

## S&P GIVI<sup>®</sup> Japan and Major Single Factors Q2 2018

### S&P GIVI JAPAN PERFORMANCE

The [S&P GIVI \(Global Intrinsic Value Index\) Japan](#) outperformed its benchmark index, the [S&P Japan BMI](#), by 86 bps in Q2 2018.<sup>1</sup> Since its launch in March 2012, the S&P GIVI Japan has outperformed its benchmark index by 0.78% per year, with a tracking error of 2.34%.

In Q2 2018, Japanese equities rose by 1.2%, as measured by the S&P Japan BMI. April saw a recovery in stock prices, while the market swung sideways in both May and June. The yen saw a similar change in direction in the middle of May and June, but it was on an overall depreciation trajectory over the quarter, as demand for the yen as a “safe haven” asset is not too high right now.

This quarter was dominated by the development around the trade war issue. Japan has a prominent place in the supply chains of both the U.S. and China. Although the impact of the currently announced tariffs on Japanese aluminum and steel imports would be minimal, growth would be more affected if the U.S. progressed to imposing duties on machinery and transport equipment, as these account for 76% of Japan’s exports to the U.S. Business sentiment worsened for a second straight quarter in the three-month period ending in June, as shown by the Bank of Japan’s (BoJ) Tankan survey. There is no sign that the BoJ would act on an early stimulus exit in the near term.

Given the geopolitical risk and the trade war development, sector leadership changed in this quarter, with defensive and cyclical sectors taking turns to lead the market. Overall, utilities and consumer staples outperformed, as well as energy, which benefited from the oil price rise. Materials, financials, and information technology posted the largest declines.

In Q2 2018, the outperformance of the S&P GIVI Japan against the benchmark can be mainly attributed to the low beta leg rather than the intrinsic value leg. The low beta leg outperformed the benchmark for the quarter by 1.35%, while the intrinsic value leg underperformed by 0.39%.

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*S&P Dow Jones Indices’ Market Attributes<sup>®</sup> series provides market commentary highlighting developments across various asset classes.*

<sup>1</sup> The S&P GIVI Japan is a strategy index constructed from the S&P Japan BMI, which serves as its benchmark index. The tracking error between the S&P GIVI Japan and its benchmark represents the difference between the strategy returns and the benchmark returns, reflecting the risk associated with the exposure to certain factors. Tracking error is the annualized standard deviations of monthly excess returns. It is not possible to invest directly in an index.

Exhibit 1: S&P GIVI Japan Live Performance and Attributes							
PERFORMANCE AS OF JUNE 29, 2018	GROSS TOTAL RETURN (%)				RETURN IN EXCESS OF THE S&P JAPAN BMI (%)		
	S&P GIVI JAPAN	S&P INTRINSIC VALUE WEIGHTED JAPAN INDEX	S&P LOW BETA JAPAN INDEX	S&P JAPAN BMI	S&P GIVI JAPAN	S&P INTRINSIC VALUE WEIGHTED JAPAN INDEX	S&P LOW BETA JAPAN INDEX
Q2 2018	2.11	0.85	2.59	1.24	0.86	-0.39	1.35
Q1 2018	-4.48	-5.72	-3.34	-4.50	0.02	-1.22	1.16
H1 2018	-2.47	-4.92	-0.84	-3.31	0.84	-1.60	2.48
Since March 2012 (Annualized)	15.05	14.12	15.35	14.27	0.78	-0.15	1.08
PERFORMANCE SINCE LAUNCH (ANNUALIZED AGAINST THE S&P JAPAN BMI)							
Volatility (%)	15.07	16.84	14.52	16.10	-	-	-
Return/Volatility	1.00	0.84	1.06	0.89	-	-	-
Tracking Error (%)	2.34	1.93	2.91	-	-	-	-
Alpha (%)	1.61	-0.58	2.35	-	-	-	-
Beta	0.93	1.04	0.89	-	-	-	-

Source: S&P Dow Jones Indices LLC. Index performance is based on total returns in JPY. Data from June 30, 2012, to June 29, 2018. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Notes: Tracking error is the annualized standard deviations of monthly excess returns, relative to the primary and secondary benchmarks. Alpha and beta are defined by the regression equation  $R_{i,t} = \alpha + \beta \cdot RBMI_{i,t} + \epsilon_t$ ; where  $R_{i,t}$  is the index return series and  $RBMI_{i,t}$  is the benchmark index return series.

## Performance of Single Factors in the Japanese Market

We examined the return of five common single factors in the Japanese equity market that have demonstrated the ability to earn a persistent premium over long periods of time: low volatility, value, quality, momentum, and buyback. The returns of these factors are represented by the performance of our systematic rules-based indices.

- Low volatility: Represented by the [S&P Japan 500 Low Volatility Index](#).
- Value: Represented by the [S&P Enhanced Value Japan LargeMidCap Index](#).
- Momentum: Represented by the [S&P Momentum Japan LargeMidCap](#).
- Quality: Represented by the [S&P Quality Japan LargeMidCap](#).
- Buyback: Represented by the [S&P Japan 500 Buyback Index](#).

A more cautious market sentiment continued from Q1 to Q2 this year. Hence, we saw defensive factors continuing to outperform the benchmark. Low volatility delivered the highest return among these five factors—outperforming the benchmark, the S&P Japan BMI, by 3.1% and 4.4% in Q1 and the first half of 2018, respectively. Low volatility was the only factor with a positive absolute YTD return. Quality was the second-best performing factor, beating the benchmark by 0.9% and 0.5% in Q1 and the first half of 2018, respectively.

Momentum, buyback, and enhanced value could not keep up with the benchmark in both Q1 and the first half of 2018, underperforming by 4.0%, 3.9%, and 2.4%, respectively.

Over the three-year period, all factors but momentum and enhanced value outperformed the benchmark in terms of absolute return, with low volatility being the best-performing factor. In terms of risk-adjusted return, low volatility was also the best performer, followed by quality and buyback.

Momentum and enhanced value underperformed because cyclical stocks have been widely sold over the past few years and so far in 2018. However, this may reverse given the potential for upside in global long-term interest rates and relaxation in the BoJ's yield curve control measures in the near-term or mid-term future.

<b>Exhibit 2: Performance of the Five Factors in Japan</b>						
<b>PERIOD</b>	<b>S&amp;P JAPAN 500 LOW VOLATILITY INDEX</b>	<b>S&amp;P ENHANCED VALUE JAPAN LARGEMIDCAP INDEX</b>	<b>S&amp;P QUALITY JAPAN LARGEMIDCAP</b>	<b>S&amp;P MOMENTUM JAPAN LARGEMIDCAP</b>	<b>S&amp;P JAPAN 500 BUYBACK INDEX</b>	<b>S&amp;P JAPAN BMI</b>
<b>CUMULATIVE RETURN (%)</b>						
1-Month	0.06	-1.47	-0.70	-2.29	-2.41	-0.67
2-Month	-0.98	-4.78	-1.01	-2.20	-5.49	-2.16
3-Month	4.30	0.93	2.16	-1.37	-2.11	1.24
YTD	1.04	-5.75	-2.79	-7.35	-7.18	-3.31
<b>ANNUAL RETURN (%)</b>						
1-Year	12.73	9.27	10.61	10.14	6.34	10.05
3-Year	7.69	2.77	6.34	1.50	4.48	4.28
5-Year	13.51	10.91	14.04	8.15	12.42	11.04
10-Year	8.72	7.50	6.58	1.05	6.67	4.93
<b>ANNUAL VOLATILITY (%)</b>						
3-Year	12.73	22.40	16.54	16.04	17.49	16.24
5-Year	10.84	19.09	14.57	15.41	15.02	14.68
10-Year	13.63	22.92	18.64	19.88	18.05	18.74
<b>ANNUAL RETURN/ANNUAL VOLATILITY</b>						
3-Year	2.42	1.01	1.39	1.20	1.03	1.34
5-Year	0.60	0.12	0.38	0.09	0.26	0.26
10-Year	1.25	0.57	0.96	0.53	0.83	0.75
<b>12-MONTH MAXIMUM DRAWDOWN (%)</b>						
10-Year	-28.85	-45.54	-50.14	-61.92	-45.28	-48.38

Source: S&P Dow Jones Indices LLC. Index performance based on total returns in JPY. Data from June 30, 2008, to June 29, 2018. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

## APPENDIX

Exhibit 3: Performance of Smart Beta Indices and Benchmarks in Japan

PERIOD	SMART BETA INDICES IN JAPAN				BENCHMARKS IN JAPAN					
	S&P GIVI JAPAN	FTSE RAFI JAPAN INDEX	MSCI JAPAN VALUE WEIGHTED INDEX	MSCI JAPAN MINIMUM VOLATILITY INDEX	JPX-NIKKEI INDEX 400	MSCI JAPAN INDEX	NIKKEI 225	TOPIX	MSCI JAPAN IMI	S&P JAPAN BMI
<b>CUMULATIVE RETURNS (%)</b>										
1-Month	-0.30	-0.54	-0.74	0.23	0.65	-0.60	0.65	-0.76	-0.70	-0.67
2-Month	-2.45	-3.39	-3.56	-0.84	-0.54	-2.27	-0.54	-2.41	-2.23	-2.16
3-Month	2.11	1.11	1.13	2.65	4.16	1.23	4.16	1.05	1.17	1.24
YTD	-2.47	-5.29	-5.04	0.68	-1.03	-3.49	-1.03	-3.67	-3.34	-3.31
<b>ANNUAL RETURN (%)</b>										
1-Year	10.26	7.83	7.31	9.17	13.49	9.31	13.49	9.67	9.94	10.05
3-Year	4.72	3.12	2.20	5.60	5.27	3.12	5.27	4.20	4.08	4.28
5-Year	11.69	10.37	10.26	11.56	12.28	10.07	12.28	11.07	10.90	11.04
10-Year	6.41	4.90	5.20	6.39	7.13	4.24	7.13	4.90	4.89	4.93
<b>ANNUAL VOLATILITY (%)</b>										
3-Year	15.01	18.61	18.96	12.39	16.44	16.92	17.45	16.55	16.29	16.24
5-Year	13.40	16.50	16.80	11.32	15.51	15.35	15.95	14.91	14.78	14.68
10-Year	16.86	20.53	20.39	14.63	20.39	19.27	20.32	18.78	18.80	18.74
<b>ANNUAL RETURN/ANNUAL VOLATILITY</b>										
3-Year	0.31	0.17	0.12	0.45	0.32	0.18	0.30	0.25	0.25	0.26
5-Year	0.87	0.63	0.61	1.02	0.79	0.66	0.77	0.74	0.74	0.75
10-Year	0.38	0.24	0.26	0.44	0.36	0.22	0.35	0.26	0.26	0.26
<b>12-MONTH MAXIMUM DRAWDOWN (%)</b>										
10-Year	-42.81	-47.44	-47.82	-36.83	-49.61	-49.30	-49.61	-47.68	-48.45	-48.38

Source: S&P Dow Jones Indices LLC, MSCI, FTSE, TSE. Performance based on total return in JPY. Data from June 30, 2008, to June 29, 2018. Past performance is no guarantee of future results. Table is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

## PERFORMANCE DISCLOSURE

The S&P GIVI Japan was launched on March 19, 2012. The S&P Intrinsic Value Weighted Japan Index and S&P Low Beta Japan Index were launched on May 8, 2014. The S&P Japan 500 Low Volatility Index was launched on June 8, 2015. The S&P Enhanced Value Japan LargeMidCap Index was launched on April 27, 2015. The S&P Quality Japan LargeMidCap was launched on June 8, 2014. The S&P Momentum Japan LargeMidCap was launched on Nov. 18, 2014. The S&P Japan 500 Buyback Index was launched on Oct. 17, 2014. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. Complete index methodology details are available at [www.spdji.com](http://www.spdji.com).

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the Index is set at a fixed value for calculation purposes. The Launch Date designates the date upon which the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its datafeed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at [www.spdji.com](http://www.spdji.com) for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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