S&P Dow Jones Indices

A Division of S&P Global

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The S&P 500 and the S&P/NZX 50 Index are widely regarded as primary indicators of overall market performance in the U.S. and New Zealand equity markets, respectively.

Why Does the S&P 500[®] Matter to New Zealand?

The S&P 500 is a renowned benchmark for large-cap U.S. equities. The index includes 500 leading companies and captures approximately 80% coverage of investable market capitalization in the U.S. equity market. As of year-end 2014, over USD 7.8 trillion was benchmarked to the S&P 500, with indexed assets making up USD 2.2 trillion of this total. 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 New Zealand:
- 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 S&P/NZX 50 INDEX

The S&P 500 and the S&P/NZX 50 Index are widely regarded as primary indicators of overall market performance in the U.S. and New Zealand equity markets, respectively. Both indices comprise the largest and most-liquid stocks from their respective markets. However, the indices vary significantly due to the different economic landscapes and financial market developments they reflect.

The S&P 500 currently comprises 500 companies and represents around 80% of the market cap of the U.S. equity market, while the S&P/NZX 50 Index seeks to measure the performance of the largest 50 stocks listed on the Main Board of the NZX and covers approximately 90% of New Zealand equity market capitalization. Both are free-float, market-cap-weighted indices, but the S&P 500 has much greater stock diversification than the S&P/NZX 50 Index.

Compared to the S&P/NZX 50 Index, the S&P 500 is much more diverse in terms of the weight constituents hold in the index. The 10 largest S&P 500

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 2014."

Both the S&P 500 and the S&P/NZX 50 Index capture the largest and most-liquid stocks from their respective markets. members represent only 18% of the index, and the largest component, Apple, has a weight of just 4%. In contrast, the 10 largest stocks in the S&P/NZX 50 Index dominate 55% of the index, and the largest two members, Spark New Zealand and Fletcher Building, carry stock weights as high as 9% and 8%, respectively.

Exhibit 1: Top 10 Index Members in the S&P 500 and the S&P/NZX 50 Index				
S&P 500 STOCKS	WEIGHT (%)	S&P/NZX 50 INDEX STOCKS	WEIGHT (%)	
Apple Inc.	3.7	Spark New Zealand	8.9	
Google Inc. (A & C)	2.1	Fletcher Building	7.8	
Microsoft Corp.	2.0	Auckland Intl. Airport	6.9	
Exxon Mobil Corp.	1.8	Fisher & Paykel Healthcare Corp.	6.6	
Johnson & Johnson	1.5	Contact Energy	5.7	
General Electric Co.	1.5	Ryman Healthcare Group	5.6	
Wells Fargo & Co.	1.4	Meridian Energy	4.2	
Berkshire Hathaway B	1.4	SkyCity Entertainment Group	3.5	
JPMorgan Chase & Co.	1.3	Sky Network Television	2.9	
Pfizer Inc.	1.2	Mighty River Power	2.6	
Total Weight of Top 10 Companies	17.9	Total Weight of Top 10 Companies	54.6	

Source: S&P Dow Jones Indices LLC, NZX. Data as of Sept. 17, 2015. Table is provided for illustrative purposes. For a comparison of the Top 10 Index Members in the S&P 500 versus the S&P/NZX 50 Portfolio Index, see Exhibit 8 in the Appendix.

While the U.S. is the world's largest economy, New Zealand only accounts for 0.26% of the world economy. Despite that, the S&P 500 and S&P/NZX 50 Index capture the largest and most-liquid stocks from their respective markets; the S&P 500 has significantly higher investment capacity and tradability. Constituents of the S&P 500 have combined total market capitalizations and average daily traded values (ADTV) of USD 19 trillion and USD 133 billion, respectively, whereas constituents of the S&P/NZX 50 Index have combined total market capitalizations and ADTV of just USD 54 billion and USD 122 million, respectively.

Exhibit 2: S&P 500 and S&P/NZX 50 Index Size and Liquidity Statistics					
INDEX		T FLOAT-ADJUSTED AP (USD BILLION)	CONSTITUENT 3-MONTH ADTV (USD MILLION)		
	S&P 500	S&P/NZX 50 INDEX	S&P 500	S&P/NZX 50 INDEX	
Mean	37.3	1.1	264.4	2.4	
Median	17.4	0.6	156.9	1.1	
Largest	656.3	3.7	6990.3	36.3	
Smallest	1.8	0.1	24.4	0.1	
Sum of Constituents	18,702.9	53.5	132,711	122.1	

Source: S&P Dow Jones Indices LLC, NZX. Data as of Sept. 17, 2015. ADTV: Average daily traded values. Market cap is calculated as the share price multiplied by the number of shares at the security level. Table is provided for illustrative purposes.

Both the S&P/NZX 50 Index and S&P 500 are well diversified across sectors, and no individual sector dominates either index. The S&P/NZX 50

The S&P 500 has its

across periods of

contraction in the

expansion and

economy.

highest concentration in IT and financials, which tend to be more cyclical Index is most concentrated in utilities (18.4%) and health care (16.5%), which are both defensive sectors, while the S&P 500 has its highest concentration in information technology (20.1%) and financials (16.3%), which tend to be more cyclical across periods of expansion and contraction in the economy.

The S&P 500 has significantly higher weighting in the IT sector compared to the S&P/NZX 50 Index. The biggest companies in the IT sector, such as Apple, Microsoft, and Google, are global leaders in the tech hardware, software, and internet services industries. These companies represent more than 39% of the S&P 500's IT sector composition, and around 23% of the S&P Global BMI's² IT sector.

Despite the fact that both the S&P 500 and S&P/NZX 50 Index have heavy weighting in the health care sector (>15%), health care companies in the S&P 500 are much larger than those in the S&P/NZX 50 Index. The largest S&P 500 health care names, such as Johnson & Johnson, Pfizer, and Roche, are worldwide providers of pharmaceutical products. These companies make up more than 25% of the S&P 500's health care sector composition and around 13% of the S&P Global BMI's health care sector.

25% ■S&P 500 ■S&P/NZX 50 Index 20.1% 20% 18.4% 16.3% _{15.4%} 16.5% 14.4% 14.2% 15% 13.1% 0.7% 10.5% 9.7% 10.2% 9.3% 10% 7.0% 5% 2.9% 2.5% Telecommunication services

Exhibit 3: Sector Weighting of the S&P 500 Versus the S&P/NZX 50 Index

Source: S&P Dow Jones Indices LLC, NZX. Data as of Sept. 17, 2015. Chart is provided for illustrative purposes. For a comparison of the sector weighting of the S&P 500 versus the S&P/NZX 50 Portfolio Index, see Exhibit 9 in the Appendix.

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.

Apart from their differences in sector composition, the S&P 500 and S&P/NZX 50 Index have also been affected by different economic factors in the past. The S&P 500 measures the equity market performance of the world's largest economy, the U.S., which accounts for 22% of the global economy, while the S&P/NZX 50 Index captures performance of equities in New Zealand, which accounts for only 0.3% of the global economy.³

Foreign sales have consistently contributed to more than 40% of S&P 500 revenue in the past decade. In 2014, 47.8% of S&P 500 revenue came from outside of the U.S., with 7.9% from Asia, 7.5% from Europe, and 4.1% from Africa⁴ (see Exhibit 4). The diverse geographical revenue sources may translate into high international diversification benefits for the S&P 500.

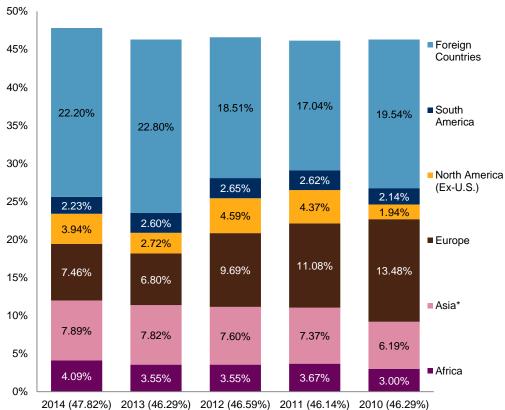


Exhibit 4: S&P 500 Foreign Sales by Region

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

Source: S&P Dow Jones Indices LLC. Data as of June 2015 from the "<u>S&P 500 2014: Global Sales</u>" report. Figures in parentheses are percentages of total foreign sales for each year. *Foreign sales percentage for Asia includes Australia. Chart is provided for illustrative purposes.

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

Members of the S&P 500 represent a significant part of global equity market capitalization, revenue, and earnings, as many of them are leading

Based on the IMF's 2014 nominal GDP figures from the "World Economic Outlook Database, April 2015."

⁴ For further details, please see "S&P 500 2014: Global Sales"

global companies. S&P 500 companies represent 41% of the total market capitalization of the S&P Global BMI, and 64 of the constituents are among the top 100 largest stocks in the S&P Global BMI.⁵ In 2014, S&P 500 companies generated more than 23% of corporate revenues and 32% 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 IT sector, with a spread of 15%.

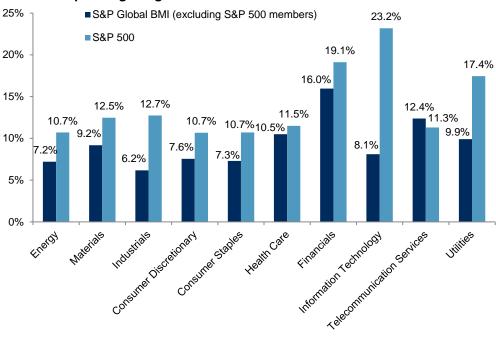


Exhibit 5: Operating Margin of S&P 500 Sectors

S&P 500 companies have delivered higher operating margins than their global sector peers, especially in the IT sector.

Source: S&P Dow Jones Indices LLC, Worldscope. Data as of Aug. 31, 2015. Figures based on company-reported operating income and revenue in FY2014. Past performance is no guarantee of future results. Chart is provided for illustrative purposes.

Because 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. Additionally, the brand power of these companies helps them to sell their products at premium prices and maintain higher margins. Based on the Best Global Brand 2014 report, published by the worldwide brand consultant Interbrand, 52 of the top 100 global brands are members, or are owned by members, of the S&P 500. These brands scored well on the valuation-based competitive strength of the brand, the role the brand plays in the purchase decisions, and the financial performance of the branded products or services. Apple, Google, Coca-Cola, IBM, Microsoft, GE, and McDonald's are seven of the top 10 global brands.

⁵ Based on float-adjusted market cap in USD on Aug. 31, 2015.

⁶ For more details, please see the article "America's Most Profitable Products" by Thomas C. Frohlich and Alexander E.M. Hess.

For methodology and a complete list of the 100 best global brands, please see http://www.bestglobalbrands.com/2014/methodology/.

Exhibit 6: Top 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	Citi	Citigroup Inc.
2	Google	Google Inc.	50	Colgate	Colgate-Palmolive Co.
3	Coca-Cola	Coca-Cola Co.	61	Caterpillar	Caterpillar Inc.
4	IBM	Intl Business Machines Corp.	62	Xerox	Xerox Corp
5	Microsoft	Microsoft Corp.	63	Morgan Stanley	Morgan Stanley
6	GE	General Electric Co.	66	3M	3M Co.
9	McDonald's	McDonald's Corp.	67	Discovery	Discovery Communications Inc.
12	Intel	Intel Corp.	68	KFC	Yum! Brands Inc.
13	Disney	Walt Disney Co.	69	VISA	Visa Inc.
14	Cisco	Cisco Systems Inc.	71	Tiffany	Tiffany & Co.
15	Amazon	Amazon.com Inc.	72	Sprite	Coca-Cola Co.
16	Oracle	Oracle Corp.	76	Starbucks	Starbucks Corp.
17	HP	Hewlett-Packard Co.	77	Adobe	Adobe Systems Inc.
18	Gillette	Procter & Gamble	78	Johnson & Johnson	Johnson & Johnson
22	Nike	NIKE Inc. B	79	John Deere	Deere & Co.
23	American Express	American Express Co.	80	MTV	Viacom Inc.
24	Pepsi	PepsiCo Inc.	82	Chevrolet	General Motors Company
27	UPS	United Parcel Service Inc. B	83	Ralph Lauren	Ralph Lauren Corp.
28	eBay	eBay Inc.	84	Duracell	Procter & Gamble
29	Facebook	Facebook Inc.	85	Jack Daniel's	Brown-Forman Corp.
30	Pampers	Procter & Gamble	87	Harley- Davidson	Harley-Davidson Inc.
32	Kellogg	Kellogg Co.	88	MasterCard	MasterCard Inc.
35	JPMorgan	J.P. Morgan Chase & Co.	89	Kleenex	Kimberly-Clark
39	Ford	Ford Motor Co.	92	FedEx Corp.	FedEx Corp.
44	Accenture	Accenture plc	96	Pizza Hut	Yum! Brands Inc.
47	Goldman Sachs	Goldman Sachs Group Inc.	99	GAP	Gap Inc.

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

Source: S&P Dow Jones Indices LLC, Interbrand (http://www.bestglobalbrands.com/2014/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 the underlying index. Twice a year, S&P Dow Jones Indices releases the SPIVA® Scorecard, which tracks the number of actively managed mutual funds that beat their comparable benchmarks over different timeframes.8

The SPIVA U.S. Mid-Year 2015 Scorecard showed that the S&P 500 outperformed more than 65% of active U.S. large-cap funds in the 12-month period ending June 2015. Performance of active U.S. large-cap funds looks even more unfavorable over longer investment periods, as 81% and 80% of them underperformed the S&P 500 over the 5- and 10-year periods, respectively (see Exhibit 7). 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. These results indicate that index-based investing may be a viable complement to or substitute for actively managed investments in the U.S. equity market.

There has been an increasing number of S&P 500 exchange-traded products listed in various markets across the globe.

Exhibit 7: 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	7.43	17.31	17.34	7.89
Active U.S. Large-Cap Funds (Equal-Weighted Average)	5.75	16.02	15.51	7.03
Active U.S. Large-Cap Funds (Asset-Weighted Average)	6.29	16.62	15.86	7.24
% of Active U.S. Large-Cap Funds Outperformed by S&P 500	65.34	64.47	80.80	79.59

Source: S&P Dow Jones Indices LLC. Data as of June 2015, as reported in the SPIVA U.S. Mid-Year 2015 Scorecard. Past performance is no guarantee of future results. It is not possible to invest directly in an index, and index returns do not reflect expenses an investor would pay.

CONCLUSION

The S&P 500 and the S&P/NZX 50 Index are considered primary indicators of overall market performance in the U.S. and New Zealand equity markets, respectively. Both indices comprise the largest and most-liquid stocks from their respective markets, but the S&P 500 has much greater stock diversification and its members are significantly more liquid compared with those of the headline New Zealand index.

Despite the fact that both the S&P 500 and the S&P/NZX 50 Index are well diversified across sectors, the S&P/NZX 50 Index's highest concentration is in the utilities sector, which is mostly domestic, whereas the S&P 500's highest concentration is in the IT sector, which has greater overseas revenue exposure. The S&P 500 has high and diverse international revenue year after year, which may translate into significant international diversification benefits.

⁸ For the complete analysis on U.S. active funds versus S&P DJI U.S. benchmark returns, please see the most recent SPIVA U.S. Scorecard.

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 in 2014, and more than one-half of the top brands across the globe are members, or are owned by members of the S&P 500.

Additionally, the majority of active U.S. large-cap funds were outperformed by the S&P 500 over the one-, three-, five- 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.

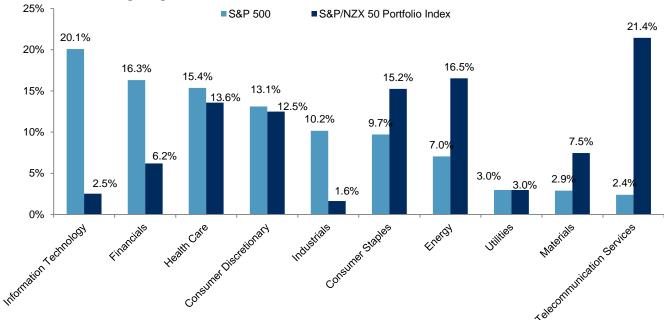
All of these factors drive international appetites for the S&P 500, and as a result, there has been an increasing number of S&P 500 exchange-traded products listed in various markets across the globe.

APPENDIX

Exhibit 8: Top 10 Index Members in the S&P 500 and the S&P/NZX 50 Portfolio Index				
S&P 500 STOCKS	WEIGHT (%)	S&P/NZX 50 PORTFOLIO INDEX STOCKS	WEIGHT (%)	
Apple Inc.	3.7	Contact Energy	6.6	
Google Inc. (A & C)	2.1	Fisher & Paykel Healthcare Corp.	5.6	
Microsoft Corp.	2.0	Spark New Zealand	5.6	
Exxon Mobil Corp.	1.8	Auckland Intl. Airport	4.9	
Johnson & Johnson	1.5	Meridian Energy	4.9	
General Electric Co.	1.5	Ryman Healthcare Group	4.6	
Wells Fargo & Co.	1.4	Fletcher Building	4.4	
Berkshire Hathaway B	1.4	SkyCity Entertainment Group	4.0	
JPMorgan Chase & Co.	1.3	Sky Network Television	3.4	
Pfizer Inc.	1.2	Mighty River Power	3.0	
Total Weight of Top 10 Companies	17.9	Total Weight of Top 10 Companies	47.1	

Source: S&P Dow Jones Indices LLC, NZX. Data as of Sept. 17, 2015. Table is provided for illustrative purposes.

Exhibit 9: Sector Weighting of the S&P 500 Versus the S&P/NZX 50 Portfolio Index



Source: S&P Dow Jones Indices LLC, NZX. Data as of Sept. 17, 2015. Chart is provided for illustrative purposes.

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