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The Better Barometer?

Dow Jones Industrial Average vs. S&P 500 Index

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There are many barometers for measuring economic strength or weakness and derivatively, stock market performance. Two of the most common are the Standard & Poor's 500 Index and the Dow Jones Industrial Average (DJIA). There has always been considerable debate about which one is more indicative of the health of the U.S. economy and is a better representation of overall stock market performance. This commentary attempts to discern the differences between arguably, the two most widely-followed indices in the world.

Composition & Methodology

The DJIA is an index that tracks 30 large, publicly-owned companies that trade on the New York Stock Exchange and NASDAQ. The Dow components are chosen by a committee and there are no specific rules for inclusion. Generally, components of the Dow should be large and respected companies that represent a broad swath of the U.S. economy. However, they are not the 30 largest companies in the market which is a common misconception. In determining the value of the Dow, a price-weighted formula is used which gives greater weight to those stocks in the index that trade at a higher price.

The S&P 500 is an index that tracks 500 of the largest U.S. publicly-traded companies. Its components are also chosen by a committee with specific rules for inclusion which, among other things, include:

1) Headquarters domiciled in the U.S.
2) A minimum $8.2 billion market capitalization
3) The majority of shares are traded publicly
4) At least six months since its public offering
5) Aggregate profit over the previous four quarters

Similar to the Dow, S&P applies weightings to the individual stocks that comprise the index. However, the weighting is based on individual company market capitalization and not share price. The end result is an index that skews toward the largest publicly-traded companies.

Sector & Style Diversification

An analysis of sector weightings for each index reveals that the S&P 500 maintains broader sector exposure since the DJIA has little-to-no exposure to the Real Estate, Utilities, and Basic Materials sectors which comprise 8% of the U.S. economy. However, both indices significantly overweight the Technology and Healthcare sectors as compared to their overall economic impact. Of note, 12% of the U.S. economy is government-related and this amount must be allocated by Dow and S&P to specific sectors at their discretion.

Sector Weightings

Sector	US Economy	S&P	DJIA
Financial Services	19%	16%	20%
Industrials	15%	10%	18%
Technology	13%	20%	18%
Healthcare	9%	14%	14%
Communication Services	6%	10%	5%
Consumer Cyclical	6%	10%	13%
Consumer Defensive	6%	8%	7%
Energy	6%	4%	4%
Real Estate	4%	3%	1%
Utilities	2%	3%	0%
Basic Materials	2%	2%	0%
Government	12%		

Capitalization & Style % Weightings

	S&P Value	S&P Blend	S&P Growth	DJIA Value	DJIA Blend	DJIA Growth
Large Cap	30	32	28	36	52	12
Mid Cap	4	4	2	0	0	0
Small Cap	0	0	0	0	0	0

Source: Morningstar, BEA, US Department of Commerce
Data as of 01/31/20

A significant difference between the two indices is their allocation percentages to various sub-asset classes and styles. The S&P 500 devotes 10% of the index to mid cap stocks while the DJIA is exclusively represented by large cap stocks. Additionally, the DJIA maintains a considerably lower allocation to growth stocks (12%) than the S&P 500 (28%).

Observations

- As a barometer of overall U.S. economic performance, the S&P 500 maintains broader coverage among all economic sectors with more balanced weightings. Each index, though, is generally representative of the U.S. economy.
- If an investor is in pursuit of broader diversification among market capitalizations and styles, the S&P 500 would appear to be the better match with its similarly-weighted exposure to the value and growth styles and small allocation to mid cap stocks.

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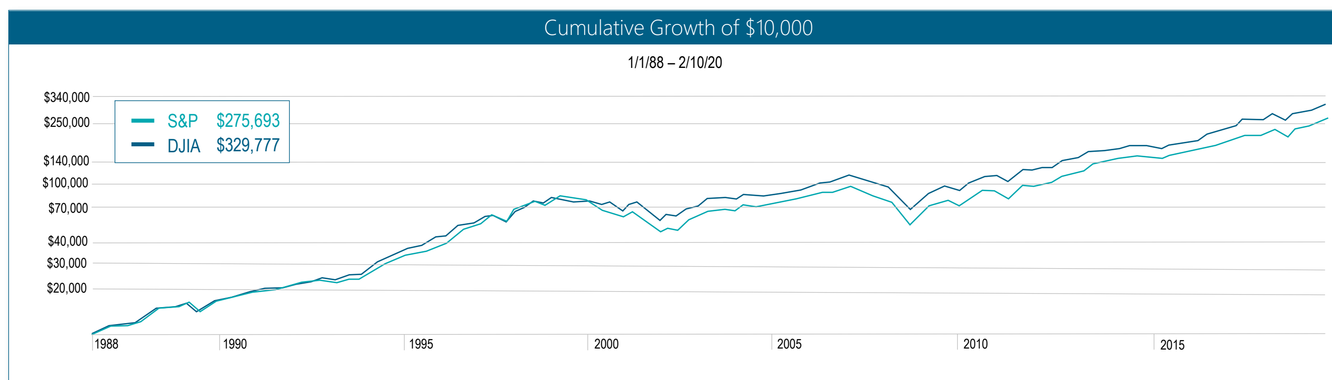
Performance & Risk

With variations in selection methodology, number of stocks, sector representation, sub-asset class and style allocations, it is natural to expect significant differences in performance and risk between the DJIA and S&P 500 Index. However, a closer look at each index reveals that, while there are meaningful short-term differences in performance and risk, longer-term results are quite similar.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Cumulative
DJIA %	14.06	8.38	10.24	29.65	10.04	0.21	16.50	28.11	-3.48	25.34	251.78
S&P 500 %	15.06	2.11	16.00	32.39	13.69	1.38	11.96	21.83	-4.38	31.49	256.65
Spread %	1.00	6.27	5.76	2.74	3.65	1.17	4.54	6.28	1.00	6.15	4.87

The deviations in short-term performance are likely a result of differences in industry weightings for each index as industry performance is very cyclical. However, over the longer-term, this cyclicality balances out (i.e. bad times followed by good, good times followed by bad) which results in comparable cumulative performance over the full measurement period.



Similar to the long-term cumulative performance, the risk measurements of each index are comparable as seen below. Contemplating all measurements, the DJIA appears to demonstrate slightly less volatility than the S&P 500 while demonstrating a marginally higher rate of return per unit of risk over the long-term as evidenced by the Sharpe Ratio measurement.

Standard Deviation %

	1-Year	3-Year	5-Year
DJIA	11.71	12.17	12.08
S&P 500	11.49	12.12	11.85

Sharpe Ratio

	1-Year	3-Year	5-Year
DJIA	1.14	1.08	1.00
S&P 500	1.60	1.04	0.95

Beta

	1-Year	3-Year
DJIA	0.98	0.97
S&P 500	1.00	1.00

Valuation Multiples

	P/E	P/B	P/S	P/CF
DJIA	19.4	3.3	2.1	14.1
S&P 500	22.2	3.4	2.4	14.1

Source: Morningstar. Data as of 01/31/20

Conclusion

Both the Dow Jones Industrial Average and the S&P 500 are suitable benchmarks for measuring overall U.S. economic activity and equity market performance. Despite their differences in the number of companies that comprise each index, sector representation, and sub-asset class/style weightings, the longer-term performance and risk profiles are quite comparable. A key distinction between these two indices and others is the emphasis placed on company size or share price in determining the weighting in the index. This results in larger companies having a greater influence on index performance and risk. For investors seeking a more balanced approach to index construction, consideration should be given to pursuing an index that employs an "equal-weighting" methodology.

Past performance is no guarantee of future results. Sources: Morningstar, BEA, US Department of Commerce. Index holdings and risk statistics are as of 01/31/20. Returns represented by total return of the Dow Jones Industrial Average and S&P 500 Index. It is not possible to invest in an index. This information is intended to be educational and is not tailored to the investment needs of any specific investor. *2020.03.16 JJ*

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