Federal Reserve Bank of St. Louis

Review

August/September 1981
Vol. 63, No. 7

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

The FOMC in 1980: A Year of Reserve Targeting

R. ALTON GILBERT and MICHAEL E. TREBING

ON October 6, 1979, the Federal Reserve announced the beginning of a new approach to the implementation of monetary policy: it would attempt to achieve better control of the growth of the monetary aggregates by "placing greater emphasis in day-to-day operations on the supply of bank reserves and less emphasis on confining short-term fluctuations in the federal funds rate."[1] A reason for adopting such a strategy was to "assure better control over the expansion of money and bank credit."[2] The 1980 calendar year was the first full year of monetary policy under the new procedure of reserve targeting.

The year was a turbulent one for the economy and for the conduct of monetary policy. Interest rates fluctuated more than during past years, an outcome that was anticipated when the reserve targeting strategy was adopted. The growth rates of the monetary aggregates, however, were also highly variable during 1980, even though the new procedure for implementing monetary policy was intended to promote better monetary control. A brief period of credit controls contributed to turbulence in the economy and the conduct of monetary policy, by reducing demand for credit by more than anticipated by the Federal Reserve when the controls were imposed.

The conduct of monetary policy was also affected by unusual developments during the year. The Depository Institutions Deregulation and Monetary Control Act of 1980 altered the institutional environment in which monetary policy is implemented. In addition, the Federal Open Market Committee (Committee) specified its objectives in terms of new measures of the monetary aggregates, which were released in February 1980.

This article discusses the monetary policy decisions of the Committee during 1980. The Committee specifies its objectives for each calendar year in terms of ranges of growth rates for several monetary aggregates. Policies to be implemented between meetings are stated in terms of growth rates for the monetary aggregates and ranges for the federal funds rate.

Growth rates of the monetary aggregates over 1980 are compared with the announced target ranges for the year to determine how successfully the Federal Reserve controlled money growth on an annual basis. Next, the pattern of money growth during the year is compared with the short-term objectives of the Committee. Finally, the current procedure for implementing monetary policy is described and policy actions analyzed to determine the factors that accounted for the pattern of money growth over the year.

NEW MEASURES OF MONETARY AGGREGATES

In response to significant financial innovations in recent years, the Board of Governors announced new definitions of the monetary aggregates in February.[3] The Committee specified its 1980 objectives for money growth in terms of these new monetary aggregates: M1A, M1B, M2, M3 and commercial bank credit.

Note: Citations referred to as "Record" are to the "Record of Policy Actions of the Federal Open Market Committee" found in various issues of the *Federal Reserve Bulletin*.

[1]"Announcements: Monetary Policy Actions," *Federal Reserve Bulletin* (October 1979), p. 830.

[2]Ibid.

[3]For a description of the new aggregates, see Thomas D. Simpson, "The Redefined Monetary Aggregates," *Federal Reserve Bulletin* (February 1980), pp. 97-114; and R. W. Hafer, "The New Monetary Aggregates," this *Review* (February 1980), pp. 25-32.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Organization of the Committee in 1980

The Federal Open Market Committee (Committee) consists of twelve members: the seven members of the Federal Reserve Board of Governors and five of the twelve Federal Reserve Bank presidents. The Chairman of the Board of Governors is, by tradition, also chairman of the Committee. The president of the New York Federal Reserve Bank is, also by tradition, its vice chairman. All Federal Reserve Bank presidents attend Committee meetings and present their views, but only those presidents who are members of the Committee may cast votes. Four memberships rotate among the Bank presidents and are held for one-year terms beginning March 1 of each year. The president of the New York Federal Reserve Bank is a permanent voting member of the Committee.

Members of the Board of Governors at the beginning of 1980 included Chairman Paul A. Volcker, Philip E. Coldwell, J. Charles Partee, Emmett J. Rice, Frederick H. Schultz, Nancy H. Teeters, and Henry C. Wallich. Governor Phillip E. Coldwell's term expired in 1980 and was replaced by Lyle E. Gramley. The following presidents served on the Committee during January and February 1980; John J. Balles (San Francisco), Robert P. Black (Richmond), Monroe Kimbrel (Atlanta) and Robert P. Mayo (Chicago). The Committee was reorganized in March, and the four rotating positions were filled by: Roger Guffey (Kansas City), Frank E. Morris (Boston), Lawrence K. Roos (St. Louis), and Willis J. Winn (Cleveland). In April, Anthony M. Solomon was appointed as president of the Federal Reserve Bank of New York. Thomas M. Timlen had served on the Committee in his role as alternate to the president of the New York Bank since August 1979 when Chairman Volcker, then president of the New York Federal Reserve Bank, was appointed as Chairman of the Board of Governors.

The Committee met eleven times during 1980 to discuss, among other things, economic trends and to decide upon the future course of open market operations.[1] As in previous years, however, telephone or telegram consultations were held occasionally between scheduled meetings. During each regularly scheduled meeting, a directive was issued to the Federal Reserve Bank of New York. Each directive contained a short review of economic developments, the general economic goals sought by the Committee, and instructions to the Manager of the System Open Market Account at the New York Bank for the conduct of open market operations. These instructions were stated in terms of short-term rates of growth of M1A, M1B and M2 that were considered to be consistent with desired longer-run growth rates of the monetary aggregates. The Committee also specified ranges for acceptable movements in the federal funds rate for the intermeeting period.

[1]No formal meeting was held in June 1980.

The Account Manager has the major responsibility for formulating plans regarding the timing, types, and amount of daily buying and selling of securities in fulfilling the Committee's directive. Each morning the Manager and his staff plan the open market operations for that day. This plan is developed on the basis of the Committee's directive and the latest developments affecting money and credit market conditions, monetary aggregate growth, and bank reserve conditions. The Manager, in a conference call, then informs staff members of the Board of Governors and one voting president about present market conditions and open market operations that he proposes to execute that day. Other members of the Committee are informed of the daily plan by wire.

The directives issued by the Committee and a summary of the reasons for Committee actions are published in the "Record of Policy Actions of the Federal Open Market Committee." The "Record" for each meeting is released a few days after the following Committee meeting. Soon after its release, the "Record" appears in the *Federal Reserve Bulletin*. In addition, "Records" for the entire year are published in the *Annual Report of the Board of Governors*. The "Record" for each meeting during 1980 included:

1) A staff summary of recent economic developments — such as changes in prices, employment, industrial production, and components of the national income accounts — and projections of general price, output, and employment developments for the year ahead;

2) A summary of recent international financial developments and the U.S. foreign trade balance;

3) A summary of recent credit market conditions and recent interest rate movements;

4) A summary of open market operations, growth of monetary aggregates and bank reserves, and money market conditions since the previous meeting;

5) A summary of the Committee's discussion of current and prospective economic and financial conditions and of current policy considerations, including money market conditions and the movement of monetary aggregates;

6) Conclusions of the Committee;

7) A policy directive issued by the Committee to the Federal Reserve Bank of New York;

8) A list of the members' voting positions and any dissenting comments;

9) A description of any actions and consultations that may have occurred between the regularly scheduled meetings.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

One objective of the revisions was to include in a narrow monetary aggregate the increasing number of transaction-type accounts available at commercial and mutual savings banks, savings and loan associations and credit unions. The M1A definition of the money stock is the same as old M1 except that it excludes demand deposits held by foreign commercial banks and official institutions. The M1B definition includes M1A plus other checkable deposits, which include automatic transfer service (ATS) accounts, negotiable order of withdrawal (NOW) accounts, credit union share drafts, and demand deposits at thrift institutions.

Financial innovations that caused difficulty in interpreting the growth of a narrow monetary aggregate in recent years included the permission for all commercial banks to offer ATS accounts, and for all depository institutions in the state of New York to offer NOW accounts. Both changes occurred in the fall of 1978. The difference between the growth rates of M1A and M1B indicates the problems the Committee faced in evaluating the growth of old M1 in 1979 relative to previous years. From IV/1978 to IV/1979, M1A increased 5 percent — the same as old M1 — compared with a 7.4 percent increase in the previous year.[4] In contrast, the growth of M1B slowed less in 1979, increasing 7.7 percent from IV/1978 to IV/1979, compared with an 8.2 percent increase from IV/1977 to IV/1978. Thus, a small reduction in the rate of money growth, measured as M1B, would appear to be a very sharp slowing in money growth if checkable deposits other than demand deposits at commercial banks are excluded from the measure of the money supply.

Another objective of these revisions was to capture in a broader aggregate the effects of other financial innovations. For example, shares in money market mutual funds and overnight repurchase agreements at commercial banks, which are close substitutes for assets in the narrower aggregates, are included in the new M2 measure.

ANNUAL TARGETS FOR 1980

The Full Employment and Balanced Growth Act of 1978 (also called the Humphrey-Hawkins Act) requires the Committee to announce before Congress in February of each year growth ranges for monetary and credit aggregates over the current calendar year. The Committee has chosen to establish these ranges from the fourth quarter of the previous year to the fourth quarter of the current year.[5] These ranges must be reviewed before Congress in July of each year, although the Committee may reconsider the annual ranges at any time.[6] The period to which the annual ranges apply, however, may not be changed. Thus the base period (the fourth quarter of the prior year) remains the same even if the Committee should change the desired growth rates of the aggregates for the year.

Table 1 indicates the annual growth targets the Committee adopted for the new aggregates at its meeting in February 1980.[7] The targets established for 1980 represented reductions in the growth rates of the aggregates from 1979. The midpoint of the range for M1A in 1980 was 4.75 percent, compared with an actual 5 percent increase in 1979. The deceleration would be especially marked for M1B; the midpoint of the M1B range for 1980 was 5.25 percent, compared with growth of 7.7 percent in 1979.

These ranges reflect the Committee's objective of slowing money growth in 1980:

> In the Committee's discussion of the ranges for the coming year, the members agreed that monetary growth should slow further in 1980, following some deceleration over 1979, in line with the continuing objective of curbing inflation and providing the basis for restoration of economic stability and sustainable growth in output of goods and services.[8]

The "Record" of the Committee's February meeting, however, indicates that there were some differences of view regarding the appropriate aggregates to be specified as targets, because of uncertainty about the impact of shifts between savings accounts and interest-earning ATS and NOW accounts:

---

[4]Growth of old M1 was also about the same as growth of M1A in 1978 – 7.2 percent from IV/1977 to IV/1978. Growth rates of monetary aggregates referred to in this article reflect data revised as of January 1981.

[5]Prior to 1979, the Committee adopted one-year growth rates *each quarter,* and the base period for the annual targets announced each quarter was brought forward to the most recent quarter. This method resulted in a problem referred to as "base drift." Growth in an aggregate above (below) an annual growth range in a quarter would raise (lower) the base level for calculation of the next annual growth path. Specification of annual objectives in terms of calendar year growth rates, which eliminates the base drift problem *within* a calendar year, does not solve this problem *from one calendar year to the next,* since new ranges are established from the end of each calendar year.

[6]At its mid-year review of the annual ranges, the Committee also establishes tentative ranges for the monetary aggregates for the next year – measured from the fourth quarter of the current year to the fourth quarter of the following year.

[7]"Record" (April 1980), p. 329; and "Monetary Policy Report to Congress," *Federal Reserve Bulletin* (March 1980), p. 178.

[8]"Record" (April 1980), p. 329.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Table 1

Planned Growth of Monetary Aggregates for 1980 (percent changes, fourth quarter to fourth quarter)

Aggregate[1]	Proposed range	Actual growth rate in 1979[2]
M1A	3.5-6.0%	5.0%
M1B	4.0-6.5	7.7
M2	6.0-9.0	9.0
M3	6.5-9.5	9.8

[1]M1A is defined as currency plus private demand deposits at commercial banks excluding deposits due to foreign commercial banks and official institutions.

M1B is defined as M1A plus other checkable deposits (negotiable-order-of-withdrawal accounts, automatic transfer service accounts, credit union share drafts, and demand deposits at mutual savings banks).

M2 is M1B plus savings and small-denomination time deposits at all depository institutions, shares in money market mutual funds, overnight repurchase agreements issued by commercial banks, and overnight Eurodollar deposits held by U.S. residents at Caribbean branches of U.S. banks.

M3 is M2 plus large time deposits at all depository institutions and term repurchase agreements issued by commercial banks and savings and loan associations.

[2]Data as revised by Board of Governors in January 1981.

> With respect to M1A, its growth would be dampened in the event of enactment of nationwide NOW account legislation and, as would be expected, a large transfer of funds from demand deposits to NOW accounts. In support of retaining M1A on the list, however, it was noted that enactment of the legislation would tend to distort growth of M1B also — in the opposite direction as a result of transfers of funds from savings deposits to NOW accounts — and no doubt would lead the Committee to reconsider whatever ranges it adopted at this meeting.[9]

As depositors shifted funds from non-interest-earning checking deposits to ATS and NOW accounts, M1A would be expected to decline and M1B to increase. An analysis by the Board staff of recent experience with ATS and NOW accounts, especially in the Northeast, indicated that the flow of funds from demand and savings deposits would account for most of the growth of interest-earning checkable accounts. Surveys indicated that roughly two-thirds of the funds flowing into ATS and NOW accounts would come from demand deposits and roughly one-third from savings deposits. In early 1980, however, the Committee assumed that the public's adjustment process was about complete and that the growth rates of the two aggregates would differ only by about one-half percentage point for the year.[10] For this reason, the annual ranges for M1A and M1B announced in February differed by only one-half percentage point.

[9]Ibid.

ACTUAL MONEY GROWTH AND THE ANNUAL RANGES

From the fourth quarter of 1979 to the fourth quarter of 1980, M1A and M1B increased 5 percent and 7.3 percent, respectively. Thus, the growth of M1A was within its preannounced annual range, but the growth rate of M1B exceeded the top of its range by 0.8 percentage points.

Though the Committee's target ranges for the growth of the monetary aggregates in 1980, which were first established at the February meeting, allowed for a difference of only 50 basis points in growth rates of M1A and M1B, the difference turned out to be about 230 basis points. In interpreting the influence of the growth in ATS/NOW accounts on the growth of monetary aggregates in 1980, the Federal Reserve Board estimated that M1A growth was about 125 basis points higher and M1B growth was about 50 basis points lower than the actual recorded data.[11] Effects of the unanticipated growth of ATS/NOW accounts on the growth of M1A and M1B relative to annual ranges are illustrated in chart 1. In those charts the *levels* of those aggregates are not adjusted for the growth of ATS/NOW accounts, but the dashed lines are the annual *ranges* adjusted for the growth of ATS/NOW accounts: the annual growth rates for M1A are reduced by 125 basis points, while those for M1B are increased by 50 basis points. With the annual ranges adjusted in this manner, the growth rates of M1A and M1B each exceeded the top of their adjusted annual ranges by about 25 basis points.

The significance of money growth during 1980 for the rate of inflation depends on how rapid money growth was relative to the trend growth rate of recent years, since the rate of inflation tends to be related to the trend of money growth over several years.[12] In the three years ending IV/1979, M1B increased at an 8

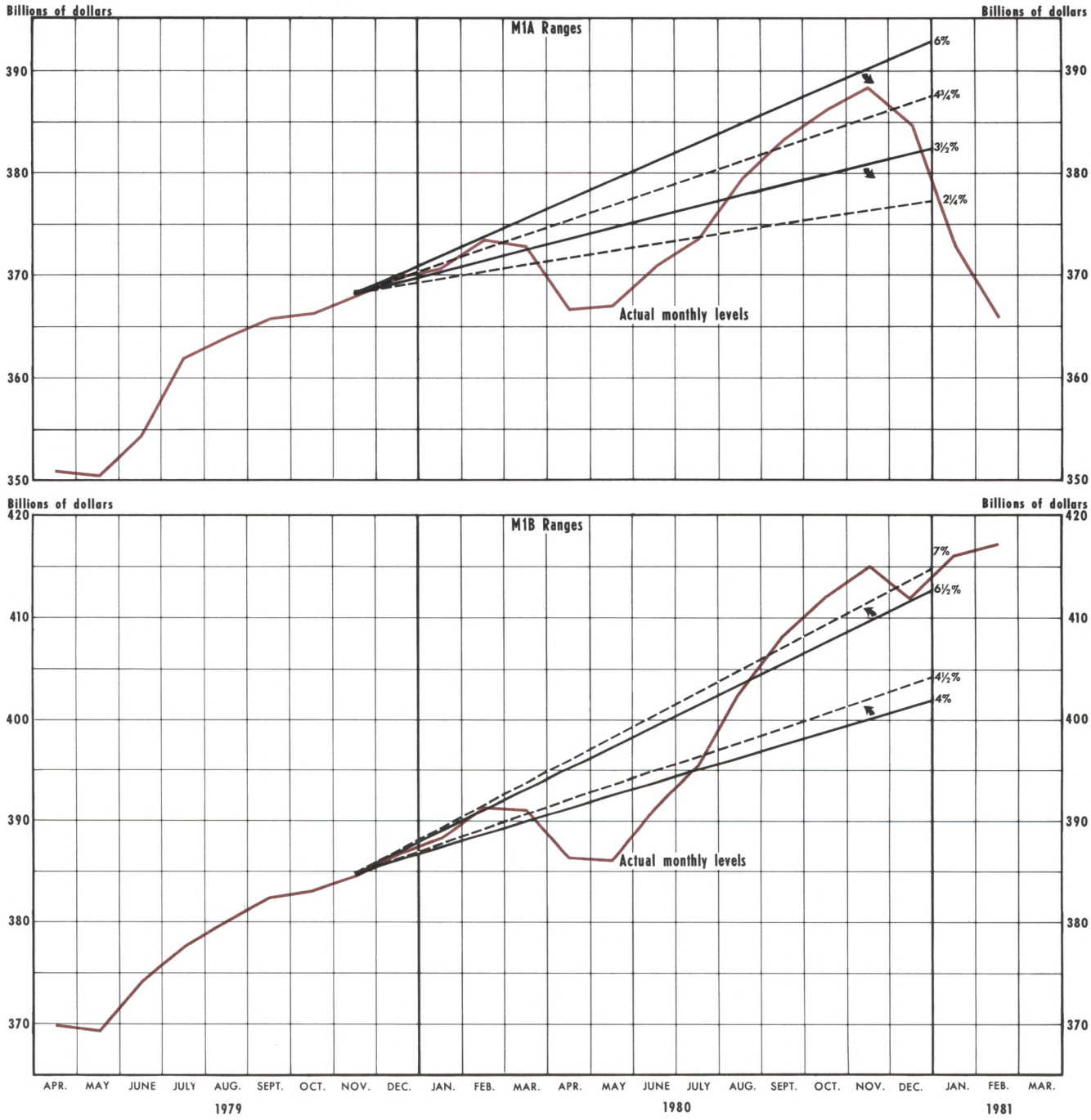
[10]"Monetary Report to Congress," *Federal Reserve Bulletin* (March 1980), p. 178.

[11]*Monetary Policy Objectives for 1981* (Board of Governors of the Federal Reserve System, 1981), p. 5.

[12]Albert E. Burger, "What Happened to the Economy in the First Half of 1980?" this *Review* (August/September, 1980), pp. 9-15; Keith M. Carlson, "The Lag from Money to Prices," this *Review* (October 1980), pp. 3-10.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Chart 1
Ranges for M1A and M1B for Period IV/1979 to IV/1980

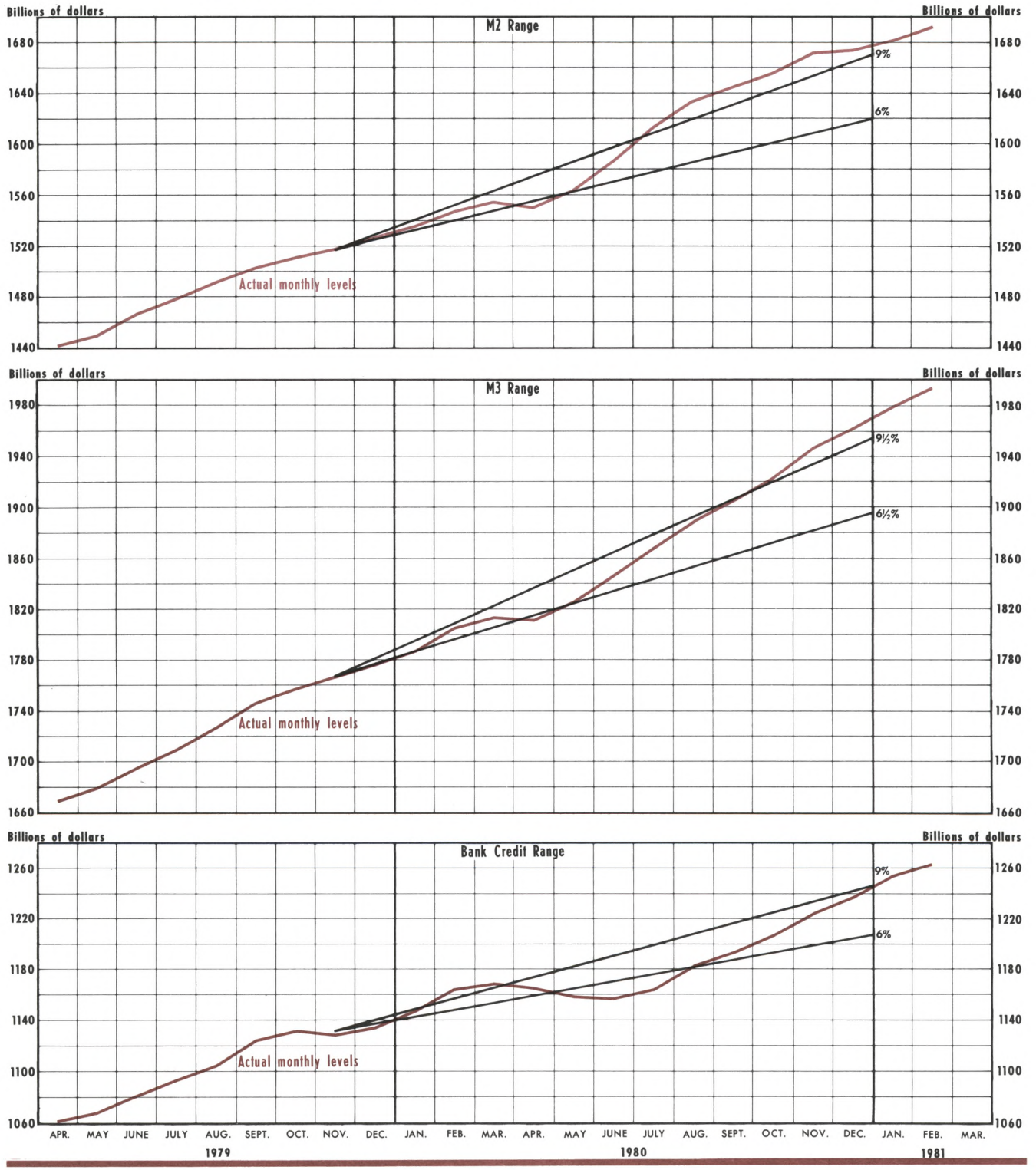


percent annual rate. The 7.3 percent increase in M1B in 1980 represents a small reduction in the rate of money growth relative to the trend in the previous three years, but not as great a reduction as indicated by the Committee at the beginning of the year. In the February 1981 *Monetary Policy Report to Congress,* M1B is adjusted for the effects of shifts of savings deposits into ATS/NOW accounts by reducing the growth rate for 1980 by 50 basis points. Even with that adjustment, the growth of M1B in 1980 exceeded the midpoint of the annual range by about 150 basis points.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Chart 2

Ranges for M2, M3 and Bank Credit for Period IV/1979 to IV/1980



The expansion of the broader monetary aggregates, M2 and M3 (chart 2), also exceeded targets for the year, increasing 9.8 percent and 10 percent, respectively (IV/1979 to IV/1980). The growth of bank credit was 8 percent for the year, consistent with the adopted range of 6 to 9 percent.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

THE NATURE OF THE SHORT-TERM DIRECTIVE

The annual target ranges announced by the Committee set broad guidelines for Federal Reserve actions during the year. Decisions of the Committee that influence the *day-to-day* implementation of monetary policy are specified in the short-term policy directives, which are issued by the Committee at each meeting to the Manager of the Open Market Account at the Federal Reserve Bank of New York. At each meeting in 1980, the Committee specified short-term growth rates for M1A, M1B and M2.[13] These short-term objectives for money growth are chosen by the Committee to guide open market operations over intermeeting periods. The Committee also specifies ranges for acceptable movements in the federal funds rate for intermeeting periods.

The short-run directives adopted at Committee meetings since October 6, 1979, contrast sharply with directives issued prior to that time.[14] The differences reflect increased emphasis on monetary control and reduced emphasis on confining movements of the federal funds rate. For example, the directive adopted at the April 22, 1980, meeting stated:

> In the short run, the Committee seeks expansion of reserve aggregates consistent with growth over the first half of 1980 at an annual rate of 4.5 percent for M1A and 5 percent for M1B, or somewhat less, provided that in the period before the next regular meeting the weekly average federal funds rate remains within a range of 13 to 19 percent. The Committee believes that, to be consistent with this short-run policy, M2 should grow at an annual rate of about 6.75 percent over the first half and that bank credit should grow in the months ahead at a pace compatible with growth over the year as a whole within the range agreed upon.
>
> If it appears during the period before the next meeting that the constraint on the federal funds rate is inconsistent with the objective for the expansion of reserves, the Manager for Domestic Operations is promptly to notify the Chairman who will then decide whether the situation calls for supplementary instructions from the Committee.[15]

At each meeting *prior* to adopting the new approach to implementing monetary policy, the Committee specified its short-run objective for the growth of each monetary aggregate as a range of growth rates over a two-month period (the month of the meeting and the month after the meeting). The range for the growth rates of each monetary aggregate was usually several percentage points wide. The Committee set an intermeeting range for the federal funds rate, which was generally no more than one percentage point wide, and specified an initial level of the federal funds rate that was thought to be consistent with the short-run ranges set for M1 and M2. Growth rates of M1 and M2 relative to the two-month ranges were intended to serve as indicators of when the federal funds rate should be allowed to change within its range. For example, the directive of the Committee from the meeting on September 18, 1979, read:

> Early in the period before the next regular meeting, System open market operations are to be directed at attaining a weekly average federal funds rate slightly above the current level. Subsequently, operations shall be directed at maintaining the weekly average federal funds rate within the range of 11.25 to 11.75 percent. In deciding on the specific objective for the federal funds rate, the Manager for Domestic Operations shall be guided mainly by the relationship between the latest estimates of annual rates of growth in the September-October period of M1 and M2 and the following ranges of tolerance: 3 to 8 percent for M1 and 6.5 to 10.5 percent for M2. If rates of growth of M1 and M2, given approximately equal weight, appear to be close to or beyond the upper or lower limits of the indicated ranges, the objective for the funds rate is to be raised or lowered in an orderly fashion within its range.[16]

The significance of these changes in the directive is that, under the old procedure, open market operations were directed toward maintaining the federal funds rate within a narrow range as long as growth rates of monetary aggregates stayed within specified ranges, whereas, under the new procedure, open market operations are directed toward hitting targeted growth rates for monetary aggregates, as long as the federal funds rate remains in a relatively wide range.

As a result of the changes instituted since October 6, 1979, the Manager of the System Open Market Account, who is responsible for implementing the Committee's directives, has had to change the focus of domestic open market operations from maintaining a weekly average federal funds rate within a specified range to maintaining the growth of "reserve aggre-

---

[13] At meetings prior to July 1980, growth rates adopted for M2 were cited as those deemed to be consistent with objectives adopted for M1A and M1B. Beginning with the July meeting, the Committee has stated short-term objectives for growth of M2 along with objectives for growth of M1A and M1B.

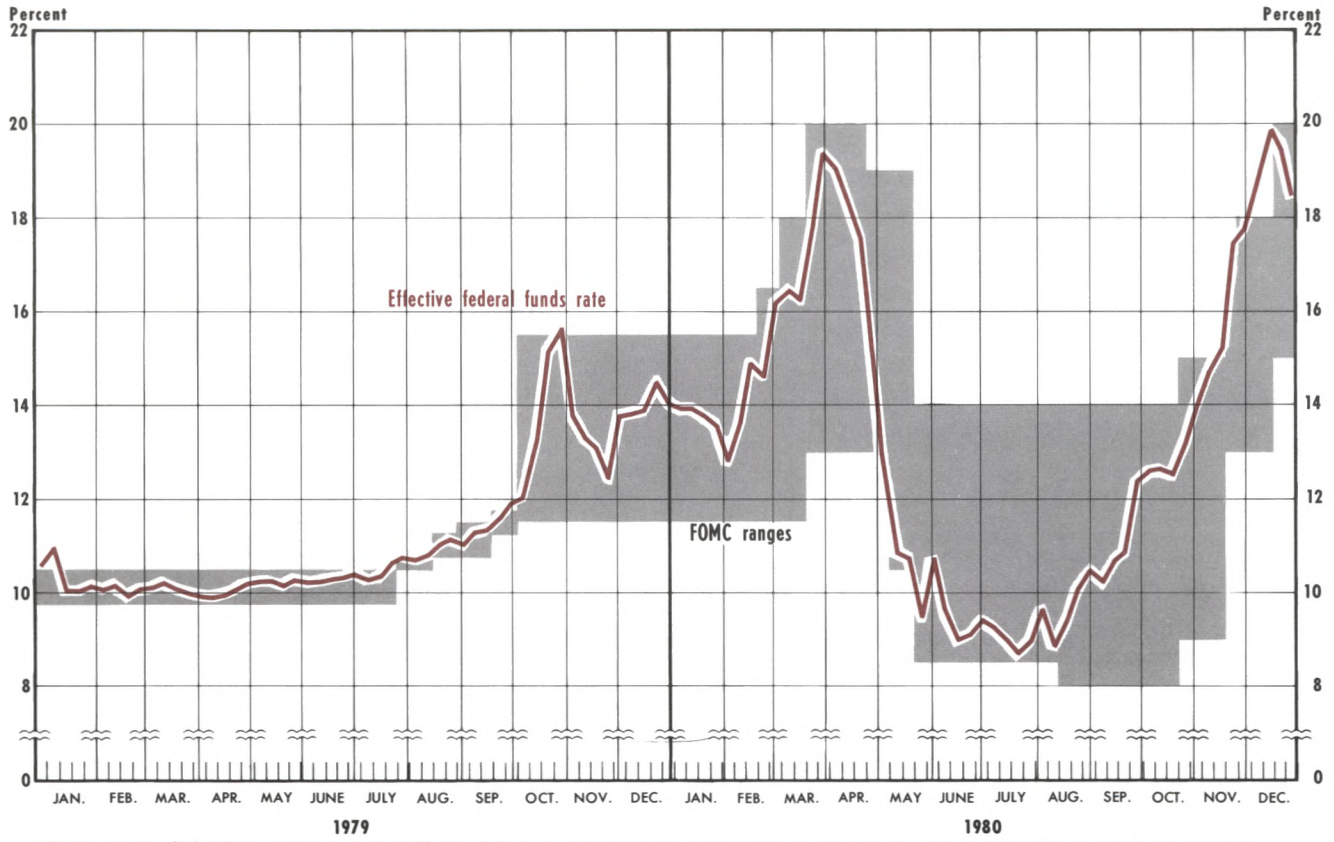
[14] For an historical perspective on the Committee's short-run operating procedures, see Henry C. Wallich and Peter M. Keir, "The Role of Operating Guides in U.S. Monetary Policy: A Historical Review," *Federal Reserve Bulletin* (September 1979), pp. 679-91.

[15] "Record" (June 1980), p. 488.

[16] "Record" (November 1979), pp. 912-13.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Chart 3
FOMC Ranges for the Federal Funds Rate



NOTE: Rates are calculated as weekly averages of effective daily rates. At each meeting the Committee specified a range for the federal funds rate. These ranges are indicated for the first full week during which they were in effect.

gates" consistent with specified growth rates of M1A, M1B and M2. Growth rates of reserve aggregates are not specified in either the directive or the Record of Policy Actions. *The Committee votes on growth rates of the monetary aggregates, not the reserve aggregates.* Consequently, it is left to the staffs of the Board of Governors and the Open Market Desk of the Federal Reserve Bank of New York to establish guidelines for the growth of these reserve aggregates consistent with the Committee's objectives.

The Committee has assigned a less critical role to the federal funds rate in guiding open market operations under the new operating procedure. The Federal Reserve made the following statement about the role of the constraint on the federal funds rate in its report to Congress on monetary policy in 1980:

> The [Committee] has continued to set broad ranges of tolerance for money market interest rates — generally specified in terms of the federal funds rate. These ranges, however, should not be viewed as rigid constraints on the Open Market Desk in its pursuit of reserve paths set to achieve targeted rates of monetary growth. They have not, in practice, served as true constraints in the period since October 1979, as the Committee typically has altered the ranges when they have become binding. But, in a world of uncertainty about economic and financial relationships, the ranges for interest rates have served as a useful triggering mechanism for discussion of the implications of current developments for policy.[17]

SHORT-TERM OBJECTIVES OF THE COMMITTEE IN 1980

The growth rates of the monetary aggregates and the ranges for the federal funds rate specified by the Committee at meetings in 1980 are presented in table 2. Chart 3 displays the weekly average federal funds rate and ranges for the federal funds rate voted by the Committee during 1979 and 1980. During 1980, the width of the range for the federal funds rate was between 4 and 8.50 percentage points. On several

[17] "Monetary Policy Report to Congress," *Federal Reserve Bulletin* (March 1981), p. 204.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Table 2
FOMC Operating Ranges — 1980

Short-Run Operating Ranges

Date of meeting	Federal funds rate range	Periods to which monetary growth paths apply[1]	Growth paths specified			Actual growth rates[2]		
			M1A	M1B	M2	M1A	M1B	M2
January 8-9, 1980	11.50-15.50%	December-March (Growth rate of 4-5% applies to M1 and 7% to M2 series in use prior to revisions in February 1980.)	between 4-5%		on the order of 7%			
February 4-5[a]	(no change)	December-March	about 4.5	about 5%	about 6.5	3.2%	4.5%	7.4%
February 22	11.50-16.50	(intermeeting conference)						
March 7	11.50-18	(intermeeting conference)						
March 18[b]	13-20	December-June	4.5 or somewhat less	5 or somewhat less	about 7.75	0.6	2.3	8.1
April 22[c]	13-19	December-June	4.5 or somewhat less	5 or somewhat less	about 6.75	(same)		
May 6[d]	10.50-19	(intermeeting conference)						
May 20[e]	8.50-14	April-June[3]	7-7.5	7.5-8	8	6.9	7.8	14.4
July 9	8.50-14	June-September	about 7	about 8	about 8	13.4	17.1	14.3
August 12	8-14	June-September	about 6.5	about 9	about 12	(same)		
September 16[f]	8-14	August-December	about 4	about 6.5	about 8.5	4.2	6.9	7.5
October 21[g]	9-15	September-December	about 2.5 or somewhat less	about 5 or somewhat less	about 7.25 or somewhat less	1.5	3.8	7.1
November 18[h]	13-17	September-December	about 2.5 or somewhat less	about 5 or somewhat less	about 7.75 or somewhat less	1.5	3.8	7.1
November 26[i]	13-18	(intermeeting conference)						
December 5[j]	13- [4]	(intermeeting conference)						
December 12[k]	13- [5]	(intermeeting conference)						
December 18-19[l]	15-20	December-March[6]	growth centered on 4.25	growth centered on 4.75	growth centered on 7		2.3	11.7

Long-Run Ranges

Date of meeting	Target period	M1A	M1B	M2	M3	Bank Credit
February 4-5, 1980	IV/79-IV/80	3.5-6%	4-6.5%	6-9%	6.5-9.5%	6-9%
July 9[m]		(reconfirmed above ranges)				
July 29[n]	IV/80-IV/81	3-5.5	3.5-6	5.5-8.5	—	—

[1]Growth objectives specified by the Committee over quarterly periods are interpreted in terms of monthly data. For example, the February 4-5 directive called for expansion of reserve aggregates consistent with growth of M1A "over the first quarter" at an annual rate of about 4.5 percent. This period is interpreted as being from December to March.

[2]Money data revised as of January 1981.

[3]Growth paths were specified in "Record" but not in directive issued to the Federal Reserve Bank of New York. Directive states, ". . . the Committee seeks expansion of reserve aggregates consistent with growth of M1A, M1B, and M2 at rates high enough to promote achievement of the Committee's objectives for monetary growth over the year . . ." ["Record" (July 1980), p. 569].

[4]At this meeting the directive was modified to give the Open Market Desk "leeway for pursuit of the Committee's short-run objectives for the behavior of reserve aggregates without operations being precisely constrained in the current statement week by the 18 percent upper limit of the intermeeting range for the federal funds rate . . ." ["Record" (January 1981), p. 33].

[5]The suspension of the upper bound on the federal funds rate constraint was extended until the next Committee meeting.

[6]Growth paths for M1A and M1B are adjusted for shifts of demand and savings deposits into ATS/NOW accounts. The actual growth rate for M1B is computed using data adjusted for these shifts.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Table 2 (continued)

Footnotes — Dissents to FOMC Actions

[a]Messrs. Coldwell and Wallich dissented from this action because they favored a more restrictive policy for the period immediately ahead. Believing that inflationary expectations had worsened in recent weeks while prospects for economic activity had strengthened, they thought that money and credit were too readily available and current levels of interest rates were not exerting sufficient restraint.

[b]Mr. Wallich dissented from this action because he favored pursuit of a more restrictive policy for the period immediately ahead to assure maintenance of firm general credit restraint, especially as a means of buttressing the new anti-inflation program.

[c]Mr. Wallich dissented from this action because he believed that it represented a premature and excessive relaxation of restraint. He favored a policy for the period until the next meeting directed toward lower rates of monetary growth over the first half of the year, accompanied by an intermeeting range for the federal funds rate that would allow for considerably less decline.

[d]Messrs. Guffey and Solomon voted against this action because they preferred smaller reductions in the lower limit of the federal funds rate and Mr. Wallich voted against it because he preferred to maintain the lower limit at 13 percent.

[e]Mr. Partee dissented from this action because he believed that it involved a risk of extending the shortfall in monetary growth relative to the Committee's growth ranges for the year. In an effort to guard against the continuation of such a shortfall, which could worsen recessionary prospects, he preferred to direct operations toward achieving somewhat higher rates of monetary growth in the May-June period. He also preferred an intermeeting range for the federal funds rate with a lower limit below 8.5 percent, because such a range would be less likely to interfere with reserve-supplying operations consistent with the objectives for the aggregates.

Mr. Roos dissented because in his view the annual growth rate objective of 3.5 to 6 percent for M1A established by the Committee in February 1980 was consistent with reduction of inflation without aggravating recessionary pressures. He believed that the 8.5 to 14 percent constraint on the federal funds rate was incompatible with that agreed-upon objective and would cause money growth to remain below it. Such slow growth would unnecessarily exacerbate the current economic slowdown. Historically, deep recessions had inevitably brought about countermeasures that intensified inflation.

[f]Messrs. Guffey, Roos, Wallich and Winn dissented because they believed that, given the excessive monetary expansion in recent months and the outlook for inflation, the directive adopted at this meeting incurred too much of a risk that the Committee's objectives for monetary growth in 1980 would be exceeded. To enhance the prospects for restraining monetary growth to rates consistent with the longer-run ranges, they favored specifying lower rates of growth for M1A, M1B, and M2 over the August-to-December period than those that were adopted.

[g]Messrs. Morris, Roos, Wallich and Winn dissented from this action because, given the excessive monetary expansion in recent months, they favored specification of lower monetary growth rates for the period from September to December than those adopted at this meeting. In their view, such a policy stance was appropriate in order to enhance the prospects for restraining growth of the monetary aggregates within the Committee's ranges for the period from the fourth quarter of 1979 to the fourth quarter of 1980 and thereby contribute to restraining inflation.

[h]Mrs. Teeters dissented from this action because she believed that it would result in additional increases in interest rates, which would intensify downward pressures on demands for housing, automobiles, and business fixed capital and thus risk a major contraction in economic activity with a substantial rise in unemployment. In her view, open market operations over the weeks immediately ahead should be directed toward maintaining the federal funds rate within a range of 11 to 15 percent.

Mr. Winn dissented from this action because he favored specification of lower rates of expansion in the monetary aggregates for the period from September to December than those adopted at this meeting. In his view, more vigorous action was appropriate in order to enhance the prospects for restraining the expansion of the monetary aggregates and establishing growth paths consistent with the monetary growth objectives for 1981 contemplated by the Committee in July 1980.

[i]Mrs. Teeters dissented from this action for essentially the same reasons that she had dissented from the action to adopt the domestic policy directive at the Committee's meeting on November 18, 1980.

[j]Mrs. Teeters dissented from this action for essentially the same reasons that she had dissented from the action to adopt the domestic policy directive at the Committee's meeting on November 18, 1980.

Mr. Wallich dissented from this action because he preferred to raise the upper limit of the federal funds rate range for the remainder of the intermeeting period, which in his view would be consistent with the action on the preceding day to raise Federal Reserve discount rates.

[k]Mrs. Teeters dissented from this action for essentially the same reasons that she had dissented from the action to adopt the domestic policy directive at the Committee's meeting on November 18, 1980.

[l]Mrs. Teeters dissented from this action because she believed that the objectives for monetary growth were unduly restrictive in terms of their eventual effects on output and employment without improving prospects for significantly tempering the rate of inflation. Pending completion of the Committee's review of its ranges for growth in 1981, she preferred specification of moderately higher rates for monetary growth over the first quarter.

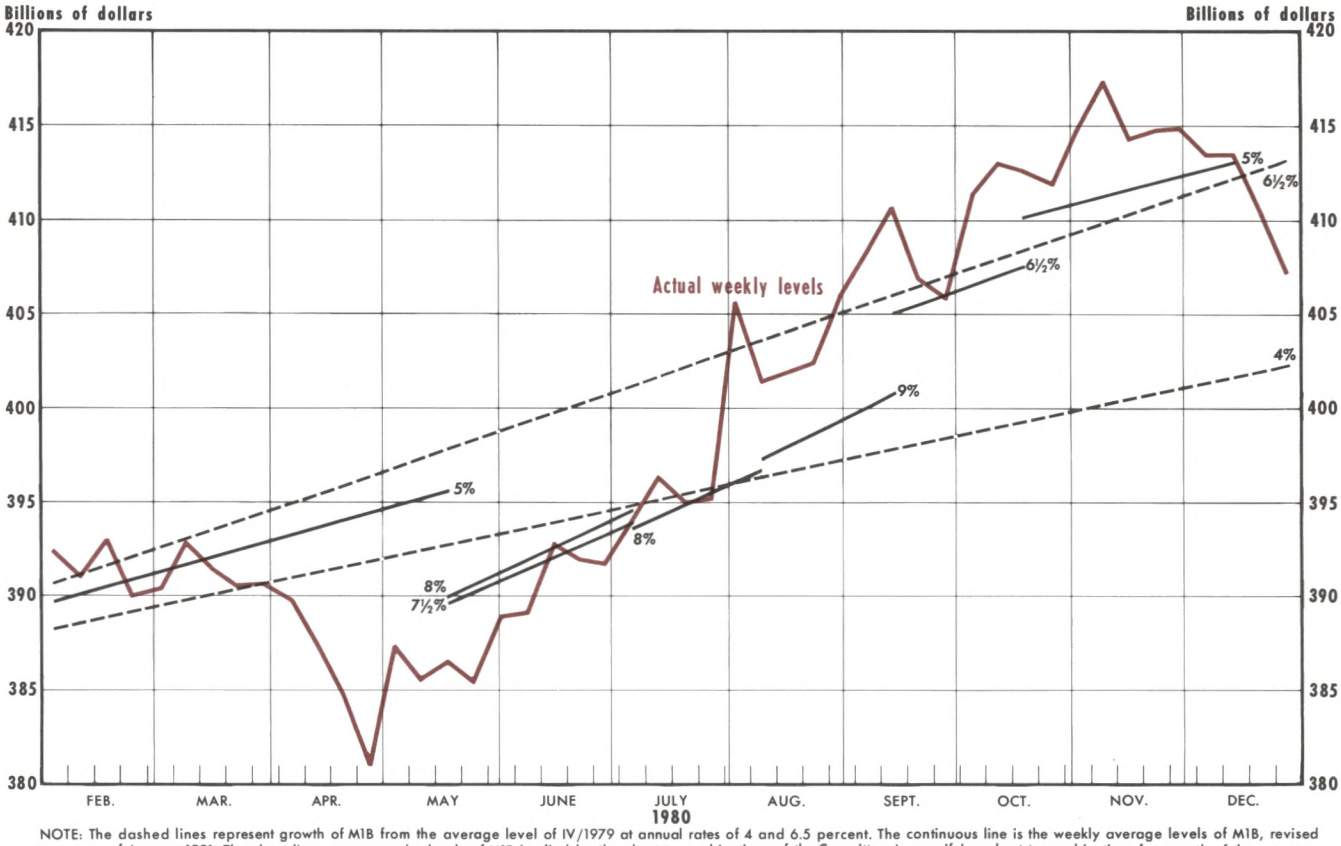
Mr. Wallich dissented from this action because, given the excessive monetary expansion in recent months, he favored specification of lower monetary growth rates for first quarter of 1981 than those adopted at this meeting along with a higher intermeeting range for the federal funds rate. In his view, such a policy stance was appropriate both to restrain monetary growth if economic activity remained strong and to moderate the probable decline in interest rates if economic activity weakened.

[m]Mr. Wallich dissented from this action because he believed that the ranges for growth of M1A and M1B over the year ending in the fourth quarter of 1980 should be reduced by 0.5 percentage point. In his opinion, efforts to bring these aggregates up to the ranges adopted in February implied excessively rapid monetary growth over the months ahead.

[n]Mrs. Teeters dissented from this action because she believed that it was undesirable to specify precise numerical ranges for monetary growth in 1981 so far in advance while economic activity was still contracting. In her opinion, monetary goals for 1981 specified at this time could prove to be inconsistent with other, as yet undetermined, economic policies and with the objective of reducing inflation while encouraging a sustainable recovery in economic activity. She was especially concerned about a possible inconsistency in view of the unusually great uncertainties generated by the introduction of NOW accounts nationally and by shifts in the relationship among money, interest rates and nominal GNP.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Chart 4
Growth Objectives for M1B



NOTE: The dashed lines represent growth of M1B from the average level of IV/1979 at annual rates of 4 and 6.5 percent. The continuous line is the weekly average levels of M1B, revised as of January 1981. The short lines represent the levels of M1B implied by the short-term objectives of the Committee. In specifying short-term objectives for growth of the monetary aggregates at each meeting, the Committee specifies an initial period, a terminal period, and desired growth rates for each aggregate. The short lines indicate levels of M1B derived by extrapolating growth from the initial periods at the rates desired by the Committee. Levels of M1B derived by such extrapolation are plotted for only those weeks between Committee meetings to which they apply. Levels of M1B in the initial periods from which M1B is extrapolated are as of the January 1981 revision.

occasions, however, the federal funds rate moved near or outside the ranges specified by the Committee. Consequently, the ranges specified by the Committee in 1980 do not appear to have constrained Federal Reserve actions in the same manner as under the prior operating procedure.

During much of the year, M1B was outside the annual target range, plotted in chart 4 as the cone representing growth from IV/1979 at annual rates between 4 and 6.5 percent. From April through July, M1B was below the annual target range and, from September through part of December, above the annual target range. This fluctuation of M1B about the annual target range indicates either that the Committee specified short-term objectives for the growth of M1B that were outside the annual target range, or that M1B deviated substantially from the Committee's short-term objectives during much of the year.

Chart 4 presents the relation of the short-term objectives of the Committee to the annual target range, and deviations of M1B from the short-term objectives. Until late in the fall of 1980, the short-term objectives for M1B were either within the annual target range or on growth paths consistent with returning to the annual range. At the meeting in February, the Committee voted for growth of M1B at about a 5 percent rate from IV/1979, and at meetings in March and April, for growth from IV/1979 at a rate of 5 percent or somewhat less. At meetings in May, July and August, the Committee voted for growth rates faster than the annual objectives, to gradually bring M1B from levels below the annual range to within the annual range. The short-term objective for M1B voted at the September meeting implied growth near the top of the annual range. Until the meeting in October, therefore, movement of M1B outside the annual target range *reflected deviations of money growth from the short-term objectives.*

After the meeting in September, M1B increased rapidly, rising several billions of dollars above the

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

annual target range. At meetings in October and November, the Committee specified growth rates of the aggregates from the average level of September; consequently, the short-term objectives for M1B voted at those meetings implied levels above the annual target range. The discussion at the Committee meetings in October and November, summarized in the appendix, indicates that Committee members were concerned about the effects of increases in interest rates that might have resulted from a policy of bringing money growth down to within the annual range.

THE USE OF THE NEW PROCEDURE TO CONTROL MONEY GROWTH

The wide fluctuations of M1B about the annual target range over most of 1980 reflected deviations of M1B from the short-term objectives of the Committee. In analyzing monetary policy actions in 1980, therefore, it is important whether the deviations of M1B from the short-term objectives reflect problems with the control of money growth that are basic to the procedure, or reflect constraints placed on the use of the procedure that are not explicitly stated in the directives of the Committee.

The procedure for implementing monetary policy adopted on October 6, 1979, involves using open market operations to meet specific objectives for the levels of nonborrowed reserves (NBR). Prior to October 6, 1979, in contrast, the objective of open market operations was to keep the federal funds rate within the range specified by the Committee at the last meeting. Because the objective of open market operations under the current operating procedure is to control NBR, the federal funds rate changes in the direction of changes in the demand for reserves. The major policy actions under the current operating procedure are changes in the objective for NBR and changes in the discount rate.

Determining Objectives for Nonborrowed Reserves

Decisions of the Committee implicitly determine the objectives for NBR. After each Committee meeting, the staff of the Board of Governors estimates the average level of total reserves (TR) that is consistent with the short-run objectives of the Committee for the growth of monetary aggregates. These average levels of TR (called TR paths) are specified for periods of three to five weeks between Committee meetings. When periods between Committee meetings are longer than five weeks, they are divided into two subperiods, and a TR path is calculated for each subperiod.[18]

The Committee decides on an initial level of borrowed reserves that is used in determining the NBR path. Although this "borrowings assumption" is not a part of the official record of each Committee meeting, the staffs of the Board of Governors and the Federal Reserve Bank of New York consider it a decision of the Committee when planning open market operations between meetings.[19] The NBR path is obtained simply by subtracting the borrowings assumption from the TR path estimated by the staff of the Board of Governors. The objective of the Open Market Desk is to use open market operations to make the average level of NBR over the weeks between meetings of the Committee equal to the NBR path. To help the Open Market Desk gauge the effects of each day's open market operations on NBR, the NBR path is converted into weekly objectives for NBR.

---

[18]The measure of total reserves used in the reserve targeting procedure was changed after the reserve requirement provisions of the Monetary Control Act of 1980 were implemented in November 1980. Prior to that date, total reserves were measured as total reserves of member banks, which includes their vault cash, plus reserve balances at Federal Reserve Banks. Federal reserve requirements were extended to all depository institutions in November 1980. Under the gradual phase-in of reserve requirements, most nonmember depository institutions hold vault cash that currently exceeds their required reserves. The measure of total reserves used since November 1980 excludes this surplus vault cash (vault cash less required reserves of institutions with vault cash in excess of their required reserves). Total reserves are now measured as total reserve balances at Reserve Banks, plus total vault cash at all depository institutions subject to reserve requirements, less the excess of vault cash over required reserves at institutions with vault cash in excess of their required reserves.

The staff of the Board of Governors uses the following procedure to estimate the TR path for an intermeeting period. The staff calculates the average levels of the monetary aggregates on a seasonally adjusted basis over the weeks until the next intermeeting period that are implied by the vote of the Committee for growth rates of the aggregates. Average levels of the aggregates on a seasonally adjusted basis are converted to average levels on a nonseasonally adjusted basis. Growth of currency on a nonseasonally adjusted basis is estimated for the intermeeting period and subtracted from the nonseasonally adjusted levels of the monetary aggregates associated with the vote of the Committee. The rest of the estimation procedure involves estimating the average level of TR that would tend to yield the average levels of the monetary aggregates voted by the Committee, less estimated currency. That estimate of TR includes:

(1) an estimate of required reserves on liabilities of depository institutions not included in the monetary aggregates (such as large certificates of deposit),

(2) required reserves on the level of transaction deposits implicitly voted by the Committee,

(3) an assumption about the average level of excess reserves.

[19]Fred J. Levin and Paul Meek, "Implementing the New Operating Procedures: The View from the Trading Desk," *New Monetary Control Procedures*, vol. I, Federal Reserve Staff Study (Board of Governors of the Federal Reserve System, February 1981), p. 7.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

The initial specifications of the path levels for TR and NBR are generally made on Friday after a Committee meeting. The Federal Reserve staff also makes a projection of what TR will be over the intermeeting period. Projections and path levels for TR are respecified approximately once each week. Projections of TR are respecified on the basis of additional information about the demand for reserves, and changes in the TR path are based on additional information about the relation between the monetary aggregates and TR. These so-called multiplier adjustments change the NBR path by the same amount as the TR path, and the weekly objectives for NBR are respecified such that the average of NBR over the period will equal the new path level.

If the revised projection of TR is substantially different from the new specification of TR, the NBR path might be changed to keep TR closer to path, reducing (increasing) the NBR path if TR are projected to be above (below) the TR path. On several occasions the NBR path was changed in this manner between Committee meetings by the senior Board staff and the management of the Open Market Desk, in consultation with the Chairman of the Federal Reserve Board.

Controlling Money Growth by Targeting on Nonborrowed Reserves

Projections of average levels of TR over intermeeting periods provide a guide to policy actions. A deviation of a projection of TR from the path level indicates that changes in the supply of NBR or the discount rate are appropriate to avoid a deviation of money growth from the short-term objectives of the Committee. If TR are projected to exceed the TR path, appropriate actions would be to reduce the path level for NBR, raise the discount rate, or both. Reducing the NBR path with the TR path unchanged involves increasing the implied level of borrowings. Reductions in the NBR path and increases in the discount rate tend to increase the federal funds rate and reduce the amount of reserves demanded by the banking system. If, in contrast, TR are projected to be below path, the actions that would be appropriate to speed the return of the money stock to the targeted level are to increase the NBR path, reduce the discount rate, or both.

There are various reasons why money growth might have deviated from the short-term objectives of the Committee under this operating procedure. One reason could have been that the path levels for TR were inconsistent with the short-term objectives for money growth, even after adjustments during intermeeting periods. With errors in specifying TR paths, the Federal Reserve could have taken actions to keep TR near path levels and yet miss the objectives for money growth.

Another possibility is that, even if the TR paths were specified accurately, errors in projecting TR could have caused the Federal Reserve to take actions that turned out to be inappropriate for keeping TR near the path level. A final possibility is that projections of TR relative to path levels indicated the actions that would have been appropriate to meet the short-term objectives for money growth, but for some reason, those actions were not taken.

EXPERIENCE WITH MONETARY CONTROL UNDER THE RESERVE TARGETING PROCEDURE

In most intermeeting periods, the path levels and projections of TR were reasonably accurate. Thus, the differences between the projections and path levels of TR generally indicated the nature of policy actions that would have been appropriate to keep money growth from deviating substantially from short-term objectives.

A notable exception to this general conclusion applies to the intermeeting period that began shortly after the imposition of credit controls. The Federal Reserve did not accurately project the effects of credit controls on the demand for reserves during that period; consequently, the differences between projections and path levels of TR did not indicate the actions that would have been necessary to prevent the decline of the money supply below target during that period. With the exception of this period, beginning shortly after the imposition of credit controls, money growth deviated most from the short-term objectives of the Committee in those periods in which the Federal Reserve did not take the actions that the procedure indicated as appropriate for hitting money targets.

The large deviations of money growth from short-term objectives occurred when interest rates were changing rapidly. In contrast, money growth was closest to short-term objectives in the summer, when short-term interest rates were below the discount rate and were relatively stable. A reluctance to take actions indicated by the procedure as appropriate for hitting money targets when short-term interest rates were

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Table 3
The Credit Restraint Program of 1980

Date	Action
March 14[1]	The Federal Reserve Board announced a series of monetary and credit actions as a part of a general government program to curb inflation. The actions included: 1. A voluntary Special Credit Restraint Program applied to domestic commercial banks, bank holding companies and business credit extended to U.S. residents by the U.S. agencies and branches of foreign banks. Banks were expected to restrain their growth in total loans to a range of 6 to 9 percent while maintaining a reasonable availability of funds for small business, farmers, housing, smaller agriculturally oriented commercial bank correspondents and thrift institutions. 2. A program of restraint on certain types of consumer credit. A special deposit requirement of 15 percent was imposed on increases in certain types of consumer credit by many lenders. Consumer credit covered by the program included loans extended via credit cards, checking account overdraft plans, other forms of revolving credit, open-end credit, unsecured closed-end credit, or secured credit not extended to purchase the collateral. Excluded credit was automobile credit, credit used to purchase household appliances or furniture, mortgages and home improvement loans. 3. An increase in reserve requirements (from 8 to 10 percent) on managed liabilities at member banks and U.S. branches and agencies of foreign banks, and a change in the base upon which the reserve requirement was to be calculated. 4. A special deposit requirement for nonmember banks of 10 percent on increases in their managed liabilities. 5. A special deposit requirement of 15 percent on increases in the total asset of money market mutual funds above the level of March 14. 6. A surcharge of 3 percent on discount window borrowings by banks with deposits of $500 million or more that borrow frequently.
May 7[2]	Surcharge eliminated for large member banks that borrow frequently at the discount window.
May 23[3]	1. Marginal reserve requirements and special deposit requirements on managed liabilities of large banks reduced from 10 percent to 5 percent. 2. Special deposit requirements on managed liabilities of *nonmember* institutions also reduced from 10 percent to 5 percent. 3. Special deposit requirement on increases in covered credit reduced from 15 percent to 7.5 percent, and the special deposit requirement on assets of money market mutual funds reduced.
July 3[4]	Announcement of plans to complete phaseout of special measures of credit restraint. The Board also eliminated the 2 percent supplementary reserve requirement on large time deposits of member banks (initiated in November 1978).

[1]"Announcements: Monetary and Credit Actions," *Federal Reserve Bulletin* (April 1980), pp. 315-18.
[2]"Announcements: Removal of Surcharge on Discount Rate," *Federal Reserve Bulletin* (May 1980), p. 393.
[3]"Announcements: Credit Restraint Program: Changes," *Federal Reserve Bulletin* (June 1980), p. 479.
[4]"Announcements: Phaseout of Credit Restraint Measures," *Federal Reserve Bulletin* (July 1980), p. 559.

changing rapidly would have been consistent with the sentiment expressed at Committee meetings. At the meeting on April 22, the Committee expressed concern that the objectives of Federal Reserve policy might be misinterpreted if interest rates were falling rapidly. (See the appendix for summaries of discussion at Committee meetings.) At meetings in September, October and November, several members of the Committee expressed the view that, while favoring reductions in growth of the monetary aggregates, they were concerned about the effects on interest rates if the Federal Reserve pursued an aggressive policy of slowing money growth.

The summary of a Federal Reserve staff study of the new operating procedures recognizes the need for more prompt adjustments of the NBR path relative to the TR path or the discount rate than those implemented in 1980 to promote closer control of money in the short run.

> Evidence of the past year suggests that during an intermeeting period relatively prompt downward (or upward) adjustments in the original nonborrowed reserve path may be needed in an effort to offset, over time, increased (or decreased) demand for borrowing when money is strengthening (or weakening) relative to target. As an alternative, more prompt upward (or downward) adjustments in the discount rate would tend to discourage (or encourage) borrowing over time. . . . These adjustments run the risk of increasing the volatility of short-run interest rate movements in view of the transitory fluctuations often experienced in short-run money demand.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

> However, they could also dampen the amplitude of longer-term swings of interest rates by more promptly leading to adjustments by banks that bring money growth back toward path.[20]

In the February 1981 *Monetary Policy Report to Congress*, the Federal Reserve also stated the need for more prompt adjustments of NBR paths or the discount rate when TR are projected to deviate from path, in order to achieve better monetary control.[21]

CONCLUSIONS

Over the year 1980, the Federal Reserve achieved a small reduction in the trend rate of money growth relative to recent years. Growth rates of M1B and M2, however, exceeded their annual target ranges. Thus, the Federal Reserve did not achieve the degree of deceleration in money growth that it announced as its objective for the year.

Money growth was highly variable during the year, falling below the annual target range during April through July, and rising above the annual range in September through part of December. Until the fall of 1980, the short-term objectives of the Committee were either within the annual target range, or consistent with returning money growth to the annual target range. In the fall, however, the Committee voted for the growth of M1B to exceed the top of the annual range, in recognition of a larger than anticipated shift of savings deposits into ATS accounts and concern for the effects of a more restrictive policy on short-term interest rates. Thus, the fact that money growth for the year exceeded the top of the annual target range reflects decisions of the Committee in weighing objectives for monetary control, adjustments to annual money targets for growth of ATS/NOW accounts, and concern about volatility in interest rates.

The record of policy actions under the reserve targeting procedure reflects additional dimensions of monetary policy decisions in 1980. The largest deviations of money growth from the Committee's short-term objectives occurred when the Federal Reserve failed to take the type of actions that the reserve targeting procedure indicated as appropriate to keep money growth near the short-term objectives. Experience with the reserve targeting procedure *does not* support the view that fluctuations of the money supply in 1980 reflect problems with monetary control that are basic to the operating procedure. The Federal Reserve has indicated that better short-term control of money growth, using the current procedure, requires more prompt adjustment of the NBR path relative to the TR path, or more prompt adjustment of the discount rate. Thus, short-term monetary control may be improved under the reserve targeting procedure in 1981 and in future years.

---

[20]Stephen H. Axilrod, "Overview of Findings and Evaluation," *New Monetary Control Procedures*, vol. I, pp. A23-24.

[21]*Monetary Policy Report to Congress* (Board of Governors of the Federal Reserve System, February 25, 1981), pp. 32-33.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Appendix: Summary of Discussion at Committee Meetings

January 8-9 Meeting[1]

Staff projections suggested that a contraction in real GNP would develop in the first quarter of 1980. Price increases were projected to accelerate in the early part of the year, due mainly to substantial increases in energy prices. Since the previous meeting, interest rates had fluctuated over a wide range, but rates were, nevertheless, less volatile than during the period just after October 6, 1979, when the Federal Reserve announced changes in its monetary policy operating procedures.[2] On balance, interest rates had declined slightly since the Committee's last meeting.

The Committee specified growth for the first quarter of 1980 at an annual rate of between 4 and 5 percent for M1 and 7 percent for M2. The federal funds constraint of 11.50 percent to 15.50 percent originally adopted at the October 6, 1979, meeting was kept intact.

February 4-5 Meeting[3]

Staff projections continued to suggest that real growth would contract moderately in the period ahead, and that inflation would continue to be rapid due to increases in energy costs. International tensions (in particular, the Russian invasion of Afghanistan) were adding a major degree of uncertainty in projecting output and prices. Most members thought that a moderate contraction in real output was likely in 1980. Over the intermeeting period, long-term interest rates had risen about one percentage point.

At this meeting, both short-term and long-term ranges for the aggregates were specified in terms of the newly defined aggregates. Consequently, the staff of the Open Market Desk now had to formulate intermeeting paths of total and nonborrowed reserves consistent with the Committee's short-run objectives for the new aggregates.

The Committee adopted short-term objectives of 4.5 percent and 5 percent for M1A and M1B, respectively. Several members dissented from these actions because they felt interest rates were not exerting enough restraint and that credit was readily available (see table 2 in text).

During the period between the February 4-5 meeting and the next scheduled meeting in mid-March, two conference calls among Committee members were held to discuss the federal funds rate constraint of 11.50 to 15.50 percent that had been in place since October 6, 1979. The federal funds rate had risen to almost 15 percent after mid-February, and member bank borrowings had increased as the spread between the federal funds rate and the discount rate widened. Incoming data also suggested that M1A and M1B were growing at rapid rates in February. The Committee voted on February 22 to temporarily raise the upper end of the federal funds rate range to 16.50 percent until the situation could be reassessed. The range was further widened to 11.50-18 percent in a telephone conference of March 7. The "Record" of that meeting states:

> On March 6 the federal funds generally traded around 17 percent, despite sizable reserve-supplying operations by the System, and the Manager advised that in his opinion additional leeway above the existing upper limit of 16.50 percent was needed for operational flexibility in meeting reserve objectives.[4]

March 18 Meeting[5]

On March 14, President Carter announced a series of monetary and credit control actions in accordance with the legal authority granted to the President under the Credit Control Act of 1969. The Board of Governors imposed reserve requirements and special deposit requirements on certain types of consumer credit and managed liabilities of commercial banks,

---

Note: Citations to "Record of Policy Actions of the Federal Open Market Committee" of meetings in 1980 are referred to as "Record," in various issues of the *Federal Reserve Bulletin*. Money growth rates referred to in this appendix are taken from the published minutes of the Committee's meetings for 1980 and, therefore, may not correspond to more recent benchmark revisions. The data reflect information available to the Committee at the time of the meetings.

[1] "Record" (March 1980), pp. 231-36.

[2] For a discussion of the period of October 6, 1979, to the end of 1980 and the announcement of the new operating procedures, see Richard W. Lang, "The FOMC in 1979: Introducing Reserve Targeting," this *Review* (March 1979), pp. 2-24.

[3] "Record" (April 1980), pp. 325-32.

[4] Ibid., p. 332.

[5] "Record" (May 1980), pp. 399-406.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

a surcharge of 3 percent on frequent borrowers from the discount window, a special deposit requirement on money market funds, and a voluntary restraint program for the growth of total loans of commercial banks (see table 3 in text for a chronological summary of these actions). This program was later viewed by the Committee as having played a greater role than had been anticipated by affecting the demand for credit and the flow of funds between financial institutions.[6]

Information available at this meeting indicated that real output was continuing to grow in the first quarter. In light of the credit control package announced just a few days before the meeting, however, Committee members continued to stress the unusual degree of uncertainty which affected forecasts of the economy. In its discussion of the near term, the Committee noted that the growth of M1A and M1B over the first two months of the year had exceeded growth rates that were considered consistent with objectives established for the December to March period. Most members favored extending by one quarter the short-term growth rates adopted for the first quarter. There was some sentiment for seeking even slower rates of money growth over the first half of the year to underscore support for the new anti-inflation program.

Members differed in their views regarding the range for the federal funds rate to be adopted for the short-run directive. Since the conference calls during the previous intermeeting period had resulted in changes of the upper limit, the range had been widened from 4 to 6.50 percentage points (from 11.50-15.50 percent to 11.50-18 percent). Some members sought to retain the widened range, while others wanted to restore a 4 percentage-point band. The Committee adopted a range of 13-20 percent, noting that procedures had been established for changing ranges between meetings when such changes seemed appropriate to the Committee.

April 22 Meeting[7]

Although it was known that real gross national product had grown in the first quarter at about a 1 percent annual rate, information available at this meeting suggested that economic activity had begun to decline near the end of that period and that economic activity would continue to decline for several quarters. Price indices were rising at about a 12 percent annual rate in the first quarter. Interest rates had declined considerably during the intermeeting period, after reaching new highs in late March and early April. The prime rate reached 20 percent, but had fallen slightly from that level by the time of the meeting. In March M1A and M1B declined at annual rates of 3.5 percent and 2 percent, respectively, after expanding at rates of 12 percent in February.

Most members of the Committee favored retaining the short-run objectives for money growth adopted at the prior meeting. Some members, however, were concerned that further declines in interest rates might be misinterpreted by market participants as an "easing" of monetary policy.

> It was observed that a significant decline in interest rates, if that were to occur in coming weeks, should be regarded as a consequence of the Committee's continuing emphasis on its announced objectives for achieving limited monetary growth and not as a shift toward a stimulative policy. The Committee's monetary objectives should be perceived as fully consistent with a moderation of inflationary forces over time as well as with resistance to recessionary tendencies in the short run.[8]

In light of the outlook for a lower federal funds rate in the weeks immediately ahead, the Committee lowered the *upper* limit of the federal funds rate range from 20 percent to 19 percent, but did not change the lower bound of 13 percent. During a telephone conference call on May 6, the Committee reduced the lower limit of the range for the federal funds rate to 10.50 percent.

May 20 Meeting[9]

Evidence accumulated since the last meeting indicated that economic output in the second quarter would decline markedly. In foreign exchange markets, the dollar had declined over most of the previous four weeks; the trade-weighted value of the dollar had fallen about 3.5 percent since the Committee's last meeting.

All of the major monetary aggregates had declined in April, with M1A and M1B declining at annual rates of 18.5 percent and 14.5 percent, respectively, while M2 fell at a 3 percent annual rate. These aggregates fell to levels well below the paths established

[6]"Monetary Policy Report to Congress," *Federal Reserve Bulletin* (March 1981), pp. 198-99.

[7]"Record" (June 1980), pp. 484-89.

[8]Ibid., p. 487.

[9]"Record" (July 1980), pp. 565-70.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

earlier by the Committee. These declines were also accompanied by major declines in both short-term and long-term interest rates.

The Committee adopted an approach of gradual return to the monetary growth paths consistent with the year's annual targets. The Committee directed operations to achieve growth of M1A, M1B, and M2 over May and June at annual rates of 7 to 7.5 percent, 7.5 to 8 percent, and about 8 percent, respectively. There were differing views, however, on how aggressively these objectives for the growth of the monetary aggregates should be pursued if the federal funds rate declined sharply.

> Concern was expressed that a more aggressive approach would lead to such sharp declines in the federal funds rate and other short-term interest rates in the period immediately ahead that there could be a perverse impact on long-term interest rates by exacerbating inflationary expectations, and there could also be strong adverse effects on the value of the dollar in foreign exchange markets. Moreover, aggressive efforts to promote monetary growth might have to be reversed before long, perhaps leading to significant increases in interest rates in a period of substantial weakness in the economy. The possibility was also suggested that the demand for money had shifted downward once again, so that vigorous efforts in the short run to bring monetary growth into line with the Committee's longer-run objectives could result in excessive creation of money.[10]

July 9 Meeting and Mid-Year Review[11]

The Committee noted that the growth of M1A and M1B had accelerated in June to annual rates of 13.8 percent and 16.8 percent, respectively, following little change in May and sharp contraction in April. The growth of M2 also accelerated to a 17.3 percent annual rate in June, up from a rate of 8.8 percent in May and a small decline in April. Although market interest rates declined considerably in late May and the first half of June, market rates were again beginning to rise.

Staff projections of the economy indicated that the decline in GNP for the second quarter was larger than previously anticipated. Declines in real growth were expected to continue throughout the end of the year, and a recovery was forecast to begin at the beginning of 1981.

The Committee agreed that open market operations for the third quarter should be geared to achieving growth rates of M1A, M1B, and M2 at annual rates of about 7 percent, 8 percent and 8 percent, respectively. However, in light of the shortfall in money growth over the first half of the year, the Committee would accept faster growth. It was noted at this time that growth of the narrow aggregates might fall near the lower bounds of their respective annual ranges.

In July of each year, the Committee must review for Congress its monetary growth ranges for the year, and provide a preliminary indication of its ranges for the next year. At its July 9 meeting, the Committee reviewed the annual ranges adopted at its February meeting, and analyzed the growth of the monetary aggregates over the first half of the year. The expansion of M1A and M1B over the first two quarters had fallen substantially below the long-run growth paths established by the Committee in February. The growth of M2, on the other hand, was stronger and by mid-year was near the midpoint of its range.

The Committee examined annual targets for the growth of the monetary aggregates in terms of the relative growth rates of M1A and M1B (as affected by the shift into NOW and ATS accounts), and concluded that "in view of recent evidence of a preference for interest-bearing transactions accounts over demand deposits that was greater than anticipated, it appeared likely that M1B would grow somewhat faster relative to M1A than had been projected earlier in the year."[12] There was general agreement, however, that the growth of these accounts was not "large enough to justify 'fine-tuning' the growth ranges at the expense of causing public confusion about the meaning of the adjustments."[13] The Committee voted to retain the targets for 1980 as adopted at its February meeting. In reaffirming these ranges, it was recognized that the growth rates of M1A and M1B might fall below the midpoints of their ranges for the year.

In its discussion of growth ranges for 1981, the Committee agreed that further reduction in money growth from the ranges established for 1980 would be appropriate. Committee members disagreed, however, about specific objectives for the growth of the aggregates in 1981, because they expected institutional changes resulting from the Monetary Control Act of 1980 (MCA) to blur the meaning of the narrow aggregates in 1981:

[10]Ibid., pp. 567-68.

[11]"Record" (September 1980), pp. 747-54 and "Monetary Policy Report to Congress," *Federal Reserve Bulletin* (July 1980), pp. 531-42.

[12]"Record" (September 1980), p. 750.

[13]Ibid.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

> In particular, relationships among the aggregates will be affected by introduction of NOW accounts on a nationwide basis as of December 31, 1980, as authorized by that act. During 1981, shifts of funds from demand deposits to NOW accounts are likely to be substantial, and will retard the growth of M1A. At the same time, transfers from savings deposits and other interest-bearing assets to NOW accounts will enhance the growth of M1B. To the extent that funds are shifted into NOW accounts from other deposit components of M2 and M3, growth of these aggregates will be unaffected.[14]

The Committee decided not to announce precise target ranges for 1981 due to the uncertainty surrounding the possible impact of the MCA on the relationship among the aggregates. After monetary oversight hearings before the Senate and House banking committees, however, the Committee later that month announced more specific objectives: ranges for the growth of M1A, M1B and M2 for 1981 would be reduced "on the order of 1/2 percentage point from the ranges adopted for 1980, *abstracting from institutional influences affecting the behavior of the aggregates.*"[15] (Italics added.)

August 12 Meeting[16]

Early in the intermeeting period, the monetary aggregates grew slightly faster than the rates specified by the Committee for the period from June to September. At its July meeting, the Committee had agreed that moderately faster growth than the short-run targets would be acceptable. Later in the intermeeting period, both M1A and M1B appeared to be growing considerably faster than their specified rates. The growth rates of M1A and M1B from the fourth quarter of 1979 through July, however, were still below rates consistent with the Committee's ranges for the year. Market interest rates had risen during the intermeeting period; short-term interest rates increased about 50 basis points and long-term rates about 75 basis points. The staff projected that real GNP would continue to decline through the end of the year, but not as rapidly as the preliminary estimate of a reduction in real GNP at a 9.1 percent annual rate for the second quarter.

In its deliberations on the short-run aggregate directive, the Committee took note of a staff analysis which suggested that, if third quarter growth continued for M1B, that aggregate would be near the midpoint of its annual range by the fourth quarter; the growth of M2 would be at the upper end of its range. In July M1A and M1B grew at annual rates of about 7.5 percent and 10.8 percent, respectively, and M2 grew at a 17 percent rate.

Some members expressed concern that a short-run target for M1A appreciably below the 7 percent rate voted at the prior meeting would cause further increases in interest rates at a time when the longer-run targets did not clearly suggest the need for reduced growth in the monetary aggregates.[17] The Committee voted for a slightly reduced rate of growth for M1A (6.5 percent) over the third quarter and higher rates for M1B and M2 (9 percent and 12 percent, respectively). A federal funds rate range of 8 to 14 percent was adopted.

September 16 Meeting[18]

Staff projections reviewed at this meeting suggested that the economy would recover by the end of the year. Declines in real GNP for the third quarter were expected to be less pronounced than had been thought just a month earlier. The Committee, for the most part, shared the outlook that the economy was somewhat stronger than had been anticipated previously, and some members believed the economy was stronger than the staff was projecting. There was broad agreement, though, on the staff estimate of only modest gains in the economy in 1981.

The growth of M1A and M1B accelerated in August to annual rates of about 19.5 percent and 22 percent, respectively, and M2 grew at a 14.3 percent rate. It was then evident that policy over the period ahead should be directed toward a deceleration in money growth in order to achieve the Committee's objectives for the year. For the period from the fourth quarter of 1979 through August, the growth of M1A was in the lower half of the Committee's long-run range, but M1B was in the upper half of its range, and M2 was somewhat above the upper limit of its range. Market interest rates exhibited wide fluctuations in the intermeeting period, but on balance had risen since the last meeting.

Although there was broad agreement that monetary expansion should be reduced in the period ahead, views differed concerning the specific short-run growth objectives to be adopted. One group

---

[14]Ibid.

[15]Ibid., p. 753.

[16]"Record" (October 1980), pp. 835-39.

[17]Ibid., p. 838.

[18]"Record" (November 1980), pp. 883-87.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

favored growth rates on the lower side of the ranges discussed at the meeting, emphasizing "the need for a policy posture that would minimize any risk of exacerbating inflationary forces in the economy or worsening inflationary expectations."[19] Another group favored more rapid rates of money growth (but less rapid than the July-September period) and appeared to be concerned about a recent rise in interest rates, since "these increases might well begin to reduce money and credit demands over the months ahead, that economic recovery was in its very early stages, and that some sectors such as housing were especially sensitive to emerging credit conditions."[20]

A middle course was adopted by the Committee — one calling for the growth of M1A, M1B and M2 over the August-December period at annual rates of about 4 percent, 6.5 percent and 8.5 percent, respectively.

October 21 Meeting[21]

Preliminary data available at this meeting indicated that real GNP had *expanded* in the third quarter at an annual rate of 1 percent. Staff projections suggested that the third quarter marked the beginning of a recovery. Prices continued to rise at about a 10.5 percent annual rate.

Early in the intermeeting period, data indicated that the monetary aggregates were continuing to grow at rates faster than those consistent with the Committee's objectives for the August-December period. Short-term interest rates also rose over the intermeeting period; long-term rates, however, changed little on balance. In the days just prior to the October 21 meeting, the federal funds rate was trading in the area of 12.50 to 13 percent, compared with 10.50 to 11 percent just before the last Committee meeting on September 16.

In its discussion of policy for the near term, all of the voting members favored the pursuit of a sharp reduction in monetary expansion over the final months of 1980 in order to reach their long-run money growth objectives for the year. Nevertheless, as in the previous meeting, members differed in their views about the exact short-run policy directive to be adopted. One group favored growth objectives for the final months of the year consistent with the growth rates adopted at the Committee's meeting in September; that is, they would adjust for the overshoot in September in order to achieve the long-run objective of the Committee for the year.

Another group placed less significance on specifying short-run targets precisely consistent with the August-December objectives and cited the volatility of short-run money growth data.

> Other members, while also seeking sharply reduced growth rates of the aggregates in the months ahead, attached less significance to targets precisely consistent with the August-to-December objectives adopted a month earlier, in light of the inherent volatility of the data in the short run. Committee actions affected the money supply only with some lag, and given actions already in place and the uncertainties of the economic outlook, the possibility could not be excluded that very ambitious short-run objectives with respect to restraint could generate undesirable instability in both interest rates and the money supply over a somewhat longer period and thus be counter to the Committee's more fundamental goals.[22]

The Committee adopted a short-run directive that attempted to reconcile the competing views expressed by various groups. The Committee agreed to target paths for M1A, M1B and M2 over the September-December period at annual rates of about 2.5 percent, 5 percent and 7.25 percent, respectively. It was noted that M1B could exceed the upper bound of its long-run range if increases over the months ahead equaled or exceeded the adopted numerical specifications.

November 18 Meeting[23]

Data available to the Committee at this meeting suggested that economic activity was continuing to expand in the fourth quarter. Short-term interest rates rose 1.75 to 3 percentage points over the intermeeting period, while long-term rates increased about 75 basis points. Staff projections suggested that growth of real output in the fourth quarter would be slightly greater than the 1 percent growth rate in real GNP for the third quarter. The staff's projections continued to predict little growth over the next few quarters.

M1A and M1B grew at about 9 and 11 percent annual rates, respectively, in October and were substantially above the short-run objectives voted at the last Committee meeting. The growth of M2 accelerated slightly to a 9 percent rate. Through October, M1A was in the upper part of the Committee's annual

[19]Ibid., p. 886.

[20]Ibid.

[21]"Record" (December 1980), pp. 968-73.

[22]Ibid., pp. 971-72.

[23]"Record" (January 1981), pp. 27-33.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

range; M1B and M2, however, were above their annual ranges.

Most members favored reaffirming the short-run objectives for the monetary aggregates over September-December that were voted at the last meeting, which would require sharp declines in the aggregates during the remainder of the year. Members had differing views, however, on how aggressively to pursue these objectives.

> While favoring sharply reduced growth of the monetary aggregates in the period immediately ahead, a number of members expressed concern about inadvertently contributing to the volatility of interest rates, because of the implications of such volatility for economic activity, for inflationary psychology, and for the functioning of financial markets. Specifically, a substantial reduction in the provision of nonborrowed reserves or other measures in a highly aggressive pursuit of the short-run monetary growth rates being contemplated might lead promptly to further increases in interest rates, which were probably already constraining the business recovery and slowing monetary growth. Subsequent declines in rates might be unduly large, and if monetary growth accelerated again in lagged response, inflationary expectations could well be heightened.[24]

Shortly after the November meeting, data indicated that the monetary aggregates were growing considerably faster than the rates consistent with the Committee's short-run objectives. In addition, the federal funds rate was just above 17 percent, the upper end of the range specified at the November meeting. During a telephone conference on November 26, the Committee raised the upper limit of the federal funds range to 18 percent. The federal funds rate continued to rise, however, and by the morning of December 5 was above 18 percent. On December 5 the Committee temporarily suspended the upper bound of the range, and on December 12 suspended the range until the next scheduled meeting.

December 18-19 Meeting[25]

Information analyzed at this meeting suggested that real economic growth would expand more than in the previous quarter. Prices continued to rise at about a 10.5 percent annual rate. The trade-weighted value of the dollar against major foreign currencies had risen about 2.5 percent since the Committee's mid-November meeting. Staff projections suggested that real output growth, after some accelerated growth in the current quarter, would decline in the first half of 1981. Slow economic growth during the remaining portion of 1981 was also projected. The rise in prices over this period was projected to remain rapid, but not as rapid as in 1980.

Growth of M1A and M1B moderated in November but was still above the Committee's objectives for the period from September to December. The expansion of M2 and M3 in November continued to accelerate. In early December, however, M1A and M1B were actually falling. As measured from the fourth quarter of 1979 through November, growth of M1A was in the upper part of its long-run range; M1B and M2, however, exceeded their respective long-run ranges.

The Committee, in its consideration of a short-term policy directive, reviewed the tentative long-run ranges for 1981 adopted in July. It was agreed that money growth over the first quarter of 1981 should be consistent with the tentative ranges adopted in July for 1981: targeted growth rates for the aggregates were intended to represent a 0.5 percentage point reduction in the ranges adopted for 1980, abstracting from effects of deposit shifts connected with the introduction of NOW accounts on a nationwide basis in January 1981.

> In the short-run the Committee seeks behavior of reserve aggregates associated with growth of M1A, M1B, and M2 over the first quarter along a path consistent with the ranges for growth in 1981 contemplated earlier, which will be reviewed in February 1981. Those ranges, abstracting from the effects of deposit shifts connected with the introduction of NOW accounts on a nationwide basis, imply growth in these aggregates centered on 4.25 percent, 4.75 percent, and 7 percent respectively. It is recognized that the introduction of NOW and ATS accounts nationwide at the beginning of 1981 is likely to widen the discrepancy between growth in M1A and M1B to an extent that cannot now be accurately estimated, and operational reserve paths will be developed in light of evaluation of those differences as they emerge.[26]

In other words, the Committee's task of monitoring and selecting money growth rates over the short-run would have to rely on staff estimates of how these institutional changes were affecting growth of the aggregates. In turn, the Manager of the Open Market Desk would have to translate these short-term paths adopted by "abstracting from the effects of deposit shifts" into reserve paths consistent with these growth rates.

---

[24]Ibid., p. 30.

[25]"Record" (February 1981), pp. 149-54.

[26]Ibid., p. 154.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Grain Export Agreements — No Gains, No Losses

CLIFTON B. LUTTRELL

THERE has been a tremendous amount of publicity about the U.S. grain export agreements with the U.S.S.R. in 1975 and China in 1980. The threat of not renewing the agreement with Russia, which would have terminated October 1 this year, was considered by some to be a heavy penalty — both to the United States and the Soviets. Virtually no economic analysis has been done, however, that looks behind the publicity to determine the actual economic consequences of the treaties. This article assesses the major economic consequences of these agreements.

The Agreements

The first bilateral grain sale agreement was made with the Soviets in 1975 for a five-year period beginning October 1, 1976; the second was made with China in 1980 for a four-year period beginning January 1, 1981. Both agreements call for sales to be made in cash at prevailing market prices. They set minimum and maximum quantities of grain to be purchased from the United States, and prohibit the re-export of the grain to other nations.

The Soviet agreement stipulated that beginning October 1, 1976, the U.S.S.R. would buy six million metric tons of wheat and corn in about equal proportions from U.S. private commercial sources in each 12-month period. This quantity could be increased up to 2 million metric tons in any 12 months without consultation. If the U.S.S.R. wished to purchase additional amounts in any year, it was required to immediately notify the U.S. government.

The agreement with China calls for U.S. grain exports to China of 6 to 8 million metric tons each calendar year beginning January 1, 1981, of which 15 to 20 percent will be corn and the remainder, wheat. China may purchase an additional 1 million tons without prior notification.[1]

Objectives of the Agreements

The purpose of the agreements, according to U.S. government officials in press releases and hearings, is to provide greater stability in Soviet and Chinese purchases of grain from the United States. The agreements allegedly will require the Soviets and Chinese to purchase grain on a regular basis; hence, there should be fewer "surprises" to the U.S. grain markets. The importing nations are assured that during the term of the agreements the United States shall not exercise any discretionary authority to control exports purchased according to the agreement. Charles W. Robinson, a participant in the Soviet agreement, stated, "instead of uncertainty each year as to whether Soviet purchases would be 15 or 20 million tons or zero, grain producers and the markets now have an additional element that can be taken into account . . ." He further contended that farmers, consumers and our maritime industry

[1]The Bureau of National Affairs, Inc., *Daily Report for Executives*, October 22, 1980, pp. L4-5; United States Department of Agriculture, *Report of the Secretary of Agriculture, 1975*, p. 11; *Agricultural Outlook* (December 1980), pp. 18-19; and *Monthly Economic Letter* (First National City Bank of New York, December 1975), pp. 12-13.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

"would all benefit from the expanding opportunities for employment generated by this long-term agreement."[2] Former Agriculture Secretary Bob Bergland, in announcing the agreement with China, said it was necessary to "reduce the element of surprise."[3] The alleged gains to the maritime industry are mentioned because the agreement contains a clause requiring that U.S. vessels carry not less than one-third of all of the grain purchased pursuant to the agreement.

While no official press releases have claimed that the agreements will increase overall grain exports, a number of statements to this effect have been made. For example, in connection with a summary of the U.S. farm export outlook, the United States Department of Agriculture reported that "the four-year grain agreement between the United States and China will boost future U.S. exports of grain to China well above the 4 million tons exported to China in 1979 as well as the previous record of 4.3 million in 1973."[4] The Secretary of Agriculture reported that "grain sales under the Chinese agreement will probably be worth about $1 billion per year."[5]

Furthermore, news coverage of the treaties generally viewed the agreements as vehicles for enhancing export sales. The *St. Louis Globe-Democrat*, referring to the Chinese agreement, reported "the agreement is expected to help appease grain farmers angered by a U.S. grain embargo. . . . The agreement is designed to help trade expansion. . . ."[6]

The favorable early impact of the Soviet agreement on the farm sector was emphasized by *The Economist:* "The day the farmers have been waiting for more and more impatiently came on Monday, October 20th when the grain agreement with the Russians was finally signed."[7] Such announcements led both the farming sector and much of the public at large to view the agreements as vehicles for increasing overall U.S. grain exports and stabilizing year-to-year levels of exports.

Table 1

U.S. Real Farm Exports (millions of 1967 dollars)

Calendar year	Total farm exports	Percent of farm commodity sales
1970[1]	6,599	14.4%
1971[1]	6,808	14.6
1972	7,521	15.4
1973	9,877	20.3
1974	11,458	23.8
1975	11,829	24.8
1976	12,364	24.1
1977	12,916	24.2
1978	13,992	25.4
1979	14,417	26.4
1980	16,772	29.5

[1]Total exports to Soviets were insignificant. Prior to 1972, the Soviets were generally net exporters of grain.

SOURCE: *Agricultural Outlook, U.S. Foreign Agricultural Trade Statistical Report, Agricultural Statistics, Economic Report of the President.*

ASSESSING THE IMPACT OF THE RUSSIAN GRAIN AGREEMENT

Although it is too early to assess empirically the consequences of the grain agreement with China, the Russian agreement provides an opportunity for analysis. From 1917 to 1972, the U.S.S.R. was generally a net exporter of grain. Beginning with the marketing year 1971/72, however, it became a net importer of grain and has remained so each year since then, importing much of its additional requirements from the United States.[8] Hence, the United States exported grain to the Soviets for five years prior to the effective date of the treaty and for five years since the treaty was signed. Although the embargo placed on grain shipments to the Soviets in mid-1979/80 (early January 1980) limited exports to the amounts stipulated in the agreement, it is possible at least partially to assess the treaty's effectiveness in achieving the objectives that have variously been associated with it.

[2]Statement of Charles W. Robinson, Undersecretary for Economic Affairs, Department of State, *United States-Soviet Grain Agreement, S.2492 and Other Matters*, Hearings Before the Subcommittee on International Finance of the Committee on Banking, Housing and Urban Affairs, United States Senate, Ninety-Fourth Congress, S.2492, December 9 & 10, 1975, pp. 66, 67 and 72.

[3]Statement by Secretary of Agriculture Bob Bergland in *Daily Report for Executives*, October 22, 1980, pp. L4-5.

[4]*Agricultural Outlook* (December 1980), p. 18.

[5]*Daily Report for Executives*, October 22, 1980, p. L5.

[6]"Grain Deal," *St. Louis Globe-Democrat*, October 23, 1980.

[7]*The Economist* (October 25, 1975), p. 70.

[8]The marketing year begins June 1 for wheat, barley, and oats, and October 1 for corn and sorghum grain.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Table 2

U.S. Exports of Wheat and Feed Grain (millions of metric tons)

Marketing year[1]	Wheat		Feed grain		Combined	
	Total	To USSR	Total	To USSR	Total	To USSR
1970/71	20.2	—	19.0	—	39.1	—
1971/72	16.6	—	24.6	2.9	41.1	2.9
1972/73	30.9	9.5	39.3	4.2	70.2	13.7
1973/74	33.1	2.7	41.1	5.2	74.2	7.9
1974/75	27.7	1.0	35.9	1.3	63.6	2.3
1975/76	31.9	4.0	50.0	9.9	82.0	13.9
1976/77	25.9	2.9	50.6	4.5	76.5	7.4
1977/78	30.6	3.3	56.3	9.2	86.9	12.5
1978/79	32.5	2.9	60.2	8.3	92.7	11.2
1979/80	37.4	3.9	71.4	11.3	108.8	15.2
1980/81	41.5	3.0	73.1	5.0	114.6	8.0

[1]Year beginning June 1 for wheat, barley, oats and rye; October 1 for corn and sorghum.
SOURCE: U.S. Department of Agriculture, *Foreign Agriculture Circular.*

Impact on Volume of Grain Exports

If the agreement has resulted in larger overall grain exports without offsetting declines in the exports of other farm products, total U.S. farm exports would be expected to show a one-time upward shift following the agreement, other things equal. However, this has not occurred. Real U.S. farm exports, which are shown in table 1, had been increasing at an 11 percent rate from 1970 to 1976 when the grain agreement became effective. This trend largely reflected the freer foreign trade policies that the United States and other nations established in the 1950s and 1960s.[9] Following the treaty (1976-80), farm exports grew at a slower 7.9 percent rate. Hence, if other factors that affect exports remained unchanged, there is no evidence that the growth of total real farm exports has increased in response to the Soviet treaty.

U.S. wheat and feed grain (largely corn) exports are shown in table 2. Again, there is no evidence that the growth of either wheat or feed grain exports has accelerated following the treaty. U.S. wheat exports rose at an average annual rate of 9.6 percent from 1970/71 to 1975/76 (the last pre-treaty marketing year) and at a 5.4 percent rate from 1975/76 to 1979/80. The annual rate of increase in total feed grain exports slowed from 21.4 percent over the 1971/72-1975/76 period to 7.9 percent for the 1975/76-1979/80 period following the treaty. Annual growth in total exports of wheat plus feed grain decelerated from 16.0 percent prior to the treaty to 6.9 percent following the treaty.

The record of U.S.S.R. grain imports and utilization before and after the treaty is shown in table 3. There was no major break in overall grain imports by the Soviets at the effective treaty date (October 1976). The Russians, however, apparently shifted some grain purchases from other nations to the United States following the treaty until the embargo in early 1980. For the five years prior to the treaty, U.S.S.R. purchases average 8.1 million metric tons of grain per year from the United States (72 percent of Soviet net grain imports) and 3.2 million metric tons per year from non-U.S. sources. During the three years following the treaty and prior to the early 1980 grain embargo, Soviet purchases from the United States rose to 10.6 million metric tons per year (84 percent of total Soviet imports), while imports from non-U.S. sources declined to 2.0 million metric tons per year. Hence, the gains in U.S. sales to the Soviets tended to be offset by reduced Soviet grain purchases elsewhere.

This, however, does not indicate that American farmers gained significantly from this response,

[9]See Clifton B. Luttrell, "Rising Farm Exports and International Trade Policies," this *Review* (July 1979), pp. 3-10.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Table 3
U.S.S.R.: Grain Supply and Utilization (millions of metric tons)

Marketing year June-July	Production	Net grain imports[1]			Utilization		Change in stocks	Total grain imports[2] of non-Soviet nations
		From U.S.	From rest of world	Total	Food	Total		
1970/71	187	—	−7.0	−7.0	45	187	− 7	109.7
1971/72	181	2.9	1.6	1.3	45	180	+ 2	108.4
1972/73	168	13.7	7.3	21.0	45	187	+ 2	113.3
1973/74	223	7.9	−2.7	5.2	45	214	+14	137.2
1974/75	196	2.3	−1.9	0.4	45	206	−10	135.4
1975/76	140	13.9	11.5	25.4	45	180	−14	126.8
1976/77	224	7.4	0.3	7.7	45	221	+11	148.3
1977/78	196	12.5	4.1	16.6	45	228	−16	149.9
1978/79	237	11.2	1.6	12.8	46	231	+19	161.1
1979/80[3]	179	15.2	15.0	30.2	46	225	−16	168.3
1980/81[4]	189	8.0[5]	25.0	34.0	47	225	− 2	177.0

[1]Total imports less exports. Prior to 1972 the Soviets were generally net exporters of grain.
[2]World trade less Soviet imports
[3]Preliminary
[4]Forecast
[5]Estimated
SOURCE: U.S. Department of Agriculture: *Foreign Agricultural Circular: Grains; USSR Agricultural Situation: Review of 1976 and Outlook for 1977.*

since they sell grain in the world market. Shifting Soviet purchases from one nation to another does not alter world demand for grain or the average grain price. Shifts in Soviet grain purchases from other grain-exporting nations to U.S. farmers are offset by reduced U.S. exports to non-Soviet nations. No overall change necessarily occurs in total world grain trade.

Stability of USSR Grain Imports

Soviet grain purchases from the United States were somewhat more stable following the signing of the treaty than before. For example, as shown in table 4, the standard deviation (a measure of the variation around the arithmetic mean) of such exports declined (although the decline was not statistically significant) from 6.0 million metric tons during the six pre-treaty years (1970/71-1975/76) to 3.2 million in the five years following the treaty.[10] However, as shown in table 3, the Soviets realized an unusually small harvest in 1975/76 which tended to distort the results toward less stability in the pre-treaty years.

Stability of World Grain Markets

Just because Soviet grain purchases from the United States may have been more stable following the treaty, however, does not mean that world grain markets were stabilized by the treaty. In fact, the increased stability of purchases from the United States may have led to less stable purchases from other nations. Although the difference is not statistically significant, the standard deviation of net Soviet purchases from other nations rose from 7.0 million metric tons in the pre-treaty years to 10.6 million metric tons following the treaty. As a result, total imports by the Soviets show little evidence of increased stability since the treaty. The standard deviation of total Soviet imports declined only from 12.7 million metric tons prior to the treaty to 11.0 million metric tons following the treaty.

Any apparent increase in stability of Soviet grain imports following the treaty can in part be explained by smaller fluctuations in year-to-year Soviet grain production in the post-treaty years. Grain production in the Soviet Union has always varied widely from

[10]The coefficient of variation (the standard deviation divided by the arithmetic mean) declined from .887 to .297.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

Table 4

Measures of Annual Variation in U.S.S.R. Grain Production, Imports and Utilization, Before and After Treaty (millions of metric tons)

	Before treaty (1970/71-1975/76)			After treaty (1976/77-1980/81)		
	Arithmetic mean	Standard deviation	Coefficient of variation	Arithmetic mean	Standard deviation	Coefficient of variation
Production	182.5	27.8	.152	205.0	24.5	.119
Imports from:						
U.S.	6.8	6.0	.887	10.9	3.2	.297
Other nations	0.9	7.0	7.458	9.2	10.6	1.148
Total imports	7.7	12.7	1.646	20.1	11.0	.550
Total utilization	192.3	14.3[1]	.074	226.0	3.7[1]	.016
Non-U.S.S.R. imports	121.8	13.0	.106	160.9	12.2	.075

[1]Standard deviations which were significantly different at the 5 percent level.
SOURCE: Table 3.

year to year, reflecting a larger variability in weather conditions compared with many other nations, but the variation was somewhat less following the treaty.[11]

Furthermore, total international grain imports by all non-Soviet nations were apparently more stable following the agreement. The standard deviation of such imports declined (although the decline was not statistically significant) from 13.0 million tons prior to the treaty to 12.2 million following the treaty, and the coefficients of variation declined from .106 to .075, respectively.

Stability of Grain Price

To the extent that Soviet grain purchases from the United States following the agreement were stabilized at the expense of greater instability in their purchases elsewhere, the agreements were not a factor in stabilizing either U.S. or world grain prices. The U.S. price is determined by world supply and demand conditions, and Soviet purchases from any other nation typically have about the same impact on U.S. grain prices as if the purchases were made directly from the United States.

Although prices of feed grain and wheat apparently stabilized somewhat from the pre-treaty years 1970-76 to the post-treaty years 1977-80, this apparent stability is not statistically confirmed.[12] Moreover, the average price of all U.S. crops shows greater reduction in variation than feed grain and wheat prices. Hence, apparent price variability declined more in crops *not* involved in the treaty than in feed grain and wheat. Once again, there is no evidence that the treaty provided a price-stabilizing impact on the traded grains.

Grain Storage

Increased storage of grain by the Soviets following the treaty could have resulted in less variable Soviet grain imports and, hence, had some effect on world grain prices.[13] Greater buildup of grain reserves

[11]During the six pre-treaty years the standard deviation of Soviet grain production declined from 27.8 million metric tons with a coefficient of variation of .152, to 24.5 million metric tons with a coefficient of variation of .119 following the treaty.

[12]During the pre-treaty years the coefficient of variation of the price of feed grain was .387 and for all crops .321, while in the post-treaty years the coefficient of variation of the price of feed grain was .139 and for all crops .101. In other words, the coefficient of variation for all crops was 83 percent as large as the coefficient for feed grain in the pre-treaty period but was only 73 percent as large in the post-treaty years. The coefficient of variation for all crops likewise declined relative to wheat, dropping from 68 percent of the wheat coefficient in the pre-treaty years to 44 percent in the post-treaty years.

[13]A factor that tended to increase the variability of Soviet imports following the treaty was the increased stability of Soviet grain usage. Total year-to-year grain utilization by the Soviets was definitely stabilized about 1976/77, the year in which the treaty was made. During the five pre-treaty years total grain utilization fluctuated quite sharply from year to year having a standard deviation of 15.7 million metric tons. Following the treaty the standard deviation of total grain utilization was only 4.3 million metric tons. The coefficients of variation of grain usage prior to and following the treaty were .08 and .02, respectively.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

during good crop years would permit the Soviets to utilize such reserves and to import less than otherwise following poor crop years. Charles Robinson contended that a Soviet buildup of grain reserves is inherent in the agreement because they are committed to purchase a minimum quantity of grain each year.[14] Of course, it could always be argued that the Soviets have less incentive to store large quantities of grain with an assured supply available at market prices. Nevertheless, with greater grain stocks, the Soviets could have supplemented grain usage with less imports following relatively small grain harvests.

The data, however, indicate that no buildup in Soviet grain stocks occurred following the treaty. Total Soviet grain stocks declined 13.0 million metric tons during the six pre-treaty calendar years 1970/71-1975/76 and declined another 5.0 million during the five post-treaty years 1976/77-1980/81 (table 3). Furthermore, as indicated earlier, Soviet grain production was larger and somewhat *less variable* in the post-treaty years than during the pre-treaty years. Hence, if the Soviets had plans for increasing their stock of stored grain, the post-treaty years would have been a relatively favorable period in which to do so. Evidence, however, indicates that instead of increasing stocks, the Soviets increased reliance on world markets to smooth out the impact of variation in annual production on short-run supply so as to maintain relatively stable consumption.

Exports Following Treaty Consistent With A World Grain Market

Grain is sold by those nations in which the cost of producing it is low relative to the world price; it is purchased by those nations in which the cost of producing (more) grain is high relative to the world price. Unless the Soviet or Chinese grain agreements have an impact on overall grain demand or upon world grain production (supply), they will have no impact on overall grain shipments or on total U.S. grain exports.[15]

Table 5

Soviet Grain Utilization, Livestock Inventory and Meat Production, Before and After Treaty (annual rates of change)[1]

	1972-75	1977-80
Grain utilization[2]	4.9 %	0.6 %
Cattle	2.1	1.4
Hogs	0.4	5.3
Sheep	1.3	0.9
Poultry	3.2	7.9
Meat production	3.2	1.5

[1]1976, the year of the agreement, was excluded because of extremely low Soviet grain production.

[2]Marketing year as in table 3.

SOURCE: U.S. Department of Agriculture, *Foreign Agriculture*, and table 2. Livestock numbers as of January 1; meat production for calendar year.

For example, if the Soviets purchase more grain from the United States and less elsewhere (i.e., there is no change in total Soviet imports) at market prices, other grain exporting nations will, in turn, export less to the Soviets and more to the other importing nations such as Japan and Western Europe. The world price would still allocate world grain production (supply) to world consumers (demand) as though the treaty did not exist, and total U.S. exports would remain unchanged. If the agreement, for example, required the Soviets to purchase more grain from the United States in any one marketing year than they wanted to purchase, they could reduce their purchases from other nations or sell some of their domestically produced grain on the world market to offset the unwanted purchases. Hence, the minimum purchase requirements of the agreement likewise have little net impact on world grain trade or world grain price.

Despite the greater stability in grain utilization in the Soviet Union in recent years, there is no evidence that the volume of grain utilization, livestock numbers or meat production have accelerated since the agreement. Total Soviet grain use rose 4.9 percent per year during the four years prior to the agreement and 0.6 percent per year from 1977 to 1980 after the agreement (table 5).

[14]Statement by Charles W. Robinson, p. 69.

[15]Like the recent grain embargo to the Soviets, the grain export agreement is not consistent with a commercial world grain market. Such a market continues to function despite the numerous trading agreements between governments that often ignore market price, and while a world market exists, government actions such as bilateral trade agreements and grain embargos can do little to increase or impede world trade or to reduce price variability caused by crop failures or above average crops in individual nations. Grain continues to move from areas where grain prices are relatively low to areas where grain prices are relatively high. For a further discussion of this topic see Clifton B. Luttrell, "The Russian Grain Embargo," this *Review* (August/September 1980), pp. 2-8.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

The rates of increase in Soviet cattle and sheep numbers have declined, the former from 2.1 to 1.4 percent per year and the latter from 1.3 to 0.9 percent per year. While the rate of increase in hogs accelerated, almost all the gain was the result of a catch-up process to replenish hog numbers that were reduced sharply following the very sharp decline in the 1975/76 grain crop. Hog numbers dropped 20 percent from January 1975 to January 1976, and in January 1977 were still about 12 percent less than in 1975. Hog numbers rose only about 0.3 percent per year during the entire period 1972-80. Of the food animals, only poultry has accelerated since the agreement from a 3.2 percent annual rate in the four years prior to the treaty to a 7.9 percent rate during the post-treaty years.

Overall, Soviet meat production, while maintaining greater year-to-year stability since the agreement, has shown less growth. During the four pre-treaty years meat output rose at a 3.2 percent rate; in the post-treaty years it has risen at a 1.5 percent rate. Consequently, the trend toward rising dependence on imports of grain by the Soviets occurred largely prior to the grain agreement. There is no evidence that the treaty has increased the trend or led to additional overall imports.

SUMMARY

The Soviet grain agreement may have had some desirable side effects. If information on crop conditions is obtained through the treaty, it serves as a tool to help price the grain stocks on hand, and hasten the expansion or contraction of production in the rest of the world in response to the latest Soviet crop conditions. There is little evidence, however, that the agreement has contributed to rising U.S. grain exports, greater stability of U.S. grain exports, or greater grain price stability.

Soviet grain purchases from U.S. sources have become somewhat more stable, but their purchases from other grain-exporting nations have apparently become more variable, offsetting the price-stabilizing effects of their less erratic U.S. purchases. U.S. grain prices have stabilized somewhat since 1976. However, relative to the price behavior of all crops, both feed grain and wheat prices have been less stable since the agreement.

These results are consistent with a world grain market where grains move *relatively freely* between areas. In such a world market, agreements can do little to affect the overall grain trade of a nation. Increased sales to one nation are offset by reduced sales to other nations. The world price allocates production to consumers and a decision by one nation to make all of its sales to or purchases from another nation will not have a significant impact on total world grain trade or on the world grain price.

Digitized for FRASER
http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis