

S&P GIVI[®] Japan and Major Single Factors Q2 2020 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 6.09% in Q2 2020.¹ Since its launch in March 2012, the S&P GIVI Japan has underperformed its benchmark index by 62 bps per year, with a tracking error of 2.68%.

Following the sharp decline in Q1 2020, the Japanese equity market rebounded by 11.77% in Q2 2020, as measured by the S&P Japan BMI. However, the S&P Japan BMI posted -8.31% YTD. As in other major markets, the recovery in Q2 2020 was mainly boosted by government stimulus and good news in the fight against COVID-19. This quarter, the Japanese government approved a record stimulus package equaling about 40% of GDP to prevent COVID-19 from causing further economic deterioration. After lifting the National State of Emergency in late-May, the Japanese economy started to gradually reopen. While partially encouraged by these positive signs, investors stayed cautious amid the uncertainties around U.S.-China tensions and a second wave of COVID-19 cases.

As the economy gradually reopened, almost all sectors showed signs of rebounding. Materials, Consumer Discretionary, and Industrials, which were severely hurt in Q1 2020, had strong comebacks, with double-digit returns this quarter. Hotels and Industrial REITs contributed the most to the mild recovery in Real Estate, while Office provided some drag. Information Technology was the best-performing sector, due to increased demand for hardware and software support in the new normal of internet-based life. Health Care and Communication Services, the two sectors whose performance benefited from the COVID-19 crisis for providing healthcare products and supporting social distancing practices, respectively, continued to lead in Q2 2020 and reversed the loss from the previous quarter. Utilities was the only sector that posted a negative return, largely due to the dire economic projection.

The underperformance of the S&P GIVI Japan in Q2 2020 was mainly due to the selection effect in Industrials and Information Technology.

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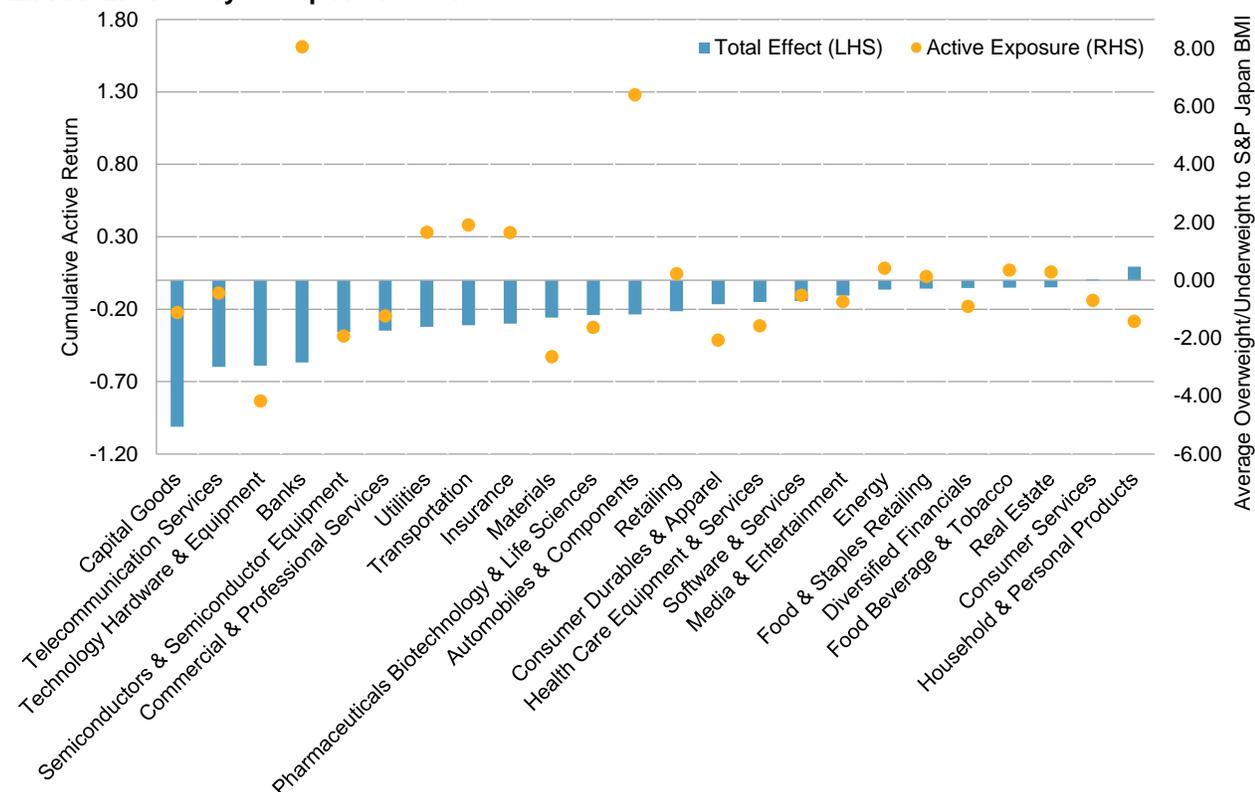
¹ The S&P GIVI Japan is a strategy index constructed from the S&P Japan BMI, which serves as its benchmark index. The tracking error between the S&P GIVI Japan and its benchmark represents the difference between the strategy returns and the benchmark returns, reflecting the risk associated with the exposure to certain factors. Tracking error is calculated as 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 (Benchmark: S&P Japan BMI)							
PERFORMANCE AS OF JUNE 30, 2020	GROSS TOTAL RETURN (%)				RETURN IN EXCESS OF 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 2020	5.68	8.69	8.24	11.77	-6.09	-3.08	-3.53
Q1 2020	-17.56	-20.16	-15.68	-17.96	0.40	-2.20	2.29
H1 2020	-12.88	-13.22	-8.72	-8.31	-4.57	-4.92	-0.42
Since March 2012 (Annualized)	9.33	8.87	10.38	9.95	-0.62	-1.08	0.43
PERFORMANCE SINCE LAUNCH (ANNUALIZED AGAINST THE S&P JAPAN BMI)							
Volatility (%)	15.36	17.23	14.92	16.57	-	-	-
Return/Volatility	0.61	0.51	0.70	0.60	-	-	-
Tracking Error (%)	2.68	2.03	3.04	-	-	-	-
Alpha (%)	0.15	-1.23	1.36	-	-	-	-
Beta	0.92	1.03	0.89	-	-	-	-

Source: S&P Dow Jones Indices LLC. Data from March 31, 2012, to June 30, 2020. Index performance based on total return in JPY. 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.

It was a difficult quarter for the S&P GIVI Japan, as both the intrinsic value leg and low beta leg of the index underperformed the S&P Japan BMI by 3.08% and 3.53%, respectively (see Exhibit 1). Historically, when the intrinsic value leg and low beta leg underperformed the benchmark at the same time, the S&P GIVI Japan tended to underperform both legs.

A closer look at the sector-based attribution reveals that the underperformance of the S&P GIVI Japan in Q2 2020 can be mainly attributed to the Capital Goods industry group from the Industrials sector, together with the Telecommunication Services and Technology Hardware & Equipment industry groups from the Information Technology sector. The overweight in Banks also undermined the performance of the S&P GIVI Japan.

Exhibit 2: Industry Group Attribution

Source: S&P Dow Jones Indices LLC. Data from March 31, 2020, to June 30, 2020. Industry Group is based on GICS®. Index performance based on total return in JPY. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Performance of Single Factors in the Japanese Market

We examined the returns of five common single factors in the Japanese equities 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 Index](#).
- Quality: Represented by the [S&P Quality Japan LargeMidCap](#).
- Buyback: Represented by [S&P Japan 500 Buyback Index](#).

Entering the phase of recovery, low volatility started to lag behind with an underperformance of 8.65% against the S&P Japan BMI, following a solid defense during the Q1 2020 market crash. Quality and momentum continued to lead, outperforming the S&P Japan BMI by 5.45% and 3.95%, respectively.

Despite the cut in buybacks amid the COVID-19 pandemic, the buyback factor ended its prolonged period of underperformance since 2018 with an excess return of 1.08% in Q2 2020. Value underperformed the S&P Japan BMI by 7.64%, which can be mainly attributed to the overweight in Financials and selection effect in Industrials.

Over the long term, quality was the best-performing factor over the 3-, 5-, and 10-year horizons in terms of both absolute and risk-adjusted returns. Due to the recent underperformance, low volatility slipped

into a negative zone over the 3-year horizon. Value and buyback were the worst performers, underperforming the S&P Japan BMI across the 3-, 5- and 10-year horizons.

Exhibit 3: 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 INDEX	S&P JAPAN 500 BUYBACK INDEX	S&P JAPAN BMI	TOPIX
CUMULATIVE RETURN (%)							
1-Month	-2.19	-3.39	3.31	3.09	1.15	-0.13	-0.19
2-Month	3.28	2.17	10.65	10.06	7.21	6.97	6.61
3-Month	3.12	4.13	17.22	15.72	12.85	11.77	11.25
YTD	-14.05	-20.87	0.63	-0.90	-7.25	-8.31	-8.17
ANNUAL RETURN (%)							
1-Year	-7.64	-14.64	18.38	10.20	3.59	2.98	3.10
3-Year	-0.87	-5.35	6.81	2.15	-2.07	1.49	1.24
5-Year	1.53	-3.37	5.79	0.24	0.15	1.49	1.37
10-Year	8.94	6.23	11.99	9.12	8.06	8.79	8.72
ANNUAL VOLATILITY (%)							
3-Year	12.53	18.25	15.68	15.24	15.70	15.46	15.38
5-Year	13.01	20.80	16.51	15.80	17.05	16.21	16.32
10-Year	13.12	19.55	15.84	17.18	16.12	16.41	16.52
ANNUAL RETURN/ANNUAL VOLATILITY							
3-Year	-0.07	-0.29	0.43	0.14	-0.13	0.10	0.08
5-Year	0.12	-0.16	0.35	0.02	0.01	0.09	0.08
10-Year	0.68	0.32	0.76	0.53	0.50	0.54	0.53
12-MONTH MAXIMUM DRAWDOWN (%)							
10-Year	-16.79	-33.08	-19.22	-22.96	-22.06	-22.70	-23.34

Source: S&P Dow Jones Indices LLC, FactSet. Data from June 30, 2010, to June 30, 2020. Index performance based on total return in JPY. 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 4: S&P GIVI Japan Live Performance and Attributes (Benchmark: TOPIX)							
PERFORMANCE AS OF JUNE 30, 2020	GROSS TOTAL RETURN (%)				RETURN IN EXCESS OF TOPIX (%)		
	S&P GIVI JAPAN	S&P INTRINSIC VALUE WEIGHTED JAPAN INDEX	S&P LOW BETA JAPAN INDEX	TOPIX	S&P GIVI JAPAN	S&P INTRINSIC VALUE WEIGHTED JAPAN INDEX	S&P LOW BETA JAPAN INDEX
Q2 2020	5.68	8.69	8.24	11.25	-5.57	-2.56	-3.01
Q1 2020	-17.56	-20.16	-15.68	-17.45	-0.11	-2.71	1.78
H1 2020	-12.88	-13.22	-8.72	-8.17	-4.71	-5.06	-0.56
Since March 2012 (Annualized)	9.33	8.87	10.38	9.87	-0.54	-1.00	0.51
PERFORMANCE SINCE LAUNCH (ANNUALIZED AGAINST TOPIX)							
Volatility (%)	15.36	17.23	14.92	16.70	-	-	-
Return/Volatility	0.61	0.51	0.70	0.59	-	-	-
Tracking Error (%)	2.78	2.04	3.15	-	-	-	-
Alpha (%)	0.27	-1.10	1.48	-	-	-	-
Beta	0.91	1.03	0.88	-	-	-	-

Source: S&P Dow Jones Indices LLC, FactSet. Data from March 31, 2012, to June 30, 2020. Index performance based on total return in JPY. 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.

Exhibit 5: 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
CUMULATIVE RETURNS (%)										
1-Month	-1.81	-0.98	-1.29	-1.18	-0.06	0.15	2.01	-0.19	-0.06	-0.13
2-Month	3.72	5.77	5.44	5.55	6.75	6.97	8.96	6.61	6.75	6.97
3-Month	5.68	9.75	9.22	6.18	11.45	11.67	16.31	11.25	11.57	11.77
YTD	-12.88	-12.18	-13.12	-8.23	-7.74	-7.51	-6.05	-8.17	-8.27	-8.31
ANNUAL RETURN (%)										
1-Year	-4.26	-3.10	-3.82	0.67	3.84	3.75	5.50	3.10	3.12	2.98
3-Year	-1.41	-1.27	-1.39	1.30	1.54	1.99	5.27	1.24	1.61	1.49
5-Year	-0.04	-0.43	-0.94	2.32	1.29	1.25	3.70	1.37	1.47	1.49
10-Year	8.42	7.64	7.78	8.90	-	8.53	11.01	8.72	8.77	8.79
ANNUAL VOLATILITY (%)										
3-Year	13.85	16.15	16.21	11.80	15.32	15.21	16.98	15.38	15.33	15.46
5-Year	14.78	17.77	17.99	12.44	16.29	16.38	17.42	16.32	16.16	16.21
10-Year	15.08	17.89	17.91	13.06	-	16.76	17.30	16.52	16.43	16.41
ANNUAL RETURN/ANNUAL VOLATILITY										
3-Year	-0.10	-0.08	-0.09	0.11	0.10	0.13	0.31	0.08	0.10	0.10
5-Year	0.00	-0.02	-0.05	0.19	0.08	0.08	0.21	0.08	0.09	0.09
10-Year	0.56	0.43	0.43	0.68	-	0.51	0.64	0.53	0.53	0.54
12-MONTH MAXIMUM DRAWDOWN (%)										
10-Year	-21.01	-27.84	-29.06	-14.40	-23.22*	-24.71	-22.90	-23.34	-22.96	-22.70

*12-Month Maximum Drawdown for JPX-NIKKEI Index 400 based on data from Jan. 31, 2014, to June 30, 2020.

Source: S&P Dow Jones Indices LLC, FactSet. Data from June 30, 2010, to June 30, 2020. Index performance based on total return in JPY. 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 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 Index 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. 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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