# 10
# Charting a New Course? 1980–1985

> The decade of the 1980s resembles the 1930s in being a crucial watershed for determining the structure of the economy and the role of government. . . .
>
> As in the 1930s, the current financial system of the 1980s is experiencing significant structural change . . . [Complex changes] have recently occurred both in the financial system and in the conduct of monetary policy by the Federal Reserve.
>
> —Thomas F. Cargill and Gillian G. Garcia[1]

Strong winds blew across the economic/political landscape in the early 1980s. The economy suffered its deepest recession since the Great Depression. This painful experience succeeded in arresting inflation, but unemployment remained abnormally high even in the third year of the subsequent recovery. The strongest shift in half a century of the political winds brought into office a national administration dedicated to the proposition that the role of government in the economy must be shrunk and the role of market forces increased. This shift in political philosophy brought about two highly publicized developments. One of these, supply-side economics, was promoted as a rediscovery of an old idea with remarkable curative powers for the economy. It soon came generally to be viewed as less potent than advertised. The second was the appearance of a budget deficit of enormous size and persistence. How to evaluate and cope with the deficit became the dominant economic policy issue of the mid–1980s. These topics will be reviewed as background for the main concerns of this penultimate chapter: financial reform, the state of banking, and the unsettled state of monetary policy.

## Macroeconomic Overview

The expansion that began in March 1975 reached a peak in January 1980. After drifting downward for six months to July 1980, the economy resumed its expansion for a year to July 1981. Then came the most pronounced slump since the 1930s—unemployment reached 10.8 percent—until the low point was reached in November 1982. For 1983 and the first half of 1984, real GNP growth was very strong, after which it tapered off to a much slower pace through 1986. What stands out is the sharpness of the recession and

the vigor of the recovery between 1981 and 1984. By 1984 the inflation rate was only one-third that of 1980, while the unemployment rate was slightly higher. Table 10–1 shows output, price, and unemployment data annually, 1975 to 1984, as well as five-year annual averages comparing the last half of the seventies with the first half of the eighties.

## Supply-side Economics

> A half-dozen years ago, the term "supply-side economics" hadn't even been coined; last Aug. 13, the theory became enshrined in national economic policy when President Reagan signed a three-year, 25% cut in personal income tax rates.
>
> —*The Wall Street Journal*[2]

The supply-side movement began in the mid–1970s among a small group of conservative economists, journalists, and politicians.[3] It was spawned by the perception that Keynesian demand management was unable to rescue the economy from rapid inflation and low real growth. Its advocates observed that inflation was pushing income receivers, particularly those in the upper and middle income strata, into increasingly higher tax brackets thereby

**Table 10–1**
**Comparative Output, Price, and Unemployment Data, 1975–1984**
*(percent)*

| | *Real GNP Growth* (1) | *Change in Consumer Price Index December to December* (2) | *Unemployment Rate* (3) | *Discomfort Index* (2) + (3) |
|---|---|---|---|---|
| 1975 | −1.2 | 7.0 | 8.5 | 15.5 |
| 1976 | 5.4 | 4.8 | 7.7 | 12.5 |
| 1977 | 5.5 | 6.8 | 7.1 | 13.9 |
| 1978 | 5.0 | 9.0 | 6.1 | 15.1 |
| 1979 | 2.8 | 13.3 | 5.8 | 19.1 |
| 1980 | − .3 | 12.4 | 7.1 | 19.5 |
| 1981 | 2.5 | 8.9 | 7.6 | 16.5 |
| 1982 | −2.1 | 3.9 | 9.7 | 13.6 |
| 1983 | 3.7 | 3.8 | 9.6 | 13.4 |
| 1984 | 6.8 | 4.0 | 7.5 | 11.5 |
| Average 1975–1979 | 3.5 | 8.2 | 7.0 | 15.3 |
| Average 1980–1984 | 2.1 | 6.6 | 8.3 | 14.9 |

Source: *Economic Report of the President, 1985,* pp. 235, 271, 295.

allegedly sapping incentives to work, save, and invest. A reduction in marginal tax rates would bring about a greater willingness to provide labor and capital, which would increase economic growth and restrain inflation. Say's Law had been discredited by Keynes, but now the supply-siders wanted to discredit Keynes and resurrect Say's Law. A simple diagram called a Laffer curve, drawn on a restaurant napkin by Professor Arthur B. Laffer, became a symbol of supply-side economics. It shows that as tax rates rise from zero, government revenues also rise from zero until eventually a further increase in tax rates discourages production, causing tax revenues to stop rising and eventually to fall. If tax rates rose to 100 percent, no (legal) production would occur and government revenue would return to zero. The main point is that tax *rates* may be so high that when they are reduced government *revenues* may rise or at least hold steady.

The economics profession was certainly not overwhelmed by the supply-side approach. Granted that tax reduction could increase incentives, there was the question of degree. Statistical studies suggested that rather modest results would ensue.[4] In addition to doubt about the extent of increased output, there were other complicating questions concerning demand effects, the distribution of income, and the size of budget deficits.

> Now, the heart of the supply-side argument is the conviction that the American economy is at a point on the curve far too high from the optimum point. Lowering taxes will give the supply side of the economy such a shot in the arm that the United States will slide down the Laffer curve. As a result, tax revenues eventually will rise enough to take care of increased funding of the military; stagflation will end; dynamic growth will begin, and the budget will be balanced.
>
> The trouble with the Laffer Curve is that . . . it is too simple to be of any service except as a symbol of a concept. In the case of the Laffer Curve, the concept is not new, and it is obvious—when taxes are too high they are counterproductive. The problem, of course, is to define *too high*. Few if any economists have any notion of what the Laffer Curve looks like except in the neighborhood of its end points. Even if they did know, few would be willing to say where to put the economy on it.[5]

Concern with the supply side of the economy, that is, with the ability of the economy to produce greater abundance over time, was the primary focus of classical economics beginning with Adam Smith. Keynes shifted attention to the demand side during the 1930s because Western economies were failing to realize their output potential. After World War II, growth theory explicitly examined the question of how to achieve optimal economic expansion over time. As noted in an earlier chapter, the record of growth performance was very good by historical standards for much of the post–World War II period. By the 1970s, however, a slowdown in gains in pro-

ductivity combined with high inflation led to disenchantment with the existing state of economic theory and policy, and to a renewed emphasis on the question of how to generate increased output and gains in real income. It is hard to imagine economists going to the barricades over so reasonable a matter. What sent them to the barricades was the specific connotation that supply-side economics came to have as a result of its extreme proponents: lower tax rates would so galvanize the economy through more work, saving, and investment that the budget deficit would fall. Eighteen months after the Reagan administration began implementation of the highly touted tax cuts, the economy was severely depressed and the country faced deficits of $200 billion. Many tax-cut supporters must have felt duped.

The disappointing macroeconomic performance of the United States during the 1970s opened the way for the new administration to make its diagnosis of what was wrong. Ronald Reagan had no hesitation in identifying the trouble and pronouncing the remedy: the main cause of the nation's economic problems was the federal government itself, and the remedy was to have considerably less of it. Tax cuts were one of several components of the Reagan administration's program to deal with the troubled economy. In addition the money supply was to grow more slowly and steadily, government regulation would be reduced, and the federal government would spend relatively less. This policy mix was expected by administration savants not only to have salutary long-term results but to reduce inflation and raise output quickly. How could inflation-free prosperity be expected in the short-run instead of the painful adjustment predicted by critics? The magic additive was the newly prominent rational expectations (or "new monetarist") approach, according to which economic actors, including workers, make good use of economic information to forecast future price changes. Once the new administration had made clear its firm commitment to reducing inflation, expectations of high inflation would vanish, workers would lower their wage demands, and interest rates would fall without an increase in unemployment. Rational expectations theorists view the economy's aggregate supply curve as vertical, so that government policy altering aggregate demand does not affect the levels of output and employment. The supply curve would begin shifting to the right as incentives increased and regulatory controls decreased. A balanced budget was projected for 1984. The steep recession of 1981–1982 conspicuously and emphatically failed to confirm the rational expectations view that if the monetary authority presented a clearly articulated policy of monetary contraction, inflation would fall without curtailing economic activity or raising unemployment.[6]

The Reagan administration's diagnosis of and prescription for the economy were amply challenged. Some of the arguments of one carefully reasoned study are presented here in condensed form.

From the 1950s to the 1970s total government expenditures (federal, state, and local) rose from 26 percent to 32 percent of GNP. However, those expenditures that involve government claims on real resources grew by only 1.5 percentage points and those of the federal government fell by 3.8 points. The reason overall government expenditures grew substantially was due to transfer payments for social security and other social insurance programs. Compared with other industrialized countries, total government spending as a percent of GNP in the United States is relatively low. It may nevertheless be true that supply-siders are correct in that the more generous transfer programs, higher taxes, and increased regulations had harmful incentive effects on work effort, saving, investing, and productivity. If so, how serious were these effects?

The labor force grew substantially during the 1970s, and the saving rate of both households and businesses also rose, so that "there is no prima facie evidence to support the view that either work or saving was discouraged." While it is true that studies conclude that taxes and transfers reduce work effort and may reduce saving, the extent and degree of certainty fall well short of expectations raised by some supply-side advocates.

As a share of GNP, investment in the 1970s was on a par with the earlier postwar years. "The slower growth in the amount of capital per worker that occurred during the 1970s was due to the dramatic expansion in the labor force, not to less investment."

Up to 25 percent of the slowdown in productivity growth has been attributed to increased social regulation. During the 1970s businesses had to spend more to comply with regulations designed to provide environmental, health, safety, and consumer protection. Clearly society benefits from cleaner air and greater safety. Yet these benefits escape measurement in GNP, with the perverse result that measured productivity may fall while social welfare is rising.

"All in all, the Reagan administration properly focused on slower productivity growth as a major cause of the disappointing growth in living standards during the 1970s; but it probably placed too much blame on past government policies as the cause of the problem and thus too much hope in its own policies as the solution. Taxes do not appear to have had a major impact on work, saving, or investment, and only a modest portion of the productivity slowdown is related to increasing social regulations."[7]

By 1984, after supply-side economics (Reaganomics) had been in effect for three years, it clearly had failed to accomplish the overly ambitious results claimed for it by its ardent proponents. The tax cuts did, however, stimulate investment spending as expected according to standard neoclassical economics.[8]

## The Big Budget Deficit

> There is no painless way to reduce a large deficit.
>
> —Alice M. Rivlin[9]

Following the 1981–1982 recession, output and employment revived and inflation dropped to the lowest rate in a decade, but federal government deficits became a source of consternation and reiterated expressions of dire consequences to follow if corrective action were not taken. Deficits have been common since the 1930s, but those of the 1980s have been inordinately large. They doubled in size relative to GNP from about 2.8 percent in 1980–1981 to 5.3 percent in 1985–1986. Budget data for fiscal years 1980 through 1986 are shown in table 10–2.

Economists regularly use the ratio of federal debt to the gross national product to judge the importance of the national debt, for GNP measures the capacity of the economy to save and provide taxes. As national output expands, the economy can service a larger debt, but if the debt rises at a faster rate than output, the ability of the economy to handle the debt is reduced. The ratio of federal debt to GNP followed a declining trend from the end of World War II until the 1970s. This trend was sharply reversed during the first half of the 1980s: federal debt held by the public rose from 28 percent of GNP in Fiscal Year (FY) 1980 to 37 percent in FY 1984. To James Tobin, the change in policy that occurred in 1981 was a fiscal revolution with long-term implications:

> With present spending programs and existing tax and transfer legislation, the (debt-GNP) ratio will rise to 46 percent before the end of the decade and will still be rising, with no stopping place in sight. This outlook holds even in optimistic scenarios in which the economy completes its recovery in another couple of years and settles down without recession into a path of sustained growth with 6 percent unemployment.[10]

Net interest, the cost of servicing the national debt, rose from 2 percent of GNP in 1980 to 3 percent in 1984, and whereas in 1980 net interest

**Table 10–2**
**Federal Budget Data, 1980–1986**
*($ billion)*

| *Fiscal Year* | *Total Receipts* | *Total Outlays* | *Deficit* |
|---|---|---|---|
| 1980 | 517 | 591 | 74 |
| 1981 | 599 | 678 | 79 |
| 1982 | 618 | 746 | 128 |
| 1983 | 601 | 808 | 208 |
| 1984 | 667 | 852 | 185 |
| 1985 | 734 | 946 | 212 |
| 1986 | 769 | 990 | 221 |

Source: *Economic Indicators.* Washington, D.C.: U.S. Government Printing Office, November 1986, p. 32.

absorbed 10 percent of total federal receipts, by 1984 it took 17 percent. In 1984 the interest on the debt was equal to 37 percent of total individual income taxes collected. The interest cost on the national debt has grown rapidly, not only because of the mounting size of the debt but also because of the very high rates of interest to be paid. High deficits entail high interest rates as a result of very heavy borrowing by the Treasury in the money and capital markets to finance the deficits. The real interest rate—the market rate less the rate of inflation—is what matters. Although nominal interest rates fell very substantially from their 1981 highs, the persistence of high real interest rates during the first half of the 1980s is one of the most notable features of the period.

There are multiple reasons for the widely held view among orthodox economists that the large deficits constitute a danger for the economy. Foremost is the contention that deficits on the order of $200 billion will absorb a large share of net private savings, "crowd out" private investment spending, and therefore inhibit economic growth. The portion of savings left over for capital formation is very likely to be inadequate to sustain healthy economic growth. Conceivably private saving could increase to compensate for the huge federal dissaving, but there is not much evidence on which to base such an outcome. Instead whenever the economy does get close to capacity, there is likely to be a scramble by government, business, and consumers for the relatively scarce flow of savings, thus driving up interest rates until they threaten to trip the economy into recession. Even if recession is avoided for a considerable period of time, the deficits are likely to take a heavy toll in reduced economic growth.

> High deficits and high interest rates do not necessarily mean immediate disaster for the economy. The deficits will continue to stimulate the economy generally, while the high interest rates will tend to slow particular types of spending, especially housing and business investment. High deficits and high interest rates affect the *mix* of total spending—with more resources going to consumption and less to housing and investment than would be the case if we had lower deficits and lower interest rates. A low level of investment in plant and equipment is likely to reduce productivity increases and hamper economic growth in the longer run. Penalizing investment is borrowing from the future to increase consumption now.[11]

During previous periods of economic expansion the federal budget moved steadily toward elimination of the deficit. As the economy approached cyclical peaks in 1973 and 1979, for example, the budget was essentially balanced. But after the deficit quadrupled from an annual rate of $50 billion

early in 1981 to $200 billion at the end of 1982 it stayed at that level for the next three years while the economy recovered. In just five years, from the end of FY 1980 to the end of FY 1985, the gross federal debt doubled. Unless a miracle occurs, sooner or later recession will strike again. To ask what, then, would happen to the deficit and to the economy seems a little like asking Pandora to open a box. That the deficit might rise to $300 billion or more seems quite likely. The cost of servicing interest on the national debt would then rise, perhaps to 25 percent of total federal spending. Several consequences might well follow: (1) high real interest rates could choke off a substantial recovery; (2) massive monetary expansion could be used to break the log jam with the potential for serious inflation later; (3) the safety of financial securities—perhaps even Treasury bills—might be called into question. Any comfort that might be taken from this scenario seems cold indeed.[12]

In addition to the threat to economic growth and stability posed by high real interest rates on domestic investment spending and to the problems that might come with the next recession, there are several ominous international economic effects attributable to the budget deficits. The high interest rates have acted as magnets drawing capital from abroad. Such net capital inflows provide funds to finance the budget deficit and private investment, but the demand for dollars raised the exchange value of the dollar so much that the competitiveness of American industry and agriculture in world markets was seriously impaired. By the mid–1980s, with the nation experiencing enormous balance-of-trade and current account deficits, a sense of alarm developed over the plight of industries facing foreign competition, and this in turn has fostered a demand in Congress for trade protectionism.

The huge net capital inflows have led to concern that the United States has become too dependent on foreign capital. There is the prospect that eventually foreigners will have their fill of dollar assets as their portfolios become saturated with them. At such time their reluctance to acquire more dollar claims could precipitate a drastic fall in the value of the dollar in the foreign exchange markets. The drying up of the capital inflow might well put severe upward pressure on interest rates. Furthermore the continuation of large net capital inflows would tend to reduce our future standard of living. During 1985, after seventy-one years as a net creditor nation, the United States again became a net debtor. The significant point is that in the future, net interest payments will have to be made to service the foreign net dollar claims. The larger these interest obligations become, the greater the necessity eventually for an export surplus of goods and services, thereby leaving less output for U.S. consumption. We as a nation have been spending more for consumption, investment, and military purposes than we produce, drawing on the savings of the rest of the world. Since this pattern must in

the future be reversed, it follows that the large net capital inflows amount to mortgaging our economic future.[13]

High interest rates in the United States tend to cause high interest rates in other countries, inhibiting their growth. They also make it difficult for third world countries to repay their debts to American banks. As a result the banks and the international monetary system are put at risk, and third world borrowing countries have had to adopt restrictive domestic economic policies to deal with their balance of payments problems.

The pessimistic interpretation of the large budget deficits summarized above is disputed by supply-side economists and Reagan administration officials. In its Annual Report in 1985 the Council of Economic Advisers attributes only minor importance to the demand effects of fiscal policy on the economy and gives primacy to the supply-side. Its interpretation of the high real interest rates and high exchange value of the dollar over the past few years attributes them to the economic recovery after 1982 rather than the deficit. As the council explains it, lower taxes and reduced inflation raised the after-tax rate of return on new investment projects. The increased profitability of U.S. corporations in a context of vigorous recovery and favorable long-term prospects for the economy raised the demand for dollars. While the council recognizes the negative effects of the strong dollar on U.S. exports, it sees these balanced by favorable effects.

> In many respects, however, the dollar's rise in value has been beneficial. The strong dollar has stimulated production and investment in sectors less involved in international trade. In other industries, competition from imports has prompted more expenditure on plant and equipment as well as greater attention to controlling wages and other costs. Prices of traded goods and close substitutes have been kept lower than they would have been otherwise, thereby benefiting both U.S. consumers and U.S. producers who use imported inputs. Undoubtedly, the dollar's rise since 1980 has made the task of bringing inflation under control considerably easier. In addition, because of the shift in demand toward dollar assets, U.S. interest rates have been lower and real investment higher than would have been the case otherwise. Stronger U.S. investment will ultimately mean higher productivity and faster potential growth.[14]

The council agrees, however, that the prospective budget deficits are too large. This conclusion is based mainly on the effects of the deficit on the budget in the future: increased future interest payments will have to be met by cutting back on noninterest expenditures or by raising taxes. The council dismisses budgetary effects on the economy (apart from long-run supply-side effects) with the statement that "Changes in Federal expenditure, tax receipts, and the deficit appear to have little effect on total demand, as measured by nominal GNP, except in times of war."[15]

The huge budget deficits have not, as of 1986, had disastrous consequences. Economic expansion has been in progress since the last quarter of 1982. Supply-siders see this as confirmation of their approach, while the Keynesian interpretation is that it shows the effectiveness of the stimulative fiscal policy coming to the rescue of a sick economy in tandem with an expansionary monetary policy. But the true time of testing is yet to come, according to the arguments outlined above. There has been a widespread belief for several years that the deficit should be brought under control, but the political consensus necessary for this may require the onset of an acute economic problem.[16] Meanwhile, like Edgar Allan Poe's "grim, ungainly, ghastly, gaunt, and ominous" raven, month after month and year after year the deficit "still is sitting, still is sitting."

Big budget deficits were never advocated by policymakers, so how did it happen that policies were adopted to create them? As noted in the previous section, some prominent supply-siders sold the idea that tax cuts would "unleash" such a great expansion of productive activity that the budget would quickly be balanced by an enlarged flow of federal revenues. But there is another explanation of a political nature. A strategy was allegedly designed that began with the major tax cut. Then, when a large deficit appeared, the congressional budget process would be used to cut back nondefense spending programs to an extent politically impossible without the deficit. The prime objective of the Reagan administration—substantially to reduce nondefense spending—would be "forced" on Congress by the necessity of dealing with the alarming deficit. When Congress refused to make sufficiently drastic nondefense spending cuts, the strategy failed. Professor Martin Feldstein, who served from mid-1982 to mid-1984 as chairman of the Council of Economic Advisers, spoke out clearly against the deficits and recognized the need for additional tax revenues, but his forthright stand only served to offend leading members of the administration that he served.[17]

## Financial Reform

Deregulation in banking is part of a broader movement begun in the late 1970s during the Carter administration. In his final Economic Report, President Carter pointed with pride to accomplishments made after "decades of inaction."

> In these 4 years we witnessed more progress in economic deregulation than at any other time in the century. In the face of great skepticism and initial opposition, the executive branch, the Congress, and some of the independent regulatory agencies have deregulated or drastically reduced regulation

in the airline, trucking, and railroad industries, and in banking and other financial institutions.[18]

The theme of economic deregulation has obviously been consistent with the laissez-faire philosophy of the Reagan administration, although the actual movement in this direction was relatively small during the first five Reagan years.

> Since deregulation of some markets began several years ago, the experience has been almost uniformly encouraging. My Administration has supported these step-by-step efforts to reduce these regulations in markets that would otherwise be competitive. It is now time to consider broad measures to eliminate many of these economic regulations especially as they affect the natural gas, transportation, communications, and financial markets.[19]

It was observed at the end of chapter 9 that financial reform was a subject of study and discussion but not of federal legislative action during the 1970s. The 1980s, however, have been a decade of deregulation in the financial industry. Two major national laws have been adopted, the Depository Institutions Deregulation and Monetary Control Act (1980) and the Garn–St. Germain Act (1982), and many changes have occurred in state regulations also. As a result, banking activities are permitted that were previously off limits. The inflation of the 1970s gave increased incentives to financial institutions to evade the regulations and, in the case of Federal Reserve member banks, to drop out of the Federal Reserve System. Pressure for change that had been building since the 1950s finally overcame many regulatory restrictions on the range, pricing, and marketing of financial products. Just as the financial reforms of the 1930s resulted from the Great Depression, the reforms of the 1980s were precipitated by the crisis atmosphere involving inflation, high interest rates, disintermediation, speculation, currency market fluctuation, and fears of financial collapse which had the effect of concentrating the minds of legislators and administrators.

The Depository Institutions Deregulation and Monetary Control Act (1980 act) is considered the most significant legislation in its field since the 1930s. It is an omnibus law dealing with a whole collection of problems pertaining to the structure of financial institutions.[20] Its numerous provisions fall under two main headings, deregulation and monetary control. Selected items are presented here in summary form to indicate the main features of the 1980 act.[21]

Deregulation—to increase competition—took three forms:

1. *Elimination or modification of interest rate ceilings.*
   a. Regulation Q interest ceilings on time/savings deposits at all depository institutions to be reduced gradually and finally eliminated by

March 31, 1986. (The prohibition of interest on demand deposits was left unchanged). The Depository Institutions Deregulation Committee (DIDC) consisting of the chairman of the Board of Governors of the Federal Reserve System, the chairman of the Federal Deposit Insurance Corporation, the secretary of the Treasury, the chairman of the Federal Home Loan Bank Board, the chairman of the National Credit Union Administration, and the comptroller of the currency was created to supervise the phasing out of interest rate ceilings.

b. Elimination of state government usury ceilings on residential mortgage loans (although a state could keep a limit if it acted by April 1, 1983).

c. Elimination of state government usury ceilings on business and agricultural loans in excess of $25,000, provided the ceiling was less than 5 percentage points over the discount rate of the Federal Reserve plus any surcharge (although a state could retain such a limit if it acted by April 1, 1983).

2. *Expansion of sources of funds for depository institutions*— to increase the competitive ability of the several types of institutions by enabling them to attract funds more effectively. In particular the nonbank depository institutions gained in their ability to compete with banks.

   a. Thrifts as well as banks were permitted to issue NOW accounts as of January 1, 1981, thus making NOW accounts available nationwide. The NOW accounts must be held by natural persons or nonprofit organizations. (The accounts are known as share draft accounts at credit unions).

   b. Federal deposit insurance was raised to $100,000 per account (from $40,000).

3. *Expansion of uses of funds by depository institutions*—primarily to enable savings and loan associations to diversify by reducing their dependence on mortgage loans.

   a. Percentage-of-asset limitations were removed from certain categories of assets of S&Ls.

   b. S&Ls were permitted to make commercial real estate and consumer loans and to acquire commercial paper up to 20 percent of assets.

Monetary control modifications—to increase Federal Reserve control over the money supply—took two main forms:

1. *Extension of federally imposed reserve requirements.* Reserve requirements administered by the Federal Reserve System were made applicable to nonmember banks and nonbank depository institutions as well as to member banks, a major transfer of regulatory authority from state to

federal jurisdiction. By ending the historic dual set of reserve requirements set separately by the Federal Reserve and state regulatory agencies, Congress met the problem of declining Federal Reserve membership due to the more stringent requirements of the system. The new uniform structure, to be phased in gradually during the 1980s, is also simpler than the old reserve requirement structure.

   a. Uniform reserve requirements are to be set up by the Fed nationwide for all depository institutions regardless of type, charter, or size.
   b. Transactions (checkable) deposits are subject to a reserve set within an 8 to 14 percent range (3 percent on deposit balances up to $25 billion initially but with allowance for a gradually rising deposit base). Nonpersonal time deposits are subject to a reserve set within a 0 to 9 percent range.

2. *Extension of Federal Reserve power in other ways.* Instead of interacting only with member banks, the Federal Reserve acquired a relationship with all depository institutions. The latter have the same borrowing privileges at the Fed, may obtain Federal Reserve services at the same fee schedule, and must furnish financial reports to the Fed. In effect, though not in name, the depository institutions not previously member banks have been drafted into the ranks of the member banks.

Developments in the financial markets following the 1980 act made it clear that further changes would be necessary. Immediately following the (March) 1980 act, short-term interest rates fell, but later in 1980 and on through mid–1982 they were extremely high.[22] Under these conditions it was not feasible to implement with any speed the phasing out of Regulation Q ceilings, since the higher market rates would be a crushing burden to depository institutions, especially to the S&Ls and mutual savings banks. S&Ls were already under severe pressure as a result of paying market rates on money market certificates and because of depositors shifting from passbook savings accounts to NOW accounts against which reserves of 12 percent were required. In 1981 on average the S&Ls paid a higher rate to their depositors than they earned on their mortgages. Furthermore, while disintermediation had slowed from earlier years, the depository institutions were still unable effectively to compete for funds. In contrast the money market mutual funds tripled their assets over two years beginning at the end of 1980, reaching the $240 billion level by late 1982. The plight of the depository institutions was aggravated by the onset of the severe recession of 1981–1982. The deteriorating condition of the thrift industry reached a crisis stage characterized by declining earnings and an increasing failure rate, thereby providing the stimulation for another financial reform law.

The Garn–St. Germain Depository Institutions Act (1982 act) was a

direct response to the problems of the thrifts in general and the S&Ls in particular. Its leading features follow in summary form.[23]

1. *Sources of funds for depository institutions.*
   Depository institutions were authorized to offer money market deposits accounts (MMDAs) designed specifically to be equivalent to and competitive with money market mutual funds (MMMFs). In December 1982 they became available for accounts of $2,500 or more with no interest ceiling, limited transactions features, and no reserve requirement on personal accounts. In addition, in January 1983 Super-NOW accounts (SNOWs) were authorized which permitted unlimited transactions but required a $2,500 minimum balance and were subject to the reserve requirement for transactions balances.[24]
   Regulation Q ceiling differentials between banks and nonbank depository institutions were required to be removed by the beginning of 1984. Thus thrifts would no longer offer a rate ¼ percent above that of commercial banks as they had been permitted to do on most types of deposits subject to ceiling regulation.
2. *Uses of funds for depository institutions.*
   The ability of thrifts to acquire assets was significantly broadened. Federally chartered S&Ls and savings banks were given the power to make commercial loans and to invest in the accounts of other insured institutions, invest in state and local government obligations, and make consumer and educational loans.
   Thrifts may easily change their charters from state to federal (and federal to state, if state law allows). Variable rate mortgages, already in use by federally-chartered institutions, could be offered by state-chartered institutions.
3. *Emergency powers.*
   The 1982 act gave the Federal Deposit Insurance Corporation and the Federal Savings and Loan Insurance Corporation extraordinary powers to deal with the severely troubled thrift industry. These powers could provide aid to meet the needs of institutions that are insolvent, in default, or in peril of collapse. They were made available to meet threats to the stability of the financial system. A half-dozen types of steps were authorized, including acquiring the assets or liabilities of institutions, giving guarantees, and issuing net worth certificates. Emergency acquisitions were authorized permitting institutions to acquire other institutions in cases otherwise prevented by rules against cross-industry and cross-state-line acquisitions. The emergency powers were granted for a three-year period.

The 1982 act continued the process of deregulation begun by the 1980 act. Competition among depository institutions and between them and the MMMFs was significantly increased. The effect of the 1982 act was to "accelerate the movement toward a more efficient and flexible intermediary sector."[25] The success of the MMDA and SNOW accounts was quite remarkable. Within just a few months of their introduction they surpassed the peak level of the MMMFs reached in November 1982, and the rapid growth of the MMMFs turned into decline. The problem of disintermediation, an issue for many years, had been laid to rest as a result of the acts of 1980 and 1982.

## The State of Banking

Pressure for change from within and without the banking industry is presently very great. While much uncertainty exists about the configuration to which the process is leading, there is little doubt that "American banking is in a state of flux."[26]

The nation is accustomed to reports on the state of the union, the budget, and the economy which provide focal points for discussion and the formation of policy. If a report on the state of banking were prepared, what would it contain? The purpose of this section is to provide an indication of the main features of such a hypothetical report by identifying the issues that have concerned policymakers in the mid–1980s. The state of banking is of particular interest and importance because rapid changes have occurred in recent years, posing questions for regulators, legislators, and the general public. Between World War I and World War II (especially as a result of the chaotic conditions during the early 1930s), a regulatory framework was established that placed distinct limits on the activities of banks and other financial institutions. The limits were designed to provide a safe and sound system, to prevent excessive concentration of financial power, and to preserve a well-established policy of Congress that there should be a clear separation between banking and "commerce," that is, activity unrelated to banking. For about a third of a century after World War II the regulatory limitations were, on the whole, kept intact, but in the 1970s and especially during the 1980s the regulatory restraining walls have been breached. Financial innovation together with regulatory and legislative changes have already substantially modified the system and, if unchecked, may transform it in ways that may or may not be in the public interest.

Legislation of the late 1920s and mid–1930s partitioned the financial system: each institutional category—commercial banks, investment banks, thrifts, and so on—was limited to a separate set of products, thus limiting competition among categories. Banks concentrated on accepting deposits

and making loans, for they were largely excluded from the securities, real estate, and insurance businesses. Competition was also limited among banks, and between them and the other types of financial institutions, by ceilings on the rate of interest that could be paid on deposits. Furthermore, there were geographic restrictions prohibiting interstate banking and requiring national banks to abide by the geographical rules set by state law for state-chartered banks.

In recent years the barriers to competition have been crumbling. Some of the reasons for the increased competition, both among banks and between them and other financial institutions, have previously been discussed. Price competition results from the elimination of interest rate ceilings under the 1980 act. Product competition has increased as a result of the spread of NOW accounts by thrifts and banks, by the creation of money market mutual funds and money market deposit accounts, and by the expanded powers for thrifts granted by the 1982 act. Other competitive developments include the recent entry of large organizations such as Merrill Lynch and Sears, Roebuck as providers of various financial services, and by rule changes that permit banks to enter the securities business by offering brokerage services. Changes in technology have also been a spur to competition, and some states are giving banks under their jurisdiction the right to practice nonbanking activities that are denied under federal law.

The most prominent of the areas of change and of potential change is interstate banking. In a formal, legal sense, interstate banking is essentially prohibited in the United States, but in fact it has become widespread and is likely to grow much more. Federal law shut the door against interstate banking but left several windows open, and the financial community has been breaking and entering through others as well. It was not until the 1920s that national banks were permitted to have any branches. In 1927 the McFadden Act permitted national banks to establish branches in the city where their head office was located, provided state banks had branches there. In 1933 the law was amended to allow national banks to have whatever branching privileges were accorded by the various states to state banks, so that the branching privileges might be state-wide or limited to a smaller area, but did not extend across state lines. The principle of the McFadden Act was retained in the Douglas Amendment of the Bank Holding Company Act of 1956—again the federal government played follow-the-leader behind the states by deciding that whether or not a bank holding company might acquire an out-of-state subsidiary bank would depend upon state law. Since the laws pertain to banks, it is vital to know what a bank is from a legal standpoint. As defined since 1970 when the Bank Holding Company Act was amended, a bank is any institution that does two things: (1) accepts demand deposits, (2) engages in the business of making commercial loans. If an institution does not perform both of these activities, it is not a bank

but a "nonbank" able to perform on an interstate basis almost any type of financial service.

Methods by which financial institutions have made interstate banking "a reality today in everything except name" are now summarized.[27]

1. *Grandfathered activities.*
   When Congress acted to restrict interstate bank holding company operations it exempted ("grandfathered") a number of banking organizations already engaged in such operations.
2. *Loan production offices and edge act corporations.*
   Banking organizations control hundreds of loan production offices on an interstate basis from which they can reach potential customers in different parts of the country. "Edge Act corporations," although limited to financing international trade, are able to operate on an interstate basis also.
3. *4(c)8 subsidiaries.*
   Section 4(c)8 of the Bank Holding Company Act as amended in 1970 permits holding companies to engage in so-called nonbank activities. A holding company may acquire shares of a subsidiary company engaged in bank-type activities. Since such organizations are not legally banks, once established they are free to open offices in any number of states. The result of this legal loophole is that holding companies provide on an interstate level many of the same financial services as banks. A survey by the Federal Reserve Bank of Atlanta in December 1982 identified 382 such subsidiaries with more than 5,500 offices, each providing financial service across state boundaries.
4. *Reciprocal and nonreciprocal interstate banking laws.*
   A wave of state legislation involving twenty-two states during 1981–1984 makes possible entry by out-of-state banking operations. Some are on a reciprocal basis while others are not. The legality of regional interstate banking was upheld by the Supreme Court in 1985, giving impetus to regional mergers in New England and the Southeast where legislation already permits them. Other parts of the country are likely to follow their example quite soon.
5. *Nonbank banks.*
   The inelegant oxymoron *nonbank banks* has been coined for institutions chartered as banks but which fall outside the bounds of federal law. One type, called special-purpose banks, results from state legislation permitting out-of-state institutions to operate a bank confined to certain services such as credit card operation or wholesale banking. Two other basic types, consumer banks and commercial lending banks, do not meet the legal definition of a bank because they do not engage in both re-

quired activities (accepting deposits, making commercial loans) and therefore are not subject to interstate restrictions. Firms in different lines of business that have many accounts, such as Merrill Lynch (securities), Prudential (insurance), and Sears, Roebuck (retailing), have the potential for establishing consumer banking. They can quite readily realize this potential by acquiring a nonbank bank which will offer demand deposits (but not commercial loans) and which will have deposit insurance and access to the payments system. The acquiring (holding) company is not subject to regulation as a bank holding company. Some states have reacted to the recent trend toward creating nonbank banks by enacting legislation barring them.

What does all this mean for the safety, stability, and competitiveness of the American banking system? What costs and benefits may result? Are the changes bringing a high quality of services at low cost? Are serious dangers inherent in the process that call for renewed legislative and regulatory control?

The favorable results of the weakening of artificial boundaries to competition, and of innovation, come as greater efficiency. As greater competition improves the intermediation process through which funds are gathered and distributed, the operation of the real economy also improves. The financial system becomes more diversified and flexible. Savings depositors benefit from higher rates, customer services are increased, and the bane of disintermediation, with its discriminating impact on the housing industry, is eliminated. The ability of banks and thrifts to offer a greater range of debt obligations paying market rates and with a variety of maturities allows them to match rates and maturities on loans with those on deposits to a greater degree. Proponents of further deregulation anticipate generally lower rates on loans and better service for small businesses.

The other—unfavorable—side of the ledger provides abundant reason for concern about the present and future state of banking. Bank failures have become much more numerous in recent years, and loan losses have been high. Questions have been raised about excessive risk taking by financial institutions, about the prospects of excessive concentration of financial resources as the division between banking and commerce erodes, and about the future of banks in rural areas.

The problem of bank safety seemed well under control after the reforms of the 1930s until the 1980s. On average about 6 banks failed per year in 35 years ending in 1981 out of a banking population of some 14,000 banks. Since then the toll of failures has risen rapidly: 1982—42, 1983—48, 1984—79, 1985—120, 1986—138. It is not just the number of bank failures that has caused concern, but that some very large banks have failed or been in trouble, and unsound, even scandalous banking practices have been disclosed. The failure of the United American Bank of Knoxville, Tennessee,

was followed by a rash of bank failures in 1983–1984, 12 of which were linked to wheeler-dealers at UAB.[28] The most dramatic, and frightening, case was the virtual collapse of Continental Illinois National Bank & Trust Company of Chicago. For several months during 1984 desperate resuscitative efforts were necessary to keep this financial giant (sixth largest U.S. bank in 1981) alive.

Even a capsule account of the debacle at Continental Illinois requires mention of the Penn Square Bank of Oklahoma City, which failed in 1982. Penn Square made enormous loans with reckless abandon to oil wildcatters and drillers during the period of acute energy shortage and rising oil prices, especially following the second oil shock in 1979, on the assumption that oil prices would continue to rise. When oil prices headed down and old borrowers began to default, loans were extended to new borrowers on flimsy collateral. Revelations of blatant irregularities, chicanery, and crass behavior by its officers have made Penn Square a case study of how positions of trust can be abused.[29] A large volume of loans generated by Penn Square beyond its own capital capacity were sold to Continental Illinois, which took loans that did not meet its own standards. Continental Illinois acquired loans that were not well-secured and that were not properly documented. When Penn Square failed, Continental Illinois was left holding the bag. In addition to the energy loans, it also held large amounts of doubtful loans it had made to less developed countries (LDCs). Continental Illinois was heavily exposed to risk on its liabilities side as well; nearly 75 percent of its deposits exceeded $100,000, the maximum amount covered by the FDIC. The revelation of extensive problem loans early in 1984 made depositors queasy, and in May a rumor of impending failure led to massive withdrawals. From May to July, sums in excess of $10 billion were pumped into Continental Illinois by banks and federal agencies to keep it afloat. But even after the FDIC broke precedent by guaranteeing the full amount of deposits, not just the first $100,000, the depositors were not impressed enough to stay on board what they considered the financial equivalent of the *Titanic.* Finally, when the FDIC was unable to arrange a merger with a healthy bank, it took over a large chunk of problems loans, put in additional capital, and assumed ownership of 80 percent of the bank, thereby nationalizing it in all but name. The alternative was to let it fail and risk international financial havoc. The FDIC removed the top management of the bank, as it regularly does when a bank fails. Some chief officers of Continental Illinois who were in charge when the problems developed, and therefore were responsible for the success or failure of the enterprise, took early retirement a few months before the bank's demise, laden with munificent pensions, an arrangement that leads to reflection on the rewards and punishments of capitalism.

The high rate of bank failures and considerable number of "problem banks" in the 1980s is largely explained by economic adjustments from rapid

inflation in the 1970s to disinflation in the 1980s.[30] Three main categories of loans, energy, LDC,[31] and agricultural, have suffered as borrowers experienced declining prices and high real interest rates. What about deregulation as a cause of what some observers consider a banking crisis? It is generally thought that while deregulation has been constructive in important ways, it has also contributed to the system's problems. There is recognition that the banking system today requires further reform, and that deregulation needs to be evaluated in the context of the requirements for stability.

Deregulation means greater freedom for bankers to venture into risky activities in search of growth and profit.[32] When a bank is in trouble the FDIC traditionally has protected all deposit balances, not just the insured balances, by keeping the bank from failing. The only large bank to be liquidated (with large depositors suffering large losses) was Penn Square in 1982 when the FDIC chairman was William Isaac, an avid deregulator and exponent of "market discipline." According to this approach, banks that overextend themselves or behave imprudently would be led to correct their mistakes and mend their ways by the actions of corporate treasurers and money managers, who would bring pressure on them, in the absence of FDIC protection, by withdrawing deposits gradually. It would not be necessary for Big Brother to intervene because peer brothers would give errant bankers the needed message. These sophisticated depositors would have an incentive to monitor the banks' performance and the ability to act as the policemen of the free market. When Continental Illinois came under fire, the large depositors did not behave so benignly but took their money the old-fashioned way—they ran on the bank.[33] This conjured up the danger of runs on other banks and an international financial panic as foreigners rushed to withdraw their U.S. balances. Under these ominous circumstances the FDIC returned to its previous policy of protecting large depositors, but its credibility had been shattered by the Penn Square experience, with the result that eventually the U.S. government became the majority shareholder in the restructured Continental Illinois Bank. It is clear (1) that the public interest demands that the money supply and therefore the banking system must be kept stable, (2) that the private sector cannot be entrusted unaided to maintain this stability, (3) that the government must protect the system by bearing some of the risks of bank failure, and therefore (4) that government must exercise supervision and regulation of banks to an extent commensurate to the risks it assumes. Banks can hardly expect to be free to make high-risk investments on the implicit assumption that they can keep high profits if successful but will be bailed out by the government if unsuccessful. Shortly before Chairman Isaac departed from his FDIC post in 1985, still an ardent proponent of deregulation, he recommended to the Senate Banking Committee that the Glass–Steagall Act, the Bank Holding Company Act, and the McFadden–Douglas Act should all be repealed, a position that moved the

senators—to uproarious laughter.[34] If not over, the drive to deregulate has been stalled as of 1985.

The thrust of the thinking of our leading central bankers is favorable toward further deregulation provided it is properly conducted, but also strongly in favor of new legislation to prevent abuses. In his first public address as president of the Federal Reserve Bank of New York, E. Gerald Corrigan spoke of progress that banks had recently made in strengthening their capital positions and in adopting more conservative attitudes toward loan provisions and reserves. He advocated allowing banks a new range of activities such as underwriting and distributing revenue bonds and broker/agency activities in insurance and real estate. With respect to interstate banking, he favored further extension with the proviso that some date be set when all federal geographic restrictions would be abolished except as necessary to preserve safety and avoid excessive concentration. At the same time he cautioned banks to use more "prior restraint" in the credit decision-making process, that is, to forgo overextension of loans that might result in loan losses. His "compelling" call for legislative reform referred to the "compulsion of institutions to seize every loophole in law and regulation [which] threatens to reach a point of *de facto* restructuring of the financial marketplace such that even the most basic of doctrines—such as the separation of banking and commerce—may be irreversibly breached." In summation he called for prompt action: "Our Federal banking laws are in desperate need of reform."[35]

Chairman Volcker could hardly have been more emphatic in calling on Congress for banking reform than his statement of May 8, 1985, before the Senate Committee on Banking, Housing, and Urban Affairs. He spoke of the need for a "sense of urgency to reform the existing statutory framework governing 'banking' organizations [for] there are real dangers in permitting the financial system to evolve, as it is now, in a haphazard and a potentially dangerous way."[36] Below are some specific reasons taken from Volcker's statement showing the need for strong and early action by Congress to clarify and strengthen the goals of public policy toward banking:

1. Changes have been occurring pell–mell.
   a. Legislative action is needed on the definition of a bank. Nonbank banks have been proliferating as many commercial companies as well as bank holding companies have applied for and received approval for them.
   b. States have been moving to greatly expand the powers of state-chartered banks and thrifts. They seem to be engaged in a bidding process to attract depository institutions, increase revenues, and expand employment without regard for a coherent banking philosophy. The result may be contrary to the requirements for a sound banking system.

2. The separation of banking and commerce is endangered by the use of nonbank banks by commercial firms prepared to exploit legal loopholes.
3. The rush into new kinds of activities has resulted in much complex litigation, making banking policy the subject of judicial review. The courts and the regulators of financial institutions are in the dilemma of applying old laws to a new set of circumstances. Without comprehensive new legislation, the banking system changes haphazardly.

A proposal for shoring up the banking system that has gained support is an increase in the FDIC's insurance fund. Its size relative to the kind of run experienced by Continental Illinois is a source of concern. It would be easy to increase the annual revenue flow to the fund because for many years the FDIC has been rebating to the banks about half of the one-twelfth of 1 percent of domestic deposits that the law requires them to pay. This policy, adopted as early as 1950 when the risks of failure were low, bears reexamination. Another approach that has been much discussed concerns risk-related premiums for deposit insurance. Under the present flat-rate premium, some depository institutions take excessive risks because their cost of insurance is unrelated to the potential for failure and the likelihood of losses that the deposit insurance fund would be required to pay. There have been several proposals to remedy this, such as adopting a schedule in which the premium rate is made a function of the risk level. Practical problems make this approach difficult to implement, but support for it has been considerable. One additional avenue of reform that has been given prominence is the establishment of higher levels of bank capital.

At the risk of overgeneralization, the state of banking might be summed up in these terms: considerable deregulation of banking has occurred which provides the advantages of competition but which poses a threat to the safety and soundness of the system. To achieve an appropriate balance between market forces and legislative restraint, new legislation seems required; a system in or near a state of disarray needs rules of behavior in the public interest. Net result: fewer regulatory shackles on product and area competition but strong supervision and regulation to enforce redefined rules of a more coherent system.

## Monetary Policy: Improvisation at Work

> Judgments about the economic situation require some perspective; a sense not only of where we are, but also a sense of from where we have come and where we are going.
>
> —E. Gerald Corrigan[37]

To have an effective policy concerning anything, it is necessary to define the "thing." Most people probably think that this presents no problem concerning money, since money has been used for more than two and a half millennia, as a nation we have had two centuries to work out our money supply, and as individuals we use money every day. Yet the problem of defining money has bedeviled U.S. monetary policy in the 1970s and 1980s as new assets with the attributes of money have been introduced and more institutions have come to issue them. The prominence of monetarism circa 1979–1980 was based on firm control of the money supply, but unfortunately for the implementation of monetary policy the content of the money supply has been in transition. In 1982 an acute difficulty for monetary policy appeared: the recession of 1981–1982 put monetary policy under so severe a strain that three years after the famous FOMC meeting of October 1979 the Fed found it necessary to suspend its quasi pledge of allegiance to monetarism. The tentative step away from monetarism taken in 1982 took on the appearance of a gulf over the next three years as events rendered monetarism less and less plausible as a policy guide. In short, there was a shift of monetary policy away from monetarism toward eclecticism during the 1980s through 1986.

The question of how to define the money stock of the United States has been of much concern and attention for the last fifteen years, as indicated by the following thumbnail account of the development of money stock measures by the Federal Reserve System.[38] Extensive studies of the monetary measures by the Federal Reserve during the 1970s were prompted by financial developments that changed the significance of the measures then in use. Refinements began to be adopted as close substitutes for money were introduced, such as NOW accounts and telephonic transfers of funds, as more data became available, and as banking practices changed, so that by the mid-1970s five measures were being published instead of only one in 1971. The narrow money stock measure, M1, composed of currency and demand deposits, was supplemented by successively broader measures, M2, M3, M4, and M5. As noted earlier, innovations in financial instruments continued to be introduced. In February 1980 two narrow transactions measures were adopted (M-1A and M-1B), M2 and M3 were redefined, and a very broad measure of liquid assets known as *L* was added. In January 1982 the M-1A measure was discontinued and M-1B became simply M1, a change motivated largely by the slowing of shifts of balances from demand and savings deposits into NOW accounts after they were made available nationwide in January 1981. Further revisions were made in February 1983 in the broader monetary aggregates.

The heart of the difficulty over defining money is that the features which previously differentiated money from other liquid assets have become indistinct. Until recently, transactions balances were clearly different from short-

term investment funds. Payments were made only by demand deposits and currency; the payment of interest was prohibited by law on demand deposits. Under these conditions there was a strong financial incentive for demand deposits to be kept no larger than necessary for carrying on transactions. To shift into money from other highly liquid assets (near money) involved a cost. By the early 1980s, payments could be made by check on a variety of accounts in addition to demand deposits, including NOW and Super-NOW accounts, money market mutual funds, money market deposit accounts, and cash management accounts maintained at brokerage houses. There is no longer much of an incentive to minimize balances to amounts needed for transactions purposes. In addition the computerization of the financial system has made the cost of shifting from near money to money insignificant. The Federal Reserve has tried to meet the problem by changing the way the monetary aggregates are defined, but inherent difficulties prevent a satisfactory resolution. The new accounts are part fish and part fowl—they combine transactions and short-term investment elements. Furthermore the changing nature of the narrowly defined aggregate means that the definition of M1 is not constant over time.

The implications of the difficulty of measuring the money stock for monetary policy purposes have been clearly delineated by Frank E. Morris, president of the Federal Reserve Bank of Boston. Morris noted that a great body of theory and much empirical work provided the basis for the decision of the Federal Reserve to target transactions balances with the expectation that the money balances would be predictably related to the nominal GNP. The ability to measure transactions balances accurately, that is, to have a measure of M1 that is consistent over time, is essential. "This we cannot do. We, therefore, have no scientific basis for expecting that the new M1 of the latest redefinition is going to have the same behavioral characteristics relative to the nominal GNP as the M1 of earlier years." The conclusion is far-reaching:

> We are approaching a critical watershed in the formulation of monetary policy. The policy structure of recent years, which has been oriented toward controlling the growth rate of the money stock, is being eroded by a wave of financial innovation which is making it more and more difficult to measure the money stock, i.e. to differentiate money from other liquid assets. We are left with three alternatives: to go back to managing interest rates, to continue the present course of redefining the money supply as best we can to reflect the latest innovations, or to shift from controlling money to controlling the growth of liquidity and/or debt.[39]

Let us recall the circumstances of the October 1979 decision of the Federal Open Market Committee to achieve money growth targets by managing the growth rate of bank reserves. Inflation had been getting more

troublesome for over a decade and threatened to get out of control. The Fed saw the necessity of making itself credible as an inflation fighter, for tough talk with little result had cast doubt on its effectiveness. As the Fed implemented its new policy through 1980, 1981, and 1982, the rate of inflation fell sharply (the dragon of inflation had been badly wounded if not slain), but the economy stumbled into a severe recession. In the summer of 1982 the Fed was faced with a moment of truth. For the first half of 1982 the growth rate of M1 was 7 percent (compared with a policy range of 2.5 to 5.5 percent), yet real GNP fell at an annual rate close to 3 percent. Economic forecasts generally predicted an upturn in the third quarter, and one could be expected to occur, along monetarist lines, as a result of the above-target rate of M1 during the previous six months. But when it became clear that the recession was worsening in the third quarter, the Fed found it expedient to abandon its adherence to the monetarist faith. The Fed's long-run strategy called for a gradual reduction in the monetary aggregates, especially M1, over several years to wring inflation out of the economy with minimum effects on output and employment. This approach required the velocity of M1 to be stable. But in 1982 the velocity of M1 unexpectedly dropped sharply and so "compelled" the Fed to depart from its long-run strategy by abandoning M1 as a target.[40]

> Over the year the income velocities of the monetary aggregates (defined as the ratio of nominal gross national product to money) declined at the sharpest rates of the postwar period.
>
> [T]he FOMC at its meeting in early October decided to deemphasize M1, at least temporarily, as an operating guide for monetary policy, and instead, to place greater emphasis on M2 and M3 in the expectation that these measures would be less affected by developments in the fourth quarter.[41]

The aberrant behavior of velocity was unsettling to monetarist thinking, but perhaps was due to a one-shot disturbance and would soon settle down. In July 1983 the FOMC, reluctant to abandon its M1 range and unwilling to stay within it, adopted a new monetary range for M1 for the last half of the year based on the average money stock for the second quarter of 1983, instead of the fourth quarter of 1982. This device allowed the Fed to overshoot its original target range without abandoning the concept of a target range.

> The decision to adopt a new base for monitoring M1 growth reflected a judgment that the recent rapid growth of M1 would appropriately be treated as a one-time phenomenon that was expected to be neither reversed nor extended. It appeared, in retrospect, that the surge in M1 might largely have reflected an adjustment by the public of its cash balances in response to the

> pronounced drop in the opportunity cost of holding low-yielding demand deposits and regular NOW accounts.[42]

By 1984 the Federal Reserve was hopeful that M1 could soon be restored to the preeminent place that it held in monetary policy from 1979 to 1982, although it was not yet ready for full restoration.

> Over the year, the evidence increasingly suggested that M1 was in fact behaving more in line with historical experience. As a result, this aggregate was given more weight in policy implementation than had been the case during the latter part of the cyclical downswing and early phase of the economic recovery. However, all of the monetary and credit measures continued to be evaluated in light of the outlook for the economy and for domestic and international financial markets.[43]

The attempt to remain loyal to M1 targeting was disrupted again in July 1985. In February a 4–7 percent target range of growth was set from a fourth-quarter 1984 base. By June the actual growth rate was nearly 12 percent. Instead of trying to slow M1 growth to keep within the target range, the Fed took two steps: (1) it widened the range to 3–8 percent; (2) it made the second quarter of 1985 the new base period thus "validating" the rapid money growth of the first half of the year.[44] Milton Friedman compared this to a farmer who had numerous targets on his barn door, each with a bullet hole in its center. The secret of this accuracy was that the farmer first shot at the door and then painted the targets.

The hope and expectation that monetary policy might soon again be keyed to M1 growth has faded with the passage of time. It is clear that M1's velocity has been remarkably different during the 1980s from the 1970s. From the early to the late 1970s the ratio GNP/M1 increased from roughly 4.5 to 6.5, or about 3.5 percent per year, but has been virtually flat during the first half of the 1980s. Furthermore there has been a remarkable increase in its volatility. The predictability of the velocity of M1 is crucial to a strategy of monetary targeting.

Some of the reasons for the changing behavior of velocity could well be of a temporary nature. It has been argued that the surprising drop in 1982 was due to the rapid fall in inflation and nominal interest rates and not to a shift in the demand for M1. The public wanted to hold more money at the lower nominal interest rates.[45] The introduction of NOW accounts nationwide in 1981 is another factor that could be expected to be less disturbing as the public becomes accustomed to these new accounts. But a more comprehensive analysis that also takes into account swings in inventories and the deteriorating trade balance of recent years is pessimistic. A study conducted by the Federal Reserve Bank of New York gives little hope for future predictability of velocity.

> [I]t is very difficult to predict swings in inventories, net exports, interest rates, and the split in M1 growth among its components. Moreover, there has not been enough experience with M1 in this more deregulated environment to estimate very precisely the interest elasticity of the demand for M1. Hence, even though some of the reasons for the instability of velocity in the 1980s (measured in terms of GNP) can be identified *ex post,* velocity is not likely to be more predictable as a result.[46]

Still another case has been developed challenging the belief that, after a period of adjustment, the money stock will again serve as a good guide for monetary policy. It starts with the introduction of MMDAs in December 1982 and Super-NOWs in January 1983, and concludes that as a result the relationship of GNP to the money stock has become less reliable. The reason is that the financial strategies of depository institutions are important determining factors in the growth of the money stock. In the expectation of rising interest rates, banks and thrifts may tend to promote large denomination CDs more vigorously than the accounts that are part of M1, with the result that M1 increases relatively slowly compared with the growth of GNP. But when the outlook favors declining interest rates, the depository institutions may switch aggressively to promoting transactions accounts, so that the growth of M1 is faster than warranted by economic growth. The result is that "the growth of M1 and M2 now could depend more on interest rate forecasts and funding strategies of depository institutions and their borrowers."[47]

Monetarism has clearly been under heavy criticism in the mid–1980s. Many long-standing opponents remained adamant in their resistance to it during its rise to prominence among policymakers. In Britain, for example, Lord Kaldor viewed the swing toward monetarist policy with disdain: "The distinguishing mark of this new wave of monetarism is its extreme dogmatism and complete lack of intellectual coherence."[48] James Tobin, while readily admitting that much of the influence of monetarism on economic thought and government policy of the past twenty years is durable, widely understood, and accepted, maintains that central banks still have a great range of choice regarding operating procedures, targets, and short-term goals in discharging their duty, a duty that encompasses countercyclical demand management. The influence of strict monetarism is on the way out.

> Mechanical monetarism, stressing targets for intermediate monetary aggregates, is waning in professional opinion and in central-bank practice, especially in the United States. History since 1979 has not been kind to the monetarist prescription of stable policies blind to actual events and new information. In the United States the Fed appears to have subordinated monetary targets and rules, and oriented its month-to-month decisions to macroeconomic performance.[49]

By 1984–1985 the attacks on monetarism had become almost a popular pastime, sometimes expressed with great bluntness.[50]

Professor Friedman, long accustomed to criticism and renowned for his dialectical skills, is probably not surprised or disturbed by most of the recent criticism of his position. He might, however, have felt the sting of an editorial in so close a philosophically kindred spirit as *The Wall Street Journal.* Late in 1985 the *Journal* came to view the money supply as passive, responding to economic activity at home and abroad, with the dynamic variable recently being velocity rather than the money stock. Thus: "It's sad to say, but instructive to relate, that at the moment the monetarists are the principal intellectual opposition to what we would consider progress in economic policy."[51] Friedman has continued to defend his position and to criticize the Federal Reserve's performance. He holds that if the Fed had given the country stable money growth by consistently achieving the explicit numerical targets for the money aggregates that it specified to Congress since 1975, then inflation and recession would have been much less severe. The principal fault lies in the execution of monetary policy which has resulted in highly variable rates of money growth. For example, there was a monetary explosion April 1980–April 1981, retardation April 1981–October 1981 and again January 1982–July 1982, followed by another explosion July 1982–July 1983. Such inconstancy is intolerable to Friedman, who would substitute his monetary rule. He argues that to really make it effective, it should be stated in terms of the monetary base and perhaps enforced by a constitutional amendment.[52]

The rise of monetarism in the years before 1979–1980 occurred largely because of the perception that the post–World War II Keynesian orthodoxy was unequal to the task of providing stable, noninflationary growth. Monetarism seemed to many to be more relevant. But in recent years monetarism has seemed less relevant. In mid-1983 Professor Friedman foresaw a resurgence of inflation that subsequently failed to show up on schedule. An oracle whose prediction is not borne out must expect some loss of credibility.[53]

The quantity theory—monetarism—rests on the proposition that the income velocity of circulation of money is largely invariant to changes in the money stock. The erratic behavior of velocity in the 1980s means that the case for monetarism falls. Defenders of monetarism have been on the defensive, trying to explain away these velocity changes. That monetarism is down should not, however, be taken to mean that it is down for the count. A theory with its intellectual lineage has proven survival power and a core of thought that will persist to some degree. That money is one of the important factors determining spending, if not always the most important factor, is hardly in dispute. While the usefulness of monetarism as a guide has been shown wanting for short and not-so-short periods, its long-term significance may well be very great. Keynes reminded us that we live in the short-run

and Friedman that we face long-run consequences of what we do in the short-run. Thus we may find it necessary or desirable to reject monetarism in the short-run only to suffer a hangover later. If the choice were easy, the policy dispute would have faded away long ago.

Where does this leave us? The view that a monetary rule tempered by discretion might be the best approach has a core of reasonableness around which a consensus might coalesce. This is certainly not strict monetarism, but it accepts the control of the money supply as an essential element in monetary policy.

> There is no simple solution to the problem of guiding monetary policy in a time of rapid institutional change. . . . [T]he monetary authorities should be guided by the principle of keeping money growth within a prespecified target range while adjusting those targets when a careful consideration of the evidence indicates that sustained shifts in asset demands have occurred.
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> The combination of monetary rules and discretion must be applied with great care and judgment. The observance of rules must not become a doctrinaire attachment to arbitrary standards, and the exercise of discretion must not degenerate into unprincipled fine tuning.[54]

> I conclude, therefore, that monetary policy should be one of rules, tempered by discretion. This is not a neat solution but the world is, unfortunately, too complex for neat solutions.[55]

Effective policy-making depends on a realistic interpretation of the role of the monetary system in the economy. Any theory used to provide such an interpretation identifies certain variables and explains how they are related in a cause-and-effect manner. It is important, however, to keep in mind that we live in a changing environment. New practices and attitudes may well be significant enough to disrupt the relationships that comprise a prevailing system of thought, and an awareness of this danger may account for the reluctance of policymakers to embrace a given doctrine. Policy-making based on experience as interpreted by theoretical understanding, yet aware of institutional changes and open to correction in the light of new knowledge, may be the best approach. Because it is eclectic and relies on judgment, such an approach seems to lack the certainty and rigor associated with science, but by avoiding a doctrinaire position it also avoids intellectual hubris and is receptive to relevant information that might not fit an existing pattern of thought. A narrow focus on a particular theoretical view may interfere with peripheral vision and result in avoidable accidents.