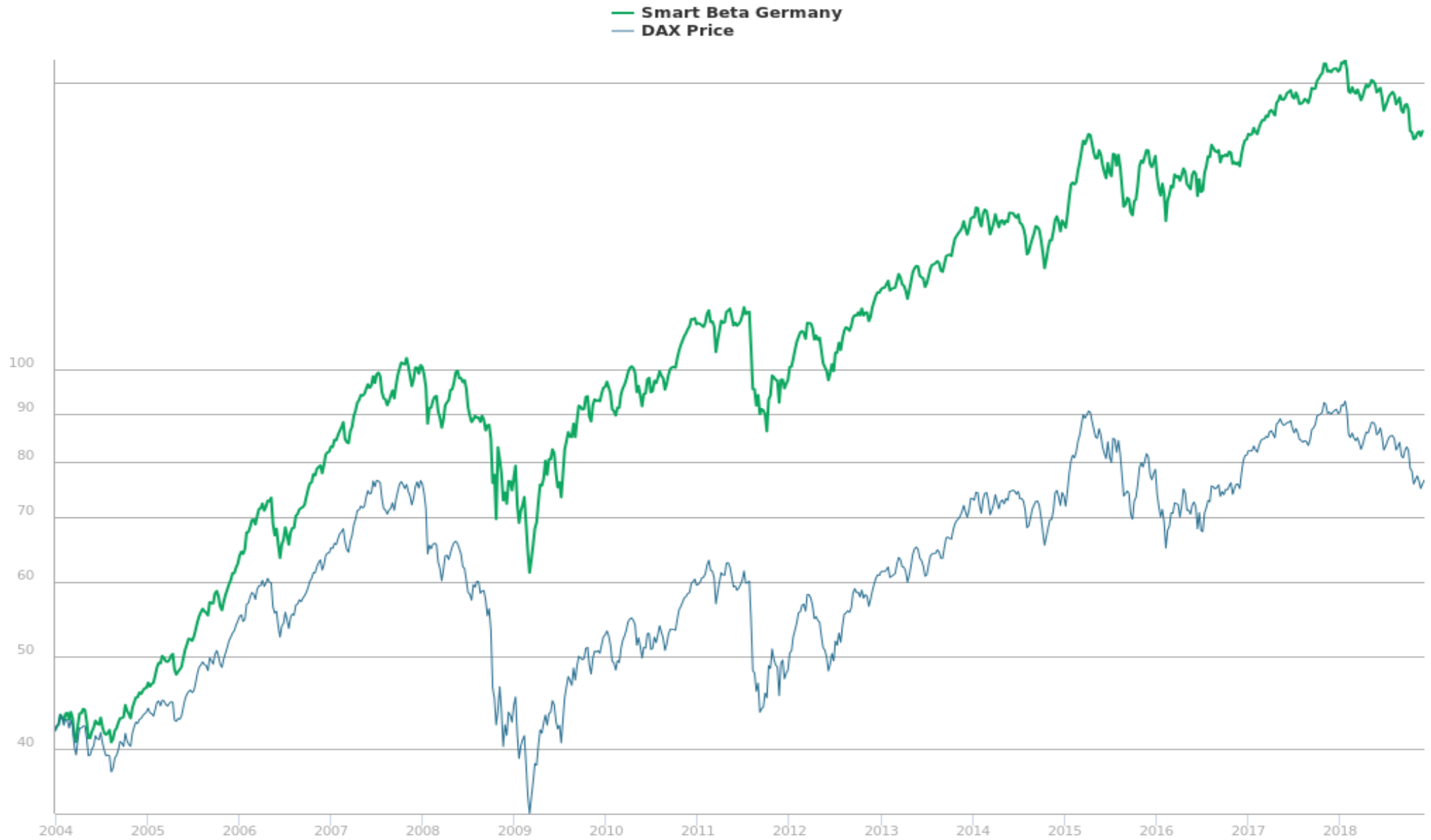


Trendrating Momentum Smart Beta Germany

15 years report - November 2018

Chart



Key facts

Performance

	Trendrating	Benchmark	Difference
Cumulative	+325.71%	+81.45%	+244.27%
Annualized	+9.83%	+3.93%	+5.90%
Yearly average	+11.54%	+5.91%	+5.63%
Max consecutive positive weeks	8	8	0

Risk

	Trendrating	Benchmark	Difference
Max drawdown	-42.77%	-56.48%	+13.70%
Average yearly drawdown	-16.54%	-19.10%	+2.56%
Monthly standard deviation	5.89%	5.91%	-0.02%
Max consecutive negative weeks	6	4	+2

Key ratios

	Trendrating	Benchmark	Difference
One way yearly average turnover	173%		
Sharpe ratio	0.5878	0.2210	+0.3667
Sterling ratio	0.5304	0.1909	+0.3395
Sortino ratio	1.4600	0.4781	+0.9819
Beta	0.8509		
Tracking error	0.1044		
Information ratio	0.2783		
Treynor ratio	0.3035		
% positive weeks	59.22%	56.42%	+2.79%

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	11.47%	5.14%	6.33%	-9.86%	-13.78%	3.92%	3.82%	4.49%	0.67%	154.73%
2005	34.50%	23.80%	10.70%	-6.97%	-6.92%	-0.05%	3.15%	3.49%	0.34%	103.67%
2006	32.13%	19.07%	13.07%	-16.24%	-14.82%	-1.42%	4.67%	4.39%	-0.29%	156.49%
2007	23.39%	19.15%	4.24%	-11.15%	-10.31%	-0.84%	4.63%	4.39%	-0.23%	101.56%
2008	-24.66%	-42.36%	17.70%	-35.70%	-50.54%	14.85%	12.89%	10.76%	-2.13%	320.98%
2009	24.84%	18.49%	6.35%	-26.88%	-27.39%	0.51%	8.06%	8.03%	-0.03%	198.70%
2010	15.96%	12.48%	3.48%	-12.64%	-12.52%	-0.12%	4.71%	5.27%	0.56%	128.45%
2011	-11.75%	-17.46%	5.70%	-28.46%	-34.00%	5.54%	7.31%	8.19%	0.89%	258.53%
2012	22.44%	24.36%	-1.92%	-16.12%	-19.30%	3.18%	4.49%	5.38%	0.89%	207.13%
2013	21.18%	21.40%	-0.23%	-7.98%	-10.16%	2.17%	3.68%	4.14%	0.46%	127.94%
2014	-2.06%	-0.14%	-1.92%	-16.45%	-14.53%	-1.92%	4.29%	4.75%	0.46%	234.16%
2015	17.79%	6.85%	10.94%	-20.26%	-25.29%	5.03%	5.79%	6.67%	0.87%	173.34%
2016	4.05%	3.67%	0.38%	-15.44%	-18.81%	3.37%	5.60%	5.93%	0.33%	229.13%
2017	16.94%	9.56%	7.38%	-4.83%	-7.38%	2.54%	3.03%	3.01%	-0.02%	110.08%
2018	-13.11%	-15.30%	2.19%	-19.07%	-20.67%	1.60%	4.14%	4.22%	0.08%	173.22%
Annualized	9.83%	3.93%	5.90%	-16.54%	-19.10%	2.56%	5.35%	5.54%	0.19%	173.00%

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	1.75%	2.10%	-0.35%	-2.76%	-2.73%	-0.03%	3.04%	3.23%	0.18%
Feb 2018	-4.77%	-6.00%	1.23%	-7.88%	-8.46%	0.58%	5.40%	5.32%	-0.07%
Mar 2018	-2.20%	-2.73%	0.52%	-4.71%	-5.21%	0.51%	5.18%	5.37%	0.19%

Month	Monthly performance			Max drawdown			Monthly return stdDev		
	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value
Apr 2018	2.09%	3.51%	-1.43%	-1.83%	-1.45%	-0.38%	4.05%	4.12%	0.07%
May 2018	-2.07%	-1.88%	-0.19%	-4.29%	-4.61%	0.32%	3.80%	3.75%	-0.05%
Jun 2018	-2.96%	-2.35%	-0.61%	-6.96%	-7.09%	0.13%	4.46%	4.72%	0.26%
Jul 2018	5.06%	4.06%	1.00%	-1.42%	-1.70%	0.28%	3.49%	3.71%	0.21%
Aug 2018	-3.30%	-3.45%	0.15%	-4.55%	-5.02%	0.46%	3.52%	3.56%	0.04%
Sep 2018	-1.35%	-0.95%	-0.40%	-3.01%	-3.31%	0.29%	3.10%	3.28%	0.18%
Oct 2018	-6.29%	-6.53%	0.24%	-8.64%	-9.30%	0.66%	5.27%	4.83%	-0.44%
Nov 2018	0.64%	-1.66%	2.30%	-2.44%	-4.43%	1.99%	3.73%	4.13%	0.40%

Holdings

Security					
Weight	Ticker	Name	Market	Sector	
0.54%	VOW3	Volkswagen	DE	Automobiles	
8.15%	DTE	Deutsche Telekom	DE	Mobile Telecommunications	
0.54%	IFX	Infineon Technologies	DE	Semiconductors	
0.54%	HEI	Heidelbergcement	DE	Building Materials & Fixtures	
8.15%	RWE	Rwe	DE	Multi-utilities	
0.54%	CON	Continental	DE	Tires	
0.54%	DPW	Deutsche Post	DE	Delivery Services	
8.15%	DB1	Deutsche Boerse	DE	Investment Services	
0.54%	HEN3	Henkel	DE	Nondurable Household Products	
0.54%	TKA	Thyssenkrupp	DE	Diversified Industrials	
0.54%	1COV	Covestro	DE	Commodity Chemicals	
8.15%	MUV2	Munich Reinsurance	DE	Reinsurance	
0.54%	LHA	Deutsche Lufthansa	DE	Airlines	
0.54%	BMW	BMW	DE	Automobiles	
0.54%	EOAN	E.on	DE	Multi-utilities	
0.54%	DBK	Deutsche Bank	DE	Banks	
0.54%	SIE	Siemens	DE	Diversified Industrials	
8.15%	FME	Fresenius Medical Care	DE	Health Care Providers	
0.54%	BEI	Beiersdorf	DE	Personal Products	
8.15%	WDI	Wirecard	DE	Financial Administration	
0.54%	ADS	Adidas	DE	Footwear	
0.54%	BAYN	Bayer	DE	Pharmaceuticals	
8.15%	MRK	Merck	DE	Pharmaceuticals	
8.15%	VNA	Vonovia	DE	Real Estate Holding & Development	

Security					
Weight	Ticker	Name	Market	Sector	
8.15%	SAP	Sap	DE	Software	
0.54%	DAI	Daimler	DE	Automobiles	
8.15%	ALV	Allianz	DE	Full Line Insurance	
0.54%	BAS	Basf	DE	Commodity Chemicals	
8.15%	LNA	Linde	DE	Commodity Chemicals	
0.54%	FRE	Fresenius	DE	Health Care Providers	

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 Germany** 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 Germany** 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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