



US Small Cap ReferencePoint Algorithm (USSC)

We use open source software to produce directional market forecasts that are translated into **ReferencePoint Betas** for use by managers and other investors for market positioning. They are designed to increase investor's probability of success by being on the right side of the market. ReferencePoint Betas can be applied to both absolute return strategies and strategies that use a benchmark.

USSC targets iShares Russell 2000 Index ETF exposure as a proxy for market risk. We use the IWM because it captures the small cap market risk that a lot of managers are exposed to directly or indirectly. ReferencePoint Betas range from zero (market neutral) to one (fully invested). Zero exposure (0) is interpreted as a negative expected market return. Coefficients above zero are interpreted as having positive expected returns. Coefficients that are positive but below 1 have positive expected returns but they are more uncertain.

Use Cases

Return enhancement:

- Apply ReferencePoint Betas to directly replicate market exposure levels and algorithm performance
- Apply ReferencePoint Betas as a secondary source to validate fundamentally driven internal market views
- Use algorithm to optimally allocate capital in a down market

Risk management:

- ReferencePoint Betas may see what you don't. They can help reduce drawdown from unanticipated market moves and can give you a reference point to stay in the market when noise is telling you to take risk off.

Funds and products

- Rates of return for ReferencePoint Algorithms are indexed each day . Managers can fully replicate their performance in funds and other structures using the data we deliver each day.

Deliverable

We deliver:

1. ReferencePoint Beta
2. A model id with identifiers specifying the current investor preference state, model horizon, ETF proxy target, risk (volatility) limit and market positioning.

Preliminary numbers are available at 3 EDT and the final numbers are available at 3:45 EDT.

USSC ReferencePoint Algorithm statistics¹

Calendar Year Returns

Year	US Algo	IWM
2019	17.58%	17.61%
2018	-0.81%	-12.17%
2017	12.93%	13.06%
2016	20.24%	19.74%
2015	13.70%	-5.85%
2014	-4.48%	3.69%
2013	26.18%	36.81%
2012	14.31%	14.33%
2011	17.37%	-5.74%
2010	20.17%	25.30%
2009	39.29%	26.81%
2008	-15.48%	-35.13%
2007	2.33%	-2.73%
2006	16.98%	16.95%
2005	3.04%	3.04%
2004	11.21%	16.88%
2003	48.37%	46.15%
2002	10.41%	-21.32%
2001	8.44%	0.63%

Annualized Returns

	US Algo ²	IWM
ITD ²	12.65%	6.60%

Annualized Standard Deviation

	US Algo	IWM
ITD ²	17.38%	23.13%

1. Returns and risk is live from May 2018 onward. Performance is calculated with data "as stated" historically from 05/2000 until 5/2018.

2. Calculated from 05/26/2000 to 9/17/2019



Disclaimer

This is not an offer to sell or a solicitation of an offer to buy interests in any fund, investment vehicle or account. This data presented herein has been prepared for informational purposes only.

Certain statements included herein may constitute "forward-looking statements". Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual fees, costs, expenses, results, performance or achievements of a particular person or entity,, or industry results, to be materially different from any future fees, costs, expenses, results, performance, or achievements expressed or implied by such forward-looking statements. These forward-looking statements are typically identified by terminology such as, "may," "will," "should," "expects," "anticipates," "plans," "intends," "believes," "estimates," "projects," "predicts," "seeks," "potential," "continue" or other similar terminology. Similar forward-looking statements may be contained in other documents that may accompany, or be delivered before, any memorandum describing and investment opportunity. These forward-looking statements are not guarantees of future performance and are based on numerous current assumptions—that are subject to significant uncertainties and contingencies, many of which are outside anyone's control. Because these statements reflect the current views concerning future events, these statements necessarily involve risks, uncertainties, and assumptions. Actual future performance could differ materially from these forward-looking statements or financial or performance information.