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# Stock Indexes

## Stock Indexes

- What are stock indexes?
- How can you use stock indexes?
- How do individual securities affect an index's performance?
- What are some specific stock indexes?

### What are stock indexes?

A stock index is a standardized composite used to measure and report value changes in representative stock groupings. As such, it functions as a theoretical portfolio. Strictly speaking, a stock index is distinct from a stock average. In practice, however, the two terms often are used interchangeably. The concept of a stock index is not difficult to understand. It is simply an indicator of stock price movements. Each index targets a certain group of stocks and reflects the net result of fluctuating daily values for all stocks in the group.

An index also tracks the number of shares outstanding for companies in the index. Some indexes are broad-based in that they are comprised of many individual stocks (for example, the Wilshire 5000). They are more representative of the overall stock market than an index that is more narrowly based, meaning that it tracks a smaller number of stocks in a particular industry or segment of the stock market (for example, small-cap stocks). An extensive number and variety of stock indexes exist. The Dow Jones Industrial Average, the Nasdaq Composite Index, and the S&P 500, which you probably hear mentioned on the news every day, are three of the most widely used stock indexes.

### How can you use stock indexes?

Stock indexes can have several uses for the individual investor. Most obviously, if checked regularly, they can provide valuable information needed to stay abreast of how the stock market in general or a particular segment of it is faring. An index also can be used to compare the performance of an individual investment to a group of its peers; in this case, it is said to be a benchmark.

Indexes also are used as the basis for certain investment vehicles. Many people invest in one or more stock indexes in an effort to reduce their risk and/or assure themselves that their return will at least match that of the general type of investment that the index covers. The two most common ways to invest in a particular index are (1) an index mutual fund whose holdings are virtually identical to the index you want, and (2) an exchange-traded fund, which also attempts to replicate an index but which trades like a stock.

Selected indexes also are used as the underlying value of stock index futures, index options, and other derivatives that enable highly knowledgeable investors to hedge against general market movement at a low cost.

### How do individual securities affect an index's performance?

Indexes tend to be either price-weighted or market capitalization-weighted. If an index is price-weighted, as the Dow Jones Industrial Average is, the impact of each stock on the overall average is proportional to its price compared to other stocks in the index. With a price-weighted index, the highest-priced stocks would have the most impact on the average. For example, a stock that sells for \$80 per share and drops 1 percent would have more impact on the overall index's performance than a 1 percent drop in a stock that sells for \$40 a share.

If an index is market capitalization-weighted or market value-weighted, as the Nasdaq Composite Index is, the average of the index is adjusted to take into account the relative size of each company (its market cap) to reflect its importance to the index. That means that stocks with a larger market capitalization have a greater influence on how the index performs than stocks with a smaller market capitalization. If the stock of a \$10 billion market-cap company drops by 1 percentage point, it will drag down the index's performance more than a 1 percentage point drop in the share price of a \$1 billion market-cap company.

## What are some specific stock indexes?

### ***American Stock Exchange Composite Index***

The American Stock Exchange Composite Index (abbreviated XAX) is a market capitalization-weighted (i.e., weighted based on the value of a corporation as determined by the market price of its outstanding shares of common stock) price appreciation index. This particular index was introduced by the American Stock Exchange (sometimes called the AMEX) in January 1997 and replaced the American Stock Exchange Market Value Index (abbreviated XAM) that had been used since 1973.

The Composite Index does not count dividends when calculating the return on securities in the index. Many investors thought that it was unrealistic to assume that dividends were always reinvested. Thus, the old index gave a somewhat positively skewed picture of the underlying securities' performance.

The Composite Index includes a wide variety of securities—common stocks, American depositary receipts (ADRs), American stock exchange-listed companies, real estate investment trusts (REITs), closed-end investment companies, and master limited partnerships. The XAX computes the aggregate market value of all of these securities (or components) and then compares this number to the value of the same components on the base date of December 29, 1995. Each component's market value is computed by multiplying the number of shares outstanding by the price of that component.

### ***Chicago Board of Exchange Volatility Index***

One way investors sometimes try to estimate short-term volatility in the market as a whole is to look at the Volatility Index (VIX) created by the Chicago Board Options Exchange. The VIX is calculated as a percentage figure by averaging the prices of options on the S&P 500 index. The figure, which is calculated minute-by-minute based on ongoing options trading, is used to gauge investor expectations for market volatility over the next 30 days. Though past performance is no guarantee of future results, options prices tend to rise when the markets are in turmoil and investor anxiety is high. That also pushes up the VIX (sometimes referred to as the fear index). When

investors are feeling more certain about the future, options prices and the VIX tend to drop. Investors also trade in derivatives based on the VIX.

### ***Commodities/futures indexes***

A variety of commodities indexes measure the prices (or performance) of physical commodities such as oil, gold, silver, wheat, and similar goods. Three of the major commodity indexes (there are many) are the Journal of Commerce Index, the Reuters Index, and the Economist Index.

Because of the difficulty of actually buying and holding many physical commodities, most individuals and institutions prefer to purchase futures contracts, either on individual commodities or on the indexes themselves. The futures indexes measure the prices of these physical commodities by measuring the price of futures contracts on the underlying commodities. Futures indexes vary depending on the specific commodity measured and the way in which futures contracts are weighted within each index.

### ***Dow Jones Industrial Average (DJIA)***

The Dow Jones Industrial Average (abbreviated DJIA and sometimes called just the Dow) is a price-weighted average of 30 large, blue-chip industrial stocks. Companies tracked in the DJIA include AT&T, Boeing, Coca-Cola, Exxon, General Motors, IBM, McDonald's, and other similar well-known, actively traded companies.

The DJIA is calculated by adding the trading prices for all of the component stocks and then using a divisor to calculate the average. The divisor is adjusted to account for stock dividends and stock splits, substitutions and mergers, and cash equivalent distributions equal to 10 percent or more of the closing price for an issue in the average. The average is quoted in points, not dollars. Thus, you may hear a newscaster report that the Dow was up 38 points for the day.

The Dow Jones Industrial Index is the oldest and best-known index of stocks. Its component stocks represent between 15 and 20 percent of the entire market value for all stocks on the New York Stock Exchange. Not surprisingly, many institutional and individual investors use the DJIA as a tool to measure changes in prices for the entire stock exchange. Furthermore, for many years, certain investors have used the DJIA as the basis to interpret the Dow Theory, which tries to predict the course of the stock market, and formulate trading strategies. Futures on the DJIA are traded on the Chicago Board of Trade, and options on the average are traded on the Chicago Board Options Exchange.

### ***Dow Jones Utility Average***

The Dow Jones Utility Average (abbreviated DJUA) is a price-weighted average of 15 utility stocks. The DJUA is comprised of geographically diverse gas and electric utilities located in the United States. The DJUA is calculated by adding the trading prices for all of the component stocks and then using a divisor to calculate the average. The divisor is adjusted to account for stock dividends and stock splits, substitutions and mergers, and cash equivalent distributions equal to 10 percent or more of the closing price for an issue in the average. The DJUA is quoted in points and not dollars.

The Dow Jones Utility Average is not as widely known or as widely used as its more favored cousin—the Dow Jones Industrial Average (DJIA). Because the utility average represents only one

narrow sector of the economy, the general investing public and even many institutional investors do not pay much attention to this index. Like the DJIA, Dow Jones & Co. (publisher of The Wall Street Journal) selects the stocks for the utility average and publishes the average.

### ***Financial Times Stock Exchange 100 Index***

The Financial Times Stock Exchange 100 Index (abbreviated FTSE 100) is a market capitalization–weighted stock index of the top 100 companies in the United Kingdom. The 100 companies are ranked according to their market capitalization. The index is reweighted every day, and during the day, it is reweighted every minute. The Financial Times Stock Exchange 100 Index is calculated by FTSE International, an independent company wholly owned by the Financial Times (a financial newspaper located in the United Kingdom) and the London Stock Exchange. FTSE International reviews the makeup of the index quarterly. Additions and deletions of companies from the index are made based on rules supervised by the FTSE Actuaries Share Indices Steering Committee, an independent body.

### ***Morgan Stanley EAFE Index***

The Morgan Stanley EAFE Index (EAFE is an abbreviation for Europe, Australia, and the Far East) is a market capitalization–weighted index of stocks in major developed countries around the world, besides the United States. Unlike the Morgan Stanley Emerging Markets Index, which measures the performance of foreign stocks in smaller emerging countries, the EAFE Index concentrates on stocks in the larger, more industrialized nations of the world. For this reason, the EAFE Index tends to be less volatile than the Emerging Markets Index. Like many other stock indexes, the Morgan Stanley EAFE Index can be a useful analytical tool for both individual and institutional investors. Many international institutional investors compare the performance of their portfolios against the performance of the EAFE Index.

### ***Morgan Stanley Emerging Markets Index***

The Morgan Stanley Emerging Markets Index is a market capitalization–weighted index of 780 stocks from 23 emerging countries, primarily in Latin America and Southeast Asia. The term emerging countries refers to smaller nations whose economies are not as industrialized as those of larger countries. Because they are less developed, many of these economies may grow much more rapidly than those of other regions. However, these countries are more susceptible to economic setbacks and other related problems. Therefore, many of the stocks included in this index tend to be more volatile than stocks in the more developed countries—they rise faster in good times and fall more rapidly in bad times.

### ***Nasdaq Composite Index***

The Nasdaq Composite Index is a market value–weighted index that includes all of the stocks (more than 4,500 foreign and domestic) traded on the National Association of Securities Dealers Automated Quotation system, an electronic network of securities dealers.

The market values of those stocks are calculated throughout the trading day and are related to the total value of the index. Each stock in the Composite Index is assigned to a Nasdaq subindex. Several subindexes are categorized by industry—banks, biotechnology, computers, industrials,

insurance, other finance, transportation, and telecommunications. The Nasdaq Composite Index also includes many high-tech companies whose stocks first began trading after the Nasdaq system was launched in 1971.

Like many other stock indexes, the Nasdaq Composite Index is used by individual and institutional investors to track the performance of all of the stocks traded on the Nasdaq. Many institutional investors who invest primarily in Nasdaq stocks use this index as a yardstick by which to measure the performance of their portfolios. An individual will also find this index useful to compare performances of mutual funds that invest in Nasdaq stocks.

### ***Nasdaq 100 Index***

The Nasdaq 100 Index is a market capitalization-weighted index of the largest and most actively traded nonfinancial stocks on the Nasdaq. This index includes both U.S. and foreign stocks. All stocks in the Nasdaq 100 Index come from the top 125 eligible securities in terms of market value. To be eligible, a U.S. stock must have a minimum average trading volume of at least 100,000 shares per day and must have been listed on the Nasdaq for at least two years. The market value is determined once a year, on October 31.

### ***New York Stock Exchange (NYSE) Index***

The New York Stock Exchange Index is a market value-weighted index of all of the stocks traded on the New York Stock Exchange. This index is weighted by multiplying the number of shares outstanding for each company by the price of that stock (in other words, the aggregate market value for each company). Any stock splits or stock dividends do not require an adjustment to the index because the aggregate market value of the company will not be affected. For example, if a NYSE-listed company has 1 million shares outstanding with a per share price of \$50, its aggregate market capitalization is \$50 million. If the company splits the stock two for one, it will have 2 million shares selling for \$25 per share. Its aggregate market capitalization is still \$50 million.

An adjustment to the index may be necessary if a new company is listed on the exchange or if a company is delisted. Also, an adjustment to the base amount of the index may be needed if a listed company merges with a company not listed on the New York Stock Exchange. The base date for the New York Stock Exchange Index is December 31, 1965. The index was first published in July 1966.

### ***Russell 3000 Index***

The Russell 3000 Index is a market capitalization-weighted index of the 3,000 largest companies in the United States. It is compiled and published by the Frank Russell Company in Tacoma, Washington. The 3,000 stocks in this index represent about 98 percent of the U.S. equity market. The Frank Russell Company also breaks down this particular index into two other major equity indexes—the Russell 1000 Index and the Russell 2000 Index.

### ***Russell 2000 Index***

The Russell 2000 Index is a market capitalization-weighted index of small company stocks in various industries; it consists of the 2,000 smallest companies in the Russell 3000 Index. The

Russell 2000 Index represents about 10 percent of the total market capitalization of the Russell 3000 Index, and is often used as a benchmark to compare the performance of small-cap stocks.

### ***Russell 1000 Index***

The Russell 1000 Index is an index of the 1,000 largest publicly traded stocks (based on market capitalization). It includes stocks traded on the major exchanges (the New York and American Stock Exchanges) and on the Nasdaq market. The index itself is weighted by the market capitalization of each stock. The Frank Russell Company also breaks the Russell 1000 Index down into two other subindexes. The Russell Top 200 Index includes the top 200 companies in the Russell 1000, representing 65 percent of the total market capitalization for the Russell 1000 companies. The Russell Mid-Cap Index measures the performance of the 800 smallest companies in the Russell 1000 Index.

### ***Standard & Poor's 500 Composite Index***

The Standard & Poor's 500 Composite Index (often abbreviated as simply the S&P 500) is a market value-weighted index of 500 widely held U.S. common stocks. It is compiled and published by the Standard & Poor's Corporation, a financial advisory, securities rating, and publishing firm.

The companies included in the index are large-capitalization stocks traded on the New York Stock Exchange and the Nasdaq stock market. A committee decides which companies are represented in the index, based on market cap (\$4 billion plus), liquidity, and financial viability. It also tries to maintain a representative weighting of industries.

Because it represents so many more companies—about 80 percent of the total market—the S&P 500 Index is a much broader and more representative index of the U.S. equity markets than is the Dow Jones Industrial Average. The stocks in the Dow Jones Industrial Average represent only about 20 percent of the total capitalization of all U.S. equities.

### ***Standard & Poor's 400 MidCap Stock Index***

The Standard & Poor's 400 MidCap Stock Index (often abbreviated as the S&P 400 Index) is a market value-weighted index of 400 midcap U.S. companies. Stocks for the S&P 400 are selected by the Standard & Poor's Corporation based on their market size, liquidity, and industry group representation. Standard & Poor's defines a midcap stock as one with a market capitalization of \$1 billion to \$4 billion. Those figures and the individual companies in the index may be changed from time to time to reflect market conditions. The average market cap for an S&P 400 company is around \$3 billion.

### ***Standard & Poor's 100 Stock Index***

The Standard & Poor's 100 Stock Index (usually abbreviated OEX after its ticker symbol) is a market capitalization-weighted index of 100 large-cap U.S. companies. These firms also are included in the Standard & Poor's 500 Stock Index. Although the S&P 100 Index contains only one-fifth of the stocks in the S&P 500 Index, it actually represents about half the total market capitalization of the larger index because it includes most of the largest companies in the 500 Index. The average market cap for an S&P 100 stock is \$61 billion.

### ***TSE 300 Composite Index***

The TSE 300 Composite Index is the most widely used index of stocks listed and traded on the Toronto Stock Exchange. Created and maintained by the Toronto Stock Exchange, it tracks 300 Canadian stocks. For a company to be included, it must be incorporated under Canadian federal, provincial, or territorial jurisdictions. In addition, the exchange sets other requirements for companies to be included in the index (e.g., minimum trading volume, minimum listing period, minimum float). Certain financial instruments, such as limited partnerships, royalty trusts, real estate investment trusts, and other instruments deemed not appropriate by the stock exchange, are not eligible for inclusion in the index. Many institutional investors who purchase Canadian securities use this index as a performance benchmark to measure their own portfolios.

### ***TSE 100 Index***

The Toronto Stock Exchange 100 Index (or TSE 100 Index) includes 100 large Canadian companies that trade on the Toronto Stock Exchange, and is created and maintained by that exchange. The 100 stocks included in the TSE 100 Index must also be included in the TSE 300 Composite Index. Any company in the TSE 300 Composite Index is eligible for the TSE 100 Index, as long as its aggregate trading value for the previous 12 months ranks within the top 150 of the TSE 300 Composite Index. The TSE 100 Index is used as a performance benchmark by many large institutional investors who invest in Canadian securities. The index may also be used by individual investors who want to compare and contrast the performance of mutual funds that invest in large-capitalization Canadian stocks.

### ***Value Line Composite Average***

The Value Line Composite Average is an equally weighted geometric average of 1,700 different stocks, compiled and maintained by Value Line (publisher of the Value Line Investment Survey and other investment information). Most of the 1,700 stocks in the index are traded on the New York Stock Exchange, but some are traded on the Nasdaq and American Stock Exchanges as well. About 1,500 industrial companies are in the index, with the remainder of the stocks split unequally between the utility and transportation sectors.

Although the Value Line Composite Average is technically an average, it closely resembles an index. It uses a base value of 100, established in 1961. Changes in the average are expressed in index numbers rather than dollars. The average is designed to chart the price changes of a wide variety of stocks in many different industries—unlike the Dow Jones Industrial Average, which reflects price changes in the stocks of only 30 large industrial companies.

### ***Wilshire 5000 Equity Index***

The Wilshire 5000 Equity Index is a market capitalization-weighted index of 7,000 U.S.-headquartered equity securities. This index includes virtually all of the U.S. equity securities for which prices are readily available (its name is somewhat of a misnomer, as more than 5,000 stocks are now included). It is created and maintained by Wilshire Associates in California. Approximately 81 percent of the companies in the index trade on the New York Stock Exchange, 17 percent on the Nasdaq, and the remainder on the American Stock Exchange.

Among the equity issues included in the index are common stocks, real estate investment trusts (REITs), and master limited partnerships. Because almost all actively and semiactively traded securities are included in the Wilshire 5000 Equity Index, it is considered the broadest and most representative of all U.S. equity indexes. Interestingly, although the index includes over 7,000 stocks, the largest 500 stocks (essentially, those included in the S&P 500 Index) account for 70 percent of its overall market capitalization. The performance of the index is thus heavily influenced by the performance of these 500 largest stocks.



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