelity Magellan	-16.71	-5.58	7.99	8.42	12.95
Fidelity NASDAQ Composite Index	-17.28	-3.18	10.83	10.75	16.54
Fidelity OTC	-19.85	-3.10	11.55	12.44	19.08
Fidelity 500 Index	-13.53	-4.40	9.25	8.48	13.11
Fidelity Stock Selector All Cap	-17.45	-8.52	7.97	6.96	12.50
Fidelity Stock Selector Large Cap Value	-11.90	-9.18	5.78	5.26	9.61
Fidelity Strategic Dividend & Income	-7.97	-4.49	6.49	6.23	11.88
Fidelity Tot Mkt Index	-14.35	-5.28	8.95	7.88	13.21
Fidelity Trend	-17.48	-3.08	9.47	9.22	15.64
Vanguard 500 Index	-13.53	-4.42	9.22	8.46	13.11
Vanguard 500 Index Fund Admiral Shares	-13.53	-4.43	9.22	8.46	13.10
Vanguard Total Stock Market Index	-14.26	-5.15	9.01	7.89	13.18

U.S. Mid-Capitalization Stock Fund Choices

Russell 2500 Index*	-18.49	-10.00	7.32	5.15	13.15
TIAA-CREF Mid-Cap Growth	-18.61	-8.17	5.72	4.81	13.83
TIAA-CREF Mid-Cap Value	-17.25	-14.15	3.85	3.65	11.66
Fidelity Extended Market Index	-18.17	-9.36	7.55	5.32	13.60
Fidelity Growth Strategies Fund	-14.59	-6.81	5.26	6.55	13.10
Fidelity Leveraged Co Stock	-18.97	-16.33	2.86	1.60	12.93
Fidelity Mid Cap Enhanced Index Fund	-14.98	-11.72	5.86	5.53	13.45
Fidelity Mid Cap Index Fund	-15.32	-9.05	7.05	6.25	-
Fidelity Mid-Cap Stock	-13.95	-6.36	8.59	5.90	14.56
Fidelity Mid-Cap Value	-16.08	-18.84	2.19	3.51	12.33
Fidelity New Millennium	-14.81	-7.01	8.66	5.85	13.68
Fidelity Value	-19.04	-17.31	3.61	3.09	12.42
Fidelity Value Discovery	-11.21	-9.21	5.58	5.61	11.72
Fidelity Value Strategies	-18.21	-17.32	3.20	2.72	13.32

U.S. Small Capitalization Stock Fund Choices

Russell 2000 Index*	-20.20	-11.01	7.36	4.41	11.97
TIAA-CREF Small-Cap Blend Index	-20.14	-10.84	7.57	4.64	12.11
TIAA-CREF Small-Cap Equity	-19.39	-11.97	6.70	5.40	12.44
Fidelity Low-Priced Stock	-13.52	-10.68	5.51	4.73	12.97
Fidelity Small Cap Growth	-22.73	-4.58	10.96	8.46	15.73
Fidelity Small Cap Independence	-18.40	-8.50	5.65	4.01	12.39
Fidelity Small Cap Discovery	-15.61	-13.75	3.84	2.37	14.46
Fidelity Small Cap Enhanced Index Fund	-20.08	-13.04	4.63	3.47	11.71
Fidelity Small Cap Index	-20.17	-10.88	7.58	4.63	-
Fidelity Small Cap Stock	-18.31	-11.56	4.37	4.53	11.94
Fidelity Small Cap Value	-16.97	-15.04	4.97	3.95	12.64
Fidelity Stock Selector Mid Cap	-16.86	-8.58	6.71	5.30	13.48

International Stock Fund Choices

S&P/Citigroup-BMI Global Index*	-13.13	-9.67	7.02	4.72	10.36
S&P/Citigroup Broad Market Ex-US Index*	-13.22	-14.37	3.95	1.31	7.47
IFC Investible (Emerging Mkts) Index*	-6.96	-14.22	9.43	2.57	9.03
CREF Global Equities Account	-15.10	-12.36	4.76	3.60	9.49
TIAA-CREF International Equity	-17.41	-23.43	0.73	-1.46	6.24
TIAA-CREF International Equity Index	-12.29	-13.25	3.24	0.69	6.30
TIAA-CREF Emerging Markets Equity	-4.42	-18.11	8.07	0.29	1.60
TIAA-CREF Emerging Markets Equity Index	-7.31	-14.57	9.25	1.46	2.01
Fidelity International Capital Appreciation Fund	-12.39	-12.84	4.78	4.08	11.36
Fidelity Canada	-13.17	-14.29	5.61	-0.49	5.64
Fidelity China Region	-11.25	-17.42	5.94	3.48	10.74
Fidelity Diversified Int'l	-14.11	-15.12	1.24	0.76	6.91
Fidelity Emerging Europe, Middle East, Africa (EMEA) Fund	-5.76	-13.32	11.81	0.97	8.23
Fidelity Emerging Markets	-9.02	-17.91	7.88	2.86	8.59
Fidelity Emerging Markets Discovery Fund	-5.96	-18.88	7.14	1.40	-
Fidelity Emerging Markets Index Fund	-7.41	-14.63	9.35	2.05	-
Fidelity Europe	-15.19	-17.09	0.36	-0.42	6.33
Fidelity Event Driven Opportunities Fund	-21.33	-19.16	4.78	4.80	-
Fidelity Global Commodity Stock Fund	-16.37	-13.20	10.25	-2.75	-
Fidelity Global Equity Income Fund	-11.63	-10.87	4.00	4.11	-
Fidelity Global ex U.S. Index Fund	-11.29	-13.91	4.68	0.70	-
Fidelity Int'l Discovery	-14.77	-17.03	1.07	0.48	6.79
Fidelity International Enhanced Index Fund	-13.18	-14.72	3.50	1.61	6.56
Fidelity International Growth Fund	-12.21	-11.51	3.50	2.23	9.03
Fidelity Int'l Small Cap Fund	-12.65	-16.04	6.47	3.97	11.64
Fidelity Int'l Index	-12.41	-13.52	3.19	0.65	6.17
Fidelity International Small Cap Opportunities	-13.39	-14.10	4.86	4.64	12.18
Fidelity International Value	-15.18	-17.14	-0.80	-1.83	4.80
Fidelity Japan	-16.56	-14.84	4.40	2.51	5.48
Fidelity Japan Smaller Companies	-12.82	-15.94	7.47	5.71	10.53
Fidelity Latin America	3.59	-10.37	11.83	-3.86	2.90
Fidelity Nordic	-12.36	-11.50	2.19	2.50	11.80
Fidelity Overseas	-14.77	-14.60	3.08	2.76	7.48
Fidelity Pacific Basin	-12.32	-17.95	5.76	4.76	12.98
Fidelity Emerging Asia	-6.56	-15.05	9.20	5.26	8.80
Fidelity Total Emerging Markets	-5.31	-14.18	7.66	2.47	-
Fidelity Total International Equity Fund	-12.55	-15.18	3.20	1.05	7.37
Fidelity Total International Index Fund	-11.71	-14.38	-	-	-
Fidelity Worldwide	-15.29	-4.36	7.18	5.07	10.87
Vanguard Total Intl Stock Index	-11.66	-14.39	4.56	0.97	6.38
Vanguard European Stock Index	-12.93	-14.76	2.48	-0.25	6.26
Vanguard Pacific Stock Index Fund - Admiral Shares	-12.95	-13.83	5.27	2.68	6.52
Vanguard Emerging Markets Stock Index Fund	-6.30	-14.54	7.88	1.36	7.52

Life Cycle Funds

TIAA-CREF Lifecycle Index 2010	-4.89	-2.87	4.51	3.94	6.20
TIAA-CREF Lifecycle Index 2015	-5.57	-3.29	4.83	4.14	6.61
TIAA-CREF Lifecycle Index 2020	-6.40	-3.75	5.27	4.41	7.13
TIAA-CREF Lifecycle Index 2025	-7.60	-4.42	5.76	4.70	7.65
TIAA-CREF Lifecycle Index 2030	-8.68	-5.04	6.23	4.97	8.17
TIAA-CREF Lifecycle Index 2035	-9.87	-5.73	6.68	5.22	8.65
TIAA-CREF Lifecycle Index 2040	-11.00	-6.36	7.11	5.45	8.95

TIAA-CREF Lifecycle Index 2045	-11.89	-6.92	7.23	5.52	8.99
TIAA-CREF Lifecycle Index 2050	-12.03	-7.01	7.35	5.59	9.03
TIAA-CREF Lifecycle Index 2055	-12.25	-7.14	7.44	5.64	7.36
TIAA-CREF Lifecycle Index 2060	-12.41	-7.13	7.53	0.00	5.45
TIAA-CREF Managed Alloc Inst	-9.39	-6.82	5.27	4.29	8.71
TIAA-CREF Lifecycle Index Ret Inc	-4.62	-2.65	4.31	3.79	5.76
Fidelity Freedom Index 2005 Fund	-2.93	-1.53	4.01	3.24	-
Fidelity Freedom Index 2010 Fund	-4.25	-2.31	4.58	3.64	-
Fidelity Freedom Index 2015 Fund	-5.56	-3.17	5.12	4.00	-
Fidelity Freedom Index 2020 Fund	-6.61	-3.87	5.46	4.24	-
Fidelity Freedom Index 2025 Fund	-7.55	-4.46	5.77	4.50	-
Fidelity Freedom Index 2030 Fund	-9.22	-5.43	6.66	4.98	-
Fidelity Freedom Index 2035 Fund	-11.27	-6.72	7.12	5.25	-
Fidelity Freedom Index 2040 Fund	-11.88	-7.16	7.03	5.17	-
Fidelity Freedom Index 2045 Fund	-11.89	-7.16	7.03	5.18	-
Fidelity Freedom Index 2050 Fund	-11.88	-7.15	7.01	5.17	-
Fidelity Freedom Index 2055 Fund	-11.85	-7.12	7.04	5.18	-
Fidelity Freedom Index 2060 Fund	-11.94	-7.17	7.03	-	-
Fidelity Freedom Index Income Fund	-1.65	-0.80	3.19	2.63	-
Vanguard Balanced Index Inv	-8.06	-2.82	6.38	5.89	9.56

Balanced Fund Choices

CREF Social Choice Account	-7.40	-4.29	5.51	4.46	8.43
CREF Asset Manager 20%	-2.70	-1.64	3.28	2.72	5.55
Fidelity Asset Manager 30%	-4.49	-2.91	3.88	3.22	6.72
Fidelity Asset Manager 40%	-6.16	-4.06	4.36	3.57	7.55
Fidelity Asset Manager 50%	-7.95	-5.37	4.73	3.82	8.50
Fidelity Asset Manager 60%	-9.63	-6.61	5.09	4.07	9.09
Fidelity Asset Manager 70%	-11.34	-7.66	5.48	4.27	9.83
Fidelity Asset Manager 85%	-13.77	-9.22	6.02	4.64	10.70
Fidelity Balanced	-10.59	-3.94	6.26	5.91	10.45
Fidelity Puritan	-11.26	-4.13	6.23	6.23	10.50
Vanguard Balanced Index Fund	-8.06	-2.82	6.38	5.89	9.56

Bond Fund Choices

U.S. Bond Funds					
Barclays Capital Aggregate Index*	1.64	0.01	2.06	2.52	3.48
CREF Bond Market Account	1.36	-0.19	2.45	2.66	3.69
CREF Inflation Linked Bond Account	-0.13	-0.49	1.85	1.42	3.15
TIAA-CREF Bond	1.13	-0.38	2.74	2.95	4.08
TIAA-CREF Bond Plus Fund II	0.98	-0.25	3.04	3.10	4.84
TIAA-CREF High Yield Fund II	-5.30	-2.66	6.19	3.39	9.48