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# A Sectoral Analysis of the 1929 Stock Market Crash

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Claremont McKenna College

**A Sectoral Analysis of the 1929 Stock Market Crash**

SUBMITTED TO

MARC WEIDENMIER

BY

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FOR

SENIOR THESIS

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## **Abstract**

The stock market crash of 1929 stands today as the largest decline in market value in the history of the United States. Consequently, the event destroyed the wealth of thousands of American families and institutions. On October 28<sup>th</sup> and 29<sup>th</sup>, the United States stock market fell 11.3 percent and 12.4 percent respectively, marking the beginning of a down market that lasted over three years, the time period known today as the Great Depression. This paper empirically analyzes the effects felt by each individual industry sector in the crash of 1929, identifying gross and abnormal returns over three major days in the crash. I then compare my findings to previous literature and economic theories, analyzing which sector returns were expected and which were abnormal.

## **1.) Introduction**

The stock market crash of 1929 stands alone as the largest fall of market value in United States history. Marking the beginning of the Great Depression, the U.S. plunged into a state of panic from its previous period of rapid growth and positivity during the “Roaring Twenties” (Pettinger, 2007). Known as “Black Monday” and “Black Tuesday”, the market fell 11.2 percent and 11.9 percent respectively. From its peak in mid-September of 1929 to halfway through 1932, the market lost over 85 percent of its value.

While there have been studies that have explored the reasons for the 1929 stock market crash (see for example, Galbraith 1954 and Bierman 1998), to the best of my knowledge, no empirical research on sector performance during the 1929 crash has been conducted. This is probably due to the lack of daily stock data for 1929. With daily data now available on 17 sectors daily dating back to 1926 (French, 2016), I can analyze the effects of the Great Crash of 1929 on different sectors of the stock market.

I use data on the daily stock returns for each sector leading up to and following the crash in October of 1929. I focus on three specific days, October 28<sup>th</sup>, 29<sup>th</sup>, and 30<sup>th</sup> of 1929, because each of these days had a market swing of over 10 percent. Unlike earlier literature that provides a general summary of the effects felt by various industrial sectors, I employ standard event study techniques in finance to measure gross and abnormal returns for all 17 sectors.

My study yields the gross and abnormal returns for each separate industry sector. For the 3-day cumulative gross returns from October 28<sup>th</sup> to October 30<sup>th</sup>, 1929, the sectors least affected were Construction (negative 7.99 percent),

Transportation (negative 8.06 percent), and Consumer Goods (negative 8.09 percent). Sectors impacted the most were Chemicals (negative 20.30 percent), Finance (negative 18.94 percent), and Machines (negative 16.69 percent). These returns are compared to the overall market which fell 12.45 percent. For the 3-day cumulative abnormal returns, the top performers were Cars (positive 5.03 percent), Construction (positive 4.88 percent), and Consumer Goods (positive 2.69 percent). The worst performers were Chemicals (negative 5.85 percent), Retail (negative 5.43 percent), and Mines (negative 5.22 percent). My findings allow me to use empirical analysis to compare individual industry sector performance across 17 sectors, using the results to explain variations in performance versus previous economic literature and arguments.

## **2. Literature Review**

There are many theories surrounding the causes for the Stock Market Crash of 1929. Galbraith (1954) argues that one major reason for the occurrence of the crash was the incredible speculation on the New York Stock Exchange. He states that as the boom began in the early years of the 1920's, individuals as well as institutional investors began to greatly increase their trading activity. This increase in activity caused a rise in stock values across the board, building up to a culture of Americans buying large volumes of stocks not for their returns, but rather for quick resale at inflated prices (Galbraith, 1954). To make the situation worse, the speculative trading was largely done on credit, creating a massive underlying bubble that was waiting to pop. Thus, when the stock market began to turn grim in the fall of 1929, stockbrokers were required to issue margin calls, which caused panic selling that resulted in the tumbling of the stock market. While Galbraith (1954) does no empirical analysis on different sectors of the market during 1929, he does speak to the effect it had on the purchasing power of individuals of the time. He states that the crash resulted in consumers cutting purchases, manufacturers cutting back production, and employers choosing to lay-off workers. The financial sector was brought down with their issues of credit, and that resulted in the bankruptcy of many banks. The economy was left in a state where money was tight and purchasing power was low.

White (1989) revisits the United States stock market crash of 1929 by compiling numerous sources focused on the catalysts of the crash. He suggests that speculation was indeed a factor because of America's use of credit and investment trusts, contributing to higher trading activity and high valuations of



stocks. He attributes market fundamentals as the initial cause of the bubble, but goes on to argue that they were never strong enough to sustain the rapid growth in valuations of stocks. He cites the work of Sirkin (1975), that stated that high stock prices and high price-to-earnings ratios were a consequence of expected rapid growth of earnings. In particular, White (1989) shows this by creating a graph of stock prices vs. dividends for all the major companies in the Dow-Jones Index from 1926 – 1929. Leading up to 1928, there was a minimal gap between the two, but from 1928 – 1929, the gap increased massively. The start of this increase was attributed by White (1989) to when the market was becoming over-valued. He explains how the increase in stock prices vs. the hesitancy of managers to increase dividends meant that the managers knew that their revenue growth was not sustainable, showing that they did not share the same enthusiasm as the general public. He also shares that previous economists have argued that the crash began in the public utilities sector, which was extremely popular at the time and had experienced massive growth leading up to October, but he says that there is not enough evidence for proof of this theory.

Bierman (1998) explores the reasons for the “Great Crash” in an attempt to give the reader a better understanding of the events that unfolded during the last days of October, 1929. He highlights that speculation was the common belief for the explanation of the crash during that time period, (see for example, Keynes 1930 and Hoover 1950), but he did not agree with this explanation. He states that one major reason to reject the belief of speculation is to study the reactions of leading economists of the time. Specifically, he shows that both Irving Fisher and John Maynard Keynes, considered leading economists of the 1920’s, were bullish before and after the crash in October, 1929. Neither profited from their views, and lost heavily over the crashing market. Therefore,

the belief is that it was not just “fools” and speculators that drove stock prices up, but rather economic indicators that supported their growth.

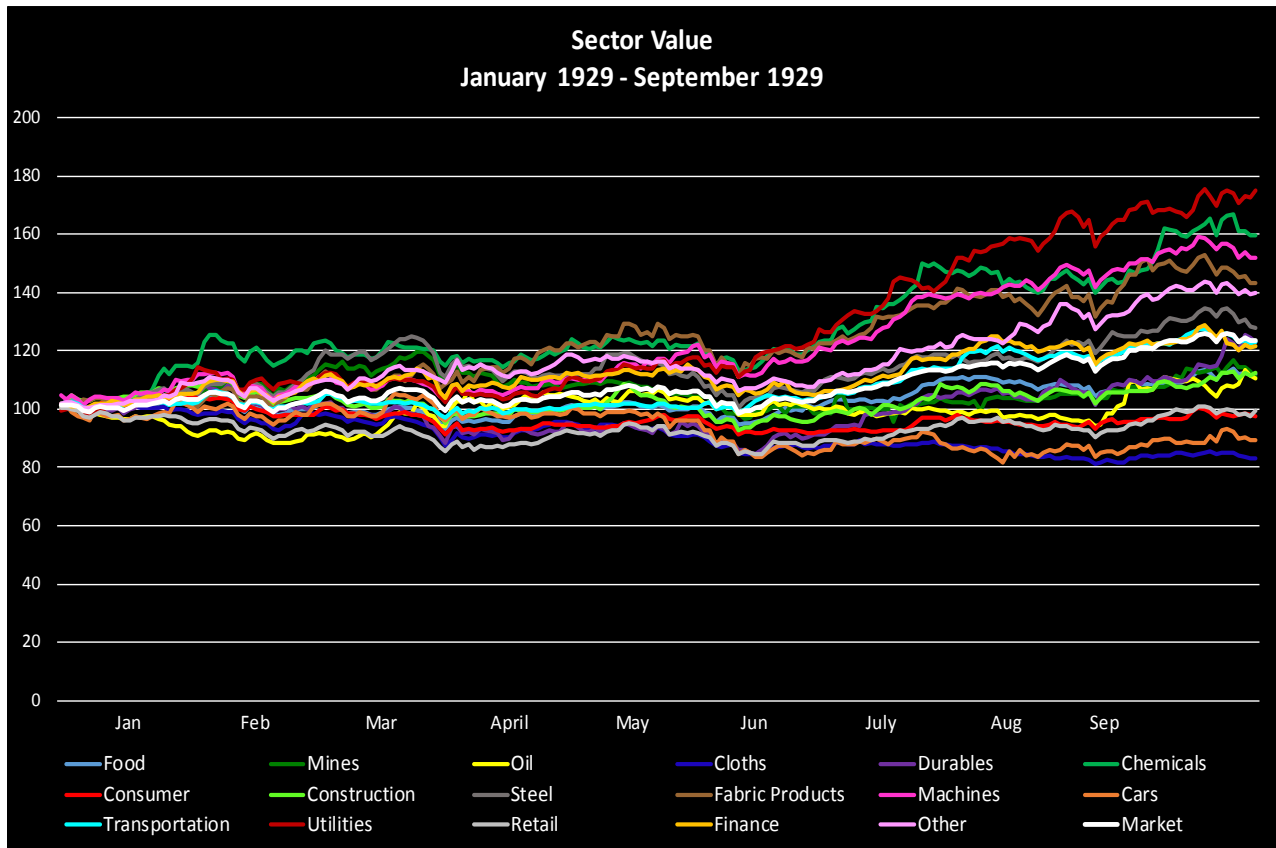
Bierman (1998) also touches on the growth and expansion of investment trusts as a reason for the crash. He takes an article from *The Economist* in 1929 that reported that \$1 billion of investment trusts were sold in the first 8 months of 1929, compared to the entire year of 1928's total of \$400 million, illustrating their increasing popularity. These trusts acted similar to the mutual funds of today, where small investors were able to pool their money in order to achieve greater diversification. The problem with these trusts was that they were highly levered, and were particularly vulnerable to stock price declines. At the time, these trusts were considered reliable because of their experienced management and ability to diversify portfolios, but a diversification of stocks during that time period could not stand the burden of large universal price declines. Bierman (1998) goes on to explain how certain information would be extremely helpful in order to better explain the effects caused by investment trusts. He states that information such as the percentage of the portfolio that were public utilities, the extent of their diversification, the percentage of portfolios that were NYSE firms, and the amount of debt and preferred stock leverage used would be extremely insightful.

To the best of my knowledge, however, there are no papers specifically examining the sectoral effects in 1929. Despite this, one can gain some insight on the sectoral effects from the aforementioned discussed thus far. Bierman (1998) states that during the time leading up to October, 1929, stock prices did not rise across all industries. He explains that stock prices rose most in industries where economic fundamentals illustrated a reason for public optimism. These sectors included airplanes, agriculture, chemicals, department stores, steel, utilities, telephones/telegraph, electrical equipment, oil, paper, and

radio. Richardson (2013) also concluded that automobiles, telephones, and other new technologies were experiencing rapid growth leading up to the crash. Due to their success and expansion during the 1920's, Bierman (1998) comes to the conclusion that these were reasonable choices for further sectoral growth. In his writing, he focuses specifically on public utilities, citing Wigmore (1985) who concluded that at the time of the crash the sector was trading at three times its book value, an indication he argued hinted at a bubble.

I attached below a graph of individual sector value in the nine months leading up to the crash. I created this graph using the daily returns given by Kenneth French's 17 Industry Portfolio sample for each industry sector starting in January of 1929. The purpose of this graph is to illustrate the sectors that were experiencing high growth leading up to the crash. The graph illustrates how sectors such as Utilities, Machines, and Chemicals were experiencing very high growth in the months leading up to the crash, while industries such as Cars and Cloths were experiencing significant losses.

**Figure 1.**



Data taken from *Kenneth French's 17 Industry Portfolio's* (French, 2016)

The goal of this paper is to research the returns of each sector during this stock market crash, and provide an explanation for abnormal returns across the market. While economists focused mainly on the Public Utility and Financial sectors during the crash, this paper will expand the research to 17 sectors during the 1929 stock crash, explicitly examining the returns of each individual one.

### 3.) Data

I use data from Kenneth French's 17 Industry Portfolios sample (French, 2016). The data set is ideal for my purposes because it tracks the daily returns of 17 sectors from 1926 through 2015 in the United States. I argue that the 17 industry sectors accurately divide and capture the entire U.S. financial market during this time period. The industry sectors variables include; Food, Mines (Mining and Minerals), Oil (Oil and Petroleum products), Clothes (Textiles, Apparel & Footwear), Durables (Consumer Durables), Chemicals (Chemicals), Consumer (Drugs, Soap, Perfumes, Tobacco), Construction (Construction and Construction Materials), Steel (Steel Works etc.), Fabricated Products, Machinery (Machinery and Business Equipment), Cars (Automobiles), Transportation, Utilities, Retail (Retail Stores), Finance (Banks, Insurance Companies, and Other Financials), and Other. I created 3 dummy variables to account for the two days where the market experiences extreme losses, October 28<sup>th</sup> and 29<sup>th</sup>, as well as the following day of October 30<sup>th</sup>, where the market experienced a massive recovery gain. Attached below are the summary statistics I gathered from French's data set of the three major days of extreme market returns versus the 17 industry sectors as a whole. Table 1 illustrates how there was a wide range of returns posted across all the industry sectors.

**Table 1.**  
Sample Statistics: Industry Sectors vs. Market Returns

	Date		
	28-Oct-29	29-Oct-29	30-Oct-29
Market Return	<b>(0.1127)</b>	<b>(0.1199)</b>	<b>0.1218</b>
Sector Return Mean	<b>(0.1112)</b>	<b>(0.1162)</b>	<b>0.1113</b>
Standard Error	<b>0.0095</b>	<b>0.0108</b>	<b>0.0108</b>
Median Return	<b>(0.1073)</b>	<b>(0.1207)</b>	<b>0.1204</b>
Standard Deviation	<b>0.0392</b>	<b>0.0445</b>	<b>0.0445</b>
Sample Variance	<b>0.1533</b>	<b>0.1978</b>	<b>0.1983</b>
Range	<b>0.1491</b>	<b>0.1842</b>	<b>0.1796</b>
Minimum	<b>(0.1729)</b>	<b>(0.1917)</b>	<b>0.0272</b>
Maximum	<b>(0.0238)</b>	<b>(0.0075)</b>	<b>0.2068</b>

Data taken from *Kenneth French's 17 Industry Portfolio's* (French, 2016)

#### 4.) Empirical Strategy

To formally test the effects of the crash on each industry sector, I examine each sector individually and compare it to the market in terms of its gross returns and impact of the three major days of the market crash. Thus, the return for each industry sector is estimated from a linear regression of the following form

$$(1) \quad S_i = \alpha + \beta_{mkt} + \beta_{d1} + \beta_{d2} + \beta_{d3} + \varepsilon_i$$

where  $S_i$  is the return for the specific industry sector,  $mkt$  is the market return,  $d_1$  is a dummy variable accounting for October 28<sup>th</sup>, 1929,  $d_2$  is a dummy variable accounting for October 29<sup>th</sup>, 1929, and  $d_3$  is a dummy variable accounting for October 30<sup>th</sup>, 1929.

## 5.) Results

The following pages explore my results for each individual industry sector's performance versus the market. Table 2 below describes the results found through each regression of the respective industry sector. This table also illustrates the impact of each date I analyzed using dummy variables and the coefficients they produced. The coefficients of the three specific days explains the abnormal returns for that industry sector on that specific day. The table is sorted by the 3-day abnormal return for each sector, starting from the worst overall abnormal return. The 3-day abnormal return was calculated using the sum of the three coefficients from the three days that I am studying. As the economists I referenced suggested, the utilities industry sector had been experiencing extreme growth leading up the crash, but what is interesting is that the abnormal returns for that sector for each individual day were not too extreme. Utilities largest abnormal return was just over 3 percent, on October 29<sup>th</sup>, suggesting that overall the sector's performance was mostly in-line with market expectations. The same can be said for the Oil and Steel sectors, where their abnormal returns were comparatively minimal. On the other hand, a few of the industries experienced massive abnormal returns during these three days. Construction for example took a huge hit on the first day, October 28<sup>th</sup>, posting an abnormal negative return of over 6.3 percent. The next day, it posted an even bigger abnormal return of over 10 percent, except this time it was in the positive direction. On October 29<sup>th</sup>, the Mining sector took the largest hit, posting a negative abnormal return of over 8 percent. For the last day, the two sectors that posted the biggest abnormal returns were the Durables and Cars sectors. Durables posted a negative abnormal return of over 7.3 percent on October 30<sup>th</sup>, which is not surprising given the nature of durable goods in a tight market. What is surprising is the abnormal positive return



of the Cars sector of over 7 percent, since the automobile industry is composed of high ticket items. The abnormal returns of each date and sector can be found below.

**Table 2.**  
Linear Regression Output

	<i>Mkt Beta</i>	<i>Standard Deviation</i>	<i>Oct 28 (Coef.)</i>	<i>Oct 29 (Coef.)</i>	<i>Oct 30 (Coef.)</i>	<i>3-Day Ab Return</i>	$\alpha$
<i>Industry Sector</i>							
<b>Chemicals</b>	1.1449	0.0666	(0.0142)	(0.0548)	0.0106	(0.0583)	0.0003
<b>Retail</b>	0.8830	0.0343	(0.0008)	(0.0098)	(0.0437)	(0.0543)	(0.0010)
<b>Mines</b>	0.3950	0.0822	0.0211	(0.0847)	0.0114	(0.0522)	(0.0004)
<b>Cloths</b>	0.5384	0.0627	0.0058	(0.0057)	(0.0368)	(0.0367)	(0.0015)
<b>Machines</b>	1.1123	0.0481	(0.0248)	0.0064	(0.0139)	(0.0323)	0.0004
<b>Fabrics</b>	1.0844	0.0884	(0.0022)	(0.0146)	(0.0102)	(0.0270)	0.0003
<b>Finance</b>	1.2574	0.0773	(0.0141)	(0.0232)	0.0136	(0.0238)	(0.0011)
<b>Other</b>	1.0031	0.0508	(0.0213)	0.0067	(0.0026)	(0.0172)	0.0008
<b>Durables</b>	1.3244	0.1595	0.0420	0.0264	(0.0731)	(0.0047)	(0.0000)
<b>Transportation</b>	0.6798	0.0368	0.0051	0.0119	(0.0202)	(0.0033)	0.0005
<b>Steel</b>	0.9805	0.0625	0.0113	0.0179	(0.0212)	0.0081	0.0002
<b>Food</b>	0.8969	0.05241	(0.0035)	(0.0134)	0.0288	0.0119	0.0003
<b>Oil</b>	0.9576	0.0991	0.0218	0.0131	(0.0158)	0.0191	0.0008
<b>Utilities</b>	1.3258	0.0612	(0.0030)	0.0337	(0.0114)	0.0193	(0.0001)
<b>Consumer</b>	0.9206	0.2072	0.0129	0.0313	(0.0173)	0.0269	0.0009
<b>Construction</b>	0.9704	0.07978	(0.0634)	0.1090	0.0027	0.0483	(0.0001)
<b>Cars</b>	1.1418	0.103	0.0115	(0.0313)	0.0702	0.0503	(0.0024)

Data taken from *Kenneth French's 17 Industry Portfolio's* (French, 2016)

Table 3 focuses on the gross returns of each industry sector versus the market. The first three columns are the returns for each individual day of the crash. The fourth column describes the 3-day gross return of each industry sector for the period of October 28<sup>th</sup> through the 30<sup>th</sup>. The table is sorted by sector performance based on its 3-day gross return, starting with the worst individual industry performance which was Chemicals.

The performance of the Chemicals sector is interesting because of the lack of attention it was given by previous literature. Posting an overall 3-day negative gross return of more than 20 percent, the sector took the largest dip out of all of the 17, but the reaction of this sector is expected in a downturn of an economy. The second worst performing industry sector was Finance. I expected this because of previous literature and because a large negative reaction to the Finance sector is common in financial crisis's. Other sectors that fell in-line with my expectations were the Consumer Goods and Oil sectors. Since these industries are composed of goods that are necessities, their solid performance compared to the market was not unexpected. Two industries predicted to feel large negative effects were the Utilities and Durables sectors. Surprisingly, even though both sectors lost roughly 15 percent of their value over the 3-day period, their returns were not comparatively abnormal and very in-line with market expectations. The focus of Bierman (1998) and White (1989) on the Utilities sector made me anticipate a greater negative return by the industry. The most surprising performance was the Construction sector. Construction performed the best compared to the other 16 sectors, posting a 3-day negative gross return of only 8 percent. Perhaps this can be explained by the industry sector's performance leading up to the crash. Shown in Figure 1, Construction performed well below the market in the months leading up to the crash. Therefore, there is a possibility that the market had already adjusted for a decline in the Construction sector and as a result, the crash's impact was minimal. Even though the returns were middle of the road, the Cars sector

performed well compared to my expectations, considering automobiles are high ticket items. An explanation to this could be the popularity of automobiles at the time, since it was not a common item to be held by the average household.

**Table 3.**  
Individual Sector Daily & Gross Returns

	<i>Oct. 28</i>	<i>Oct. 29</i>	<i>Oct. 30</i>	<i>3 Day Gross Return</i>
<b>Market</b>	(0.1129)	(0.1201)	0.1216	(0.1245)
<i>Industry Sector</i>				
<b>Chemicals</b>	(0.1429)	(0.1917)	0.1504	(0.2030)
<b>Finance</b>	(0.1569)	(0.1751)	0.1656	(0.1894)
<b>Machines</b>	(0.1498)	(0.1266)	0.1219	(0.1669)
<b>Fabrics</b>	(0.1242)	(0.1444)	0.1221	(0.1592)
<b>Durables</b>	(0.1073)	(0.1324)	0.0881	(0.1573)
<b>Retail</b>	(0.1013)	(0.1167)	0.0628	(0.1563)
<b>Utilities</b>	(0.1526)	(0.1254)	0.1499	(0.1478)
<b>Other</b>	(0.1335)	(0.1128)	0.1204	(0.1387)
<b>Cars</b>	(0.1197)	(0.1707)	0.2068	(0.1190)
<b>Steel</b>	(0.0990)	(0.0995)	0.0984	(0.1088)
<b>Food</b>	(0.1043)	(0.1207)	0.1383	(0.1035)
<b>Mines</b>	(0.0238)	(0.1324)	0.0591	(0.1030)
<b>Cloths</b>	(0.0564)	(0.0718)	0.0272	(0.1003)
<b>Oil</b>	(0.0853)	(0.1009)	0.1016	(0.0940)
<b>Consumer</b>	(0.0900)	(0.0782)	0.0957	(0.0809)
<b>Transportation</b>	(0.0710)	(0.0691)	0.0631	(0.0806)
<b>Construction</b>	(0.1729)	(0.0075)	0.1208	(0.0799)

Data taken from *Kenneth French's 17 Industry Portfolio's* (French, 2016)

After calculating the gross and abnormal returns for each sector, I was particularly interested in the Finance sector. From previous literature, the Banking sector was mentioned to be hit particularly hard. With investment trusts also mentioned by multiple pieces of literature, I expected the Trading sub-sector to experience massive losses as well. Using data from Kenneth French's 48 Industry Portfolio's, I was able to obtain the data needed to run the same regressions I had previously ran, but with 3 sub-sectors of Finance. These sectors include, Banking, Insurance, and Trading. Table 4 illustrates my results. As predicted, both the Banking and Trading sector took a massive hit. Banking was hit hard especially on the first day, October 28<sup>th</sup>, where it posted a negative abnormal return of over 9 percent. It is important to point out that the Trading Sector had very minimal abnormal returns, which could be attributed to the previously stated idea that investment trusts were largely responsible for the possible speculation in the market.

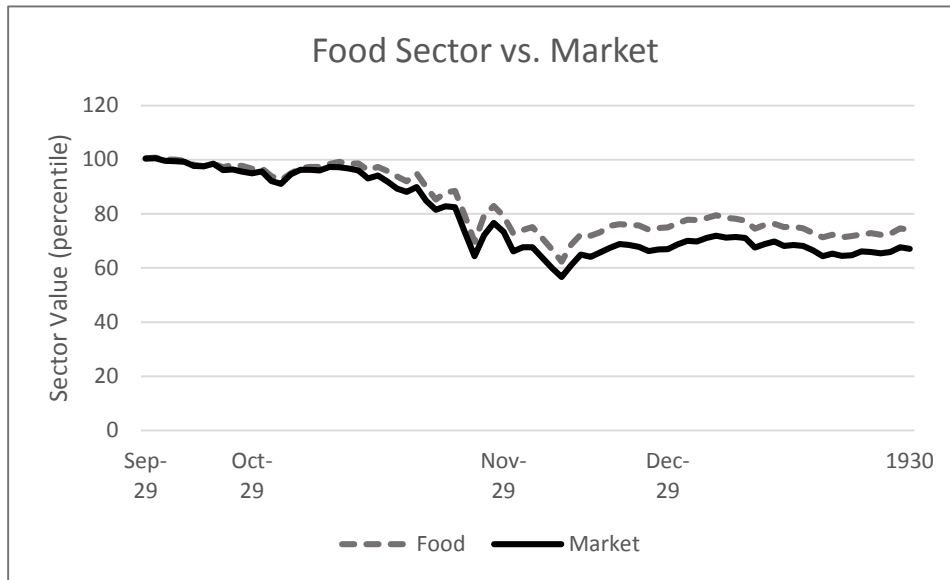
**Table 4.**  
Finance Sub-Sector Performance

	<u>Oct. 28</u>	<u>Oct. 29</u>	<u>Oct. 30</u>	<u>3 Day</u> <u>Gross</u>	<u>Oct. 28</u> <u>(Ab)</u>	<u>Oct. 29</u> <u>(Ab)</u>	<u>Oct. 30</u> <u>(Ab)</u>	<u>3 Day Ab</u> <u>Return</u>
<b>Market</b>	(0.1129)	(0.1201)	0.1216	(0.1245)				
<i>Industry Sector</i>								
Fin(Banking)	(0.2043)	(0.1468)	0.1906	(0.1917)	(0.0971)	(0.0330)	0.0821	(0.0480)
Fin(Insurance)	(0.1504)	(0.1496)	0.1235	(0.1883)	(0.0255)	(0.0167)	(0.0123)	(0.0544)
Fin(Trading)	(0.1870)	(0.2207)	0.2328	(0.2189)	(0.0061)	(0.0283)	0.0390	0.0046

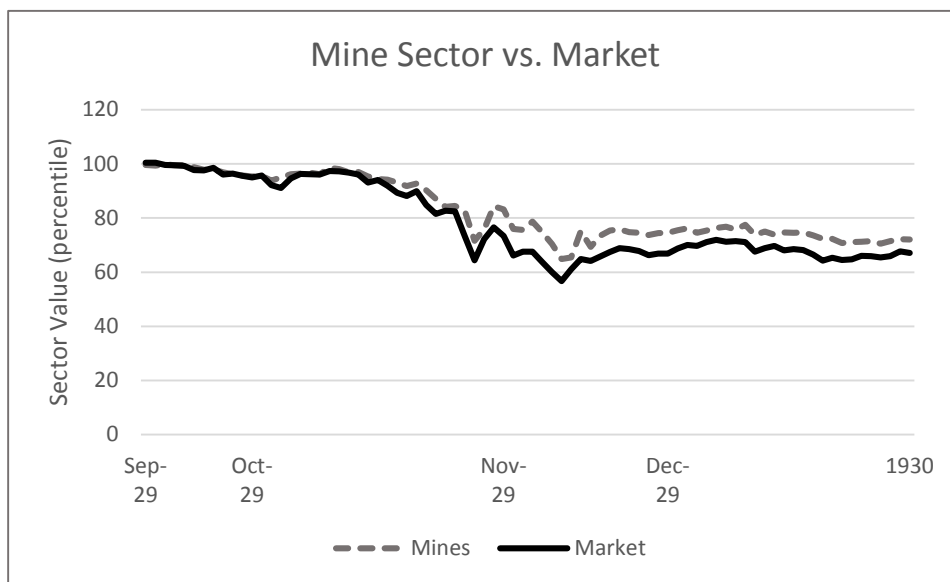
Data taken from *Kenneth French's 17 Industry Portfolio's* (French, 2016)

I then created a graph for each industry sector versus the market in terms of overall gross returns. Each graph starts at the peak of the market, which is in the middle of September, 1929. The graphs continue until the end of 1929, capturing the 3 major days of discussion and providing the 1929 year-ending value of each industry sector. The purpose of these graphs are to compare sector performance for the 3 days in focus versus the last 2 months of 1929. Particularly interesting is the year ending performance of the Construction sector versus the Consumer Goods sector. While both sectors performed relatively well during the 3 major days of market swings, their year-end performances were drastically different. Construction performance mimicked the overall market, but Consumer Goods greatly outperformed. This can probably be explained by the nature of Consumer Goods being a necessity good that will always have demand from the market. The Machine sector on the other hand was the 3<sup>rd</sup> worst performing sector in the crash, but recovered back towards the average market return by the end of 1929. All sector comparisons are shown below.

**Figure 2.**

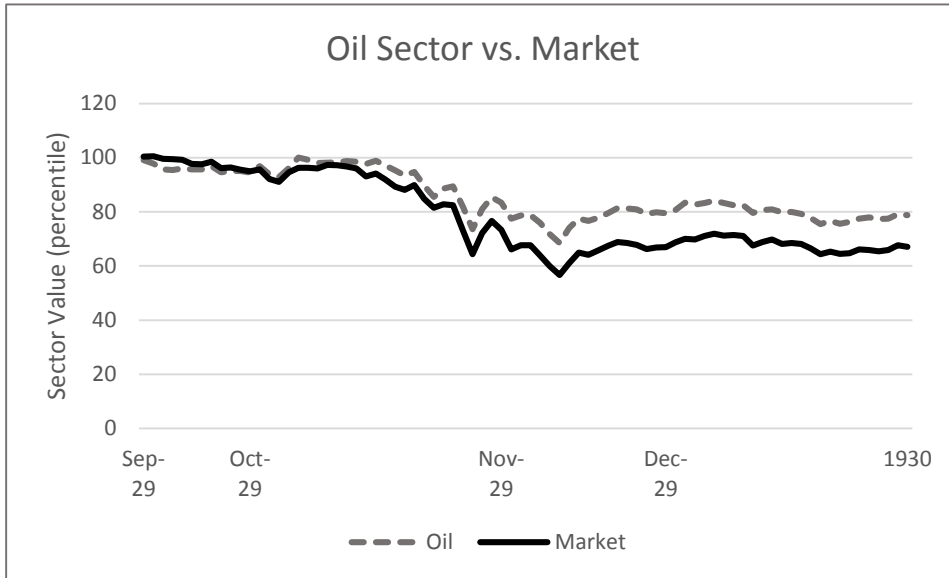


**Figure 3.**

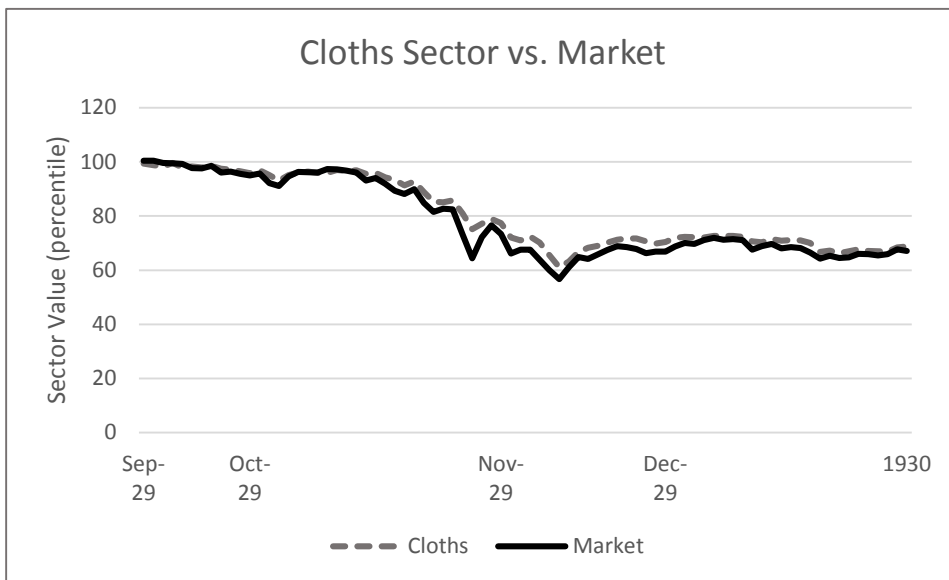


Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*

**Figure 4.**

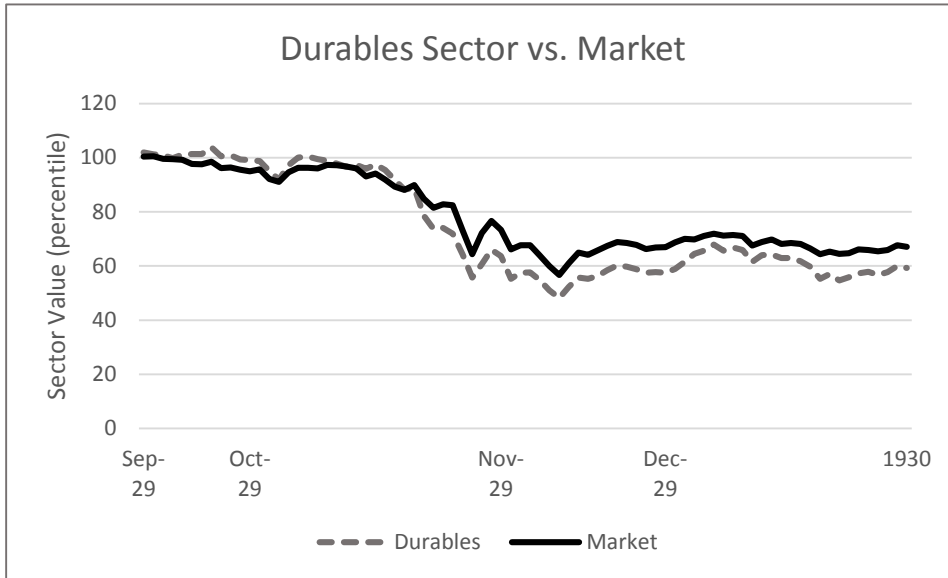


**Figure 5.**

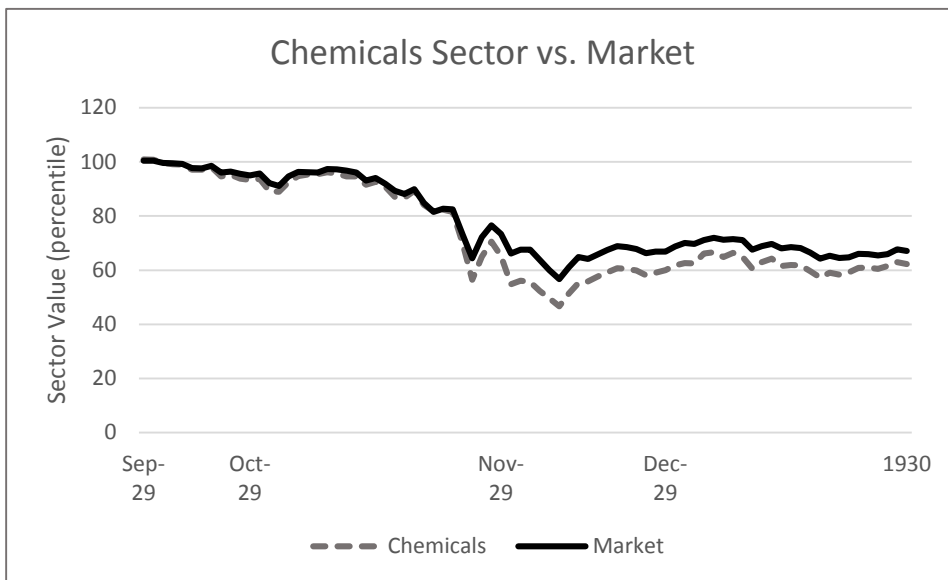


Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*

**Figure 6.**



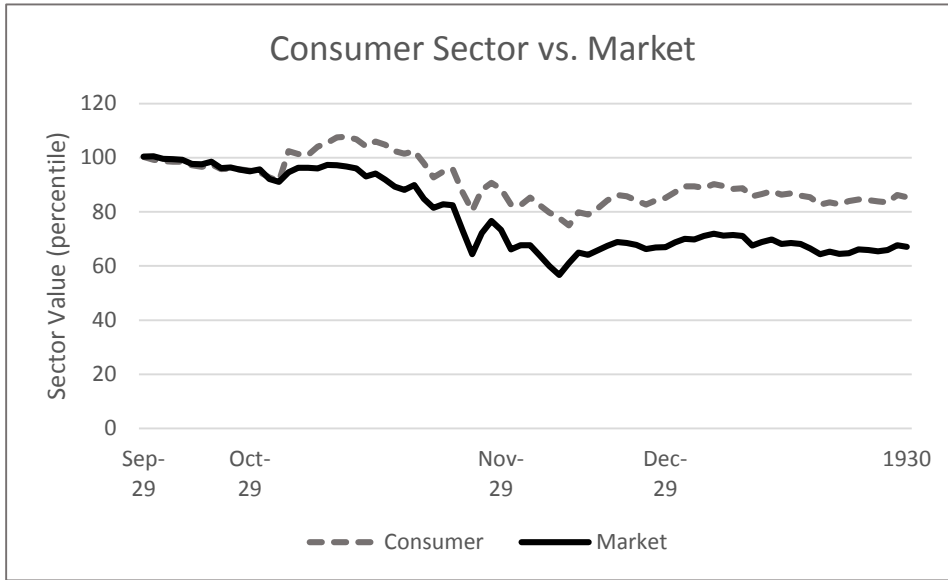
**Figure 7.**



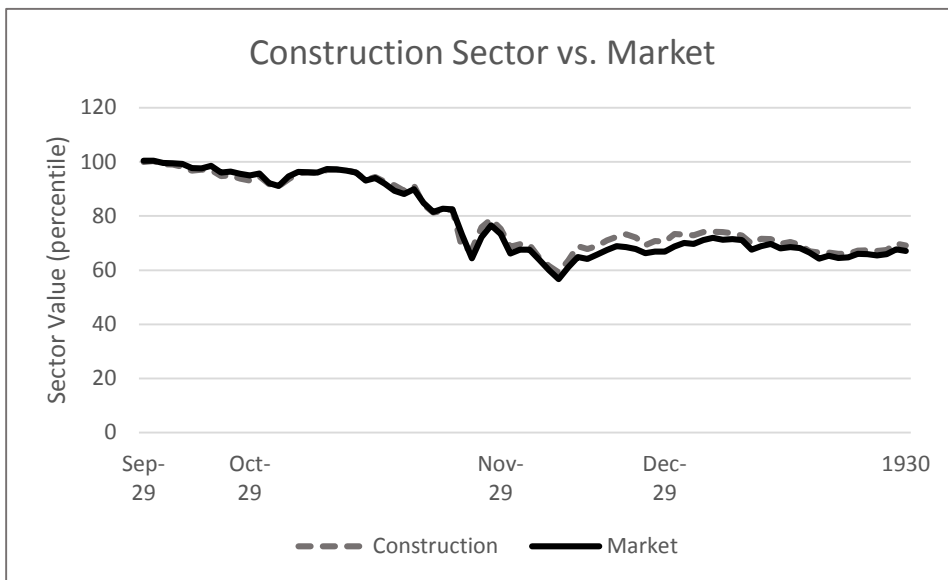
Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*



**Figure 8.**

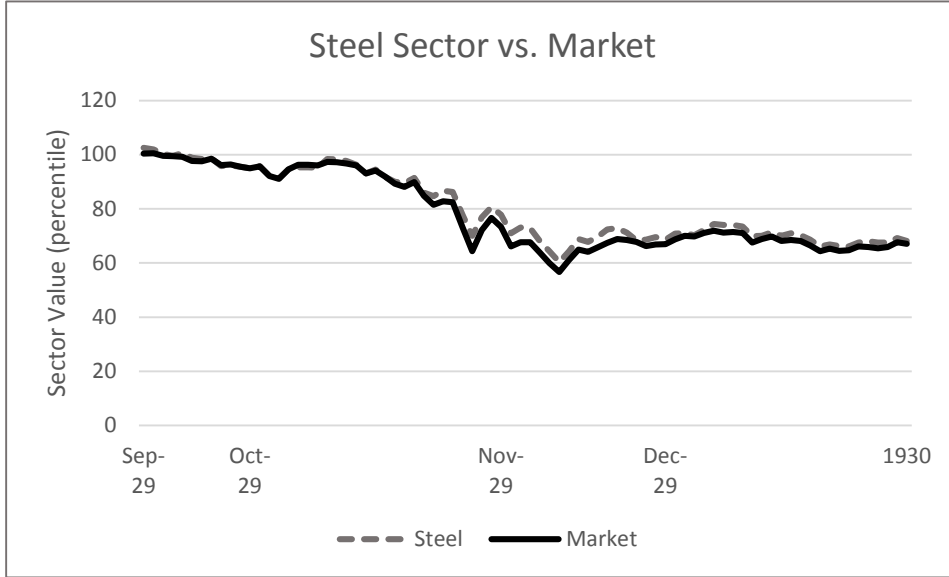


**Figure 9.**

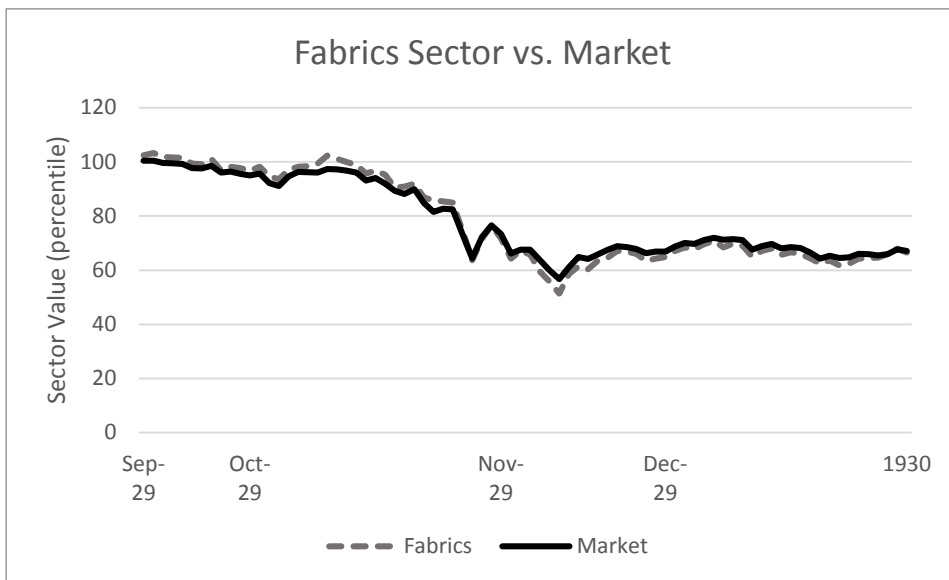


Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*

**Figure 10.**

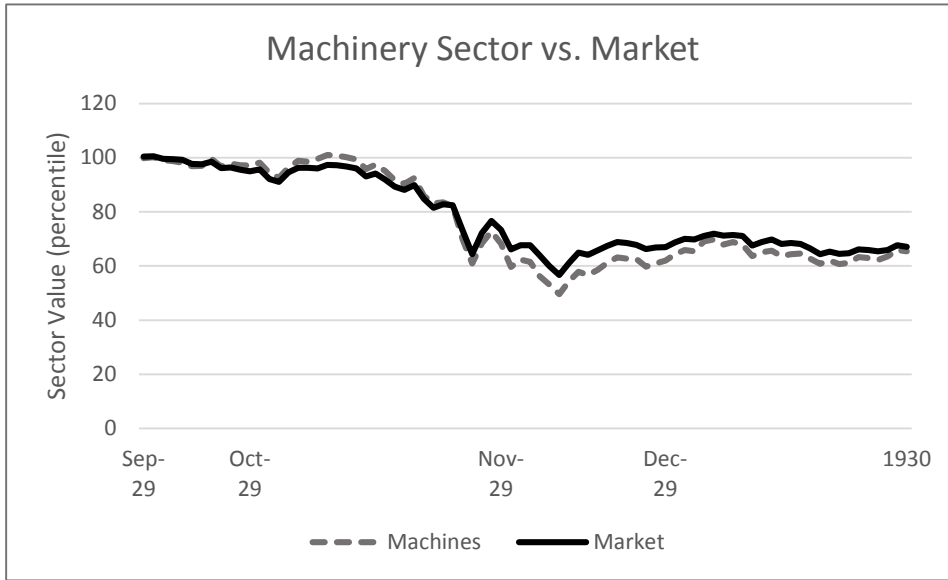


**Figure 11.**

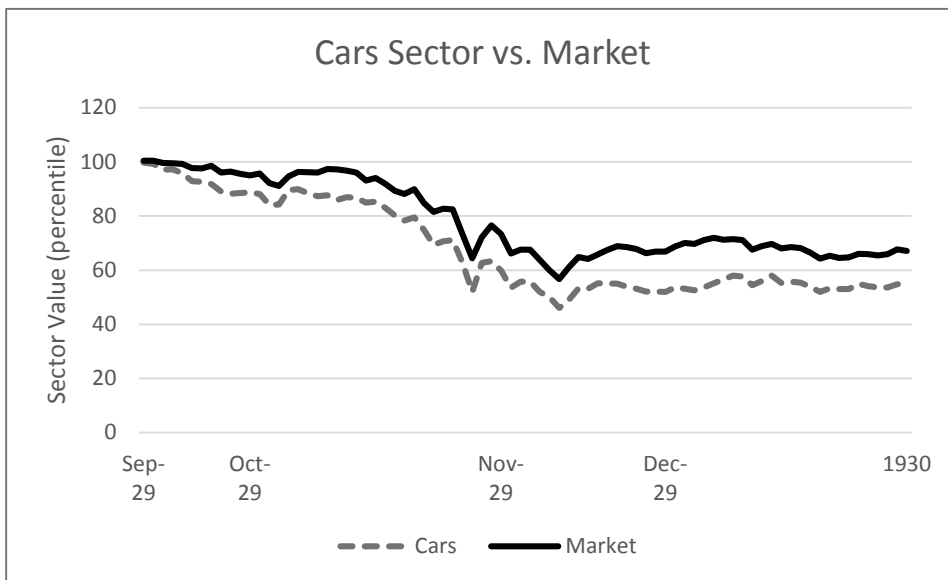


Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*

**Figure 12.**

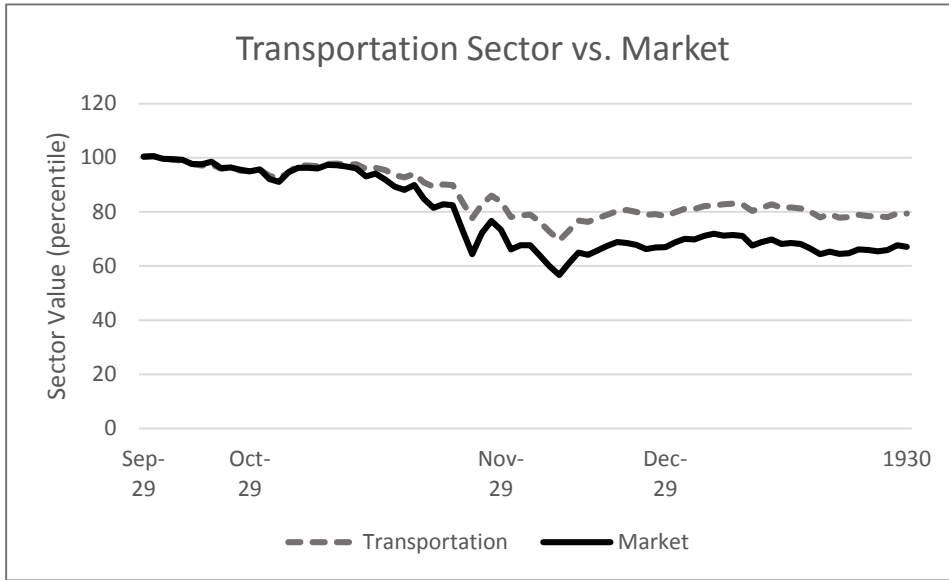


**Figure 13.**

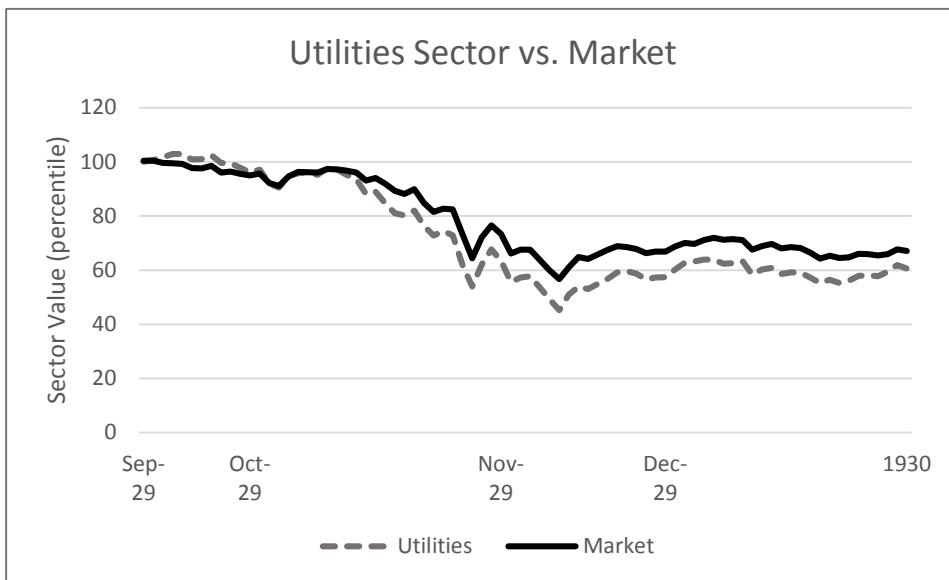


Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*

**Figure 14.**

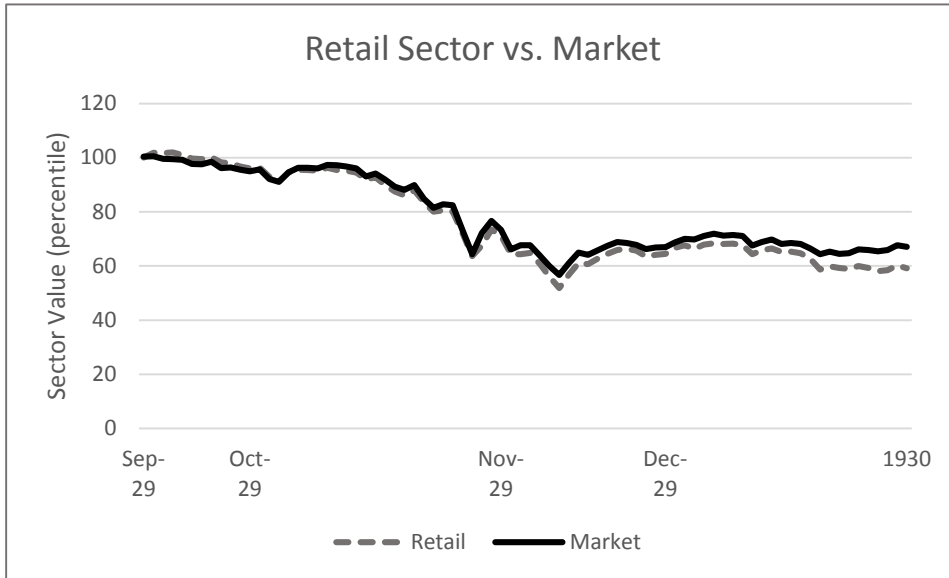


**Figure 15.**

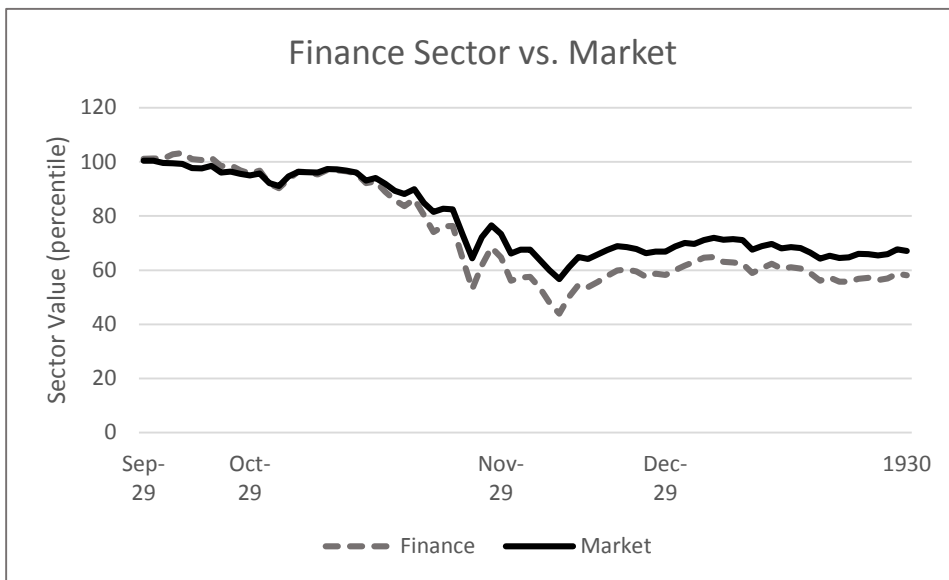


Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*

**Figure 16.**



**Figure 17.**

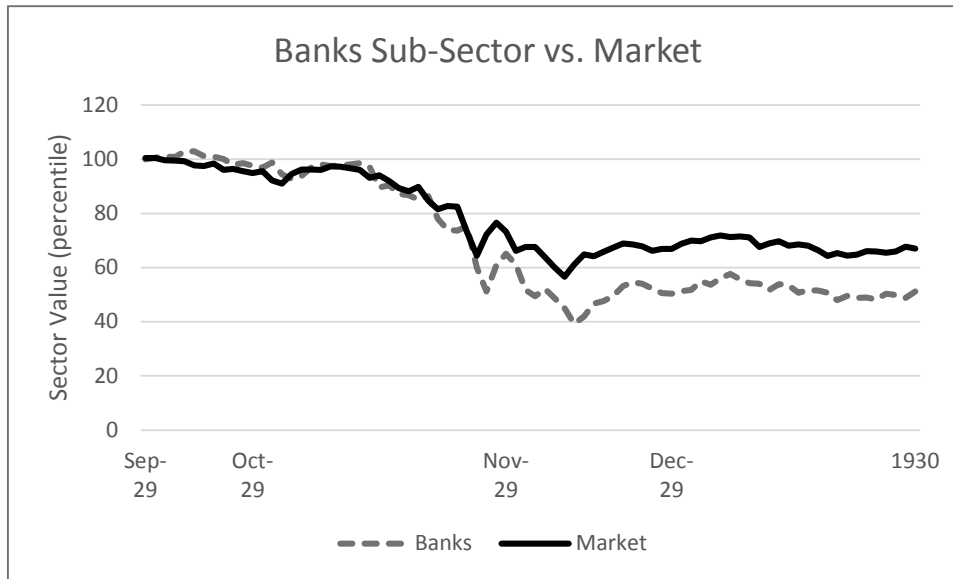


Notes: The data used for both graphs are from *Kenneth French's 17 Industry Portfolios*

**Figure 18.**

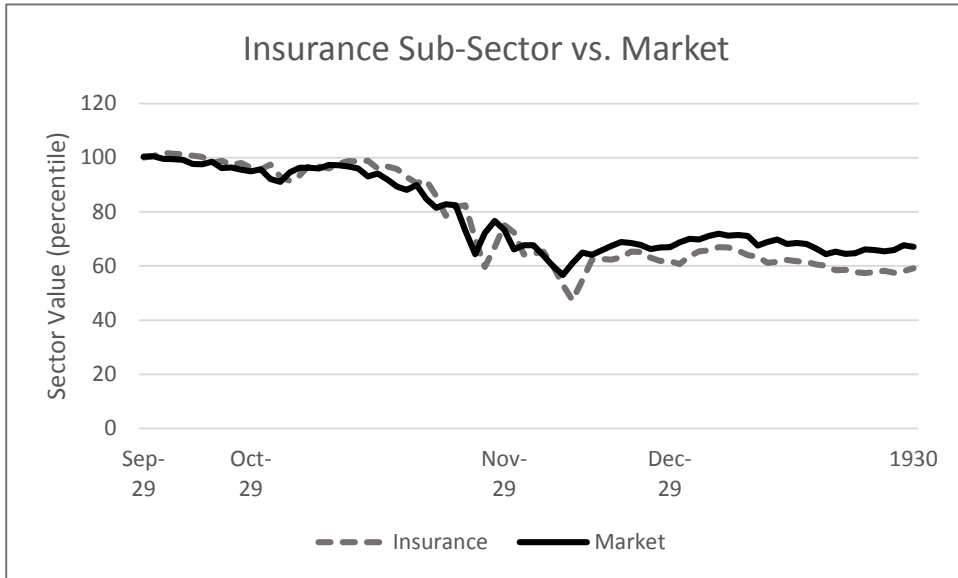


**Figure 19.**

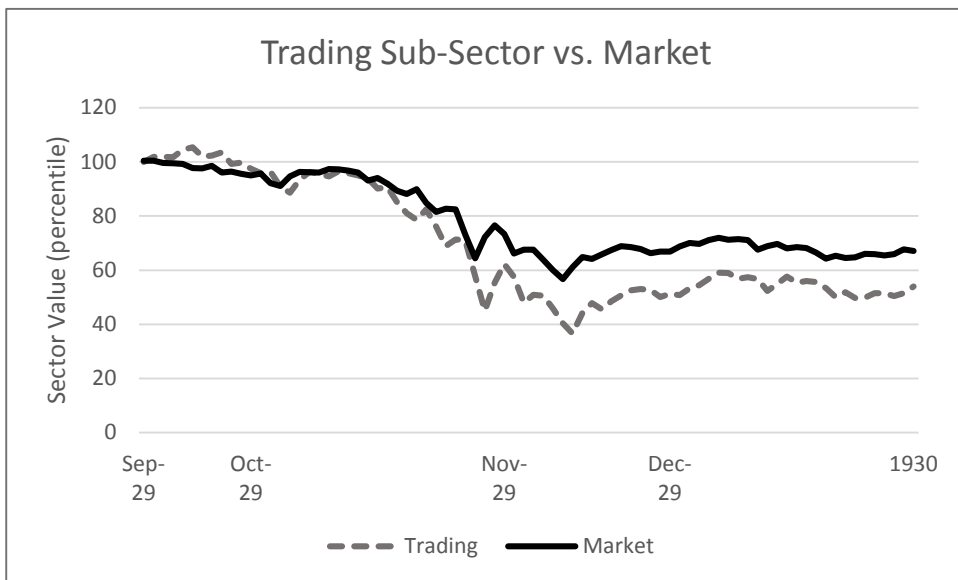


Notes: The data used for Figure 18 is from *Kenneth French's 17 Industry Portfolios*, Figure 19 uses data from *Kenneth French's 48 Industry Portfolios*,

**Figure 20.**



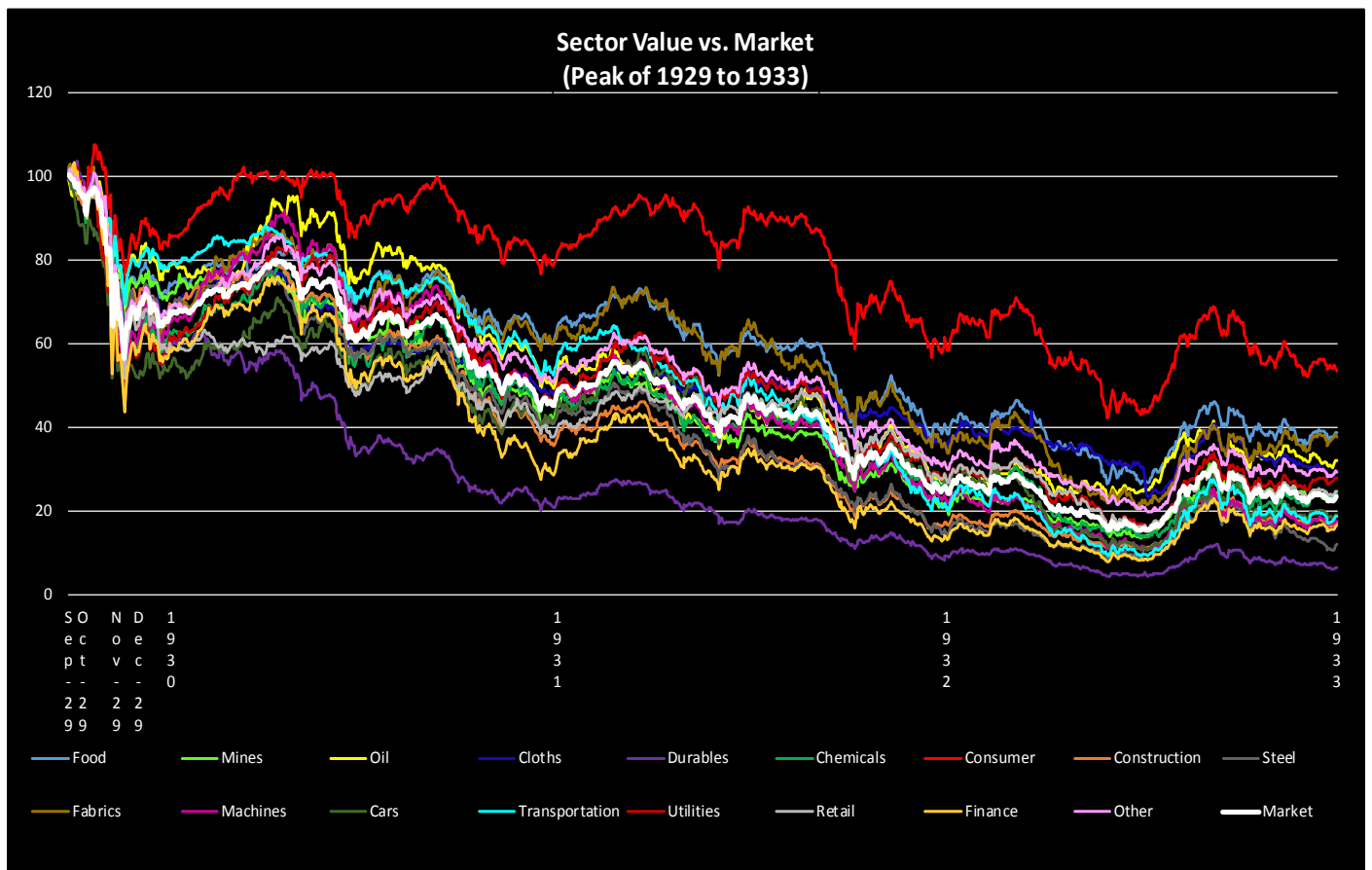
**Figure 21.**



Notes: The data taken for both graphs are from *Kenneth French's 48 Industry Portfolios*

To further analyze the impact each industry sector felt after the crash, I created a graph that compared all 17 industry sectors to the market through the Great Depression. I again started from the peak of the market in September of 1929, but this time I used data through the end of 1932. My findings were mostly in-line with expectations. Consumer Goods out-performed every other industry sector by a large margin, while Consumer Durables as well as Financials were consistent under-performers throughout the entire 3-year span. Attached below is the comparative graph.

**Figure 22.**



Data taken from *Kenneth French's 17 Industry Portfolio's* (French, 2016)



## 6.) Conclusion

The era of growth and prosperity of the 1920's ended with the unparalleled market downfall in the stock market crash of 1929 (Richardson, 2013). With data previously unavailable, sectoral effects during the crash can now be described empirically. I formally analyze the effects of the United States Stock Market Crash on October 28<sup>th</sup>, 29<sup>th</sup>, and 30<sup>th</sup>, 1929, on 17 industry sectors across the entire market. The market lost over 12.45 percent of its value on those three days, motivating my research to discover which industry sectors were affected the most. Using Kenneth French's 17 Industry's Portfolio data, I examine daily returns from the U.S. stock market from 1929 through 1933, allowing me to observe the sectoral effects from not only the crash, but also the time period of the Great Depression. I argue that certain industry sectors such as finance, utilities, and consumer durables would take major hits to their sector value, this is in line with the work of Galbraith (1954) and Bierman (1998). On the other hand, I argue industry sectors that encompassed necessities would perform well through the crash, such as consumer goods and transportation, which is consistent with the hypothesis of citizen's loss of purchasing power in the work of Galbraith (1954).

In general, my findings are consistent with my arguments above. The main exception is the Construction sector, which performed abnormally well throughout the crash. I conclude that the reason for this abnormality was the sector's decline in value during the earlier months of 1929, therefore the market's correction during the crash had an impact that was not as severe as it was on the other industry sectors.

To further my research, I analyzed 3 specific industry sub-sectors of Finance industry sector; Banking, Insurance, and Trading. My findings illustrated that the Banking and Trading sectors took abnormally large hits during the crash, which was in-line with the research of Bierman (1998). I graphed individual sector returns versus the market through the end of 1929, as well as all 17 industry sectors together versus the market through the end of 1932, with the intent to discover if sector performance during the crash was an indication of future performance through the Great Depression. My findings proved that industry sectors generally reverted back to what economic literature would consider as the typical recession response for that industry.

For future research, the correlation between stock returns by sector to future industry productions could be examined. Schwert (1990) stated that there is a strong positive relation between real stock returns and future production rates. By matching the returns of the sectors I analyzed to industrial data, a study could be done to see if Schwert's (1990) theory holds true in the months following the market crash of 1929, specifically through the Great Depression. Overall, my findings now allow industry sector returns during the 1929 United States Stock Market Crash to be empirically described. To the best of my knowledge, no empirical study has been done to the extent to which I have gone.

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