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The Federal Reserve and the Problem of Inflation

By John J. Balles, President
Federal Reserve Bank of San Francisco

*Remarks to the Joint Directors' Meeting Luncheon
San Francisco, California, March 7, 1974*

I am delighted that we could arrange to have a cross-section of bankers, business executives, and other professional leaders in the San Francisco area meet with us today. As you were informed, this is the occasion of the Annual Joint Board Meeting of the Federal Reserve Bank of San Francisco and its four branches.

Chairman Wilson, as the historian in our group, has reminded us of the historic forces which preceded the establishment of the Federal Reserve and which brought it into existence over 60 years ago. He has also introduced the Boards of Directors of this Bank and its branches, which represent important elements in the structure of the Federal Reserve System.

Today, I would like to describe some of the current forces operating on the Federal Reserve, and then examine the causes and possible cures for the dangerous inflationary spiral we are now witnessing. However, before getting to these topics, I think that it would be appropriate to say a few words for our guests about the role of a Federal Reserve Bank and its directors in the context of today's problems. For I am often asked, "Just what does a Federal Reserve Bank do? And what is the authority and responsibility of your directors?" It happens that

the Federal Reserve System has a policy of rotating its directors after a certain period of service. It is likely, therefore, that some of our guests today might be approached in the future and asked to consider serving as a director. If so, I hope you would give it favorable consideration.

Role of the Directors

The Board of Directors of a Federal Reserve Bank has a unique function in that it combines some of the traditional responsibilities of directors in a private corporation with the special responsibilities of contributing to the formulation of public policy. This dual role has evolved from the unique structure of the Federal Reserve itself—i.e., part government and part private, guided by a central authority in Washington, but with twelve semi-autonomous Federal Reserve Banks.

As the nation's central bank, the Federal Reserve System's basic responsibilities fall into three basic categories: (1) to regulate the flow of money and credit in a manner that contributes to economic growth without inflation; (2) to supervise and examine those commercial banks which are members of the System, to regulate bank holding companies, and to oversee the foreign activities of U.S. banks; and (3) to provide numerous "wholesale"

central banking services, such as provision of currency and coin, operation of a check collection system, and service as fiscal agent for the U.S. Treasury.

The central policy-making body in the Federal Reserve System is the Board of Governors, appointed by the President and confirmed by the Senate. The twelve regional Federal Reserve Banks share certain of the responsibilities relating to monetary policy with the Board of Governors, administer various regulations, and provide the "wholesale" banking services noted earlier. Thus, the Federal Reserve System is characterized by coordinated control through the Board of Governors and by decentralized administration through the Reserve Banks.

The affairs of each Reserve Bank are conducted under the supervision and control of its Board of Directors, subject to general supervision by the Board of Governors. The Board of Directors of each head office of a Reserve Bank consists of nine members, three of whom (including the Chairman and Deputy Chairman) are appointed by the Board of Governors as representatives of the general public. The public members may not be officers, directors, employees or stockholders of any bank. The re-

maining six directors at each Head Office are elected by the member banks, which own all the stock in the Federal Reserve Bank. Of these six, three are representatives of the member banks and are usually actively engaged in banking; and the other three must be actively engaged in commerce, industry, or agriculture, and may not be officers, directors, or employees of any bank.

Similarly, for each branch of a Federal Reserve Bank, the Board of Governors appoints certain directors as representatives of the public interest, while the majority of the branch directors are appointed by the Head Office Board. The affairs of each Branch office are conducted under the control of its Board of Directors, subject to general supervision by the Head Office Board.

Thus, a Federal Reserve Bank is a privately-owned institution with a public purpose. Except for a dividend on member-bank stock, which is limited by statute to 6%, the great bulk of our earnings is paid over to the U.S. Treasury. A Reserve Bank has a certain degree of regional autonomy, but it is also part of a national system.

The Federal Reserve System is a unique blend of public interest and private representation of "grass roots" interests. In meaningful ways, it reflects the traditional belief in this country in a system of checks and balances. This type of organization has served the country well, in my opinion.

Our directors are successful men in many fields of endeavor—business, finance, agriculture and universities, to name a few. They provide counsel and advice to ensure that the Bank has clearly-defined goals and objectives, and programs for reaching them, and they have the responsibility for overseeing the efficiency of operation and quality of management.

In the area of economic intelligence, our directors provide us with information on the economy weeks or even months before developments are reflected in national economic data. At other times their first-hand information reminds us that ours is a diverse economy in which developments in many industries and regions of a country can run counter to nation-wide trends.

Our directors also provide information and insights on the proper course for public policy, and they can add substance to their views by recommending changes in the Federal Reserve discount rate.

This is the rate which the Federal Reserve Bank charges for loans to its member commercial banks, and it is one of the tools of monetary policy. Although the Board of Governors in Washington has the ultimate authority to approve or disapprove a proposed change in the discount rate, it is strongly influenced by the "grass-roots" reaction expressed by the directors, especially if the directors of a number of Federal Reserve Banks make the same recommendation.

One of the major strengths of the decentralization of the Federal Reserve System is its ability to draw on the best talent in various regions of the economy to serve as directors with the foregoing responsibilities.

Role of the Federal Reserve

The unique structure of the Fed, which I believe gives it unusual strength in performing its job, also subjects it to criticisms by those who do not appreciate its role and its structure.

The Federal Reserve has at least two elements which make it institutionally unique. First, it is independent within, but certainly not from, the Federal Government.

More specifically, it is an independent agency but with ultimate responsibility to the Congress, and it is not a part of the Executive Branch. Second, the decision-making process within the Federal Reserve System is decentralized in the sense that it is shared by the Board of Governors in Washington with the twelve regional Federal Reserve Banks. I'd like to say a few words about each of these functions.

When Congress and the Administration established the Federal Reserve in 1913, it was deliberately made an independent institution within Government, in order to free it from day-to-day political influence. Senator Carter Glass, the architect of the original Federal Reserve Act, hoped that the System would act as a "Supreme Court of Finance." That hope has been at least partly fulfilled over the decades. The establishment of the Federal Reserve System as the central bank indicated that Congress believed that monetary policy was too important to leave to private bankers. On the other hand, the fact that Congress, over the years, has specified 14-year terms for members of the Board of Governors in Washington, and 5-year appointments for Presidents of the regional Reserve Banks, indicates that monetary policy also is too important to be left to the

day-to-day pressures from the political arena. The goal was to establish a Federal Reserve System which is responsive to the long-term economic needs of the nation in an objective and non-partisan way.

Over the years there have been a number of attempts to erode the independence of the Fed. There have been repeated legislative proposals to retire the capital stock of the Reserve Banks, to eliminate their directors, to centralize all powers of the Fed in Washington, and to make the System more directly amenable to influence by the Congress.

A current example is a bill scheduled for vote in the House of Representatives in the near future, which would provide for a full-scale audit and review by the General Accounting Office of the finances, operations and monetary policy actions of the Federal Reserve System. Although we are completely in favor of audits in the traditional sense, we are opposed to the bill for several reasons. With respect to financial transactions, the Federal Reserve Board is already thoroughly audited by a nationally-known CPA firm, and the results are reported to Congress. In turn the Board performs exhaustive examinations of the Federal Reserve Banks, in addition to the work of

the resident auditing staff at each Bank which reports directly to the Board of Directors. Secondly, the Federal Reserve System, both at the Board of Governors and at the Reserve Banks, has in place effective and hard-hitting programs aimed at operational efficiency. Thus a financial audit and an "efficiency" audit by the GAO would merely duplicate effective programs already in place.

The really serious objection, however, has to do with the proposed policy review by the GAO. In our view, this could be an entering wedge for direct Congressional control over monetary policy—with consequent adverse effects on the economy if such control were to be influenced by partisan goals and political pressures. Forty years ago, the Congress wisely decided to remove the Federal Reserve System from the scope of the GAO, in order to provide for independence of judgment on the part of the System in carrying out the responsibilities delegated to it by Congress. We believe that it would be unwise to change that arrangement.

A second unique feature of the Federal Reserve is the decentralization of policy making. The Federal Open Market Committee (FOMC), one of the two major policy-making bodies of the Fed-

eral Reserve, meets once a month in Washington to decide on the course of open market operations, the most important instrument of monetary policy. The majority of the FOMC consists of the seven members of the Board of Governors. The remaining five members are drawn from the twelve Reserve Bank Presidents, on a rotating basis. But those Presidents who are not currently voting members have an opportunity to attend the meetings and express their views. Thus, the formulation of monetary policy benefits from regional inputs and from a variety of viewpoints.

Role of the San Francisco Bank

The advantages of a decentralized Federal Reserve System extend beyond strictly policy-related issues. Let me describe some of those that I am most familiar with, using the experiences of the San Francisco Bank.

Until very recently, banking structure in the Twelfth Reserve District, with its state-wide branch banking, was relatively unique in the nation. The Federal Reserve Bank of San Francisco has brought these special institutional factors to the attention of the Board of Governors, and in most cases obtained regulatory treatment which is suitable to this particular bank structure.

The Reserve Bank in San Francisco also has taken an active interest in developing the West Coast as an international financial center. It has encouraged a legal and regulatory environment favorable to international banking operations, and has attempted to get government and financial institutions to consider the longer-run developmental interest of our financial markets. The Bank itself is in the process of strengthening its own research capability with regard to the Pacific Basin area and will assist in the growing financial integration of trading partners in this region.

Over 90 percent of the budget of the Federal Reserve Bank of San Francisco is expended to provide payments mechanism services, currency and coin, fiscal agency, and other services to government, banks, and to the economy in general. In my view, the decentralized organization of the Federal Reserve System promotes efficiencies in these operations because the System's semi-autonomous Reserve Banks can adjust their procedures to local conditions; they can innovate in improving the quality and reducing the cost of service; and they can recruit and challenge better staff.

Two examples may illustrate this point. The Federal Reserve Banks issue virtually all new currency in circulation and are responsible for retiring and destroying unfit currency. More currency is issued and destroyed in the Twelfth District than anywhere else in the nation. To do this job more efficiently, the Bank is experimenting with a number of methods, including some automated ones, for verifying and destroying worn-out currency. Another example is in the area of improving the payments mechanism. The San Francisco Reserve Bank operated the first automated clearing house in the nation, and electronic funds transfers were first processed by a Reserve Bank computer in the Twelfth District. We expect to continue to take a leading role in this field and to support commercial bank efforts to reduce the flow of paper checks.

Perspectives on Inflation

I would now like to turn to the major economic problem facing the nation today—namely, rampant inflation that is occurring even in the face of a softening in economic activity. It may be helpful to put this problem in historical perspective, before attempting to assess the possible cures.

Effect of Budget Deficits. During the first half of the 1960's, the United States enjoyed a period of sustained and stable economic growth, with very little inflation. The origins of our current problems seem to lie in the major escalation of the Vietnam war starting about mid-1965.

Government deficits increased at an alarming rate in the Vietnam build-up period of 1965-68, when the economy was at, or near, full employment. President Johnson perceived a lack of popular support for the war and was fearful that his "Great Society" spending programs might get scuttled if he asked Congress for a tax increase. He therefore elected initially to finance expanded military commitments in South Asia with government debt. The deficits which resulted from this decision were temporarily relieved by the belated income-tax surcharge in mid-1968, and by a leveling off in military expenditures at about the same time. However, the fiscal situation deteriorated further in 1969-70 when outlays for civilian programs outstripped recession-reduced revenues, and became still worse in the 1971-72 period when recovery from the recession got underway.

The persistence of substantial government deficits regardless of the phase of the business cycle

has been a major source of the inflation that is now built into the U.S. economy, in my view.

Monetary Policy Undermined. It can be argued that a tighter monetary policy ought to be able to offset the inflationary effects of large, sustained deficit financing. In theory this may be true, but in practice the opposite tends to occur. When huge Federal credit demands are added to those of a fully-employed private sector, interest rates tend to escalate. There are some sectors of the economy, such as housing construction and programs financed with municipal bonds, that are especially sensitive to such a development because they depend heavily on long-term credit. When these sectors are confronted with high interest rates, demands for relief are quickly heard. Moreover, the U.S. Treasury itself has a natural desire to finance its deficits at the lowest feasible cost.

In short, large-scale deficit financing by the Government tends to bring great pressures on the central bank to keep interest rates from rising to "unreasonable," "unacceptable," or "dangerous" levels. You may recall that about a year ago there was a serious threat in the Congress to freeze interest rates, or even roll them back to the level of January 1, 1973.

Obviously, the only way that mounting credit demands can be satisfied without an increase in interest rates is for the Federal Reserve to accelerate the growth of money and credit. If done for too long, or to an excessive degree, such action can generate inflationary pressures which may persist for a lengthy period.

It has been my observation that large and persistent Federal deficits are a leading factor in pulling monetary policy off course, in the direction of excessive monetary expansion, as the central bank attempts to cope with the conflicting pressures that develop from such a situation. Too often in practice, therefore, an expansionary fiscal policy tends to generate excessive expansion in money and credit.

Priority of Employment Goal. A second factor which tends to inhibit the use of monetary policy in combatting inflation is an unresolved conflict in national goals as between full employment and stable prices. Since the early 1960's in the U.S., achievement of the "full employment" goal has usually contemplated an unemployment rate of 4% or less. Such a rate was regarded by many as a practical minimum, in view of normal shifting of workers between jobs and the lack of marketable skills of some job-

seekers. However, present evidence suggests that structural shifts in the labor force during the last decade would now make the "practical minimum" about 4.5% or 5%, especially in view of the increase in the labor force represented by teen-agers and other new entrants into the labor force who often lack marketable skills.

In my view, there has not been enough refined analysis of the employment and unemployment data, concentrating on the "hard core" of our labor force—i.e., heads of households or "breadwinners"—for whom the social and economic costs of unemployment are highest. Among this group, the unemployment rate in January of this year was only 2.8%, in contrast to the conventional or aggregate unemployment rate of 5.2%.

Studies by the Brookings Institution indicate that the conventional unemployment rate seriously understates the tightness of labor markets. Similarly, studies by our Bank indicate that it takes a higher rate of inflation now to achieve a 4 percent unemployment rate than it did ten years ago. This is due to two factors: first, the changing structure of the labor force has brought higher participation rates for workers with marginal skills; second, increased inflation expectations

have caused labor to demand larger wage increases even at times when the unemployment rate is relatively high. If we should now attempt to follow a monetary policy aimed at reducing unemployment to 4%, the likely consequence would be to exacerbate present inflationary pressures, which have already reached dangerous levels.

For whatever reason, there has been a tendency for the goal of "full employment" to take priority over stable prices, in view of actions in recent years by the Administration and Congress—whose job it is to determine national priorities. Not enough attention seems to have been paid to the trade-off—i.e., the additional inflation that must be accepted to get a lower unemployment rate. In essence, my argument is that we have both a faulty diagnosis as well as the wrong medicine for the unemployment goal. First we need a more meaningful "target rate" for unemployment, as I've explained. Secondly, we need new perceptions and new remedies for unemployment. Rather than imposing inflation on everyone, by attempting to reach our employment goal through expansive monetary and fiscal policies, our aim should be a more vigorous use of selective measures to deal with the problem. These measures

could include low-interest educational loans to youth and minority groups, retraining programs directed toward skills where job vacancies are high, and steps to facilitate worker mobility.

Lags in Monetary Policy Impact. A third factor which tends to inhibit the use of monetary policy in combatting inflation, and to call for its use by the Administration or the Congress to provide short-term stimulus to the economy, is a technical one. This factor has to do with the lags in the impact of a change in monetary policy on production, employment, profits and prices. While the technical reasons are complicated and while our knowledge in this area is imperfect, it seems reasonably clear that the lags are longer for an impact on prices than for the impact on the other measures noted.

Thus, the "good news" about easy money appears first—i.e., favorable effect on production, employment, and profits; while the "bad news" comes later—i.e., inflation. Conversely, if a tight money policy is adopted, the bad news comes first—i.e., unfavorable effects on production, employment, and profits; whereas the good news is delayed—i.e., a reduced rate of inflation. Under these circumstances, it is not surprising that

elected officials who must face the voters at a given time would prefer to see easy money.

Has Monetary Policy Been Too Expansive? Thus, it may be asked, has monetary policy been a principal cause of our inflation problem, and is there a simple cure in the form of tight money? In recent testimony before the Congress, the Chairman of the Board of Governors, Arthur F. Burns, acknowledged that, with the benefit of hindsight, monetary policy may have been overly-expansive in 1972. Some of our critics, such as Professor Milton Friedman, would go much further—alleging that the money supply has grown too fast since about 1970, and that this played a major role in producing the current inflation.

Such criticism, whether or not justified, is easy enough to make, based both on monetary theory and statistical studies. But it seems to me to ignore real problems in the real world. No central bank can be or should be wholly independent of Government. The elected representatives of the people of the U.S., both the Congress and Administration, must have the ultimate responsibility for economic policy, and that includes monetary policy. In today's world, a central bank that consistently defied its government on major issues would quickly be taken over by the government.

I have been attempting to convey an understanding of some of the forces that impinge on the freedom of action of the Federal Reserve System in using tight money to combat inflation. Whether by accident or design, our Federal budget has been characterized by large deficits in most recent years, giving rise to very large financing needs and to higher interest rates, to a point where serious damage was threatened in some sectors of the economy and where many members of Congress were in a mood to freeze interest rates. Also, whether based on a faulty analysis or a misplaced emphasis, those elected officials with ultimate responsibility for economic policy have placed a high priority on the "full employment" goal, even at the expense of stable prices. Central banks cannot completely ignore such imperatives—even against their better judgment.

It seems to me that our best hope lies in a better understanding of the long-run inflationary damage done to our economy by excessive monetary and fiscal stimulus and by over-emphasis on employment targets, whatever the short-run benefits. It is vital that this matter be thoroughly appreciated not only by the Congress and the Administration, but also by the business and financial community and the general public. It is only

in this way that we can get support for the belt-tightening measures needed to overcome the corrosive problem of rampant inflation.

Price Controls—Hidden Inflation. In completing the analysis of the basic causes of inflation in recent years, I would note that the problem was compounded by price controls. The "new economic policy" implemented by the Administration in August of 1971 had some favorable price effects in its initial two phases because excess capacity existed in the economy and because the inflationary pressures were largely of the cost-push variety in 1971 and early 1972. However, by late 1972 and early 1973, the economy was at virtually full employment, and continued wage-price controls led mainly to a misdirection of resources and to artificial shortages. Further, the illusion of stable prices tended to conceal for a while the effects of continued expansionary economic programs. This illusion was rather rudely shattered by the price freeze experience last summer when, for example, certain agricultural sectors quite literally began to shut down. By now, popular support for wage-price controls has declined to a point where they probably will be dropped almost entirely this year.

Special Causes of Inflation, 1972-73. In addition to fiscal problems and the nation's misadventure with wage-price controls, three other factors deserve special mention in analyzing the origins of our present inflation problem. The first is the unprecedented world-wide grain crop failure in 1972 that sent agricultural prices through the roof. The second is the fact that the business cycle in virtually all industrial countries was in a coincident boom phase in 1973, which placed extreme pressure on the supplies and prices of internationally traded goods. The third factor, of course, was the unanticipated imposition of the Arab oil embargo last fall. Inappropriate fiscal policies and overstaying the usefulness of wage-price controls would have created difficult price problems in any case—but these policy mistakes in conjunction with the special factors I've noted produced an inflation problem of epic dimensions.

Inflation and the Current Outlook

How do we get out of the apparent box we have gotten ourselves into? The first thing to remember is that at this time our main economic problem is a shortage of oil, not money. The current rise in unemployment and the cutbacks in production to this point have resulted primarily from supply problems which

cannot be solved with monetary policy. Even if a deficiency in aggregate demand develops from the supply-induced slowdown in the economy, monetary policy could do little to relieve the situation this year because of the lags in its impact on the economy, which I mentioned earlier. In these circumstances, monetary policy should be directed towards 1975 and beyond when the policies we adopt now will have their major impact.

If we wish to overcome inflation, it is going to be a long, hard uphill battle, and our monetary-economic time horizon must be expanded to at least three years to see the success of our actions. Also, since there is a trade-off between inflation and unemployment, we must be prepared to accept at least a temporary rise in the unemployment rate—even after the energy problem is solved—and to use special programs to ease the plight of those affected. Such programs could include liberalization of welfare payments, increased unemployment benefits, and more public employment. Whatever is done in this regard, it is vital that we not try to solve the unemployment problem of the few, by imposing inflation on everybody through expansionary fiscal and monetary measures.

In the final analysis, it will not be possible to solve our inflation problem without fiscal and monetary restraint. For that reason, I found it encouraging to note the recent testimony before Congress by the Secretary of the Treasury. He warned against broad-based increases in spending programs or tax cuts as means of pumping purchasing power into the economy at this time. One can only hope that his point of view will prevail over that of an official of the Office of Management and Budget who was widely quoted recently to the effect that the Administration would "bust the budget," if necessary, to combat unemployment and any downturn in the economy in the months ahead.

One can also hope that the budget reform bill which has passed the House will be enacted. Under present procedures, a large number of appropriations bills are considered separately, without regard to an overall expenditure target, any assigning of priorities, or sources of financing. The budget reform bill would, for the first time, give members of Congress a chance to vote on fiscal policy. Until such a measure is passed, the balance between expenditures and revenues will continue to be a "happening" rather than a policy—and with a high likelihood of chronic deficits.

Similarly, if we are to overcome inflation, the Federal Reserve System must be free to pursue a non-inflationary growth target for money and credit—even if higher interest rates are necessary in the short run, as inflationary forces are wrung out of the economy. It is particularly vital that we not be pulled off course toward excessive credit ease by the two major forces that have done so in the past—i.e., the necessity to finance large-scale budget deficits, and the tendency to call for easy money to solve unemployment problems that could be handled better through selective measures.

Conclusion

The fight against inflation this year and in the years immediately ahead will not be easy, but it is absolutely essential. As Chairman Burns stated in recent testimony before Congress, continued inflation will "reduce the dollar's strength in foreign exchange markets—destroy the gains we have recently made in strengthening our competitive position in world markets— . . . undermine confidence . . . send interest rates soaring and wreck our chances of gaining a stable and broadly based prosperity in the near future."

We are now on the verge of Latin-American style inflation, measured in two digits. We must bite the bullet now, because it will be much harder to fight inflation the longer we wait. This effort will require less expansionary monetary and fiscal policies than we have been following in recent years. If we are not prepared to take these actions, we will be faced with turmoil, uncertainty and economic instability for years ahead. I am confident that the people of this country, and its leaders, have better sense.

Monetary Policy: A Letter (II)

By Milton Friedman

The Business Review of November/December 1973 carried a letter from Federal Reserve Board Chairman Arthur F. Burns to Senator William Proxmire of Wisconsin on the subject of monetary policy. To round out this discussion, the Review is reprinting a letter from Professor Milton Friedman of the University of Chicago on the same subject.

The Honorable William Proxmire
Joint Economic Committee
United States Senate
Washington, D.C. 20510

Dear Senator Proxmire:

On September 17, 1973, you asked the Chairman of the Board of Governors of the Federal Reserve System to comment on certain published criticisms of monetary policy. On November 6, 1973, the Chairman replied on behalf of the System. This Reply has been widely publicized by the Federal Reserve System. It was reprinted in the **Federal Reserve Bulletin** (November, 1973) and in at least five of the separate Federal Reserve Bank **Reviews**.

The Reply makes many valid points. Yet, taken as a whole, it evades rather than answers the criticisms. It appears to exonerate the Federal Reserve System from any appreciable responsibility for the current inflation, yet a

close reading reveals that it does not do so, and other evidence, to which the Reply does not refer, establishes a strong case that the Fed has contributed to inflation. The Reply appears to attribute admitted errors in monetary policy to forces outside the Fed, yet the difficulties in controlling and measuring the money supply are largely of the Fed's own making.

The essence of the System's answer to the criticisms is contained in three sentences, one dealing with the Fed's responsibility for the 1937 inflation; the other two, with the problem of controlling and measuring the money supply. I shall discuss each in turn.

Responsibility for Inflation

"The severe rate of inflation that we have experienced in 1973 cannot responsibly be attributed to monetary management" (emphasis added).

As written, this sentence is unexceptionable. Delete the word "severe," and the sentence is indefensible.

The Reply correctly cites a number of special factors that made the inflation in 1973 more severe than could have been expected

from prior monetary growth alone—the world-wide economic boom, ecological impediments to investment, escalating farm prices, energy shortages. These factors may well explain why consumer prices rose by 8 per cent in 1973 (fourth quarter 1972 to fourth quarter 1973) instead of, say, by 6 per cent. But they do not explain why inflation in 1973 would have been as high as 6 per cent in their absence. They do not explain why consumer prices rose more than 25 per cent in the five years from 1968 to 1973.

The Reply recognizes that “the effects of stabilization policies occur gradually over time” and that “it is never safe to rely on just one concept of money.” Yet, the Reply presents statistical data on the growth of money or income or prices for only 1972 and 1973, and for only one of the three monetary concepts it refers to, namely M_1 (currency plus demand deposits), the one that had the lowest rate of growth. On the basis of the evidence in the Reply, there is no way to evaluate the longer-term policies of the Fed, or to compare current monetary policy with earlier policy, or one concept of money with another.

From calendar year 1970 to calendar year 1973, M_1 grew at the

annual rate of 6.9 per cent; in the preceding decade, from 1960 to 1970, at 4.2 per cent. More striking yet, the rate of growth from 1970 to 1973 was higher than for any other three-year period since the end of World War II.

The other monetary concepts tell the same story. From 1970 to 1973, M_2 (M_1 plus commercial bank time deposits other than large C.D.'s) grew at the annual rate of 10.5 per cent; from 1960 to 1970, at 6.7 per cent. From 1970 to 1973, M_3 (M_2 plus deposits at non-bank thrift institutions) grew at the annual rate of 12.0 per cent; from 1960 to 1970, at 7.2 per cent. For both M_2 and M_3 , the rates of growth from 1970 to 1973 are higher than for any other three-year period since World War II.

As the accompanying chart demonstrates, prices show the same pattern as monetary growth except for the Korean War inflation. In the early 1960's, consumer prices rose at a rate of 1 to 2 per cent per year; from 1970 to 1973, at an average rate of 4.6 per cent; currently, they are rising at a rate of not far from 10 per cent. The accelerated rise in the quantity of money has clearly been reflected, after some delay, in a similar accelerated rise in prices.

However limited may be the Fed's ability to control monetary aggregates from quarter to quarter or even year to year, the monetary acceleration depicted in the chart, which extended over more than a decade, could not have occurred without the Fed's acquiescence—to put it mildly. And however loose may be the year-to-year relation between monetary growth and inflation, the acceleration in the rate of inflation over the past decade could not have occurred without the prior monetary acceleration.

Whatever therefore may be the verdict on the short-run relations to which the Reply restricts itself, the Fed's long run policies have played a major role in producing our present inflation.

There is much evidence on the shorter-term as well as the longer-term relations. Studies for the United States and many other countries reveal highly consistent patterns. A substantial change in the rate of monetary growth which is sustained for more than a few months tends to be followed some six or nine months later by a change in the same direction in the rate of growth of total dollar spending. To begin with, most of the change in spending is reflected in output and employment. Typically, though not always, it takes an-

Table I: **Money and Prices**

Dates for M ₁ , M ₂ , M ₃	Annual Per Cent Rates of Growth from First Quarter to First Quarter of Indicated Years				Dates for Consumer Prices
	M ₁	M ₂	M ₃	Consumer Prices	
1959 to 1961	0.8	2.5	4.6	1.1	1961 to 1963
1961 to 1963	2.4	5.9	7.6	1.3	1963 to 1965
1963 to 1965	4.1	6.9	8.3	2.7	1965 to 1967
1965 to 1967	3.7	7.2	6.7	4.2	1967 to 1969
1967 to 1969	7.3	9.4	8.8	5.5	1969 to 1971
1969 to 1971	4.8	6.3	6.4	3.9	1971 to 1973
1971 to 1973	7.2	10.4	12.6	[9.1]*	1973 to

*First quarter 1973 to fourth quarter 1973.

other year to 18 months before the change in monetary growth is reflected in prices. On the average, therefore, it takes something like two years for a higher or lower rate of monetary growth to be reflected in a higher or lower rate of inflation.

Table I illustrates this relation between monetary growth and prices. It shows rates of change for three monetary aggregates and for consumer prices over two-year spans measured from the first quarter of the corresponding years. The average delay in the effect of monetary change on prices is allowed for by matching each biennium for prices with the prior biennium for money. Clearly, on the average, prices reflect the behavior of money two years earlier.

To avoid misunderstanding, let me stress that, as the table illustrates, this is an **average** relationship, not a precise relationship that can be expected to hold in exactly the same way in every month or year or even decade. As the Reply properly stresses, many factors affect the course of prices other than changes in the quantity of money. Over short periods, they may sometimes be more important. But the Federal Reserve and the Federal Reserve alone has the responsibility for the quantity of money; it does not have the responsibility, and certainly not sole responsibility, for the other factors that affect inflation. And the record is unmistakably clear that, over the past three years taken as a whole,

the Federal Reserve System has exercised that responsibility in a way that has exacerbated inflation.

This conclusion holds not only for the three years as a whole but also for each year separately, as Table II shows. The one encouraging feature is the slightly lower rate of growth of M₂ and M₃ from 1972 to 1973 than in the earlier two years. But the tapering off is mild and it is not clear that it is continuing. More important, even these lower rates are far too high. Steady growth of M₂ at 9 or 10 per cent would lead to an inflation of about 6 or 7 per cent per year. To bring inflation down to 3 per cent, let alone to zero, the rate of growth of M₂ must be reduced to something like 5 to 7 per cent.

Table II: **Recent Monetary Growth Rates**

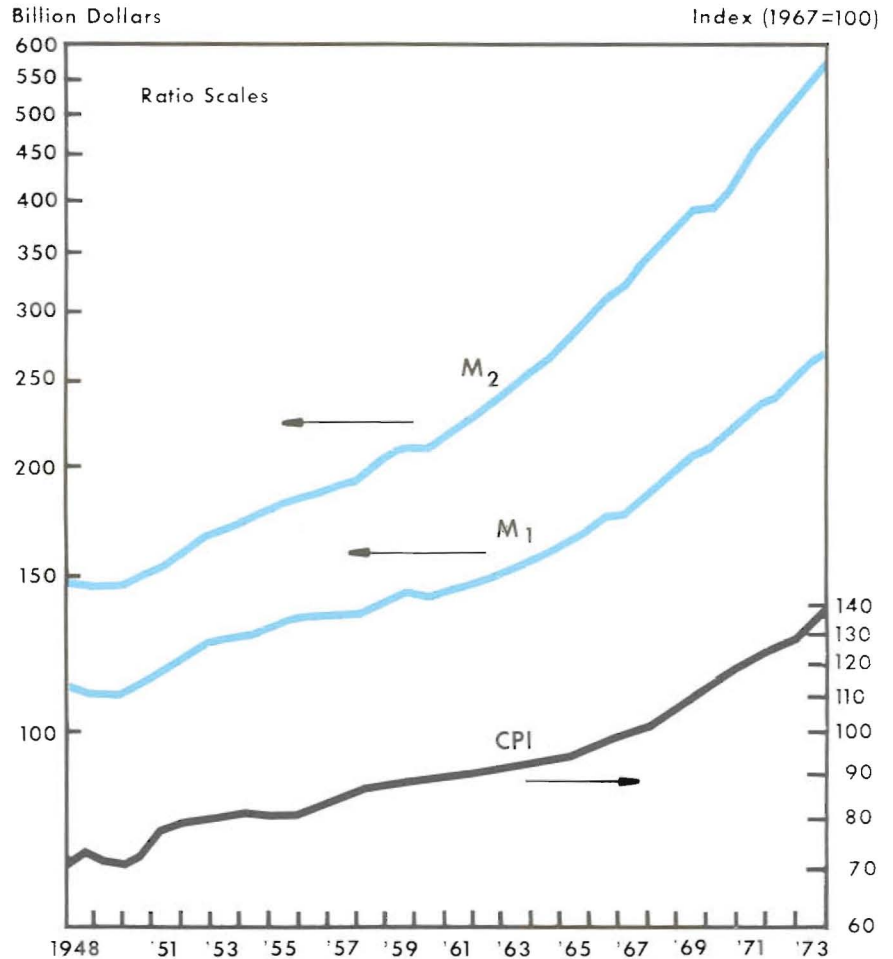
Calendar Year	Annual Per Cent Rate of Growth		
	M ₁	M ₂	M ₃
1970-1971	7.0	11.8	12.8
1971-1972	6.4	10.2	12.5
1972-1973	7.4	9.5	10.6

Controlling and Measuring

“The conduct of monetary policy could be improved if steps were taken to increase the precision with which the money supply can be controlled by the Federal Reserve. Part of the present control problem stems from statistical inadequacies” (emphasis added).

Again these sentences from the Reply are literally correct, but they give not the slightest indication that the difficulties of controlling and measuring the money supply are predominantly of the Fed’s own making. The only specific problems that the Reply mentions are the “paucity of data on deposits at nonmember banks” and the fact that “non-member banks are not subject to the same reserve requirements as are Federal Reserve Members.”

Non-member deposits do raise problems in measuring and controlling the money supply, but they are minor compared to other factors. The Reply’s emphasis on them is understandable on other grounds. Almost since it was established in 1914, the Fed has been anxious to bring all commercial banks into the System, and has been worried about the defection of banks from member to non-member status. It has



therefore seized every occasion, such as the Reply provides, to stress the desirability of requiring all banks to be members of the System or at least subject to the same reserve requirements as member banks.

Control. Non-member banks raise a minor problem with respect to control. Their reserve ratios do differ from those of member banks. But non-member banks hold only one-quarter of all deposits, this fraction tends to change rather predictably, and changes in it can be monitored and offset by open market operations.

A far more important problem with respect to control is the lagged reserve requirement that was introduced by the Fed in 1968. This change has not worked as it was expected to. Instead, by introducing additional delay between Federal Reserve open market operations and the money supply, it has appreciably reduced "the precision with which the money supply can be controlled by the Federal Reserve." Other measures taken by the Fed have had the same effect. In an article on this subject published recently, George Kaufman, long an economist with the Federal Reserve System, concluded, "by increasing the complexity of the money multiplier, proliferating

rate ceilings on different types of deposits, and encouraging banks, albeit unintentionally, to search out non-deposit sources of funds, the Federal Reserve has increased its own difficulty in controlling the stock of money. . . . To the extent the increased difficulty supports the long voiced contention of some Federal Reserve officials that they are unable to control the stock of money even if they so wished, the actions truly represent a self-fulfilling prophecy."

Even more basic is the procedure used by the Open Market Desk of the New York Federal Reserve Bank in carrying out the directives of the Open Market Committee. These directives have increasingly been stated in terms of desired changes in monetary aggregates rather than in money-market conditions. However, the Desk has not adapted its procedure to the new objective. Instead, it tries to use money-market conditions (that is, interest rates) as an indirect device to control monetary aggregates. Many students of the subject believe that this technique is inefficient. Money-market conditions are affected by many forces other than the Fed's operations. As a result, the Desk cannot control money-market conditions very accurately and cannot predict accurately what

changes in money-market conditions are required to produce the desired change in monetary aggregates.

An alternative procedure would be to operate directly on high-powered money, which the Fed can control to a high degree of precision. Many of us believe that the changes in high-powered money required to produce the desired change in monetary aggregates can be estimated tolerably closely even now. They could be estimated with still greater precision if the Fed were to rationalize the structure of reserve requirements.

Measurement. Repeatedly, in the past few years, the Fed's statisticians have retrospectively revised estimates of monetary aggregates, sometimes, as in December 1972, by very substantial amounts.

The one source of measurement error mentioned in the Reply is the unavailability of data on non-member banks. This is a source of error because non-member banks report deposit data on only two, or sometimes four, dates a year. The resulting error in estimates for intervening or subsequent dates has sometimes been sizable, but mostly it has accounted for a minor part of

the statistical revisions. In any event, this source of error can be reduced drastically by sampling and other devices which the Fed could undertake on its own without additional legislation.

More important sources of error are seasonal adjustment procedures and the estimation and treatment of cash items, non-deposit liabilities, and foreign held deposits.

It has long seemed to me little short of scandalous that the money supply figures should require such substantial and frequent revision. The Fed is itself the primary source of data required to measure the money supply; it can get additional data it may need; it has a large and highly qualified research staff. Yet for years it has failed to undertake the research effort necessary to correct known defects in its money supply series.*

*On January 31, 1974, after this comment had been drafted, the Board of Governors of the Federal Reserve System announced "the formation of a special committee of prominent academic experts to review concepts, procedures and methodology involved in estimating the money supply and other monetary aggregates." I have agreed to serve as a member of this committee.

Conclusion

For more than a decade, monetary growth has been accelerating. It has been higher in the past three years than in any other three-year period since the end of World War II. Inflation has also accelerated over the past decade. It too has been higher in the past three years than in any other three-year period since 1947. Economic theory and empirical evidence combine to establish a strong presumption that the acceleration in monetary growth is largely responsible for the acceleration in inflation. Nothing in the Reply of the Chairman of the Federal Reserve System to your letter contradicts or even questions that conclusion. And nothing in that Reply denies that the Federal Reserve System had the power to prevent the sharp acceleration in monetary growth.

I recognize, of course, that there are now, and have been in the past, strong political pressures on the Fed to continue rapid monetary growth. Once inflation has proceeded as far as it already has, it will, as the Reply says, take some time to eliminate it. Moreover there is literally no way to end inflation that will not involve

a temporary, though perhaps fairly protracted, period of low economic growth and relatively high unemployment. Avoidance of the earlier excessive monetary growth would have had far less costly consequences for the community than cutting monetary growth down to an appropriate level will now have. But the damage has been done. The longer we wait, the harder it will be. And there is no other way to stop inflation.

The only justification for the Fed's vaunted independence is to enable it to take measures that are wise for the long-run even if not popular in the short-run. That is why it is so discouraging to have the Reply consist almost entirely of a denial of responsibility for inflation and an attempt to place the blame elsewhere.

If the Fed does not explain to the public the nature of our problem and the costs involved in ending inflation; if it does not take the lead in imposing the temporarily unpopular measures required, who will?

Sincerely yours,
Milton Friedman
Professor of Economics

Primer On Reserve Requirements

By William Burke

The Federal Reserve Board of Governors has proposed extending the present system of reserve requirements to non-member institutions—including both banks and thrift institutions—to the extent that such institutions issue deposits that perform any type of checking-account function. This report presents, in question-and-answer form, a discussion of this subject. It begins with a summary of the Federal Reserve proposals, followed by some historical background and a discussion of the monetary-policy uses of reserve requirements. The report continues with an analysis of the Fed's supporting arguments, and concludes with a discussion of some opposing views.

The basic function of reserve requirements is to permit the Federal Reserve to control the supply of money and credit in pursuit of its basic economic-policy goals. Reserve requirements can influence the growth of bank loans, investments and deposits, and thus are an important element in the monetary-control mechanism. To permit proper central-bank management of the supply of money and credit, banking institutions should meet their reserve requirements by holding assets in a form which is under the most direct control of the Federal

Reserve. These assets could be either vault cash (coins, Treasury currency, Federal Reserve notes) or deposits at the Reserve Banks.

This test cannot be met by present state legislation. Under such legislation, nonmember banks may be subject to similar percentage ratios but are not required to hold reserves in the form of deposits at Federal Reserve Banks; instead they may hold those reserves in other forms, such as correspondent balances with other commercial banks. When such reserves are held at a member bank, that bank naturally must support these balances with its own reserves consisting either of vault cash or deposits at the Federal Reserve, but the size of its cash reserves will be only a fraction of the initial deposit at the nonmember bank.

With present differential reserve requirements, therefore, shifts of deposits between member and nonmember banks alter the quantity of deposits at all commercial banks that can be supported by a given volume of bank reserves. This factor tends to loosen the links between bank reserves and the money supply, and weakens the Fed's control over the monetary aggregates. The problem is complicated by the sharp fluctuations and rapid

growth of nonmember-bank deposits. Over the past decade, nonmember banks have accounted for roughly 40 percent of the total rise in checking deposits, but the proportion has varied in individual years from as low as one-tenth to as high as three-fourths or more. Since 1960, moreover, the nonmember-bank proportion of total demand deposits has risen from 17 to about 25 percent, and it may well continue to rise.

The growing importance of non-member banks mainly reflects the competitive disadvantage imposed on member banks by requiring them to hold reserves in the form of vault cash or as deposits at the Federal Reserve. Non-member banks, in contrast, can utilize required reserves as earning assets even when they are held as demand balances with other commercial banks, since these balances also serve as a form of payment for services rendered by city correspondents. As a consequence, banks generally have an incentive to avoid membership in the Federal Reserve System. Since 1960, about 750 banks have left the System through withdrawal or mergers, and almost 1,800 newly chartered state banks have remained outside, compared with less than 100 that elected System membership. (Over the same

period, there have been about 870 newly chartered national banks, and these automatically have become Federal Reserve members.) The subject gains new urgency because of the recent efforts of nonbank deposit institutions to evolve new modes of money transfer, since this factor could further loosen the linkages between reserves and the money supply.

Provisions of Proposed Legislation

What is the Federal Reserve's basic proposal?

The Federal Reserve proposes to extend the present system of reserve requirements to non-member institutions, to the extent that such institutions issue deposits that perform any type of checking-account function.

What types of deposits would be included or excluded?

Reserve requirements would be applied only to nonmember accounts which are directly employed in making money payments—that is to demand deposits and to time accounts with negotiable third-party payment features. The proposal would not apply to nonmember time deposits other than negotiable orders of withdrawal—NOW accounts, that is, interest-bearing

deposits for which the depositor can make withdrawals by negotiable or transferable instrument. Regular time-and-savings deposits would not be included because they are not highly active deposits, although they do serve a money-like function, to some degree.

What would the new requirements be?

The reserve-requirement range would be between 5 and 22 percent for demand deposits, with the specific figure determined, just as now, by the Federal Reserve Board of Governors. (The present range is from 10 to 22 percent at reserve city banks and from 7 to 14 percent at other banks.) The range would be between 3 and 20 percent of NOW accounts. In addition, the range for member-bank time-and-savings deposits would be changed from the present 3 to 10 percent, to a range of 1 to 10 percent.

What institutions would be affected?

The proposal would apply to commercial banks, of which there are about 5,700 member and 8,300 nonmember institutions. It would also apply to savings and other depository institutions, along with foreign-owned banking institutions that

provide demand (checking account) deposits. The reserves would be held in the form of vault cash or non-interest-earning deposits at the Federal Reserve. The legislation would not require System membership on the part of present nonmember institutions, nor would it make any change in supervisory arrangements.

What exemptions are included in the proposal?

The draft legislation includes a provision which effectively exempts the first \$2 million of net demand deposits and NOW accounts from reserve requirements. The average size of nonmember bank that would be totally exempted would be about \$4 million, for total time and demand accounts. Such institutions number about 3,000, but they hold only about 2½ percent of the nation's total demand deposits. Altogether, about 62 percent of the present nonmember banks—over 5,000 banks in all, controlling roughly 6 percent of deposits—would be exempt from any reserve requirements that exceed their present vault-cash holdings.

When would the new reserve requirements be imposed?

To ease the transition, required reserves would be phased in gradually over a four-year period,

on those deposits (over \$2 million) held at the time the law goes into effect. The phase-in would occur at the rate of 20 percent of the total requirement per year, so that by the fifth year each bank would be meeting its full reserve requirement. However, any increase in deposits over those existing at time of enactment would be immediately subject to the full reserve requirement.

What benefits would nonmember institutions receive under the Fed's proposal?

The legislation would permit Federal Reserve credit to be made available to any institutions that maintain deposits with Reserve banks, subject to existing Federal Reserve regulations. Under present law, credit to nonmembers is extended only in highly unusual circumstances, and under restrictive conditions as to the type of collateral that may be accepted by the Reserve Bank. The proposed legislation would give nonmember institutions greater access to the Fed's discount window, especially at times of strong pressures on their liquidity positions.

What reporting arrangements would be required?

The legislation would require reporting of deposit liabilities by institutions (member and nonmember) that are subject to reserve requirements set by the Federal Reserve. This information, which is needed for monitoring purposes, would permit comparative analysis of the various financial institutions as the proposed reserve structure goes into effect.

Historical Background of Reserve Requirements

What was the original purpose of reserve requirements?

Before the Federal Reserve System was founded, reserve requirements were imposed by legislation at the national and state levels as a means of protecting bank liquidity. That philosophy was reflected in the original structure of reserve requirements adopted by the Federal Reserve.

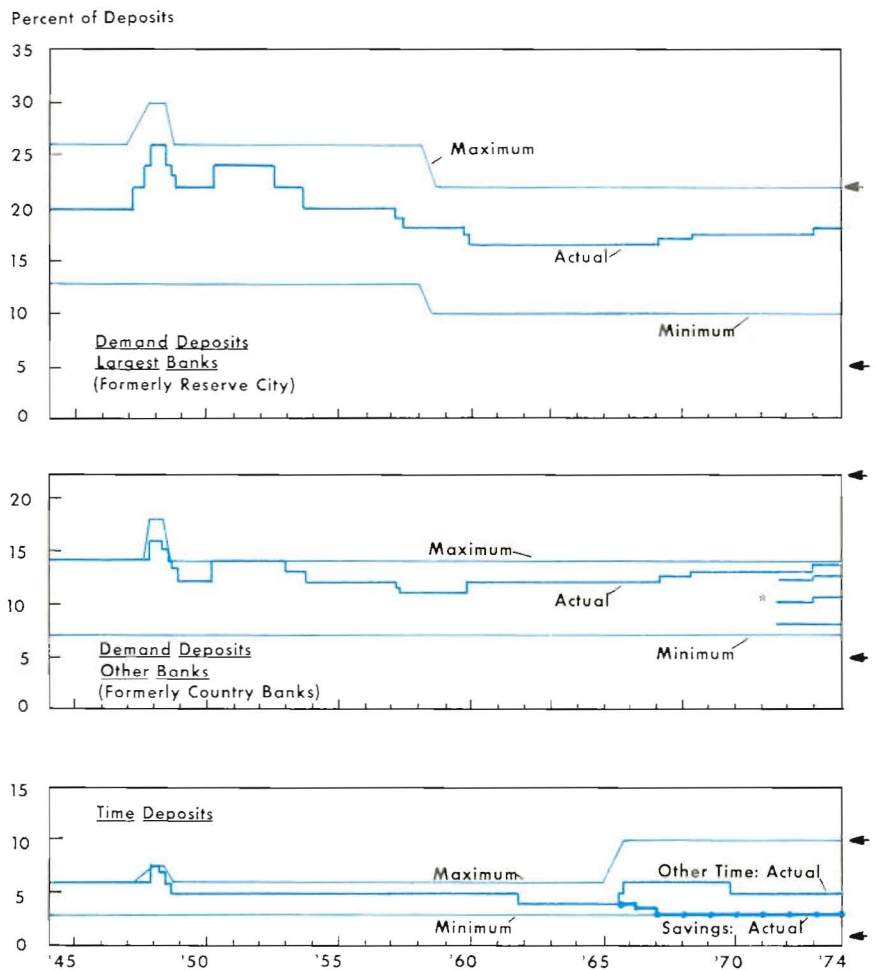
Are reserve requirements still used as a means of protecting liquidity?

Required reserves are no longer a source of operating liquidity, except as they can be used within the weekly reserve-accounting period to absorb large fluctuations in check clearings. Instead,

the essential function of reserve requirements today is to serve as a fulcrum for monetary policy. Paradoxically, the assets now called "bank reserves" do not serve as additional resources for paying off withdrawals except in a minor way. (They can furnish a fraction of the funds needed, depending on the reserve ratio; for example, with a 10-percent ratio, 10 percent of the funds are provided through excess reserves as required reserves fall.) On the other hand, the additional resources which banks actually hold to meet withdrawals—their reserves in a functional sense—are not called reserves.

What resources do banks have to meet customer demands for withdrawals?

Banks can draw on their liquid assets; these include reserve-account balances at the Fed held in excess of requirements (with the proviso noted above), plus their own deposits at other banks and readily marketable short-term assets from their loan and security portfolios. Additionally, banks usually have other sources of funds: from other banks in the form of inter-bank loans, from the public in the form of interest-bearing CD's, and from the Fed through the discount window if they are Federal Reserve members. (Nonmember banks may



←Arrows indicate minimum and maximum requirements under Federal Reserve proposals.

*Regulation D amendments (Nov. 1972) introduced graduated reserve requirements with lower requirements for smaller categories of banks.

Reserve requirements generally have trended downward over the past twenty years

borrow from the Fed only under certain emergency provisions of the Federal Reserve Act.)

What member-bank liabilities are subject to reserve requirements?

Legal reserves are required against the following member-bank liabilities: net demand deposits (gross demand deposits less cash items in process of collection and balances held with other banks); savings deposits; other time deposits, defined as deposits maturing in 30 days or more; liabilities to foreign branches, borrowings from foreign banks, and assets acquired by foreign branches from their domestic offices; and funds obtained by member banks via the issuance of commercial paper or similar obligations by their affiliates.

What has been the historical trend of reserve requirements?

Present reserve percentages have evolved from about 40 separate changes since the Federal Reserve System was established. Perhaps by coincidence, today's percentages are not greatly different from the original levels. (Depending on size of bank, requirements now range from 8 to 18 percent on demand deposits, and from 3 to 5 percent on time deposits, while marginal requirements of 8 percent are imposed on large time deposits

and related money-market instruments.) However, reserve requirements generally have trended downward over the past twenty years. Since 1953, requirements on net demand deposits have been reduced on balance by about 6 percentage points for both large and small banks. Average requirements on time- and savings deposits are lower now than twenty years ago, with requirements on savings deposits being at their statutory 3-percent minimum (see chart).

What about the geographic differentiation of reserve requirements?

This geographic differentiation was a holdover from the National Banking Act, which viewed required reserves as a source of liquidity. Interbank deposits were extremely volatile and were concentrated in the larger cities, so banks located there were subject to the highest reserves. But with the passage of time, this system of reserve classification became increasingly outmoded. Some large banks in cities of substantial size enjoyed the lower reserve requirement applicable to country members, while some small banks in major financial centers had to carry the higher reserve requirement imposed on reserve city members. To end this anachronism, in 1972 the Federal

Reserve introduced reforms so that all member banks of a given size, whatever their location, were subject to identical reserve requirements.

What about reserve requirements on nondeposit sources of funds?

Such requirements date back to the tight-money period of 1969. In that year, and earlier in 1966, market rates of interest rose above the ceiling rates payable on time deposits under the Fed's Regulation Q, so that investors switched their funds out of deposits into bonds and other market instruments. But Euro-dollar borrowings and commercial paper sold by bank-holding companies provided avenues through which banks could bid for funds to offset deposit outflows, since they had never been subject to Reg Q ceilings. Consequently, in 1969 the Federal Reserve imposed reserve requirements on additions to Euro-dollars, and in 1970 it imposed requirements on bank-related commercial paper, in order to close off those sources of loanable funds and thereby slow the expansion of bank credit. For similar anti-inflationary reasons, the Fed last year imposed marginal reserve requirements on increases in funds obtained through CD's or holding-company paper.

What types of reserve requirements are imposed on non-member banks?

State-chartered nonmember banks must abide by the regulations of their respective states with regard to reserves. Since each state authority sets its own rules, there are actually 50 sets of reserve requirements in addition to that of the Federal Reserve System. (Federal deposit-insurance legislation in 1933 in effect imposed uniform reserve requirements through uniform System membership, but this provision was later repealed.) Most states have reserve-requirement percentages nominally similar to the Fed's; demand-deposit requirements in 33 states are equal to (or greater than) those the Fed imposes on a medium-to-large bank. However, nonmember banks often have more options than member banks in meeting reserve requirements, and these options tend to lessen or even eliminate their cost burdens. Nonmembers hold a greater percentage of their assets in a form that earns interest or buys services; some states permit holdings of U.S. Treasury or municipal securities to count as reserves, and most states permit use of demand balances at city correspondents, whether or not the deposited funds have been actually collected. Thus, non-

members can obtain a competitive edge over member banks and can be inherently more profitable.

How do member and non-member requirements compare in this District?

In four District states (California, Nevada, Utah and Washington) state reserve-requirement ratios on demand and time deposits are almost identical to those of member banks. (In these and other states, of course, state nonmember banks have more options than member banks concerning the form in which reserves may be held.) In three states (Arizona, Hawaii and Oregon) state reserve requirements on demand deposits are generally lower. Arizona and Oregon also maintain a 4-percent rate on all savings-and-time deposits, versus 3-percent and 5-percent rates, respectively, for member banks. Alaska's state requirements are higher for both demand and time deposits. Idaho generally maintains higher reserve requirements against demand deposits.

What types of reserve requirements are imposed on thrift institutions?

The Federal Home Loan Bank System, which covers about three-fourths of all savings-and-loan associations, imposes a

reserve requirement on its members. State-chartered S&L's in 16 states, and state-chartered mutual-savings banks in 8 states, also are governed by similar sorts of requirement. However, the requirements affecting thrift institutions are designed solely to further institutional liquidity, and generally take the form of cash, deposits with banks, and government securities. Since a rigid reserve requirement provides virtually no usable liquidity, the Home Loan Bank Board tends to vary the ratio according to conditions, lowering it in periods of tight money and increasing it when easier credit conditions prevail. Thrift institutions' liquidity reserves generally equal or exceed the Fed's reserve-requirement ratios on time deposits, although again, there are differences concerning the form in which reserves may be held.

How does the U.S. differ from foreign countries in its reserve requirements?

The United States was the first country to formalize the traditional cash reserves of commercial banks into a set of legally required reserve ratios. Today, however, the U.S. is the only major industrial country that splits the responsibility for setting reserve requirements between the central bank and regional

banking authorities. It is the only major country that does not grant the central bank the power to regulate reserves of nonbank depository institutions, even though most savings and other time deposits are kept with such institutions. In addition, no other major country makes central-bank affiliation—and compliance with its reserve regulations—voluntary for a significant part of the commercial-banking community.

How have reserve requirements evolved abroad?

Legal reserve requirements did not become part of most foreign-banking legislation until World War II and the early postwar years. Some leading countries, such as Great Britain and France, introduced reserve requirements only a few years ago; in fact, the Bank of England continues to rely on voluntary compliance with the ratios it sets. However, those two countries have used reserve ratios decisively in recent years to deal with inflationary pressures. In Germany, reserve requirements have become a main tool of monetary control in the past several decades.

What has been the recent foreign experience?

Major foreign countries, like the U.S., have recently experienced changes in financial structure and in the channels of credit flows, as well as in the scope of activity of various credit-granting institutions. These changes have resulted in successive extensions in the range of liabilities and in the range of institutions subject to reserve requirements. Over time, reserve requirements have been imposed on additional types of institutions that begin to accept deposits or that become important factors in the short-term credit market. Moreover, some countries which typically gain nonresident deposits during international crises have imposed higher reserve ratios (sometimes marginal requirements) on such deposits.

Reserve Requirements as a Policy Tool

What is the basic function of reserve requirements?

The basic function is not to ensure bank liquidity, but rather to permit the Federal Reserve to control the supply of money and credit in pursuit of its basic economic-policy goals. Reserve requirements provide a known and controllable base through which the reserve-supplying and

reserve-absorbing actions of the Federal Reserve can affect the supply of money and credit. This mechanism operates through the Federal Reserve's control over the percentage of deposits that must be held as reserves, in the form of either vault cash or balances at Reserve Banks, and through its influence (via open-market operations) over the total amount of member-bank deposits.

How do changes in reserve requirements tend to operate?

The Federal Reserve's control over the level of total deposits is exercised predominantly through its open-market purchases and sales of government securities. Open-market operations create or destroy reserves, and in a fractional-reserve system, these actions in turn cause a multiple expansion or contraction of deposits, based on the reciprocal of the required deposit ratio. But, in addition, instead of changing the amount of reserves available to the banks, the Fed can simply change the amount of deposits each dollar of reserves will permit. This is done, of course, through changes in reserve requirements. For example, with a 16-percent reserve requirement (roughly a 6-to-1 ratio) each dollar of reserve balances permits the issue of about six dollars in

deposits. With a change in the requirement to 14 percent (roughly a 7-to-1 ratio) each reserve dollar permits about seven deposit dollars, thereby raising the total deposit limit to about 7/6 of the former level.

Could reserve requirements play a larger role?

Some observers have proposed an increased use of the reserve-requirement tool, through the device of frequent small percentage changes in such requirements. However, the experiment hasn't been tried because of the overall effectiveness of open-market operations for implementing policy objectives. (Incidentally, the revival of monetary policy over two decades ago was closely linked to the availability of the weapon of open-market operations, since the public debt was large and widely distributed and was comprised largely of marketable securities with a wide range of maturities.) Still, the reserve-requirement tool has the advantage of permitting monetary policy to affect the reserve position of all banks immediately, thereby permitting a prompt change in bank-credit availability. With uniform reserve requirements, this tool could be utilized more frequently as an instrument of policy.

When have reserve-requirement changes been utilized?

The actual use of reserve requirements has varied with monetary conditions and with prevailing policy views. Some of the most notable episodes were the sharp (and widely criticized) increase in requirements in 1936-37 to mop up excess liquidity, the successive reductions at large banks in 1942 to facilitate bank absorption of war loans, the modest increases in 1951 to offset the Korean War's expansionary impact on bank credit, followed by gradual reductions from 1953 to 1966 to meet the general criticism of the high level of such requirements. Increases in 1968, 1969 and 1973 were made in an effort to curb inflationary pressures.

Are differential requirements valid, as between demand and time deposits?

Demand deposits are part of the money supply and are closely associated with the volume of spending, and fluctuations in such deposits are generally presumed to have a greater impact on economic stability than fluctuations in time deposits. Differential requirements thus serve to neutralize somewhat the impact on economic activity of shifts between demand and time deposits.

Should reserve requirements be maintained at all on time deposits?

The answer depends on one's viewpoint regarding the crucial monetary aggregate: M_1 , defined as demand deposits (other than U.S. Government and domestic interbank deposits) plus the non-bank public's currency holdings; M_2 , defined as M_1 plus commercial bank time deposits (other than large CD's); or M_3 , defined as M_2 plus thrift institution deposits. The M_1 advocates feel that the monetary authorities need control only demand deposits. The M_2 advocates believe that the level required against bank time-and-savings deposits should be very close to that imposed on demand deposits. The M_3 advocates believe that thrift institutions should be subject to the same requirements as banks—certainly so if they should begin to offer demand-deposit liabilities. The Fed's view is that some reserve requirement on at least bank time deposits is appropriate, since these deposits are a partial substitute for money and an important source of loanable funds. However, if changes in time-and-savings deposits are small or easily predictable, then the matter is relatively unimportant from the standpoint of monetary policy.

Arguments Supporting Federal Reserve Proposal

What is the basic principle underlying the Fed's proposal?

The principle is that equivalent cash reserve requirements should apply to all deposits that effectively serve as part of the public's money balances.

What are the two major issues involved in this controversy?

The first is the need to provide a more equitable system of reserve requirements for financial institutions offering similar deposit services. The second is the need to facilitate the management of monetary policy by sharpening one of the principal policy tools.

Why is the present system inequitable?

The inequity lies in the differential cost burdens associated with the types of assets that may be counted as reserves by the various types of banks. Member banks must maintain their reserves in the form of either vault cash or deposit balances at Federal Reserve Banks. Nonmember banks have more options in meeting their reserve requirements, and these options tend to lessen or even eliminate their cost burden. For example, 10 states permit use of interest-bearing U.S. Treasury or municipal securities, and 45 states permit

use of demand balances at city correspondents, to meet at least part of nonmember-bank reserve requirements. (State laws allow uncollected balances to be counted as legal reserves, and these balances alone amount to about 8 percent of demand deposits, or roughly half of average reserve requirements.) Because nonmembers hold a greater percentage of their assets in a form that earns interest or buys services, they have a competitive edge over member banks and thus can be inherently more profitable.

Why does the present system complicate monetary-policy formulation?

To achieve good management over the supply of money and credit, reserve requirements must be met by holding assets which are outside the payments stream and whose aggregate volume is under Federal Reserve control. Reserve requirements set by the various states do not meet this test. Nonmember-bank holdings of interest-bearing securities or of deposits with other banks fail to contribute to the monetary-policy function of reserves, since the funds so used remain available to finance additional deposit and credit expansion. When a nonmember bank satisfies all or part of its state reserve require-

ment by holding deposits at a member bank, that member bank naturally is required to hold cash reserves against these deposits at a Federal Reserve Bank or in its own bank vault. But in this case, the size of the member bank's cash reserve is quite small relative to the initial deposit at the nonmember. Consequently, the task of monetary control is complicated by the minor degree to which nonmember deposits are indirectly backed by reserves that satisfy Federal Reserve reserve requirements.

Could a shift toward nonmember banks further complicate the problem?

Shifts in deposits between member banks and nonmembers alter the relationship between reserves under Federal Reserve control and the nation's deposits. During an inflationary period, for example, the Fed generally attempts to restrain monetary growth by providing bank reserves at a reduced pace. However, its efforts may be offset if the public is at the same time shifting deposits into nonmember banks, thereby leading to a faster growth of deposits and the money supply than would be expected from the slower growth of member-bank reserves. Deposits at nonmember institutions require less cash reserves than at member banks, so

that the total of deposits that would be supported by the available total of cash reserves would be enlarged.

Has a shift of this type actually occurred?

The nonmember-bank proportion of demand deposits has been rising over the past decade and a half, from 17 percent of the total in 1960 to about 25 percent of the total in 1973. This has come about because of a 164-percent increase in the demand-deposit component of the money supply held at nonmember banks, compared with a 61-percent growth at member banks. Also, deposit growth at nonmembers has shown more year-to-year fluctuations than at member banks, thus compounding the difficulties of monetary control under the prevailing deposit structure (see chart). In terms of numbers of banks, about 750 banks have left the Federal Reserve System through withdrawal or mergers since 1960, while less than 100 of the roughly 1,850 newly chartered state banks have elected to join the System over that period.

What accounts for the rapid growth of the nonmembers?

This trend partially reflects the rapid population growth in regions of the country served by nonmember banks. But a major causal factor is the competitive disadvantage imposed on member banks by being required to hold reserves as vault cash or as deposits at the Federal Reserve Bank. Banks must forego earning assets to build up a reserve balance at the Federal Reserve. That reserve balance pays no interest, although member banks do receive some services from the Federal Reserve.

Why does the present system hamper the use of the reserve-requirement tool?

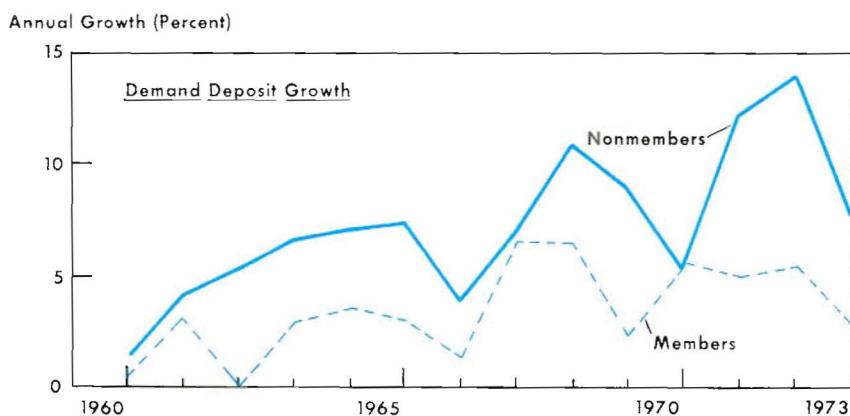
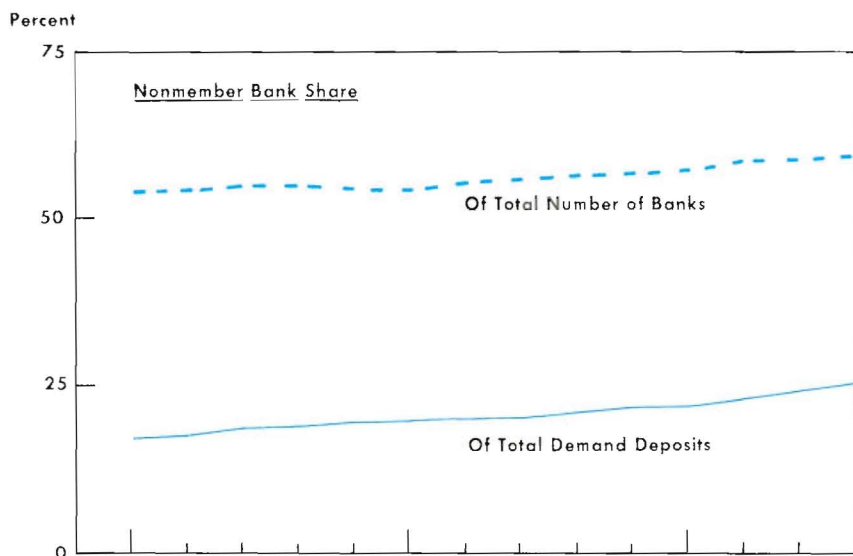
The Federal Reserve must use changes in reserve requirements sparingly as an instrument of monetary policy, since an increase in requirements would worsen the competitive disadvantage of member banks and thereby threaten a further erosion of membership. This inhibition has been unfortunate, for there have been times when the prompt and pervasive impact of a higher reserve requirement would have been the best way to signal a policy move toward added restraint on credit availability.

Have reserve requirements actually been raised during inflation periods?

Twice during the late 1960's, this weapon was utilized as an anti-inflationary move. Again, last year, the System raised requirements on demand and certain time deposits, and also appealed to nonmember banks to cooperate by voluntarily increasing reserves in a like amount. The three increases in demand-deposit requirements over the past half-decade— $\frac{1}{2}$ percentage point each time—have brought the requirement for the largest banks to 18 percent. Given the severity of the inflation, however, requirements for large money-center banks might have been raised more frequently, or brought closer to the 22-percent maximum, if there had been no constraints on Federal Reserve actions in this area (see chart).

Why does the present system hamper the precision of policy formulation?

Monetary-policy formulation is based increasingly on such key monetary aggregates as the M_1 money supply, yet the lack of current nonmember-bank data makes it impossible to obtain a precise measure of this key statistical series. The latest revision, which changed the 1973 growth rate for M_1 from 5.0 to 5.7 per-



Nonmember-bank proportion of total demand deposits rises from 17 to 25 percent since 1960

cent, was caused mostly by the largest nonmember benchmark adjustment in the history of the series. (This factor alone added \$2.8 billion to the level of M_1 for both June and October benchmark dates.) There are only infrequent single-day observations, two to four times a year, of nonmember-bank deposit data. But demand deposits are highly volatile, especially on a day-by-day basis, so that money-supply measures can be distorted by single-day relationships between member and nonmember banks. The situation is complicated by the size and rapid growth of the nonmembers' deposit share.

Should reserve requirements be extended to certain thrift-institution deposits?

Mutual-savings banks in New Hampshire and Massachusetts offer depositors interest-earning accounts subject to a "negotiable order of withdrawal"—in effect, an interest-bearing checking account. Savings-and-loan associations in California are attempting to enter the electronic money-transfer system operated by the California Automated Clearing House. These innovations probably represent the first step toward what ultimately will become a single, integrated nationwide payments system—and they raise the question of how

the costs of such a system can be equitably distributed among all the institutions involved. If thrift institutions develop extensive checking powers and become part of the newly emerging payments mechanism without assuming a proportional share of the costs, the present member-nonmember inequities would only be increased.

Should uniform requirements be imposed on bank and nonbank time deposits?

From the viewpoint of equity, a case can be made for uniform reserve requirements on time-and-savings deposits at all financial institutions. At the same time, it should be remembered that the diversified services offered by commercial banks give them an advantage in bidding for such deposits, even after taking into account their costs of holding cash reserves. Given the continuation of recent trends, however, the increasing provision of money-transfer services by nonbank thrift institutions will blur the distinction between the two sets of institutions, just as it blurs the distinction between checking and savings accounts. As nonbank institutions become more like commercial banks, the basis for difference in reserve requirements will be weakened.

Opposition to Federal Reserve Proposal

What are some of the major sources of opposition to the proposal?

Nonmember banks and financial institutions tend to oppose the proposal, because they would lose their present competitive advantage if forced to operate under Federal Reserve requirements. Some member banks also are doubtful, because they are afraid of losing a considerable volume of correspondent-bank balances. In addition, some financial institutions and regulatory authorities are afraid that the proposal would lead to universal Federal Reserve membership, although the Fed categorically rejects this view, and specifically includes widespread exemptions with the reserve-requirement proposal.

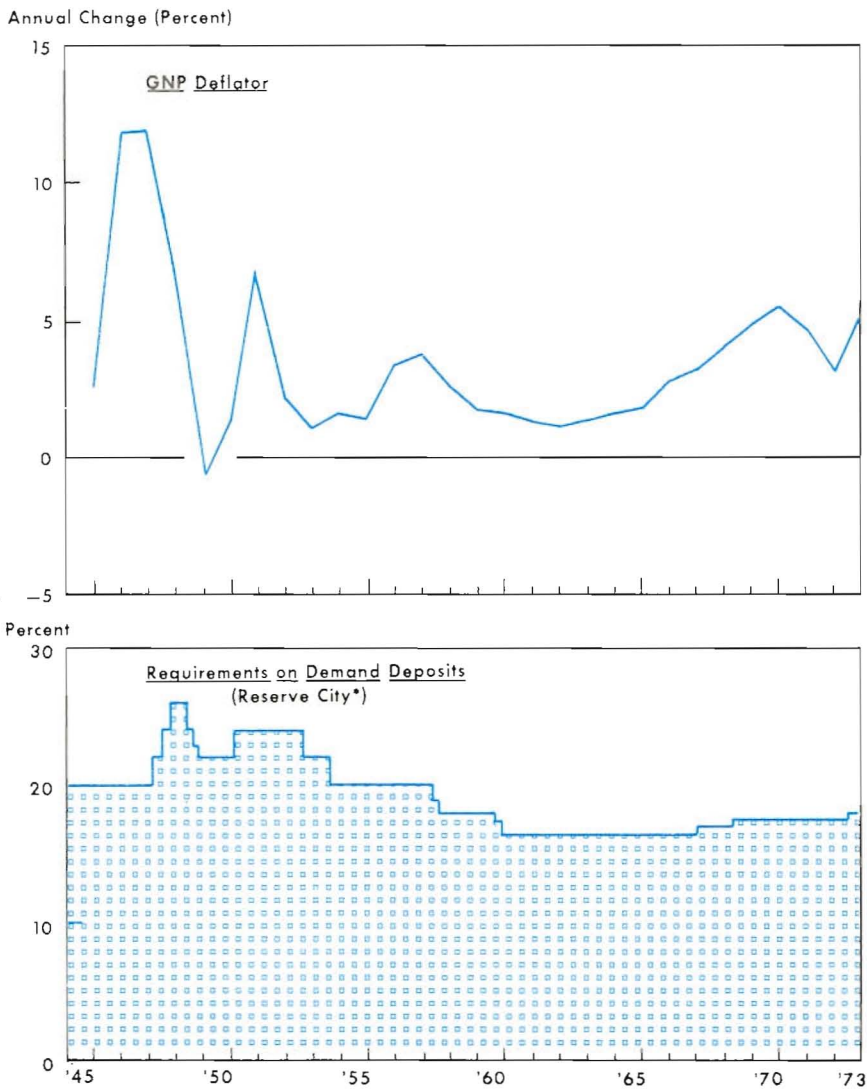
Is the proposal unnecessary from the standpoint of monetary-policy formulation?

Opponents frequently quote a statement by Federal Reserve Governor Mitchell, to the effect that reserve requirements are a "desirable and convenient, but not absolutely indispensable" tool of monetary control. This statement supports the widely accepted view that the Federal Reserve can influence monetary

aggregates and bank credit sufficiently by relying solely on open-market operations and the discount window. But the rest of Governor Mitchell's statement, which opponents generally ignore, states, "to do so would place a heavier burden on financial markets, and would forfeit the advantages of immediacy and pervasiveness inherent in a general change in reserve requirements." Moreover, the reporting aspects attendant to the Fed's proposal will ensure the availability of more precise monetary statistics.

On equity grounds, should reserve requirements be eliminated completely?

From the standpoint of equity—that is, equal treatment of all financial institutions—the same result could be achieved by imposing uniform reserve requirements or by eliminating requirements completely. Proponents of the latter view argue that reserve requirements act as a tax-like penalty on bank earnings, and thus should be discarded. However, elimination of this "tax" would result in an inordinate increase in the level of bank profits and a consequent windfall gain to bank stockholders, which could be difficult to defend.



*Central Reserve City prior to 1962

Problem of member-bank erosion tends to restrain Fed from raising reserve requirements during recent inflation

On equity grounds, should interest be paid on required reserves?

Since reserve requirements are, in effect, an excise tax which currently discriminates among institutions, a case can be made for paying some interest return on required reserves as a means of offsetting this "tax." The alternative, however, is to end the discrimination by extending the scope of the "tax" through uniform reserve requirements. Adoption of this alternative approach appears more urgent because of the strength of the Fed's arguments for uniform requirements. Moreover, if banks did receive an interest return on their required reserves, they could then be called upon (on grounds of symmetry) to pay interest themselves on their Treasury tax-and-loan accounts and even on their demand deposits.

Would the proposal destroy the dual-banking system?

Opponents of the proposal claim that it would erode or even destroy the dual-banking system of state and national supervision. This is the system which, in the words of the Conference of State Banking Supervisors, "stimulates banks to meet local needs through its contribution to bank

flexibility and its innovative qualities in a constantly changing economy.” It is alleged that state nonmember banks are hampered by state laws and regulations, which tend to offset their cost advantage stemming from easier reserve requirements, and that loss of this cost advantage would induce them to switch from state to national charters. State-chartered nonmember banks are supervised by state banking authorities and the FDIC; nationally-chartered banks must be members of the Federal Reserve System, and they are regulated by the Comptroller of the Currency. Thus, it is argued that a wholesale shift from state to national charters could lead to the demise of the dual-banking system. In rebuttal, it should be noted that the proposed legislation exempts most small banks, which are predominantly nonmembers, from uniform reserve requirements. The exemption of institutions with \$2 million or less in net demand deposits and/or NOW accounts frees 62 percent of present nonmember banks—over 5,000 banks—from reserve requirements in excess of existing vault cash holdings.

Would the proposal destroy correspondent-banking relationships?

Opponents of the proposal point out that if nonmember banks were required to place reserves with the Fed, funds would be transferred by nonmembers from their correspondent accounts to Federal Reserve Banks. Since member banks’ demand-deposit balances with their correspondents amount to relatively only half as much as nonmember-bank balances, compliance with the Fed’s proposal could lead correspondent banks to lose perhaps half of their present \$10 billion in nonmember accounts, according to the Conference of State Bank Supervisors. A reduction of correspondent balances of this magnitude would sharply reduce profits derived from providing correspondent services, and would thus curtail the availability of such services and compel banks generally to rely on the Fed for an increasing proportion of correspondent-type services. In rebuttal, it should be noted that correspondent banks have consistently maintained profitable relationships with member banks as well as nonmembers.

They could perhaps lose some business under the Fed’s proposal, but in view of the exemption provision, certainly nothing of the magnitude suggested above. In particular, large correspondent banks furnish services—portfolio analysis and advice, assistance in international transactions, loan participations, and so on—that Reserve Banks do not and should not provide.