

An Era of Relative Calm, 1951–1965

In retrospect, the period 1951–1965 was one of relative calm. Compared with the preceding and succeeding periods—with the earlier problems associated with World War II that culminated in the Accord of 1951, and with the later difficulties let loose by the escalation of the Vietnam War—this decade and a half overlapping the Eisenhower and Kennedy years was quite tractable. These years have come to be viewed nostalgically as highly successful for overall economic policy and performance. The combination of a good rate of economic growth with relatively low unemployment and inflation provided strong evidence of the restored health of capitalism. An economic system seen as seriously (by some even fatally) flawed in the thirties now demonstrated fresh vitality in the United States and in Europe as well. “The twenty years from 1948 through 1967 may well be celebrated by historians as the most benign era in the history of the industrial economy, as also of economics.”¹

Yet there was considerable contention over monetary policy during these years, and many an arrow was aimed at the Federal Reserve System. The economy grew in a moderately undulatory manner not unlike its performance from 1922 to 1929, but of course without falling off a cliff as in 1929. There were three cyclical peaks and troughs in the 1951–1965 era, with the peaks coming in July 1953, August 1957, and April 1960. A disturbing feature of the pattern of growth was the progressive reduction in the length of the expansion phase of the cycle.

By 1960 the trend of shortening expansions became a matter of national concern. Even though the economy was growing most of the time and the contractions were relatively mild, growth lagged relative to that of major foreign countries. The advice of the legendary baseball pitcher Satchel Paige not to look back because someone might be gaining on you was not generally thought sage. Particular attention in the economic regatta was focused on the race between the USSR and the United States. The USSR, although far behind, was rowing fast and rowing continuously, whereas the United States would row for a while, then rest on its oars for a while, with an “unfavor-

able" trend in the row-rest ratio. "Until the 1960's, the Soviet economy grew rapidly, and some feared that the Soviet Union would overcome and surpass American economic production by 1980."² The fact that between 1956 and 1961 the real GNP of the USSR grew at a rate estimated to be triple that for the United States made Khrushchev's threat to bury us economically seem credible. Such fears turned out to be groundless as the Soviet tempo later tailed off, but at the time the outcome was not clear.

The Fed Returns to the Driver's Seat

With their freedom to conduct monetary policy restored by the accord, the Federal Reserve authorities had to decide how best to use their power. They were anxious to effect a smooth transition that would avoid potential problems. The system quickly abandoned fixed price supports for government securities but did not withdraw completely from the market. Sudden and complete withdrawal might have resulted in panicky collapse, which in turn could well have spread to the market for private obligations and so undercut the economy. Nor could the Federal Reserve ignore the Treasury's financing operations to the point of failure of a new issue and possible default on a portion of the national debt. Therefore the Federal Reserve moved cautiously toward greater market flexibility from March 1951 to March 1953. Immediately after abandoning pegging, it described its policy as one of maintaining an orderly market, which was succeeded by a policy of greater tolerance of market fluctuation, referred to as preventing a disorderly market. The Federal Reserve thus extricated itself gradually from market participation except as necessary to provide an adequate monetary base and meet emergency situations.

Under the leadership of William McChesney Martin, Jr., who succeeded McCabe as chairman of the Board of Governors on April 2, 1951, the system chose to limit itself as much as possible to one policy instrument, open-market operations, and to limit itself further by concentrating on Treasury bills in what came to be known as the "bills only" or "bills preferably" policy. This policy was adopted by the Federal Open Market Committee in March 1953 and was revealed to the public under the banner of "The Transition to Free Markets" in a speech by Chairman Martin.³ In taking this course the Federal Reserve authorities sought to implement the concept that a central bank should minimize its interference with the credit market; the market should be as free as possible to allocate available funds among alternative uses through competition. Open-market operations by the Fed would have one purpose only, that of controlling the amount of bank reserves to promote economic stability and growth. Thus two years after the Federal Reserve System had regained its freedom, under the accord, fully to exercise

control over open-market operations, it decided to restrict its transactions to short-term securities, preferably Treasury bills.

For the next eight years, until 1961, the system stuck with, or as critics of the policy viewed it, was stuck with, the "bills only" doctrine.⁴ The initial reason for "bills only" was to improve the performance of the market for government securities. It was pointed out that market participants had been forced to contend with uncertainty as to when and to what degree the Fed might enter the intermediate and long-term sectors of the market, as a result of which intermediaries were reluctant to take positions and make continuous markets. The market was said to suffer from a lack of depth, breadth, and resiliency. An unfavorable psychology on the part of professional operators in the market was considered sand in the market mechanism which could be removed by having the Fed keep hands off all but the short end of the market. It seems unlikely, however, that the "bills only" policy did in fact improve the performance of the government bond market.

The available statistical evidence and the view of market participants suggest that, despite the "bills only" policy and contrary to Chairman Martin's assertions, the Government bond market in recent years has been thin and artificial. Thus the "bills only" policy would seem to have failed in one of its main purposes.⁵

Although the case for "bills only" was originally made on technical grounds of improving bond market performance, it was later defended in terms of its effectiveness in implementing monetary policy. Its proponents held that monetary policy could be fully effective via "bills only" because market linkage would transmit the policy's impact throughout the full range of maturities. But in arguing that purchases or sales in the short end of the market would very quickly spread to the medium and long-term segments of the market, the system contradicted its argument that "bills only" minimized the impact of open-market operations on longer-term securities, for that case rested on poor linkage and hence poor transmission. In other words the objective of a bond market free from outside interference was thwarted even though the Fed adhered to "bills only."⁶

Another motive for "bills only" was to avoid a return to the pegging policy of 1942-1951. If the Fed dealt in longer-term securities it would obviously influence the terms of Treasury borrowing in the relevant maturity ranges. There was thought to be a danger that in a time of credit restraint, as the Treasury's interest costs rose the Federal Reserve might be pressured to reduce interest rates. Thus the Fed might get trapped in a situation similar to the one that existed prior to the accord in which it would be restrained from using its powers for stabilization of the economy. Having fought free of pegging, it is understandable that the central bankers would be sensitive

on the issue. There was negligible support for a return to pegging within the economics profession or in Congress, although the idea that the system should exercise its influence to keep interest rates generally quite low was not uncommon. In justifying "bills only" on the threat of pressure to return to pegging, the system may have been overly defensive and circuitous, for clearly the prime and strong case against pegging is the straightforward one that it handcuffs the central bank in the exercise of monetary policy.

As the "bills only" policy was carried out during the 1950s it came under fire. During periods of credit ease, the short-term markets were inundated with liquidity in order that some of it would spill over into longer-term markets, making more credit available at lower interest rates to encourage spending for construction, plant and equipment, and local government projects—to encourage investment a depressed economy required flooding of the money market. Later, when the economy began to revive, there was excess liquidity to be pumped out of the financial system before monetary policy could begin to be effective in controlling the expansion. The Federal Reserve System was widely criticized for excessive ease, and its leading officials came to recognize the validity of the criticism. During periods of credit restraint the effect of monetary policy carried out through "bills only" on bond yields was also unsatisfactory. Bond yields reacted unreliably, responding either too much or too little to credit policy.

There seems to be very little doubt that monetary policy did create too much liquidity in the 1954 and 1958 recessions and that the policy of "bills only" was a major reason why this happened. For, as noted earlier, the way "bills only" works is to saturate the short-term markets with funds and then allow some of the excess liquidity to seep into all other sectors of the market. And it is also clear that much of the difficulty which monetary policy had in imposing restraint on the economy in a timely fashion can be traced to the necessity to absorb such excess liquidity before restrictive measures could take effective hold.

Thus while open market operations, restricted to "bills only," were able to ease the capital markets sufficiently to stimulate long-term borrowing and spending and to reverse recessionary trends, the price was the creation of so much liquidity as to severely impair the ability of monetary policy to restrict credit in succeeding periods of business recovery and expansion.⁷

Pneumonia was once known as the old man's friend because it carried off those for whom life had run its course. The gold standard, more specifically an outflow of gold from the United States in the fall of 1960, served to carry off the "bills only" doctrine. Low bill yields in New York relative to those in London and other European financial centers caused gold to leave the United States. At this juncture the Fed wanted relatively low long-term

rates to encourage the domestic economy but relatively high bill rates to encourage the holding of dollar balances. To achieve this, the system needed to buy long-term securities and sell (or at least abstain from buying) short-term securities. The "bills only" doctrine, now clearly inappropriate, was officially laid to rest on February 20, 1961, when the following announcement was made.

The System Open Market Account is purchasing in the open market U.S. Government notes and bonds of varying maturities, some of which will exceed five years.

Authority for transactions in securities of longer maturity has been granted by the Open Market Committee of the Federal Reserve System in the light of conditions that have developed in the domestic economy and in the U.S. balance of payments with other countries.⁸

The "bills only" policy was considered by economists generally to be a mistake because it unnecessarily restricted the powers of the central bank. From the point of view of the control of the money stock, the *kind* of securities bought or sold is not significant; the effect on the monetary base depends solely on the *amount* of open market operations. But from the point of view of the "credit" effects of monetary policy (apart from the "monetary" effects), that is, the determination of the pattern or structure of interest rates, the kind of securities is important particularly because of the influence of the long-term interest rate on investment spending. "The major criticism levied against the bills only policy was that the System was denying itself an instrument, considered potent by the critics, for affecting economic activity, namely, affecting the relative yields on long- and short-term securities."⁹

During the 1950s, for the first time since the 1920s, the Federal Reserve could use its monetary control powers under "normal" conditions, that is, without the distortions of depression or war. Here, in capsule form, is what happened to the economy.

1. The economy entered the 1950s with an expansion which brought it close to capacity levels by early 1953. To forestall the emergence of inflation the Fed allowed credit to tighten and raised the discount rate from 1¾ to 2 percent.¹⁰ By mid-1953 a mild recession began. The Federal Reserve responded by buying securities, reducing member bank reserve requirements, and lowering interest rates. The public and the banks became highly liquid and the economy began to grow again by mid-1954.

2. From the second quarter of 1954 to the third quarter of 1957 the economy expanded rapidly. GNP rose by 24 percent, with a 41 percent growth in gross private investment. Consumer prices were remarkably stable until the spring of 1956—at the same level as late 1952—but then rose by 5.4 percent in eighteen months. From the perspective of the 1970s and 1980s

this inflation is closer to a molehill than a mountain, but it was not lightly regarded when it occurred. It was the first significant inflationary problem since before World War I that could not be blamed on war financing. The Federal Reserve held a defensive posture from early 1955 until the latter part of 1957, keeping M1 virtually constant. As the investment demand schedule shifted to the right and expenditures on output increased, the demand for money rose, driving up interest rates to their highest level in twenty-five years (3.6 percent for three-month Treasury bills and 3.7 percent for long-term Treasury bonds). The expansion was launched on the easy credit conditions of 1954, but during the last two years of the expansion the Fed was very stingy with its credit. Yet once the economy got up a head of spending steam it maintained its momentum by virtue of an increase in the income velocity of spending. The banks assisted in the rise in V by selling off a large chunk of their holdings of Treasury securities to the public. The public's holdings of deposits therefore diminished but were quickly replenished as the banks expanded their loans to borrowers who of course were eager to spend. By this means, and as interest rates rose, increased demand for transactions balances could be accommodated as "speculative" or "asset" balances decreased.

3. From mid-1957 to the spring of 1958 the economy went through a brief recession which the Federal Reserve System countered with a liberalization of credit by again using all three general credit control powers. The Consumer Price Index (CPI) continued to rise, albeit slowly.

4. The 1950s ended with a two-year recovery that began in May 1958. It was not a robust recovery. The unemployment rate ratcheted upward: only 3 percent in 1951–1953, it averaged 5.5 percent for 1959–1960. Consumer prices were inching up at a rate of only 1.5 percent per annum, but, in the context of sluggish economic growth and the failure of prices to fall during the previous recession, there was spreading fear that inflation was becoming chronic. In this inflation-wary climate, and trying to keep the economy on a short monetary leash, the Fed shifted to a restrictive policy as soon as the economy started to move up. As it had in 1955–1957 the system held bank reserves taut (the Fed favored the expression "leaning against the wind") and interest rates rose to thirty-year highs.

In 1960, looking back over the decade of the 1950s, the record seemed good, but not good enough. The fact that no major depression had occurred in the postwar period was clearly a cause for deep satisfaction. But the shining hopes for rapid growth, low unemployment, and price stability were not being realized. For the years 1951–1960 the real rate of growth of GNP was 3.3 percent per annum. The unemployment and inflation rates were pressing persistently upward.

We have noted in connection with the "bills only" doctrine that the Federal Reserve System was faulted for creating excessive amounts of liq-

uidity during the recessions of 1953–1954 and 1957–1958. In view of the relatively unimpressive growth rate and the disappointing unemployment trend, much criticism was also directed at the system for following an excessively restrictive policy. The mainstream Keynesian economists who exercised influence in the Kennedy and Johnson administrations from 1961 through 1968 were highly critical of Federal Reserve policy in the 1950s for retarding growth through tight money. The Fed was seen by them as having been guided by outdated theory and by a failure to set high enough goals for employment and output.¹¹ These combined criticisms conjure up an image of the Fed as a poor driver who periodically jizzes the engine to get moving but then applies the brake as soon as the car gets up some speed. The central bank had regained its independence in the 1950s but without receiving the kudos in exercising it that it had enjoyed in the 1920s. In feeling its way it began tentatively in these years to pay a little attention to the growth of the money stock per se rather than focusing entirely on credit conditions and interest rates, but the operating targets for its policy were money-market conditions and net free reserves.

During the 1950s a major development occurred concerning the way inflation is perceived that was important for monetary policy. Inflation traditionally was viewed as caused by excessive aggregate demand, a monetary phenomenon. As the post–World War II period began, inflation was seen in this familiar light, and the possibility that inflation could occur simultaneously with substantial unemployment was hardly recognized. Both neo-classical and Keynesian theory attributed inflation to excessive demand (“demand-pull inflation”). But the failure of prices to fall and then their rise during the recessions of the 1950s led economists to expand their understanding of inflation to include cost-push or sellers’ inflation, so that thereafter inflation became a disease with more than a single cause. From 1951 on, it was contended that cost-push inflation was operating and the dichotomy between demand-pull and cost-push inflation gained acceptance. Cost-push was widely interpreted to mean wage-push to a great extent, although it applied to monopoly elements generally, not to unions alone.¹² Cost-push inflation posed a serious dilemma for the monetary authorities. When wages and prices were pushed up, output and employment tended to decline unless the money supply was increased enough to generate the additional demand necessary to take the goods off the market at the higher prices. If the central bank refused to provide the additional money, it would be blamed for allowing output and employment to fall, but if it did create additional money it “validated” the higher prices and so sanctioned and sustained inflation. Since the macroeconomic objectives of the nation included high and growing production, low unemployment, *and* stable prices, the Fed was widely seen as having an impossible task—it was damned if it did and damned if it didn’t expand the money supply to match the higher prices. Some economists

thought that if the Fed would just remain true to the traditional central banking objective of preventing inflation, then the market participants, both labor and management, would soon get the message and learn in their own self-interest to reach "fair" wage bargains with overall stability in prices.¹³ But many others thought that the pain of unemployment and lost output would be too great and that monetary and fiscal policy alone were not enough. The growth of economic thinking about inflation did not stop with the introduction of the cost-push concept. Soon the demand-pull/cost-push dichotomy was seen as too simple and inadequate, and in the 1960s a flowering of inflation theory took place, including structural and expectational inflation.

In their 1963 article, "Survey of Inflation Theory," Martin Bronfenbrenner and Franklyn D. Holzman pointed out that cost-push theories existed historically but were looked upon as new in the 1950s in reaction against the reigning demand-pull orthodoxy. It is a striking fact that during the 1930s both John Maynard Keynes and Joan Robinson anticipated the dilemma of most western countries after World War II: the impossibility of achieving full employment and price stability simultaneously without price or wage controls.¹⁴

President Eisenhower appealed to unions and management to exercise restraint lest in their eagerness for bigger slices of pie they should bring on policies that would shrink the pie. In other words the concept of an incomes policy was being broached by presidential counseling in the 1950s. This appeal to responsible market behavior in the general interest was too general to be effective. An attempt to provide a more specific incomes policy appeared in the January 1962 Annual Report of the Council of Economic Advisers which set forth guideposts for responsible wage-price behavior. They were subsequently embraced by presidents Kennedy and Johnson, who used them as means of education and persuasion to try to restrain the market power of strong unions and businesses in order to keep a wage-price spiral at bay. They were designed to provide overall price stability. Increases in wage rates were to be kept equal to the average national increase in productivity, which would maintain stable labor cost per unit of output for the economy. Individual prices were expected to rise in industries with below-average advances in productivity and fall in industries with above-average productivity advances. The extent to which the guideposts were responsible for the low rate of inflation from 1961 to 1965 is not clear. It is clear that they could not cope with the powerful demand-pull inflation that developed after 1965. This is no reflection on their effectiveness, however, for their advocates clearly presented them as complements to and not substitutes for a sound monetary/fiscal policy mix.

The Promised Land—Almost

It was like the spectacle which greeted the eyes of Moses from the summit of Pisgah, and, in the warm glow of their feelings, they cried out, "It is the promised land!"

—William Hickling Prescott¹⁵

The quotation above may overstate the euphoria felt by the economists of the (Kennedy) New Frontier in the heady days of the 1960s—but not by much. Walter W. Heller, chairman of the Council of Economic Advisers, 1961–1964, made this assessment in 1966:

Economics has come of age in the 1960's. Two Presidents have recognized and drawn on modern economics as a source of national strength and Presidential power. Their willingness to use, for the first time, the full range of modern economic tools underlies the unbroken U.S. expansion since early 1961. . . .

The paralyzing grip of economic myth and false fears on policy has been loosened, perhaps even broken. We at last accept in fact what was accepted in law twenty years ago (in the Employment Act of 1946), namely, that the Federal government has an overarching responsibility for the nation's economic stability and growth. . . .

These are profound changes. What they have wrought is not the creation of a "new economics," but the completion of the Keynesian Revolution—thirty years after John Maynard Keynes fired the opening salvo.¹⁶

Arthur Okun, chairman of the Council of Economic Advisers under President Johnson, observed in 1969 that "The persistence of prosperity has been the outstanding fact of American economic history of the 1960s. The absence of recession for nearly nine years marks a discrete and dramatic departure from the traditional performance of the American economy." But it was the first half of the decade that was truly satisfying. Okun added, quite prophetically it now seems: "The high-water mark of the economist's prestige in Washington was probably reached late in 1965."¹⁷

A prominent feature of the Kennedy economic program was the large tax cut of 1964, the proposal for which came out of the economic textbooks of the postwar period with their "new" Keynesian cast.¹⁸ It was undertaken in accordance with the view that "In 1961, once recession had turned into recovery, nothing was more urgent than to raise the sights of economic policy and to shift its focus from the ups and downs of the cycle to the continuous rise in the economy's potential,"¹⁹ that is, a steady growth model was substituted for a cyclical model. The thrust of policy was to propel the economy upward on a track that would maximize production, employment,

and purchasing power continuously through time. While the major weapon of the Kennedy administration was fiscal policy, monetary policy played an important complementary role. In contrast to its policy in the 1950s, when its sensitivity to the danger of inflation resulted in aborted recoveries, the Federal Reserve System did not attempt deflation during the expansion from 1961 to 1965. As it met the expanding credit needs of the economy, the cost of long-term borrowing rose gradually. The monetary and fiscal authorities maintained close cooperation during these years. To help achieve a coordinated macroeconomic policy, the chairman of the Board of Governors of the Federal Reserve System met regularly with the heads of the Treasury, the Bureau of the Budget, and the Council of Economic Advisers. The foursome was dubbed the quadriad in the Kennedy administration, and President Kennedy usually attended the meetings. Such coordination had been established previously in the latter years of the Eisenhower administration under the leadership of Secretary of the Treasury Robert B. Anderson. Following the death of Kennedy the quadriad atrophied—it did not fit the style of the Johnson administration.²⁰ It has been very plausibly argued that the fight against inflation during the Eisenhower years (1953–1960) purged the economy of inflationary expectations and so set the stage for rapid growth with only minor inflation from 1961 through 1965.²¹

It was noted earlier that the “bills only” policy was terminated early in 1961 in an attempt to stem an outflow of gold. The incoming Kennedy administration introduced what was called Operation Twist (or Operation Nudge), a policy intended to twist the term structure of interest rates, raising short-term rates to halt the outflow of capital and so to solve the balance-of-payments problem, and lowering, or at least stabilizing, long-term rates to encourage domestic private investment. To accomplish this the Fed could buy long-term securities and the Treasury could shorten the average maturity structure of the national debt by increasing the relative supply of Treasury bills and other short-term securities. Between 1961 and 1965 the actual behavior of interest rates conformed to the goal of the policy, yet the policy itself received little credit for the result. The reasons are that (1) the behavior of interest rates was explained by other factors; (2) the Fed’s net purchase of long-term securities was small and the Treasury failed to shorten its debt structure.²² The policy was talked about more than it was acted on, and after 1965 it disappeared from view. Subsequently the concept itself came in question on the grounds that international capital flows and private investment spending are functions of interest rates in general, which would make twisting the term structure unimportant.

Before leaving the period 1951–1965, some indication of the overall performance of the economy may be gained by a few summary statistics for the subperiods 1951–1960 and 1961–1965, as shown in table 7–1.

For the period 1951–1960, M1 grew by 19 percent and its income

Table 7-1
Comparative Output, Price, and Unemployment Data, 1951-1960,
1961-1965

	1951-1960	1961-1965
Average annual increase in real GNP	2.8%	5.3%
Average annual increase in CPI ^a	1.5%	1.3%
Average annual rate of unemployment ^b	4.5%	5.5%

Adapted from *Economic Report of the President, 1979*, pp. 185, 217, 244.

^aConsumer price index

^bThe unemployment rate was 3% for 1951-1953 and 5.2% for 1954-1960.

Table 7-2
Money Stock and Velocity of Money, 1951, 1960, 1961, 1965

	1951	1960	1961	1965
Annual Average M1 (\$ billion)	119.2	141.6	143.9	163.8
Velocity (GNP/M1)	2.78	3.58	3.65	4.22

Adapted from *Historical Statistics of the United States, Part 2, 1975*, p. 992, and *Economic Report of the President, 1985*, p. 232.

velocity by 29 percent. The faster rise in V than in M in financing the growth of GNP in the 1950s is explained by the fact that commercial banks were not competing for time and savings deposits. The banks were not expanding at the pace of the economy—GNP grew four times faster than demand deposits. Nonbank financial intermediaries expanded their credit instruments (savings and loan shares, for example) rapidly to finance economic growth. Nonbank credit instruments increased much faster than bank demand deposits, the velocity of which had to increase. From 1961 to 1965, M1 grew by 14 percent and its income velocity by 16 percent. The money stock grew gradually over the entire decade and a half, with some acceleration after 1963. Table 7-2 shows the quantity of money and its velocity for selected years.

The Banks Stir Themselves

The acceptance of the idea that commercial banking would have to buy deposit funds through the time and savings deposit route instead of merely relying on free checking-account deposits brought a major change in the industry.

—Paul S. Nadler²³

Banking has been important both as an intermediary between savers and investors and as a creator of new money. Along with providing credit to the economy, banks have provided services, notably the clearing and collection of checks. In carrying out their important functions, bankers largely followed traditional methods of operation and were essentially passive and predictable. Prestigious and often powerful but unimaginative, banking was not a vocation with an image of innovation and challenge. Bankers generally exemplified thrift, probity—and stodginess.²⁴ In the 1950s circumstances developed that provoked a fundamental change in the way banks operate. Bank management was galvanized into new modes of behavior, and “aggressive” banking resulted.

From 1933, when interest on demand deposits was prohibited and interest on time and savings deposits became regulated, until the mid-1950s, banks did not need to compete to attract time and savings deposits. As noted earlier, the banks had reserves in abundance until the end of World War II, and until 1951 they could readily get additional reserves by cashing in government securities. But during the 1950s, notably with the boom of 1955–1957, interest rates began to climb.²⁵ As market interest rates rose, corporations began to transfer surplus funds from bank demand deposits to short-term securities which were capable of earning substantial returns, and individuals transferred funds from commercial banks to savings and loan associations and savings banks. As this trend developed, individual banks found that their deposits, hence reserves, were being drained away. For the banking system as a whole it became clear that as the economy grew, the nonbank financial institutions were outstripping the relatively static banks in volume of business.

Early in the 1960s the commercial banks began to respond to the challenge with a new management strategy known as liability management. The accepted strategy up to this time gave relatively little attention to the sources of bank funds, which of course are chiefly bank liabilities. Bank deposits were viewed primarily as a function of the wealth of the community in which the bank operated, supplemented by some marketing effort. Since bank management had little influence on the amount of deposits, it gave most of its attention to managing assets. The art of banking consisted mainly of acquiring the composition of assets that would earn satisfactory profits while preserving the liquidity and solvency of the bank. To provide liquidity for the bank, it was necessary to hold short-term assets (secondary reserves), primarily government securities. From time to time, member banks might tap their Federal Reserve Banks for a discount to obtain some additional funds. During the 1960s the whole concept of bank management shifted.²⁶ Banks came to take a targeted growth of assets as their starting point and adjusted their liabilities to meet the needs of their growing assets. Instead of relying mainly on liquid assets to satisfy their need for liquidity, they now

went into the money market to borrow (to "buy money"). Under this mode of operation the banks could expand along with the growth of the economy. As borrowers increased their demands for loans, the banks in turn increased their capacity to lend by drawing in funds on the liabilities side of their balance sheets. The suction power for this was higher interest, implemented by a new credit instrument admirably designed for the task, the negotiable certificate of deposit, or CD.

The negotiable CDs that large money-center banks began to issue early in 1961 were already employed by some regional banks outside New York and Chicago. Their new significance sprang from the fact that the really big banks now offered them, plus the development of a secondary market for them in New York which provided the liquidity of a true money market instrument.²⁷ By their use, banks were able to reach out from their local areas to tap the national pool of money market funds. Corporate deposits, attracted in huge amounts, brought in funds which the banks could funnel into short-term loans. The flow of funds through the banks' balance sheets could be adjusted to respond as the demand for loans fluctuated. Within six months of their introduction, the negotiable CDs of New York City banks reached the \$1 billion level. Total negotiable CDs outstanding at large commercial banks in the United States rose steadily to almost \$25 billion in 1968; their growth thereafter was interrupted drastically by recessions, but the upward trend brought them to \$100 billion by 1980.²⁸

Negotiable CDs were the most striking of the new sources of funds open to banks in return for their paying the going interest rate. Another was the federal funds market. Federal funds had been used as a way of meeting a deficiency in a bank's reserve position, but now they were seen also to be a source of lendable funds. One result was that the Federal Reserve's discount rate ceased to be a ceiling rate on federal funds, for banks eager for funds were often motivated to bid up the federal funds rate above the rate the Fed charged for discounting. Still another new source of funds used to draw on the national market was the subordinated debenture. Of course, traditional time and savings deposits were a steady source of funds, but unlike the newer sources they lacked flexibility. As bankers became accustomed to their power to attract money from the impersonal money market as long as they paid enough for it, they questioned the need for large secondary reserve positions and began to reduce them.²⁹