Standard and Poor's 500

The S&P 500 is meant to provide a barometer of the US stock market and economy covering about 80% of the market capitalization of all US stocks.

The companies in the S&P 500 derive about 73% of their revenue from their USA business and 27% from international business. While for the overall US economy imports/ exports count for 25% of US GDP (2021)

Finance, insurance, real estate rental and leasing make up about 21% of US GDP (2021). While they make up less then 10% of the S&P 500 value

By sector the S&P 500

27% Information Technology

14% Health care

11% Consumer Discretionary

11% Communication service

10% Financial

7% Consumer staples

7% Industrials

3% Real estate

2 ½ % Materials

2 ¼% energy

HISTORY

The first index/average to track the market was created in 1884 by Charles Dow. It was the Dow transportation index. The Dow Industrial Average was Introduced in *The Wall Street Journal* on May 26, 1896, the DJIA was the first index of stock market activity. Originally it was 12 companies, and they simply took the closing price per share and divided by 12.

Today there are 30 stocks, and the average is price weighted, giving more weight to high price stocks.

In a price-weighted index, a stock that increases from \$110 to \$120 will have the same net effect on the index as a stock that increases from \$10 to \$20, even though the percentage move for the latter is far greater than that of the higher-priced stock.

The S&P 500 Index, or Standard & Poor's 500 Index, is a <u>market-capitalization-weighted index</u> of 500 leading publicly traded companies in the U.S.

S&P created its first stock index in 1923 with 233 stocks. And computed the change on a weekly basis.

Then in 1926 they created what is now the S&P 500 with 90 stocks.

it expanded to 500 stocks in 1957 (March 4th)

At that time there were 425 Industrial stocks, 15 rails, 60 utilities. The largest weighted stock was ATT

1957 Market cap was 172 billion. End of 2022 = 40 trillion (this is about 8.75% return, BUT calculation does NOT include dividends or div reinvestment)

??? of the original 500 stocks are still in the S&P 500 today

1958 is the best year ever up 38% (good timing!)

2008 is the worst year down 38.49%

8/31/1976 Vanguard offers first sp500 index tracking MF VFINX

4/21 1982: first sp500 futures trading begins

07/01/1983 first options trading in Sp500

The SPY ETF started trading 01/22/1993

02/02/1998 SPY closes above 1000 for the first time (5.85% annual return, not including dividends)

10/11/2007 hits 1576, its pe-financial crisis high

03/09/2009 bottoms at 676 (closing price, intraday was 666)

If you had bought it that day your return is 13.6% annualized NOT including dividends

Price weighted vs market weighted are important differences

It is not an exact list of the top 500 U.S. companies by <u>market cap</u> because there are other criteria that the index includes. It is making an attempt to represent the overall activity of the US economy (though many companies have large parts of there revenue derived from international business).

Still, the S&P 500 index is regarded as one of the best gauges of prominent American equities' performance, and by extension, that of the stock market overall.

KEY TAKEAWAYS

The S&P 500 uses a <u>market-cap weighting method</u>, giving a higher percentage allocation to companies with the largest market capitalizations.

DJIA is price weighted

Company Weighting in $S \& P = \frac{Company\ market\ cap}}{Total\ of\ all\ market\ caps}}$ Weighting in $S \& P = Total\ of\ all\ market\ caps$

The S&P only uses <u>free-floating</u> shares when calculating market cap, (since 2005) meaning the shares that the public can trade. So a company that has a large percentage of "unissued" or "insider" shares may have a different market valuation in the index than what it shows when looking at the company financials. Also stocks with a large percentage of their total outstanding shares being "Stock Options" the valuation in the index can change dramatically if stock options are exercised (see TSLA, or almost any tech stock in the 1990's.)

Example:

Apple Inc. (AAPL) reported 16.71 billion basic common shares issued and outstanding in their October 2021 annual filing and had a stock price of \$173 as of Feb. 15, 2022.

Apple's market cap is \$2.82 trillion (or 16.32 billion x \$173) as of Feb. 15, 2022. The \$2.82 trillion is used as the numerator in the index calculation.

- The S&P 500 total market cap is approximately \$40.15 trillion as of Jan. 31, 2022, which is the sum of the market caps for all of the stocks in the index.
- Apple's weighting in the index was approximately 7%, or \$2.82 trillion divided by \$40.15 trillion.

The ten stocks (nine companies) that have the most impact on the sp 500 these stock make up 24% of the weighting

- Apple (AAPL): 6.99%
- Microsoft (MSFT): 5.63%
- Amazon (AMZN): 3.32%
- Alphabet Class A (GOOGL): 1.93%
- Alphabet Class C (GOOG): 1.71%
- Berkshire Hathaway Class B (BRK. B): 1.59%
- NVIDIA
- EXXON
- UnitedHealth Group (UNH): 1.54%

In early 2022 TSLA was as high as 7th on the list, the list can change radically

The 12 largest US companies by revenue are:

Walmart which is 30th in sp500 weighting

Amazon

Apple

CVS 72nd

Untied Health

Exxon

Berkshire Hathaway

Alphabet

McKesson 135th

Amerisource Bergen 269th

Microsoft

Costco 28th

DJIA top 15 stocks by index weighting with top 10 =55%

United Health 9.75%

Goldman Sachs 7.2%

Home depo 5.9%

McDonalds 5.4%

Microsoft 5.00%

Cat 4.74%

Amgen 4.71%

Visa 4.4%

Boeing 4.1%

Honeywell 3.9%

Travelers 3.7%

AXP 3.5%

Salesforce 3.25%

Chevron 3.2%

JNJ 3.15%

Apple 3.00%

Walmart 2.9%