



The Periodic Table Collection

Rankings of Assorted Indices and Strategies

Year-End 2017

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The Periodic Tables of Investment Returns depict annual returns for various asset classes, ranked from best to worst. Each asset class is color-coded for easy tracking. Well-known, industry-standard market indices are used as proxies for each asset class. The Periodic Table of Investment Returns—a play on the Periodic Table of the Elements—was authored by Jay Kloepfer, Director of Callan’s Capital Markets Research, in 1999. Mr. Kloepfer’s vision of illustrating the importance of diversification resulted in a table of returns, similar to the Mendeleev creation. Callan’s first Periodic Table of Investment Returns was distributed in 1999, for returns 1979 – 1998.

The Callan Periodic Table of Investment Returns

Annual Returns for Key Indices Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
S&P 500 28.58%	MSCI Emerging Markets 66.84%	NFI-ODCE Val Wt 13.19%	Bloomberg Barclays Agg 8.43%	Bloomberg Barclays GI Agg ex US 22.37%	MSCI Emerging Markets 55.82%	MSCI Emerging Markets 25.55%	MSCI Emerging Markets 34.00%	MSCI Emerging Markets 32.17%	MSCI Emerging Markets 39.38%	Bloomberg Barclays Agg 5.24%	MSCI Emerging Markets 78.51%	Russell 2000 26.85%	NFI-ODCE Val Wt 14.96%	MSCI Emerging Markets 18.23%	Russell 2000 38.82%	S&P 500 13.69%	NFI-ODCE Val Wt 13.95%	Russell 2000 21.31%	MSCI Emerging Markets 37.28%
Bloomberg Barclays GI Agg ex US 18.44%	CS Hedge Fund 23.43%	Bloomberg Barclays Agg 11.63%	Bloomberg Barclays High Yield 5.28%	Bloomberg Barclays Agg 10.26%	Russell 2000 47.25%	MSCI ACWI ex USA 20.91%	NFI-ODCE Val Wt 20.15%	MSCI ACWI ex USA 26.65%	MSCI ACWI ex USA 16.65%	Bloomberg Barclays GI Agg ex US 4.39%	Bloomberg Barclays High Yield 58.21%	MSCI Emerging Markets 18.88%	Bloomberg Barclays Agg 7.84%	MSCI ACWI ex USA 16.83%	S&P 500 32.39%	NFI-ODCE Val Wt 11.46%	S&P 500 1.38%	Bloomberg Barclays High Yield 17.13%	MSCI ACWI ex USA 27.19%
NFI-ODCE Val Wt 15.29%	Russell 2000 21.26%	CS Hedge Fund 4.85%	NFI-ODCE Val Wt 4.64%	NFI-ODCE Val Wt 4.57%	MSCI ACWI ex USA 40.83%	Russell 2000 18.33%	MSCI ACWI ex USA 16.62%	Russell 2000 18.37%	NFI-ODCE Val Wt 14.84%	NFI-ODCE Val Wt -10.70%	MSCI ACWI ex USA 41.45%	NFI-ODCE Val Wt 15.26%	Bloomberg Barclays High Yield 4.98%	Russell 2000 16.35%	MSCI ACWI ex USA 15.29%	Bloomberg Barclays Agg 5.97%	Bloomberg Barclays Agg 0.55%	S&P 500 11.96%	S&P 500 21.83%
Bloomberg Barclays Agg 8.67%	S&P 500 21.04%	Russell 2000 -3.02%	CS Hedge Fund 4.42%	CS Hedge Fund 3.04%	Bloomberg Barclays High Yield 28.97%	Bloomberg Barclays GI Agg ex US 12.54%	CS Hedge Fund 7.61%	S&P 500 15.79%	CS Hedge Fund 12.56%	CS Hedge Fund -19.07%	Russell 2000 27.17%	Bloomberg Barclays High Yield 15.12%	Bloomberg Barclays GI Agg ex US 4.36%	S&P 500 16.00%	NFI-ODCE Val Wt 12.90%	Russell 2000 4.89%	CS Hedge Fund -0.71%	MSCI Emerging Markets 11.19%	Russell 2000 14.65%
Bloomberg Barclays High Yield 1.87%	NFI-ODCE Val Wt 12.05%	Bloomberg Barclays GI Agg ex US -3.91%	Russell 2000 2.49%	Bloomberg Barclays High Yield -1.37%	S&P 500 28.68%	NFI-ODCE Val Wt 12.00%	S&P 500 4.91%	NFI-ODCE Val Wt 15.27%	Bloomberg Barclays GI Agg ex US 11.03%	Bloomberg Barclays High Yield -26.16%	S&P 500 26.47%	S&P 500 15.06%	S&P 500 2.11%	Bloomberg Barclays High Yield 15.81%	CS Hedge Fund 9.73%	CS Hedge Fund 4.13%	Russell 2000 -4.41%	NFI-ODCE Val Wt 7.79%	Bloomberg Barclays GI Agg ex US 10.51%
CS Hedge Fund -0.36%	Bloomberg Barclays High Yield 2.39%	Bloomberg Barclays High Yield -5.86%	MSCI Emerging Markets -2.61%	MSCI Emerging Markets -6.16%	Bloomberg Barclays GI Agg ex US 19.36%	Bloomberg Barclays High Yield 11.13%	Russell 2000 4.55%	CS Hedge Fund 13.86%	Bloomberg Barclays Agg 6.97%	Russell 2000 -33.79%	CS Hedge Fund 18.57%	MSCI ACWI ex USA 11.15%	CS Hedge Fund -2.52%	NFI-ODCE Val Wt 9.79%	Bloomberg Barclays High Yield 7.44%	Bloomberg Barclays High Yield 2.45%	Bloomberg Barclays High Yield -4.47%	MSCI ACWI ex USA 4.50%	Bloomberg Barclays High Yield 7.50%
Russell 2000 -2.55%	Bloomberg Barclays Agg -0.83%	S&P 500 -9.11%	Bloomberg Barclays GI Agg ex US -3.75%	MSCI ACWI ex USA -14.95%	CS Hedge Fund 15.44%	S&P 500 10.88%	Bloomberg Barclays High Yield 2.74%	Bloomberg Barclays High Yield 11.85%	S&P 500 5.49%	S&P 500 -37.00%	Bloomberg Barclays GI Agg ex US 7.53%	CS Hedge Fund 10.95%	Russell 2000 -4.18%	CS Hedge Fund 7.67%	Bloomberg Barclays Agg -2.02%	MSCI Emerging Markets -2.19%	MSCI ACWI ex USA -5.66%	Bloomberg Barclays Agg 2.65%	CS Hedge Fund 7.12%
MSCI Emerging Markets -25.34%	Bloomberg Barclays GI Agg ex US -8.83%	MSCI Emerging Markets -30.71%	S&P 500 -11.89%	Russell 2000 -20.48%	NFI-ODCE Val Wt 8.28%	CS Hedge Fund 9.64%	Bloomberg Barclays Agg 2.43%	Bloomberg Barclays GI Agg ex US 8.16%	Bloomberg Barclays High Yield 1.87%	MSCI ACWI ex USA -45.53%	Bloomberg Barclays Agg 5.93%	Bloomberg Barclays Agg 6.54%	MSCI ACWI ex USA -13.71%	Bloomberg Barclays Agg 4.21%	MSCI Emerging Markets -2.60%	Bloomberg Barclays GI Agg ex US -3.09%	Bloomberg Barclays GI Agg ex US -6.02%	Bloomberg Barclays GI Agg ex US 1.49%	NFI-ODCE Val Wt 6.66%
			MSCI ACWI ex USA -19.73%	S&P 500 -22.10%	Bloomberg Barclays Agg 4.10%	Bloomberg Barclays Agg 4.34%	Bloomberg Barclays GI Agg ex US -8.65%	Bloomberg Barclays Agg 4.33%	Russell 2000 -1.57%	MSCI Emerging Markets -53.33%	NFI-ODCE Val Wt -30.40%	Bloomberg Barclays GI Agg ex US 4.95%	MSCI Emerging Markets -18.42%	Bloomberg Barclays GI Agg ex US 4.09%	Bloomberg Barclays GI Agg ex US -3.08%	MSCI ACWI ex USA -3.87%	MSCI Emerging Markets -14.92%	CS Hedge Fund 1.25%	Bloomberg Barclays Agg 3.54%

The Callan Periodic Table of Investment Returns conveys the strong case for diversification across asset classes (stocks vs. bonds), investment styles (growth vs. value), capitalizations (large vs. small), and equity markets (U.S. vs. international). The Table highlights the uncertainty inherent in all capital markets. Rankings change every year. Also noteworthy is the difference between absolute and relative performance, as returns for the top-performing asset class span a wide range over the past 20 years.

Callan Periodic Table of Fund Sponsor Database Returns

Annual Returns for Fund Sponsor Database Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Callan Large Fund Sponsor 14.9%	Callan Large Fund Sponsor 15.4%	Callan Taft-Hartley 2.8%	Callan Taft-Hartley -1.7%	Callan Taft-Hartley -7.9%	Callan Large Fund Sponsor 22.6%	Callan Large Fund Sponsor 11.7%	Callan Large Fund Sponsor 8.0%	Callan Large Fund Sponsor 14.0%	Callan Large Fund Sponsor 8.9%	Callan Taft-Hartley -23.4%	Callan Endowment/Foundation 21.2%	Callan Large Fund Sponsor 13.4%	Callan Corporate Funds 2.0%	Callan Large Fund Sponsor 13.1%	Callan Taft-Hartley 17.3%	Callan Large Fund Sponsor 7.1%	Callan Taft-Hartley 1.3%	Callan Taft-Hartley 7.9%	Callan Endowment/Foundation 16.3%
Callan Public Funds 14.6%	Callan Corporate Funds 14.1%	Callan Small Fund Sponsor 2.7%	Callan Small Fund Sponsor -2.2%	Callan Public Funds -8.1%	Callan Corporate Funds 22.3%	Callan Corporate Funds 11.2%	Callan Endowment/Foundation 7.5%	Callan Public Funds 13.5%	Callan Endowment/Foundation 8.7%	Callan Corporate Funds -24.7%	Callan Small Fund Sponsor 20.8%	Callan Corporate Funds 13.1%	Callan Large Fund Sponsor 1.6%	Callan Corporate Funds 13.0%	Callan Public Funds 15.7%	Callan Corporate Funds 7.0%	Callan Public Funds 0.1%	Callan Large Fund Sponsor 7.8%	Callan Small Fund Sponsor 15.6%
Callan Corporate Funds 14.3%	Callan Endowment/Foundation 13.9%	Callan Endowment/Foundation 1.8%	Callan Mid Fund Sponsor -2.8%	Callan Mid Fund Sponsor -8.8%	Callan Endowment/Foundation 22.3%	Callan Public Funds 11.2%	Callan Public Funds 7.4%	Callan Endowment/Foundation 13.5%	Callan Total Fund Sponsor 8.1%	Callan Small Fund Sponsor -24.8%	Callan Corporate Funds 20.6%	Callan Public Funds 13.0%	Callan Taft-Hartley 1.5%	Callan Public Funds 12.7%	Callan Small Fund Sponsor 15.6%	Callan Taft-Hartley 6.9%	Callan Large Fund Sponsor -0.1%	Callan Public Funds 7.7%	Callan Total Fund Sponsor 15.5%
Callan Total Fund Sponsor 14.1%	Callan Public Funds 13.8%	Callan Total Fund Sponsor 1.8%	Callan Total Fund Sponsor -3.0%	Callan Small Fund Sponsor -8.9%	Callan Mid Fund Sponsor 21.9%	Callan Endowment/Foundation 11.2%	Callan Mid Fund Sponsor 7.3%	Callan Mid Fund Sponsor 13.2%	Callan Corporate Funds 8.0%	Callan Mid Fund Sponsor -25.1%	Callan Public Funds 20.3%	Callan Total Fund Sponsor 12.9%	Callan Mid Fund Sponsor 1.1%	Callan Mid Fund Sponsor 12.6%	Callan Total Fund Sponsor 14.9%	Callan Mid Fund Sponsor 6.1%	Callan Mid Fund Sponsor -0.6%	Callan Mid Fund Sponsor 7.7%	Callan Mid Fund Sponsor 15.4%
Callan Taft-Hartley 13.9%	Callan Mid Fund Sponsor 13.4%	Callan Mid Fund Sponsor 1.7%	Callan Public Funds -3.1%	Callan Total Fund Sponsor -8.9%	Callan Total Fund Sponsor 21.6%	Callan Mid Fund Sponsor 11.0%	Callan Total Fund Sponsor 7.2%	Callan Corporate Funds 13.1%	Callan Mid Fund Sponsor 8.0%	Callan Total Fund Sponsor -25.1%	Callan Total Fund Sponsor 20.2%	Callan Mid Fund Sponsor 12.9%	Callan Public Funds 0.9%	Callan Total Fund Sponsor 12.6%	Callan Endowment/Foundation 14.7%	Callan Public Funds 6.0%	Callan Total Fund Sponsor -0.7%	Callan Corporate Funds 7.6%	Callan Corporate Funds 15.4%
Callan Small Fund Sponsor 13.7%	Callan Total Fund Sponsor 13.2%	Callan Corporate Funds 1.5%	Callan Endowment/Foundation -3.3%	Callan Large Fund Sponsor -9.1%	Callan Public Funds 21.4%	Callan Total Fund Sponsor 11.0%	Callan Corporate Funds 7.1%	Callan Total Fund Sponsor 13.1%	Callan Public Funds 8.0%	Callan Public Funds -25.4%	Callan Mid Fund Sponsor 20.2%	Callan Taft-Hartley 12.8%	Callan Total Fund Sponsor 0.8%	Callan Endowment/Foundation 12.3%	Callan Mid Fund Sponsor 14.7%	Callan Total Fund Sponsor 6.0%	Callan Small Fund Sponsor -1.0%	Callan Total Fund Sponsor 7.5%	Callan Public Funds 15.3%
Callan Mid Fund Sponsor 13.7%	Callan Small Fund Sponsor 11.6%	Callan Public Funds 1.4%	Callan Corporate Funds -3.6%	Callan Corporate Funds -9.4%	Callan Small Fund Sponsor 20.4%	Callan Small Fund Sponsor 10.4%	Callan Taft-Hartley 6.8%	Callan Small Fund Sponsor 12.5%	Callan Small Fund Sponsor 7.8%	Callan Large Fund Sponsor -26.0%	Callan Large Fund Sponsor 19.4%	Callan Small Fund Sponsor 12.6%	Callan Small Fund Sponsor 0.2%	Callan Small Fund Sponsor 12.2%	Callan Large Fund Sponsor 14.3%	Callan Small Fund Sponsor 5.4%	Callan Corporate Funds -1.2%	Callan Small Fund Sponsor 7.3%	Callan Large Fund Sponsor 15.3%
Callan Endowment/Foundation 13.0%	Callan Taft-Hartley 8.9%	Callan Large Fund Sponsor 0.1%	Callan Large Fund Sponsor -4.1%	Callan Endowment/Foundation -9.7%	Callan Taft-Hartley 18.8%	Callan Taft-Hartley 9.8%	Callan Small Fund Sponsor 6.6%	Callan Taft-Hartley 11.8%	Callan Taft-Hartley 7.6%	Callan Endowment/Foundation -26.5%	Callan Taft-Hartley 15.3%	Callan Endowment/Foundation 12.6%	Callan Endowment/Foundation -0.4%	Callan Taft-Hartley 12.0%	Callan Corporate Funds 12.8%	Callan Endowment/Foundation 4.8%	Callan Endowment/Foundation -1.4%	Callan Endowment/Foundation 7.0%	Callan Taft-Hartley 14.3%

Callan Periodic Table of U.S. Equity Investment Returns

Annual Returns for U.S. Equity Indices Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
S&P 500	Russell 2500	S&P 400	S&P 600	S&P 400	Russell 2000	S&P 600	Russell Midcap	Russell 2000	S&P 400	S&P 600	Russell Midcap	Russell 2000	S&P 500	S&P 400	S&P 600	S&P 500	S&P 500	S&P 600	S&P 500
28.58%	24.14%	17.50%	6.54%	-14.51%	47.25%	22.65%	12.65%	18.37%	7.98%	-31.07%	40.48%	26.85%	2.11%	17.88%	41.31%	13.69%	1.38%	26.56%	21.83%
Russell 1000	Russell 2000	S&P 1000	Russell 2000	S&P 1000	Russell 2500	Russell Midcap	S&P 400	Russell 2500	Russell 1000	Russell 2000	S&P 400	Russell 2500	S&P 1500	Russell 2500	Russell 2000	Russell 1000	S&P 1500	S&P 1000	Russell 1000
27.02%	21.26%	15.86%	2.49%	-14.54%	45.51%	20.22%	12.56%	16.17%	5.77%	-33.79%	37.38%	26.71%	1.75%	17.88%	38.82%	13.24%	1.01%	22.49%	21.69%
S&P 1500	S&P 500	S&P 600	S&P 1000	S&P 600	Russell Midcap	S&P 1000	S&P 1000	S&P 500	Russell Midcap	S&P 1000	Russell 2500	S&P 400	Russell 1000	S&P 1000	Russell 2500	Russell Midcap	Russell 1000	Russell 2000	S&P 1500
26.36%	21.04%	11.80%	1.45%	-14.63%	40.06%	18.39%	10.93%	15.79%	5.60%	-34.67%	34.39%	26.64%	1.50%	17.40%	36.80%	13.22%	0.92%	21.31%	21.13%
Russell 3000	Russell 1000	Russell Midcap	Russell 2500	Russell Midcap	S&P 600	Russell 2000	Russell 2500	Russell 3000	S&P 500	S&P 400	S&P 1000	S&P 1000	Russell 3000	Russell Midcap	S&P 1000	S&P 1500	Russell 3000	S&P 400	Russell 3000
24.14%	20.91%	8.25%	1.22%	-16.19%	38.79%	18.33%	8.11%	15.72%	5.49%	-36.23%	33.48%	26.55%	1.03%	17.28%	35.87%	13.08%	0.48%	20.74%	21.13%
S&P 400	Russell 3000	Russell 2500	S&P 400	Russell 2500	S&P 1000	Russell 2500	S&P 600	Russell 1000	S&P 1500	S&P 1500	Russell 1000	S&P 600	S&P 600	Russell 1000	Russell Midcap	Russell 3000	S&P 600	Russell 2500	Russell Midcap
19.11%	20.90%	4.27%	-0.60%	-17.80%	36.61%	18.29%	7.68%	15.46%	5.47%	-36.72%	28.43%	26.31%	1.02%	16.42%	34.76%	12.56%	-1.97%	17.59%	18.52%
S&P 1000	S&P 1500	Russell 2000	Russell Midcap	Russell 2000	S&P 400	S&P 400	Russell 1000	S&P 1500	S&P 1000	Russell 2500	Russell 3000	Russell Midcap	S&P 1000	Russell 3000	Russell 3000	S&P 400	S&P 1000	Russell Midcap	Russell 2500
13.20%	20.26%	-3.02%	-5.62%	-20.48%	35.62%	16.48%	6.27%	15.34%	5.18%	-36.79%	28.34%	25.48%	-0.92%	16.42%	33.55%	9.77%	-2.11%	13.80%	16.81%
Russell Midcap	Russell Midcap	S&P 1500	S&P 1500	S&P 1500	Russell 3000	Russell 3000	Russell 3000	Russell Midcap	Russell 3000	S&P 500	S&P 1500	Russell 3000	Russell Midcap	Russell 2000	S&P 400	S&P 1000	S&P 400	S&P 1500	S&P 400
10.09%	18.23%	-6.98%	-10.64%	-21.31%	31.06%	11.95%	6.12%	15.26%	5.14%	-37.00%	27.25%	16.93%	-1.55%	16.35%	33.50%	8.54%	-2.18%	13.03%	16.24%
Russell 2500	S&P 400	Russell 3000	Russell 3000	Russell 3000	Russell 1000	S&P 1500	S&P 1500	S&P 600	Russell 2500	Russell 3000	Russell 2000	S&P 1500	S&P 400	S&P 600	Russell 1000	Russell 2500	Russell Midcap	Russell 3000	S&P 1000
0.38%	14.73%	-7.46%	-11.46%	-21.54%	29.89%	11.78%	5.66%	15.11%	1.38%	-37.31%	27.17%	16.38%	-1.73%	16.33%	33.11%	7.07%	-2.44%	12.74%	15.33%
S&P 600	S&P 1000	Russell 1000	S&P 500	Russell 1000	S&P 1500	Russell 1000	S&P 500	S&P 1000	S&P 600	Russell 1000	S&P 500	Russell 1000	Russell 2500	S&P 1500	S&P 1500	S&P 600	Russell 2500	Russell 1000	Russell 2000
-1.30%	14.11%	-7.79%	-11.89%	-21.65%	29.59%	11.40%	4.91%	11.89%	-0.30%	-37.60%	26.47%	16.10%	-2.51%	16.17%	32.59%	5.76%	-2.90%	12.05%	14.65%
Russell 2000	S&P 600	S&P 500	Russell 1000	S&P 500	S&P 500	S&P 500	Russell 2000	S&P 400	Russell 2000	Russell Midcap	S&P 600	S&P 500	Russell 2000	S&P 500	S&P 500	Russell 2000	Russell 2000	S&P 500	S&P 600
-2.55%	12.40%	-9.11%	-12.45%	-22.10%	28.68%	10.88%	4.55%	10.31%	-1.57%	-41.46%	25.57%	15.06%	-4.18%	16.00%	32.39%	4.89%	-4.41%	11.96%	13.23%

Callan Periodic Table of Global Equity Investment Returns

Annual Returns for Global Equity Indices Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Europe	Emerging Markets	Europe	Emerging Markets	ACWI ex USA SC	ACWI ex USA SC	ACWI ex USA SC	Emerging Markets	Europe	Emerging Markets	Japan	Emerging Markets	ACWI ex USA SC	World	Pacific ex Japan	Japan	World	Japan	Emerging Markets	Emerging Markets
28.52%	66.84%	-8.39%	-2.61%	-5.69%	57.72%	29.10%	34.00%	33.72%	39.38%	-29.21%	78.51%	25.20%	-5.54%	24.57%	27.16%	4.94%	9.57%	11.19%	37.28%
World	Japan	World	Pacific ex Japan	Emerging Markets	Emerging Markets	Pacific ex Japan	Japan	Emerging Markets	Pacific ex Japan	Pacific	Pacific ex Japan	Emerging Markets	ACWI	Europe	World	ACWI	Pacific	ACWI	ACWI ex USA SC
24.33%	61.53%	-13.17%	-9.88%	-6.16%	55.82%	28.46%	25.52%	32.17%	30.73%	-36.42%	72.81%	18.88%	-7.35%	19.12%	26.68%	4.16%	2.96%	7.86%	31.65%
World ex USA	Pacific	World ex USA	ACWI ex USA SC	Pacific ex Japan	Pacific ex Japan	Emerging Markets	ACWI ex USA SC	Pacific ex Japan	ACWI ex USA	World	ACWI ex USA SC	Pacific ex Japan	Europe	ACWI ex USA SC	Europe	Pacific ex Japan	ACWI ex USA SC	Pacific ex Japan	ACWI ex USA
18.77%	57.64%	-13.37%	-14.40%	-6.42%	45.77%	25.55%	22.97%	32.02%	16.65%	-40.71%	62.91%	16.91%	-11.06%	18.52%	25.23%	-0.47%	2.60%	7.85%	27.19%
ACWI ex USA SC	Pacific ex Japan	Pacific ex Japan	ACWI	Pacific	ACWI ex USA	ACWI ex USA	Pacific	ACWI ex USA SC	Europe	ACWI	ACWI ex USA	Pacific	World ex USA	Emerging Markets	ACWI	Emerging Markets	World	World	Pacific ex Japan
5.13%	42.58%	-15.57%	-16.21%	-9.29%	40.83%	20.91%	22.64%	26.70%	13.86%	-42.20%	41.45%	15.92%	-12.21%	18.23%	22.80%	-2.19%	-0.87%	7.51%	25.88%
Japan	ACWI ex USA SC	ACWI ex USA SC	World	Japan	World ex USA	Europe	ACWI ex USA	ACWI ex USA	World ex USA	World ex USA	Europe	Japan	Pacific ex Japan	ACWI ex USA	World ex USA	Pacific	ACWI	ACWI ex USA	Europe
5.04%	32.26%	-18.24%	-16.82%	-10.28%	39.42%	20.88%	16.62%	26.65%	12.44%	-43.56%	35.83%	15.44%	-12.79%	16.83%	21.02%	-2.70%	-2.36%	4.50%	25.51%
Pacific	World ex USA	Pacific	ACWI ex USA	ACWI ex USA	Europe	World ex USA	World ex USA	World ex USA	ACWI	ACWI ex USA	ACWI	ACWI	ACWI ex USA	World ex USA	ACWI ex USA SC	ACWI ex USA	Europe	Pacific	Pacific
2.45%	27.92%	-25.77%	-19.73%	-14.95%	38.54%	20.38%	14.47%	25.71%	11.66%	-45.53%	34.63%	12.67%	-13.71%	16.41%	19.73%	-3.87%	-2.84%	4.18%	24.64%
Pacific ex Japan	World	Japan	Europe	World ex USA	Pacific	Pacific	Pacific ex Japan	ACWI	ACWI ex USA SC	Europe	World ex USA	World	Pacific	ACWI	Pacific	Japan	World ex USA	ACWI ex USA SC	World ex USA
-6.64%	24.94%	-28.16%	-19.90%	-15.80%	38.48%	18.98%	13.81%	20.95%	10.74%	-46.42%	33.67%	11.76%	-13.74%	16.13%	18.27%	-4.02%	-3.04%	3.91%	24.21%
Emerging Markets	Europe	Emerging Markets	World ex USA	Europe	Japan	Japan	ACWI	World	World	ACWI ex USA SC	World	ACWI ex USA	Japan	World	ACWI ex USA	ACWI ex USA SC	ACWI ex USA	World ex USA	Japan
-25.34%	15.90%	-30.71%	-21.40%	-18.38%	35.91%	15.86%	10.84%	20.07%	9.04%	-50.23%	29.99%	11.15%	-14.33%	15.83%	15.29%	-4.03%	-5.66%	2.75%	23.99%
			Pacific	ACWI	ACWI	ACWI	World	Pacific	Pacific	Pacific ex Japan	Pacific	World ex USA	Emerging Markets	Pacific	Pacific ex Japan	World ex USA	Pacific ex Japan	Japan	ACWI
			-25.40%	-19.32%	33.99%	15.23%	9.49%	12.20%	5.30%	-50.50%	24.18%	8.95%	-18.42%	14.42%	5.49%	-4.32%	-8.47%	2.38%	23.97%
			Japan	World	World	World	Europe	Japan	Japan	Emerging Markets	Japan	Europe	ACWI ex USA SC	Japan	Emerging Markets	Europe	Emerging Markets	Europe	World
			-29.40%	-19.89%	33.11%	14.72%	9.42%	6.24%	-4.23%	-53.33%	6.25%	3.88%	-18.50%	8.18%	-2.60%	-6.18%	-14.92%	-0.40%	22.40%

All Indices are MSCI.

Callan Periodic Table of Investment Returns (Including Alternatives)

Annual Returns for Key Indices Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
S&P 500 28.58%	Cambridge Private Eq 90.14%	Bloomberg Commodity 24.21%	Bloomberg Barclays Agg 8.43%	Bloomberg Commodity 23.86%	MSCI Emerging Markets 55.82%	MSCI Emerging Markets 25.55%	MSCI Emerging Markets 34.00%	MSCI Emerging Markets 32.17%	MSCI Emerging Markets 39.38%	Bloomberg Barclays Agg 5.24%	MSCI Emerging Markets 78.51%	Russell 2000 26.85%	NFI-ODCE Val Wt 14.96%	MSCI Emerging Markets 18.23%	Russell 2000 38.82%	S&P 500 13.69%	NFI-ODCE Val Wt 13.95%	Russell 2000 21.31%	MSCI Emerging Markets 37.28%
Cambridge Private Eq 19.00%	MSCI Emerging Markets 66.84%	NFI-ODCE Val Wt 13.19%	Bloomberg Barclays U.S. TIPS 7.90%	Bloomberg U.S. TIPS 16.57%	Russell 2000 47.25%	Cambridge Private Eq 24.17%	Cambridge Private Eq 21.82%	Cambridge Private Eq 32.14%	Cambridge Private Eq 22.54%	3 Month T-Bills 2.06%	Bloomberg Barclays HY 58.21%	Cambridge Private Eq 19.27%	NCREIF Property 14.26%	MSCI ACWI ex USA 16.83%	S&P 500 32.39%	NCREIF Property 11.82%	NCREIF Property 13.33%	Bloomberg Barclays HY 17.13%	MSCI ACWI ex USA 27.19%
NCREIF Property 16.24%	CS Hedge Fund 23.43%	Bloomberg Barclays U.S. TIPS 13.17%	NCREIF Property 7.28%	Bloomberg Barclays Agg 10.26%	MSCI ACWI ex USA 40.83%	MSCI ACWI ex USA 20.91%	NFI-ODCE Val Wt 20.15%	MSCI ACWI ex USA 26.65%	MSCI ACWI ex USA 16.65%	Bloomberg Barclays U.S. TIPS -2.35%	MSCI ACWI ex USA 41.45%	MSCI Emerging Markets 18.88%	Bloomberg Barclays U.S. TIPS 13.56%	Russell 2000 16.35%	Cambridge Private Eq 21.01%	Cambridge Private Eq 11.79%	Cambridge Private Eq 8.67%	S&P 500 11.96%	S&P 500 21.83%
NFI-ODCE Val Wt 15.29%	Russell 2000 21.26%	NCREIF Property 12.24%	Bloomberg Barclays HY 5.28%	NCREIF Property 6.74%	Bloomberg Barclays HY 28.97%	Russell 2000 18.33%	NCREIF Property 20.06%	Russell 2000 18.37%	NCREIF Property 15.85%	NCREIF Property -6.46%	Russell 2000 27.17%	Bloomberg Commodity 16.67%	Bloomberg Barclays Agg 7.84%	S&P 500 16.00%	MSCI ACWI ex USA 15.29%	NFI-ODCE Val Wt 11.46%	S&P 500 1.38%	Bloomberg Commodity 11.40%	Russell 2000 14.65%
Bloomberg Barclays Agg 8.67%	S&P 500 21.04%	Cambridge Private Eq 11.84%	NFI-ODCE Val Wt 4.64%	NFI-ODCE Val Wt 4.57%	S&P 500 28.68%	NCREIF Property 14.48%	Bloomberg Commodity 17.54%	NCREIF Property 16.59%	NFI-ODCE Val Wt 14.84%	NFI-ODCE Val Wt -10.70%	S&P 500 26.47%	NFI-ODCE Val Wt 15.26%	Cambridge Private Eq 7.07%	Bloomberg Barclays HY 15.81%	NFI-ODCE Val Wt 12.90%	Bloomberg Barclays Agg 5.97%	Bloomberg Barclays Agg 0.55%	MSCI Emerging Markets 11.19%	Bloomberg Barclays HY 7.50%
3 Month T-Bills 5.23%	Bloomberg Commodity 18.60%	Bloomberg Barclays Agg 11.63%	3 Month T-Bills 4.42%	CS Hedge Fund 3.04%	Bloomberg Commodity 22.66%	NFI-ODCE Val Wt 12.00%	MSCI ACWI ex USA 16.62%	S&P 500 15.79%	CS Hedge Fund 12.56%	CS Hedge Fund -19.07%	Bloomberg Commodity 18.72%	Bloomberg Barclays HY 15.12%	Bloomberg Barclays HY 4.98%	Cambridge Private Eq 13.53%	NCREIF Property 10.98%	Russell 2000 4.89%	3 Month T-Bills 0.05%	Cambridge Private Eq 9.25%	CS Hedge Fund 7.12%
Bloomberg Barclays U.S. TIPS 3.95%	NFI-ODCE Val Wt 12.05%	3 Month T-Bills 6.18%	CS Hedge Fund 4.42%	3 Month T-Bills 1.78%	Cambridge Private Eq 18.59%	Bloomberg Barclays HY 11.13%	CS Hedge Fund 7.61%	NFI-ODCE Val Wt 15.27%	Bloomberg Barclays U.S. TIPS 11.63%	Bloomberg Barclays HY -26.16%	CS Hedge Fund 18.57%	S&P 500 15.06%	S&P 500 2.11%	NCREIF Property 10.54%	CS Hedge Fund 9.73%	CS Hedge Fund 4.13%	CS Hedge Fund -0.71%	NCREIF Property 7.97%	NCREIF Property 6.96%
Bloomberg Barclays HY 1.87%	NCREIF Property 11.36%	CS Hedge Fund 4.85%	Russell 2000 2.49%	Bloomberg Barclays HY -1.37%	CS Hedge Fund 15.44%	S&P 500 10.88%	S&P 500 4.91%	CS Hedge Fund 13.86%	Bloomberg Commodity 11.08%	Cambridge Private Eq -26.64%	Cambridge Private Eq 17.21%	NCREIF Property 13.11%	3 Month T-Bills 0.10%	NFI-ODCE Val Wt 9.79%	Bloomberg Barclays HY 7.44%	Bloomberg Barclays U.S. TIPS 3.64%	Bloomberg Barclays U.S. TIPS -1.44%	NFI-ODCE Val Wt 7.79%	NFI-ODCE Val Wt 6.66%
CS Hedge Fund -0.36%	3 Month T-Bills 4.85%	Russell 2000 -3.02%	MSCI Emerging Markets -2.61%	MSCI Emerging Markets -6.16%	NCREIF Property 8.99%	CS Hedge Fund 9.64%	Russell 2000 4.55%	Bloomberg Barclays HY 11.85%	Bloomberg Barclays Agg 6.97%	Russell 2000 -33.79%	Bloomberg Barclays U.S. TIPS 11.41%	MSCI ACWI ex USA 11.15%	CS Hedge Fund -2.52%	CS Hedge Fund 7.67%	3 Month T-Bills 0.07%	Bloomberg Barclays HY 2.45%	Russell 2000 -4.41%	Bloomberg Barclays U.S. TIPS 4.68%	Bloomberg Barclays Agg 3.54%
Russell 2000 -2.55%	Bloomberg Barclays U.S. TIPS 2.40%	Bloomberg Barclays HY -5.86%	S&P 500 -11.89%	MSCI ACWI ex USA -10.82%	Bloomberg Barclays U.S. TIPS 8.40%	Bloomberg Barclays U.S. TIPS 8.46%	3 Month T-Bills 3.07%	3 Month T-Bills 4.85%	S&P 500 5.49%	Bloomberg Commodity -36.61%	Bloomberg Barclays Agg 5.93%	CS Hedge Fund 10.95%	Russell 2000 -4.18%	Bloomberg Barclays U.S. TIPS 6.98%	Bloomberg Barclays Agg -2.02%	3 Month T-Bills 0.03%	Bloomberg Barclays HY -4.47%	MSCI ACWI ex USA 4.50%	Bloomberg Barclays U.S. TIPS 3.01%
MSCI Emerging Markets -25.34%	Bloomberg Barclays HY 2.39%	S&P 500 -9.11%	MSCI ACWI ex USA -19.73%	MSCI ACWI ex USA -14.95%	NFI-ODCE Val Wt 8.28%	Bloomberg Commodity 7.64%	Bloomberg Barclays U.S. TIPS 2.84%	Bloomberg Barclays Agg 4.33%	3 Month T-Bills 5.00%	S&P 500 -37.00%	3 Month T-Bills 0.21%	Bloomberg Barclays Agg 6.54%	Bloomberg Commodity -13.37%	Bloomberg Barclays Agg 4.21%	MSCI Emerging Markets -2.60%	MSCI Emerging Markets -2.19%	MSCI ACWI ex USA -5.66%	Bloomberg Barclays Agg 2.65%	3 Month T-Bills 0.86%
Bloomberg Commodity -30.52%	Bloomberg Barclays Agg -0.83%	MSCI Emerging Markets -30.71%	Cambridge Private Eq -19.88%	Russell 2000 -20.48%	Bloomberg Barclays Agg 4.10%	Bloomberg Barclays Agg 4.34%	Bloomberg Barclays HY 2.74%	Bloomberg Barclays U.S. TIPS 0.41%	Bloomberg Barclays HY 1.87%	MSCI ACWI ex USA -45.53%	NCREIF Property -16.86%	Bloomberg Barclays U.S. TIPS 6.31%	MSCI ACWI ex USA -13.71%	3 Month T-Bills 0.11%	Bloomberg Barclays U.S. TIPS -8.61%	MSCI ACWI ex USA -3.87%	MSCI Emerging Markets -14.92%	CS Hedge Fund 1.25%	Bloomberg Commodity 0.75%
			Bloomberg Commodity -22.32%	S&P 500 -22.10%	3 Month T-Bills 1.15%	3 Month T-Bills 1.33%	Bloomberg Barclays Agg 2.43%	Bloomberg Commodity -2.71%	Russell 2000 -1.57%	MSCI Emerging Markets -53.33%	NFI-ODCE Val Wt -30.40%	3 Month T-Bills 0.13%	MSCI Emerging Markets -18.42%	Bloomberg Commodity -1.14%	Bloomberg Commodity -9.58%	Bloomberg Commodity -17.04%	Bloomberg Commodity -24.70%	3 Month T-Bills 0.33%	

Cambridge Private Equity Index full year 2017 performance unavailable at time of reporting.

Callan Periodic Table of Investment Returns (Including Real Estate)

Annual Returns for Key Indices Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
S&P 500	MSCI Emerging Markets	NAREIT Equity	NAREIT Equity	Bloomberg Barclays Agg	MSCI Emerging Markets	EPRA/NAREIT Dev REIT	MSCI Emerging Markets	EPRA/NAREIT Dev REIT	MSCI Emerging Markets	Bloomberg Barclays Agg	MSCI Emerging Markets	NAREIT Equity	NFI-ODCE Val Wt	EPRA/NAREIT Dev REIT	Russell 2000	NAREIT Equity	NFI-ODCE Val Wt	Russell 2000	MSCI Emerging Markets
28.58%	66.84%	26.37%	13.93%	10.26%	55.82%	37.96%	34.00%	42.35%	39.38%	5.24%	78.51%	27.96%	14.96%	28.65%	38.82%	30.14%	13.95%	21.31%	37.28%
NCREIF Property	Russell 2000	EPRA/NAREIT Dev REIT	Bloomberg Barclays Agg	NCREIF Property	Russell 2000	NAREIT Equity	NFI-ODCE Val Wt	NAREIT Equity	MSCI ACWI ex USA	NCREIF Property	Bloomberg Barclays High Yield	Russell 2000	NCREIF Property	MSCI Emerging Markets	S&P 500	EPRA/NAREIT Dev REIT	NCREIF Property	Bloomberg Barclays High Yield	MSCI ACWI ex USA
16.24%	21.26%	13.84%	8.43%	6.74%	47.25%	31.58%	20.15%	35.06%	16.65%	-6.46%	58.21%	26.85%	14.26%	18.23%	32.39%	15.89%	13.33%	17.13%	27.19%
NFI-ODCE Val Wt	S&P 500	NFI-ODCE Val Wt	NCREIF Property	NFI-ODCE Val Wt	MSCI ACWI ex USA	MSCI Emerging Markets	NCREIF Property	MSCI Emerging Markets	NCREIF Property	NFI-ODCE Val Wt	MSCI ACWI ex USA	EPRA/NAREIT Dev REIT	NAREIT Equity	NAREIT Equity	MSCI ACWI ex USA	S&P 500	NAREIT Equity	S&P 500	S&P 500
15.29%	21.04%	13.19%	7.28%	4.57%	40.83%	25.55%	20.06%	32.17%	15.85%	-10.70%	41.45%	20.40%	8.29%	18.06%	15.29%	13.69%	3.20%	11.96%	21.83%
Bloomberg Barclays Agg	NFI-ODCE Val Wt	NCREIF Property	Bloomberg Barclays High Yield	NAREIT Equity	EPRA/NAREIT Dev REIT	MSCI ACWI ex USA	MSCI ACWI ex USA	MSCI ACWI ex USA	NFI-ODCE Val Wt	Bloomberg Barclays High Yield	EPRA/NAREIT Dev REIT	MSCI Emerging Markets	Bloomberg Barclays Agg	MSCI ACWI ex USA	NFI-ODCE Val Wt	NCREIF Property	S&P 500	MSCI Emerging Markets	Russell 2000
8.67%	12.05%	12.24%	5.28%	3.82%	40.69%	20.91%	16.62%	26.65%	14.84%	-26.16%	38.26%	18.88%	7.84%	16.83%	12.90%	11.82%	1.38%	11.19%	14.65%
Bloomberg Barclays High Yield	NCREIF Property	Bloomberg Barclays Agg	NFI-ODCE Val Wt	EPRA/NAREIT Dev REIT	NAREIT Equity	Russell 2000	EPRA/NAREIT Dev REIT	Russell 2000	Bloomberg Barclays Agg	Russell 2000	NAREIT Equity	NFI-ODCE Val Wt	Bloomberg Barclays High Yield	Russell 2000	NCREIF Property	NFI-ODCE Val Wt	Bloomberg Barclays Agg	NAREIT Equity	EPRA/NAREIT Dev REIT
1.87%	11.36%	11.63%	4.64%	2.82%	37.14%	18.33%	15.35%	18.37%	6.97%	-33.79%	27.99%	15.26%	4.98%	16.35%	10.98%	11.46%	0.55%	8.52%	11.42%
Russell 2000	EPRA/NAREIT Dev REIT	Russell 2000	Russell 2000	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	NCREIF Property	NAREIT Equity	NCREIF Property	S&P 500	S&P 500	Russell 2000	Bloomberg Barclays High Yield	S&P 500	S&P 500	Bloomberg Barclays High Yield	Bloomberg Barclays Agg	EPRA/NAREIT Dev REIT	NCREIF Property	Bloomberg Barclays High Yield
-2.55%	8.87%	-3.02%	2.49%	-1.37%	28.97%	14.48%	12.16%	16.59%	5.49%	-37.00%	27.17%	15.12%	2.11%	16.00%	7.44%	5.97%	0.05%	7.97%	7.50%
EPRA/NAREIT Dev REIT	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	MSCI Emerging Markets	MSCI Emerging Markets	S&P 500	NFI-ODCE Val Wt	S&P 500	S&P 500	Bloomberg Barclays High Yield	NAREIT Equity	S&P 500	S&P 500	Russell 2000	Bloomberg Barclays High Yield	EPRA/NAREIT Dev REIT	Russell 2000	Russell 2000	NFI-ODCE Val Wt	NCREIF Property
-8.18%	2.39%	-5.86%	-2.61%	-6.16%	28.68%	12.00%	4.91%	15.79%	1.87%	-37.72%	26.47%	15.06%	-4.18%	15.81%	4.43%	4.89%	-4.41%	7.79%	6.85%
NAREIT Equity	Bloomberg Barclays Agg	S&P 500	EPRA/NAREIT Dev REIT	MSCI ACWI ex USA	NCREIF Property	Bloomberg Barclays High Yield	Russell 2000	NFI-ODCE Val Wt	Russell 2000	MSCI ACWI ex USA	Bloomberg Barclays Agg	NCREIF Property	EPRA/NAREIT Dev REIT	NCREIF Property	NAREIT Equity	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	EPRA/NAREIT Dev REIT	NFI-ODCE Val Wt
-17.50%	-0.83%	-9.11%	-3.81%	-14.95%	8.99%	11.13%	4.55%	15.27%	-1.57%	-45.53%	5.93%	13.11%	-5.82%	10.54%	2.47%	2.45%	-4.47%	4.99%	6.45%
MSCI Emerging Markets	NAREIT Equity	MSCI Emerging Markets	S&P 500	Russell 2000	NFI-ODCE Val Wt	S&P 500	Bloomberg Barclays High Yield	Bloomberg Barclays High Yield	EPRA/NAREIT Dev REIT	EPRA/NAREIT Dev REIT	NCREIF Property	MSCI ACWI ex USA	MSCI ACWI ex USA	NFI-ODCE Val Wt	Bloomberg Barclays Agg	MSCI Emerging Markets	MSCI ACWI ex USA	MSCI ACWI ex USA	NAREIT Equity
-25.34%	-4.62%	-30.71%	-11.89%	-20.48%	8.28%	10.88%	2.74%	11.85%	-6.96%	-47.72%	-16.86%	11.15%	-13.71%	9.79%	-2.02%	-2.19%	-5.66%	4.50%	5.23%
			MSCI ACWI ex USA	S&P 500	Bloomberg Barclays Agg	Bloomberg Barclays Agg	Bloomberg Barclays Agg	Bloomberg Barclays Agg	NAREIT Equity	MSCI Emerging Markets	NFI-ODCE Val Wt	Bloomberg Barclays Agg	MSCI Emerging Markets	Bloomberg Barclays Agg	MSCI Emerging Markets	MSCI ACWI ex USA	MSCI Emerging Markets	Bloomberg Barclays Agg	Bloomberg Barclays Agg
			-19.73%	-22.10%	4.10%	4.34%	2.43%	4.33%	-15.69%	-53.33%	-30.40%	6.54%	-18.42%	4.21%	-2.60%	-3.87%	-14.92%	2.65%	3.54%

Callan Periodic Table of Fixed Income Investment Returns

Annual Returns for Fixed Income Indices Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Global Aggregate	JPM EMBI GI Div	Long Treasury	Long Credit	Long Treasury	Corp High Yield	JPM EMBI GI Div	JPM EMBI GI Div	Corp High Yield	Long Treasury	Long Treasury	Corp High Yield	Corp High Yield	Long Treasury	JPM EMBI GI Div	Corp High Yield	Long Treasury	JPM EMBI GI Div	Corp High Yield	Long Credit
13.71%	19.56%	20.28%	12.16%	16.79%	28.97%	11.62%	10.25%	11.85%	9.81%	24.03%	58.21%	15.12%	29.93%	17.44%	7.44%	25.07%	1.18%	17.13%	12.21%
Long Treasury	CS Leveraged Loans	JPM EMBI GI Div	Intermediate Credit	Global Aggregate	JPM EMBI GI Div	Corp High Yield	Long Treasury	JPM EMBI GI Div	Global Aggregate	Global Aggregate (hdg)	CS Leveraged Loans	JPM EMBI GI Div	Long Credit	Corp High Yield	CS Leveraged Loans	Long Credit	Global Aggregate (hdg)	Long Credit	JPM EMBI GI Div
13.51%	4.69%	12.68%	9.76%	16.53%	22.21%	11.13%	6.50%	9.86%	9.48%	5.58%	44.86%	12.24%	17.13%	15.81%	6.12%	16.39%	1.02%	10.22%	10.26%
Global Aggregate (hdg)	Gov/Credit 1-3 Yr	Aggregate	JPM EMBI GI Div	JPM EMBI GI Div	Global Aggregate	Long Credit	CS Leveraged Loans	CS Leveraged Loans	Aggregate	Aggregate	JPM EMBI GI Div	Long Credit	Aggregate	Long Credit	Gov/Credit 1-3 Yr	Global Aggregate (hdg)	Intermediate Credit	JPM EMBI GI Div	Long Treasury
9.77%	3.16%	11.63%	9.70%	13.65%	12.51%	9.38%	5.69%	7.33%	6.97%	5.24%	29.82%	10.69%	7.84%	12.73%	0.64%	7.59%	0.90%	10.15%	8.53%
Long Credit	Corp High Yield	Global Aggregate (hdg)	Gov/Credit 1-3 Yr	Long Credit	CS Leveraged Loans	Global Aggregate	Global Aggregate (hdg)	Global Aggregate	Gov/Credit 1-3 Yr	Gov/Credit 1-3 Yr	Long Credit	CS Leveraged Loans	JPM EMBI GI Div	CS Leveraged Loans	Global Aggregate (hdg)	JPM EMBI GI Div	Gov/Credit 1-3 Yr	CS Leveraged Loans	Corp High Yield
9.03%	2.39%	10.34%	8.78%	11.92%	11.02%	9.27%	4.28%	6.64%	6.83%	4.97%	16.80%	9.99%	7.35%	8.74%	-0.14%	7.43%	0.65%	9.88%	7.50%
Aggregate	Global Aggregate (hdg)	Intermediate Credit	Aggregate	Aggregate	Long Credit	Long Treasury	Long Credit	Intermediate Credit	JPM EMBI GI Div	Global Aggregate	Intermediate Credit	Long Treasury	Global Aggregate	Intermediate Credit	Intermediate Credit	Aggregate	Aggregate	Global Aggregate (hdg)	Global Aggregate
8.67%	0.79%	9.45%	8.43%	10.26%	10.43%	7.70%	3.76%	4.49%	6.15%	4.79%	15.93%	9.38%	5.64%	8.10%	-0.17%	5.97%	0.55%	3.95%	7.39%
Intermediate Credit	Intermediate Credit	Long Credit	Global Aggregate (hdg)	Intermediate Credit	Intermediate Credit	CS Leveraged Loans	Corp High Yield	Aggregate	Intermediate Credit	Intermediate Credit	Global Aggregate	Intermediate Credit	Global Aggregate (hdg)	Global Aggregate (hdg)	Aggregate	Intermediate Credit	CS Leveraged Loans	Intermediate Credit	CS Leveraged Loans
8.29%	0.17%	9.19%	7.24%	10.14%	6.91%	5.60%	2.74%	4.33%	5.60%	-2.76%	6.93%	7.76%	5.40%	5.72%	-2.02%	4.16%	-0.39%	3.68%	4.25%
Gov/Credit 1-3 Yr	Aggregate	Gov/Credit 1-3 Yr	Corp High Yield	Global Aggregate (hdg)	Aggregate	Global Aggregate (hdg)	Aggregate	Gov/Credit 1-3 Yr	Global Aggregate (hdg)	Long Credit	Aggregate	Aggregate	Intermediate Credit	Global Aggregate	Global Aggregate	Corp High Yield	Long Treasury	Aggregate	Intermediate Credit
6.97%	-0.83%	8.08%	5.28%	8.45%	4.10%	4.89%	2.43%	4.25%	5.32%	-3.92%	5.93%	6.54%	5.37%	4.32%	-2.60%	2.45%	-1.21%	2.65%	3.67%
CS Leveraged Loans	Global Aggregate	CS Leveraged Loans	Long Treasury	Gov/Credit 1-3 Yr	Global Aggregate (hdg)	Aggregate	Gov/Credit 1-3 Yr	Global Aggregate (hdg)	Long Credit	JPM EMBI GI Div	Global Aggregate (hdg)	Global Aggregate	Corp High Yield	Aggregate	JPM EMBI GI Div	CS Leveraged Loans	Global Aggregate	Global Aggregate	Aggregate
5.31%	-5.17%	4.94%	4.21%	6.28%	3.11%	4.34%	1.77%	3.64%	3.60%	-12.03%	5.09%	5.54%	4.98%	4.21%	-5.24%	2.05%	-3.15%	2.09%	3.54%
Corp High Yield	Long Credit	Global Aggregate	CS Leveraged Loans	CS Leveraged Loans	Gov/Credit 1-3 Yr	Intermediate Credit	Intermediate Credit	Long Credit	CS Leveraged Loans	Corp High Yield	Gov/Credit 1-3 Yr	Global Aggregate (hdg)	CS Leveraged Loans	Long Treasury	Long Credit	Gov/Credit 1-3 Yr	Corp High Yield	Long Treasury	Global Aggregate (hdg)
1.87%	-5.76%	3.18%	2.65%	1.11%	2.82%	4.08%	1.42%	3.47%	1.88%	-26.16%	3.83%	4.61%	1.82%	3.56%	-6.62%	0.77%	-4.47%	1.33%	3.04%
JPM EMBI GI Div	Long Treasury	Corp High Yield	Global Aggregate	Corp High Yield	Long Treasury	Gov/Credit 1-3 Yr	Global Aggregate	Long Treasury	Corp High Yield	CS Leveraged Loans	Long Treasury	Gov/Credit 1-3 Yr	Gov/Credit 1-3 Yr	Gov/Credit 1-3 Yr	Long Treasury	Global Aggregate	Long Credit	Gov/Credit 1-3 Yr	Gov/Credit 1-3 Yr
-8.12%	-8.74%	-5.86%	1.57%	-1.37%	2.48%	1.30%	-4.49%	1.85%	1.87%	-28.75%	-12.92%	2.80%	1.59%	1.26%	-12.66%	0.59%	-4.56%	1.28%	0.84%

All indices are Bloomberg Barclays unless otherwise indicated.

Callan Periodic Table of Non-U.S. Fixed Investment Returns

Annual Returns for Non-U.S. Fixed Income Indices Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bloomberg Barclays Global Agg ex US	JPM EMBI Global Diversified	JPM EMBI Global Diversified	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global High Yield	JPM GBI-EM Global Diversified	JPM EMBI Global Diversified	JPM GBI-EM Global Diversified	JPM GBI-EM Global Diversified	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global High Yield	JPM GBI-EM Global Diversified	JPM EMBI Global Diversified	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg (hdg)	JPM EMBI Global Diversified	Bloomberg Barclays Global High Yield	JPM GBI-EM Global Diversified
18.44%	19.56%	12.68%	9.70%	22.37%	32.42%	22.97%	10.25%	15.22%	18.11%	5.58%	59.40%	15.68%	7.35%	19.60%	7.33%	7.59%	1.18%	14.27%	15.21%
Bloomberg Barclays Global Agg	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg	JPM EMBI Global Diversified	Bloomberg Barclays Global High Yield	JPM Corporate EMBI	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg	JPM Corporate EMBI	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg (hdg)	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg (hdg)	JPM Corporate EMBI	Bloomberg Barclays Global Agg ex US
13.71%	10.43%	10.34%	7.24%	16.53%	22.21%	13.17%	6.62%	13.69%	11.03%	4.79%	41.73%	14.82%	5.64%	17.44%	-0.14%	7.43%	1.02%	11.11%	10.51%
Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg	Bloomberg Barclays Global High Yield	JPM Corporate EMBI	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg ex US	JPM GBI-EM Global Diversified	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg	Bloomberg Barclays Global Agg ex US	JPM EMBI Global Diversified	JPM Corporate EMBI	Bloomberg Barclays Global Agg (hdg)	JPM GBI-EM Global Diversified	JPM Corporate EMBI	JPM Corporate EMBI	JPM Corporate EMBI	JPM EMBI Global Diversified	Bloomberg Barclays Global High Yield
9.77%	0.79%	3.18%	2.26%	15.64%	19.36%	12.54%	6.27%	9.86%	9.48%	4.39%	29.82%	13.07%	5.40%	16.76%	-2.37%	4.14%	0.99%	10.15%	10.43%
Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg	JPM EMBI Global Diversified	JPM GBI-EM Global Diversified	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg ex US	JPM EMBI Global Diversified	JPM GBI-EM Global Diversified	JPM GBI-EM Global Diversified	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg ex US	JPM Corporate EMBI	Bloomberg Barclays Global Agg	Bloomberg Barclays Global Agg	Bloomberg Barclays Global High Yield	JPM GBI-EM Global Diversified	JPM EMBI Global Diversified
-4.82%	-5.17%	1.04%	1.57%	13.65%	16.92%	11.62%	4.28%	8.16%	6.15%	-5.22%	21.98%	12.24%	4.36%	16.74%	-2.60%	0.59%	-2.72%	9.94%	10.26%
JPM EMBI Global Diversified	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg	JPM Corporate EMBI	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg	Bloomberg Barclays Global Agg (hdg)	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg	JPM Corporate EMBI	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg	Bloomberg Barclays Global Agg (hdg)	JPM Corporate EMBI
-8.12%	-8.83%	-3.91%	-3.75%	8.45%	12.51%	9.77%	3.59%	6.64%	5.32%	-12.03%	7.53%	5.54%	3.49%	5.72%	-3.08%	0.01%	-3.15%	3.95%	7.91%
				Bloomberg Barclays Global High Yield	JPM Corporate EMBI	Bloomberg Barclays Global Agg	Bloomberg Barclays Global Agg	JPM Corporate EMBI	JPM Corporate EMBI	JPM Corporate EMBI	Bloomberg Barclays Global Agg	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg	JPM EMBI Global Diversified	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg
				4.14%	11.88%	9.27%	-4.49%	6.63%	3.77%	-16.24%	6.93%	4.95%	3.12%	4.32%	-5.24%	-3.09%	-6.02%	2.09%	7.39%
					Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global High Yield	Bloomberg Barclays Global Agg (hdg)	Bloomberg Barclays Global Agg (hdg)	JPM GBI-EM Global Diversified	Bloomberg Barclays Global Agg ex US	JPM GBI-EM Global Diversified	JPM GBI-EM Global Diversified	JPM GBI-EM Global Diversified	Bloomberg Barclays Global Agg ex US	Bloomberg Barclays Global Agg (hdg)
					3.11%	4.89%	-8.65%	3.64%	3.16%	-26.88%	5.09%	4.61%	-1.75%	4.09%	-8.98%	-5.72%	-14.92%	1.49%	3.04%

Callan Periodic Table of Hedge Fund Strategy Returns

Annual Returns for Credit Suisse Hedge Fund Sub Strategies Ranked in Order of Performance (1998–2017)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Managed Futures	Long/Short Equity	Convertible Arb	Distressed	Managed Futures	Emerging Markets	Distressed	Emerging Markets	Emerging Markets	Emerging Markets	Managed Futures	Convertible Arb	Event-Driven Multi	Global Macro	Distressed	Long/Short Equity	Managed Futures	Multi Strategy	Convertible Arb	Emerging Markets
20.64%	47.23%	25.64%	20.01%	18.33%	28.75%	15.62%	17.39%	20.49%	20.26%	18.33%	47.35%	14.36%	6.44%	11.77%	17.73%	18.36%	3.84%	6.60%	16.87%
Long/Short Equity	Emerging Markets	Market Neutral Eq.	Global Macro	Global Macro	Distressed	Event-Driven Multi	Distressed	Event-Driven Multi	Global Macro	Risk Arb	Emerging Markets	Global Macro	Fixed Income Arb	Multi Strategy	Distressed	Multi Strategy	Long/Short Equity	Distressed	Long/Short Equity
17.18%	44.82%	14.99%	18.38%	14.66%	25.12%	14.04%	11.74%	16.38%	17.36%	-3.27%	30.03%	13.47%	4.69%	11.19%	16.00%	6.09%	3.56%	6.38%	13.41%
Market Neutral Eq.	Event-Driven Multi	Risk Arb	Convertible Arb	Market Neutral Eq.	Global Macro	Emerging Markets	Long/Short Equity	Distressed	Event-Driven Multi	Global Macro	Fixed Income Arb	Fixed Income Arb	Market Neutral Eq.	Fixed Income Arb	Event-Driven Multi	Long/Short Equity	Market Neutral Eq.	Risk Arb	Market Neutral Eq.
13.31%	23.00%	14.69%	14.58%	7.42%	17.99%	12.49%	9.68%	15.58%	16.82%	-4.62%	27.41%	12.51%	4.49%	11.04%	15.28%	5.54%	1.69%	5.89%	8.45%
Multi Strategy	Distressed	Event-Driven Multi	Market Neutral Eq.	Emerging Markets	Long/Short Equity	Long/Short Equity	Global Macro	Multi Strategy	Long/Short Equity	Event-Driven Multi	Multi Strategy	Managed Futures	Multi Strategy	Emerging Markets	Multi Strategy	Fixed Income Arb	Convertible Arb	Emerging Markets	Distressed
7.68%	22.18%	11.84%	9.31%	7.36%	17.27%	11.56%	9.25%	14.54%	13.66%	-16.25%	24.62%	12.22%	1.83%	10.28%	11.23%	4.37%	0.81%	4.47%	7.27%
Risk Arb	Convertible Arb	Global Macro	Fixed Income Arb	Multi Strategy	Event-Driven Multi	Global Macro	Multi Strategy	Long/Short Equity	Multi Strategy	Long/Short Equity	Distressed	Emerging Markets	Convertible Arb	Event-Driven Multi	Market Neutral Eq.	Global Macro	Fixed Income Arb	Multi Strategy	Multi Strategy
5.58%	16.04%	11.67%	8.04%	6.31%	17.19%	8.49%	7.54%	14.38%	10.10%	-19.76%	20.95%	11.34%	1.13%	10.14%	9.27%	3.11%	0.59%	4.41%	6.83%
Distressed	Market Neutral Eq.	Multi Strategy	Event-Driven Multi	Fixed Income Arb	Multi Strategy	Multi Strategy	Event-Driven Multi	Convertible Arb	Market Neutral Eq.	Distressed	Event-Driven Multi	Convertible Arb	Risk Arb	Long/Short Equity	Emerging Markets	Distressed	Risk Arb	Fixed Income Arb	Fixed Income Arb
-1.68%	15.33%	11.18%	6.79%	5.75%	15.04%	7.53%	7.21%	14.30%	9.27%	-20.48%	19.94%	10.95%	0.80%	8.21%	8.81%	2.55%	0.41%	4.29%	6.52%
Global Macro	Risk Arb	Fixed Income Arb	Emerging Markets	Convertible Arb	Managed Futures	Fixed Income Arb	Market Neutral Eq.	Global Macro	Risk Arb	Multi Strategy	Long/Short Equity	Distressed	Managed Futures	Convertible Arb	Convertible Arb	Emerging Markets	Global Macro	Global Macro	Event-Driven Multi
-3.64%	13.23%	6.29%	5.84%	4.05%	14.13%	6.86%	6.14%	13.53%	8.77%	-23.63%	19.47%	10.26%	-4.19%	7.82%	6.03%	1.52%	0.17%	3.58%	5.85%
Convertible Arb	Fixed Income Arb	Managed Futures	Risk Arb	Event-Driven Multi	Convertible Arb	Market Neutral Eq.	Risk Arb	Market Neutral Eq.	Distressed	Fixed Income Arb	Risk Arb	Multi Strategy	Distressed	Global Macro	Risk Arb	Event-Driven Multi	Emerging Markets	Event-Driven Multi	Risk Arb
-4.41%	12.11%	4.24%	5.68%	1.22%	12.90%	6.48%	3.08%	11.15%	8.35%	-28.82%	12.00%	9.29%	-4.24%	4.58%	4.89%	1.14%	-0.22%	1.25%	5.80%
Fixed Income Arb	Multi Strategy	Long/Short Equity	Multi Strategy	Distressed	Risk Arb	Managed Futures	Fixed Income Arb	Fixed Income Arb	Managed Futures	Emerging Markets	Global Macro	Long/Short Equity	Emerging Markets	Risk Arb	Global Macro	Market Neutral Eq.	Managed Futures	Long/Short Equity	Convertible Arb
-8.16%	9.38%	2.08%	5.50%	-0.69%	8.98%	5.96%	0.63%	8.66%	6.01%	-30.41%	11.55%	9.28%	-6.68%	2.82%	4.32%	-1.20%	-0.93%	-3.43%	5.01%
Event-Driven Multi	Global Macro	Distressed	Managed Futures	Long/Short Equity	Fixed Income Arb	Risk Arb	Managed Futures	Risk Arb	Convertible Arb	Convertible Arb	Market Neutral Eq.	Risk Arb	Long/Short Equity	Market Neutral Eq.	Fixed Income Arb	Risk Arb	Distressed	Market Neutral Eq.	Managed Futures
-8.98%	5.81%	1.95%	1.90%	-1.60%	7.97%	5.45%	-0.11%	8.15%	5.17%	-31.59%	4.05%	3.17%	-7.31%	0.85%	3.80%	-1.32%	-5.30%	-4.58%	3.29%
Emerging Markets	Managed Futures	Emerging Markets	Long/Short Equity	Risk Arb	Market Neutral Eq.	Convertible Arb	Convertible Arb	Managed Futures	Fixed Income Arb	Market Neutral Eq.	Managed Futures	Market Neutral Eq.	Event-Driven Multi	Managed Futures	Managed Futures	Convertible Arb	Event-Driven Multi	Managed Futures	Global Macro
-37.66%	-4.69%	-5.52%	-3.65%	-3.46%	7.07%	1.98%	-2.55%	8.05%	3.83%	-40.32%	-6.57%	-0.85%	-11.96%	-2.93%	-2.56%	-1.67%	-6.67%	-6.84%	2.14%
CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index	CS Hedge Fund Index
-0.36%	23.43%	4.85%	4.42%	3.04%	15.44%	9.64%	7.61%	13.86%	12.56%	-19.07%	18.57%	10.95%	-2.52%	7.67%	9.73%	4.13%	-0.71%	1.25%	7.12%

Index Descriptions

Equity Indices

Russell 3000 Index measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market. These securities are traded on the NYSE, NYSE MKT, and NASDAQ.

Russell 2000 Index measures the performance of small capitalization U.S. stocks. The Russell 2000 is a market-value-weighted index of the 2,000 smallest stocks (#1,001–3,000) in the broad-market Russell 3000 Index.

Russell Midcap Index measures the performance of mid capitalization U.S. stocks and includes companies #201–1,000 in the broad-market Russell 3000 Index.

Russell 2500 Index measures the performance of small/mid capitalization U.S. stocks and includes the smallest 2500 companies (#501–3,000) in the broad-market Russell 3000 Index.

Russell 1000 Index measures the performance of large capitalization U.S. stocks. The Russell 1000 is a market-value-weighted index of the 1,000 largest stocks (#1–1,000) in the broad-market Russell 3000 Index.

S&P 1500 Index is designed to track the performance of large, mid, and small cap U.S. equities representing approximately 91% of the available U.S. market cap and includes the **S&P 500** (large cap), **S&P MidCap 400**, and the **S&P SmallCap 600**.

S&P 1000 Index measures the performance of small/mid capitalization U.S. stocks and includes the **S&P SmallCap 600** and the **S&P MidCap 400**.

S&P 500 Index measures the performance of large capitalization U.S. stocks. It is a market-value-weighted index of 500 stocks that are traded on the NYSE, NYSE MKT, and NASDAQ. The weightings make each company's influence on the Index performance directly proportional to that company's market value.

MSCI ACWI Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed market countries and 23 emerging market countries.

MSCI ACWI ex USA Index captures large and mid cap representation across 22 of 23 developed market countries (excluding the U.S.) and 23 emerging market countries covering approximately 85% of the global equity opportunity set outside the U.S.

MSCI ACWI ex USA Small Cap Index captures small cap representation across 22 of 23 developed market countries (excluding the U.S.) and 23 emerging market countries.

MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance of 23 emerging market countries.

MSCI Europe Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the 15 developed market country indices in Europe.

MSCI Japan Index is designed to measure the performance of the large and mid cap segments of the Japanese market and covers approximately 85% of the free float-adjusted market capitalization in Japan.

MSCI Pacific Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of the developed markets in the Pacific region (Australia, Hong Kong, Japan, New Zealand, and Singapore).

MSCI Pacific ex Japan Index captures large and mid cap representation across four of five developed market countries in the Pacific region (excluding Japan) and covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed market country indices.

Index Descriptions

Fixed Income Indices

Bloomberg Barclays Aggregate Index includes U.S. government, corporate, and mortgage-backed securities with maturities of at least one year.

Bloomberg Barclays Corporate High-Yield Index measures the market of USD-denominated, non-investment grade, fixed-rate, taxable corporate bonds. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below, excluding emerging market debt.

Bloomberg Barclays Global Aggregate Index provides a broad-based measure of the global investment-grade fixed income markets. The three major components of this index are the U.S. Aggregate, the Pan-European Aggregate, and the Asian-Pacific Aggregate Indices. The index also includes eurodollar and euro-yen corporate bonds, Canadian government, agency and corporate securities, and U.S. dollar investment-grade 144A securities. **Bloomberg Barclays Global Aggregate (hedged)** hedges the currency back to the U.S. dollar.

Bloomberg Barclays Global Aggregate ex US Index is an unmanaged index that is comprised of several other Bloomberg Barclays indices that measure fixed income performance of regions around the world, excluding the U.S.

Bloomberg Barclays Global High Yield Index is an unmanaged index that provides a broad-based measure of global high yield fixed income markets and represents the

union of the U.S. High Yield, Pan-European High Yield, and Emerging Markets Hard Currency High Yield indices. Until Jan. 1, 2011, it also included CMBS high yield securities.

Bloomberg Barclays Intermediate Credit Index is an unmanaged index measuring the performance of investment-grade corporate debt and agency bonds that are dollar-denominated and have a remaining maturity of greater than one year and less than ten years.

Bloomberg Barclays Long Credit Index is an unmanaged index measuring the performance of the long-term sector of the U.S. investment bond market, which as defined by the long credit index includes investment-grade corporate debt and sovereign, supranational, local authority, and non-U.S. agency bonds that are dollar-denominated and have a remaining maturity of greater than or equal to 10 years.

Bloomberg Barclays Long Treasury Index is an unmanaged index that includes all publicly issued U.S. Treasury securities that have a remaining maturity of 10 or more years, are rated investment grade, and have \$250 million or more of outstanding face value.

Bloomberg Barclays Government/Credit 1-3 Year Index is an unmanaged index that is a component of the U.S. Government/Credit Bond Index, which includes Treasury and agency securities (U.S. Government Bond Index) and publicly issued U.S. corporate and foreign debentures and secured notes (U.S. Credit Bond Index).

The bonds in the index are investment-grade with maturity between one and three years.

Bloomberg Barclays U.S. TIPS Index consists of inflation-protection securities issued by the U.S. Treasury and must have at least one year until final maturity and at least \$250 million par amount outstanding. They must be fixed-rate, dollar-denominated, and non-convertible.

Credit Suisse Leveraged Loan Index is designed to mirror the investable universe of the U.S.-denominated leveraged loan market.

J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI) is a market capitalization weighted index consisting of U.S. dollar-denominated emerging market corporate bonds.

J.P. Morgan Emerging Markets Bond Global Diversified Index (EMBI Global Diversified) tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

J.P. Morgan GBI-EM Global Diversified Index tracks the performance of local currency debt issued by emerging market governments whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.

Index Descriptions

Real Estate and Other/Alternative Indices

Real Estate Indices

The **FTSE EPRA/NAREIT Developed REIT Index** is designed to measure the stock performance of companies engaged in specific real estate activities of the North American, European, and Asian real estate markets. Relevant real estate activities are defined as the ownership, trading, and development of income-producing real estate.

NAREIT Equity Index measures the performance of real estate investment trust (REIT) stocks traded on the NYSE, NYSE MKT, and NASDAQ.

NFI-ODCE, short for NCREIF Fund Index-Open End Diversified Core Equity, represents historical and current returns for 30 open-end commingled funds pursuing a core investment strategy. It is capitalization-weighted and reported gross of fees.

NCREIF Farmland Index is a quarterly time series composite return measure of investment performance of a large pool of individual farmland properties acquired in the private market for investment purposes only. All properties in the Farmland Index have been acquired, at least in part, on behalf of tax-exempt institutional investors—the great majority being pension funds. As such, all properties are held in a fiduciary environment.

NCREIF Property Index (NPI) measures the performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. All properties in the NPI have been acquired, at least in part, on behalf of tax-exempt institutional investors—the great majority being pension funds. We present both standard (unleveraged) and leveraged versions for comparison.

NCREIF Timberland Index is a quarterly time series composite return measure of investment performance of a large pool of individual timber properties acquired in the private market for investment purposes only. All properties in the Timberland Index have been acquired, at least in part, on behalf of tax-exempt institutional investors—the great majority being pension funds. As such, all properties are held in a fiduciary environment.

Other/Alternative Indices

Alerian MLP Index is a gauge of energy master limited partnerships (MLPs). The float-adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX).

The **Consumer Price Index (CPI)**, an inflation index produced by the Bureau of Labor Statistics, measures the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

Bloomberg Commodity Index (formerly DJ UBS Commodity Index) is a broadly diversified index composed of futures contracts on physical commodities traded on U.S. exchanges. It allows investors to track commodity futures through a single, simple measure.

Cambridge Private Equity Index is an end-to-end calculation based on data compiled from 1,199 U.S. private equity funds (buyout, growth equity, private equity energy, and mezzanine funds), including fully liquidated partnerships, formed between 1986 and 2014. Pooled end-to-end return, net of fees, expenses, and carried interest.

Dow Jones Brookfield (DJB) Global Infrastructure Index intends to measure the stock performance of pure-play infrastructure companies domiciled globally. The index covers all sectors of the infrastructure market required to have more than 70% of cash flows derived from infrastructure lines of business; must be domiciled in a country with a liquid listing and must meet minimum requirements for float-adjusted market capitalization and trading volume. The index is weighted by float-adjusted market capitalization.

Index Descriptions

Credit Suisse Hedge Fund Index and Sub Strategies

Credit Suisse Hedge Fund Index is an asset-weighted benchmark that measures hedge fund performance and seeks to provide the most accurate representation of the hedge fund universe.

Credit Suisse Hedge Fund Index Sub Strategies

Market Neutral Equity – Funds that are typically long common stock of one company and short the equivalent dollar amount of another company or share class of the same company, based on underlying fundamental and/or technical factors.

Convertible Arbitrage – Funds that are typically long convertibles and short underlying stock, often benefiting from a positive carry (i.e., extra yield of the coupon income over the dividend expense).

Emerging Markets – Funds that typically invest in currencies, debt instruments, equities and other instruments of countries with “emerging” or developing markets (typically measured by GDP per capita). Such countries are considered to be in a transitional phase between developing and developed status. Examples of emerging markets include China, India, Latin America, much of Southeast Asia, parts of Eastern Europe, and parts of Africa. The index has a number of subsectors, including arbitrage, credit and event driven, fixed income bias, and equity bias.

Fixed Income Arbitrage – Funds that are long fixed income securities offering excess returns from credit risk, prepayment risk, illiquidity risk, or capital structure risk (i.e., senior vs. junior debt) and short Treasuries or other similar overvalued securities.

Distressed – Funds that invest in defaulted bonds, bank loans, or other debt issues of companies in various stages of bankruptcy or financial distress.

Risk Arbitrage – Funds that are typically long stocks of targeted takeover candidates and short stocks of the acquiring company, in order to capture time premium that accrues to the date of a completed acquisition.

Long/Short Equity – Bottom-up stock-pickers that are long undervalued stocks and short overvalued stocks, with top-down views expressed with a net long or short bias. This group historically has had a net long, however variable, bias.

Global Macro – Top-down asset allocators investing across liquid markets of stocks, bonds, currencies, and commodities, profiting from structural imbalances or inefficiencies caused by central banks, governments, and other market participants.

Managed Futures – Often using trend-following techniques, these funds buy and sell liquid futures on physical commodities, interest rate, fixed income, and equity markets, typically profiting from momentum and other predictable price patterns.

Event-Driven Multi – Funds that typically invest in a combination of event-driven equities and credit, including special situations and value equities with hard or soft catalysts, taking advantage of shifts in economic cycles.

Multi-Strategy – Funds that typically allocate capital opportunistically across various hedge fund strategies including, but not limited to, convertible bond arbitrage, market neutral equity, fixed income arbitrage, and risk arbitrage

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