

The List: Alternative Indices

The performance table, on the following page, is a collection of both traditional and alternative indices for the 1, 5, and 10-year period annualized through December 2018. Both the annualized volatility and draw-down figures are calculated using a 10 year quarterly return series.

Alternative investments have been growing markedly over the past few years, creating a multitude of opportunities for owners and allocators alike. As the number and type of alternative asset classes continue to proliferate, we believe they are playing a more unique role in assisting investors achieve their desired investment outcomes. As we expect this trend to continue, we found it necessary to structure a pure alternative assets portfolio to have visibility in this exciting marketplace.

We set out to strike a balance between available assets in proportion to their market value, and to reflect the average "alternative investor". We defined the investment opportunity to simply be the following three assets classes: Real Asset, Private Equity/Venture Capital, and Hedge Funds. Real assets are comprised of real estate, commodities, timberland, farmland, infrastructure, bank loans, and cat bonds; within real asset the weights were structured to reflect the market portfolio¹ within that universe. To arrive at our weight's, we researched various endowments and foundations, as well as surveys conducted by Willis Towers Watson and Russell Investments. Based on our research, alternative historical allocations have not had material deviation and therefore we decided to implement a market weight of 1/3 across each of those asset classes. A few of the constituents are not investable, and some may be reported gross or net of fee.

Ending March 2019

	<u>1 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	Ann. Vol	10 Yr Max Drawdown
MSCI World Free	-7.44%	5.52%	11.07%	15.39%	-16.52%
Barclays Global Agg	-1.15%	1.22%	2.61%	5.60%	-7.17%
MSCI Emerging Markets	-15.10%	2.61%	9.67%	19.97%	-23.90%
Barclays Global High Yeild	-4.04%	3.44%	11.14%	10.65%	-8.27%
HFRI Fund Weighted Composite	-4.68%	2.19%	5.00%	6.09%	-7.63%
CISDM EW Hedge Fund	-4.71%	2.93%	6.02%	6.80%	-7.84%
CISDM CTA EW	-5.66%	3.75%	2.92%	6.35%	-7.94%
CISDM Distressed Securities	-0.86%	2.69%	7.00%	5.94%	-7.08%
CISDM Equity Long/Short	-6.27%	2.88%	5.68%	6.89%	-8.79%
CA US Private Equity**	17.29%	13.06%	11.94%	8.08%	-4.19%
CA US Venture Capital**	18.24%	14.54%	10.99%	8.09%	-3.41%
LPX Mezzanine Listed Private Equity	-1.99%	5.34%	14.42%	27.90%	-37.79%
FTSE NAREIT All Equity REITs	-3.36%	8.70%	14.18%	21.11%	-31.87%
NCREIF Property	6.98%	9.26%	6.43%	5.71%	-23.75%
S&P Global Property	-11.06%	1.69%	8.09%	18.81%	-20.92%
S&P Global Infrastructure	-13.71%	0.64%	4.27%	14.72%	-18.18%
Bloomberg Commodities	-11.43%	-8.13%	-2.75%	14.91%	-53.55%
NCREIF Timberland	3.94%	5.91%	4.01%	3.61%	-5.69%
NCREIF Farmland	6.67%	9.63%	11.27%	4.85%	0.00%
Alternative Assets Portfolio ***	2.69%	5.88%	7.08%	3.21%	-2.40%
Global 60/40	-4.92%	3.80%	7.69%	10.23%	-9.52%
60% Alternative / 40% Global 60/40	-0.35%	5.05%	7.32%	6.02%	-4.18%

NOTE: All returns are calculated using arithmetic mean

Source: CAIA, CISDM, HFRI, Cambridge Associates and Bloomberg

1. Global Invested Capital Market by Hewitt EnnisKnupp, an Aon Company



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^{**} Lagging by One Quarter

^{***} As of Quarter Ended 12/31/2018