

# Diversifying a traditional portfolio

## Correlation matrix of various alternative and traditional indices

<b>CORRELATIONS (MARCH 1992 - SEPTEMBER 2014, QUARTERLY)</b>	<b>BBG COMMODITY TR INDEX</b>	<b>S&amp;P 500 TOTAL RETURN</b>	<b>MSCI WORLD INDEX</b>	<b>JPM GLOBAL AGGREGATE BOND INDEX</b>	<b>BARCLAYS US CORPORATE HIGH YIELD INDEX</b>	<b>FTSE NAREIT EQUITY REITS</b>	<b>HFRI FUND OF FUNDS COMPOSITE INDEX</b>	<b>HFRI FUND WEIGHTED COMPOSITE INDEX</b>	<b>CAMBRIDGE ASSOCIATES PRIVATE EQUITY</b>	<b>CAMBRIDGE ASSOCIATES VENTURE CAPITAL</b>	<b>NCREIF PROPERTY INDEX</b>	<b>NCREIF TIMBERLAND INDEX</b>	<b>NCREIF FARMLAND INDEX</b>
BBG Commodity TR Index	1.00	-0.22	-0.26	-0.06	-0.41	-0.09	-0.13	-0.16	-0.06	0.00	0.21	-0.01	-0.09
S&P 500 Total Return Index	-0.22	1.00	0.95	-0.08	0.66	0.57	0.65	0.77	0.75	0.43	0.19	0.02	0.12
MSCI World Index	-0.26	0.95	1.00	0.02	0.66	0.57	0.68	0.79	0.75	0.41	0.18	0.03	0.15
JPM Global Aggregate Bond Index	-0.06	-0.08	0.02	1.00	0.03	0.10	-0.19	-0.16	-0.19	-0.23	-0.06	0.01	-0.03
Barclays US Corporate High Yield Index	-0.41	0.66	0.66	0.03	1.00	0.60	0.55	0.62	0.45	0.10	-0.09	-0.08	-0.04
FTSE NAREIT EQUITY REITS	-0.09	0.57	0.57	0.10	0.60	1.00	0.39	0.45	0.42	0.06	0.20	-0.09	-0.01
HFRI Fund of Funds Composite Index	-0.13	0.65	0.68	-0.19	0.55	0.39	1.00	0.93	0.75	0.56	0.11	0.17	0.08
HFRI Fund Weighted Composite Index	-0.16	0.77	0.79	-0.16	0.62	0.45	0.93	1.00	0.76	0.57	0.03	0.14	0.03
Cambridge Associates Private Equity	-0.06	0.75	0.75	-0.19	0.45	0.42	0.75	0.76	1.00	0.67	0.36	0.30	0.26
Cambridge Associates Venture Capital	0.00	0.43	0.41	-0.23	0.10	0.06	0.56	0.57	0.67	1.00	0.18	0.18	0.03
NCREIF Property Index	0.21	0.19	0.18	-0.06	-0.09	0.20	0.11	0.03	0.36	0.18	1.00	-0.01	0.19
NCREIF Timberland Index	-0.01	0.02	0.03	0.01	-0.08	-0.09	0.17	0.14	0.30	0.18	-0.01	1.00	0.38
NCREIF Farmland Index	-0.09	0.12	0.15	-0.03	-0.04	-0.01	0.08	0.03	0.26	0.03	0.19	0.38	1.00