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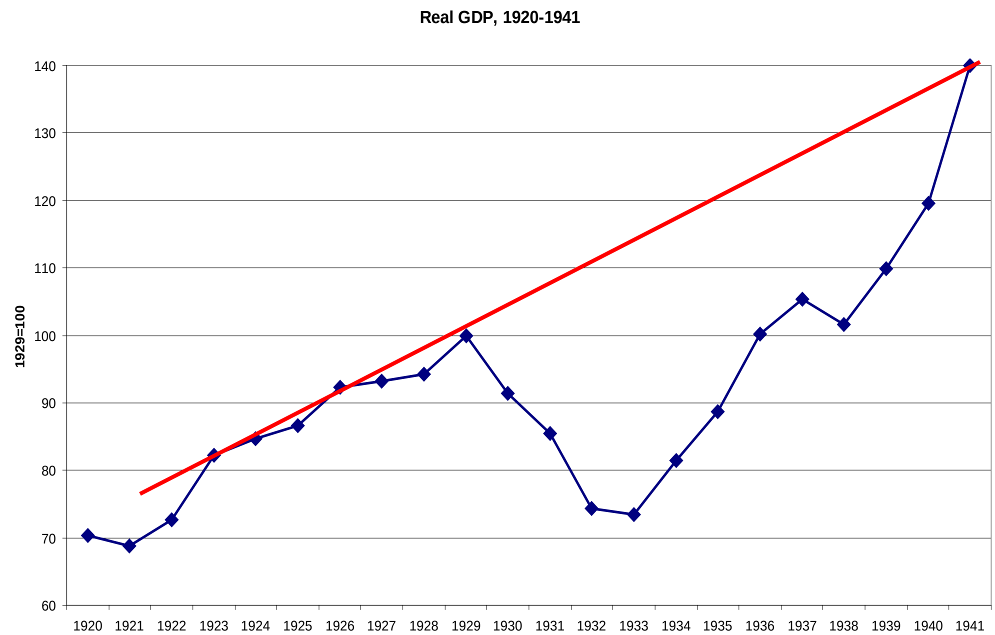
The Great Depression of 1929-1933 was the most severe recession that the U.S. has ever experienced. The federal government was faced with the failure of thousands of financial institutions and a collapse of the housing market as a result of this contraction. Dramatic action was required to halt the decline, resolve the failures and foreclosures, and provide new institutions for the future. My testimony today examines both the banking industry and the residential housing market in this period after first providing a chronology of the Great Depression.

Bank failures had been a common part of the economic landscape before the Great Depression, as there were many small weak institutions. But, the number of bank failures soared after 1929. The establishment of the Reconstruction Finance Corporation was the first attempt to stabilize the banking industry by providing capital and loans. In spite of its substantial resources, the RFC failed to halt the collapse of the industry. In the face of a nationwide panic, a Bank Holiday was declared. All banks were temporarily closed while the government determined which were solvent and could be reopened. The insolvent institutions were closed and neither depositors nor shareholders were bailed out. For the future, the Federal Deposit Insurance Corporation was established.

As unemployment rose and prices of all assets tumbled, the Great Depression compounded the problems of the housing market, already suffering from a boom that had collapsed in 1926. States responded to the rising number of foreclosures with moratoria that reduced the number of foreclosures but also lowered the supply of credit while raising interest rates. The first response of the federal government, the creation of the Federal Home Loan Bank System helped to reduce the number of savings and loan association failures but not the problem of foreclosures. To refinance home mortgages, Congress created the Home Owners Loan Corporation in 1933. Although the HOLC refinanced approximately 20% of the nation's mortgages, preventing many foreclosures, its success was qualified. The agency rejected half of the applications and set relatively stringent terms for borrowers. Nevertheless, 20% of its loans ended in default. Its small reported profit should be reduced by subsidies from the federal government. For the future, Congress created new institutions, the Federal Home Loan Bank System, the Federal Housing Administration, and Fannie Mae that transformed the mortgage market.

I. An Outline of the Great Depression

From the peak of the business cycle in August 1929 to the trough in May 1933, the real Gross Domestic Product of the U.S. fell 39%, prices declined 23% and unemployment rose from 3.2% in 1929 to 25% in 1933. From the low point in 1933, recovery was slow and unemployment still remained well above 10% for the rest of the decade.



The figure above shows the real GDP for the United States from 1920 to 1941 with a trend line to indicate what GDP would have looked like if there had been steady growth. The peak year is 1929 followed by the extraordinary four years of decline. By 1937, the economy had recovered to the 1929 level, but this was well below the economy's potential, which was only reclaimed in 1941. The general consensus among scholars of the Great Depression is that the Federal Reserve has the great share of responsibility for the large decline and halting recovery because of its mistakes in monetary policy.

The basic chronology and key events of the Great Depression are:

1. The Roaring Twenties. The 1920s was an exceptional period with no inflation and high productivity growth. After the brief but sharp post-World War I recession, GDP grew at a rate of 4.7% a year and unemployment averaged 3.7%. There were two exceptions to this rosy economic picture. The agricultural was weak, especially in the early part of the decade, because of overexpansion during the war and a collapse of prices. Residential housing boomed in the middle of the decade, with a crash in 1926 followed by a collapse of construction and rising foreclosures.
2. Beginning Shocks, 1929. A stock market boom/bubble began in March 1928, drawing in capital from across the country and around the world. The Federal

Reserve tried to talk down the market but finally, in July 1929, it raised the discount rate from 5% to 6%. The Fed's timing was extraordinarily poor as the business cycle had just peaked and a decline was beginning. The stock market crash of October 1929 reduced household wealth, leading to reductions in consumption and investment. Although the economy was clearly moving into a recession, the Fed maintained a tight monetary policy.

3. Aggravating Shocks, 1930-1933. After 1929, the collapsing economy weakened banks and bank runs snowballed into full-scale nationwide panics. There were panics in 1930 and 1933 and two in 1931. The failure of the Fed to effectively offset these panics allowed a rapid contraction of the money supply and credit. High real rates of interest produced by tight Fed policy and deflation, reduced consumption and investment. The deteriorating economy created a fear that the U.S. would not be able to remain on the gold standard. Capital flight reduced gold reserves and prompted the Fed to keep interest rates relatively high, further damaging the domestic economy.
4. Rock Bottom to Recovery, 1933-1936. The panic of early 1933 and the cascading state bank holidays led the U.S. to impose a bank holiday on March 6, 1933. The new Roosevelt administration responded to the collapse of the financial industry with the New Deal banking and securities legislation. The U.S. was lifted out of the depression by the abandonment of the Gold Standard in 1933 that allowed the U.S. to devalue the dollar and pursue an expansionary monetary policy. Fiscal policy was minimal.
5. The 1937-1938 Recession. The Fed's attempt to stimulate bank lending by doubling their reserve requirements backfired, as banks curtailed lending to replenish their reserves. The decline in credit produced a sharp contraction.
6. Second Recovery, 1939-1941. The economy began to recover with a new monetary expansion and spending in preparation for war.

II. Bank Failures: Resolution and Reforms

II. A. Bank Failures Before the Great Depression

The general prohibition of branch banking in the United States produced a banking system dominated by thousands of small single office (unit) banks. This development stood in stark contrast to the branching systems of Canada and much of Europe. In 1920, there were 28,435 commercial banks in the United States. Many banks were small, if not tiny, single office operations that were heavily dependent on the economic health of one town or county. Deposits average $1.2 million ($2008 = $13 million), but many had as little as $100,000 on deposit.

In this fragile banking environment, failures were a common feature. In the 1920s, bank suspensions averaged 588 per year. The average annual deposits in these suspended banks $180 million ($2008 = $2.2 billion). Shareholders lost their investment and more because federal and most state law imposed double liability, which made them additionally liable for the face value of their investment. Depositors were faced with a "haircut." For national banks, the historic record for payouts is preserved. Between 1907 (a major banking panic) and the end of World War I, depositors in failed banks were paid approximately 70 cents on the dollar. The collapse of agriculture with the fall in agricultural prices following World War I, briefly led to payout of less than 30 cents, until they recovered to about 60 cents in the 1920s.

A comparison with Canada is instructive during the last great banking crisis before the Great Depression—1907. In the United States, there were 16,389 banks, with fewer than 500 branches. In Canada there were only 28 banks, yet they had 2,367 branches. Both countries experienced a recession and a collapse of the stock market, but the U.S. endured a severe banking panic then ended in a temporary suspension of payments and produced 231 bank failures during 1907-1908. In contrast, there was no panic in Canada and weak banks typically did not fail but were absorbed by one or more sounder banks.

II B. Bank Failures During the Great Depression

Bank failures during the Great Depression were on a far greater scale than previously experienced. The policy mistakes by the Fed hit a fragile banking system hard. The fact that bank failures were regarded as a normal culling of bad institutions clouded the judgment of many policy makers as the downturn in 1929 began to gather speed.

From 498 failures with $142 million in deposits in 1928, the numbers rose dramatically. In 1929 there were 659 failures with $230 millions in deposits; in 1930, 1,350 failures with $837 million; in 1931, 2,293 failures with $1,690 million; in 1932, 1,453 with $706 million, and finally in 1933, 4,000 failures with $3,596 million in deposits. The demise of so many banks was unparalleled in the history of the United States. In addition to the loss of banks, there was a steady contraction of the banking system and collapse of bank credit, weakening the economy.

In "ordinary" years, banks had failed because they were insolvent, but the banking panics of 1930, 1931, and 1933 created a liquidity crisis. If bank were unable to meet its customers' demands because it could not sell enough assets fast enough without realizing large losses, it too could fail. Banks were thus subject to both solvency and liquidity pressures.

II C. The Response to Bank Failures---the RFC

The rising number of bank failures and the apparent lack of response by the Federal Reserve concerned both Congress and the White House. However, after the 1930 mid-term elections, the Democrats gained control of the House; control of Congress was now split and the legislative response stalled. President Herbert Hoover persuaded bankers and businessmen to form a private National Credit Corporation (NCC). The NCC pooled together $500 million of funds ($2008 = $6.4 billion) to lend to weak banks on assets that were not eligible for discount at the Federal Reserve banks. But given the increasingly dire condition of the banks only $155 million was lent by the end of the year. Congress did respond in 1931 by liberalizing the Federal Reserve's discounting rules, permitting the acceptance of more types of collateral on loans to member banks. But, this action did not help the thousands of banks that were not members of the Fed.

More importantly, on January 22, 1932, Congress created the Reconstruction Finance Corporation (RFC) to provide additional liquidity. The RFC was authorized to make collateralized loans to financial institutions for up to three years. The agency was largely financed by the Treasury, which subscribed to $50 million of its capital and bought $3.3 billion ($2008 = $52 billion) of its bonds. By the end of 1932, it had provided 7,880 loans for a total of $810 million dollars, improving bank liquidity. The RFC was also charged with making loans to closed banks to speed up the process of the liquidation and repayment of depositors.

However, the effectiveness of the RFC was compromised in July 1932 when Congress required the names of banks receiving RFC funds to be revealed. Although distribution of the list of banks was limited to the president and Congress, the Speaker of the House, John Nance Garner ordered the reports to be made public to control any favoritism. Fearing damage to their reputation or a run if news broke that they had borrowed from the RFC, requests for new loans rapidly declined. Although the RFC certainly provided banks with additional liquidity, its effectiveness was also limited by the Federal Reserve's unexpected deflationary policy that continued to weaken the banking sector and raise the demand for liquidity. Furthermore, while the RFC could assist with the liquidity problems of banks, it could not address problems of solvency as more and more banks' assets deteriorated with the declining economy.

II D. The Response to Bank Failures---the Bank Holiday

As bank failures continued, an old response began to reappear, some cities and states began to grant banks the right to restrict payments to their deposits. The hope was that the banks were solvent and restricting payments would permit them a chance to improve their liquidity while a panicking public calmed down. Banking runs would be checked before they brought down any banks.

The deterioration of the banking situation led Nevada to declare the first statewide banking holiday in October 1932 when faced with numerous runs on state institutions. Several states followed suit, but the February 14, 1933 Michigan bank holiday began a cascade of state holiday declarations. Pressure on New York City banks grew as their regional correspondents withdrew funds in the city to satisfy their customers. In this crisis, President Roosevelt declared a national bank holiday on March 6, 1933, suspending all banking transactions. Following the Emergency Bank Act, Roosevelt announced a schedule for licensing the reopening of the banks on March 11, ensuring that only solvent institutions returned to operation.

The Bank Holiday was a drastic and dramatic remedy. Before March 1933, the public was prone to run on a bank because it had no means to determine its solvency in the collapsing economy. This "information asymmetry" had always been present but it was heightened during financial crises. The government now stepped in and erred on the side of caution. After examination, only the banks that were clearly solvent would be reopened Those banks whose condition was dubious would remain closed until the government could ascertain their true condition. Before the onset of the depression, there had been 24,504 commercial banks with $49 billion of deposits in July 1929. By December 1932, the industry had contracted to 17,802 banks with $36 billion in deposits. When the holiday was terminated on March 15, only 11,878 banks reopened immediately. More than half the remainder eventually reopened but 2,132 banks were liquidated or merged. Public confidence in banks as safe harbors for their deposits was thus restored.

The RFC played no role in this part of the drama. After the Bank Holiday, the RFC was sidestepped and had only a limited job in the reopening of banks. It loans to open banks shrank from $677 to $462 million by the end of 1933. The RFC then shifted to providing capital for the reopening of weak banks and making loans to assist with the liquidation of insolvent banks.

II E. The Response to Bank Failures---No Bailout of Depositors

What happened to the depositors of the failed banks? As happened before the Great Depression, they suffered some loss. One option that was firmly rejected by the Roosevelt administration was a bailout.

In April 1933, a bill was proposed in Congress that would have ordered the government to purchase all the assets of closed national banks at a price sufficient to pay all depositors in full and liquidate the banks. The Secretary of the Treasury estimated that the cost of paying off all deposits up to $2,500 (2008 $ = $40,000) would cost the Treasury $ 1 billion (2008$ = $16 billion) or about 2 percent GDP. Roosevelt was opposed and the act was defeated overwhelmingly in Congress.

Instead of a bailout, all stakeholders in the failed banks absorbed the losses. A substantial fraction of the banking system was permanently closed, presenting depositors and shareholders with large losses. Losses totaled $2.5 billion (2008$ = $39 billion) or about 2.4% of GDP in 1933, which were roughly shared equally by shareholders and depositors. For comparison, in the financial collapse of the 1980s, savings and loans cost the FSLIC and the government $74 billion and commercial banks yielded losses of $52 billion. The total of $126 billion was equal to 3.4% of GDP. In today's crisis, one estimate of losses to banks is $1.7 trillion or $11.6% of GDP.

II F. The Response to Bank Failures---FDIC Insurance

Federal deposit insurance did not play a role in the ending the crisis, it was instead part of the New Deal reform package. Today, deposit insurance enjoys broad public support, but before the Great Depression, proposals for federal insurance were viewed as special interest legislation that had little chance of passage in Congress.

States had experimented with insurance of bank liabilities before the Civil War and after the panic of 1907. These state systems had a best mixed results and at worst, disastrous consequences. This experience increased policy prejudice against federal insurance. However the lobby of rural, unit bankers continued to press for a federal guarantee system. They hoped to increase depositor confidence and retain the laws that prevented branching and competition from city banks. Yet, repeal of these regulations would have produced a more stable banking system of larger, diversified institutions.

Studies of the origins of deposit insurance emphasize that it would have had scant chance of being adopted if the banking collapse of 1931-1933 had not frightened the public. The problems of the earlier state systems with moral hazard and adverse selection were well known and debated in Congress. Aware of that deposit insurance would increase risk-taking by banks, the Roosevelt administration, key Senate leaders, the bank regulatory agencies, and larger banks opposed any deposit insurance. In the face of such opposition, credit for the adoption of deposit insurance belongs largely to Representative Steagall who effectively blocked the passage of any banking legislation unless it included deposit insurance at the critical moment in early 1933.

Far from being a high-minded policy aimed at protecting the depositor, the design of the Federal Deposit Insurance Corporation (FDIC) was the product of a lengthy struggle between small, often marginal banks in rural areas, against larger more diversified and efficient banks. The Banking Act of 1935, which created the FDIC set a flat annual assessment rate of one-twelfth of one percent of a bank's total deposits. Banks contributed premiums as a fraction of all their deposits but only received protection on deposits up to a maximum of $5,000 per account ($2008= $78,000) for the permanent fund. This low level reflected the concern that all deposits not be insured and that larger depositors should be at risk. They would provide market discipline by withdrawing their funds if they perceived the bank to be taking excessive risk.

Small banks and lower-income individuals with small deposit accounts benefited, while bigger banks with larger deposits effectively provided a subsidy. By the end of 1935 91% of all commercial banks with 86% of deposits had joined the FDIC. Yet, FDIC insurance only covered 45% of all deposits in 1935. By any measure the vast majority of small depositors were well protected by this level of insurance and there was no public demand for an increase. Even after the inflation of World War II had eroded the value of $5,000 of deposit insurance, only 4.4 million accounts out of a total of 104 million accounts were not protected.

III. The Housing Market and the Great Depression

III. A. The Nature of the Traditional American Mortgage Market

Traditionally, developers, local investors, and family had provided most mortgages. In 1920 only half of real estate lending was provided by intermediaries. The market was characterized by loans for one-third to one-half of the purchase price, with maturities of a few years. During the housing boom of the 1920s, institutional lenders led by savings and loans, commercial banks and insurance companies expanded rapidly. By the end of the decade they accounted for 60% of mortgage finance. Except for savings and loans which primarily gave fixed payment amortized loans, most lenders, including insurance companies and commercial banks, offered three to five year mortgages that typically did not amortize the principal, making the balance due and the end of the life of the loan.

A key feature of these relatively short maturity non-amortized loans was the need for renewal at maturity. The price stability of the late nineteenth century and the 1920s (with the exception of World War I) ensured that these types of loans did not present homeowners or lenders with the risk of rapid price changes that could raise or reduce the real value of the principal. The rapid deflation of 1929-1933 where the general price level fell approximately 30 percent dramatically raised the real value of repayment of the principal. Coupled with the staggering loss of jobs and income during the depression, payment and repayment of loans became much more difficult.

III B. The Housing Market Boom and Crash in the 1920s

Like the current boom and bust, the housing bubble that peaked in the mid-1920s was focused on residential housing. Part of the housing boom is attributable to a recovery of the market after World War I when new construction collapsed, but the number of new homes and the value of construction far exceeded the wartime deficit. The boom occurred during a period of stable prices, low interest rates, and rapid economic growth. There was a construction surge, with a rapid increase in the number of new housing starts. The terms of mortgage finance gradually eased and mortgage borrowing helped to fuel the boom. Securitization of commercial and residential mortgages also grew. Title and mortgage guarantee companies issued certificates of participation against pools of loans they originated and serviced with default risk absorbed by insurance policies they wrote. However, these were all private development without the government institutions that have been so important a role in the current era. Although there is no national data on housing prices, they appear to have increased approximately 30% between 1921 and the peak in 1926, before declining.

III C. State Mortgage Foreclosure Moratoria

The rapid decline in income and real estate wealth during the depression caused many households to fall behind in their mortgage payments. It is thought that perhaps half of urban mortgages were delinquent at the end of 1933. Consequently, both farm and nonfarm foreclosure rates rose to new historic highs in the early 1930s. The foreclosure rate for nonfarm mortgages rose from 0.36% in 1926 to 1.3% in 1933, although it should be noted that these are below current foreclosure rates. Twenty-seven states responded by imposing mortgage foreclosure moratoria. These moratoria varied considerably, from blanket moratoria on most farm and nonfarm foreclosures to specific and limited moratoria. In some states, for example, only borrowers who were current in the payment of interest and taxes but were delinquent in the principal could be granted a moratorium on foreclosure. The result of these moratoria was a reduction in foreclosures by altering the rights and transferring wealth between borrowers and lenders.

These actions immediate reduced foreclosures but contemporary critics argued that moratoria would cause lenders to withdraw, reducing the supply of loans and raising interest rates to compensate for the probability they could not collect on delinquent loans. These objections were countered by arguments that widespread evictions were imminent. If neighborhoods had numerous evictions, the value of property might collapse for all residents, and the social costs might exceed the private costs. Several studies of the Great Depression state foreclosure moratoria have show that private lenders made fewer loans in states that imposed moratoria and charged higher interest

III D. The Federal Home Loan Bank System

Even before the commercial banks were overwhelmed, the decline in real estate prices and delinquent mortgage payments produced a deterioration in the assets of savings and loan associations (S&Ls). Fearful depositors withdrew funds at S&Ls even faster than they did at commercial banks. Deposits fell 17% at commercial banks but 28% at S&Ls. S&Ls responded by building up their cash reserves and slashing new mortgage loans by 76%, compared to a 50% reduction by commercial banks. The gravity of the S&L crisis led Congress to pass the Federal Home Loan Bank Act in 1932. Modeled on the Federal Reserve System, there were twelve regional Home Loan Banks, owned by member thrifts, under the oversight and supervision of the Federal Home Loan Bank Board (FHLBB). The Federal Home Loan Banks served as wholesale lenders to the thrift industry, borrowing at favorable rates and re-lending to member thrifts. Although promoted as a means to aid distressed homeowners, very little refinancing occurred, and the new system primarily benefited the S&Ls. The legal right of S&Ls to limit withdrawals by their depositors and the aid from the Federal Home Loan banks helped to reduce the number of failures. In contrast to the banks, the S&Ls experienced smaller contraction, with the number of S&Ls declining from 12,342 in 1929 to 10,596 in 1933.

III E. The Home Owners' Loan Corporation (HOLC)

The HOLC was established by the Home Owners Loan Act of 1933 and was charged with helping families to avoid foreclosure on their mortgaged homes. Initially, the Corporation received $200 million (2008 $ = $3.2 billion) from the U.S. Treasury and was authorized to obtain the rest of its funding by issuing $ 2 billion (2008$ = $32 billion) in federally guaranteed bonds. With these funds, the HOLC made mortgage loans for taxes and mortgage refinancing. Loans were restricted to mortgages that were in default or held by financial institutions that were in distress. They could be made for one to four-family nonfarm homes. The maximum appraised value of a property was $20,000 (2008 $ = $332, 257). The 15 year amortized loans could not exceed 80 percent of the appraised value and carried a maximum interest of 5 percent.

The HOLC was a massive program. It set up over 400 offices with 20,000 employees to accept applications, make appraisals of property and offer loans. Once the HOLC agreed to refinance a borrower's loan, it offered to purchase the defaulted loan with its securities from the original lender. At the beginning, many lenders balked until the government changed policy and guaranteed both the interest and principal of the HOLC's bonds.

During the initial lending period, the HOLC received 1.8 million applications for $6.2 billion (2008 $ = $100 billion) for refinancing where the average loan was $3,272 (2008 $ = $59,927). This sum was equal to 40 percent of all mortgaged properties in the U.S. that might qualify in terms of their value or about 20 percent of owner-occupied homes.

The program was a qualified success because of its strict standards for refinancing. Approximately one half of the applications were withdrawn or rejected, and one million loans were made worth $3.1 billion (2008 $ = $50 billion). The loans were received by 10 percent of all homeowners and 20 percent all mortgagors. Most of the loans were well below the maximum of $14,000, and 75 percent were for $4,000 ($2008 = $64,317) or less.

In spite of the strict conditions for obtaining HOLC refinancing---an 80 percent maximum loan to value ratio and credit reports on the applicant that had to show an ability to repay---the HOLC foreclosed or received a voluntary transfer 200,000 homes, representing 20 percent of the loans. It should be noted that these foreclosures occurred in spite of economic recovery that began in late 1933. Managing and selling these homes was a major challenge for the HOLC, producing at loss of $310 million ($2008 = $4.8 billion). Continuing problems led Congress to pass the Mead-Barry Act in 1939 that permitted up to 10 year extensions of the original 15 year loans. In 1948, Congress permitted the sale of the HOLC's loans to private institutions.

Total revenue for the HOLC when it wound up its operations in 1951 was $1,417 million while expenses totaled $1,065 million. This profit of $352 million was offset by losses on foreclosures of $338 million, yielding a small profit on its operations of $14 million. Profits had been boosted by the decline in the Corporation's cost of funds to 2.2 percent, giving it a substantial spread relative to its lending rate. However this profit is misleading. In its calculation of profit, the HOLC did not account for the cost of the $200 million cash advance from the Treasury. Harriss (1951) estimated the cost of this advance was $35 million, which would imply a small loss instead of a small profit. The HOLC also had special treatment because it did not have to pay for the use of the post office and it was exempted from Social Security taxes. Together these would have added another $ 8 million, or a true loss of $29 million ($2008 = $466 million).

III F. The FHA, Fannie Mae, and the FSLIC

While the HOLC was intended to address the immediate crisis, Congress created additional institutions to assist the housing industry. In 1934, the National Housing Act was passed to provide mortgage insurance. A new agency, the Federal Housing Administration (FHA) was created to handle the insurance. For a borrower paying a half percent premium, FHA insurance covered the entire principal outstanding, providing the lender with protection from default in the form of compensatory twenty year debentures. The 1934 Act helped to reshape the mortgage market by stimulating the use of long-term, fully amortized, fixed payment mortgages in the residential market, as loans that conformed to the agency's underwriting standards and rules could receive insurance. To encourage participation in the FHA program, the Act sought to create a market for these mortgages through the establishment of private National Mortgage Associations. However, none of these was ever chartered.

To solve this problem and thereby increase the supply of funds for housing finance, the Federal National Mortgage Association (FNMA or "Fannie Mae") was created in 1938 to borrow funds and use them to buy mortgages from lenders and originators. It was authorized to buy FHA mortgages outright from private lenders and even to issue commitments to purchase loans before they had been originated. Thus, Fannie Mae created a secondary market for FHA loans.

Lastly, concerned that the establishment of the FDIC would put S&Ls at a disadvantage in attracting deposits, the National Housing Act also created the Federal

Savings and Loans Insurance Corporation (FSLIC), under the FHLBB. Accounts were insured up to $5,000, while members paid premiums and were subject to periodic examination.

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