

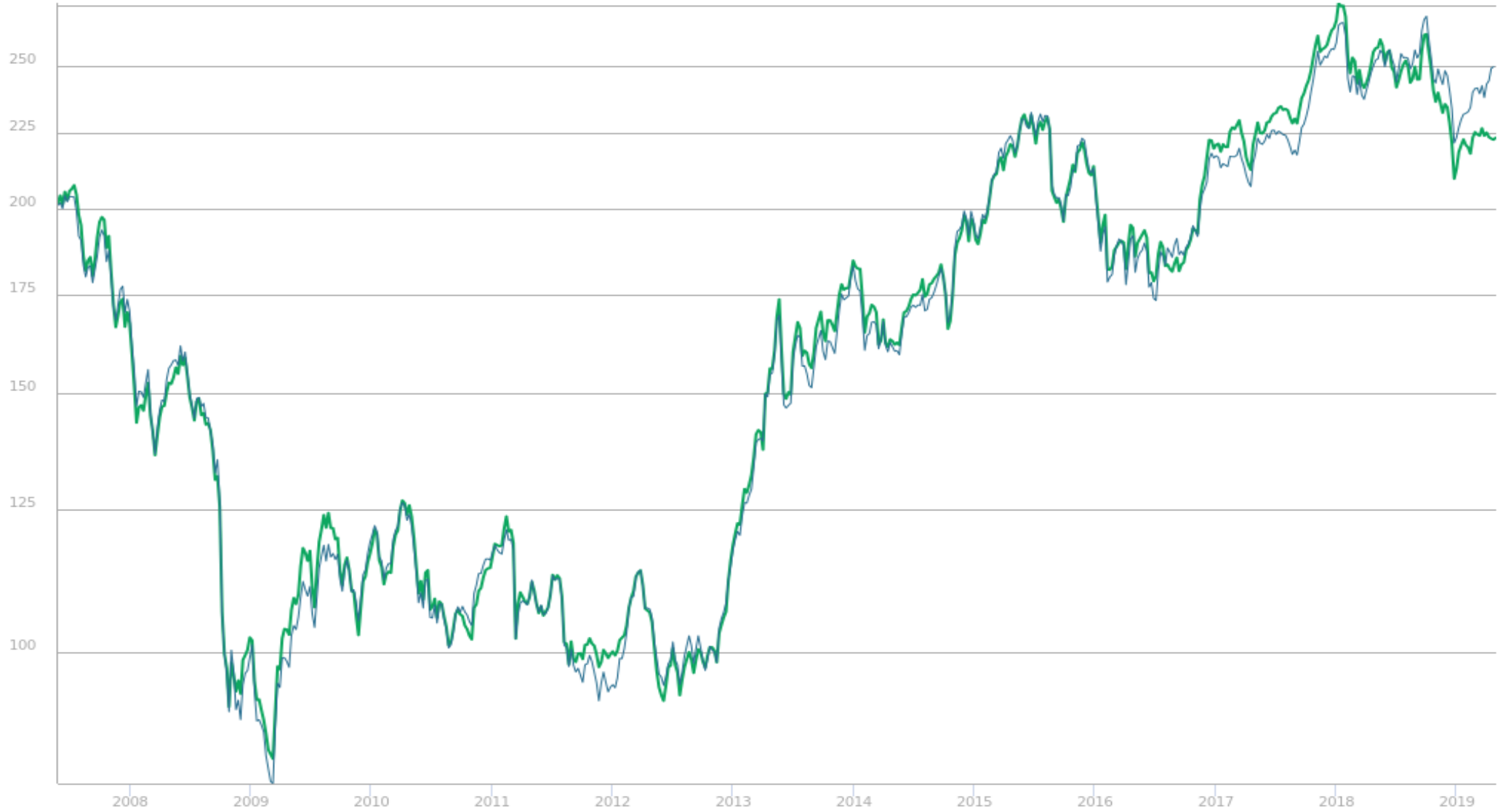
# Trendrating Momentum Smart Beta Japan

12 years report - May 2019

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# Chart

— Smart Beta Japan  
— Nikkei 225



## Key facts

### Performance

	Trendrating	Benchmark	Difference
<b>Cumulative</b>	<b>+11.40%</b>	<b>+24.52%</b>	<b>-13.12%</b>
<b>Annualized</b>	<b>+0.88%</b>	<b>+1.79%</b>	<b>-0.91%</b>
Yearly average	+3.28%	+4.36%	-1.09%
Max consecutive positive weeks	10	9	+1

### Risk

	Trendrating	Benchmark	Difference
Max drawdown	-60.71%	-61.37%	+0.65%
Average yearly drawdown	-21.02%	-20.66%	-0.36%
Monthly standard deviation	6.72%	6.94%	-0.22%
Max consecutive negative weeks	5	6	-1

### Key ratios

	Trendrating	Benchmark	Difference
One way yearly average turnover	209%		
Sharpe ratio	0.0313	0.0573	-0.0260
Sterling ratio	0.0252	0.0478	-0.0226
Sortino ratio	0.0719	0.1287	-0.0567
Beta	0.9762		
Tracking error	0.0566		
Information ratio	-0.0518		
Treynor ratio	0.2467		
% positive weeks	56.64%	55.94%	+0.70%

# 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	
2007	-16.03%	-14.37%	-1.66%	-21.10%	-18.75%	-2.35%	6.39%	5.65%	-0.74%	111.04%
2008	-39.10%	-42.12%	3.02%	-51.31%	-53.21%	1.89%	11.99%	12.90%	0.91%	348.14%
2009	13.22%	19.04%	-5.82%	-20.72%	-23.64%	2.92%	7.47%	7.75%	0.28%	267.94%
2010	-2.22%	-3.01%	0.79%	-22.02%	-22.18%	0.17%	5.71%	5.84%	0.13%	288.15%
2011	-11.97%	-17.34%	5.36%	-23.13%	-24.84%	1.72%	6.85%	6.57%	-0.28%	231.10%
2012	17.52%	22.94%	-5.42%	-21.81%	-19.11%	-2.70%	4.45%	4.57%	0.12%	298.68%
2013	56.98%	56.72%	0.26%	-20.80%	-20.36%	-0.44%	7.37%	7.52%	0.15%	104.70%
2014	5.63%	7.12%	-1.48%	-14.33%	-14.62%	0.29%	5.66%	5.68%	0.02%	210.40%
2015	10.04%	9.07%	0.97%	-18.33%	-18.87%	0.53%	5.74%	5.89%	0.15%	128.28%
2016	1.54%	0.42%	1.11%	-20.41%	-21.44%	1.04%	7.18%	7.58%	0.40%	255.05%
2017	21.70%	19.10%	2.60%	-8.48%	-6.61%	-1.87%	3.43%	3.34%	-0.09%	87.86%
2018	-19.49%	-12.08%	-7.41%	-26.70%	-21.07%	-5.62%	5.03%	5.39%	0.36%	175.65%
2019	4.78%	11.21%	-6.43%	-4.17%	-3.87%	-0.30%	3.88%	4.32%	0.45%	68.45%
Annualized	0.88%	1.79%	-0.91%	-21.02%	-20.66%	-0.36%	6.24%	6.39%	0.14%	208.00%

## 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 2019	3.80%	3.79%	0.01%	-1.73%	-2.26%	0.54%	3.57%	4.37%	0.80%
Feb 2019	1.40%	2.94%	-1.55%	-3.88%	-2.64%	-1.24%	4.16%	4.57%	0.41%
Mar 2019	-0.24%	-0.84%	0.60%	-2.80%	-3.87%	1.08%	4.91%	5.48%	0.57%
Apr 2019	-0.21%	4.97%	-5.18%	-2.45%	-0.84%	-1.61%	2.77%	2.52%	-0.26%

# Holdings

Security					
Weight	Ticker	Name	Market	Sector	
0.09%	6472	Ntn	JP	Industrial Machinery	
0.09%	3099	Isetan Mitsukoshi	JP	Broadline Retailers	
1.32%	6178	Japan Post	JP	Life Insurance	
0.09%	1963	Jgc	JP	Industrial Machinery	
1.32%	5703	Nippon Light Metal	JP	Aluminum	
0.09%	5214	Nippon Electric Glass	JP	Electrical Components & Equipment	
0.09%	7013	Ihi	JP	Diversified Industrials	
0.09%	5232	Sumitomo Osaka Cement	JP	Building Materials & Fixtures	
0.09%	9432	Nippon Telegraph & Telephone Corp Ntt	JP	Fixed Line Telecommunications	
1.32%	4507	Shionogi	JP	Pharmaceuticals	
0.09%	2503	Kirin	JP	Brewers	
0.09%	4188	Mitsubishi Chemical	JP	Specialty Chemicals	
0.09%	5713	Sumitomo Metal Mining	JP	Nonferrous Metals	
0.09%	5406	Kobe Steel	JP	Iron & Steel	
0.09%	4506	Sumitomo Dainippon Pharma	JP	Pharmaceuticals	
0.09%	7735	Screen	JP	Semiconductors	
0.09%	4578	Otsuka	JP	Pharmaceuticals	
0.09%	9412	Sky Perfect Jsat	JP	Broadcasting & Entertainment	
1.32%	1812	Kajima	JP	Heavy Construction	
0.09%	4631	Dic	JP	Specialty Chemicals	
0.09%	8331	Chiba Bank	JP	Banks	
0.09%	7270	Subaru	JP	Automobiles	
0.09%	2282	Nh Foods	JP	Food Products	
0.09%	7211	Mitsubishi Motors	JP	Automobiles	

Security					
Weight	Ticker	Name	Market	Sector	
1.32%	9502	Chubu Electric Power	JP	Conventional Electricity	
1.32%	8802	Mitsubishi Estate	JP	Real Estate Holding & Development	
1.32%	2002	Nisshin Seifun	JP	Food Products	
0.09%	7272	Yamaha Motor	JP	Automobiles	
1.32%	6506	Yaskawa Electric	JP	Industrial Machinery	
0.09%	5333	Ngk Insulators	JP	Electrical Components & Equipment	
0.09%	9005	Tokyu	JP	Travel & Tourism	
0.09%	6473	Jtekt	JP	Auto Parts	
0.09%	6479	Minebea Mitsumi	JP	Electrical Components & Equipment	
0.09%	4004	Showa Denko Kk	JP	Commodity Chemicals	
0.09%	8028	Familymart Uny Hldgs	JP	Food Retailers & Wholesalers	
0.09%	6302	Sumitomo Heavy Industries	JP	Industrial Machinery	
1.32%	9007	Odakyu Electric Railway	JP	Travel & Tourism	
1.32%	2801	Kikkoman	JP	Food Products	
0.09%	2871	Nichirei	JP	Food Products	
0.09%	5202	Nippon Sheet Glass	JP	Building Materials & Fixtures	
0.09%	7201	Nissan Motor	JP	Automobiles	
0.09%	6501	Hitachi	JP	Electronic Equipment	
0.09%	8725	Ms&ad; Insurance	JP	Property & Casualty Insurance	
0.09%	7012	Kawasaki Heavy Industries	JP	Commercial Vehicles & Trucks	
0.09%	8630	Sompo Holdings	JP	Property & Casualty Insurance	
0.09%	6724	Seiko Epson	JP	Computer Hardware	
0.09%	1801	Taisei	JP	Heavy Construction	
1.32%	6701	Nec	JP	Computer Hardware	
0.09%	2501	Sapporo	JP	Brewers	
1.32%	9009	Keisei Electric Railway	JP	Travel & Tourism	

Security					
Weight	Ticker	Name	Market	Sector	
0.09%	8002	Marubeni	JP	Industrial Suppliers	
0.09%	4005	Sumitomo Chemical	JP	Commodity Chemicals	
0.09%	7267	Honda Motor	JP	Automobiles	
0.09%	8795	T&d;	JP	Life Insurance	
0.09%	6770	Alps Alpine	JP	Electrical Components & Equipment	
1.32%	5714	Dowa	JP	Nonferrous Metals	
1.32%	9531	Tokyo Gas	JP	Gas Distribution	
1.32%	2269	Meiji Holdings Co.ltd	JP	Food Products	
0.09%	9107	Kawasaki Kisen Kaisha	JP	Marine Transportation	
1.32%	9735	Secom	JP	Business Support Services	
1.32%	7951	Yamaha	JP	Recreational Products	
0.09%	5411	Jfe	JP	Iron & Steel	
0.09%	4021	Nissan Chemical	JP	Specialty Chemicals	
0.09%	6305	Hitachi Construction Machinery	JP	Commercial Vehicles & Trucks	
0.09%	6471	Nsk	JP	Auto Parts	
0.09%	4689	Yahoo Japan	JP	Internet	
0.09%	3401	Teijin	JP	Commodity Chemicals	
0.09%	2914	Japan Tobacco	JP	Tobacco	
0.09%	2531	Takara	JP	Distillers & Vintners	
0.09%	7762	Citizen Watch	JP	Clothing & Accessories	
0.09%	3086	J. Front Retailing	JP	Broadline Retailers	
0.09%	7186	Concordia Financial Group	JP	Banks	
0.09%	8601	Daiwa Securities	JP	Investment Services	
0.09%	4751	Cyberagent	JP	Media Agencies	
0.09%	6504	Fuji Electric	JP	Electrical Components & Equipment	
0.09%	6503	Mitsubishi Electric	JP	Industrial Machinery	

Security					
Weight	Ticker	Name	Market	Sector	
0.09%	8604	Nomura	JP	Investment Services	
1.32%	3863	Nippon Paper Industries	JP	Paper	
0.09%	7004	Hitachi Zosen	JP	Industrial Machinery	
1.32%	4901	Fujifilm	JP	Electronic Office Equipment	
0.09%	7911	Toppan Printing	JP	Business Support Services	
0.09%	9101	Nippon Yusen Kabushiki Kaisha	JP	Marine Transportation	
0.09%	1605	Inpex	JP	Exploration & Production	
0.09%	6988	Nitto Denko	JP	Specialty Chemicals	
0.09%	4208	Ube Industries	JP	Commodity Chemicals	
0.09%	1333	Maruha Nichiro	JP	Farming, Fishing & Plantations	
0.09%	8306	Mitsubishi Ufj Financial	JP	Banks	
0.09%	2502	Asahi	JP	Brewers	
0.09%	8233	Takashimaya	JP	Broadline Retailers	
0.09%	2768	Sojitz	JP	Diversified Industrials	
0.09%	6361	Ebara	JP	Industrial Machinery	
1.32%	9613	Ntt Data	JP	Computer Services	
0.09%	6326	Kubota	JP	Commercial Vehicles & Trucks	
1.32%	9020	East Japan Railway	JP	Travel & Tourism	
0.09%	9766	Konami	JP	Toys	
0.09%	8015	Toyota Tsusho	JP	Diversified Industrials	
0.09%	9001	Tobu Railway	JP	Travel & Tourism	
0.09%	8750	Dai-ichi Life Holdings,inc	JP	Life Insurance	
0.09%	8628	Matsui Securities	JP	Investment Services	
0.09%	9064	Yamato	JP	Delivery Services	
0.09%	4502	Takeda Pharmaceutical	JP	Pharmaceuticals	
0.09%	4043	Tokuyama	JP	Specialty Chemicals	



Security					
Weight	Ticker	Name	Market	Sector	
0.09%	8031	Mitsui	JP	Industrial Suppliers	
0.09%	5201	Agc	JP	Building Materials & Fixtures	
0.09%	6902	Denso	JP	Auto Parts	
0.09%	8804	Tokyo Tatemono	JP	Real Estate Holding & Development	
1.32%	6113	Amada	JP	Industrial Machinery	
0.09%	6954	Fanuc	JP	Industrial Machinery	
0.09%	8316	Sumitomo Mitsui Financial	JP	Banks	
1.32%	4151	Kyowa Hakko Kirin	JP	Pharmaceuticals	
1.32%	4568	Daiichi Sankyo	JP	Pharmaceuticals	
0.09%	6366	Chiyoda	JP	Industrial Machinery	
1.32%	4063	Shin-etsu Chemical	JP	Specialty Chemicals	
0.09%	8411	Mizuho Financial	JP	Banks	
1.32%	8035	Tokyo Electron	JP	Semiconductors	
0.09%	6758	Sony	JP	Consumer Electronics	
0.09%	7205	Hino Motors	JP	Commercial Vehicles & Trucks	
0.09%	6367	Daikin Industries	JP	Building Materials & Fixtures	
0.09%	7751	Canon	JP	Electronic Office Equipment	
1.32%	4503	Astellas Pharma	JP	Pharmaceuticals	
0.09%	6752	Panasonic	JP	Consumer Electronics	
1.32%	9984	Softbank	JP	Mobile Telecommunications	
0.09%	3405	Kuraray	JP	Commodity Chemicals	
1.32%	5901	Toyo Seikan	JP	Containers & Packaging	
0.09%	9437	Ntt Docomo	JP	Mobile Telecommunications	
0.09%	6762	Tdk	JP	Electrical Components & Equipment	
0.09%	5332	Toto	JP	Building Materials & Fixtures	
1.32%	9983	Fast Retailing Co.ltd	JP	Apparel Retailers	

Security					
Weight	Ticker	Name	Market	Sector	
1.32%	7011	Mitsubishi Heavy Industries	JP	Industrial Machinery	
0.09%	1803	Shimizu	JP	Heavy Construction	
0.09%	5020	Jxtg Holdings	JP	Integrated Oil & Gas	
0.09%	7269	Suzuki Motor	JP	Automobiles	
1.32%	1802	Obayashi	JP	Heavy Construction	
0.09%	3402	Toray Industries	JP	Commodity Chemicals	
0.09%	1721	Comsys	JP	Heavy Construction	
0.09%	8308	Resona	JP	Banks	
0.09%	9062	Nippon Express	JP	Trucking	
1.32%	7912	Dai Nippon Printing	JP	Publishing	
1.32%	4902	Konica Minolta	JP	Electronic Office Equipment	
0.09%	8354	Fukuoka Financial	JP	Banks	
0.09%	8252	Marui	JP	Broadline Retailers	
0.09%	9104	Mitsui O.s.k.lines	JP	Marine Transportation	
0.09%	9532	Osaka Gas	JP	Gas Distribution	
0.09%	8001	Itochu	JP	Industrial Suppliers	
0.09%	5711	Mitsubishi Materials	JP	Diversified Industrials	
0.09%	6976	Taiyo Yuden	JP	Electrical Components & Equipment	
1.32%	9501	Tokyo Electric Power Co Holdings	JP	Conventional Electricity	
0.09%	3103	Unitika	JP	Clothing & Accessories	
0.09%	5802	Sumitomo Electric Industries	JP	Auto Parts	
0.09%	5401	Nippon Steel	JP	Iron & Steel	
1.32%	6841	Yokogawa Electric	JP	Electronic Equipment	
0.09%	4704	Trend Micro	JP	Software	
1.32%	1332	Nippon Suisan Kaisha	JP	Farming, Fishing & Plantations	
0.09%	8303	Shinsei Bank	JP	Banks	

Security					
Weight	Ticker	Name	Market	Sector	
0.09%	5803	Fujikura	JP	Electrical Components & Equipment	
0.09%	3861	Oji	JP	Paper	
0.09%	4272	Nippon Kayaku	JP	Specialty Chemicals	
1.32%	4543	Terumo	JP	Medical Equipment	
1.32%	6098	Recruit Holdings Co.ltd	JP	Business Training & Employment Agencies	
1.32%	7752	Ricoh	JP	Electronic Office Equipment	
0.09%	9503	Kansai Electric Power	JP	Conventional Electricity	
0.09%	5631	The Japan Steel Works	JP	Industrial Machinery	
0.09%	5707	Toho Zinc	JP	Nonferrous Metals	
1.32%	6645	Omron	JP	Electronic Equipment	
0.09%	5801	Furukawa Electric	JP	Electrical Components & Equipment	
0.09%	8253	Credit Saison	JP	Consumer Finance	
1.32%	6857	Advantest	JP	Semiconductors	
1.32%	7733	Olympus	JP	Medical Equipment	
1.32%	9681	Tokyo Dome	JP	Recreational Services	
0.09%	1925	Daiwa House Industry	JP	Home Construction	
0.09%	3289	Tokyu Fudosan	JP	Real Estate Holding & Development	
0.09%	1808	Haseko	JP	Heavy Construction	
0.09%	7203	Toyota Motor	JP	Automobiles	
1.32%	8766	Tokio Marine	JP	Property & Casualty Insurance	
1.32%	9021	West Japan Railway	JP	Travel & Tourism	
0.09%	6971	Kyocera	JP	Electrical Components & Equipment	
1.32%	9008	Keio	JP	Travel & Tourism	
0.09%	5019	Idemitsu Kosan	JP	Exploration & Production	
1.32%	4519	Chugai Pharmaceutical	JP	Pharmaceuticals	
0.09%	3105	Nisshinbo	JP	Diversified Industrials	

Security					
Weight	Ticker	Name	Market	Sector	
0.09%	5706	Mitsui Mining And Smelting Company	JP	Nonferrous Metals	
0.09%	7731	Nikon	JP	Recreational Products	
0.09%	5301	Tokai Carbon	JP	Commodity Chemicals	
0.09%	3382	Seven & I	JP	Broadline Retailers	
1.32%	1928	Sekisui House	JP	Home Construction	
1.32%	9301	Mitsubishi Logistics	JP	Transportation Services	
1.32%	4452	Kao	JP	Personal Products	
0.09%	4061	Denka	JP	Commodity Chemicals	
1.32%	8729	Sony Financial	JP	Life Insurance	
0.09%	8355	Shizuoka Bank	JP	Banks	
1.32%	4523	Eisai	JP	Pharmaceuticals	
0.09%	6674	Gs Yuasa	JP	Auto Parts	
1.32%	6103	Okuma	JP	Industrial Machinery	
1.32%	8801	Mitsui Fudosan	JP	Real Estate Holding & Development	
1.32%	4755	Rakuten	JP	Specialized Consumer Services	
0.09%	7202	Isuzu Motors	JP	Commercial Vehicles & Trucks	
0.09%	3101	Toyobo	JP	Clothing & Accessories	
1.32%	4911	Shiseido	JP	Personal Products	
0.09%	8053	Sumitomo	JP	Industrial Suppliers	
0.09%	7261	Mazda Motor	JP	Automobiles	
0.09%	3436	Sumco	JP	Semiconductors	
0.09%	3407	Asahi Kasei	JP	Commodity Chemicals	
1.32%	9022	Central Japan Railway	JP	Travel & Tourism	
0.09%	6952	Casio Computer	JP	Consumer Electronics	
1.32%	8058	Mitsubishi	JP	Industrial Suppliers	
0.09%	9433	Kddi	JP	Mobile Telecommunications	

Security					
Weight	Ticker	Name	Market	Sector	
0.09%	8304	Aozora Bank	JP	Banks	
1.32%	6702	Fujitsu	JP	Computer Hardware	
0.09%	8309	Sumitomo Mitsui Trust	JP	Banks	
1.32%	8830	Sumitomo Realty & Development	JP	Real Estate Holding & Development	
0.09%	6703	Oki Electric Industry	JP	Computer Hardware	
1.32%	9602	Toho	JP	Broadcasting & Entertainment	
0.09%	2432	Dena	JP	Specialized Consumer Services	
0.09%	4324	Dentsu	JP	Media Agencies	
1.32%	4042	Tosoh	JP	Commodity Chemicals	
0.09%	2802	Ajinomoto	JP	Food Products	
0.09%	8267	Aeon	JP	Broadline Retailers	
1.32%	5233	Taiheiyo Cement	JP	Building Materials & Fixtures	
0.09%	4183	Mitsui Chemicals	JP	Commodity Chemicals	
1.32%	9202	Ana	JP	Airlines	
0.09%	5108	Bridgestone	JP	Tires	
0.09%	6301	Komatsu	JP	Commercial Vehicles & Trucks	
0.09%	5541	Pacific Metals	JP	General Mining	
0.09%	5101	Yokohama Rubber	JP	Tires	
0.09%	7003	Mitsui E&S;	JP	Commercial Vehicles & Trucks	

## 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 Japan** 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 Japan** 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.

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