JUST

Outperformance of JUST Investable Equity Indexes

Hernando Cortina, JUST Capital

hcortina@justcapital.com

March 2017

Key Findings

Equity indexes based on the leaders of JUST Capital's 2016 rankings outperform the Russell 1000 index in both absolute and risk-adjusted terms over three to ten years. The indexes are based on the JUST 100 constituents, as well as on the top 50% ranked companies by industry. The 1-4 percentage-point annual outperformance holds over ten years and is robust to three different stock weighting schemes. The indexes have higher Sharpe ratios, similar or better downside risk characteristics, and moderate tracking risk versus the Russell 1000.

This note does not seek to identify the fundamental drivers of the outperformance of the JUST equity indexes, the only aim is to characterize it. Additional research will focus on the former.

Return Calculations by Russell Analytics

On JUST Capital's behalf, Russell calculated monthly returns for two sets of stocks, using three distinct weighting methods. The data cover the period from July 2006 through November 2016, allowing analysis of 10-year, 5-year, 3-year, and shorter periods. The calculations are based on total return including reinvested dividends.

Index Constituents (see https://justcapital.com/just-explorer/ and https://www.forbes.com/just100)

- 1. JUST 100 stocks, the published top 100 stocks based on the 2016 JUST Capital rankings.
- 2. Top 50% stocks, the 439 stocks disclosed in the top 50% of all ranked companies (out of 897).

Constituents were kept constant for the duration of the calculation. Stocks with shorter trading histories were added to the index as they became available for trading.

Index Weighting Methods

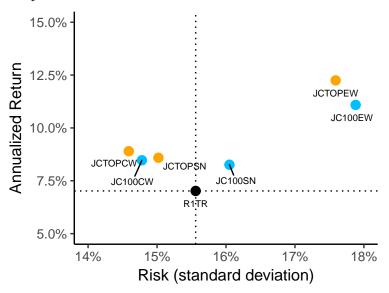
- 1. Equal-weighted with annual rebalance
- 2. Market-cap weighted, using Russell's free-float adjusted market capitalizations (same as used in R1000)
- 3. Sector-neutral market-cap weighted. This approach matches the sector weights of the index to those of the Russell 1000 and market cap-weights each stock within the index, rebalanced annually.

Index Reference for Charts and Tables

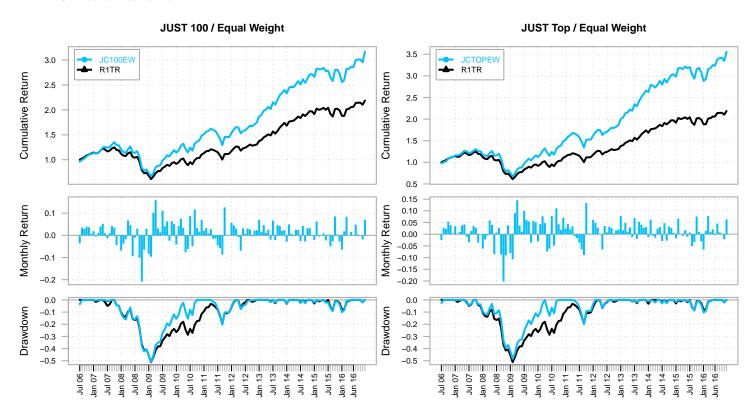
Index Constituents	Equal-Weight	Market Cap-Weight	Sector-Neutral
JUST 100 JUST Top 50% Code for Russell 1000: R1TR	JC100EW JCTOPEW	JC100CW JCTOPCW	JC100SN JCTOPSN



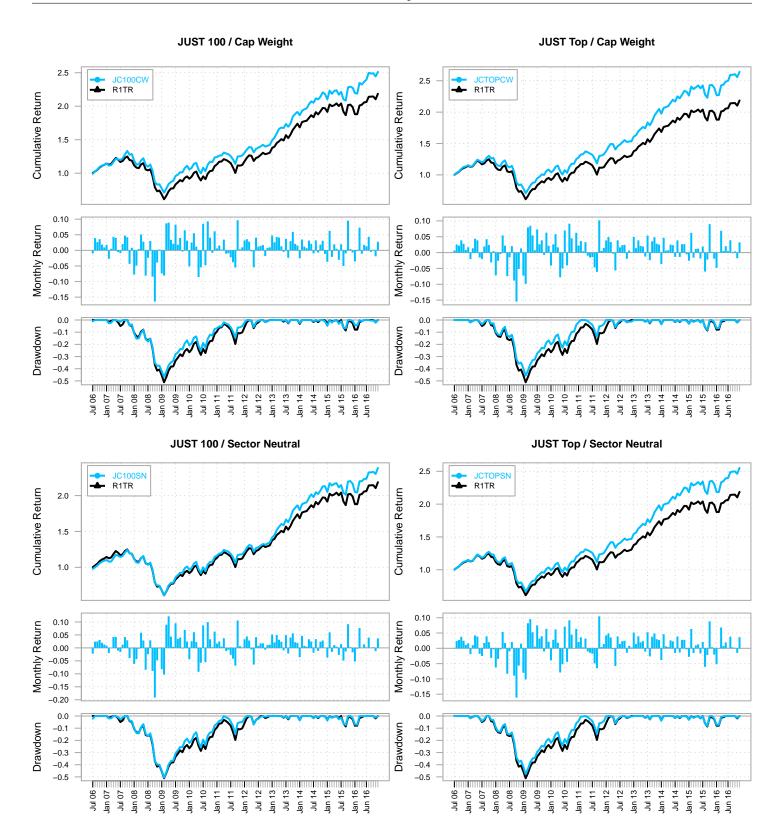
10-Year Risk-Return Summary



Time-Series of Returns









© 2017 JUST Capital



10-Year Performance, Tracking Error, and Risk-Adjusted Performance Ratios (%)

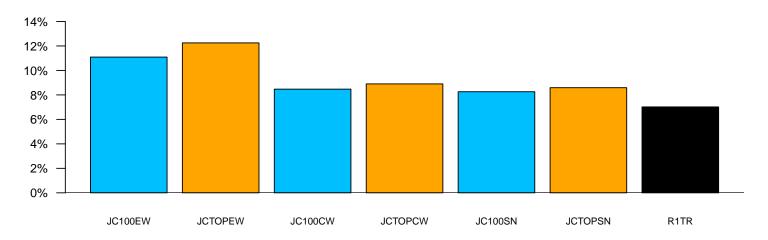
	JC100EW	JCTOPEW	JC100CW	JCTOPCW	JC100SN	JCTOPSN	R1TR
Annualized Return	11.09	12.25	8.47	8.90	8.26	8.59	7.02
Annualized Std Dev	17.88	17.59	14.78	14.59	16.05	15.02	15.56
Annualized Tracking Error	4.23	3.93	3.87	2.02	2.86	1.41	0.00
Annualized Sharpe (Rf=0%)	0.62	0.70	0.57	0.61	0.51	0.57	0.45
Information Ratio	0.96	1.33	0.38	0.94	0.44	1.11	
Sortino Ratio (MAR = 0.669%)	0.18	0.20	0.15	0.13	0.12	0.13	

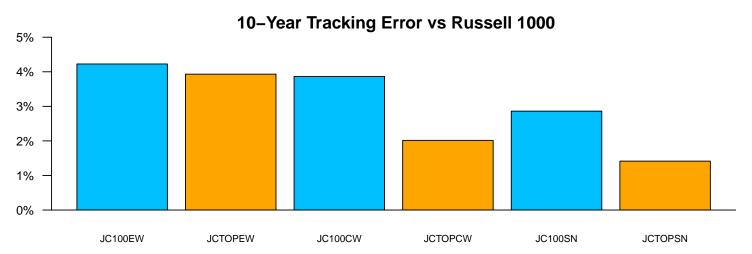
10-Year Downside Risk Performance Data (%)

	JC100EW	JCTOPEW	m JC100CW	JCTOPCW	JC100SN	JCTOPSN	R1TR
Average Drawdown	6.38	6.69	5.44	6.53	6.78	6.46	6.23
Maximum Drawdown	50.77	48.36	46.77	45.65	50.61	47.71	51.13
Semi Deviation	3.84	3.84	3.22	3.20	3.50	3.30	3.43
Gain Deviation	3.19	2.98	2.48	2.39	2.78	2.45	2.50
Loss Deviation	3.90	3.91	3.24	3.14	3.69	3.30	3.46
Downside Deviation (MAR = 0.669%)	3.68	3.64	3.17	3.14	3.45	3.25	3.43
Historical VaR (95%)	-7.70	-8.03	-7.41	-7.16	-6.92	-6.57	-7.58
Historical ES (95%)	-11.16	-11.04	-9.56	-9.44	-10.71	-9.92	-10.29

MAR: Monthly Minimum Acceptable Return; VaR: Value-at-Risk; ES: Expected Shortfall.

10-Year Annualized Return









5-Year Performance, Tracking Error, and Risk-Adjusted Performance Ratios (%)

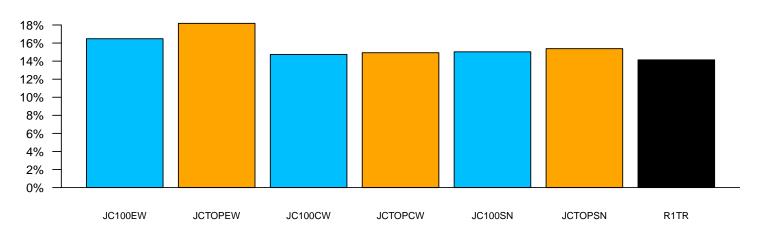
	JC100EW	JCTOPEW	JC100CW	JCTOPCW	JC100SN	JCTOPSN	R1TR
Annualized Return	16.48	18.18	14.74	14.93	15.03	15.38	14.14
Annualized Std Dev	11.61	11.62	9.93	10.29	10.50	10.44	10.41
Annualized Tracking Error	2.94	3.31	3.22	1.26	2.20	1.04	0.00
Annualized Sharpe (Rf=0%)	1.42	1.56	1.48	1.45	1.43	1.47	1.36
Information Ratio	0.80	1.22	0.18	0.63	0.40	1.19	
Sortino Ratio (MAR = 1.153%)	-0.10	-0.06	-0.19	-0.16	-0.14	-0.12	

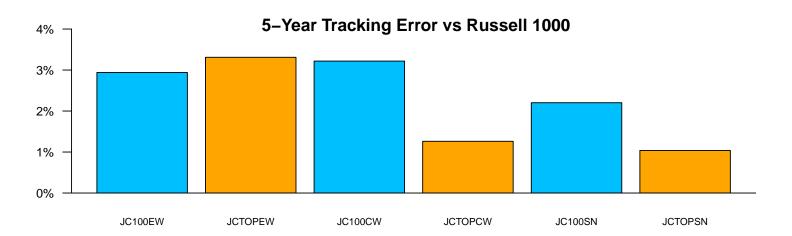
5-Year Downside Risk Performance Data (%)

	JC100EW	JCTOPEW	m JC100CW	JCTOPCW	JC100SN	JCTOPSN	R1TR
Average Drawdown	2.55	2.65	2.78	3.27	3.21	3.16	2.77
Maximum Drawdown	10.06	10.37	6.97	8.09	7.41	8.10	8.60
Semi Deviation	2.35	2.38	1.99	2.13	2.15	2.18	2.18
Gain Deviation	2.37	2.31	1.99	2.00	2.13	2.00	1.95
Loss Deviation	1.95	1.96	1.54	1.69	1.81	1.82	1.82
Downside Deviation (MAR = 1.153%)	2.25	2.21	1.97	2.10	2.11	2.13	2.18
Historical VaR (95%)	-2.87	-3.40	-3.58	-3.59	-3.73	-3.86	-3.19
Historical ES (95%)	-5.28	-5.41	-4.42	-5.01	-5.54	-5.24	-5.18

MAR: Monthly Minimum Acceptable Return; VaR: Value-at-Risk; ES: Expected Shortfall.

5-Year Annualized Return









3-Year Performance, Tracking Error, and Risk-Adjusted Performance Ratios (%)

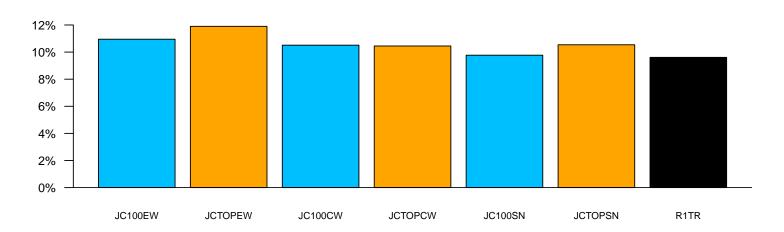
	JC100EW	JCTOPEW	JC100CW	JCTOPCW	JC100SN	JCTOPSN	R1TR
Annualized Return	10.95	11.90	10.51	10.45	9.77	10.54	9.61
Annualized Std Dev	12.00	11.95	10.53	10.83	10.95	10.99	10.79
Annualized Tracking Error	3.11	3.56	3.19	1.05	2.00	0.95	0.00
Annualized Sharpe (Rf=0%)	0.91	1.00	1.00	0.96	0.89	0.96	0.89
Information Ratio	0.43	0.64	0.28	0.80	0.08	0.98	
Sortino Ratio (MAR = 0.815%)	-0.11	-0.06	-0.13	-0.12	-0.20	-0.10	

3-Year Downside Risk Performance Data (%)

	JC100EW	JCTOPEW	JC100CW	JCTOPCW	JC100SN	JCTOPSN	R1TR
Average Drawdown	2.58	2.70	2.86	3.45	3.47	3.32	2.90
Maximum Drawdown	10.06	10.37	6.97	8.09	7.41	8.10	8.60
Semi Deviation	2.27	2.34	1.96	2.11	2.08	2.16	2.13
Gain Deviation	2.66	2.43	2.33	2.27	2.43	2.27	2.21
Loss Deviation	1.73	1.79	1.41	1.64	1.58	1.76	1.74
Downside Deviation (MAR = 0.815%)	2.21	2.24	1.92	2.07	2.07	2.12	2.13
Historical VaR (95%)	-3.28	-3.74	-3.60	-3.84	-3.97	-4.14	-3.63
Historical ES (95%)	-5.67	-5.87	-4.34	-5.40	-5.10	-5.64	-5.70

 ${\it MAR:}\ {\it Monthly}\ {\it Minimum}\ {\it Acceptable}\ {\it Return;}\ {\it VaR:}\ {\it Value-at-Risk;}\ {\it ES:}\ {\it Expected}\ {\it Shortfall.}$

3-Year Annualized Return



3-Year Tracking Error vs Russell 1000

