Five Questions

About The Dow® That You Always Wanted to Ask

The Dow Jones Industrial Average℠ is the second-oldest stock market index in the world (the oldest being the Dow Jones Transportation Average℠). It was devised by Charles H. Dow, the first editor of *The Wall Street Journal*, as a means to measure the performance of the U.S. equity market and made its debut on May 26, 1896.

Known colloquially as The Dow®, its components are selected by an Averages Committee comprised of the Managing Editor of *The Wall Street Journal*, the head of Dow Jones Indexes research and the head of CME Group research. There are no pre-determined criteria except that components should be established U.S. companies that are leaders in their industries; however, companies considered for inclusion in the averages are subjected to rigorous analysis before a decision is made.

Unlike the Dow Jones Transportation Average℠ and Dow Jones Utility Average℠, which include only transportation and utilities stocks, the Dow Jones Industrial Average℠ is not limited to traditionally defined industrial stocks. Instead, it includes such diverse industries as financial services, technology, retail, entertainment and consumer goods.

1 Why don't you make The Dow® bigger than 30 stocks?

There certainly is precedent for such a move. Charles Dow started the industrial average in 1896 with just 12 stocks. In 1916, the number was raised to 20, and in 1928 to 30. There is no record of an explanation for these expansions, but it is reasonable to assume that they were responses to the growth of the stock market.

The market has grown a lot since 1928, while The Dow® has remained at 30 stocks. Several years ago, we seriously considered a proposal to raise the number to 50. But in the end decided not to.

It is not that we feared tinkering with an American icon. Rather, we failed to find a compelling reason for the increase.

The Dow Jones Industrial Average℠ is a "blue-chip" index, which means it is comprised of the stocks of relatively few large and prominent companies. In an economy as big as that of the United States, there are certainly more than 30 companies qualified to be considered blue-chips. In fact, there are more than 50. So, raising the number of components would not change the fact that we would have to select the stocks that would be in The Dow®.

Many people regard The Dow® as the representation of the U.S. stock market. This leads some to think it cannot do a very good job with just 30 stocks when there are thousands being traded. We will get into the quality of The Dow's market representation with the next question, but here the point is that the number of stocks is not nearly as important as which ones we pick. The Dow® could have 50 or 100 components, but unless the mix was right it would not work as a market barometer.

Of course, our selection task might be easier with more component slots to fill. However, easier for us does not necessarily mean the result would be a better index for you. Indeed, there is much to be said for the discipline that the 30-stock limit imposes on those who do the choosing.

Every stock must be evaluated and considered carefully, both individually and how it works with the others to reflect the market. The Dow® has components representing nine of the ten Industries in the Industry Classification Benchmark (ICB)—a system for classifying companies by their primary lines of business—and 15 of the 19 ICB "Supersectors". The only industry missing is Utilities—the Dow Jones Utility Average tracks that industry.

Dow Jones Indexes
A CME Group Company

How The Dow® Covers the Stock Market

Of the 10 Industries and 19 Supersectors in the Industry Classification Benchmark, The Dow® has components in all except Utilities, for which there is a separate Dow Jones Average.

Name	Industry	Supersector
3M Co.	Industrials	Industrial Goods & Services
Alcoa Inc.	Basic Materials	Basic Resources
American Express Co.	Financials	Financial Services
AT&T Inc.	Telecommunications	Telecommunications
Bank of America Corp.	Financials	Banks
Boeing Co.	Industrials	Industrial Goods & Services
Caterpillar Inc.	Industrials	Industrial Goods & Services
Chevron Corp.	Oil & Gas	Oil & Gas
Cisco Systems Inc.	Technology	Technology
Coca-Cola Co.	Consumer Goods	Food & Beverage
E.I. DuPont de Nemours & Co.	Basic Materials	Chemicals
Exxon Mobil Corp.	Oil & Gas	Oil & Gas
General Electric Co.	Industrials	Industrial Goods & Services
Hewlett-Packard Co.	Technology	Technology
Home Depot Inc.	Consumer Services	Retail
Intel Corp.	Technology	Technology
International Business Machines Corp.	Technology	Technology
Johnson & Johnson	Health Care	Health Care
JPMorgan Chase & Co.	Financials	Banks
Kraft Foods Inc. Cl A	Consumer Goods	Food & Beverage
McDonald's Corp.	Consumer Services	Travel & Leisure
Merck & Co. Inc.	Health Care	Health Care
Microsoft Corp.	Technology	Technology
Pfizer Inc.	Health Care	Health Care
Procter & Gamble Co.	Consumer Goods	Personal & Household Goods
Travelers Cos. Inc.	Financials	Insurance
United Technologies Corp.	Industrials	Industrial Goods & Services
Verizon Communications Inc.	Telecommunications	Telecommunications
Wal-Mart Stores Inc.	Consumer Services	Retail
Walt Disney Co.	Consumer Services	Media

2 How does The Dow® compare to broader indexes?

Very well, actually. Remarkably, in fact. We can tell by the high correlation of The Dow's returns with those of other mainstream indexes. The broad indexes may be bigger—a lot bigger in the case of the Dow Jones U.S. Total Stock Market Index℠ which covers the entire U.S. market—and constructed differently, but they and The Dow® are telling the same story.

The correlation tables nearby provide the statistical evidence. Perfect correlation is represented by 1.0 and high correlation is 0.9 and up. The Dow's correlation drops with indexes that focus on small or micro stocks, which by definition are not intended to measure the stock market in its entirety.

Correlation is not constant. It varies over time and according to the period being measured. See, for example, the nearby table showing The Dow's correlation with the Standard & Poor's 500 index over the decades. The shorter the period, the more likely it is that even usually highly correlated indexes can move in opposite directions.

Correlation of DJIA℠ vs. Other U.S. Indexes

	DJIA℠	DJ U.S. TSM	S&P 500	Russell 1000	Russell 3000
DJIA℠	1.0000				
DJ U.S. TSM*	0.9280	1.0000			
S&P 500	0.9520	0.9880	1.0000		
Russell 1000	0.9424	0.9944	0.9971	1.0000	
Russell 3000	0.9373	0.9982	0.9935	0.9982	1.0000

Based on monthly price-return data from December 31, 1986 to December 31, 2010.
*Based on full marketcap

Correlation of DJIA℠ vs. DJ TSM Size Indexes

	DJIA℠	DJ U.S. Large-Cap TSM	DJ U.S. Small-Cap TSM	DJ U.S. Micro-Cap TSM
DJIA℠	1.0000			
Large-Cap	0.9240	1.0000		
Small-Cap	0.7239	0.8432	1.0000	
Micro-Cap	0.5873	0.7233	0.9308	1.0000

Based on monthly price-return data from December 31, 1991 to December 31, 2010.

DJIA℠ VS. S&P 500	
Correlation by Decades	
1960s	0.8354
1970s	0.9518
1980s	0.9655
1990s	0.9299
2000s	0.9471

Based on monthly price-return data.

S&P 500 Quintile Returns in 2005		
Quintile*		Contribution to Index Return
1	(#1 to #100)	-0.15%
2	(#101 to #200)	-0.37%
3	(#201 to #300)	-0.25%
4	(#301 to #400)	-1.73%
5	(#401 to #500)	-0.81%
Total		3.00%

*Stocks ranked in descending order of market capitalization.

We do not have to go very far back in history to find an example of short-term negative correlation. The Dow® closed 2005 with a small loss of 0.61%, while the S&P 500 eked out an increase of 3%.

How did this happen?

Two factors were at work. First was the arithmetic fact of life that 29 of the 30 DJIA℠ stocks weighed more in The Dow® than they did in the S&P 500 (General Electric was the exception). With 16 of the 30 declining during 2005, the losers deducted more from The Dow's performance (5.94%) than the gainers added (5.34%).

Second, the S&P 500 stocks that contributed most to that index's advance were smaller ones—from the fourth and fifth quintiles, or stocks ranked 301 and up—that were not in the running for membership in The Dow®. The 100 biggest stocks in the S&P 500 declined slightly.

3 Have you considered changing The Dow® to market-capitalization weighting?

Yes, but not nearly as seriously as we thought about increasing the number of stocks.

For the benefit of those who are not up to speed on index weighting schemes, The Dow® is a price-weighted index. That is, each of the 30 stocks carries a weight commensurate with its price. In a capitalization-weighted index—and most indexes are—each stock's weight is determined by its market capitalization, which is calculated by multiplying the price and the number of outstanding shares.

Investors care about such details because the stocks with the heaviest weights, however they are determined, exert a greater influence on the movements of an index than components with the lightest weights. However, the heaviest stocks tend to be different, or at least rank differently, in a price-weighted index than in a capitalization-weighted one; rarely does the highest-priced stock also happen to have the largest market "cap," as the investment pros call it.

Some people get upset by such differences. In addition to weighting, they dislike the fact that a stock split requires The Dow's divisor to be adjusted so the new, lower price does not distort the performance.[2]

Price vs. Market-Cap Weighting

How DJIA℠ components' weights differ by weighting scheme, as of December 31, 2010.

Name	Ticker Symbol	Weight by Price	Weight by Float-Adjusted[1] Marketcap
Exxon Mobil Corp.	XOM	4.78%	10.53%
Microsoft Corp.	MSFT	1.83%	6.07%
General Electric Co.	GE	1.20%	5.57%
Chevron Corp.	CVX	5.97%	5.23%
International Business Machines Corp.	IBM	9.59%	5.21%
Procter & Gamble Co.	PG	4.21%	5.14%
AT&T Inc.	T	1.92%	4.99%
Johnson & Johnson	JNJ	4.04%	4.89%
JPMorgan Chase & Co.	JPM	2.77%	4.74%
Pfizer Inc.	PFE	1.14%	4.03%
Coca-Cola Co.	KO	4.30%	4.00%
Bank of America Corp.	BAC	0.87%	3.79%
Intel Corp.	INTC	1.37%	3.34%
Cisco Systems Inc.	CSCO	1.32%	3.20%
Merck & Co. Inc.	MRK	2.36%	3.16%
Wal-Mart Stores Inc.	WMT	3.53%	3.11%
Verizon Communications Inc.	VZ	2.34%	2.89%
Hewlett-Packard Co.	HPQ	2.75%	2.73%
McDonald's Corp.	MCD	5.02%	2.33%
United Technologies Corp.	UTX	5.15%	1.94%
Walt Disney Co.	DIS	2.45%	1.90%
Home Depot Inc.	HD	2.29%	1.64%
3M Co.	MMM	5.64%	1.61%
Caterpillar Inc.	CAT	6.12%	1.52%
Kraft Foods Inc. Cl A	KFT	2.06%	1.44%
American Express Co.	AXP	2.81%	1.31%
E.I. DuPont de Nemours & Co.	DD	3.26%	1.28%
Boeing Co.	BA	4.27%	1.22%
Travelers Cos. Inc.	TRV	3.64%	0.73%
Alcoa Inc.	AA	1.01%	0.45%

[1] Shares held by founders, families and other companies are excluded to show the capitalization available for public trading.

Because a stock split changes neither the value of an investor's position in the stock nor the company's market value, having to change the divisor to maintain continuity is—to their way of thinking—crude and unsophisticated. What this grousing does not appreciate is that all index methodologies have strengths and weaknesses.

Market-cap indexes, for instance, are vulnerable to exaggerating investment fads, such as the dot-com bubble in the late 1990s, because they are influenced by both price run-ups and the issuance of more and more shares. In the bear market that began in 2000 and ended in 2002, Standard & Poor's 500 index fell more than The Dow® from their respective high points, mainly because the S&P 500 rose more than The Dow® in the five years leading up to the bull market peak.

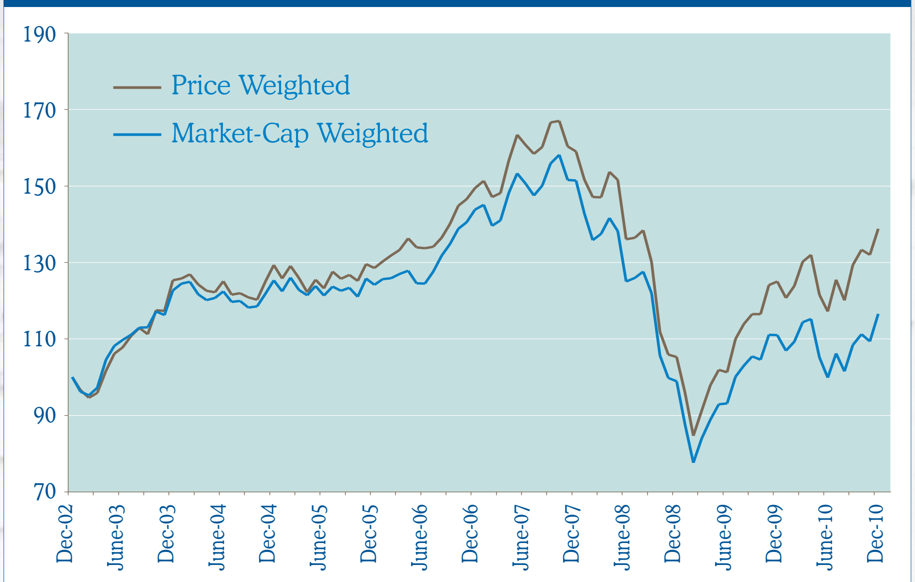
The most important point, though, is that The Dow® weighted by market cap would behave the same as the price-weighted version. The nearby chart tells the tale. The index values are a little different, but the trends are the same. We picked this particular period to make the comparison because companies are more likely to issue more shares in a bull market than a bear market.

But the very large, very stable companies that are in The Dow® tend to issue additional shares mainly to make acquisitions, which also affect the price. With little to gain, except maybe a reduction of criticism, we have no reason to re-weight The Dow® to market capitalization. And there would be a lot to lose: all the history that is in price-weighted terms.

Both Sides of the Dot-Com Bubble

	Dates	Index Value	% Decline	% Increase from 12/31/95 to the high points
DJIA℠				
High	1/14/00	11722.98	-37.85	129.09%
Low	10/9/02	7286.28		
S&P 500				
High	3/24/00	1527.46	-49.15	147.99%
High	10/9/02	776.76		

The Dow® with Market-Cap Weighting



[2] Assume three stocks selling at $5, $10 and $15. Their average price is $10. Now assume the $15 stock is split three-for-one, and the stock subsequently trades for $5. Nothing has happened to the value of an investment in these shares but the average of their prices now is $6.67, not $10. An adjustment must be made to compensate so that the "average" will remain at $10. This can be done various ways mathematically, but at Dow Jones it is handled by changing the divisor, or the number that is divided into the total of the stock prices. In this example, the new divisor would be 2 instead of 3.

4 Why don't you refresh The Dow's components more often, like other indexes do?

We believe very strongly that changing component stocks alters the nature of The Dow®—usually subtly but sometimes not. Two examples from 1999: Substituting Home Depot for Sears, Roebuck was a slight shift within retailing, while replacing Chevron, Goodyear Tire and Union Carbide with Intel, Microsoft and SBC Communications (now AT&T) gave The Dow® a distinctly different profile. We do not think anyone would like picking up a ruler one day and discovering it had been changed from straight to wavy, and we do not think investors want their stock-market indicator constantly fiddled with, either.

We take some pride in the fact that The Dow® was the only brand-name market index to trace the entire bear market at the beginning of this decade with exactly the same stocks from beginning to end. By contrast, the S&P 500 had 109 component changes from its peak on March 24, 2000, to the trough on October 9, 2002.[3] To the extent that measuring the bear market without the static of unrelated index administration is important to you, The Dow® was the only ruler that delivered the goods.

As you may be surmising, changing or not changing stocks in The Dow® is an ongoing balancing act for us. Our basic rule of thumb is that we do not change components unless the reason for doing so is compelling or unavoidable.

An example of compelling was the addition of Intel and Microsoft in 1999, when the digital age required greater representation in The Dow® and those two companies had matured to the point that they were comparable with other components in stature and significance. Of course, critics carped that we waited far too long to add them, and more than one security analyst has glumly noted that Microsoft's stock stopped going up when it entered The Dow®. We absolutely disavow any cause-and-effect relationship in those developments.

An example of unavoidable was the removal of Union Carbide in 1999, because it was being acquired. Most changes in The Dow® in recent years have been triggered by such unavoidable events, but have not necessarily been confined to them. Whenever we have to take action on a component stock that is about to disappear or is changing its operations radically, we review all the components to reassure ourselves they will work together for as far into the future as we can see to reflect the market's movements.

The most recent (although highly atypical) example of an unavoidable removal followed GM's declaration of bankruptcy in June 2009. As a result of the ensuing index review, both GM and Citigroup were removed from The Dow®. Travelers Companies and Cisco Systems were added in their place.

In its 113 years of history, more than 100 companies can lay claim to the title of being (or having been) a component in The Dow®. Not counting Charles Dow's original 12, that amounts to less than one changer per year, on average. It is our intention—indeed, our goal—to extend that trend. Our job is to measure the market, not to make investment recommendations or, worse, to ensure that The Dow® continues an upward climb.

Changes in The Dow®

Decade	Changes
1896-1900	9
1901-1910	9
1911-1920	12*
1921-1930	34**
1931-1940	15
1941-1950	0
1951-1960	5
1961-1970	0
1971-1980	3
1981-1990	5
1991-2000	11
2001-2009	8

*Includes increasing the number of components to 20 from 12 in 1916.
**Includes increasing the number of components to 30 from 20 in 1928.

Many people—particularly on Wall Street, whose business is selling investments—are unable or unwilling to grasp this concept. For as long as it is our guiding principle, however, changes in The Dow's stocks will be few and far between.

[3] We are not picking on the S&P 500; we chose it for this exercise because it, too, has a fixed number of components that are selected somewhat subjectively.
[4] All the "ins" and "outs" by name are available for download on our web site at www.djindexes.com.

5 Is The Dow® an index or an average, and why does it get so much media attention?

The Dow® is an index. "Average" is in its name because Charles Dow simply added up the prices of his dozen stocks and divided by 12.[5] The Dow® became an index in October, 1928—the same date that the number of components was increased to 30 from 20—when a divisor was substituted for the number of stocks. "Average" was kept in the name because by that time The Dow® was becoming fairly well known. The first divisor was set at 16.67, which was the number that on Oct. 1, 1928, produced an index value with 30 stocks that was the same as the Sept. 29 close with 20 stocks, thus maintaining continuity. The divisor has been adjusted ever since for stock splits, component changes and other events that affect the sum of stock prices but are not the result of market action. Ironically, a few people call all market indexes "averages," even though none of them truly qualify for that moniker.

As for media play, The Dow® benefits from what business people call "first-mover advantage," meaning it was there, waiting, when the media had to relate the doings on Wall Street to the folks on Main Street. For the first 25 years or so of its existence, however, The Dow appeared only in The Wall Street Journal and rarely elsewhere.

Investors in the late 19th and early 20th centuries focused mainly on individual stock issues rather than groupings—except when the grouping was of railroad stocks, which were the blue chips of the day.

The Roaring Twenties introduced The Dow® to a broader audience of investors and onlookers. That was a time when many average citizens began buying stocks by the bundle, and their enthusiasm carried The Dow® from around 100 in 1924 to nearly 400 by mid-1929. Then the crash in October of that year thrust The Dow® into true prominence on front pages across the nation as everyday readers demanded to know the extent of the damage.[6]

Even after the market's convulsions abated, newspapers got into the habit of at least mentioning market action in the general news each day, and The Dow® became the shorthand expression of that action.

The post-World War II bull market again galvanized the nation's attention, and again The Dow® was the main vehicle for telling the story. By then other indexes had begun to vie for attention, but the now world famous industrial average became the indicator to cite if a reporter had space to mention only one. Radio and television news people took their cues from the print media, adopting The Dow as their quantitative abbreviation for "the market."

With the coming of the Internet age, The Dow® gained even greater prominence through its real-time publication on business and financial Web sites. And recent periods of crisis—whether political, like the days after the 9/11 terrorist attacks, or economic, like the financial "meltdown" of 2008—put all eyes on The Dow® as a gauge of the market's reaction.

However, longevity is not the only reason for The Dow's widespread popularity. Two other attributes play a role: It is understandable to most people, and it reliably indicates the market's basic trend. It is worth repeating that the media would hardly keep quoting The Dow® if it did not work.

The concept of averaging, which is grade school math and applied by many of us every day, helps make The Dow® understandable. It may no longer be a true average—the sum of the 30 stocks' prices do not come close to its current value, much less average to that number—but the statistical refinements of 1928 did not violate Charles Dow's original idea: These carefully selected stocks represent the larger market and on average serve as a beacon in charting your own investment course. In addition, the share prices used in the calculation are far more comprehensible than is market capitalization.

The second aspect of being understandable is that The Dow®, at 30 stocks, is a size to which individual investors can relate. According to some academic studies, the typical individual stock portfolio contains three to six stocks at any one time.[7] So, while larger, The Dow® is much closer to human-scale investing than are indexes with hundreds or thousands of stocks.

Do not misunderstand; we are not challenging the merits of diversification or any of the other purposes for which those larger indexes might be suitable. We simply put forward the observation that some of The Dow's popularity can be traced to most people's ability to connect with its size.

For these and perhaps other reasons, the Dow Jones remains one of the best recognized financial symbols in the world. With a world awash in data, information, opinion and spin, the stalwart Dow is —and continues to be—the number that the investing and general public view as the face of U.S. financial markets.

[5] The first average price of those 12 stocks on May 26, 1896, was $40.94. The first major trend was down. The Dow® fell 30% by August of that year as William Jennings Bryan campaigned for an end to "the cross of gold," promising silver money and inflation. But William McKinley won the Presidency and the United States remained on the gold standard.

[6] In six days, The Dow® lost more than 96 points, nearly 30% of its value.

[7] See Statman, Meir. 2004. "The Diversification Puzzle." Financial Analysts Journal, vol. 60, no. 4:44-53. Also, Brad M. Barber and Terrance Odean. 2001. "Trading is Hazardous to Your Wealth: The Common Stock Investment Performance of Individual Investors." The Journal of Finance, vol. 55, no. 2:773-806.

While one might imagine that the questions answered in this brochure have arisen only recently in response to our changing economy, many of them in fact have surfaced from time to time since The Dow's earliest days—and even before. The following article is reprinted from the September 24, 1889, edition of *The Wall Street Journal*. Presumably written by Charles Dow himself, it addresses some of the same questions that we continue to receive today.

By Charles Dow

"We have been printing for a year or more the average price of 12 active stocks as showing the general movement of the market. This feature of our news has attracted growing attention and is regarded as of value by some very successful operators. It has occasionally been attacked as not including stocks enough to fairly represent the market, and we often have inquiries as to what stocks are made the basis of calculation. As a matter of fact the 12 stocks taken represent the movement of the market as well as a greater number. Twenty stocks reach in their averages the turning point on nearly or quite the same days as 12 stocks. We have, in two or three cases, employed a large number, nearly the whole list, with the same result.

"In order to get the whole matter clearly before our readers, we give herewith the 12 active stocks used, stating, in explanation, that they were selected in 1884 and were the best selection we could make. To change them now would be to destroy the average for comparative purposes. The twelve stocks are: St. Paul, Lake Shore, Northwest, New York Central, Lackawanna, Delaware & Hudson, Northern Pacific preferred, Western Union, Union Pacific, Pacific Mail, Missouri Pacific and Louisville & Nashville.

"To satisfy anybody thinking that a larger number of stocks would give different results, we have obtained the average movement of 20 stocks since January, 1886, and have combined their rise and fall with that of the 12 stocks in our table. The 20 stocks used are: Canadian Pacific, Omaha common, Oregon Transcontinental, Northern Pacific preferred, New York Central, Lake Shore, Delaware & Hudson, Lackawanna, Union Pacific, St. Paul, Northwest, Pacific Mail, Western Union, Louisville & Nashville, Richmond Terminal, Kansas & Texas, Erie, Missouri Pacific, Texas Pacific and Jersey Central. Reading was not included on this list because of being quoted assessment on and off destroyed its value for average purposes. New England and Atchison were not active stocks when the list was made up.

"The bull market of 1885 began July 2, with the average price of 12 active stocks 61.49, and the average price of 20 active stocks 48.09.

"The rise culminated May 18, 1887, with the same 12 stocks selling at 93.27, and the 20 at 74.17.

"Prices gradually declined for about a year, reaching the next extreme low point April 2, 1888, the 12 stocks selling at 75.28, and the 20 at 58.18. The movement since then, counting from one turning point to another, follows:"

	12 Active Stocks		20 Active Stocks	
Last low point	Apr. 2, 1888	75.28	Apr. 2, 1888	58.18
Rallied to	May 1, 1888	88.54	May 1, 1888	65.44
Declined to	June 13, 1888	77.12	June 13, 1888	59.57
Rallied to	Aug. 8, 1888	83.95	Aug. 8, 1888	66.73
Declined to	Aug. 18, 1888	83.76	Aug. 18, 1888	65.02
Rallied to	Oct. 1, 1888	88.10	Oct. 1, 1888	68.48
Declined to	Dec. 5, 1888	81.88	Dec. 5, 1888	63.21
Rallied to	Feb. 18, 1898	87.77	Feb. 18, 1898	68.02
Declined to	Mar. 18, 1898	83.59	Mar. 18, 1898	64.18
Rallied to	June 12, 1898	91.88	June 12, 1898	71.03
Declined to	July 22, 1898	86.28	July 22, 1898	66.79
Rallied to	Sept. 11, 1898	93.67	Sept. 11, 1898	73.60
Declined to	Sept. 16, 1898	92.50	Sept. 16, 1898	72.50
Closed last night	Sept. 23, 1898	92.78		

For more information, please visit:

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