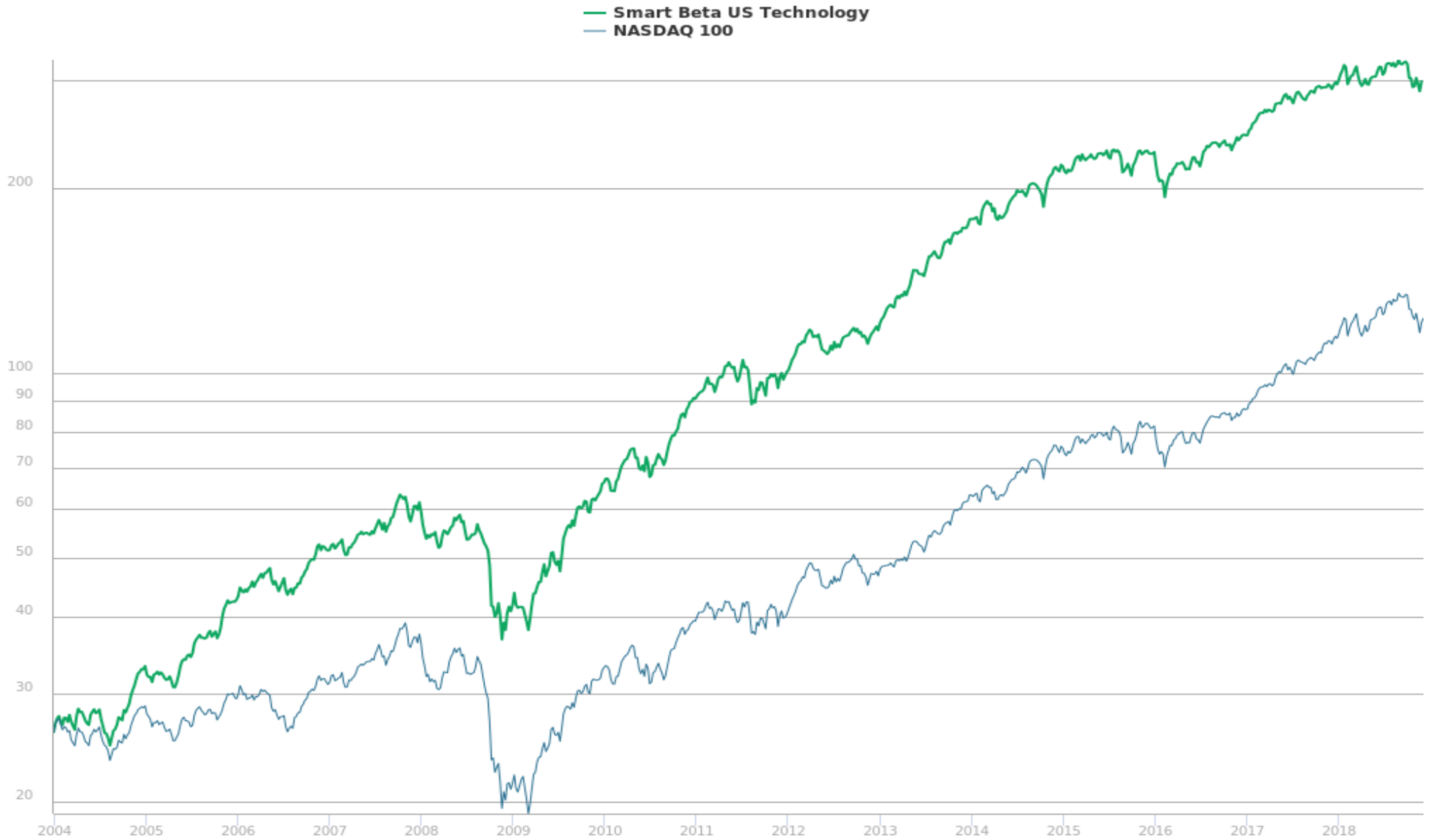


Trendrating Momentum Smart Beta US Technology

15 years report - November 2018

Chart



Key facts

Performance

	Trendrating	Benchmark	Difference
Cumulative	+1065.03%	+373.39%	+691.64%
Annualized	+17.23%	+10.59%	+6.64%
Yearly average	+19.67%	+13.01%	+6.66%
Max consecutive positive weeks	12	7	+5

Risk

	Trendrating	Benchmark	Difference
Max drawdown	-46.10%	-53.71%	+7.61%
Average yearly drawdown	-13.97%	-15.53%	+1.56%
Monthly standard deviation	5.68%	5.81%	-0.12%
Max consecutive negative weeks	4	4	0

Key ratios

	Trendrating	Benchmark	Difference
One way yearly average turnover	147%		
Sharpe ratio	0.9643	0.5834	+0.3810
Sterling ratio	0.9743	0.5484	+0.4259
Sortino ratio	2.5853	1.3883	+1.1970
Beta	0.8645		
Tracking error	0.0605		
Information ratio	0.2782		
Treynor ratio	0.3945		
% positive weeks	66.48%	59.22%	+7.26%

Analytics

Historical statistics

Year	Yearly performance			Max drawdown			Monthly return stdDev			One way turnover
	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value	
2004	28.45%	10.44%	18.01%	-14.74%	-16.04%	1.30%	5.17%	5.20%	0.03%	147.36%
2005	26.64%	1.49%	25.16%	-8.91%	-13.22%	4.31%	4.22%	3.94%	-0.27%	177.74%
2006	21.27%	6.79%	14.48%	-12.26%	-17.42%	5.16%	4.67%	4.46%	-0.21%	174.80%
2007	17.97%	18.67%	-0.70%	-11.69%	-11.47%	-0.22%	5.10%	5.27%	0.18%	125.53%
2008	-30.51%	-41.89%	11.38%	-43.06%	-50.29%	7.23%	11.06%	11.98%	0.92%	280.21%
2009	56.98%	53.54%	3.45%	-15.67%	-18.55%	2.88%	7.45%	7.51%	0.06%	205.22%
2010	37.16%	19.22%	17.94%	-13.12%	-15.91%	2.79%	5.86%	5.52%	-0.34%	142.27%
2011	10.66%	2.70%	7.95%	-19.29%	-16.11%	-3.19%	6.92%	6.75%	-0.17%	153.67%
2012	18.10%	16.82%	1.28%	-11.37%	-11.86%	0.49%	4.22%	4.36%	0.14%	163.24%
2013	51.55%	34.99%	16.56%	-4.86%	-5.97%	1.11%	3.82%	3.54%	-0.27%	85.33%
2014	20.57%	17.94%	2.63%	-9.28%	-8.23%	-1.05%	4.22%	3.98%	-0.23%	108.86%
2015	5.25%	8.43%	-3.18%	-12.34%	-14.18%	1.83%	4.84%	5.06%	0.22%	125.39%
2016	5.92%	5.89%	0.03%	-15.75%	-14.05%	-1.69%	4.64%	4.59%	-0.05%	189.67%
2017	21.87%	31.52%	-9.64%	-4.48%	-4.90%	0.42%	2.90%	2.93%	0.03%	86.44%
2018	3.13%	8.64%	-5.50%	-12.70%	-14.79%	2.09%	5.23%	5.97%	0.74%	110.84%
Annualized	17.23%	10.59%	6.64%	-13.97%	-15.53%	1.56%	5.35%	5.41%	0.05%	147.00%

Year to date performance and risk

Month	Monthly performance			Max drawdown			Monthly return stdDev		
	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value
Jan 2018	7.53%	8.65%	-1.13%	-1.56%	-1.31%	-0.24%	3.27%	3.24%	-0.02%
Feb 2018	-3.36%	-1.38%	-1.98%	-8.88%	-9.26%	0.39%	7.39%	8.38%	0.98%
Mar 2018	-2.43%	-3.99%	1.55%	-8.08%	-9.40%	1.32%	6.43%	7.42%	0.99%

Month	Monthly performance			Max drawdown			Monthly return stdDev		
	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value
Apr 2018	-1.08%	0.37%	-1.45%	-4.00%	-4.74%	0.74%	5.88%	6.55%	0.66%
May 2018	2.80%	5.48%	-2.69%	-1.19%	-1.41%	0.22%	3.15%	3.29%	0.13%
Jun 2018	1.29%	1.05%	0.24%	-4.57%	-4.27%	-0.30%	3.75%	3.93%	0.17%
Jul 2018	3.27%	2.72%	0.55%	-2.27%	-4.20%	1.93%	3.57%	4.24%	0.67%
Aug 2018	2.09%	5.84%	-3.75%	-2.47%	-1.54%	-0.93%	2.79%	2.66%	-0.14%
Sep 2018	-0.27%	-0.35%	0.09%	-2.45%	-2.93%	0.48%	2.50%	3.19%	0.69%
Oct 2018	-8.62%	-8.66%	0.04%	-11.79%	-12.18%	0.39%	8.12%	9.38%	1.26%
Nov 2018	2.78%	-0.26%	3.04%	-7.20%	-9.39%	2.19%	6.45%	7.98%	1.53%

Holdings

Security					
Weight	Ticker	Name	Market	Sector	
1.69%	GILD	Gilead Sciences	US	Biotechnology	
1.69%	ORLY	O'reilly Automotive	US	Specialty Retailers	
1.69%	FISV	Fiserv	US	Financial Administration	
1.69%	FOXA	Twenty-first Century Fox	US	Broadcasting & Entertainment	
0.11%	KLAC	Kla-tencor	US	Semiconductors	
0.11%	SIRI	Sirius Xm	US	Broadcasting & Entertainment	
1.69%	CDNS	Cadence Design Systems	US	Software	
0.11%	NTES	Netease Adr	US	Internet	
0.11%	INTC	Intel	US	Semiconductors	
0.11%	LBTYK	Liberty Global	US	Broadcasting & Entertainment	
1.69%	INTU	Intuit	US	Software	
0.11%	JBHT	J.b.hunt Transport Services	US	Trucking	
1.69%	BMRN	Biomarin Pharmaceutical	US	Biotechnology	
1.69%	CTXS	Citrix Systems	US	Software	
1.69%	ADBE	Adobe	US	Software	
1.69%	HOLX	Hologic	US	Medical Supplies	
0.11%	ADI	Analog Devices	US	Semiconductors	
1.69%	XLNX	Xilinx	US	Semiconductors	
0.11%	GOOGL	Alphabet	US	Internet	
1.69%	VRTX	Vertex Pharmaceuticals	US	Biotechnology	
0.11%	EA	Electronic Arts	US	Toys	
1.69%	FAST	Fastenal	US	Industrial Suppliers	
0.11%	TSLA	Tesla	US	Automobiles	
0.11%	LRCX	Lam Research	US	Semiconductors	

Security					
Weight	Ticker	Name	Market	Sector	
0.11%	AMZN	Amazon.com	US	Broadline Retailers	
0.11%	EXPE	Expedia	US	Travel & Tourism	
0.11%	MU	Micron Technology	US	Semiconductors	
0.11%	CTRP	Ctrip.com International Adr	US	Travel & Tourism	
1.69%	ADP	Automatic Data Processing	US	Financial Administration	
1.69%	AAPL	Apple	US	Computer Hardware	
1.69%	MAR	Marriott International	US	Hotels	
1.69%	AMGN	Amgen	US	Biotechnology	
1.69%	CHKP	Check Point Software Technologies	US	Software	
0.11%	DLTR	Dollar Tree	US	Specialty Retailers	
0.11%	MXIM	Maxim Integrated Products	US	Semiconductors	
1.69%	VRSK	Verisk Analytics	US	Business Support Services	
0.11%	SWKS	Skyworks Solutions	US	Semiconductors	
1.69%	BKNG	Booking	US	Travel & Tourism	
0.11%	CELG	Celgene	US	Biotechnology	
0.11%	INCY	Incyte	US	Biotechnology	
1.69%	ALGN	Align Technology	US	Medical Supplies	
0.11%	KHC	The Kraft Heinz	US	Food Products	
1.69%	PYPL	Paypal	US	Financial Administration	
1.69%	ADSK	Autodesk	US	Software	
1.69%	ISRG	Intuitive Surgical	US	Medical Equipment	
1.69%	BIIB	Biogen	US	Biotechnology	
1.69%	TTWO	Take-two Interactive Software	US	Toys	
0.11%	AMAT	Applied Materials	US	Semiconductors	
1.69%	WDAY	Workday	US	Software	
1.69%	MDLZ	Mondelez International	US	Food Products	

Security					
Weight	Ticker	Name	Market	Sector	
1.69%	COST	Costco Wholesale	US	Broadline Retailers	
0.11%	CTSH	Cognizant Technology Solutions	US	Computer Services	
0.11%	AAL	American Airlines	US	Airlines	
1.69%	IDXX	Idexx Laboratories	US	Medical Supplies	
0.11%	WDC	Western Digital	US	Computer Hardware	
0.11%	QRTEA	Qurate Retail	US	Broadcasting & Entertainment	
1.69%	ROST	Ross Stores	US	Apparel Retailers	
1.69%	ALXN	Alexion Pharmaceuticals	US	Biotechnology	
1.69%	CTAS	Cintas	US	Business Support Services	
0.11%	CERN	Cerner	US	Software	
1.69%	PAYX	Paychex	US	Financial Administration	
1.69%	MNST	Monster Beverage	US	Soft Drinks	
0.11%	JD	Jd.com Adr	US	Broadline Retailers	
1.69%	CSCO	Cisco Systems	US	Telecommunications Equipment	
1.69%	SNPS	Synopsys	US	Software	
0.11%	GOOG	Alphabet	US	Internet	
0.11%	TXN	Texas Instruments	US	Semiconductors	
1.69%	TMUS	T-mobile Us	US	Mobile Telecommunications	
1.69%	CMCSA	Comcast	US	Broadcasting & Entertainment	
1.69%	ESRX	Express Scripts	US	Health Care Providers	
0.11%	XRAY	Dentsply Sirona	US	Medical Supplies	
1.69%	MSFT	Microsoft	US	Software	
1.69%	HSIC	Henry Schein	US	Medical Supplies	
0.11%	BIDU	Baidu Adr	US	Internet	
0.11%	ASML	Asml	US	Semiconductors	
1.69%	NVDA	Nvidia	US	Semiconductors	

Security					
Weight	Ticker	Name	Market	Sector	
0.11%	FB	Facebook	US	Internet	
1.69%	HAS	Hasbro	US	Toys	
1.69%	FOX	Twenty-first Century Fox	US	Broadcasting & Entertainment	
0.11%	MYL	Mylan	US	Pharmaceuticals	
1.69%	ATVI	Activision Blizzard	US	Toys	
1.69%	SHPG	Shire Adr	US	Pharmaceuticals	
0.11%	STX	Seagate Technology	US	Computer Hardware	
0.11%	SYMC	Symantec	US	Software	
0.11%	MCHP	Microchip Technology	US	Semiconductors	
0.11%	LBTYA	Liberty Global	US	Broadcasting & Entertainment	
1.69%	ILMN	Illumina	US	Biotechnology	
0.11%	AVGO	Broadcom	US	Semiconductors	
1.69%	CSX	Csx	US	Railroads	
0.11%	WYNN	Wynn Resorts	US	Gambling	
0.11%	EBAY	Ebay	US	Specialized Consumer Services	
1.69%	SBUX	Starbucks	US	Restaurants & Bars	
1.69%	PEP	Pepsico	US	Soft Drinks	
1.69%	ULTA	Ulta Beauty	US	Specialty Retailers	
0.11%	VOD	Vodafone Adr	US	Mobile Telecommunications	
1.69%	MELI	Mercadolibre	US	Specialized Consumer Services	
0.11%	REGN	Regeneron Pharmaceuticals	US	Biotechnology	
0.11%	NFLX	Netflix	US	Specialty Retailers	
1.69%	QCOM	Qualcomm	US	Semiconductors	
0.11%	PCAR	Paccar	US	Commercial Vehicles & Trucks	
1.69%	WBA	Walgreens Boots Alliance	US	Drug Retailers	
1.69%	CHTR	Charter Communications	US	Broadcasting & Entertainment	

Notes

The investment universe is consisting of all the stocks included in the reference Benchmark.

Trendrating measures price momentum using a four grades rating A,B,C,D.

The **Smart Beta US Technology** overweights the exposure in "A" rated stocks and underweights the exposure in all the others.

Every month the strategy rebalances the exposure across all the stocks in order to always maximize the weightings on the best Momentum stocks.

The **Smart Beta US Technology** was launched on January 2013 since Trendrating is live with our customers.

Data prior to the launch date is back-tested data (i.e. performance over that time period had the strategy existed). There are frequently material differences between back-tested performance and actual results. Past performance -- whether actual or back-tested -- is no indication or guarantee of future performance

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