CHAPTER 6
THE ROLE OF GOVERNMENT, 1920-1940: MONETARY AND FISCAL POLICIES AND THE NEW DEAL

Laissez-faire explanations of the role of government in an economic system portray it as a "nightwatchman" who simply stands guard on the economy to protect life and property and provide those public goods that the private market fails to supply or supplies in inefficient quantities, such as fire and police protection, highway construction and maintenance, and public health services.

There is a good reason why this description seems to fall short of what governments in the United States and other advanced countries undertake. They are not, in fact, laissez-faire governments, and by the above standards hardly any government has ever been laissez-faire. Governments at all levels have always exercised some economic and social regulation and over time have moved further away from the nightwatchman image of government.

The analysis of government activities in the interwar period focuses on the Federal Reserve System's policies and the New Deal. Throughout the period the new Federal Reserve System was in the process of developing U.S. monetary policy. Fiscal policy, as a separate tool for macroeconomic policy, was not really known or used, and the New Deal policies were much broader than macroeconomic stabilization.

We begin our survey of government in the interwar American economy by examining the development and implementation of monetary policy.

The Evolution of Monetary Policy

In the 1913 Federal Reserve Act fear of the "money trust" and their monopoly power caused Congress to create 12 central banks. The role of the Federal Reserve Board, located in Washington, D.C., was to coordinate the policies of the district banks; it was composed of five presidential appointees and the current secretary of the treasury and comptroller of the currency. All national banks had to become members, and any state bank meeting the qualifications could elect to do so.

The act specified fixed reserve requirements on demand and time deposits, all of which had to be on deposit in the district bank.[1] Commercial banks were allowed to rediscount commercial paper and given Federal Reserve currency. Initially, each district bank set its own rediscount rate. To provide additional income when there was little rediscounting, the district banks were allowed to engage in open market operations that involved the purchasing and selling of federal government securities, short-term securities of state and local governments issued in anticipation of taxes, foreign exchange, and domestic bills of exchange. The district banks were also designated to act as fiscal agents for the federal government. Finally, the Federal Reserve System provided a central check clearinghouse for the entire banking system.

The Banking Act of 1935 changed the Federal Reserve Board's name to the Board of Governors and changed the titles of the district officers to president and vice-president to indicate the more powerful role of the Board of Governors in Washington, D.C. The secretary of the treasury and comptroller of the currency were removed from the Board of Governors and the Federal Open Market Committee. The Fed was authorized to issue its currency on any collateral acceptable to it, vary the reserve requirements on demand and time deposits, and set maximum interest rates paid on time deposits. Finally, the Board of Governors was given the power to set margin requirements on loans granted by member and nonmember banks on stock purchases.

Problems in Policy Formulation and Control

When the Federal Reserve System was originally set up, it was believed that its primary role was to be a lender of last resort to prevent banking panics and become a check-clearing mechanism for the nation's banks. Both the Federal Reserve Board and the Governors of the District Banks were bodies established to jointly exercise these activities. The division of functions was not clear, and a struggle for power ensued, mainly between the New York Federal Reserve Bank, which was led by J. P. Morgan's protege, Benjamin Strong, through 1928, and the Federal Reserve Board. By the thirties the Federal Reserve Board had achieved dominance.

There were really two conflicting criteria upon which monetary actions were ostensibly based: the Gold Standard and the Real Bills Doctrine. The Gold Standard, as described in Chapter 5, was supposed to be quasi-automatic, with an effective limit to the quantity of money. However, the Real Bills Doctrine (which required that all loans be made on short-term, self-liquidating commercial paper) had no effective limit on the quantity of money. The rediscounting of eligible commercial paper was supposed to lead to the required "elasticity" of the

stock of money to "accommodate" the needs of industry and business. Actually the rediscounting of commercial paper, open market purchases, and gold inflows all had the same effects on the money stock.

Federal Reserve Policies from 1920 to 1940

During the First World War, the Fed kept discount rates low and granted discounts on banks' customer loans used to purchase V-bonds in order to help finance the war. In 1919, after the war's end, the Fed continued to keep the discount rate low to facilitate the Treasury's final drive to sell war bonds. Raising the discount rate would have driven interest rates and bond yields up while sending bond prices down. This policy brought on a rapid increase in the stock of money and in the rate of price inflation. Between November of 1919 and June of 1920, the discount rate was raised from 4 to 7 percent ending the inflation, contracting the stock of money, and setting off the 1920-21 depression.

By 1921 the district banks began to recognize that their open market purchases had effects on interest rates, the money stock, and economic activity. For the next several years, economists in the Federal Reserve System discussed how this worked and how it could be related to discounting by member banks.[2] A committee was created to coordinate the open market purchases of the district banks. With these tools the Federal Reserve System was given credit for smoothing the minor contractions in 1923-24 and 1927. Many felt that the Fed was now able to eliminate the business cycle.

During the stock market boom of the late 1920s the Federal Reserve Board preferred to use "moral suasion" rather than raise discount rates to lessen member bank borrowing. The New York City district bank insisted that moral suasion would not work unless backed up by literal credit rationing. Rates were not raised until August of 1929 by which time the contraction had already begun. In late October the stock market crashed, and America slid into the Great Depression.

As banks reduced their discounting in 1930, the stock of money declined. Though the Fed decreased discount rates, no open market operations were undertaken. There was a banking crisis in the southeast in November and December of 1930, and in its wake the public's holding of currency relative to deposits and banks' reserve ratios began to rise. The stock of money continued to decline during 1931, and discount rates were again reduced, and some open market purchases were made.[3]

When Great Britain left the gold standard on September 21, 1931, foreign holders of dollars turned to the United States to obtain gold. To stem the gold outflow, the New York bank's discount rate was raised from 1.5 to 2.5 percent on October 9 and then to 3.5 percent on October 16. The gold outflow stopped but in the following months there was an acceleration in the decline in the money stock and an increase in bank suspensions.[4] The Fed made open market purchases from April through June of 1932.

The publication of the names of banks borrowing from the Reconstruction Finance Corporation and president-elect Roosevelt's refusal to deny that he was considering devaluing the dollar initiated new panics and, for the first time, there were specific demands to convert deposits and currency into gold. The flow of gold out of the United States also increased and the Fed's response was to increase the discount rate, again unaccompanied by open market operations. In early March of 1933, the New York bank's gold reserve dropped below the required percentage, and the reserve requirements were suspended for 30 days.[5] With the banking panic now nationwide, President Roosevelt declared a nationwide banking holiday when he assumed office on March 6, 1933.

Following the end of the depression discounting disappeared because the discount rate remained above the commercial paper and treasury bill rates and banks accumulated large excess reserves. The Fed did not undertake open market purchases because it worried about the possibility of future inflation due to the growing accumulation of excess reserves in banks, and to sell on the open market would have deprived district banks of most of their income earning assets. The money stock did expand as gold flowed into the United States after Roosevelt's devaluation of the dollar, however, in 1937 the Treasury sterilized these gold inflows to stop the expansion of the stock of money.[6]

The Fed concluded that the excess reserves were due to a lack of loan demand. Worried that banks would draw down the excess reserves and fuel inflation when loan demand increased, the Fed, after considerable study, decided to use its new powers to alter reserve requirements.[7] Between August 1, 1936, and May 1, 1937, the reserve requirements for demand and time deposits were doubled, eliminating much of the excess reserves. The money stock then began to fall, and the 1937-38 depression began. Reserve requirements were lowered slightly in April of 1938, and between then and the beginning of the Second World War in Europe, the Fed did not change the reserve requirements or discount rate or engage in open market operations.

With this overview of Federal Reserve System monetary policies in the interwar period, we to turn our attention to the three most important

policy episodes: the 1920-21 depression, the Great Depression, and the 1937-38 depression.

The 1920-21 Depression

The final Victory Loan had not been floated when the Armistice was signed in November of 1918: in fact, it took until October of 1919 for the government to fully sell this last loan issue. The Treasury, with the secretary of the treasury sitting on the Federal Reserve Board, persuaded the Federal Reserve System to maintain low interest rates and discount the Victory bonds until this last issue had been floated. As a result, during this period the money supply grew rapidly and prices rose sharply.

A shift from a federal deficit to a surplus and supply disruptions due to steel and coal strikes in 1919 and a railroad strike in early 1920 may have contributed to the end of the boom.[8] But the consensus is that the Fed's monetary policy was the main determinant of the end of the expansion and inflation and the beginning of the subsequent contraction and severe deflation.[9] When the Fed was released from its informal agreement with the Treasury in November of 1919, it raised the discount rate from 4 to 4.75 percent. Benjamin Strong (the governor of the New York bank) was beginning to believe that the time for strong action was past and that the Federal Reserve System's actions should be moderate. However, the Federal Reserve Board increased the discount rate from 4.75 to 6 percent in late January of 1920 and to 7 percent on June 1, 1920. By the middle of 1920, economic activity and employment were rapidly falling, and prices had began their downward spiral. The Federal Reserve System kept the discount rate at 7 percent until May 5, 1921, when it was lowered to 6.5 percent. By June of 1922, the rate had been lowered yet again to 4 percent.

The Federal Reserve System authorities received considerable criticism then and later for their actions. Milton Friedman and Anna Schwartz contend that the discount rate was raised too much too late and then kept too high for too long, causing the decline to be more severe and the price deflation to be greater. In their opinion the Fed acted in this manner due to the necessity of meeting the legal reserve requirement with a safe margin of gold reserves. Elmus Wicker, however, argues that the gold reserve ratio was not the main factor determining the Federal Reserve policy in the episode.[10] Rather, the Fed knowingly pursued a deflationary policy because it felt that the money supply was simply too large and prices too high. To return to the prewar parity for gold required lowering the price level, and there was an excessive stock of money because the additional money had been used to finance the war, not to produce consumer goods. Finally, the outstanding indebtedness was too large due to the creation of Fed credit.

Whether statutory gold reserve requirements to maintain the gold standard or domestic credit conditions were the most important determinant of Fed policy is still an open question, though both certainly had some influence. Regardless of the answer to that question, the Federal Reserve System's first major undertaking in the years immediately following the First World War demonstrated a poor choice of policy.

The Great Depression

At the time, and for years afterward, the monetary authorities contended that they had pursued an "easy money" policy during the Great Depression but that monetary policy alone had been virtually powerless to stop or moderate the contraction and continuing financial crises. In 1963 Friedman and Schwartz demonstrated that monetary policy generally was not expansive during the Great Depression. They argue that events of the twenties indicate that the Fed had learned how to use the "tools" available to pursue the appropriate monetary policy and had moderated and promoted the recoveries from the mild contractions of 1923-24 and 1926-27. Therefore, monetary policy in 1929-33, in addition to being "inept," was also inconsistent with that of the twenties.[11]

According to Friedman and Schwartz the Fed could have acted aggressively to offset the drain of currency from the banking system and the rise in the reserve ratios so that the stock of money would not have fallen. If the high powered money (currency in the nonbanking public's hands and reserves of commercial banks) and money stock had been kept constant between October of 1929 and October of 1930, they believe that there would have been no banking crisis in the fall of 1930, which in their opinion was what turned a mere recession into the protracted and deep Great Depression.[12] The banking crisis began the increases in the public's holding of currency relative to deposits and the banks' reserve ratios, and these were the direct forces causing the stock of money to begin falling.[13] Open market purchases during 1931 would have offset the currency drains and reserve buildup and in September offset the discount rate increases to stop the gold outflow.[14] And, they maintain, the start of an aborted recovery in the summer of 1932 was due to the Fed's open market purchases.

What could explain the ineptness of monetary policy during the Great Depression compared to the twenties? Friedman and Schwartz argue that it was the untimely death of Benjamin Strong, the forceful and powerful governor of the

New York bank until 1928. With his death there was a shift of power within the Federal Reserve System to individuals who had neither his experience nor his understanding.[15] Their thesis is that Strong would have seen the onset of the liquidity crisis in late 1930 and provided the liquidity the financial system needed. But the lack of leadership and consensus after his death allowed for indecision and tentative actions. The failure to act decisively to stop or mitigate the first such crisis in late 1930 made it even less likely that the Federal Reserve System authorities would act to stem future crises.

Two other studies supported Friedman and Schwartz's contention that the Fed had learned how to exercise monetary policy in the decade prior to the Great Depression's onset. Jeffrey Miron's study found that during the twenties the Fed reduced the seasonal variation in interest rates and, at the same time, reduced the frequency of financial panics.[16] Paul Trescott found that in the twenties the Fed effectively countered disturbances to bank reserves, and undertook dynamic policy to increase banks' reserves over time. According to his calculations, if the Fed had continued its 1924-29 policy regime, its open market holdings would have increased by $1,047 million rather than the actual $148 million. Trescott blamed much of this on the loss of the New York bank's influence when the Open Market Committee was reconstituted in January 1930.[17]

However, not everyone agrees with Friedman and Schwartz's explanation. Elmus Wicker asserts that monetary policy pursued during the twenties was consistent with that pursued from 1929 through 1933.[18] The quality and efficiency of monetary policy did not deteriorate quickly after Strong's death because his understanding of open market operations and monetary policy was not as profound as Friedman and Schwartz claim. For example, one of Strong's guideposts in open market purchases was simply to get the New York and Chicago member banks out of debt to the Fed, and this partly explains the easy money policy of 1924 and 1927. In June of 1930 the five person (not the reconstituted) Open Market Committee voted against additional market purchases because, following Strong's approach, the New York and Chicago member banks had no indebtedness. Wicker also asserts that international considerations were often more important than domestic price stability, and these provide the consistent link between monetary policy in the twenties and the Great Depression. In 1924 and 1927 monetary policy to achieve international objectives also tended to promote and accelerate domestic recovery, but in 1931 the two conflicted, and international considerations were dominant.

In 1924 the Open Market Investment Committee decided to purchase securities to build up the Fed's portfolio so as to be able to check any future inflation arising from the gold imports. In 1927 the interest rate differential between New York and London was reduced to slow down the flow of gold into the United States.[19] However, in 1930 the reasons for pursuing an easy money policy did not exist because the international gold standard was not threatened and there was no concern about future inflation. In late 1931 when the gold outflow was making it difficult for the United States to continue on the gold standard, the Fed acted to raise U.S. interest rates above those in Europe to reverse the gold flow. Under Wicker's explanation, monetary policy in the Great Depression was consistent with that in the twenties because it was primarily determined by international considerations.

Karl Brunner and Alan Meltzer provide another explanation for monetary policy in the twenties and early thirties.[20] They suggest that monetary policy from 1922 to 1933 was consistent but inappropriate because it focused on the wrong variables. The Burgess-Riefler doctrine was an attempt to explain how open market operations in conjunction with traditional discounting affected economic activity.[21] Central bank discounting affected market rates by changing the discount rate and inducing banks or dealers to borrow from or repay the central bank.[22] But if banks borrowed for profit, they could subvert open market operations. When the Fed reduced reserves, the banks could borrow to replenish reserves and then repay the borrowing when the Fed sold securities to increase reserves. The Fed staff argued that banks did not borrow for profit, doing so only when they needed to and then with great reluctance; to ensure this the Fed imposed restrictions on member bank discounting and undertook a "campaign to convince the bankers that bankers were reluctant to borrow from the Reserve banks and anxious to repay as quickly as possible."[23] In this manner the classical theory of central bank operations still held, and the Fed could use market interest rates—particularly short term rates—as the key indicator of monetary policy. Falling rates were a sign of an expansionary policy, whereas rising rates were a sign of a restrictive policy.

Short-term rates declined more after the 1929 peak than after the 1923 or 1926 peaks, and by the summer of 1930 they were at the lowest levels in over a decade. Because of this, Fed officials believed that monetary policy was extremely easy and there was no need to produce increased ease. Therefore, Brunner and Meltzer argue that monetary policy during the Great Depression was consistent with that

in practice during the twenties. David Wheelock's analysis largely agrees with Brunner and Meltzer in finding that there was no significant change in Fed policy between the twenties and early thirties and that the flawed policy was guided primarily by interest rates and bank debt.[24]

In another study Mark Toma found that the Fed was not able to use monetary policy to stabilize the economy during the twenties. He argued that unique conditions at that time allowed the private banking system to react to open market operations in a way that eliminated any lasting effects on Federal Reserve credit. The close of the decade brought on an environment where the Fed's monetary policy could, and did, influence Federal Reserve credit. As Friedman and Schwartz, Wicker, Brunner and Meltzer, and others have demonstrated, the information and timing problems inherent in using discretionary monetary policy make it possible for such policies to be destabilizing as well as stabilizing and, Toma argues, this is what occurred in the Great Depression.[25]

Whether Fed policy from 1929 to 1933 was or was not consistent with policy in the twenties, there is general agreement among these studies that it was a major contributor to the banking failures and the length and severity of the contraction. The reasons offered range from a change in leadership at the Fed—a change to leaders without the requisite skill and knowledge—to the assertion that Fed officials were simply using the wrong tools through the twenties and the Great Depression. Were the authorities in the Federal Reserve System that irrational and inept?

Two analyses argue that the Fed officials were neither inept nor irrational—they did understand what they were doing. Gary Anderson, William Shughart, and Robert Tollison maintain that the Fed pursued what was a restrictive policy because it provided important benefits to member banks.[26] By 1929 there were more nonmember banks than member banks, though member banks, on average, were much larger. Small, state-chartered banks, away from the financial centers, were less able to weather the storm of the depression. From 1930 to 1933, 80 percent of the bank failures were among nonmember banks. The result was that the Fed had better control of monetary matters when more of the banks were members of the system, and, once the worst of the contraction passed, member bank profitability rose. Though this does not prove that regulators were captured by the regulated and operated for their mutual benefits rather than those of the economy in general, Anderson and his colleagues do say, "We do know the path that was chosen and that, contrary to the conventional wisdom, this path had a rationally-motivated, interest-group basis."[27]

This regulatory capture thesis was given stronger support by Gerald Epstein and Thomas Ferguson.[28] Contrary to Friedman and Schwartz, Epstein and Ferguson argue that prior to 1932 the Fed was concerned about the small amount of gold available to back up open market purchases. In addition they contend that officials also expressed faith that wage reductions would revive prosperity and supported the idea of the real bills doctrine. This mindset limited their actions prior to 1932.

The increases in the discount rates in the fall of 1931, aimed at stemming the gold outflow, had caused bond prices to plummet, and the bond price collapse had threatened the solvency of many banks that had been increasing their holdings of short-term federal government securities all through the depression. By early 1932 the banks had largely recovered from the crisis of the previous fall. In early 1932 Congress passed the Glass-Steagall Act, which allowed government securities to secure Federal Reserve notes. This freed up one billion dollars in gold for export. Facing considerable pressure from Congress, where many bills had been proposed to increase the stock of money, and now having what they considered to be sufficient free gold, the Fed began open market purchases on a large scale, about $100,000,000 a month.

Opposition to this arose from several regional reserve banks, particularly Chicago's McDougall and Boston's Young. These bankers were worried about the rising animosity of bankers in their regions. Yields on short-term government securities had fallen from 3.4 percent in November of 1929 to 0.34 percent. Because banks were holding a much larger amount of these securities, it placed a severe squeeze on their earnings.[29] Regional reserve banks that had less free gold also began to object to the open market purchases. The British and French, upset at the open market purchases, began to withdraw their deposits from New York City banks to the detriment of the deposits and earnings in those banks, and New York banks began objecting to the Fed's purchases.[30]

The result was a rising chorus of demands to end the open market purchases. The Fed heeded these requests, and virtually no purchases were made after June of 1932. Epstein and Ferguson also argue that this makes it easier to understand why the authorities of the Federal Reserve System were so concerned with inflation after 1935 and refused to undertake open market purchases. They quote Governor Norris of Philadelphia: "Further increases in excess reserves would adversely affect bank earnings, and incur the risk of disturbance which might arise from

eliminating interest on deposits." They indicate that many bankers supported the increases in reserve requirements that the Fed enacted in 1936 and 1937 because their earnings were closely tied to the rates on the government securities that made up large percentages of all bank portfolios.[31]

The 1937-1938 Depression

Banks accumulated reserves after mid-1933. Because banks were not borrowing through the discount window and the Fed could not sell securities through the open market to reduce high-powered money, when it decided to act it used its new tool of variations in required reserve ratios. Arguing ;that the excess reserves represented inadequate loan demand and were not desired by the banks, in July of 1936 the Fed announced that reserve requirements would be increased and began to do so in August. By May 1, 1937, the reserve ratios had doubled and were at their legal maximum.

Industrial production gradually declined from May until September. Between September and December, industrial production plunged 27 percent. The contraction continued until the trough in May of 1938, when industrial production was 39.1 percent lower than one year earlier. The 1937-1938 depression was quite severe and ended a recovery that had never come close to reaching full employment.[32] Unemployment rose from an annual average of 14.3 percent in 1937 to 19.1 percent in 1938, and real per capita GNP dropped by 6 percent. Consumer prices fell 2 percent, while wholesale prices fell over 9 percent.

Within a few years the explanations offered for the depression centered on the Federal Reserve System's doubling of member banks' reserve requirements in the eight months prior to May, 1937, and a sharp reduction in the federal government's budget deficit. In 1949 Benjamin Anderson argued that neither of these views were correct.[33] Rather, he wrote that a rapid rise in real wages in 1937, due primarily to a surge in labor union activity after the Wagner Act and the 1936 elections, reduced businesses' profits, leading firms to contract production and reduce investment expenditures.

However, Anderson's view places him in the minority; the spending and money views have dominated. Kenneth Roose, E. Cary Brown, and Larry Peppers argue that fiscal policy was the primary factor.[34] Federal expenditures fell in 1937 as the 1936 veterans bonus payments ended, while taxes rose with the new social security taxes. Friedman and Schwartz claim that monetary factors were the dominant force bringing on the contraction.[35] Banks had built up large amounts of excess reserves because required reserves could not be used in a banking crisis, and, with the banking panics and runs of the depression deeply imprinted in their memories, the excess reserves were desired. As bankers began to restore those wiped out by the doubling of reserve requirements, the stock of money declined; setting off the contraction. Several recent studies have supported this.[36]

Monetary Policy in the Interwar Period

The studies referred to above disagree on a number of points, but they do agree on one thing; during times of stress, Federal Reserve System authorities made monetary policy decisions that frequently brought on contractions or intensified already existing ones. *If* the goal of monetary policy was macroeconomic stability then these were certainly poor policy decisions. It is not very satisfying to be unable to say exactly why such policies were pursued. Unfortunately, facts rarely fit neatly into one explanation or another. It is almost certainly the case that there was *some* ineptness in making monetary policy decisions, *some* inexperience, *some* determination of policy by international considerations, and *some* determination of policy by how it affected member banks. We just do not know the relative importance of each of these factors.

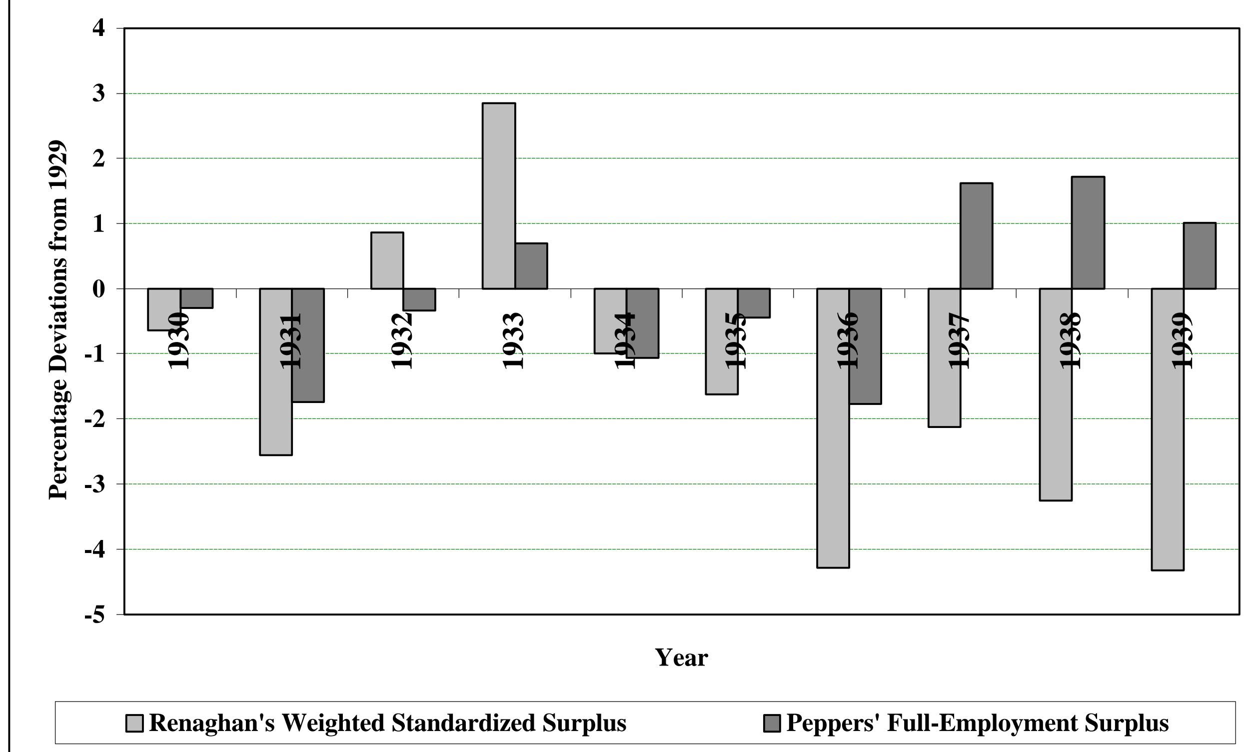
Fiscal Policy in the Twenties and Thirties

As a tool to promote stability in aggregate economic activity, fiscal policy is largely a post-Second World War phenomenon. Prior to 1930 the federal government's spending and taxing decisions were largely based on the perceived "need" for government-provided public goods and services.

The 1920s

Though the fiscal policy concept had not been developed, this does not mean that during the twenties no concept of the government's role in stimulating economic activity existed. Herbert Stein points out that in the twenties Herbert Hoover and some of his contemporaries shared two ideas about the proper role of the federal government.[37] The first was that federal spending on public works could be an important force in reducing unemployment during a depression.[38] The other was the idea that the right type of tax cut (on higher income tax rates) could actually increase the government's revenues by stimulating savings and productive investment. Both concepts fit the ideas held by Hoover and others of his persuasion that the U.S. economy of the twenties was not the result of laissez-faire workings but of "deliberate social engineering."[39]

Federal government expenditures fell sharply after the end of the First World War, while



the higher tax rates imposed during the war created a large surplus that was used to reduce the federal debt. The Mellon tax cuts of the twenties slashed tax rates such that the top marginal personal income tax rate fell from 73 percent in 1921 to 25 percent in 1925. Even though tax rates were slashed, the budget surpluses continued undiminished through the twenties, and these were used to reduce the federal debt by 25 percent in that decade.

Recent research has shown that the reason the budget surpluses did not decline with the massive tax cuts was not because of a huge spurt in economic activity.[40] Rather, the sharply dropping tax rates induced wealthy individuals to shift assets from nontaxable activities to higher return taxable activities. The paradoxical result was that the federal income taxes collected rose, and taxpayers with the highest incomes bore a greater share of the tax burden even though they received huge tax cuts in the twenties.

The 1930's

By default the federal government pursued deficit spending in the depression and recovery of the thirties. For some years economists maintained that the federal government unknowingly pursued an expansionary fiscal policy, but E. Cary Brown's 1956 reexamination of fiscal policy in the thirties concluded that expansionary fiscal policy was not used.[41] Expansionary tendencies of the federal government were offset by the contractionary policies of state and local governments.

However, only the federal government is sufficiently free from budget constraints to actively pursue a fiscal policy designed to stabilize the economy at high employment. In 1973 Larry Peppers improved Brown's estimates of tax receipts and examined federal fiscal policy.[42] Federal fiscal policy was not very expansionary during the period because relative to 1929 it would have generated full-employment surpluses in 1933 and from 1937 on.

The full-employment surplus has limitations because it tends to overstate the effect of tax rate changes and convey inaccurate information when the economy is operating well below full-employment.[43] A more accurate measure of fiscal policy for both periods of low and higher unemployment rates is the weighted standardized surplus, which differs from the weighted full-employment surplus by the level of GNP at which fiscal policy is measured.[44] Thomas Renaghan has examined fiscal policy during the thirties using this measure.[45] Figure 6.1 shows his estimates. Federal fiscal policy became much more deflationary in 1932 with Hoover's revenue act and the end of the 1931 veterans' bonus payments. In the

last half of the thirties, federal fiscal policy was consistently expansionary.

Stein has termed the move to expansionary fiscal policies in 1931 and 1936 “fiscal stimulation by inadvertence.”[46] In both years the federal government’s autonomous expenditures increased sharply because bonus payments to veterans were passed over presidential vetoes. But most of the other changes in fiscal policy were associated with tax changes. In 1932 massive increases in personal income tax rates, increases in estate tax rates, a gift tax, and new and increased excise taxes were enacted. The National Recovery Administration imposed higher liquor excise and processing taxes, and the Revenue Act of 1934 raised individual surtax rates. The Revenue Act of 1935 was passed to correct the “maldistribution” of income by placing higher tax rates on wealthy individuals and corporations, and Social Security taxes were imposed though they did not become very large in the thirties.

It is often suggested that in 1938 Roosevelt finally turned to expansionary fiscal policy as the means to promote recovery, but Stein asserts that it was not the administration’s policy to use fiscal means to whatever amount was felt necessary to achieve full employment. “Fiscal policy did not have an unlimited, residual role of doing whatever all other means in combination failed to do.”[47] Rather, Roosevelt’s expenditures were geared to provide jobs and relief for the neediest cases while economizing on regular expenditures.[48] Taxes were increased to provide revenue for the spending programs and for the redistribution that was part of the New Deal’s programs of spending, taxation, and reform.

The New Deal

The New Deal was Roosevelt’s controversial set of programs to restructure industries, redistribute income, and bring recovery to the American economy. One of the more telling criticisms of the New Deal is that in spite of—or perhaps because of—all it did, the recovery was very slow; full employment was not restored prior to 1941.

A number of explanations for the slowness of the recovery have been offered. Seymour Harris and Paul Sweezy argue that it was due to the increasing inequality in the distribution of income.[49] Vladimir Timoshenko, W. Arthur Lewis, and Charles Kindleberger suggest that it was due to a general shift in the terms of international trade away from primary products toward industrial products.[50] Others, such as Adolf Berle and Gardiner Means, assert that the increasing market power of the larger firms had made prices downwardly inflexible and generally noncompetitive creating persistent market disequilibriums.[51] Alvin H. Hansen, Paul Baran and Paul Sweezy, Michael Kalecki, David Weintraub, and Josef Steindl suggest that in the thirties the United States had entered an era of secular stagnation.[52] Joseph Schumpeter, Simon Kuznets, Moses Abramovitz, and Richard Easterlin argue that various regular cycles reached their nadir in the late twenties and thirties, causing the slow recovery from the contraction.[53] Michael A. Bernstein proposes that, due to changing consumer tastes, technologies, and the skewed income distribution, industrial investment was unable to rise sufficiently to move the economy toward full employment.[54]

More recently Robert Lucas and Leonard Rapping used an “anticipations-search” model to explain the high unemployment rates of the thirties.[55] Though their model did well for 1930 to 1933, its estimates, unlike what actually occurred, showed an unemployment rate falling to the natural rate by 1937 at the latest.[56] Michael Darby’s reexamination found that unemployment data in the thirties included all those employed at federal government work-relief projects. Because these people were not searching for a job, he contends, the anticipations-search model holds that they should not be counted as unemployed.[57] Using corrected data, Darby’s reestimate finds a marked movement toward full employment with an estimated natural rate of unemployment for the decade of 8.65 percent, well below the average of 13.1 percent for the decade but above estimates of about a 5 percent natural unemployment rate for other decades in this century. J. R. Kesselman and N. E. Savin argue that evidence from the thirties indicates that there was an excess demand for private sector jobs, which is inconsistent with an anticipations-search model where workers are assumed to be voluntarily unemployed while searching for a job[58] Their reestimate also finds a relatively high estimate of the natural rate of unemployment.[59]

In general these recent studies have found that there was a movement toward the natural unemployment rate after 1933, but the estimates were that this rate was 8 percent or higher. Kesselman and Savin believe this indicates that the natural rate hypothesis was not appropriate for the thirties, whereas Darby attributes this to the effects of the National Industrial Recovery Act and other New Deal programs of the Roosevelt administration. We now turn to that topic.

The Creation of the New Deal

In March of 1933, Franklin Delano Roosevelt assumed the office of the president of the United States. It was the nadir of the depression, and the continuing banking panic had culminated in

nationwide runs on banks. Though the depression ended with this final convulsive tremor of the financial system, the American economy was further from full employment than at any time in its history. Roosevelt had been elected by a large majority, receiving 59 percent of the popular vote and 89 percent of the electoral votes. He took this landslide as a mandate from the American people "to do something" about the depression. The election also brought in a huge Democratic majority in Congress who were anxious to act.[60]

The response of the Roosevelt administration was the creation of what came to be called The New Deal. Drawing upon war as an analogy for the efforts to combat the depression, policies to restore economic activity were referred to as the war on depression, and war-era agencies were resuscitated.[61] The early New Deal saw a flurry of programs enacted and put into effect with great haste in order to "do something." In the famous first "hundred days" of the Roosevelt administration, it guided to congressional approval no less than 15 major laws covering a diverse range of topics.[62] Many of the programs were found to be inconsistent, and by 1935 several major ones were found unconstitutional.

Apparently the Roosevelt administration saw the cause of the depression to be neither a failure in the market economy nor a failure of governmental policy but a result of "failures" in particular sectors of the economy—that is "basic structural problems." Many of the New Deal reform measures were not designed to promote recovery and were even inimical to it. Roosevelt's advisors wanted to reform the system to bring about "fair returns to all and the final elimination of privilege based on private selfishness."[63] Rexford Tugwell, one of the architects of the early New Deal, wanted major structural changes in both government and the private economy. He welcomed centralizing tendencies and wanted a "concern of interests" which to him "meant a collective cooperative system, without divisive private interests."[64] According to Paul Conkin, Tugwell believed that the "allocation of resources, priorities in production, profits, wages, prices—all should be determined by government in behalf of the whole nation, not the more powerful or persuasive interest groups."[65] Tugwell was willing to plunge ahead with his program even if some lost their "existing freedom and much of their existing income" because he believed that freedom in the American society had become freedom for just a few. Roosevelt probably never grasped the staggering implications of Tugwell's concept of a strongly centralized economy, a politically explosive issue. "As Tugwell conceded, Roosevelt could not be induced to think and act outside of a political context."[66]

Here we will briefly consider the major New Deal acts and then examine in somewhat more detail the National Recovery Administration.[67]

Financial Recovery and Reform

One of Roosevelt's first priorities had to be the banking system. With the banks closed, barter, local government's scrip, coined tokens, and Canadian and Mexican money were used for transactions. On March 9, 1933, Congress passed the Emergency Banking Bill.[68] The bill confirmed Roosevelt's closing of the banks and developed procedures for reopening, merging, or liquidating them; it authorized the Reconstruction Finance Corporation to put banks on a sound basis by subscribing to new issues of a bank's preferred stock, allowed the Federal Reserve System to issue new currency backed only by the government securities held, and authorized discounting on a much wider range of assets.

The Banking Act of June 16, 1933, was an attempt to reform the nation's banking system and cure the perceived weaknesses of the private banks. It directed the Federal Reserve System to supervise and control all foreign transactions. The payment of interest on demand deposits was forbidden, and the Fed was directed to set the maximum rate of interest that could be paid on time and savings deposits. Commercial and investment banking were separated so that banks could not use volatile short-term deposits to purchase securities. Finally the Banking Act of 1933 created the Federal Deposit Insurance Corporation to provide temporary insurance for the deposits of commercial banks.

The Federal Farm Mortgage Corporation and the Home Owners Loan Corporation of 1933 were temporary institutions to handle the existing debt crisis and provide additional credit to stave off foreclosures, postpone payments, and scale down debts. New programs for the agricultural sector included banks for farm cooperatives, federal land banks, production credit associations, and the Commodity Credit Corporation, which guaranteed private loans on farm commodities to provide farm price supports. Twelve Federal Housing Administration banks were created to provide credit to the savings and loan associations, which made the bulk of long-term home mortgages.

The majority of the other financial programs were designed to reform the financial sector and eliminate what the administration perceived as flaws or weaknesses. The Securities Act of May 27, 1933, was followed by the Securities and Exchange Act of June 6, 1934, which established the Securities and Exchange Commission and gave the Fed the power to

set margin requirements. The Banking Act of 1935 made the Federal Deposit Insurance Corporation and Federal Savings and Loan Insurance Corporation permanent, and reorganized the Federal Reserve System to reduce political pressures and centralize authority.

Finally, the Roosevelt administration devalued the dollar in terms of gold and outlawed ownership of gold by private citizens. The administration apparently followed the advice of Professor George W. Warren, who contended that devaluing the dollar in terms of gold would cause prices to rise and help bring back prosperity, a dubious assumption at best.

Relief for the Unemployed

In the aftermath of the depression, unemployment was numbingly high. Many of these workers had been unemployed for very long periods and were dependent upon relief. One third of all of the relief cases were in the four northern industrial states of New York, Pennsylvania, Ohio, and Illinois. An October, 1933, estimate indicated that 10 percent of the population was dependent upon relief as of that date.[69]

Much of the relief of the unemployed was directed by Harry Hopkins and consisted of two types: direct relief and work relief. The administration saw a serious unemployment problem looming for the winter of 1933-34 and created the Civil Works Administration to provide immediate employment for up to four million unemployed, but it drew much criticism and was quickly wound down after the spring of 1934. The Federal Emergency Relief Act of May 12, 1933 provided both direct and work relief. Direct money grants were given to states that would provide additional funds. The act also created and administered a number of public works programs, such as the Civil Works Service Program, the Emergency Education Program, and the Women's Work Program.

The Roosevelt administration was convinced that the federal government should withdraw from providing relief for the unemployed needy and that, for the most part, this should be turned over the state and local governments, which, they believed, were better able to administer such relief. The federal government's proper role was to centralize work relief projects. As a result Congress replaced the Federal Emergency Relief Act with the Works Progress Administration in 1935. This program undertook a number of local public works construction projects to provide employment. Other projects employed artists to paint and decorate public buildings, and writers to develop local histories and local guide books. Theater and music projects were initiated to employ actors and actresses and musicians.

The Public Works Administration was begun in the summer of 1933 as the second part of the National Industrial Recovery Act, and it continued until mid-1941. It undertook a number of large-scale projects such as the construction of highways, dams (the Hoover and Grand Coulee Dams), public buildings, and harbor improvements. The Civilian Conservation Corps was created on April 5, 1933. Its military style camps for young men were run in the national parks and forests. The National Youth Administration was started in June of 1935 to provide an out-of-school program and a student work program. Finally, in the form of longer term, more permanent relief, the Social Security Act was passed on August 14, 1935. This provided both unemployment insurance and old-age insurance. Passed at the same time but separate from the Social Security program was a program of special assistance to the needy aged, dependent children, and the blind.

Farm Relief

Because agriculture was a price-taking industry, prices had fallen dramatically and in the process driven incomes to extraordinarily low levels. Foreclosures on farm mortgages were common, and some states had declared farm foreclosure moratoriums. The problem was not to provide work for the agriculturally unemployed but to raise prices so as to generate incomes that would allow the farmers to meet their current debt obligations and provide an adequate standard of living.

The New Deal began a set of farm programs that, in altered form, continue today.[70] The basic approach of the programs was to raise farmers' incomes by raising farm prices, a prospect that was not enthusiastically supported by the food processors. The farm programs began with the first Agricultural Adjustment Act passed on May 12, 1933. Using the concept of "parity," the Agricultural Adjustment Act attempted to provide farmers with the same purchasing power as was possible in the "golden" period of 1910-14 (or 1919-24 for tobacco and potatoes). There were several devices used to accomplish this. Production controls were imposed on the amount of farm commodities produced, benefit programs designed to pay farmers to take land out of production were created, nonrecourse loans to provide minimum (or support) prices for farm commodities were developed, and direct government purchases of farm commodities (such as milk—a program which continues today) were instituted.

Roosevelt wanted the program to be voluntary and administered in a decentralized manner, preferably by the farmers in each district, but

neither characteristic was realized. Some farmers and legislators were quite willing to use large taxes to force farmers to cooperate. Neither did the decentralization of the administration of the Agricultural Adjustment Act work. As would be expected, power tended to be concentrated in the hands of the largest and wealthiest farmers, the Farm Bureau, and the Government Extension Service.

Individual farmers were assigned production allotments, and they could then individually enter into agreements to reduce production to those allotments. If they signed the agreement and reduced production, they received benefit payments using funds from a processing tax levied on the first processing of the product for domestic use. The first Agricultural Adjustment Act also allowed the secretary of agriculture to enter into marketing agreements with farmers, processors, and distributors to fix marketing quotas, prohibit price-cutting, and fix and maintain prices. Because this was clearly illegal under existing laws, the act granted exemptions from the antitrust laws for participants. In addition to these supply-restricting programs, the Commodity Credit Corporation made nonrecourse loans to farmers at predetermined prices; if prices dropped below the set price, farmers simply defaulted on the loan, or, in effect, sold the commodities to the government at the loan price.

The programs spawned by the first Agricultural Adjustment Act had a short life. The A. L. Schecter Company, a poultry processor of Long Island, New York, initiated a lawsuit charging that the Agricultural Adjustment Act was unconstitutional. On January 6, 1936, the Supreme Court declared the processing tax unconstitutional because farm production was intrastate, not interstate, commerce. The Roosevelt administration and Congress quickly reacted by approving the Soil Conservation and Domestic Allotment Act, which attempted to restrict acreage in production and promote soil conservation. Commodity Credit Corporation nonrecourse loans were still used to augment demand, and the Federal Surplus Relief Corporation also purchased large amounts of farm commodities.

The second Agricultural Adjustment Act was passed on February 16, 1938, and embodied the "ever normal granary" concept of Henry Wallace. The carryover of farm commodities from year to year showed great variation, and it was felt that at least part of the reason for this was inflexible price supports, so the support measures were made flexible to smooth out this carryover. The second Agricultural Adjustment Act was not a radical departure from the preceding farm programs, and its programs are still in evidence today.

Industrial Reform

The programs for the unemployed and the farm sector were primarily for relief, though some reform measures were included. In contrast, the New Deal financial programs were as much about reform as relief, and its industrial programs were almost all aimed at "reforming" the industrial structure of the American economy. The first such attempt came through the National Recovery Administration, and after the Supreme Court ruled this unconstitutional, there was a move toward an application of the antitrust laws to this end.

The National Recovery Administration was one of two parts of the National Industrial Recovery Act passed on June 16, 1933. Chandler reports that Roosevelt described the program as one that would promote a great cooperative movement to begin employing the unemployed, "to shorten the working week, to pay a decent wage for a shorter week, and to prevent unfair competition and disastrous overproduction."[71] To do so, of course, required that the act exempt participating industries from the antitrust laws.

The "blue eagle" became the symbol of the National Recovery Administration, and firms engaging in manufacturing, mining, wholesaling, retailing, and services were urged to join it. In fact, it was suggested that it was undemocratic and un-American not to belong to the National Recovery Administration or to patronize a noncooperating firm. Code authorities were established in each of the covered industries, and they formulated codes of "fair competition" that covered firms' output, product or service prices, trade practices, wages, hours and conditions of work, and collective bargaining. The codes were examined by the National Recovery Administration and if approved, which they usually were, became binding upon cooperating firms and, in fact, achieved the force of law. The National Recovery Administration and the industry associations could resort to the courts for enforcement of the codes if necessary, though this option was rarely used.

Between July 9 and July 20 in 1933, 209 national industry codes were submitted, but it as felt that this was not fast enough and industries were asked to submit to a blanket code until the individual industry codes had been formulated and approved by the National Recovery Administration. The emphasis of the blanket code was on shortening the workweek, supporting wage rates, and minimizing price increases. The emphasis of the individual industry codes tended to be on increasing the product prices for the firms. The National Recovery Administration called for three boards to formulate the codes: a trade

association board, a labor advisory board, and a consumer advisory board. When the consumer advisory board existed, it had little influence. The labor and trade association boards had conflicting objectives, and the trade association board tended to dominate.

During the National Recovery Administration's short life, there were constant conflicts between firms in various industries as well as between labor and the industries. Conflicts quickly arose over the wage policies and requirements of the industry codes. Firms argued over the minimum wage level, what the traditional skilled labor wage differentials were, and the traditional (or previous) wage differentials between firms for the same type of labor. Labor wanted the same weekly pay with reduced hours of work. Attempts to make wage rates uniform over regions brought sharp protests from the lower wage producers. The result was that bitter struggles ensued over the wage provisions of the National Recovery Administration's industry codes of self regulation.

The main purpose of the trade practice provisions of the codes was to raise product prices. To do so, the codes generally established minimum prices above the prevailing market prices so that the minimum prices tended to become the actual prices. Uniform cost accounting procedures were accompanied by prohibitions against selling at any price below "full cost," and open price systems required publication of a price list for all competitors to see as well as prior notification of price changes. Some code authorities could reject any price they considered unfair. The production limitations of the National Recovery Administration's codes included the following: limitations on the number of hours a machine or plant could be operated, maximum production quotas for individual firms, restrictions on the production capacity for individual firms, and limitations on the inventories a firm could carry.

From the beginning, compliance was poor, and it continued to deteriorate. The complexity of the structure of prices in any industry made detections of price violations difficult, and, like any cartel it was generally profitable to violate the price restrictions, especially if other firms adhered to the industry code prices. The enforcement procedures also tended to be inadequate. The National Recovery Administration wanted to minimize the number of court cases it brought and leave the enforcement of the codes to the individual associations as much as possible. This was an attempt to promote self-regulation and was not particularly successful.

By the spring of 1935, the National Recovery Administration was in disarray and widely criticized for promoting monopolistic practices and allowing the industry associations to be dominated by the large firms. Labor disputes and firm noncompliance were increasing. The issue was settled on May 27, 1935, when the Supreme Court ruled the National Industrial Recovery Act unconstitutional.

Some provisions of the National Recovery Administration were extended in the National Labor Relations Act of 1935 (or Wagner Act) and the Fair Labor Standards Act of June 25, 1938. The latter said there was to be no use of child labor (with a few exceptions), and set a maximum workweek and minimum wages. Finally, the federal government continued to sanction trade associations to limit output and set prices in the petroleum and coal industries due to "special conditions" there.

The court destruction of the National Industrial Recovery Act, new congressional pressures, largely from ardent labor supporters such as Senator Richard Wagner, and attacks from "conservative" business organizations, such as the National Association of Manufacturers, the American Farm Bureau, and the Liberty League, induced the Roosevelt administration to form a new labor policy and a new accord with "working people" for political support. To that point the New Deal reforms had accomplished few of their objectives. To Roosevelt the answer for this was simple. Men of power and other Republican "dupes" opposed it because they were evil. "Economic royalists, with a monopoly of power, they were not content with a repaired and honest capitalism. Instead, they wanted to drive on with their plutocracy and bring down upon the heads of good men of power the inevitable revolution."[72] The campaign was quite different from the 1932 campaign, with bitter attacks at organized money and the economic tyranny of big business.

New advisors helped usher in a program of "de-centralization" of wealth, location, and control.[73] There was a move to establish more competitive markets by reducing monopoly power through a more vigorous application of the antitrust laws and new legislation. There was a move to protect small businesses from the predations of larger ones in the Robinson-Patman Act in 1936 and the Miller-Tydings Act in 1937. The Robinson-Patman Act limited the price concessions that manufacturers could grant to the large (chain) buyers while not doing so for smaller (local) stores. The Miller-Tydings Act exempted manufacturers' resale price agreements, or "fair trade agreements" negotiated as a condition of selling their products, from prosecution under the Sherman Act.

The attacks by "big business" on the administration's policies and the 1937-38 depression moved Roosevelt's administration to accelerate its

attack on "monopolies." Big business provided a convenient scapegoat upon which to blame the 1937 contraction. As a result the Temporary National Economic Committee was established in 1938 and charged with discovering and exposing price-fixing and other monopolistic behavior that had helped bring on the contraction in the previous year.

From 1935 to 1937, the antitrust attack on "big business" was largely ineffective. However, the antitrusters had a broader and more positive program as their goal. In 1937, under the leadership of Robert Jackson, the Antitrust Division of the Justice Department undertook several major cases. The so-called Madison oil cases were among the more publicized; they arose from continued complaints from independent jobbers that the major oil companies conspired to rig prices. The famous ALCOA case was also initiated by Jackson's Antitrust Division in 1937, as was an investigation into financing by the automobile companies.

In 1938 Thurman Arnold, head of the Yale Law School, was appointed to head the Antitrust Division. Arnold's selection came about because he had the support of the number of influential New Dealers, and these people convinced Roosevelt—who had an ambivalent attitude toward antitrust—to nominate Thurman Arnold.[74] Under Arnold's direction, antitrust activity began to expand in 1938 and 1939 and continued to expand into the early 1940s, though none of his cases had the effect of breaking up big business.

Politics and the Allocation of Federal Funds

The depression had touched all corners of the United States, though not with equal severity. And the New Deal economic agencies had operated in virtually every area of the nation. However, recent work has found that, not surprisingly, politics played an important role in deciding how to allocate federal funds among the states.

In 1969 Leonard Arrington used data prepared for Roosevelt's 1940 presidential campaign and found extremely large disparities in the per capita New Deal agricultural expenditures between states. He concludes that the main determinant of expenditure patterns was an attempt to restore the predepression farm incomes and not to reform the agricultural sector. Don C. Reading extended the analysis to see whether the geographic allocation of per capita New Deal spending was consistent with Roosevelt's announced goals of relief, recovery, and reform.[75] He concludes that it was more important to restore the predepression levels of real per capita income than to equalize real per capita income across the states.

Neither Arrington nor Reading closely examined the political determinants in allocating New Deal spending, but Gavin Wright[76] and Gary Anderson and Robert Tollison[77] have. Wright finds that about 80 percent of the state-by-state variation in per capita New Deal spending can be explained by political variables. Anderson and Tollison include the influence of Congress in these decisions because the tenure of the senators and representatives involved in the appropriations process was an important factor in how the federal funds were allocated. Together they argue that the location of New Deal spending was influenced by political motives, largely the reelection of Roosevelt and other Democrats.

John Joseph Wallis softens this criticism somewhat by concluding that reform attempts may have been thwarted by conservative state governments not wishing to see change. States with higher incomes and less in need of reform were more cooperative with federal officials and received more grants. Though Wallis restores some of the credibility of the traditional view of the New Deal, it is clear from these studies that politics played an important role in allocating federal funds among the states.

The New Deal: An Assessment

Conclusions about the effects of the New Deal programs and particularly the National Recovery Administration, vary widely. The noted historian Arthur Schlesinger, Jr. strongly approves of Roosevelt and the New Deal programs.[78] In *Business Cycles*, Joseph A. Schumpeter also reaches a generally favorable conclusion on the New Deal programs as a whole because of their psychological effects in restoring broken morale.[79] Writing in 1935, a group of Brookings Institution economists reached a generally adverse opinion of the New Deal.[80] They felt that boosting costs and prices was not the correct method of restoring purchasing power and suggested that the "retarding effect of the National Recovery Administration had been substantial." Lester Chandler is also generally critical of the New Deal and of the National Recovery Administration in particular.[81] He believes that the psychological boosts of the NRA quickly began to fade as the recovery proved to be slow and conflicts developed in the industries under National Recovery Administration codes. "After its initial stage, the National Recovery Administration probably did impede recovery."[82] Ellis Hawley suggests that the National Recovery Administration had been a disillusioning and frustrating experience that few wished repeated.[83] Though there was some economic recovery, he is not sure this can be credited to the National Recovery Administration. Paul Conkin says that by 1936 the New Deal had "failed to fulfill even the minimal

dream of most of the varied reformers" as well as promote recovery.[84] Michael Darby also believes that the National Recovery Administration slowed recovery and caused unemployment rates to be higher than they otherwise would have been.[85] Though the above conclusions are not unanimous, most suggest that the New Deal, particularly the National Recovery Administration, impeded recovery rather than promoting it.

Examination of the National Recovery Administration codes and rules provides an indication of why this occurred. The emphasis by the firms was on raising prices and profits—not on increasing output. Labor wanted higher wages with shorter workweeks which would tend to relatively reduce output—and not restore it. The National Recovery Administration codes, with the ultimate force of law behind them, tried to eliminate price competition and product competition through standardization. Establishment of minimum prices generally above the prevailing prices restricted the operation of the pricing system in guiding resources into their most valuable uses and providing information on conditions in the markets. The production codes were all aimed at limiting output either through limits on the hours that machines or plants could operate, limits on the amount of output that a firm could produce, limits on inventories, or limits on production capacity. These production limits discouraged firms from expanding production and hiring additional labor and also discouraged investment in plant and equipment either to expand or modernize. Certainly the disputes that arose between firms in industries over wages, prices, output standards, fair practices, and market shares only discouraged and slowed recovery and expansion of production. After being confronted with entirely new institutional constraints in the summer of 1933 in the form of the National Recovery Administration, these constraints were sharply altered in May of 1935 when it was ruled unconstitutional. The Wagner Act of 1935 required further adjustments as company unions were ruled illegal and the National Labor Relations Board was created to enforce the act's impetus to unionization. In 1938 the Fair Labor Standards Act created minimum wage and maximum hours legislation for businesses. These new labor market conditions certainly slowed restoration of production and employment. Confronted with these facts about the New Deal, logic suggests that it must have retarded the recovery from the Great Depression, and Darby's analysis suggesting that the natural rate of unemployment during the thirties was over 8.5 percent supports this.

The agricultural programs can be similarly criticized. The first and second Agricultural Adjustment Acts (and the Soil Conservation and Domestic Allotment Act that came in between them) failed to recognize the diverse characteristics of farmers and crops around the United States. The programs conflicted with other international and domestic New Deal policies. The attempt to raise domestic prices for agricultural products was inconsistent with the push to increase agricultural exports to reduce crop surpluses and was also inconsistent with a fixed exchange rate standard. Industrial policies, primarily the National Recovery Administration, attempted to raise the prices of manufactured products, but this was inconsistent with real increases in farm product prices to achieve parity ratios. Industries that used unprocessed agricultural products as inputs, such as the food processors and the cotton textile industry, were adversely affected by real increases in agricultural product prices, and their recovery was made more difficult. Finally, the general thrust of the agricultural policies was to reduce acreage and production so as to raise farm incomes. In practice most of the benefits favored the larger owner-operators over renters, share-croppers, and small-scale operators. The policies missed the fundamental point that the decline in farm incomes was due to a drop in the demand for agricultural products caused by the contraction, not because of overproduction in a highly competitive industry. The coercive attempts to reduce the acreage under cultivation and thus reduce production presented fundamental conflicts with the individual freedom that Americans had always prized.

Several recent studies attempt more precise evaluations of the effects of the New Deal programs. Wallis and Benjamin have developed a model to examine the impact of the postdepression federal government relief programs on private employment.[86] It has been suggested that the federal relief programs produced lower private employment in the thirties. Wallis and Benjamin do not find this to be the case. Though individuals did respond to the federal relief benefits, they responded by moving between relief and nonrelief unemployment. They qualify this by noting that their empirical versions of the theoretical constructs are flawed: "It would not surprise us if the improvements in measurement, particularly of wages and benefits, would yield significantly different conclusions from those we have suggested here."[87]

Michael Weinstein's extensive study provides quantitative estimates of the retardation of the recovery due to the enactment of the National Industrial Recovery Act.[88] The National Recovery Administration codes raised wages in the midst of massive unemployment and a slow recovery, and this "wage inflation" led to a continuing "price inflation" that was aided by the increased monopoly power of

code industry firms and contributed to a stagnation in economic activity from 1933 to 1935. It was because of this that "after June 1933 industrial production reached a plateau that was not finally surpassed until more than a year and a half later."[89] In the second half of 1935, after the nullification of the National Industrial Recovery Act, industrial production spurted and rose 15 percent, or at a 27 percent annual rate of increase.

Weinstein estimates that the monetary expansion (due to the flow of gold into the United States) would have brought about an 8 percent annual rise in real output in the absence of mandated wage and price increases. Though crude, this estimate is incomplete because it does not include the effects of the National Industrial Recovery Act's production and investment prohibitions or the act's effects on business expectations. Businesses were further discouraged from investing by the new capital market regulations generated by the Securities and Exchange Act, the government's entry into the utility industry through the TVA, the continued tax increases (particularly the undistributed corporate profits tax) and rhetoric about the need to equalize incomes.

The New Deal, with its huge swings in programs and policies and its new laws, altered the environment within which business firms operated. It abruptly and dramatically altered the institutional framework within which private business decisions were made, not just once but several times. Though the analytical work necessary to provide quantitative estimates of the retarding effects of the entire New Deal on the recovery from the Great Depression has not been undertaken and clearly would be quite difficult, it seems likely that this retardation was substantial.

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Notes

1. Until 1917 one third of the reserves could be in vault cash and the rest on deposit in the district bank.

2. Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867-1960* (Princeton: Princeton University Press, 1963), 253.

3. Ibid., 313-314.

4. Ibid., 317.

5. The final banking panic is discussed in Richard H. Keehn and Gene Smiley, "U.S. Bank Failures,

1932-1933: A Provisional Analysis." *Essays in Business and Economic History: Selected Papers from the Business and Economic Historical Society Meetings, 1987* 6 (1988): 136-56.

6. The Treasury had to buy the gold that flowed into the United States. Normally the Treasury issued gold certificates that the Fed purchased by printing notes or crediting the Treasury's deposits at the Fed. The Treasury then paid for the gold with Federal Reserve notes or a check on its Fed deposits. When the Treasury sterilized the gold inflow in 1937, it paid for the gold with receipts from securities issued and sold to the general public rather than to the Fed.

7. Their study indicated that the excess reserves were widely distributed geographically and among banks so that few banks would individually face mechanical difficulties in adjusting to higher reserve requirements.

8. See the following studies: Paul Samuelson and Everett E. Hagen, *After the War—1918-1920* (Washington: National Resources Planning Board, 1943); Thomas Wilson, *Fluctuations in Income and Employment*, 3d ed. (New York: Pitman Publishing, 1948); Robert Aaron Gordon, *Economic Instability and Growth: The American Record* (New York: Harper and Row, 1974); John Pilgrim, "The Upper Turning Point of 1920: A Reappraisal," *Explorations in Economic History* 11 (Spring 1974): 271-98. Kenneth D. Roose, "The Production Ceiling and the Turning Point of 1920," *American Economic Review* 48 (June 1958): 348-56.

9. Pilgrim, "The Upper Turning Point"; and Milton Friedman and Anna J. Schwartz, *A Monetary History of the United States, 1867-1960* (Princeton: Princeton University Press, 1963), chapter 5. Also see George Soule, *Prosperity Decade: From War to Depression, 1917-1929* (New York: Rinehart and Co., 1947), 89.

10. Elmus Wicker, "A Reconsideration of Federal Reserve Policy During the 1920-21 Depression," *The Journal of Economic History* 26 (June 1966): 223-38.

11. Friedman and Schwartz, *A Monetary History*, 407-19.

12. Ibid., 393. Brunner and Meltzer have argued similarly. See Karl Brunner and Allen Meltzer, "What Did We Learn from the Monetary Experience of the United States in the Great Depression?" *Canadian Journal of Economics* 1 (May 1968): 334-48.

13. Several studies had found that the demand for currency in this period prior to the final banking panic in early 1933 was primarily determined by banking failures, not interest rates on deposits. [See Barry L. Anderson and James L. Butkiewicz, "Money, Spending, and the Great Depression," *Southern Economic Journal* 47 (October 1980): 388-403; and Arthur Gandolfi, "Stability of the Demand for Money During the Great Contraction, 1929-1933," *Journal of Political Economy* 82 (September/October 1974): 969-84.] James Boughton and Elmus R. Wicker found that over the 1921-33 period deposit interest rates was quite important in determining the demand for currency while banking failures were not. [James M. Boughton and Elmus R. Wicker, "The Behavior of the Currency-Deposit Ratio During the Great Depression," *Journal of Money, Credit, and Banking* 11 (November 1979): 405-18.] However, as Paul Trescott has shown Boughton and Wicker's empirical estimates were quite sensitive to the period used. If estimates exclude the years prior to 1924, deposit interest rates become unimportant and banking failures become much more important. [Paul Trescott, "The Behavior of the Currency-Deposit Ratio During the Great Depression: Comment," *Journal of Money, Credit, and Banking* 16 (August 1984): 969-83.] In a more extensive analysis of the demand for currency during the Great Depresssion, Trescott found that the analysis *must* be disaggregated by region because of the sharply different experiences in different regions. If this is not done, then the aggregation hides the significance of the explanatory variables. Trescott found that the results consistently showed the strong influence of bank failures and negligible influence of deposit interest rates—which is consistent with earlier analyses. [Paul Trescott, "Bank Failures, Interest Rates, and the Great Currency Outflow in the United States, 1929-1933," *Research in Economic History* 11 (1988): 49-80.]

14. Friedman and Schwartz, *A Monetary History*, 394 and 399.

15. Friedman and Schwartz, *A Monetary History of the United States*, 411.

16. Jeffrey A. Miron, "Financial Panics, the Seasonality of the Nominal Interest Rate, and the Founding of the Fed," *American Economic Review* 76 (March 1986): 125-40.

17. Paul B. Trescott, "Federal Reserve Policy in the Great Contraction: A Counterfactual Assessment," *Explorations in Economic History* 19 (July 1982): 213 and 216-19.

18. Elmus Wicker, "Federal Reserve Monetary Policy, 1922-1933: A Reinterpretation," *Journal of Political Economy* 73 (August 1965): 325-43. See also Elmus Wicker, *Federal Reserve Monetary Policy, 1917-1933* (New York: Random House, 1966). Wicker had access to the minutes of the Open Market Investment Committee and Open Market Policy Conference from the 1922-1933 period, something that Friedman and Schwartz did not have.

19. Wicker, "Federal Reserve Monetary Policy," 336. In 1927 Strong had a meeting with the heads of the central banks in Great Britain, Germany, and France that was the "occasion for a bold experiment in central bank cooperation." They decided to reduce the interest rate differential between New York and London to reduce the gold inflow into the United States. In this way, there would not have to be a general rise in interest rates in Europe in the autumn of 1927.

20. Karl Brunner and Allen Meltzer, "What Did We Learn from the Monetary Experience of the United States in the Great Depression?" *Canadian Journal of Economics* 1 (May 1968): 334-48.

21 The Burgess-Riefler doctrine was named for two economists employed by the Federal Reserve System in the twenties who developed the concept.

22. Ibid., 342.

23. Ibid., 339.

24. David C. Wheelock, "The Strategy, Effectiveness, and Consistency of Federal Reserve Monetary Policy 1924-33," *Explorations in Economic History* 26 (October 1989): 453-76.

25. Mark Toma, "The Policy Effectiveness of Open Market Operations in the 1920s," *Explorations in Economic History* 26 (January 1989): 99-116.

26. Gary M. Anderson, William F. Shughart, II, and Robert D. Tollison, "A Public Choice Theory of the Great Depression," *Public Choice* 59 (October 1988): 3-23.

27. Ibid., 19. The Anderson-Shughart-Tollison thesis was vigorously attacked. See Douglas A. Huberman, "An Alternative to 'A Public Choice Theory of the Great Contraction,'" *Public Choice* 67 (December 1990): 257-68; and G. J. Santoni and T. Norman Van Cott, "The Ruthless Fed: A Critique of the AST Hypothesis," *Public Choice* 67 (December 1990): 269-75. Also see the reply to the critics, "Gary M. Anderson, William F. Shughart, II, and Robert D. Tollison, "A Public Choice Theory of the Great Contraction: Further Evidence," *Public Choice* 67 (December 1990): 277-83.

28. Gerald Epstein and Thomas Ferguson, "Monetary Policy, Loan Liquidation, and Industrial Conflict: The Federal Reserve and the Open Market Operations of 1932," *The Journal of Economic History* 44 (December 1984): 957-84. Epstein and Ferguson's study was criticized by Coelho and Santoni and they then replied to this criticism. See Philip R. P. Coelho and G. J. Santoni, "Regulatory Capture and the Monetary Contraction of 1932: A Comment on Epstein and Ferguson," *The Journal of Economic History* 51 (March 1991): 182-89; and Gerald Epstein and Thomas Ferguson, "Answers to Stock Questions: Fed Targets, Stock Prices, and the Gold Standard in the Great Depression," *The Journal of Economic History* 51 (March 1991): 190-200.

29. Epstein and Ferguson, "Monetary Policy, Loan Liquidation," 968-973.

30. Ibid., 973.

31. Ibid., 982-983.

32. Benjamin M. Anderson, *Economics and the Public Welfare: A Financial and Economic History of the United States, 1914-1946* (Indianapolis: Liberty Press, 1979 reprint of 1949 edition), 430-31.

33. Anderson, *Economics and the Public Welfare*, chapter 67.

34. Kenneth Roose, *The Economics of Recession and Revival* (New Haven: Yale University Press, 1954); E. Cary Brown, "Fiscal Policy in the Thirties: A Reappraisal," *American Economic Review* 46 (December 1956): 857-79, reprinted in Robert W. Fogel and Stanley L. Engerman, eds., *The Reinterpretation of American Economic History* (New York: Harper and Row, 1971); Larry Peppers, "Full-Employment Surplus Analysis and Structural Change: The 1930s," *Explorations in Economic History* 10 (Winter 1973): 197-210.

35. Friedman and Schwartz, *A Monetary History of the United States*, 543-45.

36. Michael Darby, "Three-and-a-Half Million Employees Have Been Mislaid: Or, An Explanation of Unemployment, 1934-1941,"

Journal of Political Economy 84 (February 1976): 1-16. See also Gene Smiley, "Some Austrian Perspectives on Keynesian Fiscal Policy and the Recovery in the Thirties," *Review of Austrian Economics* 1 (1987): 145-80.

37. Herbert Stein, *The Fiscal Revolution in America* (Chicago: University of Chicago Press, 1969), chapter 1.

38. Ibid., 10.

39. Ibid., 7.

40. James Gwartney and Richard Stroup, "The Tax Cuts of the 1920's," chapter 4 in *Tax Rates, Incentive Effects, and Economic Growth*, unpublished manuscript, 1981; John Mueller, "Lessons of the Tax-Cuts of Yesteryear," *The Wall Street Journal*, 5 March 1981. Gene Smiley, "Tax Rate Changes and Tax Avoidance, the 1915-1929 Era," unpublished manuscript, 1989.

41. Brown, "Fiscal Policy in the Thirties: A Reappraisal," 486.

42. Peppers, "Full-Employment Surplus Analysis and Structural Change,"

43. This is discussed some detail in Thomas Renaghan, "A New Look at Fiscal Policy in the 1930s," *Research in Economic History* 11 (1988): 172-175.

44. The weighted standardized surplus is defined as the change in tax receipts attributable to changes in the tax code weighted by the marginal propensity to consume less the change in government expenditures. Both the weighted change in tax receipts and the change in government expenditures are evaluated at the actual levels of GNP. The weighted full-employment surplus is the same except that the weighted change in tax receipts is evaluated at the estimated full-employment level of GNP.

45. Renaghan, "A New Look at Fiscal Policy in the 1930s."

46. Stein, *The Fiscal Revolution in America*, 24.

47. Stein, *The Fiscal Revolution in America*, 116.

48. Peppers, "Full-Employment Surplus Analysis," 204.

49. The increasing income inequality lowered the average propensity to consume and simultaneously raised the average propensity to save, making it difficult to generate the aggregate demand necessary to establish full-employment production. Seymour Harris, *Saving American Capitalism: A Liberal Economic Program* (New York: Alfred Knopf, 1948), and Paul M. Sweezy, *The Theory of Capitalist Development* (New York: Monthly Review Press, 1968).

50. Vladimir P. Timoshenko, *World Agriculture and the Depression*, Michigan Business Studies, vol. 5 (Ann Arbor: University of Michigan Press, 1933); W. Arthur Lewis, *Economic Survey, 1919-1939* (London: George Allen and Unwin Ltd., 1949); and Charles P. Kindleberger, *The World in Depression, 1929-1939* (Berkeley: University of California Press, 1973).

51. Gardiner C. Means, "Price Inflexibility and the Requirements of a Stabilizing Monetary Policy," *Journal of the American Statistical Association* 30 (June 1935): 401-13; and Gardiner C. Means and Adolf Berle, *The Modern Corporation and Private Property* (New York: Harcourt, Brace, and World, 1968).

52. Alvin H. Hansen, "Economic Progress and Declining Population Growth," *American Economic Review* 29 (March 1939): 1-15, and *Full Recovery or Stagnation?* (New York: Norton, 1941); Paul A. Baran and Paul M. Sweezy, *Monopoly Capital: An Essay on the American Economic and Social Order* (New York: Monthly Review Press, 1966); Michael Kalecki, *Studies in Economic Dynamics* (London: George Allen and Unwin, 1943), *Theory of Economic Dynamics: An Essay on Cyclical and Long-Run Changes in Capitalist Economy* (New York: Monthly Review Press, 1968), and *Studies in the Theory of Business Cycles, 1933-39* (New York: Augustus M. Kelly, 1969); David Weintraub, "Effects of Current and Prospective Technological Developments Upon Capital Formation," *American Economic Review* 29 (March 1939, supplement): 32; Josef Steindl, *Maturity and Stagnation in American Capitalism* (New York: Monthly Review Press, 1979).

53. Joseph A. Schumpeter, *Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process*, 2 vols. (New York: McGraw-Hill Book Co., 1939). Simon Kuznets, "Long Swings in the Growth of Population and in Related Economic Variables," *Proceedings of the American Philosophical Society* 102 (February 1958): 25-52; Moses Abramovitz, "The Nature and Significance of Kuznets Cycles," *Economic Development and Cultural Change* 9 (April 1961): 225-48; Richard A. Easterlin, *Population, Labor Force, and Long Swings in Economic*

Growth: The American Experience* (New York: National Bureau of Economic Research, 1968).

54. Michael A. Bernstein, *The Great Depression: Delayed Recovery and Economic Change in America, 1929-1939* (New York: Cambridge University Press, 1987).

55. Robert E. Lucas, Jr. and Leonard A. Rapping, “Unemployment in the Great Depression: Is There a Full Explanation?” *Journal of Political Economy* 80 (January/February 1972): 186-91.

56. Darby, “Three-and-a-Half Million U.S. Employees,” 9.

57 Darby also found that the wage data reported by the government showed a sharp rise in wage rates and a sharp decline in average hours worked in 1934, which is strange because a rise in average hours worked has generally been a reliable leading indicator of an expansion. Darby argues that the wage and hours data were spurious and attributable to the passage of the National Industrial Recovery Act. Average annual earnings per full-time employee showed no such highly unusual behavior in 1934, and he used this series.

58. Jonathan R. Kesselman and N. E. Savin, “Three-and-a-Half Million Workers Never Were Lost,” *Economic Inquiry* 16 (April 1978): 205-25.

59. Darby’s study was also criticized by Robert Gordon and James Wilcox. They found support for the anticipations-search model but concluded that the uncorrected unemployment rate series was superior. Robert J. Gordon and James A. Wilcox, “Monetarist Interpretations of the Great Depression: An Evaluation and Critique,” in Karl Brunner, ed., *The Great Depression Revisited*. For a criticism of Gordon and Wilcox’s analysis see, James R. Lothian, “Comments on ‘Monetarist Interpretations of the Great Depression,’” in Karl Brunner, ed., *The Great Depression Revisited*.

60. Lester V. Chandler, *America’s Greatest Depression, 1929-1941* (New York: Harper and Row, 1970), 133.

61. This is discussed in some detail in William E. Leuchtenberg, “The New Deal and the Analogue of War,” in John Braeman et al., *Change and Continuity in Twentieth Century America* (New York: Harper and Row, 1967). It was also discussed by Jonathan Hughes. Hughes has pointed out that the historical roots of the National Recovery Administration and the New Deal extend well into the nineteenth century. Jonathan Hughes, “Roots of Regulation: The New Deal,” chapter 3 in Gary M. Walton, ed., *Regulatory Change in an Atmosphere of Crisis: Current Implications of the Roosevelt Years* (New York: Academic Press, 1979).

62. Arthur M. Schlesinger, Jr., *The Age of Roosevelt*, 3 vols. (Boston: Houghton Mifflin, 1964).

63. Paul Conkin, *The New Deal*, 2d ed. (Arlington Heights: AHM Publishing Company, 1975) 34.

64. Ibid., 35.

65. Ibid., 35.

66. Ibid., 36.

67. Lester Chandler and Peter Fearon have clear and thorough discussions of many aspects of the New Deal, and we will draw upon their work here. Chandler, *America’s Greatest Depresssion*; and Peter Fearon, *War, Prosperity, & Depression: The U.S. Economy, 1917-45* (Lawrence, KS: University of Kansas Press, 1987).

68. This section draws upon Chandler, *America’s Greatest Depression*, chapter 9; and Fearon, *War, Prosperity, & Depression*, chapter 13.

69. Fearon, *War, Prosperity & Depression, 236-37.*

70. Most of the discussion of this section is drawn from Chandler, *America’s Greatest Depression*, chapter 12; and Fearon, *War, Prosperity & Depression*, chapter 11.

71. Ibid., 223.

72. Conkin, *The New Deal*, 71.

73. Ellis Hawley, *The New Deal and the Problem of Monopoly, 1933-1939* (Princeton: Princeton University Press, 1965), 286-87.

74. Wilson D. Miscamble, “Thurman Arnold Goes to Washington: A Look at Antitrust Policy in the Later New Deal,” *Business History Review* 56 (Spring 1982): 295-304.

75. Don C. Reading, “New Deal Activity and the States, 1933 to 1939,” *The Journal of Economic History* 33 (December 1973): 792-810.

76. Gavin Wright, “The Political Economy of New Deal Spending: An Econometric Analysis,” *Review of Economics and Statistics* 56 (February 1974): 30-8.

77. Gary M. Anderson and Robert D. Tollison, “Congressional Influence and Patterns of New Deal Spending, 1933-1939,” *The Journal of Law and Economics*, 34 (April 1991): 161-75.

78. Scheslinger, *The Age of Roosevelt*.

79. Joseph A. Schumpeter, *Business Cycles*, 2 vols. (New York: McGraw-Hill Book Co., 1939).

80. LeVerett S. Lyon, Paul T. Homan, Lewis L. Lorwin, George Terborgh, Charles L. Dearing, and Leon C. Marshall, *The National Recovery Administration: An Analysis and Appraisal* (Washington: The Brookings Institute, 1935).

81. Chandler, *America’s Greatest Depression*, chapter 13.

82. Ibid., 239.

83. Hawley, *The New Deal*, chapter 7.

84. Conkin, *The New Deal*, 71.

85. Darby, “Three-and-a-Half Million Employees,” 14.

86. John Joseph Wallis and Daniel K. Benjamin, “Public Relief and Private Employment in the Great Depression,” *The Journal of Economic History* 41 (March 1981): 97-102.

87. Ibid., 102.

88. Weinstein, “Some Macroeconomic Impacts,” and *Recovery and Redistribution Under the NIRA*.

89. Weinstein, “Some Macroeconomic Impacts,” 269.