GLOBAL FINANCIAL DATA

Global Financial data has calculated an index of stocks that were listed on the Chicago Stock Exchange between 1900 and 1950. This allows users to compare the performance of stocks that listed in Chicago with stocks that listed in New York to determine whether investors received superior returns in Chicago or in New York.

The Growth of the Chicago Stock Exchange

Chicago was the center of the nation's agricultural markets during the nineteenth century. Consequently, the city started off with commodity exchanges to sell farm goods, not stock exchanges. The Chicago Board of Trade was established on April 3, 1848 and traded futures contracts on commodities, but not stocks. The first Chicago stock exchange was founded on January 5, 1865 to trade gold and speculative securities, but dissolved after the war. A new stock exchange was founded in 1869 and the Chicago Mining Board was established on December 16, 1879. The Mining Board became the Chicago Stock Board in 1881 and the Chicago Stock Exchange on March 21, 1882. The exchange included 58 members in 1882 and membership was limited to 750 later in the year. By May 13, 1882, 82 bonds and 52 stocks were listed on the exchange. During the Columbian Exposition in 1893, the Chicago Stock Exchange established a clearing house and moved to a new location. The floor of the exchange was designed by Louis Sullivan and was restored at the Art Institute of Chicago.

The Chicago SE expanded slowly and survived the Panic of 1893 and the Pullman Strike of 1894. In 1896, manipulation of the stock of the Diamond Match Co., which drove the price of the stock up from 125 to 247 in three months, led to the temporary closure of the exchange in September and October 1896. The Chicago SE reopened on November 5, 1896. The Chicago SE survived the Northern Pacific corner of 1901, the Panic of 1907 and the closure of the stock exchange in 1914. The Chicago Curb Exchange existed between February 6, 1928 and March 15, 1938 when it dissolved. In 1949, the Chicago Stock Exchange merged with the St. Louis Stock Exchange, the Cleveland Stock Exchange and the Minneapolis-St. Paul Stock Exchange to form the Midwest Stock Exchange. Originally, the Detroit and Cincinnati SE were part of the negotiations to join the exchange, but they declined. The New Orleans Stock Exchange merged into the Midwest Stock Exchange in 1959. The exchange changed its name back to the Chicago Stock Exchange in 1993 and was acquired by Intercontinental Exchange Inc. in 2018 and is now known as NYSE Chicago.

Chicago became the linchpin in the nation's railroad network, and farm goods and animals from the Midwest as well as people. The population grew from 30,000 in 1850 to 1.1 million in 1890 and 2.7 million in 1920. Between 1850 and 1890, the largest corporation in the United States was a railroad that connected to Chicago. The Chicago railroads included the Rock Island, the Illinois Central, and the Chicago, Burlington and Quincy. It was the battle over connecting the Northern Pacific to Chicago that led to the Panic of 1901 as Harriman and J.P. Morgan battled over control of the Northern Pacific Railroad. After the Panic of 1893, Standard Oil became the largest corporation of the world, displacing the Chicago railroads.

Chicago Challenges New York

During the 1800s, Chicago's population doubled every decade. Chicago became the center of commodity trading in the 1800s, and Chicago had hopes of displacing New York as the financial center of the United States. As Table 1 shows, Chicago and New York showed rapid growth in the number of listed securities between 1900 and 1930 while other regional exchanges shrank. The 1920s showed a huge increase in the number of securities that were listed on the Chicago SE. In 1920, Chicago had about 2/3 of the number of securities listed in Boston, but by 1930 it had three times as many securities. Clearly, the stock market rally of the late 1920s catapulted the Chicago SE to become the premiere regional stock market in the United States. Only the New York SE and the New York Curb were larger. In 1934, listing requirements imposed by the SEC began to constrict the number of companies that could list on the Chicago SE.

Year	**Boston**	**Philadelphia**	**Baltimore**	**Chicago**	**NYSE**
1880	17	15	3		153
1890	71	42	16	12	267
1900	230	136	52	34	330
1910	182	89	48	58	344
1920	181	75	64	111	698
1930	150	72	58	454	1441
1940	78	34	31	287	1014

Table 1. Securities Listed on Regional Exchanges, 1880 to 1940

By 1929, the price of a seat on the Chicago SE had risen from $2,500 in 1927 to $110,000 in 1929. The number of shares listed in Chicago rose from 77 million at the end of 1926 to 262 million at the end of 1929 while the market cap of the Chicago SE rose from $5.2 billion to $12 billion and the number of stock issues rose from 237 to 519.

Year	Shares Traded	Securities
1890	1,097,663	12
1895	1,386,637	20
1900	1,418,738	34
1905	1,544,319	54
1910	894,362	58
1915	717,577	65
1920	7,367,441	111
1925	14,102,892	176
1929	82,216,000	485

Table 2. Shares Traded and Securities Listed on the Chicago SE, 1890 to 1929

About one-fifth of the stocks that listed in Chicago SE also listed in New York. Four-fifths of the stocks listed exclusively in Chicago, and some companies, such as Commonwealth Edison, did not want to list in New York. However, stocks that did not list on the New York SE could be listed on the New York Curb. Any broker on the Curb could buy 100 shares and list the stock on the Curb. The New York Curb listed and traded stocks that were supposed to exist exclusively on the Chicago SE. This led to conflict between the two exchanges.

Chicago focused on listing utility companies on its exchange in the 1920s. Samuel Insull created a utility empire based in Chicago and listed the companies on the Chicago SE. When the Curb listed Commonwealth Edison against the wishes of Samuel Insull and Harold Stuart, Insull and Stuart tried to force the Curb to delist it, and with the New York SE backing the Curb, the Chicago SE was unable to change the Curb listings.

In 1949, the Chicago SE and three other exchanges merged to create the Midwest Stock Exchange. The Midwest SE grew by listing securities that were also listed on the New York Stock Exchange and the American Stock Exchange. The Midwest SE and the Pacific SE both grew by merging other regional stock exchanges and trading securities that listed in New York, not by trading securities that were listed exclusively on the Midwest or Pacific Stock Exchanges.

Year	Value Traded	Securities
1940	174.289	255
1950	512.436	249
1960	1,235.16	331
1970	4,827.58	520
1980	20,624.32	
1990	71,304.44	
2000	1,190,233.24	

Table 3. Value of Shares Traded and Securities Listed on the Midwest SE, 1940 to 2000

The Chicago Stock Exchange Index

How did stocks that were listed exclusively on the Chicago SE perform relative to other stocks? We calculated an index that measured the performance of stocks that were listed on the Chicago SE, but not on any other exchange. The GFDatabase includes 587 securities from Chicago of which 268 were common stocks.   Each January, we took the 15 largest companies by market capitalization that were listed on the Chicago SE and calculated an index of those stocks for that year. We then followed the same procedure each year and chain-linked the annual indices to create an index of stocks listed on the Chicago SE from 1900 to 1950.

In general, the Chicago SE index underperformed the S&P 500 as is illustrated in Figure 1. Between December 1921 and July 1929, the Chicago SE Index quadrupled in price, but between July 1929 and March 1933, the Chicago SE Index declined by 94.8%. This is a larger decline than occurred in the Dow Jones Industrial Average of the S&P Composite. The reason for the larger decline was the large presence of utility stocks on the Chicago SE. The only decade in which the Chicago SE outperformed the S&P Composite was the 1940s.

In general, these results are consistent with the data we obtained from other regional indices. The indices from Boston, Philadelphia and Baltimore all underperformed the S&P Composite. The Chicago SE showed rapid growth between 1920 and 1930. The index quadrupled in value between 1921 and 1929, a smaller increase than the five-fold increase that occurred in the S&P Composite. Similarly, while the S&P Composite declined by 86% between 1929 and 1933, the Chicago SE Index declined by 94%.

Clearly, Chicago confirms the fact that regional stock exchanges did not provide a good investment opportunity.

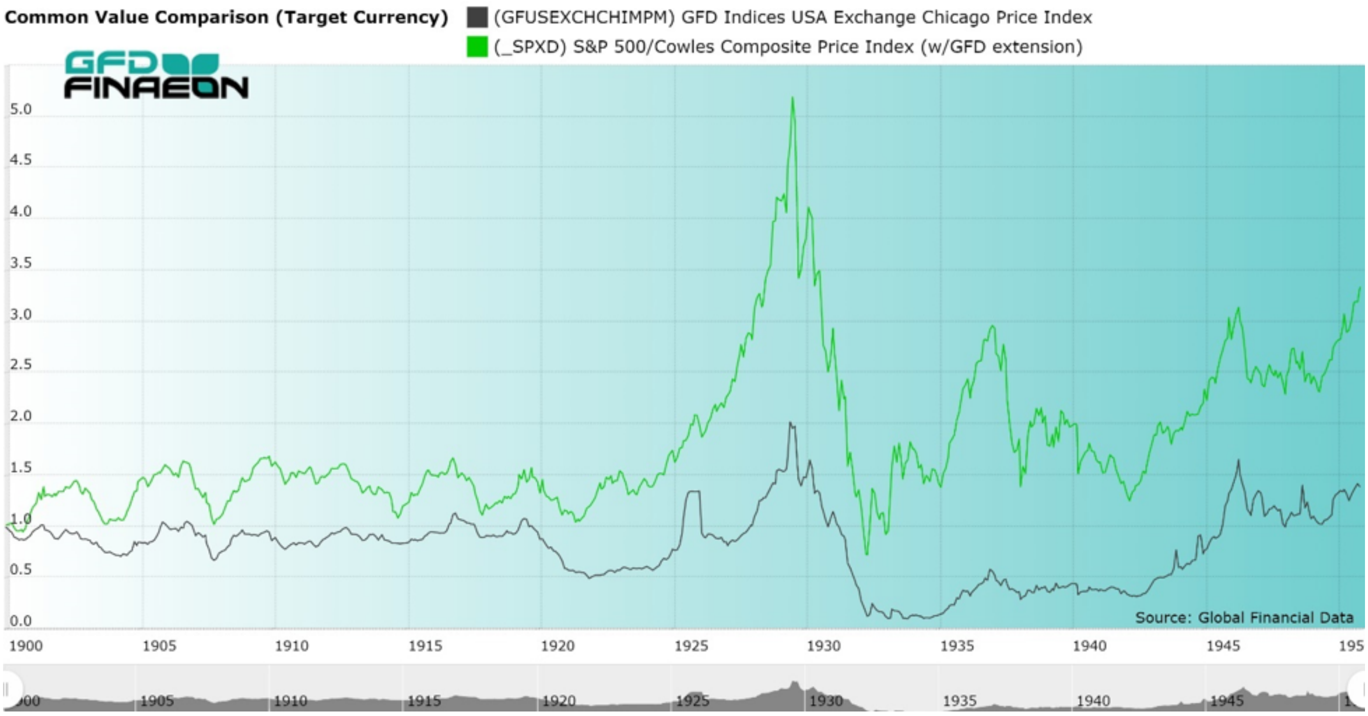

Figure 1. Chicago SE Index and the S&P Composite, 1900 to 1950

Cleveland and St. Louis

When the Midwest SE was formed in 1949, both the Cleveland Stock Exchange and the St. Louis Stock Exchanges joined the Chicago SE to form the new exchange. How did those two exchanges perform relative to Chicago?

The Cleveland SE and the St. Louis SE were founded in 1899. The Cleveland SE began operations on April 16, 1900. The two exchanges joined the Midwest Stock Exchange in October 1949. The GFDatabase includes 268 common shares and 587 securities from Chicago, 153 common stocks and 278 securities from Cleveland, 114 common stocks and 194 securities from St. Louis, 142 common stocks and 205 securities from Detroit, 99 common stocks and 236 securities from Cincinnati and 83 common stocks and 107 securities from New Orleans. Annual comparisons of the stocks that were listed on each of the five exchanges is provided in Table 4.

Year	Chicago	Cincinnati	Cleveland	Detroit	St. Louis
1914	65	33	64		37
1920	111	59	113		55
1925	176	92	140		74
1930	454	144	222	162	125
1935	264	87	109	95	71
1940	287	94	93	137	72
1945	222		69	122	
1948	190		48	158	

Table 4. Stocks Listed on the Chicago, Cincinnati, Cleveland, Detroit and St. Louis Stock Exchanges

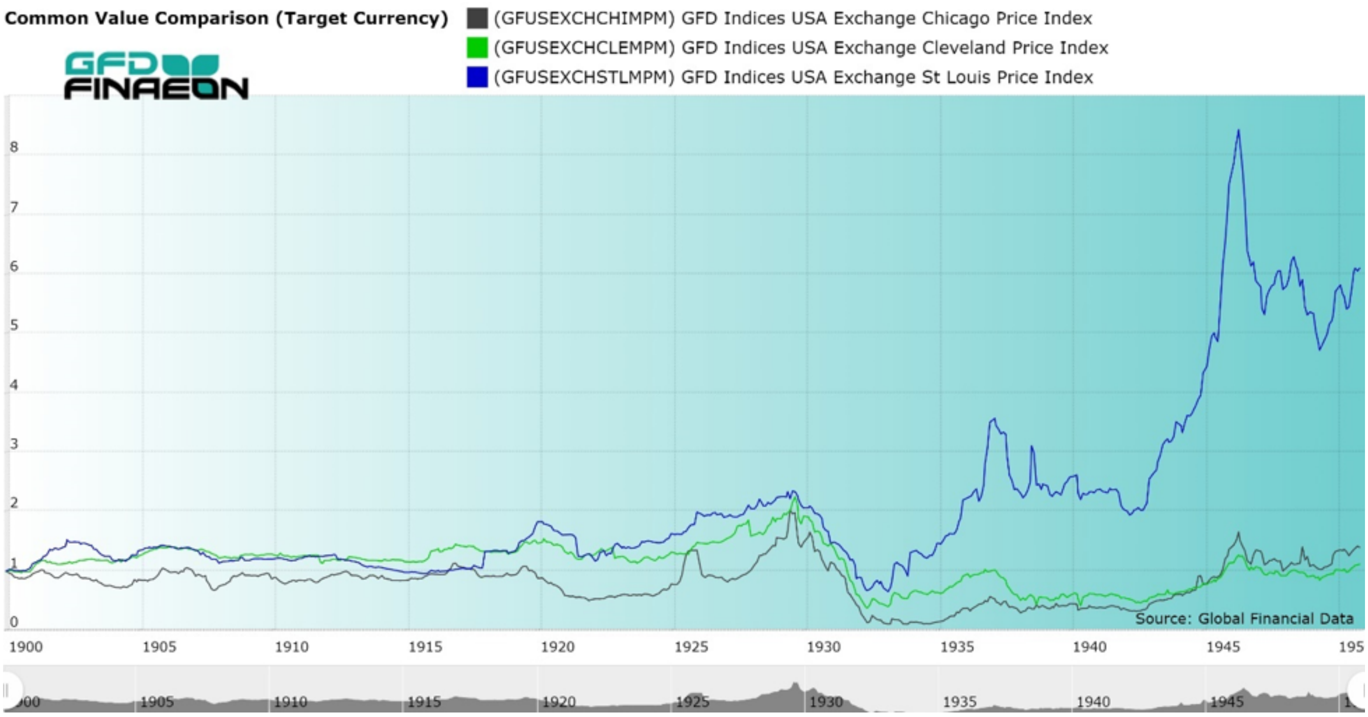

Figure 2. Chicago, Cleveland and St. Louis Stock Exchange Indices, 1900 to 1950

Figure 2 compares the performance of the Chicago, Cleveland and St. Louis Stock Exchanges. Of the three exchanges, the St. Louis exchange was the best performer. St. Louis had a large number of shoe and apparel companies, carpeting companies, food and beverage companies and other consumer goods companies. Because there were fewer utility and financial companies listed in St. Louis, the index neither rose nor declined as much as the other indices. The St. Louis index less than doubled between 1921 and 1929 and only fell by 72% between 1929 and 1933. Although the St. Louis index rose dramatically after 1933, this was primarily because there was a limited number of companies that were included in the index.

Sources for the Chicago Stock Exchange

The *Handbook of Chicago Stocks and Bonds*, Chicago: Chicago Directory Co. was first published in 1890. The Handbook provides monthly data on Chicago stocks back to 1889. The book later became James J. Fitzgerald, *Burnham's Manual of Chicago Securities*, published between 1917 to 1920 and became *Burnham's Manual of Mid-Western Securities* in 1921. The Manual of Securities Listedon the Chicago Stock Exchange began publication in 1928 and was published quarterly. Two books on the Chicago Stock Exchange are Wallace Rice, The Chicago Stock Exchange A History, Chicago: Committee on Library of the Chicago Stock Exchange, 1928 and The Chicago Stock Exchange: A Record of Progress, Chicago: The Chicago Stock Exchange, 1930. St. Louis Securities, St. Louis: Francis Bros. & Co., 1906

The *Commercial and Financial Chronicle* began keeping monthly data on the Chicago Stock Exchange in 1904. The Commercial and Financial Chronicle's *Quotation Supplement* is used until 1928. *The Bank and Quotation Record* is used beginning in February 1928. In addition to the *Commercial and Financial Chronicle*, W.B. Dana published its *Handbook of Securities* which provided monthly data on Chicago stocks between 1904 and 1925. In addition to this, the *Investor's Pocket Manual* is used between 1913 and 1928. Borton & Co.'s Pocket Manual of Cleveland and Northern Ohio Securities, Cleveland, Borton & Borton, 1915. Detroit Stock Exchange, Michigan Manual of Corporation Statistics, Detroit: Detroit Stock Exchange, 1914, annual

Henry E Wallace and Charles M. Goodsell, eds., *The Manual of Statistics: Stock Exchange Handbook*, New York was published between 1884 and 1923 and provides a good source for data on dividends and shares outstanding. The Commercial and Financial Chronicle began publishing the Financial Review in 1879 which provided monthly data on Chicago stock prices beginning in 1904. Poor's *Manual of Industrial Securities* was published between 1900 and 1940 and Moody's *Manual of Industrial Securities, Manual of Railroad and Corporation Securities, Manual of Railroads/Transportation Securities* and *Moody's Manual of Bank & Finance Securities* published between 1900 and the present. The *Dividend Record*, published by Standard and Poor's and by Moody's were also used from 1929 on.