

## S&P GIVI<sup>®</sup> Japan and Major Single Factors Q1 2019 Review

### S&P GIVI JAPAN PERFORMANCE

The [S&P GIVI \(Global Intrinsic Value Index\) Japan](#) underperformed its benchmark index, the [S&P Japan BMI](#), by 2.43% in Q1 2019.<sup>1</sup> Since its launch in March 2012, the S&P GIVI Japan has outperformed its benchmark index by 0.64% per year, with a tracking error of 2.44%.

In Q1 2019, the Japanese equity market, as measured by the S&P Japan BMI, recovered by 7.8% after the weak end of 2018. This quarter returned with a strong pickup over market optimism, while the sentiment diminished later in March, when worries about a broad economic recession kicked in. Compared with strong rebounds in other developed markets, the advance in Japanese equities seemed rather moderate.

As the U.S. and China entered a trade war truce and were likely to reach a deal aided by the resumption of trade talks, optimism toward global trade stability grew in the first two months of Q1 2019. In addition, the major central bank's dovish stance helped to boost investor confidence, which was translated into a global market rebound. Nevertheless, the weak growth of the domestic economy, declining exports, and deteriorating consumer confidence limited the effects of global market optimism on Japanese equities. As the U.S. yield curve inverted in March, combined with negative surprises in external market, especially the eurozone stagnating and China slowing down, worries over a global economic recession increased.

The market was led upward this quarter by the Information Technology, Communication Services, and Health Care sectors, due to widespread positive sentiment toward technology from the global market. The laggards were the Energy, Financials, and Consumer Discretionary sectors. Despite the oil price increase, the Energy sector suffered from a forecast of a 10% cut this year in liquid natural gas consumption.

In Q1 2019, the underperformance of the S&P GIVI Japan against the benchmark was mainly attributed to the selection effects within sectors, especially in Communication Services and Industrials, and

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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.

allocation effects in Information Technology and Consumer Discretionary. The low beta and intrinsic value legs underperformed the benchmark for the quarter by 1.01% and 1.17%, respectively.

**Exhibit 1: S&P GIVI Japan Live Performance and Attributes**

PERFORMANCE AS OF MARCH 31, 2019	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
Q1 2019	5.36	6.79	6.62	7.80	-2.43	-1.01	-1.17
Q4 2018	-14.79	-17.17	-15.22	-17.25	2.46	0.08	2.03
2018	-12.92	-16.45	-11.96	-15.40	2.48	-1.05	3.43
Since March 2012 (Annualized)	12.35	11.50	12.71	11.71	0.64	-0.21	1.00
<b>PERFORMANCE SINCE LAUNCH (ANNUALIZED AGAINST THE S&amp;P JAPAN BMI)</b>							
Volatility (%)	15.27	17.07	14.88	16.47	-	-	-
Return/Volatility	0.84	0.70	0.89	0.74	-	-	-
Tracking Error (%)	2.44	1.94	2.86	-	-	-	-
Alpha (%)	1.40	-0.47	2.00	-	-	-	-
Beta	0.92	1.03	0.89	-	-	-	-

Source: S&P Dow Jones Indices LLC. Index performance is based on total returns in JPY. Data from June 30, 2012, to March 31, 2019. 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 [S&P Japan 500 Buyback Index](#).

The rebound this quarter was largely driven by Communication Services and Information Technology. Having suffered a difficult Q4 2018, both sectors performed especially well in Q1 2019. As all five factors are underweight Communication Services and Information Technology compared with the S&P Japan BMI, none of them managed to outperform the benchmark this quarter. While quality posted the best performance of 7.6% among the five factors, it fell behind the S&P Japan BMI by 0.2%. Momentum, low volatility, value, and buyback underperformed by 0.88%, 2.14%, 2.31%, and 2.82%, respectively.

The outcome was quite mixed, as the defensive factor (quality) and cyclical factor (momentum) had relatively better performance, while low volatility and value were among the worst. The underperformance of momentum against the benchmark in a bull market indicates that the Japanese

market is still in a defensive zone, rather than chasing high risk-adjusted momentum. Consequently, the market cautiousness enhanced the inclination toward stocks with financial quality.

As a continuous effort to increase returns to shareholders, guided by Prime Minister Abe's Stewardship Code and Corporate Governance Code, Japanese companies' buybacks mounted to 6.5 trillion yen<sup>2</sup> toward the end of fiscal 2018. In spite of the record high amount of buybacks, the buyback factor underperformed significantly in the last quarter, which suggests the limited boost of mere return-on-equity increase in stock performance.

Over the three-year period, defensive factors remain strong. Although value posted the highest absolute return, low volatility was the best-performing factor in terms of risk-adjusted return, followed by the quality factor, which outperformed the benchmark by 2.37%, 1.31%, and 0.76%, respectively. The momentum and buyback factors underperformed mainly because cyclical stocks have been widely sold over the past few years.

Exhibit 2: Performance of the Five Factors in Japan						
PERIOD	S&P JAPAN 500 LOW VOLATILITY INDEX	S&P ENHANCED VALUE JAPAN LARGEMIDCAP INDEX	S&P QUALITY JAPAN LARGEMIDCAP	S&P MOMENTUM JAPAN LARGEMIDCAP	S&P JAPAN 500 BUYBACK INDEX	S&P JAPAN BMI
<b>CUMULATIVE RETURN (%)</b>						
1-Month	0.39	-0.81	-1.05	-0.43	0.10	0.15
2-Month	2.53	-1.82	2.53	4.07	-0.49	2.69
3-Month	5.65	5.49	7.60	6.92	4.97	7.80
YTD	5.65	5.49	7.60	6.92	4.97	7.80
<b>ANNUAL RETURN (%)</b>						
1-Year	2.46	-4.19	-5.19	-11.11	-12.88	-4.51
3-Year	8.84	10.47	9.40	2.55	5.20	8.11
5-Year	11.12	7.43	9.90	4.79	7.39	8.05
10-Year	11.37	11.51	12.12	7.05	10.21	9.91
<b>ANNUAL VOLATILITY (%)</b>						
3-Year	10.77	18.02	13.96	14.09	14.75	13.66
5-Year	11.65	19.58	15.35	15.52	15.85	15.05
10-Year	12.65	21.04	16.30	17.58	16.68	16.86
<b>ANNUAL RETURN/ANNUAL VOLATILITY</b>						
3-Year	0.82	0.58	0.67	0.18	0.35	0.59
5-Year	0.95	0.38	0.64	0.31	0.47	0.53
10-Year	0.90	0.55	0.74	0.40	0.61	0.59
<b>12-MONTH MAXIMUM DRAWDOWN (%)</b>						
10-Year	-12.94	-33.22	-19.22	-22.96	-22.06	-22.70

Source: S&P Dow Jones Indices LLC. Index performance based on total returns in JPY. Data from June 30, 2008, to March 31, 2019. 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.

<sup>2</sup> <https://www.reuters.com/article/us-japan-stocks-buybacks/cash-hoarding-japanese-firms-please-investors-as-share-buybacks-hit-record-idUSKCN1Q60T2>

## 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	-0.67	-0.66	-0.56	-0.23	0.42	0.15	-0.03	0.09	0.12	0.15
2-Month	1.03	0.46	0.53	1.98	2.89	2.42	2.98	2.69	2.60	2.69
3-Month	5.36	6.37	6.68	5.41	8.17	7.79	6.89	7.74	7.87	7.80
YTD	5.36	6.37	6.68	5.41	8.17	7.79	6.89	7.74	7.87	7.80
<b>ANNUAL RETURN (%)</b>										
1-Year	-3.94	-4.11	-3.48	0.85	-4.32	-3.73	0.92	-5.04	-4.52	-4.51
3-Year	7.34	8.57	8.34	6.75	7.63	7.88	10.30	8.06	8.01	8.11
5-Year	8.46	7.84	7.45	9.96	7.69	7.50	9.45	8.02	7.96	8.05
10-Year	10.42	9.95	10.18	10.07	10.14	9.47	12.15	9.74	9.87	9.91
<b>ANNUAL VOLATILITY (%)</b>										
3-Year	12.63	15.23	15.40	10.16	13.69	13.74	14.57	13.80	13.61	13.66
5-Year	13.75	16.70	17.01	11.58	15.25	15.52	15.69	15.30	15.10	15.05
10-Year	15.32	18.77	18.56	13.09	16.58	17.33	17.87	16.98	16.93	16.86
<b>ANNUAL RETURN/ANNUAL VOLATILITY</b>										
3-Year	0.58	0.56	0.54	0.66	0.56	0.57	0.71	0.58	0.59	0.59
5-Year	0.62	0.47	0.44	0.86	0.50	0.48	0.60	0.52	0.53	0.53
10-Year	0.68	0.53	0.55	0.77	0.61	0.55	0.68	0.57	0.58	0.59
<b>12-MONTH MAXIMUM DRAWDOWN (%)</b>										
10-Year	-21.01	-27.84	-29.06	-14.40	-23.22	-24.71	-22.90	-23.34	-22.96	-22.70

Source: S&P Dow Jones Indices LLC, MSCI, FTSE, TSE. Performance based on total return in JPY. Data from June 30, 2008, to March 31, 2019. 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.

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The S&P GIVI Japan was launched March 19, 2012. The S&P Intrinsic Value Weighted Japan Index and S&P Low Beta Japan Index were launched May 8, 2014. The S&P Japan 500 Low Volatility Index was launched June 8, 2015. The S&P Enhanced Value Japan LargeMidCap Index was launched April 27, 2015. The S&P Quality Japan LargeMidCap was launched June 8, 2014. The S&P Momentum Japan LargeMidCap was launched November 18, 2014. The S&P Japan 500 Buyback Index was launched October 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. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at [www.spdji.com](http://www.spdji.com). 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.

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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.

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