From the Bank Panic of 1907 to the Great Depression of 1929 and the Savings and Loan Crisis of the 1980s: Lessons for the future

Trompatzi, Georgia and Metaxas, Theodore

U. of Thessaly, Department of Economics, Volos, Greece

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Trompatzi Georgia

Economist, M.Sc

Department of Economics, University of Thessaly,

Korai Str. 43, 38333, Volos, Greece

Email : getrompa@uth.gr

Theodore Metaxas

Assistant Professor

Department of Economics, University of Thessaly,

Korai Str. 43, 38333, Volos, Greece

Tel: ++30 24210 74917

Fax: ++30 24210 74772

Email: metaxas@econ.uth.gr

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Abstract

This paper goes over three big crises with a global resonance which took place in the American economy during the 20th century. Namely, the Bank Panic of 1907, the Great Depression of 1929 and the Savings and Loan Crisis of the 1980s are examined. The paper lists the major events during the crises in question and probes the causes, consequences and ways through which each crisis was attempted to be encountered. Through this examination, useful lessons to be learned and fatal mistakes to be avoided arise.

Keywords: Bank Panic, Global Economic Crisis, Great Depression, Savings and Loan Debacle

Jel Classification: G01

1. INTRODUCTION

Undoubtedly, every economic crisis brings about devastating consequences, sometimes to a lesser other times to a greater extent. However, history can prove to be a very good teacher for the future. Even though financial crises are phenomena not so frequent, they are phenomena recurrent just like business cycles. The examination of the various crises, of their causes, the circumstances under which they took place, the ways they were managed and dealt, as well as the extent to which these ways were effective has something to teach us and can avert us from making similar mistakes in the future.

The American economy has always attracted scientific interest, as it is the largest national economy worldwide. The size and significance of this economy mean that its economic course affects enormously the economic course of many, if not all, countries on a global basis. The economic conditions in the American economy determine the conditions that prevail or are going to prevail on the planet and this is why American economy's observation and examination is of so high importance.

If someone examines the US economy during the 20th century he will find out that it has gone through many and major economic crises. Among them are the Bank Panic of 1907, a significant economic downturn in 1921, the Bank Panic of the 1930s, the Great Depression, the failure of the Bank of Illinois in 1984, the Savings and Loan Debacle of the 1980s and the Long Term Capital Management Crisis in 1998.

This paper focuses on the Bank Panic of 1907, the crisis of 1929 and the Savings and Loan crisis of the 1980s. The Bank Panic of 1907 was the first economic crisis of the 20th century and proved to be a crucial moment for the financial history of the USA causing many changes and reforms in the Federal Reserve System. According to many analysts' opinion, it was the presage for the crash of 1929. The stock crash of 1929 and the Great Depression that followed it constitute maybe the most difficult period of the 20th century for the US economy and other countries' economies. The S&L crisis, finally, was the most important post-war crisis of the US banking sector.

The purpose of this paper is to examine the three above-mentioned crises, to present the events that took place before, during and after them, their causes, their implications and the ways they were encountered. The aim of the paper is to draw some useful conclusions about what each crisis can teach us and demonstrate actions to repeat and others to avoid.

In the second section of the paper, a brief review of the literature over those crises is attempted. In the third, fourth and fifth section the Bank Panic of 1907, the crisis of 1929 and the crisis of the 1980s are examined respectively. In the sixth section the lessons that each crisis of them has to teach us are clearly set forth. The paper finishes with summary and conclusions

2. LITERATURE REVIEW

All three under examination crises have been analyzed to a great degree in the global literature. A complete research overview could fill thousands of pages and is beyond the scope of this paper. However, a brief overview of the content of some of these papers will be attempted.

The Bank Panic of 1907

Joseph French Johnson (1908) recounts the events of 1907 and investigates the causes and the circumstances that rendered these events so unavoidable. He also seeks ways through which similar events in the future can be avoided. According to Johnson, the crisis of 1907 was mainly the result of capital stock depletion due to wars, industrial and generally business demand and speculative actions. The panic was the product of a combination of factors, such as the weak lending capacity of banks, the lack of organization and unity among banks, the lack of a deposit insurance system, the deficient control over reserve levels, the agriculture-oriented demand for cash and the investors' rage because of the various scandals that had taken place.

According to Johnson, the solution to the crisis lied neither under the elimination if the current system nor under the increase of a country's cash reserves. The solution was to be found in the creation of a new banking system which would consist of equal independent units. The bank panic revealed two major necessities for banks: a flexible currency and financial stability and solidarity.

According to Edwin R. A. Seligman (1908), the possible interpretations with regard to the crisis of 1907 can be classified into two categories. The first category includes the superficial interpretations. Thus, it is often argued that the outbreak of a crisis stems from the lack of confidence. Less important is the effort to associate a crisis with a specific government policy. Contrary to the widely superficial interpretations, the second category entails interpretations that search beneath the surface to reveal the root causes of the crises.

Ellis W. Tallman and Jon R. Moen (1990) examine the circumstances that led to the panic, as well as the intervention measures that were taken during the panic focusing on the operation of trusts as financial intermediaries. They find that the unequal regulation of the various financial institutions led to the concentration of risky assets to the less regulated trusts. The risky portfolios of these trusts made them the center where the crisis started from and expanded later to the whole market. According to the two researchers, equal access of all institutions to all assets and investment opportunities can mitigate the peril that a collapse of a type of asset will threaten the solvency of a whole group of financial intermediaries.

Mauro Boianovsky (2011) in his paper reproduces and analyzes the opinion that was issued in Sweden in 1908 by Knut Wicksell. According to this opinion, the crisis of 1907 in the US economy was a moral one and was caused by a set of evidence received by the American people who showed that the leading financial advisors who control the banks, the industries and the trusts are often reckless and rarely honest. This fact alarmed depositors and caused the general collapse of the US financial system.

Ellis W. Tallman (2012) summarizes the views about the crisis of 1907 that dominate in the global literature. In his paper he points to the key factors that contributed to the financial crisis, he examines the influence of the crisis over subsequent legislation and puts the crisis of 1907 into a historical framework associated with the size of the related business cycle. Moreover, Tallman compares the crisis of 1907 to the recent crisis of 2008. He finds that the main similarity between the two crises is that they both were caused by financial intermediaries in New York which were considered to be indirectly connected to the payments system –trusts in 1907, investment banks in 2008. In addition, these intermediaries had no direct access to relative sources of liquidity – the Clearing House in 1907, the Federal Reserve Bank in 2008.

The Great Depression of 1929

Stephen G. Cecchetti (1997) argues that the Fed played an important role in every unsuccessful policy of that period and, thus, the lessons that we gain from the crisis have to do with the operation of the Central Bank and the financial system. According to Cecchetti, the Great Depression was not caused by the stock crash of 1929. He also argues that there are several clues that lead to three unambiguous conclusions. First, the collapse of the financial system could have been avoided if the Fed had properly understood its role as a lender of last resort. Second, deflation played a major role in deepening the recession. Third, the gold standard as a system of supporting a fixed exchange rate system proved to be disastrous.

Christina Romer (1988) argues that the collapse of stock prices in October 1929 brought about temporary uncertainty about the future income and resulted in reduced demand for consumer durables. This conclusion is confirmed by the fact that there appears to be a significant negative correlation between the stock market volatility and the production of consumer durables in the prewar period. While economists separate the events of the Great Crash and the Great Depression, according to Romer it is likely that a significant relationship between the stock market crash and the acceleration of decline in real GDP between 1929 and 1930 exists.

Ellen R. McGrattan and Edward C. Prescott (2001) are opposed to the economists' common view that the stock prices of the listed on the New York Stock Exchange companies, which fell by 30% in the autumn of 1929, were overvalued and that the stock market was in need of a correction. On the contrary, McGrattan and Prescott agree with the view of Irving Fisher, who argued and tried to prove that the market was actually undervalued. The two economists in their paper calculate the fundamental values of common shares in 1929 and compare them to the actual price estimates. They find that the stock market in 1929 did not collapse due to the fact that it was overvalued. The empirical data, in fact, provide strong support that common stocks were undervalued even at their peak in 1929.

According to Charles P. Kindleberger (1973) the depression of 1929 was so broad, so deep and so long-lasting for two major reasons. First, the global economic system had become unstable because the British did not have the ability and second because the Americans did not have the will to stabilize it. The shocks to the system caused by the overproduction of certain goods, such as wheat, by the decline of interest rates in 1927, by the halt of lending to Germany in 1928 or by the crash of 1929 were not so great. Similar shocks had been encountered in the past with success. The global economic system was unstable and a country should intervene and stabilize it. In 1929 the British were unable and the Americans were unwilling to do this. When every country turned to protect its own investments, the global public interest collapsed and so did the individual interests.

Lawrence W. Reed (1998) opposes to the opinion of many researchers who argue that free-market capitalism is to blame for the Great Depression of 1929 and promotes government intervention as a solution to the economic problems of the period. Reed debunks this common perception and highlights the central role that flimsy government policy played in raising the catastrophic crisis. Generally, he tries to prove that many truths of his time were myths after all. The greatest myth among them was that capitalism and free-market economy were responsible for the Great Depression and that only government intervention brought about recovery in the US economy.

The Savings and Loan Crisis of the 1980s

According to Robert J. Laughlin (1991), the S&L Debacle, which was the result of many factors and forces, could have been avoided if timely action had been taken. The structure of the S&L industry was defective due to its sensitivity to the interest rate risk. Non-diversified portfolios of long-term fixed rate securities were financed by short-term liabilities and this proved to be a disastrous combination. Congress increased the levels of deposit insurance and allocated these deposits to entities without first controlling effectively for their operations. In the meanwhile, the Federal Mortgage Bank of Boston reduced its capital requirements level allowing troubled institutions to increase their exposure to risk and losses. Generally, according to Laughlin, the S&L Debacle was caused by internal to the industry structural problems, imprudent movements of the Congress and various regulatory faults.

John H. Boyd and Mark Gertler (1994) in their paper argue that large banking institutions were the main culprits for the unusually poor performance of the entire industry. These institutions contributed, according to their data, by significantly disproportionate way to the total loan losses. Two were the factors that let this take place. First, deregulation and financial innovation that led to an increase in the competition within the banking sector and second, the regulatory environment that used to subsidize risk-taking by the larger rather than the smaller banks. Under the "too-big-to-fail" assumption, large banks benefited from multiple actions that isolated them from the influence of their loan losses. The main view of Boyd and Gertler is that the "too-big-to-fail" assumption was a key factor behind the crisis and they support this view with panel data.

Garrett J. Hardin and Edmond G. Miranne (1997) apply the theory of the tragedy of the commons to the S&L debacle and show that the privatization of profits and the externalization of losses destroyed a whole thriving sector of the American economy. The view they support is that there is a group of problems that are not amenable to a technical solution and the S&L crisis is a very good example of such a problem. By technical solution they mean the solution that presupposes a change in the methods used and requires little or no change in human values of virtue and morality. Thus, Hardin and Miranne consider that the main cause of the S&L crisis was the implementation by government of technical solutions which were doomed to fail.

Lawrence J. White (2004) argues that the S&L debacle was a costly but rather decisive for the US deposit regulation event. The causes of the crisis lie, according to him, in the restrictive government policy which finally put institutions into financial difficulties in accepting deposits and granting loans in the late 1970s and late 1980s. The Congress and at least three presidential governments delayed too much the withdrawal of the restrictions. When eventually the restrictions eased in 1980 and 1982, the regulations related to safety and prosperity eased as well exactly the time when they ought to be strengthened. The crisis was the natural aftermath with a final cost amounting to $160 million.

Catherine England (1992) in her paper tries to summarize the lessons that the S&L crisis can teach us. According to her, the three most important lessons we obtain are as follows: first, excessive regulation was the primary cause of the problems, second, the federal deposit insurance was ultimately responsible for the high costs of the crisis and third, governmental efforts to protect the industry triggered only abuse and increase in the reorganization costs.

3. THE BANK PANIC OF 1907[1]

The Bank Panic of 1907 was the last and most intense of the panics of the so called National Banking Era in the USA. Bank panics are characterized by a massive withdrawal of deposits, i.e. the attempt of the majority of the depositors to withdraw from the banking system their capitals. Because banks do not keep their whole available cash in form of reserves, they face great difficulty to work with such a situation. What made this bank panic different from the others was that it focused on the American trusts and that there was absence of a central banking entity.

A crisis is a concept different from a panic (Johnson, 1908). A crisis refers to the turning point within a period of prosperity, it is always followed by a period of liquidation during which employment shrinks and the prices of goods and securities decline. A panic refers to a temporary paralysis of a country's credit system and can be caused by conditions that undermine the credibility on which credit relies. In this case, the crisis took place on January 1907, while the panic on October of the same year. The crisis was a universal event, experienced by all countries that used the gold standard as a system, while the panic was a local event which was confined to the USA.

On 16 October 1907 F. Augustus Heinze, who was the resident of the National Commercial Bank of New York used the resources of the bank in an attempt to seize control of the copper market by John Rockefeller, monopolizing the stock of United Copper Company. Rockefeller, however, prevented his efforts by increasing the amount of copper in the market, so the price of copper fell drifting its shares as well.

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1 The report of the events is based on the analysis of Cahil (1998), the Federal Reserve Bank of Boston (1993) and Tallman & Wicker (2009).

When the depositors of the National Commercial Bank learned about the plans and intensions of Heinze, they rushed to liquidate their deposits. The bank unable to cope with its financial obligations asked for help from the Clearing House[2] , help that was provided to it only after Heinze and all his staff had agreed to resign from their positions and duties. If Heinze had been a mere speculator in copper market, financial markets might have absorbed the turmoil of his failure. He was, nevertheless, deeply involved in banking and his overthrow had major consequences. In an attempt to learn the job, Heinze had established partnership with bankers and many institutions.

The first banker that faced problems due to his relationship with Heinze was C. W. Morse, one of the heads of the National Commercial Bank. During the reorganization of the bank the Clearing House discovered that Morse was also the head of six other banks, three of which he administered with absolute autonomy. The officials of the Clearing House were anxious, since Morse had used the shares of a bank as collateral for loans which he took in order to buy shares of the other banks. So if a bank failed, the remaining six would have the same fate, as it finally happened when the press revealed Morse's involvement in the National Commercial Bank.

When the presence of Heinze and Morse threatened to extinguish the credibility to the banks of New York, the Committee of the Clearing House pressured them to resign, what was finally done, and established an audit team in order to determine to what extent the National Commercial Bank and other troubled banks were trustworthy and rightful to receive assistance from the House. Finally, the Committee decided to support the National Commercial Bank so that it could meet the demands of its depositors. That is, member banks of the House would contribute funds in an attempt to help the National Commercial Bank cover the massive withdrawals that it encountered.

However, the situation did not improve. On 18 October the depositors of Knickerbocker Trust Company began to withdraw their deposits when they were informed that the company's president, Charles T. Barney, was a business partner of Heinze and Morse. The situation got worse when the same day the Clearing House announced its unwillingness to help Knickerbocker. As a trust, Knickerbocker was not a member of the Clearing House.

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[2] The Clearing House was an organization, the member banks of which had agreed to exchange and edit each other's checks. The Clearing House of New York had also some other responsibilities, which are nowadays undertaken by the government.

On 21 October, while the situation got worse and worse, Barney resigned from president of Knickerbocker. The next day the trust's depositors were so desperate to withdraw their money that the institution gave $8 million into three hours and was forced to close.

In an attempt to prevent the collapse of the stock market, J. P. Morgan and other leading banks liquidated a part of their assets in order to replenish the accounts of the trusts, but these funds proved to be inadequate and unable to halt the panic. The secretary of the Treasury, George B. Corteglou, provided an additional sum of $25 million to prevent the collapse of trusts.

Initially, the measures ceased the public anxiety. Nonetheless, the media coverage of the difficulties of the banks of New York and the failure of many banks in other regions led to the spread of panic across the country. This gave rise to a chain reaction and banks requested from the Banks of New York to provide them with their reserves[3]. By the end of October, the banks of New York had granted the requested reserves depleting the funds that had been gathered in order to help them and bringing again the problems to the fore.

The greatest difficulty that arouse from the bank panic was the lack of money. In order to limit the deposit withdrawals the governments of Nevada, California, Oklahoma, Washington and Oregon suppressed banking operations and declared bank holidays.

The substitution of money with loan certificates of the Clearing House was another way used to deal with the situation. Under regular circumstances, these certificates were mere loans between the bank members and their Clearing House. During crisis periods, however, banks in order to provide a medium of transaction, often issued such certificates directly to depositors. Those certificates and other money substitutes as well were the main mediums of transaction for more than two months.

After the first issue of certificates, loans increased by almost $10 million (Tallman & Moen, 1990). Some researchers, such as Sprague (1908), argued that if this issue had taken place earlier markets would have calmed down, the help would have been directed promptly to the insolvent banks and trusts, fewer banks would have bankrupt reducing the tension in financial markets and generally much suffering would have probably been avoided.

The bank panic of 1907 damaged the economy in various ways. In the first place, it reduced the economic growth and undermined the overall credibility of the economy (Cahill, 1998). Real GDP fell by 12% between the second quarter of 1907 and the first quarter of 1908. Interest rate

[3] The banks of New York kept the reserves of most banks

spreads increased by more than 20% on October 1907 and remained over 10% for the rest of the year (Tallman & Wicker, 2009).

Shortage of liquidity forced banks to temporarily postpone their loan services. Moreover, the substitution of money with certificates of the Clearing house pushed domestic transactions aside. The interest rates of these certificates varied, preventing banks and firms from accepting certificates from individuals and organizations outside their own geographical area (Cahill, 1998). Liquidity and cash shortage deprived entrepreneurs from resources necessary for salary payments and many firms shut down or reduced their working hours.

According to Acharya, Cooley, Richardson and Walter (2011), two were the main problems that were revealed during the bank panic of 1907. First, private clearing houses also faced default risk. Second, some firms, particularly the trusts of New York, were not allowed to be members of the Clearing House due to the intense competition between trusts and commercial banks and this fact made the situation worse.

The panic of 1907 disrupted financial markets to such a degree that the establishment of the Fed and the formation of the US banking system to its current form became indispensable (Tallman & Moen, 1990). Thus, in 1913 the Federal Banking Act was issued. This Act was designed to regulate the national quantity of money, the money supply and credit by means of buying and selling government bonds and issuing treasury bills (Cahill, 1998). Paralyzing the financial network of the country and inducing a severe recession, the panic revealed the weakness and the need for reformation of the national financial system.

Undoubtedly, the sources of turmoil in the US economy in 1907 were the trusts of New York, which were not central to the payments system (Tallman & Wicker, 2009). The national banks of New York, particularly the large ones, on the other hand, stood to the center of the payments system and this discrepancy increased the tension between trusts and banks. Trusts chose not to be members of the Clearing House of the USA even though they were given this opportunity because they felt that the benefits of this integration would be lower than the respective costs. Thus, trusts stayed outside the Clearing House and its regulatory framework. When the panic of 1907 took place, trusts had no access to the liquidity of the House and this led to the deterioration of their situation. The refusal of the Clearing House to provide Knickerbocker with assistance led to its economic failure and to the creation of chain reactions.

The main cause of the bank panic was the instability of the financial system which allowed for disputable financial practices by devious entrepreneurs (Tallman & Wicker, 2011). The panic involved various types of financial intermediaries, each of which was distinct and played a unique role the same time when every type operated under a different set of regulations (Tallman & Moen, 1990). This regulatory framework created conditions that rendered the scenario of panic more probable than it would have been if legislation provided a uniform regulation and allowed for an equal access to all investment opportunities for all.

Some researchers, Sprague (1910), Kemmeren (1910) and Laughlin (1912) among them, attributed the crisis of 1907 to the rigidity of the structure of the US national banking system. This is not surprising nowadays since the system then lacked a central banking institution which could quickly adjust the monetary base through the purchase and selling of short-term marketable assets. This means that the system did not provide a reliable institution which could manage the overall provision of liquidity.

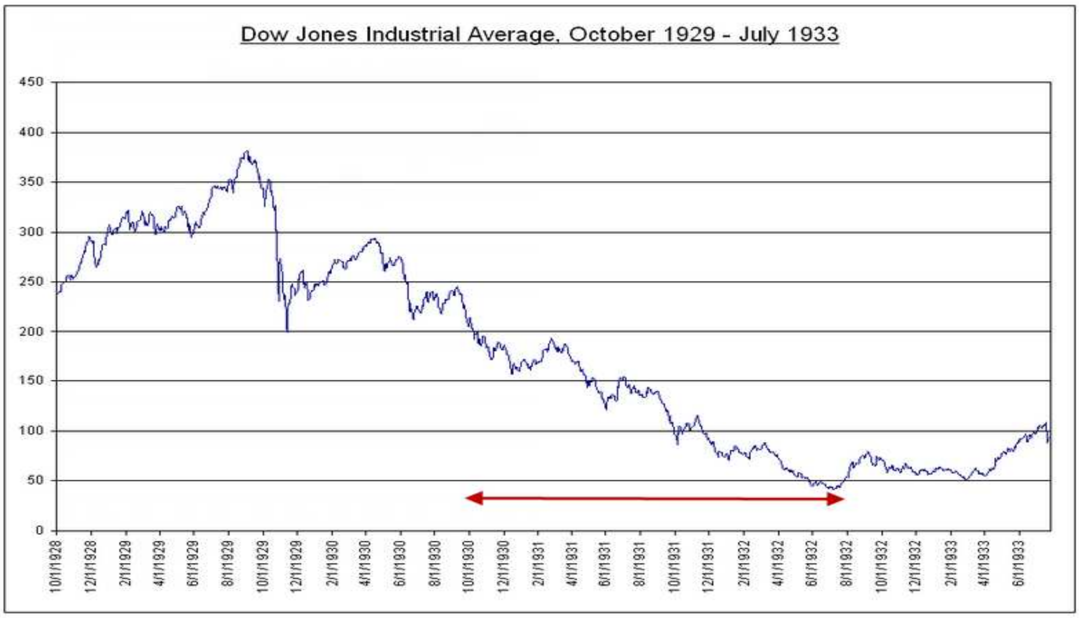
As a result, total liquidity provision was imminent to shocks which were exogenous to the domestic monetary system. Furthermore, the system lacked a distinct lender of last resort to which a bank could turn for emergency loans if it had to deal with massive deposit withdrawals. The Clearing House of New York tried to play this role, but it typically failed (Tallman, 2012).

4. THE STOCK MARKET CRASH AND THE GREAT DEPRESSION OF 1929

The economic contraction between 1929 and 1933 was unarguably, at least till the recent economic crisis, the most severe contraction of business cycle that has been recorded in the US history. Although the crisis originated from the USA, it led to a major reduction in output and employment and to an intense deflation almost in every country in the world (Romer, 2003). The stock crash of 1929 was followed by a deep recession for the American, and not only, economy, although the association between the crash and the crisis is questionable among economic researchers. Sylla (2004) in one of his papers supported the lack of connection between the two events. Dornbush and Fisher (1984) also argued that the Great Crash of 1929 cannot have caused the Great Depression, since the decrease in output started before the collapse of the stock market and since the larger declines of production happened almost two years after the bank panics of 1931.

The course of the stock market during the period under consideration is depicted in Figure 1 below:

Figure 1: The course of Dow Jones Industrial Average Index for the period 1929-1933



Source: finance.yahoo.com

The Index reached a peak of 381 on 3 September and closed at 351 on 15 October, displaying a slight decrease. The month that followed was disastrous. From an intraday high of 330 on 23 October 1929, the index fell the next day (Black Thursday) at a low of 272, while at the same time there was a record volume of 12.9 million shares. The next two days the prices stabilized at the level of 299. On Monday 28 October, however, which remained known as Black Monday, the Dow Jones Industrial Index closed at 261 while the next day (Black Tuesday) it fell more reaching at 212 and noted a new record volume of 16.9 million shares. These two days when the Index lost 23% of its value compared to the closing price of Saturday, are regarded as the focal point of the Great Stock Crash (Sylla, 2004). The decline in Wall Street continued thereafter and on 13 October the index closed at 199, reflecting a fall by 48% within a period of two months.

After the Great Stock Crash, the Great Depression arose. It started in the summer of 1929 and lasted, with varying intensity, ten years (Galbraith, 2000). The main severity of the depression can be dated within the period 1929-1933. Real output and the general price level fell significantly during this period. The US industrial production fell by 47%, while real GDP fell by 30%. The General Price Level Index also decreased by 33%, while the unemployment rate exceeded 20%. Between 1930 and 1940 only once, in 1937, the average number of unemployed fell below 8 million. In 1933 almost one in four of the labor force was workless, while in 1938 one in five was still unemployed (Galbraith, 2000). All these data are illustrated in the group of Tables 1 on the Appendix.

During the period 1929-1933 production in factories and mines and public services fell by more than 50%. Real disposable income decreased by 28%. Stock prices amounted to the one tenth of their pre-crash value. The number of unemployed Americans rose dramatically and discussions about revolt began to appear for the first time after the Civil War (Reed, 1998). Until 1939, employment and output remained at the levels of 1929 (Cole & Ohanian, 1999).

The Great Crash and the Great Depression have not fully been elucidated. Economists have generated many theories for both events but consensus on the main forces behind them has not been achieved (Chari; Kehol & McGrattan, 2003). Widespread is the opinion that the shares of the US stock market were overvalued, they had created a "bubble" and the market needed to undergo a correction. However, there is also the contradictory opinion, which was expressed for the first by Irving Fisher on February 1930, according to which, the US shares were not overvalued, but undervalued before the Great Crash. This view was supported by subsequent studies such as that of McGrattan and Prescott (2001).

The most common explanation regarding the stock market crash of 1929 blames the practice of borrowing money in order to buy shares. Many historical texts contend that a frantic speculation on shares was fueled by excessive marginal borrowing (Reed, 1998). It has been often stressed that the collapse of stock market in 1929 was inherent to the speculation which preceded it (Galbraith, 2000). The question seeking for answer was how long this speculation would last. It was expected that someday the confidence to the short-term increase in stock values would weaken. When this happened in 1929 many hustled to sell and this destroyed the reality of rising values and a huge price drop incurred.

Apart from the quarrel over whether the Great Depression is connected or not with the Great Crash, equally diverse are the views regarding the causes of the Great Depression. According to Slivinski (2008), two were the dominant views of what caused the crisis. According to the first view, between 1929 and 1933 there was a sudden decline in future expectations for economic growth which led to a collapse in demand for consumption and investment and could not be quickly corrected by the market.

According to the second view, which stems from the neoclassical school of thought, what the economy suffered from was not an internal weakness. Instead, it was influenced by the shocks of policy errors particularly those of the Federal Reserve. Friedman and Schwartz (1963) argue that the reduction by one third of the national money supply between August 1929 and March 1933 was disastrous for the economy and provided evidence of the Central Bank's inability. According to the same economists, the death of Benjamin Strong on October 1928 left the Fed without a capable leadership making its bad strategy even worse. Benjamin Strong was a major personality and had exerted great influence as a head of the regional bank of New York.

It is commonly accepted that policy makers during the pre-crisis period made several faults (Sylla, 2004). They increased taxes and tariffs on imports, they attempted to balance the budget by cutting down on government spending, they reduced money supply and let banks bankrupt massively causing the household and firm expenditure to fall. The level of prices collapsed and unemployment climbed to unprecedented levels.

Many economists believe that the US Central Bank allowed or caused the large drop in money supply partly in order to keep the gold standard (Romer, 2003). Under this standard, every country set a value for its currency in terms of gold and got engaged in monetary policy actions in order to support this value. It is possible that if the Central Bank had pursued an expansionary policy as a consequence of the bank panic episodes that took place (in the last quarter of 1930, from March to June 1931, from August till the end of the year and in the last quarter of 1932), foreigners would have lost their confidence to the commitment of the USA to the gold standard.

This would have led to large outflows of gold reserves and the Americans would have to devaluate their currency. Furthermore, a speculative attack on the US dollar would have been feasible and the USA would have been forced to abandon the gold standard. The contribution of the gold standard to the causes of the Great Depression is debatable, but the contribution of the standard to the spread of the crisis all over the world is undisputable.

Around the world the main measures that were taken in order to mitigate the adverse effects of the crisis included currency devaluation and expansionary monetary policy. Currency devaluation, however, did not seem to have led to an immediate increase in output (Romer, 2003). Nevertheless, it allowed countries to expand their money supply without worrying about the changes in gold reserves and foreign exchange rates. Fiscal policy primary through tax increases played a much more trivial role to the economic recovery of the USA, while this role varied from country to country.

As far as the main consequences of the Great Depression of 1929 are concerned, unarguably, the most important of them deals with the misfortune and suffering of people. During this period the standard of living dropped dramatically and a big part of the population lived or feared it was going to live hunger (Negreponti & Delivanis, 2010). Moreover, the Great Depression and the way it was handled changed the global economy in many ways and above all meant the end of the gold standard.

From the Great Depression on, the trade unions and the social welfare state developed substantially. The US government introduced unemployment allowance and insurance for the elderly and other vulnerable population groups. Moreover, in many countries after the Great Depression government regulation and supervision, particularly that of financial markets, increased significantly. The Great Depression, finally, played an equally important role in shaping macroeconomic policies and policies aiming at restricting and controlling the upward and downward movements of business cycles.

5. THE SAVINGS AND LOAN CRISIS OF THE 1980s

The Savings and Loan crisis has been described as the biggest set of "white collar" crimes in the global history (Zimring & Hawkins, 1993). The situation that led to the crisis during the 1980s had started several decades earlier and, specifically, its origins trace back to the Great Depression of 1929 (Acharya et al, 2011). The state regulation for savings and loans was different from the state regulation for banks. The first was directed mainly by the objective of government policy related to the encouragement of the development of private property (Moysich, 1997).

The federally insured savings and loan system was established in the early 1930s in order to promote the construction of new homes during the Great Depression and to protect the financial institutions from the kind of destruction that followed the panic of 1929. The Federal Mortgage Banking Act of 1932 established the Federal Home Loan Bank Board (FHLBB), whose purpose was to create a reserve system that would ensure the availability of mortgage money to finance housing and to supervise savings and loans (Calavita; Tillman & Pontell, 1997).

For several decades the supervision, control and regulation imposed by the FHLBB to the savings and loans was very slack partly because these institutions had a very narrowly defined financial role and little intension to extend it (Acharya et al, 2011). This situation changed during the 1970s, when interest rates rose sharply and the savings and loans began to seek for higher profits.

Noteworthy is the fact that the regulation of the savings and loans was sufficient to oversee them regarding their traditional operations. However, this regulation started to become weak and inadequate because of the financial innovation that appeared and developed gradually during the 1960s, 1970s and 1980s (Moysich, 1997). Financial innovation created new risky assets increased the potential profit margins for banks and the competition between them. The new legislation that deregulated the banking industry in the early 1980s, the state Act of 1980 for the deregulation of saving units and monetary control and the Government Act of 1982 about the savings and loans, provided these units with increased jurisdiction so that they could get involved in risky investment activities. The units, which up to this moment where restricted to the provision of mortgage loans could now have 40% of their assets on commercial real estate loans, 30% on consumption loans and 10% on corporate loans. That is, they were allowed to have up to 10% exposure to bonds and direct investments (Mishkin, 2004).

The Congress encouraged diversification and explicitly allowed the savings and loans to engage in consumption and corporate loans. At the same time, government regulators continued to loosen the restrictions regarding the allocation of savings and loans. They did so by loosening the regulations regarding safety and credibility, by lowering capital requirements and by changing the accounting rules in order to enable the units to correspond to their equity requirements (Acharya et al, 2011).

The monitoring system of the savings and loans imposed a loose regulatory framework and also had flimsy foundations. The operations of examination and monitoring were absolutely separated from each other. As a consequence, no agent had the sole responsibility for the failure of an institution (Moysich, 1997). The monitoring environment of the institutions was not favorable at all in order to motivate the imposition of corrective actions.

Three are the main players that seem to have borne the overall responsibility for the situation created (Benston & Kaufman, 1990):

1) The Federal Reserve Bank of USA, which allowed an increase of money supply during the 1970s to levels that caused double-digit inflation that in turn led to higher nominal interest rates. Then, in 1979 the Federal Reserve Bank increased abruptly and unexpectedly interest rates aiming to reduce inflation directly. Thus, the market value of the assets of many savings and loans fell below the value of their deposits and this fact rendered them insolvent.

2) The elected officials (members of the Congress and the Council), who ignored the fact that large and unexpected increases of interest rates would cause great economic damage to the institutions which granted long-term fixed-rate loans and financed them with short-term deposits. They also ignored the fact that this danger would aggravate by the system of government insured deposits that existed.

3) The FHLBB which failed to warn the officials and the public about the hazards and the fragile nature of a sector which financed long-term fixed-rate assets with short-term liabilities.

From 1985 on, it became clear that the savings and loans faced significant problems. The insolvency of many institutions became a frequent phenomenon which became far more intense during the period 1987-1988, when 1043 institutions with total assets over $500 billion failed (Curry & Shibut, 2000). The Insurance Agency for the savings and loans did not have sufficient funds to intervene and help. This led to the continuation of the operations of troubled institutions (zombie institutions) which had a further motive to engage in activities with high risk expecting equivalent high yields which would save them from the difficult situation in which they had fallen. All these resulted in the perpetuation of the difficult situation in the savings and loan industry.

The response of the American government to the first signs of fraud on the mid-1980s was controversial and contributed ultimately to the crisis. A close examination of this response reveals that the savings and loan industry and its members were able to protect themselves by putting pressure on the key members of Congress and other officials. However, explicit or implied, the cooperation between government officials and institution managers seems to have played a major role in preventing the legislative regulation and, thus, the crisis worsened (Calavita; Tillman & Pontell, 1997).

The most important action of the government in an attempt to deal with the crisis was the Financial Institution Recovery Reform and Enforcement Act (FIRREA) in 1989 (Brumbaugh & Litan, 1991). This Act referred almost exclusively to the savings and loan crisis and created the Resolution Trust Company whose aim was to close all the zombie institutions and to provide funds to pay off their depositors. However, the negative net value of a large and growing part of insolvent institutions could easily exceed the reserves of this Corporation and FIRREA ignored to a great extent the economic factors in its attempt to confront the crisis.

Whether FIRREA improved ultimately the regulation, control and supervision of the savings and loans is not entirely clear. Any improvement, however, seemed to be meager. FIRREA ignored the division from 1986 onwards of banks into healthy and not, the need for their differential treatment as well as the fact that due to specific accounting techniques that can conceal the weaknesses of balance sheets the number of insolvent banks was not easy to be identified.

The criticism that FIRREA accepted was that not only did it fail to confront the adverse condition of the institutions, it even failed to understand the major issues of the reform of the deposit insurance and of the regulation that this insurance required. The criticism of FIRREA highlighted also its flaws regarding its approach to the reformation of the Loan Regulation, of capital requirements, of limitations on assets and of their imposition. Generally, it was argued that the US government proved to be unprepared to deal with the savings and loan debacle.

The savings and loan crisis was one of the worst financial disasters of the 20th century. Two aspects of the damage to the savings and loans had generally consequences to the overall economy (Congress of the United States, 1992). The first was the detrimental effect on the national capital stock as these institutions directed some of the national investments towards ineffective and often worthless investment plans rather than productive and worthy. This reduction in national capital stock caused probably the Net National Product be lower than it would otherwise be. The other aspect stems from the fiscal policy implied by the deposit insurance system.

The losses of the savings and loans seem to have cost the nation a major amount of income and production. Based on rough estimates, the deterioration of all economic variables due to the crisis was far from insignificant. Heavy was also the blow for the taxpayers. The esteemed cost for the taxpayers, not including the interests over the government bonds that were sold in order to finance the rescue of the industry, is about $150-$175 billion. If interests are to be added this amount reaches the level of $500 billion (Calavita; Pontell & Tillman, 1997).

6. LESSONS FOR THE FUTURE AND MISTAKES TO BE AVOIDED

All forms of crises through which an economy passes are costly, others to a greater others to a lesser extent. However, each one of them can indicate errors and wrong ways of handling and can teach us something for the future.

According to Acharya et al (2011), two were the primary problems that were identified in the bank panic of 1907. The first of them has to do with the fact that even private clearing houses faced the risk of insolvency. The second concerns the trusts of New York which were not allowed to be members of the New York Clearing House because of the intense competition between commercial banks and trusts.

The lessons that the panic of 1907 can teach us are very important. First of all, it became clear that a non-uniform and homogeneous banking system is very precarious and can lead to major problems. Furthermore, information regarding the solvency or not of financial institutions is very important, but its acquisition can be very difficult. What is more, there is need for an organization that can provide this kind of information. The crisis highlighted the need for the existence and operation of a lender of last resort which would provide liquidity to solvent institutions that would be in need of it. The provision of liquidity by various private clearing houses proved to be ineffective.

Tallman and Moen (1990) argue that the bank panic of 1907 has important policy lessons to teach us. The limitation in the types of products on which national banks could invest did not reduce the riskiness of the portfolios of the financial system. The unequal treatment of trusts and banks led to the concentration of the most risky assets to a few institutions principally trusts. Negative progress of trusts' assets and specifically of guaranteed loans increased the possibility of insolvency. If legislation provided institutions with equal access to all investment opportunities and all assets, the diversification of their portfolios would reduce the risk the collapse of a type of assets to threaten the solvency of a whole class of institutions.

Whether the access of trusts to the clearing houses could have averted their insolvency given the high risk of their portfolios cannot be guaranteed. Although the Clearing House of New York operated to some extent as a central bank, the absence of explicit legislative delegation prevented it from accomplishing entirely this function.

Finally, it should be noted that the Clearing House kept information about the financial status of its members and so it could directly decide whether to provide or not a member with help whenever it was asked to intervene. The exclusion of trusts from the Clearing House rendered the acquisition of such kind of information difficult for them and probably led to the isolation of Knickerbocker. The unequal legislative reform was perhaps the heaviest blow of all. Even with access to a lender of last resort, under conditions of unequal legal treatment, trusts would have no incentive to keep portfolios with profitable but risky assets. The possibility of a whole type of institutions to collapse would remain.

About the Great Depression of 1929, Slivinsky (2008) mentions in a beautiful manner that perhaps the most major lesson that it has to teach us is that policy makers should obey to the Hippocratic Oath: "First do no harm". And most times this means to avoid the temptation of getting involved and so violate the correction mechanisms of the market itself.

The lessons that the Great Depression has to teach us are the same disputable as its causes. Nowadays, the Central Banks operate as lenders of last resort in order to provide liquidity to the banking system and to boost economic growth. During the Great Depression, central banks refrained from that kind of activities and it is uncertain to what extent such a strategy is appropriate as a way out of the crisis.

The key findings to which the analysis of the Great Depression has led us are, according to Diebolt, Parent and Trabelsi (2010), three. First of all, the response of macroeconomic policy was the major factor that contributed to the severity and duration of the Great Depression. Moreover, the lack of proper measures of expansionary monetary and fiscal policy by the Fed accelerated the Great Depression. Finally, the protectionism that characterized many countries during the 1930s magnified the recession to a great extent.

The most important lessons we can derive from the crisis of 1929 have to do with the function of the central bank and the financial system in general. The collapse of the financial system may have been prevented if the central bank had correctly understood its role as a lender of last resort. Deflation played also a major role, while the gold standard applied at that period as a method of supporting a fixed exchange rate system came to be disastrous as well.

According to the European Commission (European Commission, 2009) five are the main lessons from the Great Crisis. First, it is important that public preserves its confidence in the banking system and that a collapse caused by credit reallocation should be prevented. Second, aggregate demand should be maintained and deflation should be avoided through various measures of expansionary monetary and fiscal policy. Third, it is important that the international trade be preserved and protectionism be avoided. Fourth, financial markets should remain open and have no capital restrictions. Finally, international cooperation should be cultivated and phenomena of nationalism be averted.

The Savings and Loan Crisis in the 1980s was just as educative an event as the previous ones. It has been argued that this crisis could have been avoided if timely measures were to be taken. The structure of the industry was defective due to its sensitivity to interest rate risk, while non-diversified portfolios of long-term fixed interest rate assets which were financed by short-term liabilities proved to be a disastrous combination. The actions of the state bodies not only proved to be ineffective, they even intensified the crisis. If there is something we can learn from the crisis with certainty is that when the government provides a deposit insurance system, it should at the same time use apt accounting and strict supervision and control. Furthermore, the "too-big-to-fail" common assumption cannot characterize any kind of policy. There are many examples of large institution failures throughout history.

The Savings and Loan Debacle, above all, demonstrated the importance of capital as a shield which will ensure the requisite solvency and will protect the deposit guarantor. Moreover, it will discourage the saving units from taking on high risks, since they will hazard larger sums. The capital levels that these units maintain should be in proportion with the risks they undertake. The analysis of the bankrupt units also shows the importance for the deposit insurance fund to have strong capitalization based on actual risk evaluation.

The crisis demonstrated the need for immediate corrective measures that means the need for increase of the restrictions over the activities of the saving units once it gets clear that their funds drop significantly. Furthermore, the crisis showed the need for the existence of a regulatory framework which will ensure the deposit guarantor and the need for existence of adequate and appropriate examiners and auditors for the saving units.

The importance of the accounting practices in use is another issue that the Savings and Loan Debacle put forward, as they can distort the true image of the units. The regulatory authorities can easily be deluded by the industry they regulate. Moral hazard is indeed a problem hard to avoid. It is very important that insured insolvent savings and loans be identified and shut down immediately in order to minimize potential losses for the insurance fund and ensure a more efficient financial market. The Savings and Loan debacle we could say, finally, demonstrated the need for application of stress-tests to financial institutions and the need to monitor their structure, composition and size.

7. **RESUME AND CONCLUSIONS**

In this paper, three major crises that occurred during the 20th century were examined, namely the Bank Panic of 1907, the Great Stock Crash of 1929 and the Great Depression that followed and the Savings and Loan Crisis of the 1980s. All three crises started from the USA, their effects however were channeled globally. The bank panic of 1929 was the first major crisis of the 20th century and was critical to the US economy, as it was followed by huge reforms in the banking system.

The stock crash of 1929 and the subsequent depression were a black page in the global economic history. The period 1929-1933 was perhaps the most difficult period of the entire century for the USA and many other countries. The Savings and Loan debacle was probably the most major postwar crisis in the US banking industry.

Economic crises have always happened and will continue to happen as everything shows. Every crisis is a special event and should be treated as such, as it takes place under discrete circumstances and is related to different causes and consequences. However, this does not mean that every crisis of the past has nothing to teach us. Instead, each crisis can reveal wrong policies and mistakes which we should avoid in the future.

The bank panic of 1907, in summary, revealed the need for a lender of last resort and the need for a uniform and homogeneous regulation of all bank institutions. It also demonstrated the importance of information over the financial condition of these institutions and the need for systematic control and supervision of them. The crash and the depression of 1929 has taught us important lessons for the function of the central bank and the financial system in general, as well as for the disastrous contribution of the gold standard to the deterioration and contagion of the crisis. It also demonstrated the importance of maintaining the confidence of investors and of keeping markets open to international trade.

The Savings and Loan Crisis pointed the significance of keeping sufficient capital and diversifying portfolios. It also pointed the need for existence of an appropriate regulatory framework that will supervise the portfolios and the financial condition of the savings and loans and will force them to keep capital levels commensurate with the risk levels they undertake. It, finally, rendered apparent the importance of existence of a deposit guarantor and specialized auditors and inspectors.

The comprehension of the past can be a powerful tool for the confrontation of the future. Avoiding mistakes of the past, this brought devastating consequences, lead economy forward and boosts economic growth. It is therefore very important that policy makers understand the mistakes of the past, learn the lessons past has to teach them and with them in mind try to lead economy into growth and prosperity avoiding mistakes that have proven to be detrimental for the economy.

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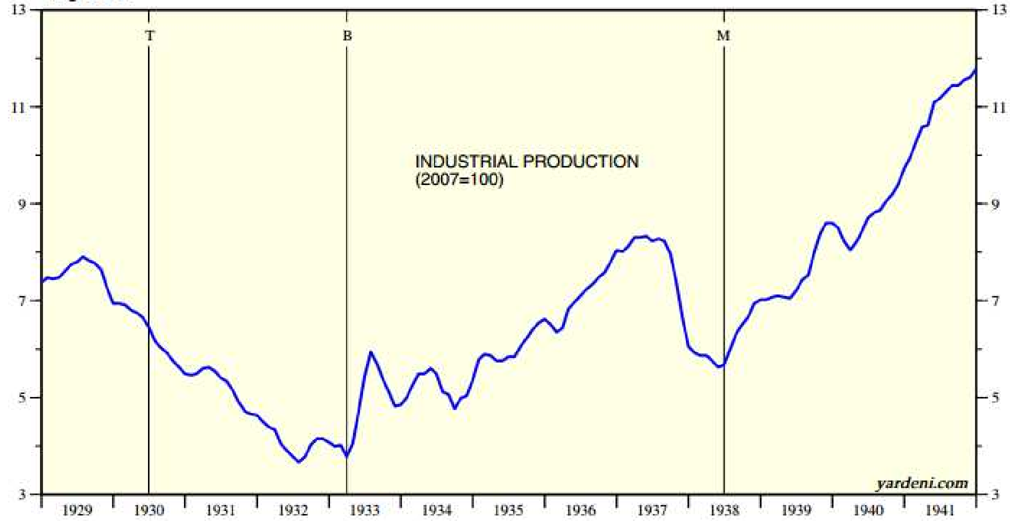
APPENDIX

Group of Tables 1. The course of some basic economic measures during the crisis of 1929

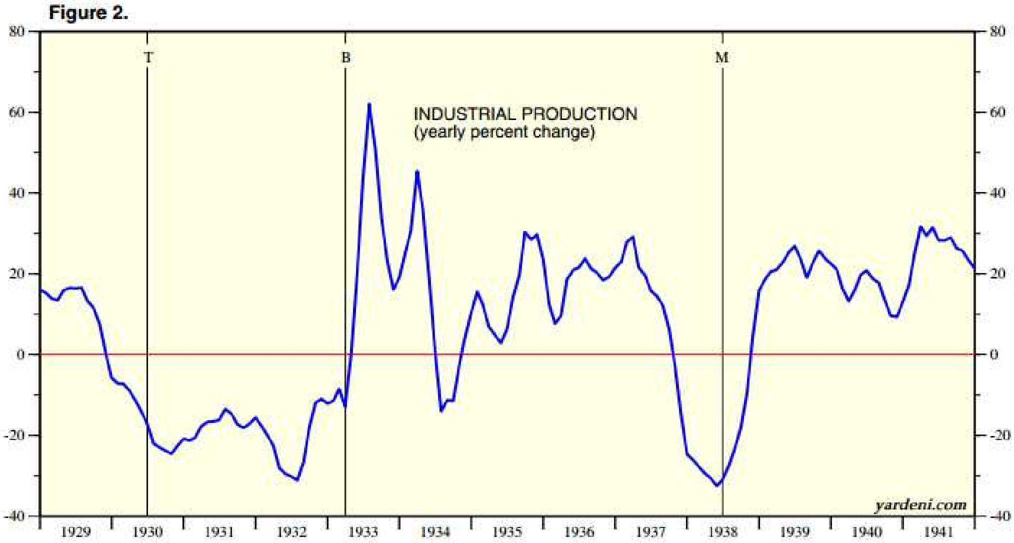
- Industrial Production: 1929-1941 -

Figure 1.



* T = Smoot-Hawley Tariff enacted June 1930. B = Emergency Banking Act. M = Mark to Market suspended.
Source: Board of Governors of the Federal Reserve.

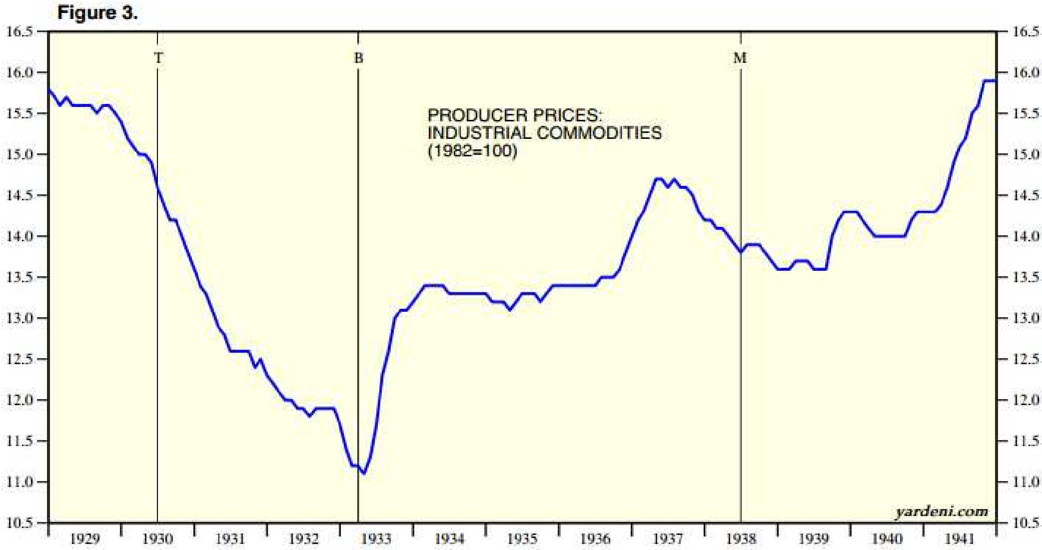
Figure 2.



* T = Smoot-Hawley Tariff enacted June 1930. B = Emergency Banking Act. M = Mark to Market suspended.
Source: Board of Governors of the Federal Reserve.

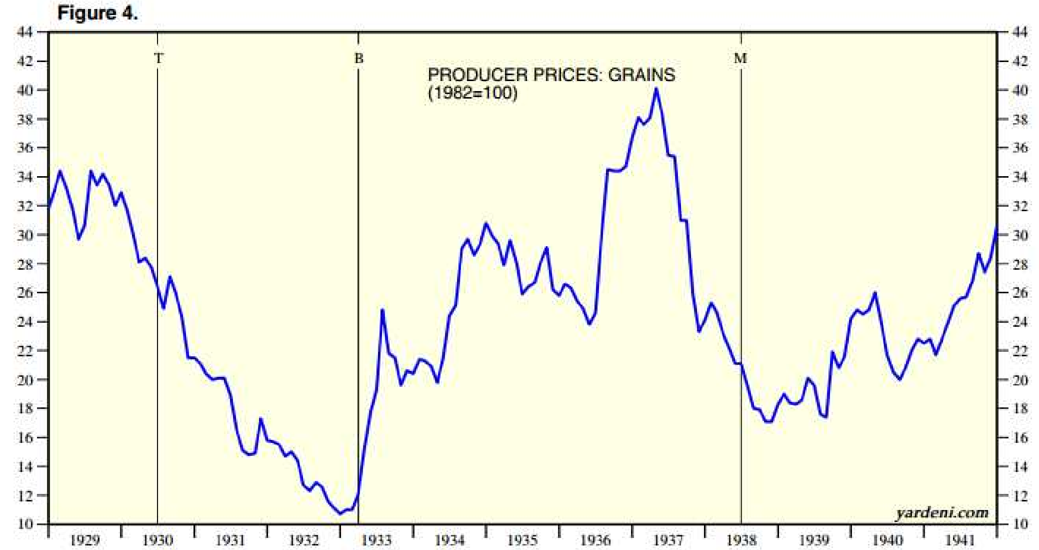
- Producer Price Index: 1929-1941 -

Figure 3.



* T = Smoot-Hawley Tariff enacted June 1930. B = Emergency Banking Act. M = Mark to Market suspended.
Source: Bureau of Labor Statistics.

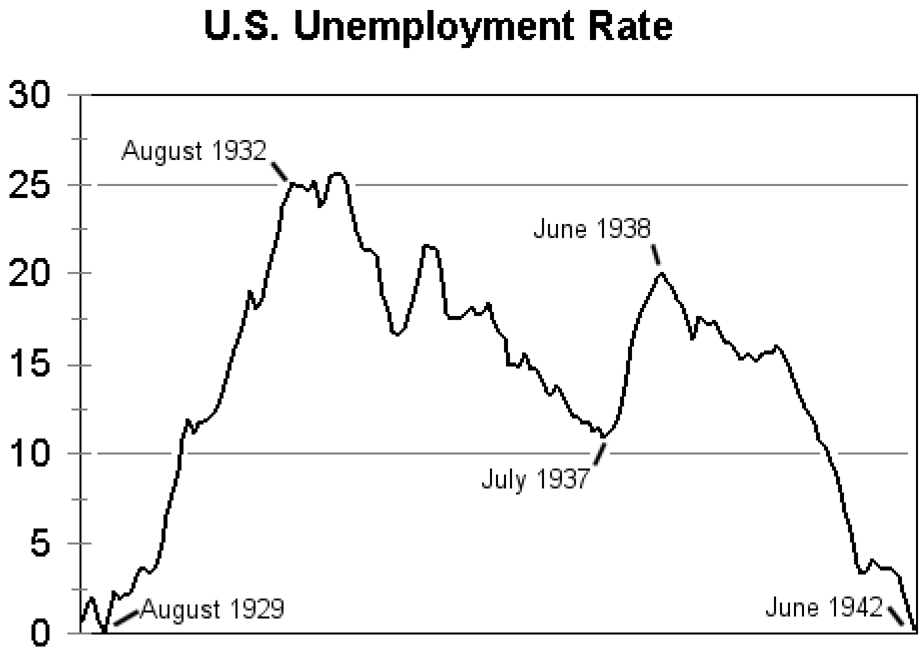
Figure 4.



* T = Smoot-Hawley Tariff enacted June 1930. B = Emergency Banking Act. M = Mark to Market suspended.
Source: Bureau of Labor Statistics.

Source: Great Depression Chart Book (2012) by Yardeni Ed. & Quintana M.,Yardeni Research, Inc.

Source: Federal Reserve Bank of St. Louis



Source: The Econ Review (www.econreview.com)