

## CONTRIBUTOR

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# Why Does the S&P 500<sup>®</sup> Matter to Japan?

The [S&P 500](#) is a renowned benchmark for large-cap U.S. equities. The index is designed to measure 500 leading companies and captures approximately 80% coverage of investable market capitalization in the U.S. equity market. As of year-end 2015, over USD 7.5 trillion was benchmarked to the S&P 500 alone, with indexed assets making up USD 2.1 trillion of this total.<sup>1</sup> Exchange-traded products based on the S&P 500 have been cross-listed in various markets across the globe, but what creates the international appetite for U.S. equities, especially the S&P 500?

In this paper, we will:

- Compare the S&P 500 to the leading equity benchmark in Japan;
- Explore the significance of the S&P 500 in the global equity market; and
- Compare S&P 500 performance to that of active U.S. large-cap funds.

## COMPARISON OF THE S&P 500 AND THE TOPIX

The S&P 500 and the TOPIX have been widely used as primary performance indicators of U.S. and Japanese equity markets for decades.

The S&P 500 and the TOPIX are widely regarded as primary performance indicators for the U.S. and Japanese equity markets, respectively. Both indices have been commonly used as benchmarks for investment in domestic stocks or equity funds for decades.<sup>2</sup> However, the indices vary significantly due to the different economic landscapes and financial market developments they reflect.

The TOPIX consists of 2,000 domestic common stocks listed on the Tokyo Stock Exchange First Section, while the S&P 500 comprises 500 leading U.S. companies representing around 80% of the market cap of the U.S. equity market. Index members for both indices are weighted by their free-float market capitalization. Despite the fact that the number of S&P 500 members is only one-quarter of the number of TOPIX constituents, the U.S. equities benchmark is as diversified as the TOPIX in terms of stock and sector weighting.

The top 10 TOPIX members represent only 17.2% of the index and the largest component, Toyota, has a weight of just 3.6%. Similarly, the 10

<sup>1</sup> Each year, S&P Dow Jones Indices conducts a survey to estimate the total assets directly linked to its indices. For the latest report, please see the "[S&P DJI Annual Survey of Indexed Assets 2015](#)."

<sup>2</sup> The S&P 500 was launched on March 4, 1957, and the TOPIX was launched on July 1, 1969.

largest stocks in the [S&P 500](#) account for only 19.5% of the index, and the largest member, Apple, carries a stock weight of only 3.6% (see Exhibit 1).

Despite the fact that the number of S&P 500 members is only one-quarter of the number of TOPIX constituents, the U.S. equities benchmark is as diversified as the TOPIX in terms of stock and sector weighting.

<b>S&amp;P 500 STOCKS</b>	<b>WEIGHT (%)</b>	<b>TOPIX STOCKS</b>	<b>WEIGHT (%)</b>
Apple Inc.	3.6	Toyota Motor Corp	3.6
Microsoft Corp	2.4	Mitsubishi UFJ Financial Group Inc	2.6
Alphabet Inc A & C	2.4	SoftBank Group Corp	1.9
Exxon Mobil Corp	1.7	Nippon Tel & Tel Corp	1.6
Amazon.com Inc	1.6	Sumitomo Mitsui Financial Group	1.5
Johnson & Johnson	1.6	Honda Motor Co	1.4
Berkshire Hathaway B	1.6	Mizuho Financial Group Inc	1.3
JPMorgan Chase & Co	1.6	KDDI Corp	1.3
Facebook Inc A	1.6	Sony Corp	1.1
General Electric Co	1.3	Japan Tobacco Inc	1.0
<b>Total Weight of Top 10 Companies</b>	<b>19.5</b>	<b>Total Weight of Top 10 Companies</b>	<b>17.2</b>

Source: S&P Dow Jones Indices LLC, Tokyo Stock Exchange. Data as of Feb. 28, 2017. Table is provided for illustrative purposes.

Since the TOPIX includes all the domestic common stocks listed on the Tokyo Stock Exchange First Section and the S&P 500 consists of the 500 leading companies in the U.S. market, the S&P 500 has a much higher average constituent market cap and average daily traded value, due to the absence of mid- and small-cap stocks in its universe. Although the S&P 500 has less stocks than the TOPIX, the total market cap and average traded value of the S&P 500 are much higher than those of the TOPIX.

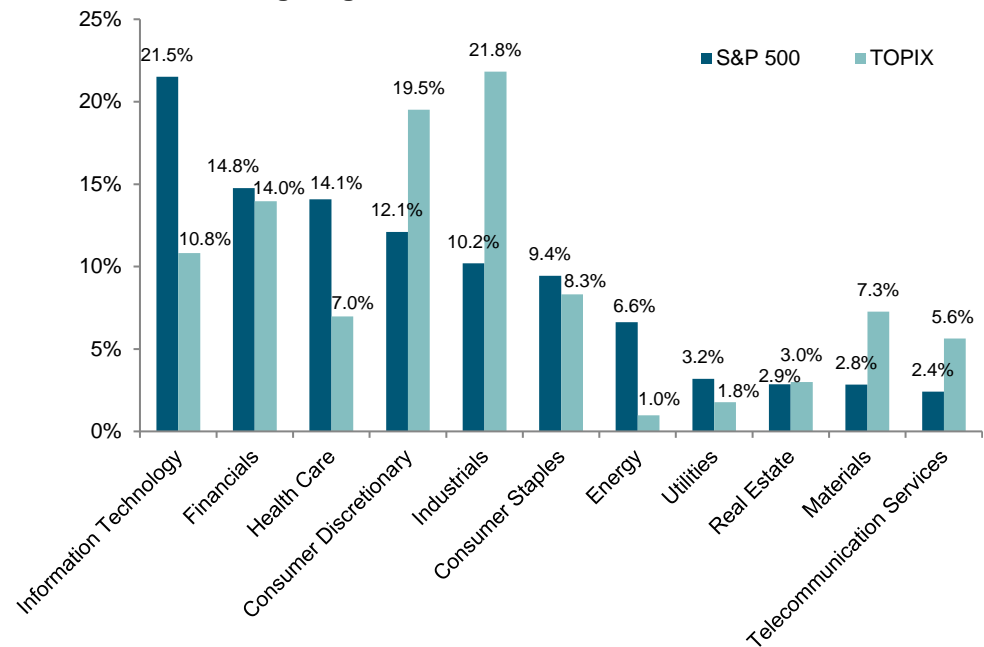
<b>INDEX</b>	<b>CONSTITUENT MARKET CAP (USD BILLION)</b>		<b>CONSTITUENT 3-MONTH AVERAGE DAILY TRADED VALUE (USD MILLION)</b>	
	<b>S&amp;P 500</b>	<b>TOPIX</b>	<b>S&amp;P 500</b>	<b>TOPIX</b>
Mean	40.3	1.6	248.6	9.9
Median	18.6	0.23	155.3	1.3
Largest	730.5	116.1	3504.3	576.5
Sum of Constituents	20,334	3,249	125,530	19,766

Source: S&P Dow Jones Indices LLC, Tokyo Stock Exchange. Data as of Feb. 28, 2017. Market cap is calculated as the share price multiplied by the number of shares at the security level. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Both the TOPIX and the S&P 500 are highly diversified among sectors, with no single sector representing more than 22% of the index. While the TOPIX is most concentrated in the industrials, consumer discretionary, and financials sectors, which account for 55% of the index weight, the S&P 500 is most concentrated in the information technology, financials, and health care sectors, accounting for 50% of the index weight.

The [S&P 500](#) has a significantly higher weighting in the information technology and health care sectors than the TOPIX. The biggest companies from the information technology sector, such as Apple, Microsoft, and Alphabet, are global leaders in the tech hardware, software, and internet services industries. These companies represent more than 39.4% of the S&P 500's information technology sector and around 23.3% of the [S&P Global BMI](#)'s<sup>3</sup> information technology sector. In the health care sector of the S&P 500, the three largest companies are Johnson & Johnson, Pfizer, and Merck, which are worldwide providers of pharmaceutical products. These companies make up more than 25.2% of the S&P 500's health care sector and around 14% of the S&P Global BMI's health care sector.

**Exhibit 3: Sector Weighting of the S&P 500 Versus the TOPIX**



Apart from their different sector compositions, the S&P 500 and TOPIX Index have also been affected by different economic and political factors historically.

Source: S&P Dow Jones Indices LLC, Tokyo Stock Exchange. Data as of Feb. 28, 2017. Table is provided for illustrative purposes.

Apart from their different sector compositions, the S&P 500 and the TOPIX have also been affected by different economic factors in the past. The TOPIX is designed to measure the performance of equities in Japan, the third-largest economy in the world, accounting for 6.3% of the global economy, while the S&P 500 seeks to track the equity market performance of the world's largest economy, the U.S., which accounts for 22% of the global economy.<sup>4</sup>

Foreign sales have consistently contributed to more than 40% of [S&P 500](#) revenue in the past decade. In 2015, 44.4% of S&P 500 revenue came

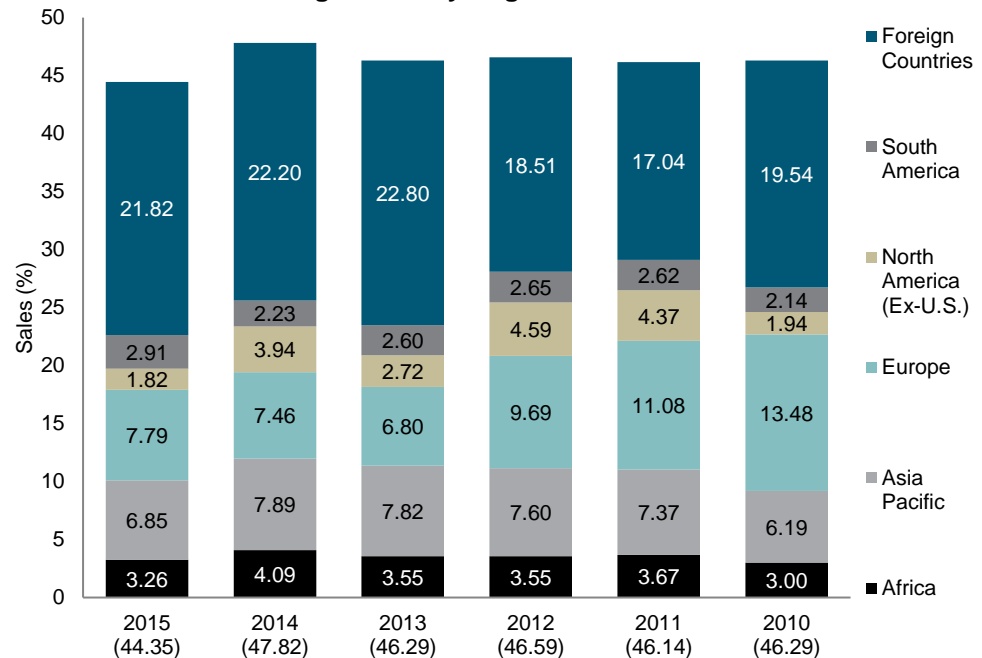
<sup>3</sup> The S&P Global BMI (Broad Market Index), which includes more than 11,000 global investable stocks, is designed to measure the performance of the global equity market.

<sup>4</sup> Based on the IMF's 2016 nominal GDP estimated figures from the "World Economic Outlook Database, October 2016."

from outside of the U.S., with 6.9% from the Asia Pacific region, 7.8% from Europe, and 3.3% from Africa<sup>5</sup> (see Exhibit 4). The diverse geographical revenue sources can translate into high international diversification benefits for the S&P 500.

**Exhibit 4: S&P 500 Foreign Sales by Region**

The diverse geographical revenue sources can translate into high international diversification benefits for the S&P 500.



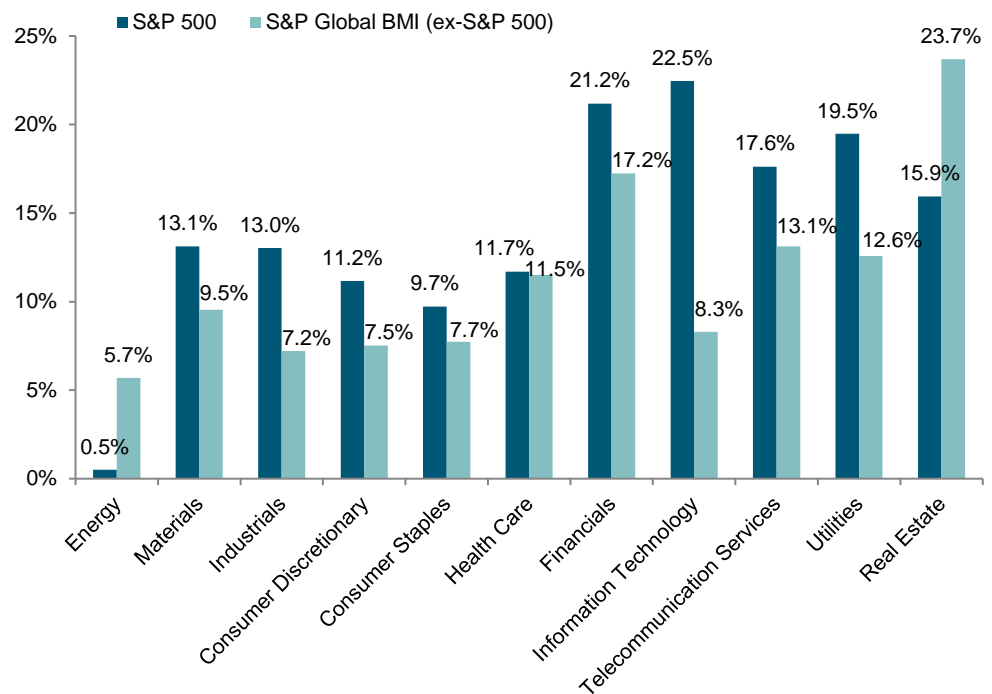
Source: S&P Dow Jones Indices LLC. Data as of June 2016 from the “[S&P 500 2015: Global Sales](#)” report. Figures in parentheses are percentages of total foreign sales for each year. Foreign sales percentage for Asia Pacific includes Australia. Chart is provided for illustrative purposes.

### SIGNIFICANCE OF THE S&P 500 IN THE GLOBAL EQUITY MARKET

Because many stocks in the S&P 500 are leading global companies, they represent a significant part of global equity market capitalization, revenue, and earnings. Companies in the S&P 500 represent 42.7% of the total market cap of the S&P Global BMI. Among the 100 largest stocks in the S&P Global BMI, 65 of them are S&P 500 members. In 2016, the S&P 500 generated more than 23.6% of corporate revenue and 31.7% of corporate earnings for the S&P Global BMI. We have also observed that in most sectors, S&P 500 companies have delivered higher operating margins than their global sector peers, especially in the information technology sector, with a spread of 14.2%.

<sup>5</sup> For further details, please see “[S&P 500 2015: Global Sales](#).”

**Exhibit 6: Operating Margin of S&P 500 Sectors**



In most sectors, S&P 500 companies have delivered higher operating margins than their global sector peers, especially in the information technology sector.

Source: S&P Dow Jones Indices LLC, Factset. Data as of Feb. 28, 2017. Figures based on company-reported operating income and revenue in the trailing 12-month period. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

As many [S&P 500](#) members are global industry leaders and produce in large quantities, they usually have higher negotiation power with suppliers, which can lower their operating costs. Furthermore, the brand power of these companies helps them to sell their products at premium prices and maintain higher margins.<sup>6</sup> Based on the Best Global Brand 2016 report published by the worldwide brand consultant Interbrand, 49 of the top 100 global brands are members or are owned by members of the S&P 500.<sup>7</sup> These brands scored well in terms of the valuation-based competitive strength of the brand, the role the brand plays in purchase decisions, and the financial performance of the branded products or services. Apple, Google, Coca-Cola, Microsoft, IBM, Amazon, and GE ranked among the top 10 global brands.

<sup>6</sup> For more details, please see the article "[America's Most Profitable Products](#)" by Thomas C. Frohlich and Alexander E.M. Hess.

<sup>7</sup> For methodology and complete list of the 100 best global brands, please see <http://www.bestglobalbrands.com/2016/methodology/>.

**Exhibit 7: Global Brands in the S&P 500**

GLOBAL RANKING	BRAND	COMPANY/PARENT COMPANY IN THE S&P 500	GLOBAL RANKING	BRAND	COMPANY/PARENT COMPANY IN THE S&P 500
1	Apple	Apple Inc.	48	HP	HP Inc
2	Google	Alphabet Inc	49	Citi	Citigroup Inc
3	Coca-Cola	Coca-Cola Co	54	Goldman Sachs	Goldman Sachs Group Inc
4	Microsoft	Microsoft Corp	57	Colgate	Colgate-Palmolive Co
6	IBM	Intl Business Machines Corp	59	3M	3M Co
8	Amazon	Amazon.com Inc	61	VISA	Visa Inc A
10	GE	General Electric Co	63	Adobe	Adobe Systems Inc
12	McDonald's	McDonald's Corp	64	Starbucks	Starbucks Corp
13	Disney	Walt Disney Co	65	Morgan Stanley	Morgan Stanley
14	Intel	Intel Corp	71	Discovery	Discovery Communications A
15	Facebook	Facebook Inc A	73	Johnson & Johnson	Johnson & Johnson
16	Cisco	Cisco Systems Inc	74	Tiffany	Tiffany & Co
17	Oracle	Oracle Corp	75	KFC	Yum! Brands Inc
18	Nike	NIKE Inc B	76	Mastercard	Mastercard Inc A
23	Pepsi	PepsiCo Inc	79	FedEx	FedEx Corp
24	Gillette	Procter & Gamble	80	Harley-Davidson	Harley-Davidson Inc
25	American Express	American Express Co	82	Caterpillar	Caterpillar Inc
28	Pampers	Procter & Gamble	84	Xerox	Xerox Corp
29	UPS	United Parcel Service Inc B	85	Jack Daniel's	Brown-Forman Corp B
31	J.P. Morgan	JPMorgan Chase & Co	86	Sprite	Coca-Cola Co
32	eBay	eBay Inc.	90	Paypal	PayPal Holdings Inc.
33	Ford	Ford Motor Co	91	John Deere	Deere & Co
37	Accenture	Accenture plc A	94	MTV	Viacom Inc B
39	Kellogg's	Kellogg Co	98	Ralph Lauren	Ralph Lauren Corp A
44	Hewlett Packard Enterprise	Hewlett Packard Enterprise Co			

Based on the Best Global Brand 2016 report, 49 out of the top 100 global brands are members or are owned by members of the S&P 500.

Source: S&P Dow Jones Indices LLC, Interbrand (<http://www.bestglobalbrands.com/2016/ranking/>). Table is provided for illustrative purposes.

### PERFORMANCE OF THE S&P 500 VERSUS ACTIVE U.S. LARGE-CAP FUNDS

Investing in the U.S. equity market can be done via the use of active fund managers or index-linked products, which track the returns of an underlying index. Twice a year, S&P Dow Jones Indices releases the SPIVA® Scorecard, which reports the number of actively managed mutual funds that beat their comparable benchmarks over different timeframes.<sup>8</sup>

<sup>8</sup> To explore how active managers in the U.S. and around the world have performed relative to their benchmarks, click [here](#).

The returns of the S&P 500 also exceeded the average returns of U.S. large-cap funds on both an equal- and asset-weighted basis.

The [SPIVA U.S. Mid-Year 2016 Scorecard](#) showed that the [S&P 500](#) outperformed more than 85% of active U.S. large-cap funds between June 2015 and June 2016. Performance of active U.S. large-cap funds looks equally unfavorable for longer investment periods, as 92% and 85% of them underperformed the S&P 500 over the 5- and 10-year periods, respectively. The returns of the S&P 500 also exceeded the average returns of active U.S. large-cap funds on both an equal- and asset-weighted basis. This indicates that index-based investing may be a viable complement to or substitute for actively managed investments in the U.S. equity market.

**Exhibit 9: Annualized Performance of Active U.S. Large-Cap Funds and the S&P 500**

INDEX/FUND CATEGORY	1-YEAR (%)	3-YEAR (%)	5-YEAR (%)	10-YEAR (%)
S&P 500	3.99	11.66	12.10	7.42
Active U.S. Large-Cap Funds (Equal-Weighted Average)	-0.38	9.37	9.64	6.06
Active U.S. Large-Cap Funds (Asset-Weighted Average)	0.73	10.23	10.53	6.38
% of Active U.S. Large-Cap Funds Outperformed by S&P 500	84.62	81.31	91.91	85.36

Source: S&P Dow Jones Indices LLC. Data as of June 2016, as reported in the SPIVA U.S. Mid-Year 2016 Scorecard. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

## CONCLUSION

The S&P 500 and the TOPIX are considered primary indicators of overall market performance in the U.S. and Japanese equity markets, respectively. Both indices are commonly used as benchmarks for domestic stocks or equity funds and well diversified in their sector and stock weightings.

Although the number of S&P 500 members amounts to only one-quarter of the TOPIX's constituent count, it is as diversified as the TOPIX in terms of its stock and sector weighting, with the TOPIX being most concentrated in the industrials sector and the S&P 500 having the highest weighting in the information technology sector.

While the TOPIX seeks to track the performance of equities in Japan, the world's third-largest economy, the S&P 500 is designed to measure the equity market performance of the world's largest economy, the U.S. Foreign sales have consistently contributed to more than 40% of S&P 500 revenue in the past decade, with this high and diverse international revenue exposure translating into significant international diversification benefits for the S&P 500.

The members of the S&P 500 are not only the largest companies in the U.S., but many of them are leading global companies that represent a significant share of global equity market capitalization, revenue, and earnings. These companies delivered higher operating margins than their

global peers in most sectors, and almost one-half of the top brands across the globe are members or are owned by members of the [S&P 500](#).

Additionally, the SPIVA U.S. Scorecard shows that the majority of active U.S. large-cap funds were outperformed by the S&P 500 over 1-, 3-, 5-, and 10-year periods, indicating that index-based investing may be a viable complement to or substitute for actively managed investments in the U.S. equity market.

All of these factors drive the international appetite for the S&P 500, and as a result, there has been an increasing number of S&P 500 index-based products in various markets across the globe.



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