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"Reoccurring Financial Crises in the United States"

by

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Abstract

The economic history of the United States is riddled with financial crises and banking panics. During the nineteenth-century, eight major such episodes occurred. In the period following World War II, some believed that these crises would no longer happen, and that the U.S. had reached a time of everlasting financial stability and sustainable growth. The Savings and Loans Crisis of the 1980s, the 2001 dot-com bust and the 2007 housing bubble that led to the current global financial crises demonstrate that these phenomena are still reoccurring. Regulators and policy makers should keep aware of the recurrence of such crises.

JEL Classification: E0, E3, E44, E5, E6, N0, N1, N2, G0, G18, G38

Keywords: Financial Crises; Financial Regulations and Reforms; Banking Panics; Banking Runs; Nineteenth and Twentieth Century Crises; Bankruptcies; Federal Reserve Bank; Subprime Mortgage; Troubled Asset Relief Program (TARP); Collateralized Debt Obligations (CDO); Mortgage Backed Securities (MBO); Glass-Steagall Act; J.P. Morgan Chase; Bear Stearns; Augustus Heinze; Timothy Geithner; Paul Volcker.

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Reoccurring Financial Crises in the United States

I. Introduction

Critics have long maintained that financial crises, booms and busts are an inherent part of the capitalist system. The current financial crisis that began in 2007 has reignited the debate about the causes and consequences of previous economic downturns. While some look at the differences among crises, both historical (e.g., Bordo, 2008, Bordo and Haubrich, 2010, Klomp, 2010), and as related to the specific mechanics of the shock triggering a crisis (e.g., Gorton, 2008), others emphasize their similarities across countries and historical episodes (e.g., Reinhart and Rogoff, 2008a, 2008b, 2009a, 2009b, 2010).

This paper presents an overview of the history of financial crises, primarily in the United States. The conclusion is similar to that by Reinhart and Rogoff (2009a, 2009b), namely, these crises are similar.

According to Reinhart and Rogoff (2009b), severe financial crises share three characteristics. *First*, asset market collapses are deep and prolonged. Real housing prices decline an average of 35 percent over six years, while equity prices collapse an average of 55 percent over a downturn of about three and a half years. *Second*, the aftermath of banking crises is associated with profound declines in output and employment. The unemployment rate rises an average of 7 percentage points over the down phase of the cycle, which lasts, on average, over four years. In addition, output falls, from peak to trough, an average of over 9 percent, although the duration of the downturn, averaging roughly two years, is considerably shorter than for unemployment. *Third*, the real value of government debt tends to explode, rising an average of 86 percent in the major post–World War II episodes. As they point out, the main cause of debt explosions is not the costs of bailing out and recapitalizing the banking system. The main cause

of debt increases are the inevitable collapse in tax revenues that governments incur as a result of deep and prolonged output contractions, and the countercyclical fiscal policies in advanced economies aimed at counteracting the downturn.

The remainder of the paper is organized as follows. Section II presents a narrative of three major nineteenth century American financial crises. Section III details the financial crises in the twentieth-century. Section IV describes the current crisis from an American perspective, and the responses of the U.S. and the U.K. Section V summarizes financial crises in Poland. Section VI concludes.

II. Nineteenth Century Financial Crises in the United States

As a newly developed country, the United States experienced a period of frequent banking panics in the nineteenth century with eight major crises. These eight episodes include the Panics of 1819, 1837, 1839, 1857, 1873, 1884, 1893 and 1896. Details of the three major crises of that century that occurred in the years 1857, 1873, and 1893 are described below.

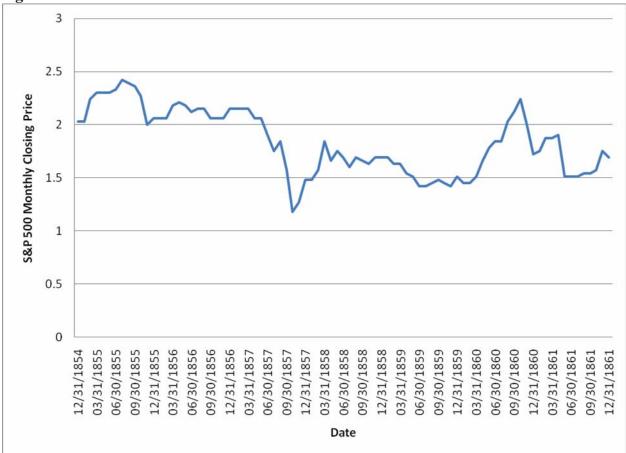
II.1 The Panic of 1857

The panic of 1857 is characterized by the closure of the Ohio Life and Trust Company, a collapse of the stock and bond markets, and a sharp recession. Figure 1 shows the collapse of the stock market, which fell 36 percent from August to October, 1857. This crisis began with an unprecedented discovery of gold. To illustrate the magnitude of the gold discovery, note that from the year 1492 until 1850, the annual value of gold mined averaged \$9 million, whereas the corresponding value for the years 1851 until 1860 averaged \$133 million (Conant, 1915, p. 637).

Since the United States was on a bi-metallic, gold and silver, standard at the time, the discovery of gold effectively doubled the money supply. Consequently, a speculative bubble emerged, mainly in railroads and the land required to build them with nearly \$700 million spent

over nine years accounting for seven-ninths of all railroads in the United States (Conant, 1915, p.

637).





Source: www.globalfinancialdata.com

As the bubble burst, speculators were unable to repay their debts causing some banks to fail. This increased the likelihood of further bankruptcies of financial institutions. Following these bank runs, the stock and bond markets collapsed exacerbating the problem. As banks failed, many cities and states suspended the convertibility of bank deposits into gold. However, lacking a central monetary authority, nation-wide coordination among banks was impossible. Thus, when Philadelphia suspended convertibility and New York City did not, bank runs induced by fear occurred in New York City. Eventually, on October 13, 1857, New York suspended convertibility (Calomiris and Schweikart, 1991, p. 822).

As the crisis continued, some regional coordination of banks emerged. Institutions, such as the New York Clearing House, coinsured coalitions in Indiana and Ohio, and branch banking in the South. The United States was relatively successful in responding to this panic limiting further bank failures. However, more isolated banks were unsuccessful during this crisis. For example, 14 of Indiana's 32 free banks failed during the crisis. On November 20, New York resumed partial convertibility and a major crisis was finally averted (Calomiris and Schweikart, 1991, p. 828).

II.2 The Classical Gold Standard

Following the Panic of 1857, there was a shift from the bimetallic, silver and gold, standard towards the classical gold standard. The passage of the Coinage Act of 1873 ended the legal status of bimetallism in the United States and created a pure gold standard regime (Friedman, 1990, p. 1165). Since many countries already adopted the gold standard, it allowed for relatively free capital flows among them. The gold standard in the United States led to a period of frequent crises, deflation, and concentrated reserves in New York (Bordo and Haubrich, 2010, p. 6).

II.3 The Panic of 1873

The first major United States crisis under the classical gold standard occurred on the same year as the passage of the Coinage Act of 1873. Similar to the Panic of 1857, the Panic of 1873 was preceded by a railroad boom leading to a sharp stock market decline. In this case, the decline was less severe than the panic of 1857, dropping 15.7 percent from August to October as illustrated in Figure 2. It became apparent that railroads corporations were unable to cover their debt obligations, and the bubble burst. This burst led to the failure of trust companies in New York and Brooklyn in early September and the failure of a bank, Jay Cooke & Co, on September

18, which precipitated a banking panic. Runs occurred in nineteen Washington, New York and Philadelphia banks and trust companies on September 19. The stock exchange closed for ten days and the United States was in crisis. Consequently, more banks failed, production decreased and for six years "the pall of depressed industry lay over the United States" (Conant, 1915, pp. 655-656).

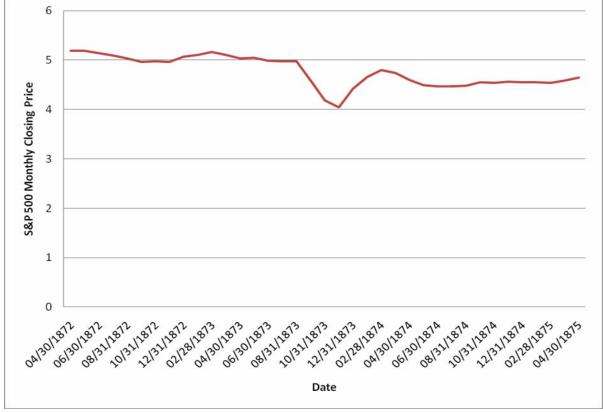


Figure 2: The Panic of 1873

Source: www.globalfinancialdata.com

Simultaneously, the adoption of the gold standard in the United States caused a period of severe deflation, further hindering the repayment of debts. Figure 3 illustrates the deflation in this period, for both the United States and the United Kingdom. Prices in the United States fell from a high of nearly 200 to a low of 90 between late 1860s and end of the 1870s. In response, the United States Treasury attempted to ease the money markets by purchasing \$24 million in bonds. However, this injection of liquidity was largely unsuccessful since a minimal amount of

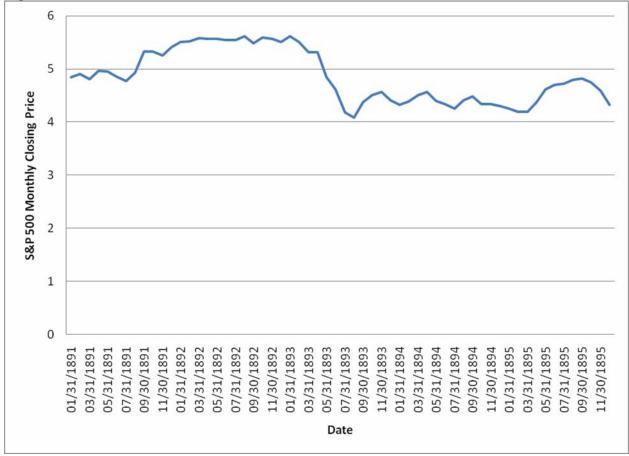
money reached New York. Additionally, the Treasury issued over \$26 million in clearing-house certificates, which enabled banks to exchange their securities for cash. The issuance of these certificates was more effective, but insufficient to stabilize the system. The combination of the burst of a bubble and an entrenched deflation led to a prolonged depression in the United States. While this panic was similar to the Panic of 1853, it was more severe (Conant, 1915, p. 656).



Figure 3: Wholesale Prices in the United States and United Kingdom 1815-1914

II.4 The Panic of 1893

As in the other two crises, the Panic of 1893 was preceded by railroad speculation. Additionally, although the United States remained on the gold standard, due to political pressure, the Sherman Silver Purchase Act of 1890 was enacted. The Act required the government to purchase more silver expanding the money supply and increasing prices (Bordo and Haubrich, 2010, p. 6). Eventually, the bubble burst, the stock market declined sharply and bank runs ensued leading to a threat to the gold standard. Figure 4 presents the S&P monthly closing price for this period. In order to maintain the gold standard, J. P. Morgan and other prominent bankers, bailed out the financial system, acting as lenders of last resort, on February 8, 1895 (Conant, 1915, Strouse, 2000). The name J. P. Morgan will reappear more than 100 years later in the crisis of 2007, when J.P. Morgan acquired Bear Stearns.





Source: www.globalfinancialdata.com

II.5 Summary of Nineteenth Century Crises

The crises of the nineteenth century had similar characteristics. Several periods of speculation, particularly in railroads, led to bubbles that burst and caused crises, banking panics and economic downturns. This chain of events were often exacerbated by the following factors; limited diversity of banks due to restrictions on branch banking; the lack of a lender of last resort

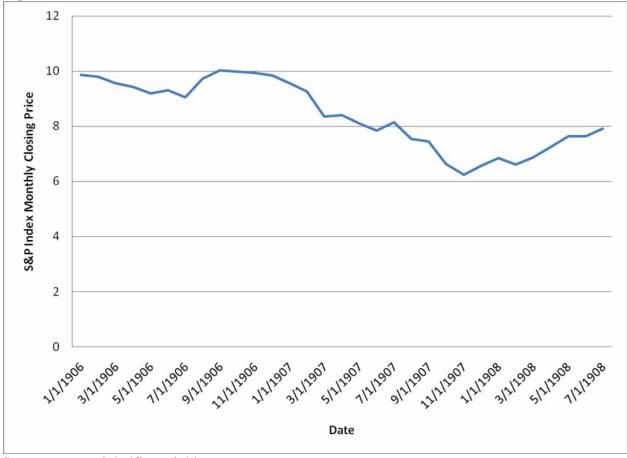
to stabilize the system; the existence of financial institutions not subject to financial regulations; and a money supply that could not increase in times of crisis. The next crisis, The Panic of 1907, led to an attempted resolution of these structural issues.

III. Twentieth Century Financial Crises – the Panic of 1907

The Panic of 1907 began with an adverse shock following earthquakes in San Francisco in 1906. This shock occurred as money drained from New York as well as foreign countries to aid in the earthquake relief, that shrank the money supply elsewhere (Bordo and Haubrich, 2010). As money flowed away from New York towards San Francisco, the stock market dropped. The owner of the United Copper Company, F. Augustus Heinze, saw this decline in the value of his company as a speculative attack. He attempted to corner the market by buying all the shares in order to squeeze the shorts.

This technique failed and Heinze could not repay the debt for the shares that he had borrowed from the Knickerbocker Trust Company and eight other banks. Thus, the Knickerbocker Trust and these other banks faced default, which led to a collapse of an already weak stock market and a run on the banks. Figure 5 depicts the S&P index for that period. These events severely reduced the liquidity of banks raising fears for their solvency. Similar to the Panic of 1893, J. P. Morgan organized a group of bankers to bail out the financial system acting the lender of last resort. However, the panic only ended with the suspension of convertibility. As in past crises, the panic was associated with hundreds of bank failures, a significant drop in the money supply and a deep recession, leading to popular support for the passage of the Federal Reserve Act of 1913 and stricter banking regulations (Bordo and Haubrich, 2010).





Source: <u>www.globalfinancialdata.com</u>

III.1 The Creation of the Federal Reserve

The Federal Reserve Act of 1913 was a response to frequent banking panics throughout the United States history. This act led to relative stability, with the absence of banking panics from 1915 to 1929 (Bordo and Haubrich, 2010). However, the creation of the Fed also created moral hazard by providing a lender of last resort, encouraging the financial sector to undertake riskier investment expecting the Fed to bailout the system when crises occur.

III.2 The Great Depression

The Great Depression was similar to many earlier crises. A stock market bubble preceded the crisis, followed by a crash, and subsequent banking panics that led to an economic downturn. Figure 6 shows an astounding drop in the Dow Jones Industrial Average from mid-

October to mid-November of nearly 45%. Figure 7 depicts the stock market index of the time, the S&P 90 that dropped 21 percent from October 26 to 29 (from 25.94 to 20.43) in four days. Figure 8 presents the dramatic number of bank failures throughout this crisis with nearly 10,000 bankruptcies. With the creation of the Federal Reserve, this type of dramatic event was supposed to be prevented. The last three figures, Figures 6-8 show that the Federal Reserve had failed and many notable researchers even consider the actions of the Fed to have exacerbated the crisis (for example, Friedman, 1991, Bernanke, Gertler, and Gilchrist, 1999). To illustrate, the Fed lowered interest rates from 4% to 3.5% in 1927 loosening monetary policy, which helped to create the speculative bubble and shortly after reversed its policy by raising interest rates from 3.5% to 5% from February to May 1928. As in the previous crises, this severe depression led to a regulatory response that would shape the American economy, particularly the banking sector, for years to come (Bernanke, Gertler, and Gilchrist, 1999, Ahamed, 2009).

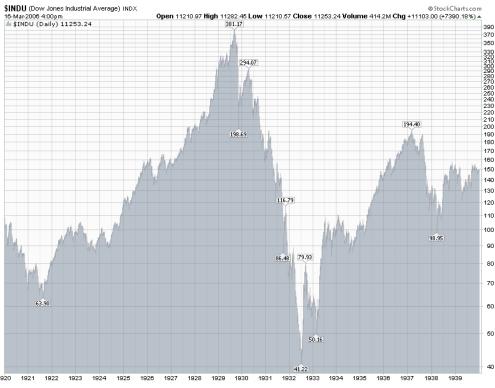
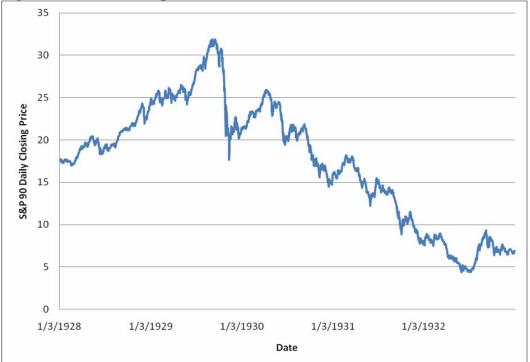


Figure 6: Dow Jones Industrial Average Daily Chart 1920-1940

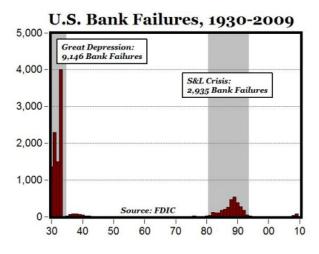
⁽Dow Jones Industrial Average (1920 - 1940 Daily))





Source: www.globalfinancialdata.com

Figure 8



Source: www.FDIC.gov

III.3 The Regulatory Response to the Great Depression

The most influential of these reforms was the Glass-Steagall Act of 1933. This act limited the size and scope of banks. The key aspects of this Act included preventing bank holding companies from owning other financial companies and Regulation Q. This last

regulation limited the interest rates paid to depositors in savings accounts. These regulations would later be removed. This Act also created the Federal Deposit Insurance Corporation (FDIC) aimed at preventing bank runs by providing insurance on deposits. Other institutions that were created during this time included the Federal National Mortgage Association, also known as Fannie Mae and the Federal Home Loan Mortgage Corporation, known as Freddie Mac, to support the housing market that collapsed during the depression. As in the past, the federal government used the crisis to expand its regulatory role in the financial sector.

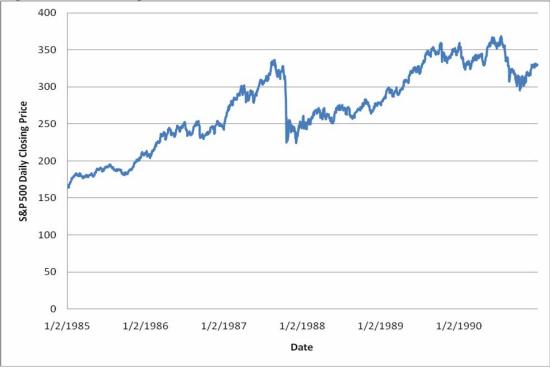
After the Second World War, banking panics were a rare occurrence. Simultaneously, free market ideas became more popular which led to an era of deregulation where many of the provisions of the Glass-Steagall Act were repealed (Bordo and Haubrich, 2010).

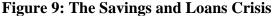
III.4 The Savings and Loans Crisis

The first step towards dismantling of the Glass-Steagall Act occurred in the early 1980's prior to the Savings and Loans (S&L) Crisis. Following the Second World War, banks had high liquidity and a low-risk portfolio reducing bank failure. Meanwhile, a heavily regulated, government backed, and a relatively unprofitable Savings and Loans sector emerged. The inflation of the 1980s and the belief that the system was safe forced the government to deregulate the S&L institutions in 1980 and 1982. One of this deregulation included the removal of Regulation Q. Thus, the S&L institutions gained the advantages of commercial banks without being regulated as such.

The deregulation of the early 1980s set off a period of increased risk taking that led to the S&L Crisis. As in the past, a bubble preceded that burst due in part to higher nominal interest rates, which led to a stock market crash in 1987 known as "Black Monday" when the S&P 500 fell from 282.7 to 224.8, a 20.5% drop, and severe turmoil in the financial sector (see Figure 9).

This crisis had the highest number of bank failures since the Great Depression at 2,935 as illustrated in Figure 8. However, unlike any of the previous crises, Alan Greenspan, the Chairman of the Federal Reserve, bailed out the financial sector by dramatically reducing the Fed Funds Rate, a policy that later would become known as the "Greenspan Put" (Reinhart and Rogoff, 2009). This intervention saved many banks and revived the economy. Following this crisis, more deregulation occurred, including the repeal of Glass-Steagall in 1999. Particularly, the restrictions on branch banking and on bank holding companies to own other financial assets were removed. Additionally, deposit insurance and capital requirements for banks were increased.





Source: www.globalfinancialdata.com

III.5 Summary of Twentieth Century Crises

To summarize, the financial crises of the twentieth century were similar to their ancestors. They followed a pattern similar to their nineteenth century counterparts, usually

beginning with a speculative bubble, which was followed by a severe stock market crash and a recession. While the response by government has not always been the same, the boom and bust cycle has continued. Some common causes for this cycle include inadequate regulation of the financial sector. Many of these aspects have carried over into the current financial crisis.

IV. The Current Financial Crisis

The current financial crisis has been the greatest downturn since the Great Depression. The crisis began with a housing bubble that burst in 2007. This expansion and dramatic collapse of housing prices is illustrated in Figure 10. The S&P/Case-Shiller Home Price Index, which shows a dramatic increase from 2003-2006, dropped over 25 percent from the middle of 2006 to the end of 2009. This bubble was caused by several factors including low interest rates shown in the Figure 11, which led to criticism that the "Fed kept interest rates too low for too long", government programs to pursue increased homeownership, and large trade deficits leading to foreigners investing heavily in the United States. In addition, the structure of the financial system exacerbated the bubble, as there were highly leveraged institutions that often had the principle agent problem where they invested other people's money and thus took increased risk. As the housing price began to decline, people could no longer afford their mortgage payments and the bubble burst setting the stage for the current financial crisis.

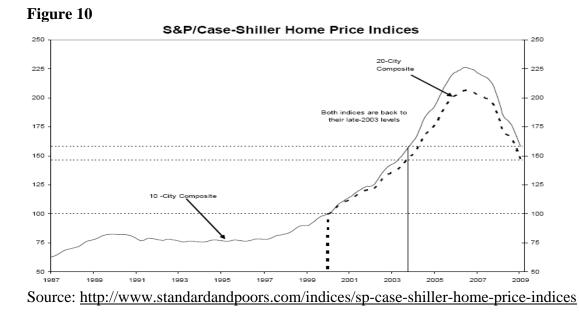
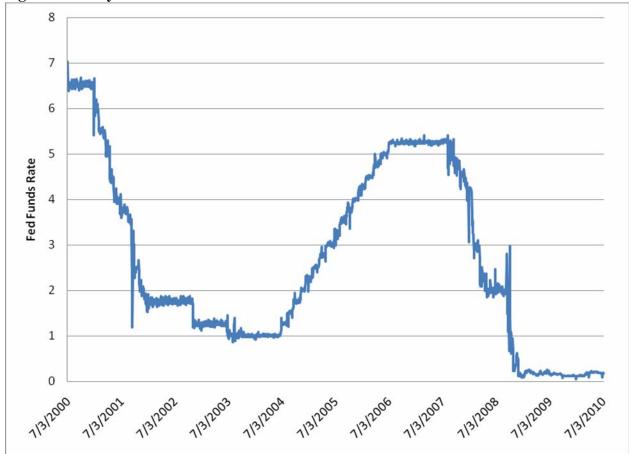


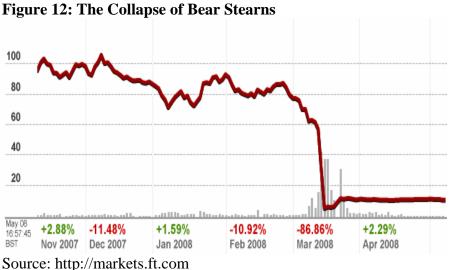
Figure 11: Daily Fed Funds Rate 2000-2009



Source: http://www.newyorkfed.org/markets/omo/dmm/historical/fedfunds/ff.cfm

IV.1 Bear Stearns and Lehman Brothers

The ramifications of the bubble bursting became apparent in March 2008 with the near collapse and rescue of Bear Stearns, a large investment bank. J.P. Morgan Chase rescued them, in a government assisted takeover on March 14, initially at \$2, later raised to \$10 per share. Figure 12 shows the rapid decline of Bear Stearns with a stunning 86.86% decline in March of 2008. However, this only provided a temporary respite for the financial system as at the peak of the crisis on September 15, 2008 Lehman Brothers, a large financial institution failed in what was the largest bankruptcy in history. Figure 13 highlights the dramatic collapse of Lehman with its stock price dropping from over \$80 a share in 2007 to near \$0 by the end of 2008.





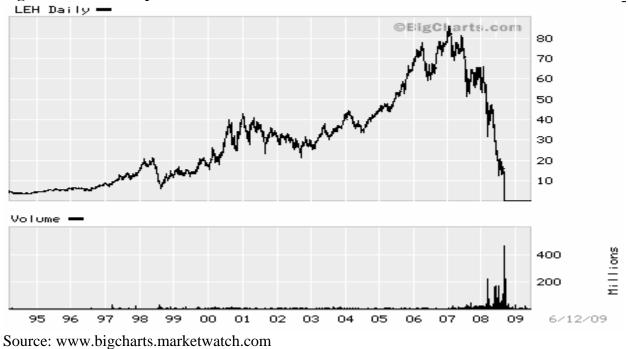


Figure 13: The Collapse of Lehman Brothers

IV.2 The Governmental Response to the Current Financial Crisis

Following this collapse, the lending markets froze, banks began to liquidate their assets, and the stock market declined sharply leading to widespread speculation for the identity of the next bank to fail (see Figure 14). In response, the Fed and Treasury urged Congress to pass the Troubled Asset Relief Program (TARP), which later became a \$700 billion bailout of financial institutions and the auto industry. Other measures included, the Fed reducing the Fed Funds Rate to near zero levels and then printing more money through quantitative easing. During this period, the government also placed Fannie Mae and Freddie Mac into receivership, passed a record stimulus package, and removed of mark-to-market accounting. Despite these extraordinary measures, banks continue to fail and the recovery still appears extraordinarily fragile at the time of this writing.

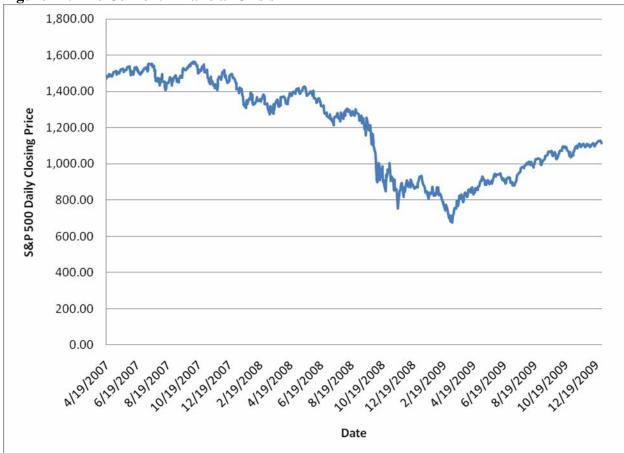


Figure 14: The Current Financial Crisis

Source: www.globalfinancialdata.com

IV.3 Dodd-Frank Wall Street Reform and Consumer Protection Act

In order to combat the threat of future financial crises, the United States Congress passed a financial regulatory bill, named the Dodd-Frank Wall Street Reform and Consumer Protection Act. This bill is aimed at providing protection for consumers from unfair treatment by financial institutions; limiting the size of financial companies to avoid the "too big to fail" phenomenon; preventing future bailouts; reforming the Federal Reserve; and regulating the derivatives markets. In order to protect consumers this bill will create the Consumer Financial Protection Bureau. This institution will have "the authority to ensure American consumers get the clear, accurate information they need to shop for mortgages, credit cards, and other financial products, and protect them from hidden fees, abusive terms, and deceptive practices" (Summary of Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010).

In order to limit large, financial companies and prevent future bailouts this bill creates the Financial Stability Oversight Council (FSOC), adopts the "Volcker Rule", and requires large financial firms to provide the so called "funeral plans". Specifically, the FSOC will be able to make recommendations to the Federal Reserve on imposing constraints on large entities and regulate non-bank financial institutions if they "pose a threat to U.S. financial stability". The FSOC also can force financial companies to divest some of its assets if they pose a threat to the financial system (Summary of Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010).

The "Volcker Rule," a measure named for Paul A. Volcker, the former Federal Reserve chairman, restricts the ability of banks whose deposits are federally insured from proprietary trading (Volcker Rule, 2010). Moreover, the bill "requires large, complex financial firms to submit plans for their rapid and orderly shutdown should the company go under" (Summary of Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010).

To reform the Federal Reserve, this Act allows for a one time audit examining the lending of the Federal Reserve during this financial crisis; restricts its emergency lending power; and requires the Fed to disclose more of its actions with a time lag. During the Great Depression of 1929, a law was passed that allowed the Fed to lend to any individual, partnership, or corporation if five members of the Federal Reserve Board in Washington declare the circumstances to be unusual and exigent (Wessel, 2009). This bill prevents the Federal Reserve from lending to individuals but allows it to lend subject to approval of the Secretary of the Treasury if the lending is broad-based and not to revive insolvent firms.

Lastly, this bill improves transparency and accountability for the derivatives market by creating central clearing and exchange trading facilitates for derivatives. In addition, it gives the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission the authority to regulate Over-The-Counter Derivatives (derivatives not traded on an exchange) and requires them to pre-approve derivative transactions before the clearing house can approve them (Summary of Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010).

IV.4 The United-Kingdom Regulatory Response to the Current Financial Crisis

The United Kingdom (U.K.) has suffered a similar crisis to that of the United States. The U.K. financial regulatory structure prior to the crisis was two tiered with a Financial Services Authority (FSA) that regulated the financial services industry and the Bank of England (the central bank) that set monetary policy and promoted financial stability. With the failure of regulation, the U.K. government abolished the FSA and assigned its powers to the Bank of England. However, unlike the United States, other financial regulations are not currently being discussed.

V. Polish Financial Crises

A full detailed analysis of Polish financial crises is beyond the scope of this paper. Interestingly, one of the leading researchers of Polish financial crises is the current chairman of the United States Federal Reserve Bank, Ben Bernanke. The financial crises in Poland have been infrequent, particularly compared to two developed economies of the U.S. and the U.K. Three major crises have occurred in Poland since 1900, in July 1926, June 1931, and in 1991. The first crisis occurred when bank runs caused three large banks to abort payments. This persisted until 1927. The second crisis in June 1931 happened during the global Great Depression. During this crisis, there was a run on banks, especially those associated with Austrian Creditanstalt during the Central European hyperinflationary period (Bernanke and James, 1990). Figure 15 shows the increase in the unemployment rate from 1929 to 1932 in Poland as compared with the U.S. and the U.K. The unemployment rate in Poland increased by 6.9 percentage points, as opposed to the U.S. and U.K., that each had double-digit increases in their unemployment rates (Reinhart and Rogoff, 2009, p. 269). The only crisis considered a banking crisis by Reinhart and Rogoff, (Reinhart and Rogoff, 2009, pp. 152-153) is the 1991 crisis, which occurred following the end of communism in Eastern Europe. During this crisis seven of nine treasury-owned commercial banks (which represent 90 percent of credit), the Bank for Food Economy, and the cooperative banking system experienced solvency problems. In response to the collapse, the Polish government recapitalized the banks. The cost of the bailout totaled \$1.65 billion or 2 percent of the Polish GDP (World Bank, 2003).

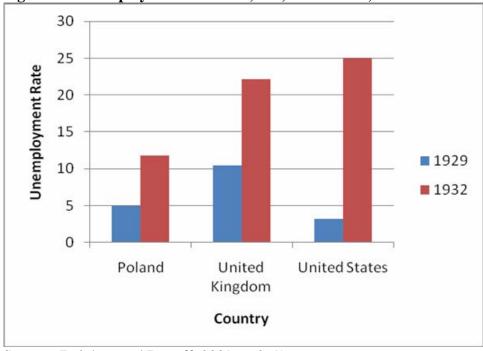


Figure 15: Unemployment in the US, UK, and Poland; 1929 and 1932

Source: (Reinhart and Rogoff, 2009, p. 269)

V.1 Ramifications of the Current Financial Crisis on the Polish Stock Market

Figure 16, shows the effects of the recent global financial crisis of 2007-2010 on the Polish stock market, by plotting the WIG:WSE Index for the last five years. The figure illustrates both the sharp decline in 2008 where the index fell by more than 50 percent and the slow recovery to its current level, which is still 30 percent below its peak on October 29, 2007.



Figure 16: The WIG:WSE Index for the last five years

Figure 17, presents the general WIG index from April 16, 1991 to July 19, 2010 placing the current crisis into its historical context. This figure shows the performance of the Polish stock market over time. The range of this index was from 635.30 on June 23, 1992, to 67,568.51 on July 6, 2007.

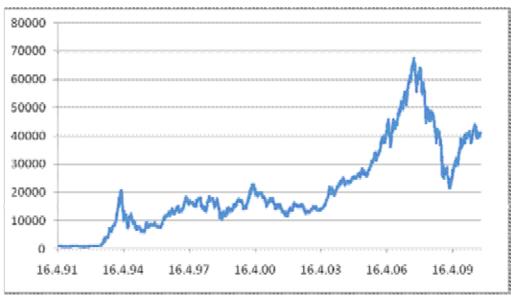


Figure 17: The WIG Index, April 16, 1991 to July 19, 2010

Source: http://www.gpw.pl/zrodla/gpw/spws/portfele/wigh_en.html#Wykres

VI. Conclusion

This paper describes financial crises in the United States since the second half of the nineteenth century. In the nineteenth century, these panics were frequent with eight occurring over the century. These eight panics included the Panics of 1819, 1837, 1839, 1857, 1873, 1884, 1893 and 1896. This paper details the three major crises: 1857, 1873, and 1893.

Following the Second World War, there was a period of relative calm, which may have led to complacency. The Panic of 1907 led to the creation of the Federal Reserve Bank. The Savings and Loans crisis of the early 1980's and the current financial crisis have shown that these events remain real threats to economic stability in the current millennium.

The paper also details the policy responses to the crises in the United States and the United Kingdom. A short section describes financial distress in Poland since 1991.

The paper claims that for the most part these financial crises are similar in their nature. The conclusion is that future crises will be hard, indeed impossible to eliminate.

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