

The
DOW



DOWJONES
Indexes

A person watching the tide coming in, and who wishes to know the spot which marks the high tide, sets a stick in the sand at the points reached by the incoming waves until the stick reaches a position to where the waves do not come up to it, and finally recede enough to show that the tide has turned.

This method holds good in watching and determining the flood tide of the stock market. The average of {stock prices} is the peg which marks the height of the waves. The price-waves, like those of the sea, do not recede all at once from the top. The force which moves them checks the inflow gradually, and time elapses before it can be told with certainty whether high tide has been seen or not.



— Charles Dow, creator of the Dow Jones Industrial Average, in the January 31, 1901, edition of *The Wall Street Journal*

The Dow Jones Industrial Average, also referred to as The Dow or the industrial average, is one of the best-known icons of American culture and among stock-market observers around the world. It is as much a staple of news reports as traffic and weather, and its actions are reported whenever a major world event occurs. Whether The Dow rises or falls, the eyes of the world are always upon it.

History of The Dow

Created in 1896 by Charles Dow, one of the founders of *The Wall Street Journal*, the industrial average was not the first market index. That distinction belongs to an 1884 predecessor of what is today known as the Dow Jones Transportation Average, also the creation of Mr. Dow. The Transportation Average originally was named the Dow Jones Railroad Average; in the late 19th century railroading was the most important industry in the United States.

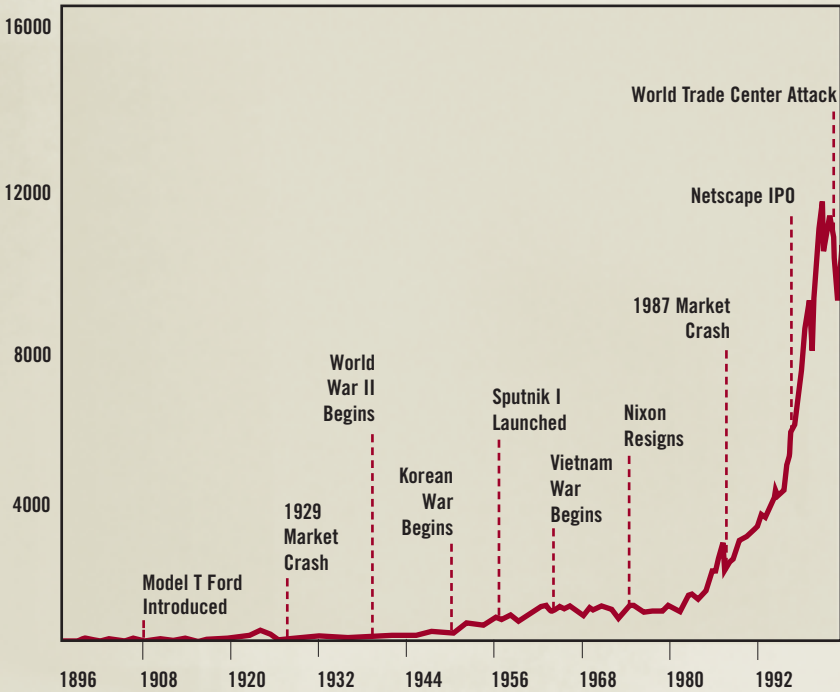
By 1896, industrial stocks comprised a small but growing part of the market, and Mr. Dow felt compelled to create an index for this segment as well. He used the two indexes to confirm broad market trends, reasoning that because industrial companies produced goods and the railroads delivered them, a bull market was sustainable only if both sectors were participating.

The new Dow Jones Industrial Average originally had 12 stocks, including a leather maker, a steel provider and a sugar producer. First published May 26, 1896, and regularly featured in the *Journal* as of October of that year, The Dow waited more than 25 years to achieve prominence outside the narrow canyon of Wall Street.

In 1896, investing in the stock market was considered a highly speculative activity, particularly with regards to industrial stocks. Railroad stocks were tolerable as they were the “blue-chips” of their day, but bonds were the truly prudent investment.

By the 1920s, popular attitudes had changed. Average citizens began investing in stocks, driving the industrial average from the 100 range in 1924 up to nearly 400 before the 1929 crash. It was the crash that brought The Dow’s reputation to the attention of Main Street USA as it lost nearly 30% of its value over the course of two days. Before that, investors had been more focused on their individual stocks, but after the crash there was greater interest in general market conditions.

The Dow Jones Industrial Average Throughout History (May 1896 – December 2002)



Though it had come close in 1929, The Dow did not actually rise above 400 points until the end of 1954. The economic upheaval of the 1930s and the international disruption of World War II kept it fluctuating below that mark for 25 years.

The 1950s were one of The Dow's best decades in history, climbing almost 240% to close 1959 at 679.36. However, not until the 1980s and 1990s would there again be such substantial gains in the stock market. Those two decades

represent an era of unparalleled prosperity, despite the crash in 1987 and a brief bear market kicked off by the Gulf War. The Dow rose 228.25% during the 1980s to close at 2753.20 at the end of 1989 and 317.59% during the 1990s, ending the 1999 and the century at 11497.12.

In the last 10 years of the 20th century, the Dow Jones Industrial Average burst through several 1000-point milestones, crossing the 10000 barrier for the first time on March 29, 1999. The excitement generated by this event was felt around the world. Though the number itself had no special significance, it served to highlight the spectacular performance of the index and—by extension—the U.S. economy.

The Dow peaked at 11722.98 on January 14, 2000, before beginning what would prove to be a long, slow slide into bear territory. As always, in times of market turmoil—whether bull rallies or bear declines—the industrial average claims the headlines and is the language of investors as they ask, “How did the market do?”

Calculating The Dow

The Dow is calculated using very nearly the same formula now as at its inception: Simply add the prices of the component stocks on their primary exchanges and divide this sum by the current divisor.

The divisor, however, is not the number of stocks, as it originally was. In 1916, the editors of *The Wall Street Journal* raised the number of components in The Dow from 12 to 20. Then, in 1928, they increased the number of components again — this time to 30 — and also introduced the adjusted divisor.

The adjusted divisor is designed to keep the index consistent through events such as component changes, stock splits, large dividend distributions, mergers and acquisitions and spin-offs. It ensures that the index remains at the same level immediately after one of these events as it was before. For

example, in a 2-for-1 stock split the number of existing shares is doubled and the price is halved. Since the index calculation is based on price, not adjusting the divisor would cause The Dow to plunge in value as one of its components' stock prices fell by 50%, even though there was no change in the value of an investor's holding in the stock. Instead of one share worth \$10, for example, an investor would have two worth \$5 apiece.

Over the years, there have been so many changes to the divisor, most of them downward adjustments, that it is now a fraction.

The formula for calculating a divisor change is as follows:

$$D_{t+1} = D_t * \sum C_t^a / \sum C_t$$

Where:

D_{t+1}	Divisor to be effective on trading session $t + 1$
D_t	Divisor on trading session t
C_t^a	Components' adjusted closing prices for stock dividends, splits, spin-offs and other applicable corporate actions on trading session t
C_t	Components' closing prices on trading session t

Component Selection

At any given time, The Dow's components usually account for 25 to 30 percent of the total market value of all U.S. stocks. The Dow doesn't literally "represent" the entire U.S. market. Rather, it is a blue-chip index representing the leading companies in the industries driving the U.S. stock market. As a result, its performance is highly correlated with other indexes comprised of hundreds or thousands more stocks.

Component changes are rare and usually occur only when an existing company is going through a major change, such as a shift in its main line of business,

acquisition by another company, or bankruptcy. There is no review schedule. Changes are made as needed at the discretion of the managing editor of *The Wall Street Journal*. While the responsibility rests with this individual, other senior editors may be consulted.

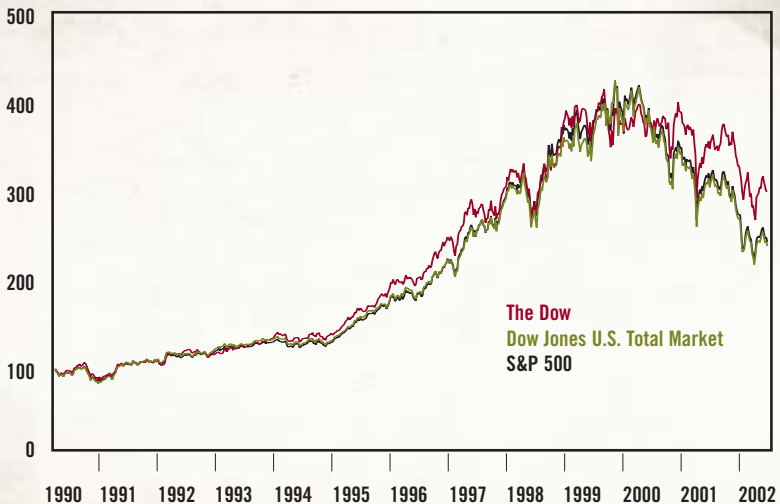
Selected components are always U.S. companies, are leaders in their industries, are widely held by investors, and have long records of sustained growth.

Relevance

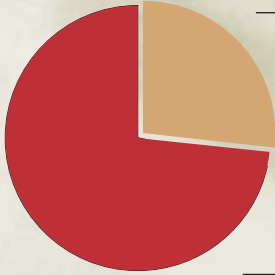
The Dow is an example of the elegance of simplicity. It tracks closely with other major market indexes with more complex methodologies and yet easily can be calculated with paper and pencil. Moreover, it is the only major market index with more than 100 years of history.

Today The Dow is quoted worldwide on a daily basis in news broadcasts, on Web sites, in newspapers and journals and in conversation. It also has been licensed to financial institutions around the world as the basis of investment products.

How the Dow Compares
(January 1990 – December 2002)



The Dow and the Total Market



As of December 31, 2002, The Dow represented 27.6% of the free-float market capitalization of the broad Dow Jones U.S. Total Market Index, which covers 95% of the investable U.S. stock market.

Did You Know?

- General Electric is the only stock in The Dow today that was also included in the original 12. It was removed twice in the early years of the 20th century but both times was returned to the industrial average in subsequent component changes.
- For more than four months in the second half of 1914, The Dow was not published. The New York Stock Exchange was closed because of World War I. It was feared that the instability caused by the war would cause the market to plummet.
- Throughout most of its history, the industrial average's components have been chosen from among the stocks listed on the New York Stock Exchange, though there was never any rule in the index's methodology that said an NYSE listing was a requirement for eligibility. It was not until November 1, 1999, that stocks from the Nasdaq Stock Market (Intel Corp. and Microsoft Corp.) were added to The Dow.
- No component changes were made to the Dow Jones Industrial Average during the 1940s and the 1960s.
- The Dow's greatest one-day percentage gain took place October 6, 1931, well into the Depression. The index rose 14.87%, or 12.86 points, on that day. Its greatest percentage loss was on October 19, 1987—otherwise known as “Black Monday”—when the industrial average fell 22.61%, or 508.00 points.



The Dow on May 26, 1896

- American Cotton Oil
- American Sugar
- American Tobacco
- Chicago Gas
- Distilling & Cattle Feeding
- General Electric
- Laclede Gas
- National Lead
- North American Utility
- Tennessee Coal & Iron
- U.S. Leather (preferred)
- U.S. Rubber





The Dow Today*

- 3M
- Alcoa
- Altria Group
- American Express
- AT&T
- Boeing
- Caterpillar
- Citigroup
- Coca-Cola
- DuPont
- Eastman Kodak
- Exxon Mobil
- General Electric
- General Motors
- Hewlett-Packard
- Home Depot
- Honeywell International
- Intel
- International Business Machines
- International Paper
- J.P. Morgan Chase
- Johnson & Johnson
- McDonald's
- Merck
- Microsoft
- Procter & Gamble
- SBC Communications
- United Technologies
- Wal-Mart Stores
- Walt Disney

*Components as of March 31, 2003

HOW TO CONTACT US

To discuss licensing or customization possibilities, please contact us at:

U.S.

tel: +1 609 520 7172

Canada and Latin America

tel: +1 416 306 2011

Europe/Asia

tel: +49 69 9714 2890

Or for general inquiries,
contact us at:

Dow Jones Indexes

P.O. Box 300

Princeton, NJ 08543

tel: +1 609 520 7799

fax: +1 609 520 7030

www.djindexes.com

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