Scientific Beta

An EDHEC-Risk Institute Venture

Performance and Risk Report

SciBeta Japan Multi-Beta Multi-Strategy Quality

Overview

Index Characteristics

Universe - **Japan**

The Japan universe consists of equities from Japan.

Selection - **Multi-Beta Quality Stock Selection**

Multi-Beta stock selection is a form of multi-factor allocation that consists of selecting stocks from the underlying equity universe that correspond to one of the chosen risk factors.

Weighting - **Diversified Multistrategy**

In the Diversified Multistrategy weighting scheme, five Scientific Beta strategies are combined in order to diversify away individual strategies' specific risks and to mix strategies with different sensitivities to market conditions.

Risk Control - **No Relative Risk Control**

No Relative Risk Control indicates that the strategy does not control the relative risk resulting from a stock selection and weighting scheme decision with regard to the cap-weighted reference index.

Index Description as of 17-Jun-2016

The table summarises the index construction principles.

SciBeta Japan MBeta MStrat Qty	Index
Currency	JPY
Number of Constituents	230
Cap Coverage (Global Universe)	5.9 %
Regional Universe	Japan
Stock Selection	MBeta-Q
Weighting Scheme	Div MStrat
Risk Control	None
TO Control	n/a
Inception Date	21-Jun-2002
Live Date	18-Sep-2015
Broad CW	SciBeta Japan CW

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

Total Return Index in JPY

Latest Performances

Latest Performances refers to basic risk and return information for the most recent part of the strategy's history.

Latest Performances as of 15-Jul-2016

The first table shows the index's absolute returns over recent short time periods. The next table reports the index's return, volatility and associated Sharpe ratio since the live date of the index. The last table reports the index's return, volatility and associated Sharpe ratio since inception of the index. For periods longer than a year, the statistics are annualised, whereas the short-term statistics are calculated based on the period examined without annualisation. The corresponding statistics (calculated over the same dates) of the Broad cap-weighted reference index (Broad CW) are also reported, along with those of the Beta cap-weighted reference index (Beta CW) in case of univaried stock selection.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
1-Day Return	-0.76 %	0.52 %
1-Week Return	5.57 %	9.04 %
1-Month Return	1.69 %	3.41 %
1-Quarter Return	-2.30 %	-2.93 %
Year-to-Date Return	-9.25 %	-13.80 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated at 15-Jul-2016 and updated daily.

Live	Index	Broad CW
Return	-0.64 %	-8.00 %
Volatility	25.21 %	28.24 %
Sharpe ratio	-0.03	-0.34

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated at 15-Jul-2016 and updated daily.
*Performances are annualised for periods longer than a year.*
Live date is 18-Sep-2015.

Since inception	Index	Broad CW
Return	7.44 %	3.80 %
Volatility	19.11 %	22.41 %
Sharpe ratio	0.38	0.16

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated at 15-Jul-2016 and updated daily.
Performances are annualised for periods longer than a year.
Inception date is 21-Jun-2002.

The statistics are based on daily total returns (with dividends reinvested). The short-term returns are calculated based on the period examined and are not annualised. On periods longer than a year, the statistics are annualised. The risk-free rates used to calculate the historical Sharpe Ratio are defined according to the regional universe of the index. In case of univaried stock selection, the Beta cap-weighted reference index (Beta CW) is the cap-weighted index whose index constituents are drawn from the same stock selection as that of the Scientific Beta index being analysed. The Broad capweighted reference index (Broad CW) is the cap-weighted index whose index constituents cover all stocks in the geographical region of the Scientific Beta index being analysed.

Latest Returns as of 15-Jul-2016

The figure displays the index's absolute returns over recent short time periods.
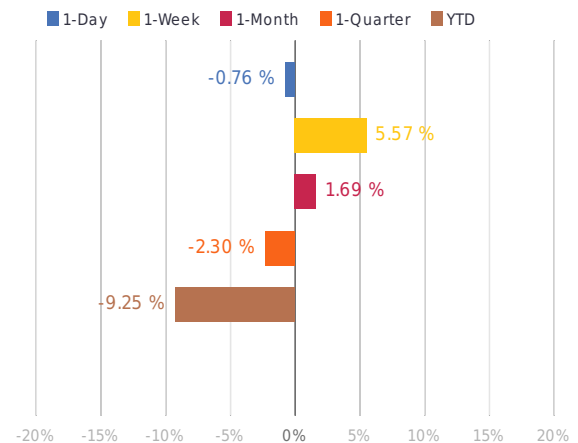
Latest Relative Performances

Latest Performances refers to basic risk and return information for the most recent part of the strategy's history.

Latest Relative Performances as of 15-Jul-2016

The first table shows the index's relative returns with regard to its Broad cap-weighted reference index (Broad CW) over recent short time periods, and to its Beta cap-weighted reference index (Beta CW) in case of univaried stock selection. The next table reports the relative return, tracking error, and associated Information Ratio since the live date of the index. The last table reports the relative return, tracking error, and associated Information Ratio since inception of the index. For periods longer than a year, the statistics are annualised, whereas the short-term statistics are calculated based on the period examined without annualisation.

SciBeta Japan MBeta MStrat Qty	/ Broad CW
1-Day Relative Return	-1.28 %
1-Week Relative Return	-3.47 %
1-Month Relative Return	-1.72 %
1-Quarter Relative Return	0.63 %
Year-to-Date Relative Return	4.56 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated at 15-Jul-2016 and updated daily.

Live	/ Broad CW
Relative Return	7.36 %
Tracking-Error	6.53 %
Information ratio	1.35

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated at 15-Jul-2016 and updated daily.
*Performances are annualised for periods longer than a year.*
Live date is 18-Sep-2015.

Since inception	/ Broad CW
Relative Return	3.63 %
Tracking-Error	6.19 %
Information ratio	0.59

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated at 15-Jul-2016 and updated daily.
Performances are annualised for periods longer than a year.
Inception date is 21-Jun-2002.

The statistics are based on daily total returns (with dividends reinvested). The short-term relative returns are calculated based on the period examined and are not annualised. On periods longer than a year, the statistics are annualised. In case of univaried stock selection, the Beta cap-weighted reference index (Beta CW) is the cap-weighted index whose constituents are drawn from the same stock selection as that of the Scientific Beta index being analysed. The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose index constituents cover all stocks in the geographical region of the Scientific Beta index being analysed.

Latest Relative Returns as of 15-Jul-2016

The figure displays the index's relative returns with regard to its Broad cap-weighted reference index (Broad CW) over recent short time periods.
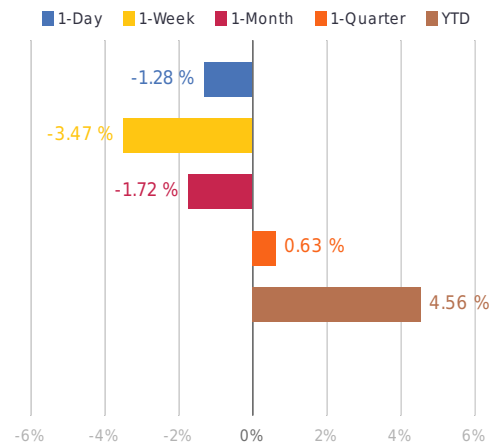
Annual Performances

Annual Performances refers to calendar year returns.

Annual Returns as of 15-Jul-2016

The table shows the index's annual returns over the last 10 calendar years. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported, along with those of the Beta cap-weighted reference index (Beta CW) in case of univaried stock selection.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
Year 2016 (YTD)	-9.25 %	-13.80 %
Year 2015	20.42 %	11.30 %
Year 2014	17.16 %	10.19 %
Year 2013	53.73 %	54.57 %
Year 2012	14.36 %	20.78 %
Year 2011	-9.32 %	-17.53 %
Year 2010	1.62 %	0.21 %
Year 2009	3.58 %	8.21 %
Year 2008	-27.01 %	-41.33 %
Year 2007	-9.68 %	-10.28 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**. Analytics are calculated at 15-Jul-2016 and updated daily.*

The returns are calculated based on daily total returns (with dividends reinvested). The return of the current calendar year is the year-to-date return without annualisation. In case of univaried stock selection, the Beta cap-weighted reference index (Beta CW) is the cap-weighted index whose index constituents are the same as the Scientific Beta index being analysed. The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose index constituents cover all stocks in the geographical region of the Scientific Beta index being analysed.

Annual Returns as of 15-Jul-2016

The figure displays the index's annual returns over the last 10 calendar years.

Annual Relative Returns as of 15-Jul-2016

The table shows the index's annual relative returns with regard to its Broad cap-weighted reference index (Broad CW) over the last 10 calendar years, and to its Beta cap-weighted reference index (Beta CW) in case of univaried stock selection.

SciBeta Japan MBeta MStrat Qty	/ Broad CW
Year 2016 (YTD)	4.56 %
Year 2015	9.12 %
Year 2014	6.97 %
Year 2013	-0.84 %
Year 2012	-6.42 %
Year 2011	8.21 %
Year 2010	1.41 %
Year 2009	-4.62 %
Year 2008	14.33 %
Year 2007	0.60 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**. Analytics are calculated at 15-Jul-2016 and updated daily.*

The relative returns are calculated based on daily total index returns (with dividends reinvested). The return of the current calendar year is the year-to-date return without annualisation.
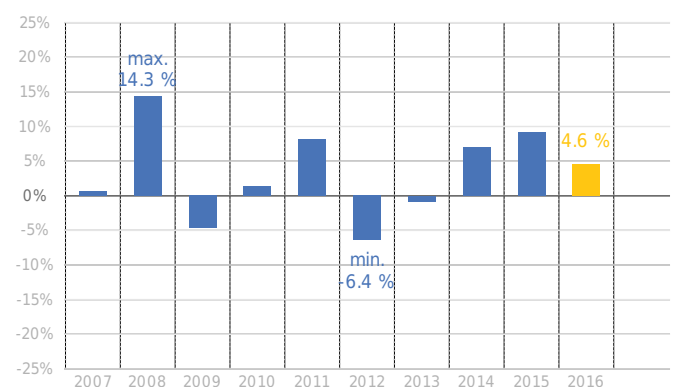
Annual Relative Returns as of 15-Jul-2016
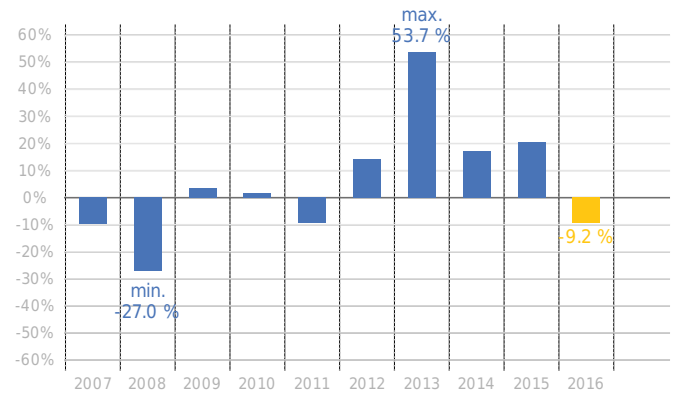
The figure displays the index's annual relative returns with regard to its Broad cap-weighted reference index (Broad CW) over the last 10 calendar years.

Performance Analysis

Performance and Risk Characteristics of equity portfolios allow for the analysis of the reward, the amount of risk and the reward per unit of risk obtained by investors. These characteristics can be calculated in absolute terms, or in relative terms (i.e. in terms of the difference in risks and returns against a cap-weighted reference index).

Performance and Risk Characteristics as of 30-Jun-2016

The table shows summary statistics of the index's absolute performance and risk over the selected analysis period. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported, along with those of the Beta cap-weighted reference index (Beta CW) in case of univaried stock selection.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
Return	7.19 %	3.39 %
Volatility	19.10 %	22.40 %
Sharpe ratio	0.37	0.15
Sortino ratio	0.51	0.20
Max Drawdown	48.6 %	60.1 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Performance and Risk Characteristics as of 30-Jun-2016

The figure shows the index's Sharpe Ratio and Sortino Ratio over the selected analysis period. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported.

The statistics are based on daily total returns (with dividends reinvested). On periods longer than a year, statistics are annualised. The risk-free rates used are defined according to the regional universe of the index. In case of univaried stock selection, the Beta cap-weighted reference index (Beta CW) is the cap-weighted index whose constituents are drawn from the same stock selection as that of the Scientific Beta index being analysed. The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.

Relative Performance and Risk as of 30-Jun-2016

The table shows summary statistics of the index's relative performance and relative risk with regard to its Broad cap-weighted reference index (Broad CW) over the selected analysis period, along with those to its Beta cap-weighted reference index (Beta CW) in case of univaried stock selection.
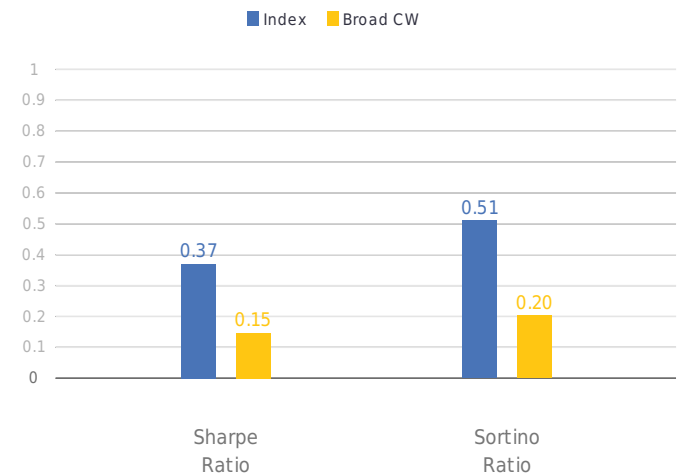
SciBeta Japan MBeta MStrat Qty	/ Broad CW
Relative Return Over CW	3.79 %
Tracking-Error	6.17 %
Information Ratio	0.61
Treynor Ratio	0.09
Max Relative Drawdown	11.6 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Relative Performance and Risk as of 30-Jun-2016

The figure shows the index's Information Ratio and Treynor Ratio with regard to its Broad cap-weighted reference index (Broad CW) respectively over the selected analysis period.

The statistics are based on daily total returns (with dividends reinvested). On periods longer than a year, statistics are annualised.
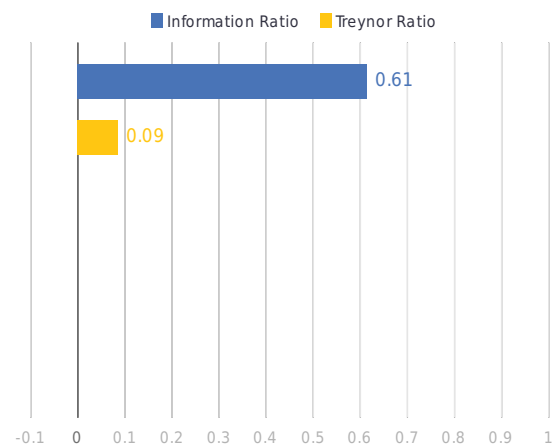
Risk Analysis

Performance and Risk Characteristics of equity portfolios allow for the analysis of the reward, the amount of risk and the reward per unit of risk obtained by investors.

Risk Analysis as of 30-Jun-2016

The table shows summary statistics of the index's absolute performance and risk over the selected analysis period. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
Cornish-Fisher 5% VaR	1.85 %	2.14 %
Historical 5% VaR	1.78 %	2.15 %
Max Drawdown	48.6 %	60.1 %
Time Under Water	1 760	2 101

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.

Risk Analysis as of 30-Jun-2016

The figure shows the index's Cornish-Fisher Value-at-Risk and Historical Value-at-Risk over the selected analysis period. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported.

The statistics are based on daily total returns (with dividends reinvested). All statistics are annualised and performance ratios that involve the average returns are based on the geometric average, which reliably reflects multiple holding period returns for investors. The risk-free rates used are defined according to the regional universe of the index. The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose index constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.

Relative Risk Analysis as of 30-Jun-2016

The table shows summary statistics of the index's relative performance and relative risk with regard to its Broad cap-weighted reference index (Broad CW) over the selected analysis period.
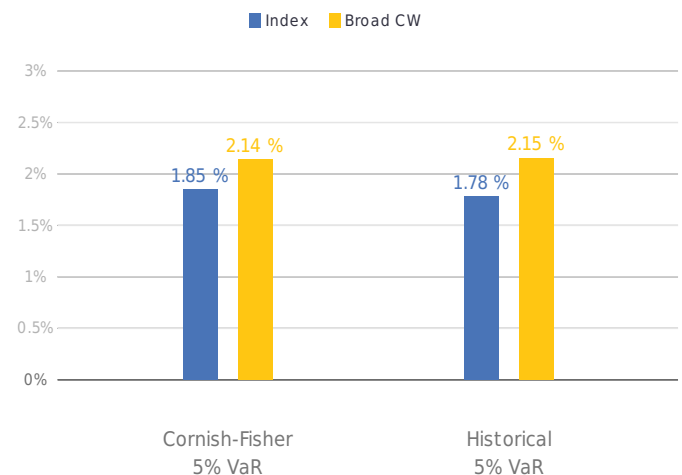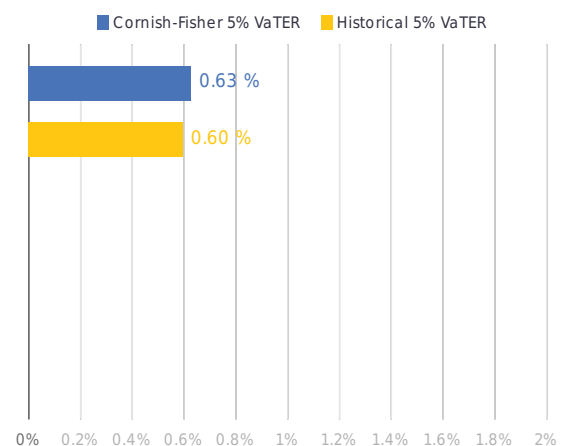
SciBeta Japan MBeta MStrat Qty	/ Broad CW
Cornish-Fisher 5% VaTER	0.63 %
Historical 5% VaTER	0.60 %
Max Relative Drawdown	11.6 %
Rel. Time Under Water	803
Extreme Relative Return (5%)	-7.23 %
Extreme Tracking-Error (95%)	13.01 %
Average Tracking-Error	5.59 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.

Relative Risk Analysis as of 30-Jun-2016

The figure shows the index's Cornish-Fisher Value-at-Tracking Error and Historical Value-at-Tracking Error with regard to its Broad cap-weighted reference index (Broad CW) over the selected analysis period.

The statistics are based on daily total returns (with dividends reinvested). All statistics are annualised and performance ratios that involve the average returns are based on the geometric average, which reliably reflects multiple holding period returns for investors. The risk-free rates used are defined according to the regional universe of the index. The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.

Robustness Analysis

Alternative weighting schemes may expose an investor to a risk of underperforming respective cap-weighted reference indices over short investment horizons. Moreover, it seems reasonable to assume that certain market conditions may influence the capacity of a given weighting scheme to provide outperformance over the cap-weighted reference index. The Scientific Beta robustness analysis provides insights on the conditions of outperformance or underperformance of Scientific Beta indices with regard to their cap-weighted reference index.

Robustness Analysis as of 30-Jun-2016

The table shows summary statistics of the index's relative performance and relative risk (with respect to its cap-weighted reference index) as well as the 1Y, 3Y and 5Y Probabilities of Outperformance, over the last 10 years, and for the corresponding US Long-Term, over the last 40 years.

SciBeta Japan MBeta MStrat Qty	Index	LT-US
Excess Return	4.27 %	3.24 %
Tracking-Error	6.54 %	4.43 %
Information Ratio	0.65	0.73
Prob. of Outperf. (1 year)	74.3 %	72.6 %
Prob. of Outperf. (3 years)	97.5 %	81.7 %
Prob. of Outperf. (5 years)	99.2 %	88.8 %
End of Period	30-Jun-2016	31-Dec-2015
Period	10 years	40 years

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
*Analytics are calculated at 30-Jun-2016.*
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

The statistics are based on daily total returns (with dividends reinvested). All statistics are annualised and based on the geometric average, which reliably reflects multiple holding period returns for investors.

Robustness Analysis as of 30-Jun-2016

The figure, based on a rolling window analysis, shows the 1, 3, and 5 year Probability of Outperformance with respect to the cap-weighted reference index.
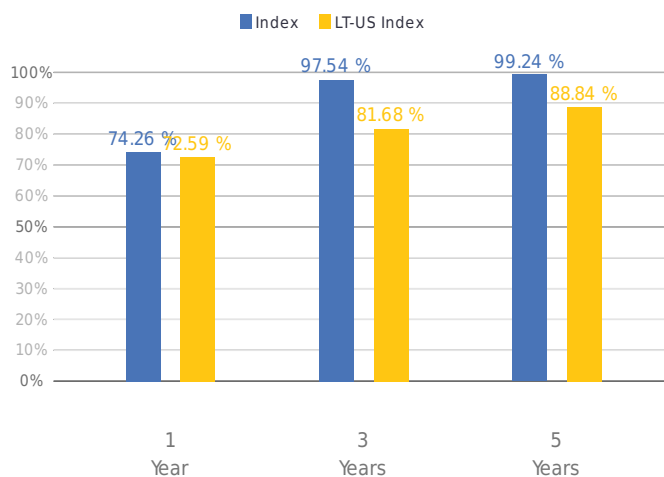
Top Holdings

Top Holdings refers to the information on the largest companies in the strategy portfolio ordered by their weights.

Top Holdings as of 17-Jun-2016

The table lists the weights of the ten largest constituents of the index, in descending order, based on the index's weight profile at the last quarterly rebalancing.

SciBeta Japan MBeta MStrat Qty	Country	Weight
Yamazaki Baking Co. Ltd.	JP	1.35 %
Konami Holdings Corporation	JP	1.22 %
Nippon Shinyaku Co. Ltd.	JP	1.19 %
NH Foods Limited	JP	1.15 %
Oriental Land Co., Ltd.	JP	1.12 %
Eisai Co., Ltd.	JP	1.10 %
Toshiba Corporation	JP	1.08 %
Yamada Denki Co., Ltd.	JP	1.07 %
Nissin Foods Holdings Co., Ltd	JP	1.04 %
Fujitsu Limited	JP	1.00 %

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

Top Holdings as of 17-Jun-2016

The figure displays the weights of the ten largest constituents of the index, in descending order, based on the index's weight profile at the last quarterly rebalancing.
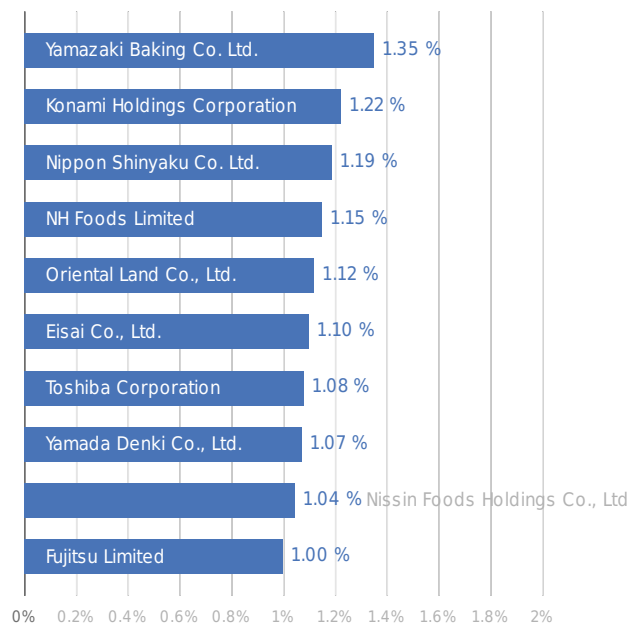
Weight Profile Analysis

Weight Profile Analysis refers to the allocation of the investment weights to the constituents in the strategy.

Index Weight Concentration as of 17-Jun-2016

The table shows the index concentration level under various portfolio concentration measures based on the index's weight profile at the last rebalancing time, and the low correlation objective measure (GLR) based on historical returns and the index's historical weights since inception. The quarterly calculated active share expresses the overall deviation of the index vis-à-vis its Broad cap-weighted reference, calculated as half of the sum of the absolute deviations. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported, along with those of the Beta cap-weighted reference index (Beta CW) in case of univaried stock selection.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
Effective Number of Constituents	171	113
Number of Eligible Constituents	230	300
Nb. Stocks Cumul. to 90% Cap	177	202
Nb. Stocks Cumul. to 75% Cap	124	115
Nb. Stocks Cumul. to 50% Cap	64	48
Nb. Stocks Cumul. to 25% Cap	26	15
Deconcentration ratio	74.3 %	37.5 %
Active Share	52.46 %	0.00 %
Active Share (average)	56.34 %	0.00 %
GLR	28.7 %	37.3 %

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

In case of univaried stock selection, the Beta cap-weighted reference index (Beta CW) is the cap-weighted index whose constituents are drawn from the same stock selection as that of the Scientific Beta index being analysed. The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.

Index Weight Concentration as of 17-Jun-2016

The figure displays the index concentration level under various portfolio concentration measures based on the index's weight profile at the last rebalancing time.
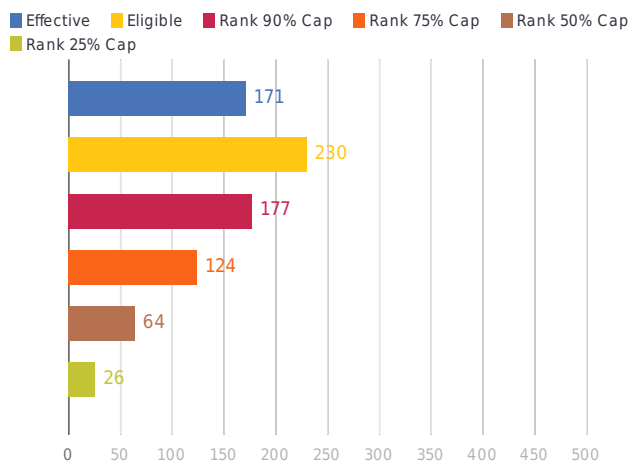
Multi-Beta Allocation

Multi-Beta Allocation refers to the information on the weights allocated to the underlying indices that compose the Multi-Beta Index.

Multi-Beta Allocation as of 17-Jun-2016

The Multi-Beta Allocation shows the average weight allocated to the underlying indices since inception and at the latest quarterly review.

SciBeta Japan MBeta MStrat Qty	Latest	Average
SciBeta Japan HProf MStrat	50.0 %	50.0 %
SciBeta Japan LInv MStrat	50.0 %	50.0 %

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

Multi-Beta Allocation as of 17-Jun-2016

The Multi-Beta Allocation graph exhibits the historical quarterly weights allocated to the underlying indices since index inception.
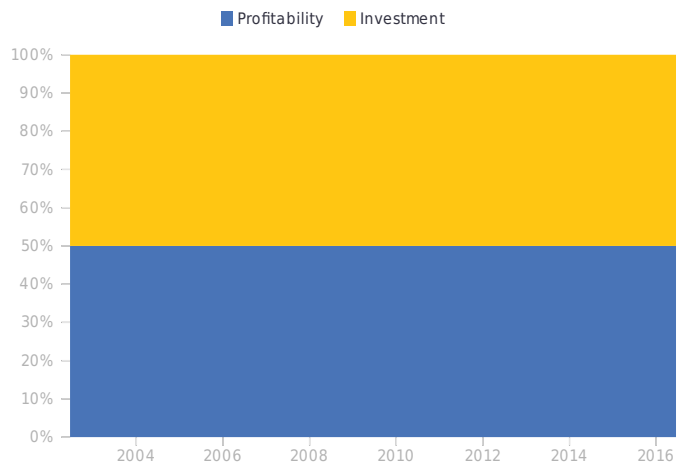
CAPM Analysis

The Capital Asset Pricing Model (CAPM) theoretically establishes the relationship between the expected excess return of an equity portfolio and its systematic risk as measured by its exposure to market risk. In CAPM analysis, the equity portfolio excess returns are regressed against market excess returns in order to estimate the exposure to market risk, and that exposure is then used to decompose the returns into reward for being exposed to the equity market and portfolio-specific returns.

CAPM Analysis as of 30-Jun-2016

The table shows the coefficient estimates and R-squared of the regression of the index's excess returns (over the risk-free rate) using the CAPM single factor model over the selected analysis period. Based on the factor exposure, the excess returns attributed to each factor are reported in the last column. The t-statistics associated with the coefficient estimates are also reported.

SciBeta Japan MBeta MStrat Qty	Coefficient	t-stat	Perf.
Alpha	4.04 %	3.2	4.34 %
Market	0.83	98.5	2.71 %
r²	0.93		

*Analytics are based on weekly **total** return index series (dividends reinvested) in **JPY**.*
*Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.*
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

CAPM Performance Attribution as of 30-Jun-2016

The figure displays the attribution of the index's excess return (over the risk-free rate) to market factor and unexplained excess returns (Alpha).
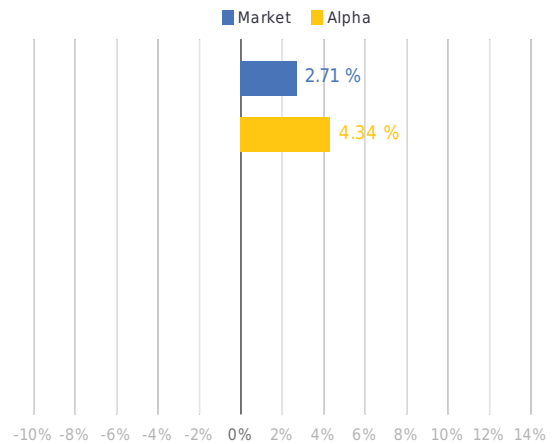
The data are weekly total returns (with dividends reinvested). The Market factor is the weekly return of the cap-weighted index of all stocks that constitute the index portfolio. The risk-free rates used are defined according to the regional universe of the index.

Fama-French Factor Analysis

The Fama-French factor model extends the CAPM model by adding the small size factor and the value factor. In Fama-French factor analysis, we explain the equity portfolio performance via linear regression using all three risk factors to better understand the potential factor or investment style biases as well as to form a clear idea of its risk-adjusted performance.

Fama-French Factor Analysis as of 30-Jun-2016

The table shows the coefficient estimates and R-squared of the regression of index's excess returns (over the risk-free rate) using the Fama French three-factor model over the selected analysis period. Based on the factor exposure, the excess returns attributed to each factor are reported in the last column. The t-statistics associated with the coefficient estimates are also reported.

SciBeta Japan MBeta MStrat Qty	Coefficient	t-stat	Perf.
Alpha	3.29 %	3.1	3.84 %
Market factor	0.88	118.4	2.88 %
Size (SMB) factor	0.22	17.6	1.04 %
Value (HML) factor	-0.09	-6.4	-0.71 %
r²	0.95		

*Analytics are based on weekly **total** return index series (dividends reinvested) in **JPY**.*
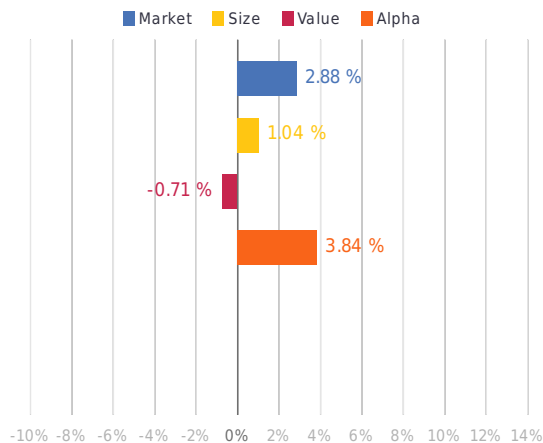*Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.*
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Fama-French Factor Performance Attribution as of 30-Jun-2016

The figure displays attribution of the index's excess return (over the risk-free rate) to market factor, HML factor, SMB factor, and unexplained excess returns (Alpha).

The data are weekly total returns (with dividends reinvested). The Market factor is the weekly return series of the cap-weighted index of all stocks that constitute the index portfolio. SMB factor is the weekly return series of a portfolio that is long for the bottom 30% stocks ranked by market capitalisation (mid market-cap stocks) and short for the top 30% stocks ranked by market capitalisation (large market-cap stocks). HML factor is the weekly return series of a portfolio that is long for the top 30% stocks (value stocks) and short for the bottom 30% stocks (growth stocks) sorted on book-to-market value in descending order. The risk-free rates used are defined according to the regional universe of the strategy.

Carhart Factor Analysis

Carhart (1997) proposes an extended four-factor model incorporating the momentum factor. In Carhart four factor analysis, we explain the equity portfolio performance via linear regression using four risk factors to better understand the potential factor or investment style biases as well as to form a clear idea of its risk-adjusted performance.

Carhart Factor Analysis as of 30-Jun-2016

The table shows the coefficient estimates and r-square of the regression of the strategy's excess returns (over the risk-free rate) using the Carhart four-factor model over the selected analysis period. Based on the factor exposure, the excess returns attributed to each factor are reported in the last column. The t-statistics associated with the coefficient estimates are also reported.

SciBeta Japan MBeta MStrat Qty	Coefficient	t-stat	Perf.
Alpha	2.66 %	2.6	3.34 %
Market factor	0.89	123.3	2.89 %
Size (SMB) factor	0.22	17.4	1.00 %
Value (HML) factor	-0.03	-1.7	-0.22 %
Momentum (MOM) factor	0.08	7.7	0.04 %
r²	0.96		

*Analytics are based on weekly **total** return index series (dividends reinvested) in **JPY**.*
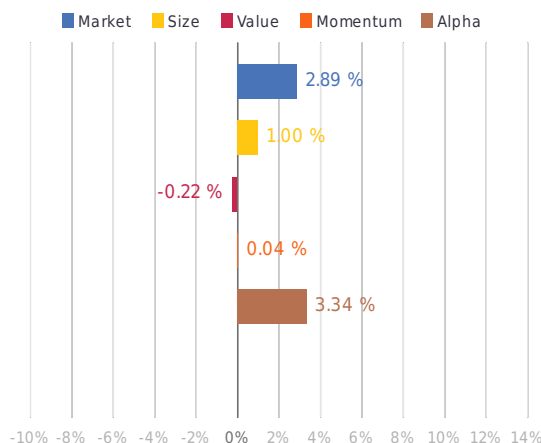*Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.*
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Carhart Factor Performance Attribution as of 30-Jun-2016

The figure displays the attribution of the index's excess return (over the risk-free rate) to market factor, HML factor, SMB factor, MOM factor, and unexplained excess returns (Alpha).

The data are weekly total returns (with dividends reinvested). The Market factor is the weekly return series of the cap-weighted index of all stocks that constitute the index portfolio. SMB factor is the weekly return series of a portfolio that is long for the bottom 30% stocks ranked by market capitalisation (mid market-cap stocks) and short for the top 30% stocks ranked by market capitalisation (large market-cap stocks). HML factor is the weekly return series of a portfolio that is long for the top 30% stocks (value stocks) and short for the bottom 30% stocks (growth stocks) sorted on book-to-market value in descending order. The MOM factor is calculated as the weekly return series of a cap-weighted portfolio that is long the winner stocks and short the loser stocks. The winner stocks (inversely the loser stocks) are defined as the top 30% (inversely the bottom 30%) of stocks, sorted on the past 104 weeks' compounded returns excluding the most recent month, in descending order. The risk-free rates used are defined according to the regional universe of the index.

Sector Performance Attribution

Sector Performance Attribution as of 30-Jun-2016

The table shows the results of Menchero Multi-period Attribution, in which the index's outperformance with regard to its cap-weighted reference index is broken down into stock effect, sector effect, and interaction effect. The analysis is based on the selected period.

SciBeta Japan MBeta MStrat Qty	Index	Ref	Excess	Stock	Sector	Inter
Energy	1.01 %	1.10 %	-0.09 %	0.09 %	0.15 %	-0.28 %
Basic Materials	9.77 %	7.29 %	2.48 %	0.07 %	1.14 %	-0.30 %
Industrials	19.68 %	21.90 %	-2.22 %	2.37 %	-0.49 %	-0.30 %
Cyclical Consumer	23.96 %	23.01 %	0.95 %	-2.57 %	0.96 %	-1.35 %
Non-Cyclical Consumer	14.74 %	6.00 %	8.74 %	1.64 %	-2.62 %	1.33 %
Financials	6.32 %	18.12 %	-11.81 %	-4.53 %	-1.12 %	3.65 %
Healthcare	8.75 %	5.79 %	2.96 %	1.83 %	0.11 %	0.83 %
Technology	9.41 %	8.35 %	1.06 %	1.15 %	-0.09 %	0.28 %
Telecoms	1.37 %	4.17 %	-2.80 %	0.94 %	-0.53 %	-0.94 %
Utilities	4.99 %	4.26 %	0.73 %	2.40 %	0.27 %	-0.25 %
Total				3.40 %	-2.22 %	2.66 %

*Analytics are based on daily **total** return index series (dividends reinvested).*
*Analytics are calculated from inception to 30-Jun-2016.*
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Please see Menchero Multi-period Attribution in the glossary for a detailed explanation of the attribution model. The sector classification used is the Thomson Reuters Business Classification. The statistics of historical performance are annualised.

Sector Performance Attribution as of 30-Jun-2016

The figure displays the breakdown of the index's outperformance with regard to its cap-weighted reference index into returns attributed to stock effect, sector effect, and interaction effect from the Menchero Multi-period Attribution model. The analysis is based on the selected period.
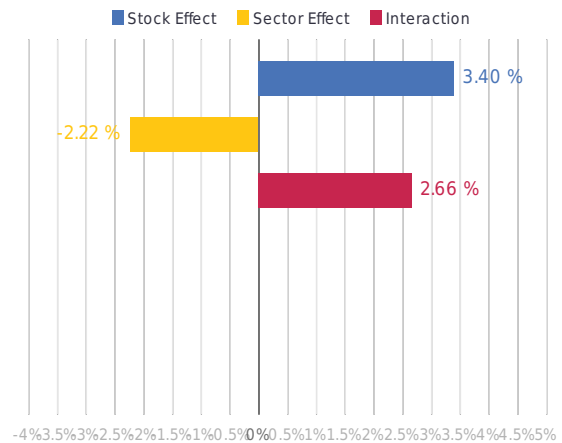
Index Fundamentals

Fundamental attributes refers to the fundamental aggregate characteristics of the index.

## Index Fundamentals as of 17-Jun-2016

The table shows the index's fundamental attributes based on the index's weight profile at the last rebalancing time. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
Price / Earnings	17.72	14.85
Price / Earnings (ex Neg)	16.58	13.75
Price / Cash Flow	7.33	5.62
Price / Sales	0.69	0.71
Price / Book Value	1.50	1.20
Dividend Yield	1.77 %	2.18 %

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

Index Fundamentals as of 17-Jun-2016

The figure displays the index's fundamental attributes based on the index's weight profile at the last rebalancing time. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported.
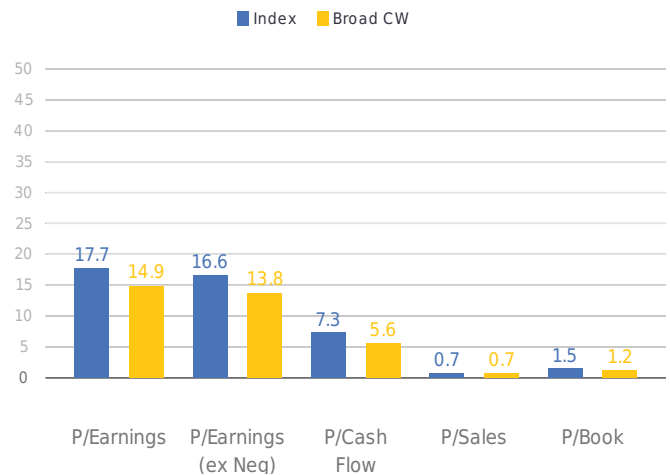
The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.

Extreme Risk Analysis

The Extreme Risk Analytics calculate two measures of downside risk – Value-at-Risk and Conditional Value-at-Risk – aggregated over a certain time period together with the corresponding risk-adjusted returns and also provide monthly forecasts of the two risk measures based on a conditional time-series model that takes into account the clustering of volatility and assumes the conditional return distribution is fat-tailed.

Extreme Risk Analysis as of 30-Jun-2016

The table shows summary statistics of the index's extreme risk over the selected analysis period. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
Return	7.19 %	3.39 %
EVT 1% VaR	2.37 %	2.87 %
EVT 1% CVaR	2.86 %	3.46 %
Ret to EVT 1% VaR ratio	0.18	0.07
Ret to EVT 1% CVaR ratio	0.15	0.06
For. Monthly EVT 1% VaR	19.92 %	23.29 %
For. Monthly EVT 1% CVaR	24.02 %	28.23 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Broad CW is the cap-weighted index whose constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.

Extreme Risk Analysis as of 30-Jun-2016

The figure shows the in-sample and forecasted monthly Value-at-Risk and Conditional Value-at-Risk for the index over the selected analysis period.

Extreme Relative Risk Analysis as of 30-Jun-2016

The table shows summary statistics of the index's extreme relative risk with regard to its Broad cap-weighted reference index (Broad CW) over the selected analysis period.
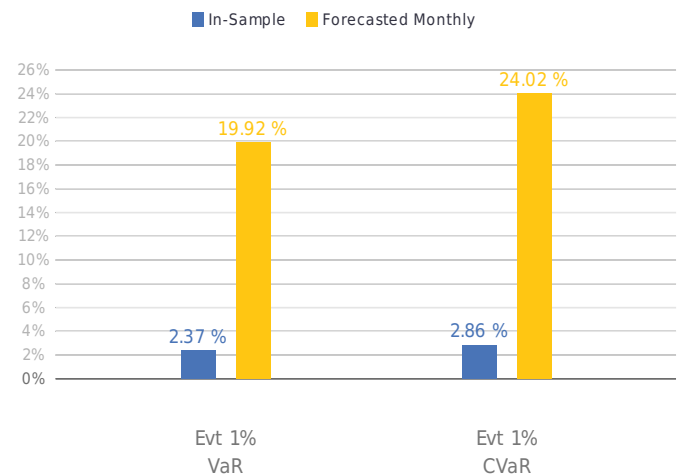
SciBeta Japan MBeta MStrat Qty	/ Broad CW
Excess Return	3.79 %
EVT 1% VaTER	0.81 %
EVT 1% CVaTER	0.99 %
Ret to EVT 1% VaTER ratio	0.29
Ret to EVT 1% CVaTER ratio	0.24
For. Monthly EVT 1% VaTER	4.56 %
For. Monthly EVT 1% CVaTER	5.45 %

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Extreme Relative Risk Analysis as of 30-Jun-2016

The figure shows the in-sample and forecasted monthly Value-at-Tracking Error and Conditional Value-at-Tracking Error for the index over the selected analysis period.

Broad CW is the cap-weighted index whose constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.
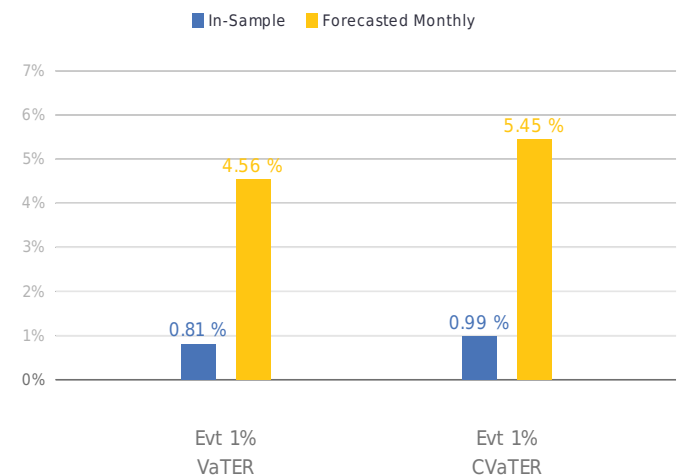
Risk Factor Exposure

The Risk Factor Exposure analysis assesses the exposure of a given strategy to a set of seven factors: Market factor, Size factor, Value factor, Momentum factor, Volatility factor, Profitability factor and Investment factor.

Risk Factor Exposure as of 30-Jun-2016

The table shows the coefficient estimates and r-square of the regression of the strategy's excess returns (over the risk-free rate) using the seven-factor model over the selected analysis period. The t-statistics associated with the coefficient estimates are also reported.

SciBeta Japan MBeta MStrat Qty	Coefficient	t-stat
Unexplained	1.68 %	2.0
Market factor	0.98	124.8
Size (SMB) factor	0.20	18.3
Value (HML) factor	-0.03	-1.9
Momentum (MOM) factor	0.02	1.5
Volatility factor	0.12	11.6
Profitability factor	0.19	11.7
Investment factor	0.20	13.3
r²	0.97	

*Analytics are based on weekly **total** return index series (dividends reinvested) in **JPY**.*
*Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.*
Analytics are updated monthly with EOM values.
Performances are annualised for periods longer than a year.

Risk Factor Exposure as of 30-Jun-2016

The figure displays the exposure of the index's excess return (over the risk-free rate) to Market factor, SMB factor, HML factor, MOM factor, VOL factor, PRO factor and INV factor.

The regression is based on weekly total returns (with dividends reinvested). The Market factor is the excess return series of the cap-weighted index of all stocks that constitute the index portfolio over the risk-free rate. SMB factor is the return series of an equal-weighted portfolio that is long for the bottom 30% stocks ranked by market capitalisation (mid market-cap stocks) and short for the top 30% stocks ranked by market capitalisation (large market-cap stocks). HML factor is the return series of an equal-weighted portfolio that is long for the top 30% stocks (value stocks) and short for the bottom 30% stocks (growth stocks) sorted on book-to-market value in descending order. The MOM factor is the return series of an equal-weighted portfolio that is long the winner stocks and short the loser stocks. The winner stocks (inversely the loser stocks) are defined as the top 30% (inversely the bottom 30%) of stocks, sorted on the past 104 weeks' compounded returns excluding the most recent month, in descending order. The VOL factor is the return series of an equal-weighted portfolio that is long the bottom 30% stocks (low volatility stocks) and short the top 30% stocks (high volatility stocks) sorted on past volatility in descending order. The PRO factor is the return series of an equal-weighted portfolio that is long the top 30% stocks (high profitability stocks) and short the bottom 30% stocks (low profitability stocks) sorted on gross profitability in descending order. The INV factor is the return series of an equal-weighted portfolio that is long the bottom 30% stocks (low investment stocks) and short the top 30% stocks (high investment stocks) sorted on two year asset growth in descending order. The risk-free rates used are defined according to the regional universe of the index.
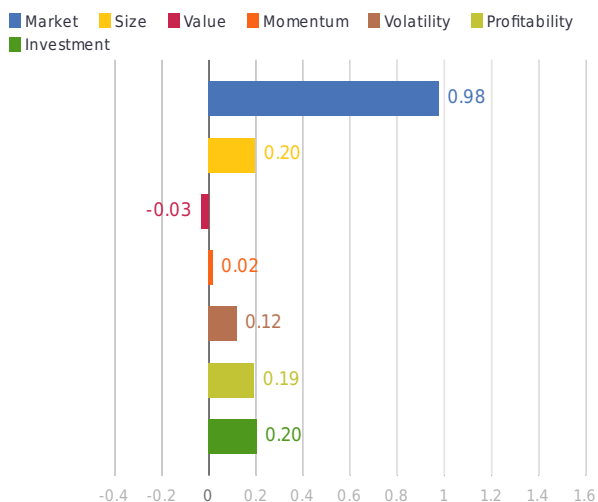
Bull/Bear Market Performances

Bull / Bear Market Performances refer to return and risk in phases with positive/negative market returns.

Bull / Bear Market Performances as of 30-Jun-2016

The analysis is based on the complete history of index returns. The table shows general statistics of the index's absolute performance and risk in the periods of bull and bear market regimes respectively.

SciBeta Japan MBeta MStrat Qty	Bull Market	Bear Market
Return	36.63 %	-20.87 %
Volatility	15.32 %	22.80 %
Sharpe ratio	2.38	-0.92

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised.

Bull / Bear Market Performances as of 30-Jun-2016

The figure displays the index's average, minimum, and maximum annualised absolute returns in quarters characterised by bull and bear market regimes respectively. The analysis is based on the complete history of index returns.

The statistics are based on daily total returns (with dividends reinvested). The returns and volatility are annualised. The risk-free rate used is defined according to the regional universe of the index.

Bull / Bear Market Rel. Performances as of 30-Jun-2016

The analysis is based on the complete history of index returns. The table shows general statistics of the index's relative performance and relative risk (with respect to its cap-weighted reference index) in the periods of bull and bear market regimes respectively.
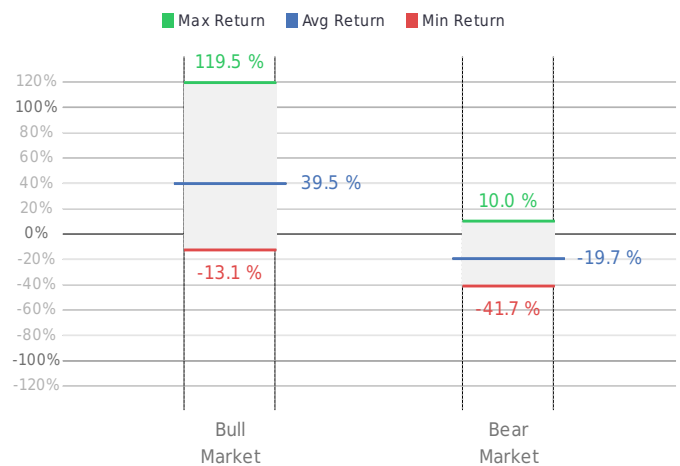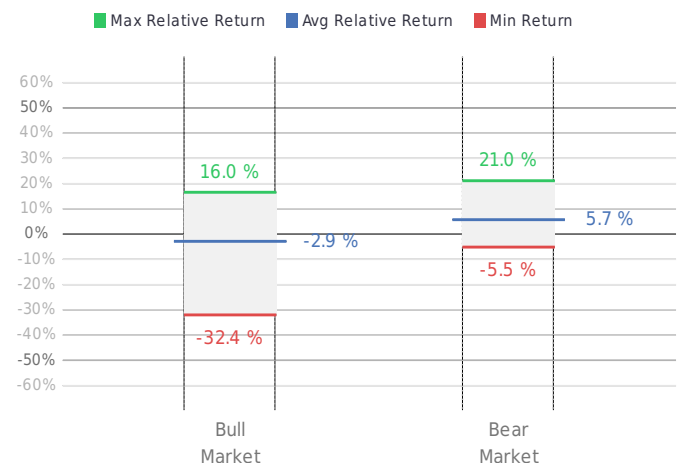
SciBeta Japan MBeta MStrat Qty	Bull Market	Bear Market
Relative Return	-3.84 %	8.71 %
Tracking-Error	5.25 %	7.11 %
Information Ratio	-0.73	1.23

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised.

Bull / Bear Market Rel. Performances as of 30-Jun-2016

The figure displays the index's average, minimum and maximum annualised relative returns (with respect to its cap-weighted reference index) in quarters characterised by bull and bear market regimes, respectively. The analysis is based on the complete history of index returns.

The statistics are based on daily total returns (with dividends reinvested). The relative returns and tracking error are annualised. The risk-free rate used is defined according to the regional universe of the index.

High/Low Vol Regime Performances

High / Low Volatility Regime Performances indicate performance statistics in high/low volatility regimes.

High / Low Vol Regime Performances as of 30-Jun-2016

The analysis is based on the complete history of index returns. The table shows general statistics of the index's absolute performance and risk in the periods of high and low volatility market regimes respectively.

SciBeta Japan MBeta MStrat Qty	High Vol Regime	Low Vol Regime
Annualized Return	-5.84 %	21.76 %
Volatility	23.73 %	12.86 %
Sharpe ratio	-0.25	1.68

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised.

High / Low Vol Regime Performances as of 30-Jun-2016

The figure displays the index's average, minimum, and maximum quarterly absolute returns in quarters characterised by high and low volatility market regimes respectively. The analysis is based on the complete history of index returns.

The statistics are based on daily total returns (with dividends reinvested). The returns and volatility are annualised. The risk-free rate used is defined according to the regional universe of the index.

High / Low Vol Regime Rel. Performances as of 30-Jun-2016

The analysis is based on the complete history of index returns. The table shows general statistics of the index's relative performance and relative risk (with respect to its cap-weighted reference index) in the periods of high and low volatility market regimes respectively.
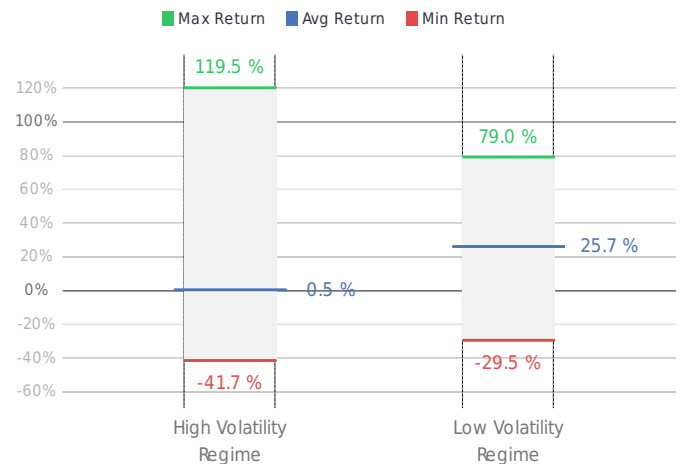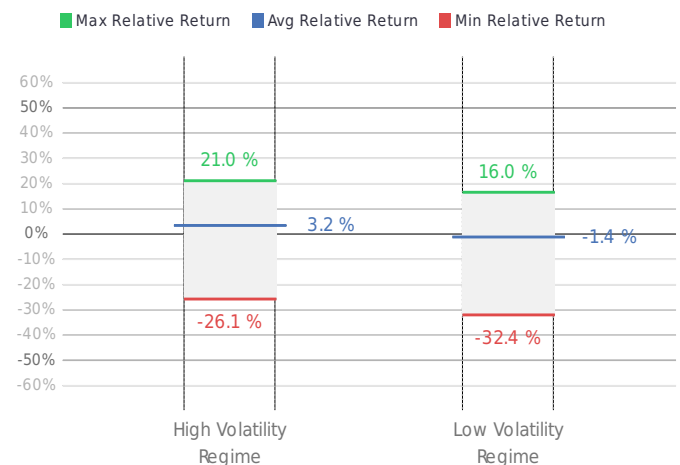
SciBeta Japan MBeta MStrat Qty	High Vol Regime	Low Vol Regime
Annualized Relative Return	7.64 %	-1.37 %
Tracking-Error	7.54 %	4.36 %
Information Ratio	1.01	-0.31

*Analytics are based on daily **total** return index series (dividends reinvested) in **JPY**.*
Analytics are calculated from inception (21-Jun-2002) to 30-Jun-2016.
Analytics are updated monthly with EOM values.
Performances are annualised.

High / Low Vol Regime Rel. Performances as of 30-Jun-2016

The figure displays the index's average, minimum and maximum quarterly relative returns (with respect to its cap-weighted reference index) in quarters characterised by high and low volatility market regimes, respectively. The analysis is based on the complete history of index returns.

The statistics are based on daily total returns (with dividends reinvested). The relative returns and tracking error are annualised. The risk-free rate used is defined according to the regional universe of the index.

Turnover & Capacity

Turnover and capacity analysis addresses the main implementation issues of ERI Scientific Beta indices.

Turnover & Capacity as of 17-Jun-2016

The table shows the turnover level of the index in % and the capacity of the index as measured by the average market capitalisations, in M$. The corresponding statistics of the Broad cap-weighted reference index (Broad CW) are also reported, along with those of the Beta cap-weighted reference index (Beta CW) in case of univaried stock selection.

SciBeta Japan MBeta MStrat Qty	Index	Broad CW
Turnover (annualised)	31.9 %	3.8 %
Average Capacity (M$)	5 503	23 696
Latest Capacity (M$)	5 835	24 052

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

Turnover History as of 17-Jun-2016

The chart below shows the turnover history of the index since inception on a quarterly basis.
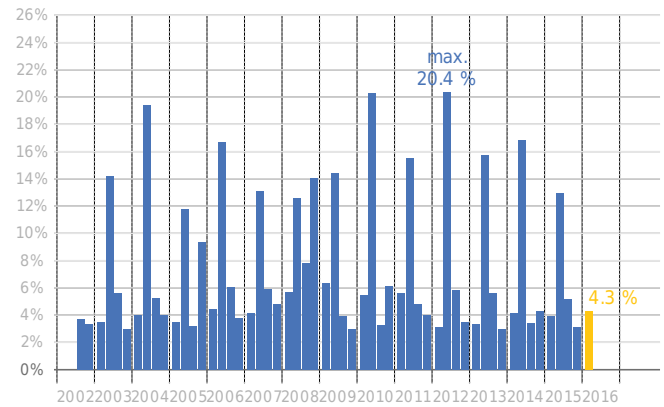
In case of univaried stock selection, the Beta cap-weighted reference index (Beta CW) is the cap-weighted index whose constituents are drawn from the same stock selection as that of the Scientific Beta index being analysed. The Broad cap-weighted reference index (Broad CW) is the cap-weighted index whose constituents cover all stocks in the geographic region of the Scientific Beta index being analysed.

Sector Allocation

Sector Allocation refers to the separation of investment weights of the strategy portfolio into various sectors.

Sector Allocation as of 17-Jun-2016

The table shows industry sector exposures (in weight percentage) of the index, based on the index's weight profile at the last rebalancing time.

SciBeta Japan MBeta MStrat Qty	Weight
Energy	0.9 %
Basic Materials	4.9 %
Industrials	21.8 %
Cyclical Consumer	18.5 %
Non-Cyclical Consumer	17.9 %
Financials	7.4 %
Healthcare	11.3 %
Technology	11.4 %
Telecoms	1.9 %
Utilities	4.0 %

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

The sector classification used is the Thomson Reuters Business Classification.

Sector Allocation as of 17-Jun-2016

The figure displays industry sector exposures (in weight percentage) of the index, based on the index's weight profile at the last rebalancing time.

Sector Allocation as of 17-Jun-2016

The table shows the differences in aggregated sector weights of the index with regard to its Broad cap-weighted reference index (Broad CW), based on the index's weight profile at the last rebalancing time.

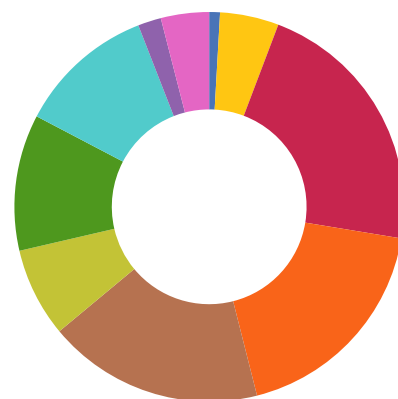| SciBeta Japan MBeta MStrat Qty	Excess Weight
Energy	0.2 %
Basic Materials	0.3 %
Industrials	-3.3 %
Cyclical Consumer	-2.0 %
Non-Cyclical Consumer	8.9 %
Financials	-8.4 %
Healthcare	3.0 %
Technology	4.1 %
Telecoms	-4.6 %
Utilities	1.9 %

Analytics are calculated at 17-Jun-2016.
Analytics are updated quarterly.

Sector Allocation as of 17-Jun-2016

The figure displays the differences in aggregated sector weights of the index with regard to its Broad cap-weighted reference index (Broad CW), based on the index's weight profile at the last rebalancing time.

The sector classification used is the Thomson Reuters Business Classification.
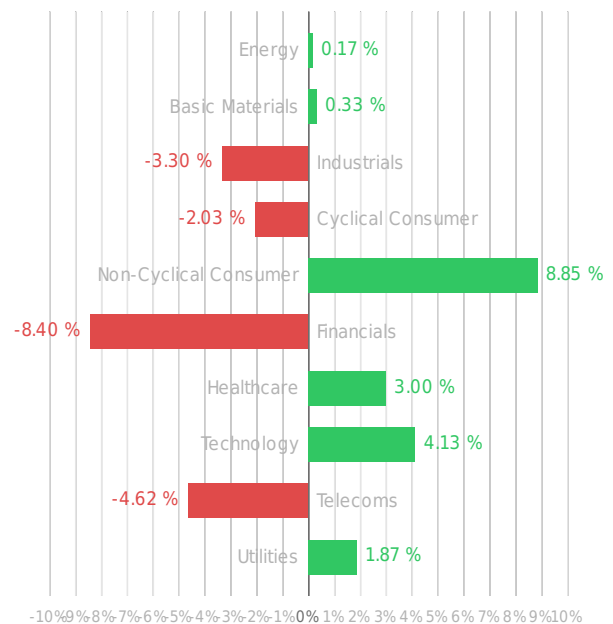
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