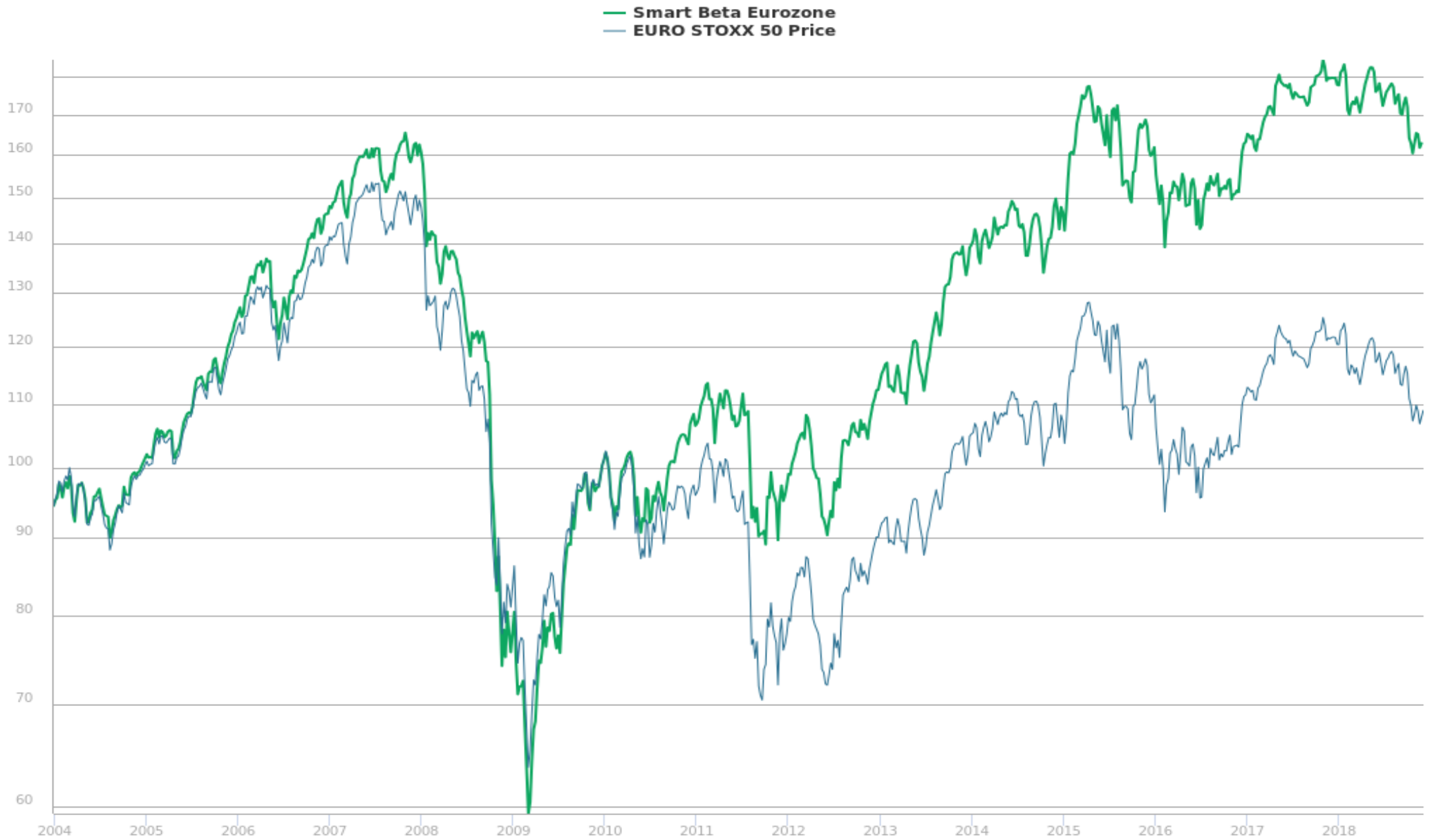


Trendrating Momentum Smart Beta Eurozone

15 years report - November 2018

Chart



Key facts

Performance

	Trendrating	Benchmark	Difference
Cumulative	+73.70%	+14.94%	+58.75%
Annualized	+3.64%	+0.91%	+2.73%
Yearly average	+5.99%	+2.57%	+3.42%
Max consecutive positive weeks	8	8	0

Risk

	Trendrating	Benchmark	Difference
Max drawdown	-66.06%	-60.29%	-5.78%
Average yearly drawdown	-17.54%	-18.85%	+1.31%
Monthly standard deviation	5.62%	6.07%	-0.44%
Max consecutive negative weeks	6	5	+1

Key ratios

	Trendrating	Benchmark	Difference
One way yearly average turnover	183%		
Sharpe ratio	0.2123	0.0432	+0.1692
Sterling ratio	0.1777	0.0336	+0.1440
Sortino ratio	0.4528	0.0944	+0.3584
Beta	0.9660		
Tracking error	0.0537		
Information ratio	0.1821		
Treynor ratio	0.2062		
% positive weeks	55.87%	54.75%	+1.12%

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	8.00%	6.90%	1.10%	-10.26%	-12.83%	2.57%	3.73%	3.98%	0.26%	165.86%
2005	22.73%	21.28%	1.45%	-5.84%	-6.44%	0.60%	2.95%	3.13%	0.19%	109.37%
2006	18.31%	15.12%	3.19%	-13.12%	-12.41%	-0.70%	4.08%	4.16%	0.09%	178.86%
2007	10.18%	6.79%	3.39%	-9.56%	-10.87%	1.31%	4.05%	4.50%	0.45%	140.05%
2008	-51.95%	-44.37%	-7.58%	-56.45%	-50.77%	-5.67%	10.04%	11.17%	1.12%	320.35%
2009	29.45%	21.14%	8.32%	-30.92%	-29.80%	-1.11%	7.76%	7.95%	0.19%	275.59%
2010	4.43%	-5.81%	10.24%	-14.84%	-17.54%	2.70%	6.14%	6.78%	0.64%	133.80%
2011	-6.73%	-17.05%	10.32%	-25.04%	-34.97%	9.94%	7.11%	8.21%	1.10%	277.34%
2012	13.73%	13.79%	-0.05%	-19.52%	-20.69%	1.17%	5.18%	5.91%	0.73%	228.50%
2013	25.78%	17.95%	7.84%	-10.71%	-11.43%	0.71%	4.67%	4.64%	-0.03%	134.15%
2014	4.44%	1.20%	3.23%	-12.99%	-13.28%	0.29%	4.83%	4.84%	0.01%	180.03%
2015	9.92%	3.85%	6.07%	-18.72%	-21.14%	2.42%	6.28%	6.59%	0.31%	149.27%
2016	1.40%	0.70%	0.70%	-15.44%	-17.97%	2.53%	5.61%	6.21%	0.59%	258.83%
2017	7.57%	6.49%	1.08%	-5.96%	-7.40%	1.44%	3.06%	2.93%	-0.13%	105.41%
2018	-7.36%	-9.44%	2.08%	-13.74%	-15.15%	1.41%	3.69%	3.68%	-0.01%	173.40%
Annualized	3.64%	0.91%	2.73%	-17.54%	-18.85%	1.31%	5.28%	5.65%	0.37%	183.00%

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	2.85%	3.01%	-0.15%	-1.87%	-1.78%	-0.09%	2.77%	2.74%	-0.03%
Feb 2018	-3.22%	-4.72%	1.50%	-7.65%	-7.85%	0.20%	5.32%	5.24%	-0.07%
Mar 2018	-1.73%	-2.25%	0.52%	-4.51%	-4.66%	0.15%	4.24%	4.33%	0.09%

Month	Monthly performance			Max drawdown			Monthly return stdDev		
	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value	Trendrating	Benchmark	Added value
Apr 2018	5.22%	5.21%	0.01%	-0.67%	-0.78%	0.11%	3.16%	3.30%	0.14%
May 2018	-3.97%	-3.67%	-0.30%	-5.15%	-5.16%	0.01%	2.73%	2.83%	0.09%
Jun 2018	-0.55%	-0.32%	-0.23%	-4.58%	-4.58%	0.00%	4.17%	4.21%	0.04%
Jul 2018	3.73%	3.83%	-0.10%	-1.36%	-1.47%	0.11%	2.82%	2.92%	0.10%
Aug 2018	-3.59%	-3.76%	0.17%	-4.45%	-4.72%	0.27%	3.17%	3.26%	0.09%
Sep 2018	-0.02%	0.19%	-0.21%	-2.63%	-2.99%	0.36%	3.07%	3.22%	0.14%
Oct 2018	-5.16%	-5.93%	0.77%	-8.59%	-8.31%	-0.27%	5.13%	4.40%	-0.73%
Nov 2018	-0.60%	-0.76%	0.17%	-3.51%	-4.01%	0.50%	3.58%	3.56%	-0.02%

Holdings

Security					
Weight	Ticker	Name	Market	Sector	
4.75%	AI	Air Liquide	FR	Commodity Chemicals	
0.32%	BN	Danone	FR	Food Products	
0.32%	VOW3	Volkswagen	DE	Automobiles	
0.32%	ASML	Asml	NL	Semiconductors	
0.32%	ITX	Industria De Diseno Textil	ES	Apparel Retailers	
4.75%	DTE	Deutsche Telekom	DE	Mobile Telecommunications	
4.75%	PHIA	Royal Philips	NL	Medical Equipment	
4.75%	NOKIA	Nokia	FI	Telecommunications Equipment	
4.75%	AMS	Amadeus It	ES	Financial Administration	
0.32%	BMW	BMW	DE	Automobiles	
0.32%	MC	Lvmh	FR	Clothing & Accessories	
0.32%	URW	Unibail-rodamco-westfield	NL	Retail REITs	
0.32%	SIE	Siemens	DE	Diversified Industrials	
0.32%	ENGI	Engie	FR	Multi-utilities	
0.32%	DG	Vinci	FR	Heavy Construction	
0.32%	CRH	Crh	IE	Building Materials & Fixtures	
0.32%	ENEL	Enel	IT	Conventional Electricity	
4.75%	IBE	Iberdrola	ES	Conventional Electricity	
0.32%	BAYN	Bayer	DE	Pharmaceuticals	
4.75%	SAN	Sanofi	FR	Pharmaceuticals	
4.75%	CS	Axa	FR	Full Line Insurance	
4.75%	SAF	Safran	FR	Aerospace	
0.32%	ISP	Intesa Sanpaolo	IT	Banks	
0.32%	ABI	Anheuser-busch Inbev	BE	Brewers	

Security					
Weight	Ticker	Name	Market	Sector	
4.75%	SAP	Sap	DE	Software	
4.75%	ALV	Allianz	DE	Full Line Insurance	
0.32%	BAS	Basf	DE	Commodity Chemicals	
4.75%	LNA	Linde	DE	Commodity Chemicals	
0.32%	TEF	Telefonica	ES	Fixed Line Telecommunications	
4.75%	EL	Essilorluxottica	FR	Medical Supplies	
0.32%	DPW	Deutsche Post	DE	Delivery Services	
0.32%	VIV	Vivendi	FR	Broadcasting & Entertainment	
4.75%	MUV2	Munich Reinsurance	DE	Reinsurance	
0.32%	INGA	Ing	NL	Banks	
0.32%	ENI	Eni	IT	Integrated Oil & Gas	
0.32%	AIR	Airbus	FR	Aerospace	
0.32%	GLE	Societe Generale	FR	Banks	
0.32%	SAN	Banco Santander	ES	Banks	
4.75%	AD	Koninklijke Ahold Delhaize	NL	Food Retailers & Wholesalers	
0.32%	ADS	Adidas	DE	Footwear	
4.75%	OR	L'oreal	FR	Personal Products	
0.32%	BBVA	Banco Bilbao Vizcaya Argentaria	ES	Banks	
0.32%	SU	Schneider Electric	FR	Electrical Components & Equipment	
4.75%	FP	Total	FR	Integrated Oil & Gas	
0.32%	DAI	Daimler	DE	Automobiles	
0.32%	ORA	Orange	FR	Fixed Line Telecommunications	
4.75%	KER	Kering	FR	Apparel Retailers	
4.75%	UNA	Unilever	NL	Personal Products	
0.32%	BNP	Bnp Paribas	FR	Banks	
0.32%	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 Eurozone** 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 Eurozone** 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

The evaluations, rankings and information provided by Trendrating (the "Services") are provided solely for the use of finance professionals (the "Users") who have been issued a license to use the Services by Trendrating and who, by nature of their status as investment professions understand, or are expected to understand, the complexity of finance products, the functioning of the markets and the risks inherent in them. The Services are not offered for use by persons not employed or actively working as professionals in the finance and investment industry.

The Services are to be used entirely at the risk of the Users. Included in the Services are forward-looking statements that are based on observations, assumptions and calculations that reflect Trendrating's expectations. Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to materially differ from those expectations. The Services are not intended to constitute a recommendation of any specific security or financial product and are to be implemented solely in conjunction with or as part of a complete investment evaluation conducted by the Users.

Under no circumstances shall Trendrating, its officers, directors, employees or agents be liable for any damages, lost profits or investment losses that result in any way from use of the Services or any interruptions, errors or delays in the Services.