SHADOW OPEN MARKET COMMITTEE

Policy Statement and Position Papers

September 13, 1976

Draft: Policy Statement
Shadow Open Market Committee
September 13, 1976

Recovery and sustained expansion has been achieved with policies
that gradually reduce inflation. At its meeting today, the Shadow Open
Market Committee considered the current position of the economy and the
near-term outlook.

The Committee concluded that the policy of gradually reducing the
growth rate of the money stock should be continued. A 4 per cent annual
rate of growth of money -- currency and demand deposits -- was recommended
as appropriate policy for the next six months. A 4 per cent rate of
monetary growth would bring the stock of money to an average of $310
billion in the first quarter of 1977 and an average of $316 billion in
the third quarter of 1977. Most importantly, 4 per cent monetary growth
would move the rate of monetary expansion closer to the range that
permits sustained economic expansion without inflation.

The Recent Past and the Future

Evidence of a reduced rate of economic expansion and a lower
reported rate of inflation during recent weeks has revived discussion
of the policy appropriate for the current state of the economy. Some
urge greater stimulus to employment and production and less concern for
inflation on grounds that the problem of inflation has been reduced and
the problem of unemployment has become more severe than expected.

Substantial progress toward higher employment and lower inflation
was achieved in the past year by avoiding the type of policy that is

again recommended. Tax reduction, gradual reduction in the growth of money and increased stability in government policy proved more powerful than many supposed. Continuation of these stabilizing policies will, we believe, move the economy toward a lower rate of inflation and a lower rate of unemployment in 1977.

A year ago, recovery and reduced inflation seemed less certain. Many economists urged a return to highly expansive policies of the past. The Congressional Budget Office reported that, according to their projections, an 8.5% rate of monetary growth would produce 5-6% real expansion and about 7.5% inflation in 1976. They appeared to favor a 10% rate of monetary expansion to raise the growth rate of real output at a cost of more inflation. Others favored rates of monetary expansion as high as 15% in the belief that the recession was the most severe in decades so that rapid monetary expansion would draw unused resources into production without increasing the rate of inflation.

A year ago, we called attention to a misinterpretation. Rational policy, we said, requires "a distinction between a decline attributable to real shocks and a decline attributable to cyclical forces." Real shocks reduce potential output and capacity. Ignoring the effect of real shocks "magnifies estimates of the gap to be eliminated by expansion and policies."

We concluded, then, that a 5.5% rate of monetary expansion would be adequate to sustain recovery and reduce inflation. In March, we

lowered the recommended rate of monetary expansion to 4.5%. In reaching

our conclusions, we recognized that monetary policy can contribute to

cyclical recovery but can do little to replace capacity lost in the shocks

of recent years.

The Federal Reserve has produced a rate of monetary growth that, though

variable differs little on average from the path we recommended. Reduction

in the rate of monetary policy is a main reason that we can look forward

to continued moderate expansion and slower inflation. But to end inflation,

monetary growth must be further reduced.

The Congressional Budget Office projects a 5 to 6% rate of inflation

in the early 1980's. They foresee little further progress against infla-

tion in this decade and rising inflation in the eighties.

A 5 to 6% rate of inflation is not inevitable. Experiences in

countries that reduced monetary growth shows that monetary policy can

reduce inflation.

The 4% rate of monetary growth that we recommend for next year will,

if maintained, bring the rate of inflation below the projections of the

Congressional Budget Office long before 1980. If the economy continues

to expand at the moderate pace we now anticipate, further reductions in

the rate of monetary growth can and should be achieved in 1977 and later

years.

Congressional Resolution 133

Since the spring of 1975 the Federal Reserve has reported to the

Congress on the projected annual rate of monetary expansion. Concurrent

Resolution 133 requires the reports expire with the present Congress.
The reports are now widely discussed in the financial press and provide
information useful for private planning.

A principal benefit of resolution 133 is that the Federal Reserve
has been encouraged to direct more attention to the longer-term
consequences of its current operating targets. Mistakes that produced
excessive or deficient monetary growth have, often, been corrected. Much
of the progress toward higher employment and lower inflation results
from the increased attention to longer-term consequences of current
policy.

We urge that resolution 133 be renewed and that the reports on monetary
growth be made permanent.

Alternative Scenarios for S.O.M.C. Meeting

FIRST NATIONAL CITY BANK
MACRO FORECAST

8 QUARTERS
1976:1 THROUGH 1977:4
(IN BILLIONS OF $)
MAY   8, 1976

5%

	**** 1976 ****				**** 1977 ****			
	I	II	III	IV	I	II	III	IV
M1	297.20	300.94	304.53	308.27	313.05	315.8.	319.76	323.69
VR RATE	3.43	5.00	5.00	5.00	5.00	5.00	5.00	5.00
NOM GNP	1599.41	1626.74	1654.27	1684.98	1717.86	1752.3.	1787.15	1822.72
VR RATE	7.02	7.01	6.94	7.64	8.04	8.3.	8.19	8.20
PRICE	131.32	133.17	134.99	136.45	137.85	139.12	140.28	141.34
VR RATE	6.32	5.78	5.25	4.71	4.18	3.74	3.39	3.03
REAL GNP	1217.98	1221.52	1226.40	1234.89	1246.18	1259.5.	1273.94	1289.64
VR RATE	0.69	1.17	1.61	2.80	3.71	4.3.	4.64	5.02
UNEMPLOV	8.03	8.25	8.44	8.58	8.65	8.66	8.63	8.58

1.4

7 1/2%

	**** 1976 ****				**** 1977 ****			
	I	II	III	IV	I	II	III	IV
M1	297.20	302.62	308.14	313.76	319.48	325.31	331.25	337.29
VR RATE	3.43	7.50	7.50	7.50	7.50	7.50	7.50	7.50
NOM GNP	1599.41	1631.77	1668.06	1710.24	1756.03	1804.0.	1852.49	1901.30
VR RATE	7.02	8.34	9.20	10.51	11.15	11.4.	11.17	10.96
PRICE	131.32	133.17	134.90	136.49	137.94	139.3.	140.61	141.86
VR RATE	6.32	5.78	5.32	4.78	4.33	4.02	3.80	3.62
REAL GNP	1217.98	1225.30	1236.95	1253.10	1273.03	1295.0.	1317.49	1340.23
VR RATE	0.69	2.42	3.73	5.46	6.53	7.1.	7.10	7.08
UNEMPLOV	8.03	8.23	8.32	8.31	8.20	8.0.	7.81	7.60

2.9

10%

	**** 1976 ****				**** 1977 ****			
	I	II	III	IV	I	II	III	IV
M1	297.20	304.36	311.70	319.22	326.91	334.80	342.87	351.14
VR RATE	3.43	10.00	10.00	10.00	10.00	10.00	10.00	10.00
NOM GNP	1599.41	1636.80	1681.84	1735.23	1794.08	1856.1.	1918.54	1981.14
VR RATE	7.02	9.68	11.47	13.32	14.27	14.5.	14.14	13.70
PRICE	131.32	133.17	134.90	136.51	138.02	139.4.	140.92	142.39
VR RATE	6.32	5.78	5.30	4.86	4.49	4.2.	4.22	4.21
REAL GNP	1217.98	1229.07	1246.70	1271.11	1299.86	1330.7.	1361.40	1391.40
VR RATE	0.69	3.69	5.86	8.07	9.26	9.8.	9.52	9.11
UNEMPLOV	8.03	8.21	8.20	8.04	7.75	7.3.	6.98	6.60

4.4

(BILLIONS OF DOLLARS--SEASONALLY ADJUSTED ANNUAL RATES)   AUGUST 13,1976

	ACTUAL			FORECAST						ANNUAL 1973	ANNUAL 1974	ANNUAL 1975	ANNUAL 1976	ANNUAL 1977
	75:4	76:1	76:2	76:3	76:4	77:1	77:2	77:3	77:4					
GROSS NATL PRODUCT	1588.2	1636.2	1673.0	1708.0	1748.0	1788.0	1825.0	1864.0	1903.0	1306.6	1413.2	1516.3	1691.3	1845.0
%CH	10.6	12.6	9.3	8.6	9.7	9.5	8.5	8.8	8.6	11.6	8.2	7.3	11.5	9.1
CONSTANT DOLLAR GNP	1219.2	1246.3	1259.7	1272.2	1286.5	1301.5	1314.0	1327.6	1340.4	1235.0	1214.0	1191.7	1266.2	1320.9
%CH	3.3	9.2	4.4	4.0	4.6	4.7	3.9	4.2	3.9	5.5	-1.7	-1.8	6.3	4.3
PRICE DEFLATOR	1.3027	1.3129	1.3281	1.3426	1.3587	1.3738	1.3889	1.4040	1.4197	1.0579	1.1646	1.2721	1.3356	1.3966
%CH	7.1	3.2	4.7	4.4	4.9	4.5	4.5	4.4	4.5	5.8	10.1	9.2	5.0	4.6
CONSUMPTION EXPENDITURES	1012.0	1043.7	1064.5	1087.0	1113.5	1139.0	1162.5	1186.0	1209.0	809.8	887.5	973.2	1077.2	1174.1
%CH	10.4	13.1	8.2	8.7	10.1	9.5	8.5	8.3	8.0	10.5	9.6	9.7	10.7	9.0
DURABLES	141.8	151.4	154.1	157.0	163.0	168.0	173.0	177.0	181.0	123.7	121.6	131.7	156.4	174.7
%CH	18.2	30.0	7.3	7.7	16.2	12.8	12.4	9.6	9.4	11.2	-1.7	8.3	18.7	11.8
NONDURABLES	421.6	429.1	434.8	444.0	453.5	463.0	471.0	480.0	489.0	333.8	376.2	409.1	440.3	475.7
%CH	6.9	7.3	5.4	8.7	8.8	8.6	7.1	7.9	7.7	11.5	12.7	8.7	7.6	8.0
SERVICES	448.6	463.2	475.6	486.0	497.0	508.0	518.5	529.0	539.0	352.3	389.6	432.4	480.4	523.6
%CH	11.4	13.7	11.1	9.0	9.4	9.2	8.5	8.3	7.8	9.3	10.6	11.0	11.1	9.0
INVESTMENT EXPENDITURES	201.4	229.5	236.2	246.0	252.0	262.0	272.0	282.0	291.0	220.0	214.9	183.7	240.9	276.7
%CH	9.9	68.6	12.2	17.7	10.1	16.8	16.2	15.5	13.4	16.9	-2.3	-14.5	31.1	14.9
NONRES FIXED EXPEND	148.7	153.4	158.4	163.0	167.0	172.5	178.0	183.0	188.0	136.0	149.2	147.2	160.4	180.4
%CH	7.3	13.3	13.7	12.1	10.2	13.8	13.4	11.7	11.4	16.4	9.7	-1.4	9.0	12.4
PRODUCERS DUR EQUIP	96.6	100.2	103.1	107.0	110.0	113.5	117.5	121.0	124.0	87.0	95.1	95.1	105.1	119.0
%CH	10.1	15.8	12.1	16.0	11.7	13.3	14.9	12.5	10.3	17.0	9.4	-0.0	10.5	13.3
BUSINESS STRUCTURES	52.1	53.2	55.3	56.0	57.0	59.0	60.5	62.0	64.0	49.0	54.1	52.0	55.4	61.4
%CH	2.3	8.7	16.7	5.2	7.3	14.8	10.6	10.3	13.5	15.3	10.4	-3.8	6.4	10.8
RESIDENTIAL STRUCTURES	57.0	61.3	64.5	69.0	74.5	80.0	84.0	86.0	88.0	66.1	55.1	51.2	67.3	84.5
%CH	37.9	33.8	22.6	31.0	35.9	33.0	21.6	9.9	9.6	6.6	-16.7	-7.0	31.5	25.5
INVENTORY CHANGE	-4.3	14.8	13.3	14.0	10.5	9.5	10.0	13.0	15.0	17.9	10.7	-14.6	13.2	11.9
NET EXPORTS	21.0	8.4	9.1	5.0	4.0	.3.0	0.5	0.0	0.0	7.2	7.5	20.5	6.6	0.9
GOVT PURCHASES	353.7	354.6	363.1	370.0	378.5	384.0	390.0	396.0	403.0	269.5	303.3	339.0	366.6	393.2
%CH	12.8	1.0	9.9	7.8	9.5	5.9	6.4	6.3	7.3	6.5	12.5	11.8	8.1	7.3
FEDERAL	130.3	129.1	132.3	135.5	140.0	142.0	144.0	146.0	149.0	102.2	111.7	124.4	134.2	145.2
%CH	19.6	-3.6	10.3	10.0	14.0	5.8	5.8	5.7	8.5	0.0	9.3	11.4	7.9	8.2
MILITARY	87.1	86.2	88.4	89.5	92.5	94.0	95.0	96.0	98.0	73.5	77.3	84.3	89.2	95.7
OTHER	43.2	42.9	43.9	46.0	47.5	48.0	49.0	50.0	51.0	28.7	34.4	40.1	45.1	49.5
STATE & LOCAL	223.4	225.5	230.8	234.5	238.5	242.0	246.0	250.0	254.0	167.3	191.6	214.5	232.3	248.0
%CH	9.1	3.8	9.7	6.6	7.0	6.0	6.8	6.7	6.6	10.8	14.5	12.0	8.3	6.7

NOTE: PERCENTAGE CHANGES AT ANNUAL RATES; PRELIMINARY DATA FOR 76:2

	ACTUAL			FORECAST						ANNUAL 1973	ANNUAL 1974	ANNUAL 1975	ANNUAL 1976	ANNUAL 1977
	75:4	76:1	76:2	76:3	76:4	77:1	77:2	77:3	77:4					
PRETAX PROFITS*	131.3	141.1	145.6	149.5	155.5	160.5	164.5	168.5	171.5	115.8	127.6	114.5	147.9	166.2
%CH	14.6	33.4	13.4	11.2	17.0	13.5	10.3	10.1	7.3	20.4	10.2	-10.2	29.1	12.4
TAX LIABILITY	57.2	61.4	63.3	65.0	67.6	69.8	71.6	73.3	74.6	48.7	52.4	49.3	64.4	72.3
%CH	18.7	32.8	13.2	11.2	17.0	13.5	10.3	10.1	7.3	17.3	7.6	-6.1	30.7	12.4
AFTER TAX PROFITS	74.1	79.7	82.3	84.5	87.9	90.7	92.9	95.2	96.9	67.1	75.2	65.3	83.6	93.9
%CH	11.6	33.8	13.5	11.2	17.0	13.5	10.3	10.1	7.3	22.8	12.1	-13.1	28.0	12.4
AFT. TAX PROF. ADJ.1)	48.300	53.700	52.664	53.968	57.357	60.183	61.442	62.702	63.397	50.400	32.425	42.375	54.422	61.931
%CH	-16.3	52.8	-7.5	10.3	27.6	21.2	8.6	8.5	4.5	-0.2	-35.7	30.7	28.4	13.8
PERSONAL INCOME	1299.7	1331.3	1361.4	1388.0	1423.0	1456.0	1486.0	1517.0	1548.0	1052.5	1153.3	1249.7	1375.9	1501.7
%CH	11.3	10.1	9.4	8.0	10.5	9.6	8.5	8.6	8.4	11.7	9.6	8.4	10.1	9.1
TAX & NONTAX PAYMENT	179.8	183.8	189.6	194.9	201.9	208.5	214.5	220.7	226.9	150.8	170.4	168.8	192.6	217.7
%CH	14.0	9.2	13.2	11.7	15.2	13.7	12.0	12.1	11.7	6.8	13.0	-0.9	14.1	13.0
DISPOSABLE INCOME	1119.9	1147.6	1171.8	1193.1	1221.1	1247.5	1271.5	1296.3	1321.1	901.6	982.9	1080.8	1183.4	1284.1
%CH	10.8	10.3	8.7	7.5	9.7	8.9	7.9	8.0	7.9	12.5	9.0	10.0	9.5	8.5
PERSONAL OUTLAYS	1036.2	1068.1	1089.2	1112.2	1139.1	1165.0	1188.9	1212.8	1236.2	831.3	910.7	996.8	1102.2	1200.7
%CH	10.3	12.9	8.1	8.7	10.0	9.4	8.5	8.3	7.9	10.6	9.6	9.5	10.6	8.9
PERSONAL SAVINGS	83.7	79.5	82.6	80.9	82.0	82.5	82.6	83.5	84.9	70.4	72.2	84.0	81.2	83.4
%CH	16.9	-18.6	16.5	-8.1	5.6	2.5	0.5	4.4	6.9	42.5	2.7	16.3	-3.3	2.6
SAVING RATE(%)	7.5	6.9	7.0	6.8	6.7	6.6	6.5	6.4	6.4	7.8	7.3	7.8	6.9	6.5
EMPLOYMENT	85.241	86.402	87.532	88.000	88.500	89.000	89.500	90.000	90.500	84.374	85.949	84.784	87.608	89.750
%CH	0.5	5.6	5.3	2.2	2.3	2.3	2.3	2.3	2.2	3.3	1.9	-1.4	3.3	2.4
LABOR FORCE	93.153	93.553	94.546	95.200	95.600	96.000	96.500	97.000	97.400	88.678	91.062	92.652	94.725	96.725
%CH	0.1	1.7	4.3	2.8	1.7	1.7	2.1	2.1	1.7	2.5	2.7	1.7	2.2	2.1
UNEMPLOYMENT RATE(%)	8.5	7.6	7.4	7.6	7.4	7.3	7.3	7.2	7.1	4.9	5.6	8.5	7.5	7.2
PRODUCTIVITY*	14.303	14.424	14.391	14.456	14.537	14.624	14.681	14.752	14.811	14.637	14.124	14.054	14.452	14.717
%CH	2.8	3.4	-0.9	1.8	2.3	2.4	1.6	1.9	1.6	2.1	-3.5	-0.5	2.8	1.8
INDUSTRIAL PRODUCTION	1.234	1.270	1.293	1.306	1.322	1.338	1.353	1.367	1.380	1.297	1.293	1.178	1.298	1.360
%CH	9.9	12.4	7.4	4.0	5.0	4.9	4.6	4.2	3.9	8.4	-0.3	-3.9	10.2	4.7
MONEY SUPPLY-(M1)	294.6	296.5	302.7	307.0	311.0	315.0	319.5	323.5	328.0	263.3	277.7	289.5	304.3	321.5
%CH	2.3	2.7	8.6	5.8	5.3	5.2	5.8	5.1	5.7	7.5	5.5	4.2	5.1	5.6
VELOCITY OF M1	5.391	5.518	5.527	5.564	5.621	5.676	5.712	5.762	5.802	4.962	5.089	5.236	5.557	5.738
%CH	8.1	9.7	0.7	2.7	4.2	4.0	2.6	3.5	2.8	3.8	2.6	2.9	6.1	3.3
MONEY SUPPLY-(M2)	660.7	677.4	696.5	711.0	725.5	740.0	756.0	771.0	787.0	549.1	595.4	641.0	702.6	763.5
%CH	6.6	10.5	11.8	8.6	8.4	8.2	8.9	8.2	8.6	9.6	8.4	7.7	9.6	8.7
VELOCITY OF M2	2.404	2.416	2.402	2.402	2.409	2.416	2.414	2.418	2.418	2.379	2.374	2.365	2.407	2.415
%CH	3.8	2.0	-2.2	0.0	1.2	1.1	-0.4	0.6	0.1	1.8	-0.2	-0.4	1.8	0.4

NOTE: PROFITS FOR 76:2 ARE ESTIMATES; PRODUCTIVITY IS CALCULATED AS CONSTANT DOLLAR GNP PER WORKER

	ACTUAL		FORECAST							ANNUAL 1973	ANNUAL 1974	ANNUAL 1975	ANNUAL 1976	ANNUAL 1977
	75:4	76:1	76:2	76:3	76:4	77:1	77:2	77:3	77:4	1973	1974	1975	1976	1977
INTEREST RATES														
S&P COMP. AAA BONDS	8.650	8.490	8.490	8.300	8.000	7.750	7.750	7.750	7.750	7.557	8.250	8.635	8.320	7.750
PRIME RATE	7.58	6.83	6.90	7.00	7.25	7.25	7.50	7.50	7.50	8.02	10.80	7.86	7.00	7.44
COMMERCIAL PAPER 4-6MTS.	6.12	5.29	5.57	5.75	6.25	6.40	6.50	6.60	6.70	8.15	9.84	6.32	5.72	6.55
AUTO SALES 1/	9.1	10.2	10.1	10.1	10.6	10.9	11.1	11.3	11.5	11.5	8.9	8.7	10.3	11.2
DOMESTIC	7.7	8.9	8.7	8.7	9.2	9.4	9.6	9.8	10.0	9.7	7.5	7.1	8.9	9.7
IMPORTS	1.4	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.8	1.4	1.6	1.4	1.5
HOUSING STARTS 1/	1.365	1.400	1.430	1.600	1.700	1.730	1.750	1.800	1.800	2.044	1.332	1.163	1.532	1.770

1/ IN MILLIONS OF UNITS--SEASONALLY ADJUSTED ANNUAL RATES

Monetary Policy, Inflation and Economic Expansion

Karl Brunner

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Position paper prepared for the meeting of the
Shadow Open Market Committee - September 13,1976.

I.   Introduction

Economic recovery, continued expansion of activity and a gradual decline in the rate of inflation distributed over a number of years are the central concern of the SOMC. The Committee proposed since its formation in 1973 a course of fiscal and monetary policy designed to restore a comparatively stable price-level over a period covering probably five to seven years. It opposed therefore in its meeting of September 1975 all suggestions for a substantial increase in the deficit or proposals involving a large monetary acceleration. The SOMC recommended that Federal Reserve policy continue on a moderate course located towards the lower end of the target range announced by the FOMC. It was the sense of the SOMC that this course would assure with sufficient likelihood a continued recovery of the economy. The SOMC reaffirmed its basic position in the meeting held in March 1976. It expected however some moderation of economic expansion during spring and summer but saw no danger of abortion or early reversal of economic recovery. The Committee recommended that monetary growth be slightly reduced and follow a path averaging 4 1/2% p.a. from the first quarter 1976 to the first quarter of 1977. This modification should assure some further retardation of inflation over the subsequent two years.

The current session of the SOMC confronts the Committee with the same basic issues centered on economic expansion and inflation. Monetary policies pursued until the end of 1977 will substantially determine the direction of inflation   over the next two years. The rate of inflation fell by a wide margin since its peak in 1974 and monetary policy should be carefully designed to lower the remaining rate of inflation until the end of 1978

to a range around 2% p.a. The SOMC should also emphasize the importance
of a long-range view of financial policies moving the economy by the
end of the decade to a stable price-level.

The sections of the position paper cover a variety of issues asso-
ciated with the central thrust of the SOMC's goal. Section II describes
the monetary evolution in the recent past and considers the Fed's per-
formance and targeting policies. The discussion of some options confronting
the SOMC opens Section III. This section attends furthermore to the
Humphrey-Hawkins bill, emphasizes the importance of an independent Federal
Reserve System and refers to the potential usefulness of the report on
"Improving the Monetary Aggregates" recently published by the Board of
Governors.

II. Monetary Evolution and Monetary Policy

  1. The Evolution of Monetary Patterns

Tables I to III summarize longer-range, intermediate-range and short-
run patterns of monetary growth. We note in table I that M_1 grew in three
successive years at a rate between 4.1% and 5.7%, whereas the growth of
M_2 spanned a range from 7.3% to 9.8%. Previous position papers discussed
in some detail the role of the shifting time deposit ratio and currency
ratio in the money supply process over the past years. A persistent in-
crease in the time deposit ratio (ratio of time to demand deposits)
determined the divergence between the growth rates of M_1 and M_2. The
problem posed for monetary policy by such divergent movements will be
considered in a subsequent paragraph. Attention is directed here to the
relative stability of monetary growth in the average over the past three

TABLE I: Growth Rates of M_1, M_2 and B Over Three Successive Years

The growth rates are computed with quarterly averages of monthly data.

	M_1	M_2	B
II/1973 to II/1974	5,7	8,7	7.8
II/1974 to II/1975	4.1	7.3	7.1
II/1975 to II/1976	5.2	9.8	7.2

TABLEII: Annual Growth Rates in % of M_1, M_2 and B Over Successive Two Quarter Periods

	M_1	M_2	B
IV/1973 to II/1974	6.0	8.8	8.8
II/1974 to IV/1974	4.2	6.6	7.9
IV/1974 to II/1975	4.0	8.1	6.2
II/1975 to IV/1975	4.8	8.5	7.2
IV/1975 to II/1976	5.6	11.1	7.3

years. Moreover, both M_1 and M_2 moved in the average over this period

on a track well designed to lower the inherited rate of inflation. The

broader aspects of monetary evolution are thus largely compatible with

the general ideas advocated by the SOMC.

Some aspects of intermediate run movements are presented in table II.

The growth rates of M_1 and M_2 over two successive (and non-overlapping)

quarters span a range from 4% p.a. to 6% p.a. or from 6.6% to 11.1% re-

spectively. We note in particular the large divergence between the two

growth rates over the first half of the current year.

Table III continues the description of the shortest-run patterns dis-

cussed in some detail in previous position papers. We note an increase

in monetary growth since early March from 7% p.a. between successive four

week periods to about 20% p.a. by early May. This acceleration was followed

by a deceleration lasting until the end of June lowering monetary growth to

about minus 3% p.a. Monetary growth emerged on a new track since early

July. An inspection of the proximate determinants shows the important role

of the public's and the banks' behavior in the shortest-run variations in

monetary growth. The contribution emanating from the adjusted reserve ratio

fluctuated bewteen -9.3% and 11.5% since early March of this year. The

monetary base moved within a range (-3.1% to 19.8%) of similar order, whereas

the contributions produced by changes in the currency ratio and the time

deposit ratio remained confined to a comparatively small range (-.4% to 4.5%

for the currency ratio, and -6.1% to 4.5% for the time deposit ratio). It

is noteworthy that the sum of the contributions made by the base and the

adjusted reserve ratio exhibits a much smaller variability than either one

TABLE III: Compound Annual Rates of Change to the Average of the Four Weeks on the Dates Shown in the Table from the Four-Week Average Ended Four Weeks Earlier.

Date Four Weeks Ended 1976	(1) Money Supply (M-1)	(2) Monetary Base	(1-2)	Contribution of the Adjusted Reserve Ratio	Contribution of the Currency Ratio	Contribution of the Time Deposit Ratio	Contribution of the Treasury Deposit Ratio
Jan 7	- 1.31%	1.56%	- 2.87%	3.55%	-3.10%	-2.61%	-0.71%
14	0.00	- 3.27	3.27	6.98	-1.90	-1.67	-0.13
21	2.79	- 6.12	8.91	10.16	-0.94	-0.60	0.29
28	1.78	- 7.82	9.60	12.80	-2.43	-1.11	0.26
Feb 4	1.00	- 3.93	4.92	10.34	-3.88	-1.73	0.20
11	3.02	2.43	0.59	4.57	-2.82	-1.03	-0.14
18	4.72	12.33	- 7.61	- 0.32	-4.95	-1.86	-0.48
25	7.17	18.52	-11.35	- 6.26	-3.41	-0.98	-0.70
Mar 3	7.05	19.83	-12.78	- 8.75	-3.01	-0.61	-0.41
10	6.80	19.68	-12.88	- 9.29	-3.37	-0.32	0.10
17	4.94	12.87	- 7.94	- 3.91	-3.88	-0.34	0.19
24	5.16	11.51	- 6.35	- 2.81	-3.95	-0.05	0.47
31	7.01	8.24	- 1.22	1.41	-3.34	0.27	0.44
Apr 7	5.50	6.00	- 0.51	3.93	-3.65	-0.99	0.20
14	9.46	5.98	3.48	4.52	-1.29	-0.18	0.43
21	15.41	5.56	9.85	8.04	0.13	1.40	0.28
28	17.52	7.35	10.17	7.28	0.44	2.32	0.14
May 5	20.45	10.28	10.17	4.66	1.14	4.45	-0.07
12	17.19	11.15	6.04	2.42	-0.14	4.32	-0.56
19	9.46	6.89	2.57	1.78	-1.25	2.14	-0.09
26	6.43	4.81	1.62	1.50	-1.16	1.31	-0.04
June 2	4.72	2.91	1.81	2.68	-1.27	0.02	0.38
9	2.17	5.88	- 3.71	- 0.44	-2.18	-1.68	0.56
16	2.71	12.83	-10.11	- 5.31	-2.17	-2.59	-0.04
23	0.54	15.41	-14.88	- 6.27	-3.76	-4.32	-0.53
30	- 3.06	14.88	-17.94	- 6.33	-4.50	-6.08	-1.04
July 7	- 2.12	11.12	-13.24	- 3.66	-2.85	-5.67	-1.05
14	- 1.70	1.73	- 3.43	5.83	-3.40	-5.50	-0.35
21	3.81	- 1.55	5.36	7.91	-0.40	-2.71	0.57
28	8.93	- 3.56	12.49	11.41	0.51	-0.45	1.02
Aug 4	9.74	- 3.11	12.86	11.51	-0.34	0.68	1.00

Source: Morgan Stanley Research Calculations

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Source: Morgan Stanley Research Calculations

of the component series. Variations in the two series substantially offset each other. This phenomenon and particularly the remarkable fluctuations in the contribution resulting from the adjusted reserve ratio deserves some detailed examination in the future. I suspect that the movements observed are at least partly due to the lagging of required reserves behind deposits. If this conjecture is borne out by future investigations, suitable simplifi-. cation of reserve requirements could be expected to moderate the range of shortest-run movements.

A further inspection of the contributions made by the public's currency and time deposit ratio indicates that the basic pattern discussed in the previous position paper continued. The negative contributions prevailed in both cases with a large margin. Moreover, positive contributions emerged more frequently in the case of the time deposit ratio. A period with positive contributions appeared at the time of a substantial increase in short-term interest rates in April/May. We should expect that future increases in short rates induce positive contributions in the time deposit ratio and thus lower the margin between the growth rates of M_1 and M_2.

Tables IV and V relate monetary evolution with the trend in Gross National Product and provide some further perspective for our purposes. The table decomposes the percentage rate of increase in Gross National Product (at current prices) into monetary growth M_1 or M_2, the changes in respective velocity V_1 or V_2, the increase in government expenditures and net exports. The formula used for this purpose is

$$GNP = M_i . V_i + G + X$$

where M_i denotes a measure of the money stock (M_1 or M_2), G = government

expenditures and X designates net exports (= net foreign investment). The

term $M_i.V_i$ refers to total private expenditures measured as the sum of

consumption and gross private domestic investment expenditures. The table

covers the first five quarters of all postwar cyclic recoveries. The first

recovery phase was of course substantially distorted by the temporary in-

flationary expectations (or "shortage" expectations) engendered by the

outbreak of the Korean war. This phase should probably be omitted for

useful comparisons with the present situations. The reader may note that

the velocity concept used here refers to a private expenditure velocity and

must be carefully distinguished from the usual GNP velocity which varies

directly with government expenditures on goods and services. The large

variation in the percentage change of these expenditures over the five-quarter

recovery phase suggested a measure of velocity which removes the direct effect

of changes in G. Indirect effects working (possibly) via a Keynesian multi-

plier may still operate on V_i. This would be reflected by a systematic de-

pendence of changes in V_i on changes in G. The data drawn from postwar

recovery phases yield no obvious evidence revealing the operation of such

a "multiplier". Useful judgment will require substantially more extensive

examination however.

Government expenditures and net exports move in sharp contrast

over the recovery phase. The contribution of net exports is syste-

matically negative and reveals the operation of an endogeneously induced

retarding modifier of the recovery. The order of magnitude of this operation

is however quite small. The large percentage changes in X are multiplied

with a small weight expressed by the proportion of X in GNP in order to

yield the X-contribution in the percentage change of GNP. The percentage

increase in government expenditures over the recovery phases accelerated since 1954/55 by a factor of five. The last three recovery phases experienced over the initial five quarters essentially the same behavior in government expenditures. We note thus that in 1954/55 government expenditures accounted directly for 0.4% of the 11.3% increase, whereas they accounted for 2.4% in the 14.6% increase observed in 1975/76. These direct contributions of increasing government expenditures to increasing GNP are obtained by multiplying the percentage increase in G with the weight w(G) of G in GNP.

For obvious reasons the increase in private expenditures dominates the expansion in nominal GNP. The relative shift in the partition of private expenditures occurring between the first two post-Korean recoveries and the last two recoveries is noteworthy. The contribution of monetary growth increased for both measures relative to the contribution made by an increasing velocity. This shift was however much more pronounced in the relation between M_2 and V_2 than in the relation between M_1 and V_1.

The relative behavior of the two velocities attracted some attention recently. The interpretation of this behavior also affects appropriate decisions concerning the course of monetary policy. The FOMC and the Board of Governors elaborated in the recent past on numerous occasions on the cumulative effect of a variety of financial innovations. Some discussion of these issues, centered on the possible "leftward shift" of demand for M_1-balances, was presented in my previous position paper. The problem is sufficiently important to deserve the SOMC's attention. A broad range of financial innovations resulting from the competitive adjustments of the products offered by the various financial institutions gradually changes the substitution-relation between savings or time deposits on the one side and

TABLE IV: <u>The Component Contribution to the Percentage Change of</u>

<u>GNP Over the First Five Quarters of Postwar Recoveries</u>

The decomposition is computed according to the formula

$$\frac{\Delta GNP}{GNP} = w(MV)\frac{\Delta M}{M} + w(MV)\frac{\Delta V}{V} + w(G)\frac{\Delta G}{G} + w(X)\frac{\Delta X}{X}$$

where $w(z)$ is the relative weight of z, for

$z = MV, G, X.$

The relative changes were computed relative to the average of initial and terminal value of the five quarter period.

	GNP	M_1	V_1	M_2	V_2	G	X
IV/1949-I/1951	22.0	5.4	17.7	4.2	19.2	20.9	-100
		•	(.837)			(.154)	(.009)
III/1954-IV/1955	11.3	4.5	10.3	5.0	10.0	2.1	- 5
		(.801)				(.194)	(.005)
I/1958-II/1959	11.7	5.0	8.8	7.2	6.6	7.2	-200
			(.792)			(.205)	(.003)
I/1961-II/1962	12.5	3.2	7.4	8.7	1.9	10.6	- 14.1
			(.781)			(.207)	(.012)
IV/1970-I/1972	12.3	8.2	5.5	13.6	.1	10.5	-730
			(.777)			(.222)	(.0009)
I/1975-II/1976	14.6	7.2	9.4	12.2	4.4	10.9	- 49.2
			(.772)			(.221)	(.007)

The sign of the last term in the decomposition, i.e. $w(x)\frac{\Delta X}{X}$ is given by the sign of ΔX. Moreover, $w(X)$ has been (arbitrarily) specified to be positive, and consequently $\Delta X/X$ has always the sign of ΔX (i.e. the X in

demand deposits on the other. These innovations imply in particular a

positive trend over the foreseeable future in the time deposit ratio

and thus a relative decline of the multiplier associated with M_1 and a

relative increase in the multiplier for M_2. These innovations modifying

the substitution relations between demand and time deposits tend to

generate a positive trend for V_1 relative to the movement of V_2.

Some inspection of the postwar patterns may help us to gauge the

broad perspectives confronting monetary policy in this respect. Table V

provides some useful information for this purpose. The sequence of succes-

sive values at peaks (or troughs) suggests that V_2 followed since around

1957 essentially a stationary process. The earlier postwar period produced

some adjustments upwards from the low levels experienced as a result of the

Great Depression and war controls on prices and interest rates. "Exclusive"

velocity offers a radically different pattern. Both sequences over peaks

and troughs show a pronounced positive trend, interrupted for several years

in the second half of the 1960's. One suspects that the financial innovations

associated with the development of the thrift institutions during the 1950's

probably induced gradual and continuous modification of substitution relations

centered on demand deposits. It is noteworthy that the rising trend re-

appeared with substantial strength in the 1970's and raised velocity V_1 in

the first half of 1976 already 7 1/2% over the previous peak reached in the

second half of 1974. It should also be noted however that the rate of in-

crease of V_1 over the first five quarters in the recent upswing is quite

similar to the observations made for the economic upswing 1954/55 and 1958/59.

Interest rates and creditmarkets behaved however somewhat differently in

TABLE V: Measures of "Inclusive" and "Exclusive" Velocity

at Peaks and Troughs

(based on moving two quarter averages)

	Successive Peaks			Successive Troughs		
	V_1	V_2			V_1	V_2
II-III/1957	2.598	1.853	I-II/1958	2.503	1.728
I-II/1960	2.875	1.947	IV/60-I/1961	2.797	1.839
III-IV/1966	3.505	1.822	II-III/1967	3.448	1.732
III-IV/1969	3.546	1.885	III-IV/1970	3.538	1.851
III-IV/1974	3.995	1.861	I-II/1975	3.910	1.780
I-II/1976	4.294	1.876			

the three periods. The Federal Reserve Authorities thus conjectured that

the demand for M_1-balances has recently been substantially lowered by the

new surge of financial innovations. Some econometric studies apparently

executed earlier this year at the Board show a cumulative divergence between

predicted and actual money stock. The equations estimated from past

samples yield since 1974 increasing overpredictions of desired balances. One

suspects however that this result depends sensitively on the detailed speci-

fication of the money demand function. It is particularly conjectured that

mmoney demand functions using long term in lieu of short term interest rates

supplemented with a measure of returns on equities produces different

results. An examination of this issue prepared by Michael Hamburger for

the Journal of Monetary Economics may clarify the problem somewhat further.

The issue is certainly not settled and the uncertainty associated with the

proper interpretation of velocity should be considered in the formulation of

policy and the recommendations advanced.

2. The Federal Reserve Targeting Policy

Congress passed House Concurrent Resolution 133 in early 1975. This

Resolution addressed the Federal Reserve Authorities and requested attention

to a non-inflationary long-run growth of the money stock and levels of

interest rates compatible with non-inflationary regimes. The Federal

Reserve instituted in response to the Resolution new procedures and reports

regularly in the appropriate Senate or House Committee on the conduct of

policy. It submits furthermore an assessment of current trends and announces

plans for the future course of monetary growth. These plans are stated in terms of a target cone bracketing the admissible path of the money stock. The target cone is specified with the choice of a base and two growth rates forming the upper and lower boundaries of the target cone defining the Fed's desired policy.

The new procedure and some problems associated with it were discussed in previous position papers. After one and a half years of the new targeting policy a summary appraisal seems appropriate. The reader is referred for this purpose to graphs I to VI for M_1 and graphs VII to XII for M_2. Each graph traces with a black line the actual movement of the respective money stock. The M-line is supplemented with two target cones, each one projecting from a different base with possibly different slopes of the boundary lines. Graph I compares the first targeting, based on March 1975 and projected to March 1976, with the second targeting introduced in late spring 1975 and based on the average M_1-value observed for months in the second quarter and projected to the second quarter of 1976. Both target cones have upper boundaries defined by a 7 1/2% growth rate and lower boundaries corresponding to a growth rate of 5%. An inspection of the graph indicates that the money stock moved over an initial segment, lasting until August 1975 above both target cones, slid until December sideways across the target cones and fell below both target ranges until March 1976. It returned subsequently to the March target range and moved since April 1976 along the lower boundary of the targeting range defined for second quarters.

In the early fall the Federal Reserve Authorities introduced a new target range based on the average of observed monthly values in the third quarter of 1975. It is remarkable to note that the subsequent path of the

money stock M_1 never moved into the target range. The exclusive money stock fell without exception short of this target. The procedure of target shifting was further developed during the winter. The base of the cone was moved to the fourth quarter 1975 and both boundaries lowered. The upper boundary was reduced from 7 1/2% to 7% and the lower boundary from 5% to 4 1/2%. The first four months still fell below the target range, but the monetary acceleration of early spring 1976 brought the monetary path into the target range announced last winter. The fifth shift introduced at the turn of the seasons by the end of the winter yields a different pattern. The monetary path follows the upper boundary of the target cone. A sixth change occurred in the summer 1976, moving the base forward again by another quarter. The last graph for M_1 (i.e. graph VI) compares the initial March 75/76 target cone with the last second quarter 76/77 target cone.

Graphs VII to XII depict the situation prevailing for money stock M_2. The target cones are located at the same base periods and shifted simultaneously with the base for M_1. The boundaries for the target cone differ however. The March 75/76 cone has boundaries defined by growth rates 8 1/2% and 10 1/2%. Both boundaries were maintained for the target range based on the second quarter 1975. An inspection of graph VII reveals a pronounced similarity with graph I. The movement of actual M_2, depicted by the black line, shows a pattern relative to the two target ranges similar to M_1 in graph I. Some early overshooting is followed in the middle stretch by a lengthy undershooting. Since early 1976 the actual path moves closely around the lower boundaries of the two ranges. The third shift from the second to the third quarter also reduced the lower boundary from 8 1/2%

to 7 1/2% and broadened the target cone. The subsequent path was more successfully covered by this target. The shift to a fourth quarter base (graph IX) maintained the boundaries of the target range. But the shift in the base raised the subsequent path to the upper boundary of the new cone. The last two shifts successively lowered the upper boundary from 10 1/2% to 10% and to 9 1/2%. The range for M_2-growth was thus substantially compressed by the Authorities.

The targeting procedure developed by the Federal Reserve Authorities involves several aspects which require the SOMC's attention. The authorities have accustomed public and Congress to a deliberately "flexible approach". Every quarter the base for the target cone is redefined in terms of the most recent actual values observed. Moreover, the Fed also changes with some frequency the width or boundaries of the target range for one or the other of the aggregate measures. This procedure forms in a sense a rational response by the policy institutions to the enquiries and potential constraints emanating from Congress. It protects its operational freedom and requires comparatively small adjustments of internal procedures. But we should also note that the adjustments actually made should be acceptable to the SOMC. The target range was lowered for both M_1 and M_2.

Some doubts were expressed on previous occasions concerning the quarterly shift in the basis. This procedure may endanger the essential purpose of H.C.R. 133 designed to assure a deliberate choice and careful execution of planned monetary growth. The occurrence of random components in the proximate determinants of monetary growth supplemented with occasional short-run accommodations of the monetary base could produce an unsystematic or chance-like drift in the target basis used by the authorities. This possibility

exists and the probability of its relevant occurrence depends partly on
institutional conditions affecting the random terms in the money supply
process and also on the degree and frequency of short-run credit market
accommodation indulged by the Fed. Of the five target ranges introduced
for M_2 subsequent to the initial target cone centered on March 1975 one
basis fell below the previous target cone (fourth quarter 1975) and one
(second quarter 1976) moved beyond the previous target cone. In all other
cases the new basis was placed within the previously specified target cone.
But even so, the width of the range is sufficient to permit potential
drifts implying substantially different long-run behavior of the price-level.
Some indication of a drift seems to have emerged in the case of M_1. The
second (second quarter 1975) and last (second quarter 1976) choice of basis
moved beyond the previous cone whereas the fourth (fourth quarter 1975) and
fifth choice (first quarter 1976) dropped below the previous cone. We note
also that in both cases, for M_1 and M_2, the last target cone is based at the
lower end of the first (March 1975) target cone. They differ however in
some respect: The M_1 central path defined in terms of the last target remains
within the original cone, whereas the M_2 central path introduced at the last
policy change diverges below and away from the first target cone.

The potential drift built into the Fed's policy procedures did not
emerge, so far, with any major proportions. It does contribute however to
maintain a pervasive uncertainty about the longer-run course of the Fed's
monetary policy. In particular, intermittent accommodation of rising
pressures on short term interest rates would probably push the targeting
cone into a higher range. It would seem important therefore that the

Federal Reserve Authorities specify procedures containing this drift.

Such procedures would not necessarily prohibit the quarterly or semi-annual changes in the target basis. These adjustments may actually form a sensible response to two kinds of uncertainties confronting the Federal Reserve Authorities. We are first increasingly uncertain about the relative weight to be assigned M_1 and M_2 in assessments of the net monetary thrust operating on the economy. This uncertainty barely matters when M_1 and M_2 move approximately together. It emerges however with some force in periods experiencing divergent growth patterns for M_1 and M_2. Such patterns appeared with increasing frequency in past years. The relative movements of M_1 and M_2 are of course well understood in a general sense. They are dominated by the behavior of the public's currency and time deposit ratio. The changing substitution relation between demand and time deposits discussed in a previous paragraph generates a positive trend in the latter ratio. Increasing short term rates tend to accelerate the change in the time deposit ratio and declining interest rates decelerate the movement of the ratio. But the general pattern is still associated with substantial uncertainties in important detail, reenforced by the behavior of the public's currency behavior. Changes in the target basis for M_1 and M_2 seem in this context quite appropriate whenever unanticipated changes in the time deposit ratio modify the relative growth rates of M_1 and M_2. A rigid adherence to an initial target basis in cases of unexpected increases in the time deposit ratio very likely violates one or the other of the two target paths. The shifts between M_1 and M_2 occurring in this example are voluntary demand responses to changing market conditions. It follows that the retardation

of M_1 exaggerates probably the incipient excess demand for M_1 and the acceleration of M_2 overindicates the incipient excess supply of M_2. The relative uncertainty of the relative role of M_1 and M_2 suggests under the circumstances a sequential adjustment of the target basis to new information with essentially no change in the target basis and target range for the monetary base. The latter condition is crucial in this context. It prevents an unsystematic drift in the net monetary thrust whenever the growth patterns of M_1 and M_2 diverge (or converge) as a result of substantial variations in the time deposit ratio. This conclusion holds of course with appropriate changes in the argument for periods with unanticipated declines in the time deposit ratio. Unexpected changes in the currency ratio determine on the other hand a different policy response. Sequential adjustments of the target range violates the original intentions. A falling (rising) currency ratio accelerates both M_1 and M_2. Quarterly adjustments of the target basis would consecutively raise (lower) the target range and impose expansionary (contractive) constraints on the monetary base whenever the movement of the currency ratio slackens. Movements of the currency ratio thus require suitable offsetting by changing growth rates in the monetary base without any short-run adjustments of the target cone. It appears that in either case the Federal Reserve Authorities should supplement their procedures with appropriately targeting the monetary base and relate the base with the two monetary measures M_1 and M_2. I refer in this context to the proposals advanced in the two previous position papers.

III. On the Course of Policy

    1. The Current Situation and the Policy Recommendation

The SOMC recommended last March that policy be adjusted to establish a growth rate of 4.5% for M_1 from the first quarter of 1976 to the first quarter of 1977. The M_1 stock was estimated at the time at \$297.5 billion for the first quarter 1976. The SOMC target would have yielded thus an M_1 stock of about \$311 billion for the first quarter of 1977. However, the actual value of M_1 for the first quarter of 1976 turned out to be somewhat below the level desired by the SOMC. The observations settled on a quarterly average of \$296.5 billion. Inspite of this lower basis, the third quarter figure for 1976 probably moves the M_1 stock more than halfway to the original target of \$311 for the first quarter of 1977. The figure for July stands so far at \$305.0 billion, the preliminary figure for August, based on the average of published weekly data, appears to be around \$306.5 billion. Without any further increase in September, \$8.5 billion of the proposed \$13.5 billion increase in M_1 (relative to the initial basis) would thus have been realized within two quarters. According to the SOMC's initial evaluations the M_1 stock would have to be raised over the next two quarters (i.e. from III/1976 to I/1977) by about \$5 billion. The required growth in dollars implies a percentage growth of about 3.2% at an annual rate over the next two quarters. This compares with a growth rate of 6.8% p.a. for the first half of the period covering the first to the third quarter 1976. The SOMC's recommendation from last March implies thus in the context of the actual path emerging over the first 8 months a very substantial deceleration of monetary growth to the first quarter of 1977. With further increases in September over August the deceleration required over the next two quarters

would be even larger. Such a retardation of monetary growth by more than

50% over a six month period is not innocuous and should be carefully

weighed. It has become standard practice to discount shorter-run varia-

bilities in monetary growth with the argument that monetary accelerations (or

decelerations) not exceeding two quarters are most unlikely to modify the

pace of economic activity or the rate of inflation. But our knowledge

of the timing relations is not sufficiently reliable or secure to discount

monetary decelerations with the magnitude and length indicated above. More-

over, the credibility of Federal Reserve policy still forms a major issue.

Such credibility is a crucial factor inducing a longer-run adjustment of

price and wage setting to a foreseeable stable pattern of monetary policy.

Substantial short-run variability involving large accelerations or deceler-

ations over several quarters are poorly designed to produce such credibility.

These difficulties and uncertainties associated with the short-

run course of monetary policy suggest that we examine a longer horizon

reaching to the last quarter of 1977. It seems also useful for our purposes

to consider the relative magnitude of the potential gap in output still to

be covered by future expansion. Previous position papers directed

attention to some aspects of the real shocks generally acknowledged to

have affected the U.S.economy in 1973/74. It is widely recognized

that these real shocks raised the price-level and thus temporarily raised

the rate of inflation. But little attention was directed to the further

consequences of these real shocks with respect to our measures of potential

output, to our real wealth, or achievable real income, and the measured rate of

unemployment. The argument in the previous position papers emphasized that

real shocks are also bound to affect potential output. In particular, it
was argued that potential output was lowered and the output gap produced by
the recession probably substantially lower than generally conceived in the
policy discussions assessing the need for a large monetary or fiscal ex-
pansion. Moreover, the cumulative effect of legislation introduced in the
1970's designed to protect the environment, to raise standards of health
and safety, reenforced by   \the increasing uncertainties about the rules
of the game confronting business and larger   investment of resources
attending to   'regulatory or bureaucratic requirements of the government
sector, all tend to lower the trend growth in potential output. These issues
attracted recently more attention. Denis Karnosky presented in
the June issue of the Review published by the Federal Reserve Bank of St.
Louis an article exploring the magnitude of the effect exerted by emerging
real shocks on potential output. His examination establishes that the USA
suffered in late 1973 a loss of about 4% in potential output. Haberler
estimated on the other hand a reduction of about 2% in potential output. It
is now instructive to reflect on the magnitude of the potential gap to be
closed by an expanding real output. I compute for this purpose a level of
potential output for the last quarter 1977. This estimate is based on two
different assumptions, one pertaining to the magnitude of the reduction in
potential output experienced in 1973 and the other referring to the prevailing
trend rate of growth in potential output. The results are summarized in
Table VI. The level of potential output spans a range between $1314 billion
(in constant dollars) associated with a reduction of 4% in potential output
and a trend rate of 2.5%, and $1389 billion associated with a loss of
potential output of 2% and a trend rate of 3.5%. A decline in potential

output of 2% seems to me somewhat more likely than 4%. But I am quite
unsure on this point and would only insist that potential output did fall
in 1973/74. I also contend that population trends, the trend in the compo-
sition of output favoring gorwth in components with smaller productivity
increases, and the cumulative effects of recent legislation and regulatory
patterns, gradually lowers the trend rate below past performances. I
select thus the combination of a 2% loss with a trend rate of 3% as a
general guide line. This combination yields a potential output of $1364
billion for the fourth quarter of 1977. We note that this level is only
surpassed by the trend rate of 3.5% based on a 2% loss. The guide line
selected requires an average real growth of 6.6% p.a. from II/1976 to IV/1977
in order to bring actual output up to potential output by the last quarter of
1977. Table VII presents the growth rates required to close the gap until
late 1977 on the various assumptions pertaining to potential output.

The considerations introduced in the previous paragraphs affect the
choice among the options available to the SOMC. Three options are submitted
to the members' attention.

i) Monetary policy should adjust monetary growth in order to reach
the level of $311 billion originally projected and recommended at the
occasion of the last meeting in March 1976. Moreover, monetary growth
should be held between 4% and 4.5% for M_1 and probably 7 1/2% to 8 1/2%
for M_2 from I/1977 to I/1978.

ii) Monetary growth should be held on a growth path between 4% and
4.5% for M_1 from III/1976 to III/1977 based on the average realized level for
the third quarter 1976. The growth for M_2 would correspondingly be maintained
around 8% p.a. over this period.

iii) Monetary policy should be defined for the period III/1976 to

IV/1977, spanning one and a half years. This longer horizon should be

used to implement a policy of longer-run real expansion with a simultaneous

and gradual decline in the rate of inflation. This option proposes that

M_1 grow over the six quarters indicated at 4% to 4.5% and M_2 around 8%.

It was already noted in a previous paragraph that option i calls for

a substantial deceleration of monetary growth from III/1976 to I/1977. It

seems to me inappropriate for the SOMC to "correct" (sequentially) sub-

stantial accelerations or decelerations which actually evolved relative to

our previous proposal. I suggest therefore at this stage that our proposals

do not inject further waves of acceleration or deceleration into the process.

We did propose on previous occasions some measure of "frontloading" in

monetary growth. But these measures would not involve sustained acceler-

ations, but were designed as once and for all measures to move within a

month the money stock to the neighborhood of the accepted growth path.

The average growth of M_1 from III/1976 to IV/1977 proceeding under option

i) would settle around 3.9% p.a. This is indeed no radical difference with re-

spect to 4.2%, the central path between 4% and 4.5%. But it reenforces the

deceleration sustained over two quarters with an average shaded somewhat on

the low side with respect to the desired rate of expansion in nominal GNP

required   for   a real growth of about 5.5% to 6% over five quarters.

I suggest therefore that option i) be discarded in favor of option ii) or

iii), with particular emphasis on option iii). Using past patterns bearing

on velocities V_1 and V_2 and the relative motion of M_1 and M_2, an average

growth rate of M_1 around 4.5% can be expected to be associated with a rate

9 5%

of increase in nominal GNP of around 9% p.a. This nominal expansion is

partitioned approximately into a real growth of about 5.5% p.a. and a

rate of inflation not exceeding 4.5% on this track. The output gap would

be gradually closed under this program without engendering a new wave of

inflation. Moreover, the program seems appropriate to establish the re-

quired credibility in the Fed's long-run anti-inflationary policies. An

increasing credibility accelerates over time the decline of the remaining

rate of inflation as price and wage setting practices are suitably re-

adjusted to the firming expectations of a persistent anti-inflationary policy.

The partition of the nominal expansion into real and price effects thus

gradually shifts under the circumstances in favor of real effects. The

expected decline of the rate of inflation will be a major force maintaining

the economy's real expansion and lowering the output gap. For the reasons

indicated I recommend to the SOMC's attention the option iii), with the

possible proviso of course, that the growth rates for M_1 (and implicitly

for M_2) need be reexamined by the end of the winter in order to assure

closer approximation by 1978 to the SOMC's long-run objectives.

2. Some Further Aspects

The Federal Reserve Authorities still accept a range of 4.5% to 7%

for the growth rate of M_1 and 7.5% to 9.5% for the growth rate of M_2.

This range permits a substantial acceleration of monetary growth. An

increase in the growth rate of M_1 to the upper boundary of the target cone

accompanied by a corresponding increase in growth of M_2 generates probably

a nominal expansion incompatible with a persistent decline in the rate of

inflation. The simultaneous acceleration of both monetary measures requires

TABLE VI: Potential Output in the Fourth Quarter 1977

	Assumptions made	Potential output level
Loss of Potential Output	Trend rate	in billions of constant dollars
4%	3.5%	1360
4%	2.5%	1314
2%	3.5%	1389
2%	3 %	1364
2%	2.5%	1340

TABLE VII: Implicit Annual Growth Rate of Real Output from II/1976 to IV/1977 Assuring Closure of the Gap Until IV/1977.

	Assumptions made	Potential Gap in billions of constant dollars	Required annual growth rate
Loss in potential output	Trend rate of growth		
4%	3.5%	100	6.0%
4%	2.5%	54	3.4%
2%	3.5%	129	8.2%
2%	3 %	104	6.6%
2%	2.5%	80	4.9%

either a reversal of the negative currency effect operating over the

past two years not offset by the authorities or an acceleration of the

monetary base beyond the rate of around 7% maintained approximately in

the recent past. A proper control of the base according to the suggestions

made in a previous paragraph would effectively prevent such occurrences. On

the other hand, an acceleration of M_1 towards the upper boundary accompanied

by a lower M_2 growth converging towards the growth rate of M_1 involves com-

paratively small dangers of nominal acceleration under the present circum-

stances. Such convergent motions would be consistent with stable growth

patterns in the base. Under the current uncertainty pertaining to the

relative weight assignable to M_1 and M_2 pertaining to their respective

economic effects the movement of the base may offer a crude but useful

approximation to the properly weighted mixture of M_1 and M_2.

a. Another Chapter in the Keynesian Tradition

A protracted problem deserves the SOMC's continued attention. The

position paper prepared for the meeting of September 1975 discussed the

fundamental issue posed by the Keynesian tradition. Stabilization policies

expressing a determination to "fine-tune" the economy and advocating a

permanent financial expansionism are still very influential. The SOMC

cautioned in its meetings of September 1975 and March 1976 against such

policies and strongly supported the basically moderate and cautious stance

of the Federal Reserve Authorities. The Keynesian tradition reappeared this

year in "The Full Employment and Balanced Growth Act 1976" proposed by

Senator Humphrey. The SOMC should explicitly acknowledge the decisive

and forthright argument against this proposed legislation advanced by the

Federal Reserve Authorities. Governor I. Charles Partee presented the

Fed's case against the proposed bill at the Hearings in the House of
Representatives in April 1976. The Governor warned that the Board "was
gravely concerned that the net effect of "the bill" would be to add
substantially to the inflationary bias..." He also argues that "a
principle flaw in the 1946 Act is its failure to identify clearly price
stability as a long-run economic goal". The new bill "shares and extends
this shortcoming...The bill has many provisions that would contribute
further to conditions and practices that would likely result in an intensi-
fication of upward price pressures". The SOMC should fully support the
Fed's concern and position on this issue. The Humphrey-Hawkins bill is
excellently designed to generate an accelerating inflation and retard our
future real growth. An explicit obligation imposed on financial authorities
to push the measured unemployment rate in the context of our current
institution to 3% is the safest and quickest way to raise the rate of in-
flation over the next ten years to levels never experienced in the USA (out-
side the old Confederacy). These obligations introduce powerful incentives
operating on labor unions and producers to anticipate the expected rise in
the price-level with appropriate price and wage setting of their own. The
legislation converts the financial authorities into an agency confined to
full accommodation of these evolving price and wage setting practices.
Unions and producers will realize that their real benefits in the process
depend on staying ahead of the crowd in the game of raising prices and
wages. The assurance of full validation under the obligation imposed by
the Humphrey-Hawkins bill thus surrenders monetary policy, and financial
policy in general, to the labor unions.

The bill would also perpetuate the budget expansion experienced over the past ten years and assure a permanently large deficit. It would very likely encourage continued growth of the government sector. The SOMC noted in previous meetings the dangers of a long-run "crowding-out" process resulting from a persistent deficit and expansion of the government sector. The various channels conveying the crowding-out process lower the growth of private output per capita and threaten the economy with stagnation. It appears thus that the Humphrey-Hawkins bill should be properly relabelled as "The Inflation and Unbalanced Stagnation Act 1976". The SOMC should therefore strongly oppose such legislation.

b. Fiscal Policy and General Government Policy

Chairman Burns addressed himself in the Hearings of March 22, 1976 to the adjustments in government and fiscal policy required for a sustained real gorwth without inflation. His admonitions not to block incentives to invest, his warnings about the social cost of environmental and safety legislation, his plea to reconsider regulatory arrangements or governmental policies fostering restraint of trade and his suggestion to revise labor market institutions are well grounded and deserve the fullest support of the SOMC. The only hesitation applies to the Chairman's advocacy of a "limited income policy". Income policies are generally quite useless beyond a short interval whenever they are executed independently of financial policies, or in contexts of a permanent financial expansionism. One may hope that a "limited income policy" can be used to shift financial policies to a more pronounced anti-inflationary track. The rationale of income policy is then based on the assumption that it accelerates the downward revision of inflationary expectations. This seems to me a dubious case indeed. Moreover,

income policies require an institutional apparatus and the political
process will barely abandon such an apparatus once it is installed.
Vested interests will arise in the economy, among politicians and in the
bureaucracies which tend to protect the established institution.

c.   Comments on Interest Target Policies

Another protracted issue over many years centered on the role of
interest rates in policymaking. Many Central Banks relied traditionally
on some interest rates to guide adjustment and execution of monetary policy.
It was argued on the other side that monetary policy should not be specified
or implemented in terms of interest rate levels but in terms of monetary
growth. The debate erupted during the 1960's and a resolution seems gradually
to emerge. An increasing number of Central Banks reexamined the traditional
procedures and develop new approaches to the formulation and implementation of
monetary policy. One usually refers to the German Bundesbank in this context
as the leader in a new trend. This seems upon closer inspection not quite
appropriate. The Swiss National Bank and the Banco de Espana developed
procedures of monetary control with a much more explicit conceptual under-
pinning. Still, the German Bundesbank operated in some relevant aspects
with comparative success. The SCMC should note at this stage with particular
interest the views bearing on this subject and expressed by Governor I.
Charles Partee in a statement presented to the House Committee on Banking
Currency and Housing on June 10, 1976:

"In the Congressional deliberations leading to the present wording of House Concurrent Resolution 133, and in further discussions since then, a recurring issue has been the question of whether monetary policy intentions should be specified in terms of interest rates as well as monetary aggregates. The Resolution does of course require that the Board specify 12-month growth ranges for the various monetary aggregates, and it provides ample leeway for adjustment of such ranges as conditions change. In my view, this approach is far preferable to any attempt to specify interest rate objectives.

While it is theoretically possible to specify the course of monetary policy in terms of interest rate levels as well as the monetary aggregates, it must be recognized that interest rates are particularly exposed to the influence of many variables external to the scope of monetary policy, and that there is thus a large risk of specification error. The announcement of interest rate intentions or expectations could lead borrowers and lenders to believe that the Federal Reserve could--and in practice would--guarantee particular levels of interest rates. But the system does not have the power to do so, for interest rates are influenced not only by the interaction of demands for credit with the available supply of funds, but also by the strength of the economy and the public's willingness to defer current consumption in order to save for the future. Interest rates are also importantly affected by the expectations of both borrowers and lenders about the rate of inflation.

If the Federal Reserve did nevertheless attempt to maintain selected interest rates at some predetermined level, the effort could well lead to inappropriate rates of growth in bank reserves and the money stock. If interest rates came under upward pressure because of rising demands for funds, for example, System efforts to prevent interest rate increases would inevitably generate more rapid monetary expansion, thereby feeding new inflationary pressures. If, on the other hand, interest rates came under downward pressure because of slackening business activity and declining demands for funds, System efforts to prevent the decline in rates would inevitably retard monetary growth rates, quite possibly exacerbating the recessionary problem.

Thus, any serious effort to specify monetary policy aims in
terms of interest rate intentions or expectations could well prove
inconsistent with stated objectives for growth rates in the monetary
aggregates. Of course, the central bank might attempt to hold to the
interest rate objectives, regardless of the performance of the monetary
aggregates. But even in this extreme case the result would very likely be
self-defeating as lenders and borrowers moved to protect themselves
against the prospect of accelerating inflation or deepening recession,
foreshadowed by what might be very high or very low monetary growth rates.
Needless to say, these effects would be quite perverse from the standpoint
of economic stabilization."

d. The Board's Report on "Improving the Monetary Aggregates"

The last event submitted to the SOMC's attention refers to the report

on "Improving Monetary Aggregates" published some months ago. This report

was prepared by an advisory committee on monetary statistics under the

chairmanship of Professor L. Bach. The members of the Committee were mostly

academic economists or statisticians invited for this purpose. The SOMC

supported at the time the constitution of this committee and expressed its

hope that some useful work would be accomplished. A detailed examination

of the Committee's work supplemented by the staff work prepared at the

Board of Governors will be presented for a general discussion at the

November meeting of the Carnegie-Rochester Conference. A full and detailed

evaluation of the report will occur at this occasion. A preliminary

reading certainly establishes the professional competence of the Report. It

offers a useful survey of the problems associated with the data published

and the existing measurement procedures. The report submits moreover a

numberof important recommendations to improve the measurement procedures.

These recommendations pertain in particular to the measurement of the

deposit component in the money stock and the seasonal adjustment of the

data. The SOMC should urge the Board of governors to pursue the recommendations and suggestions advanced by the advisory committee.

Graph I: M_1

    a.   target base: March 1975
           range 5% to 7 1/2%
    b.   target base: 2nd quarter 1975
           range 5% to 7 1/2%

Graph II: M_1
    a. target base: 2nd quarter 1975
        range 5% to 7 1/2%
    b. target base: 3rd quarter 1975
        range 5% to 7 1/2%

BILLIONS
OF DOLLARS

Graph III: M_1
    a. target base: 3rd quarter 1975
        range 5% to 7 1/2%
    b. target base: 4th quarter 1975
        range 4 1/2% to 7 1/2%

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10 X 15 INCHES
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Graph IV: M_1

    a.   target base: 4th quarter 1975

          range   4 1/2% to 7 1/2%

    b.   target base: first quarter 1976
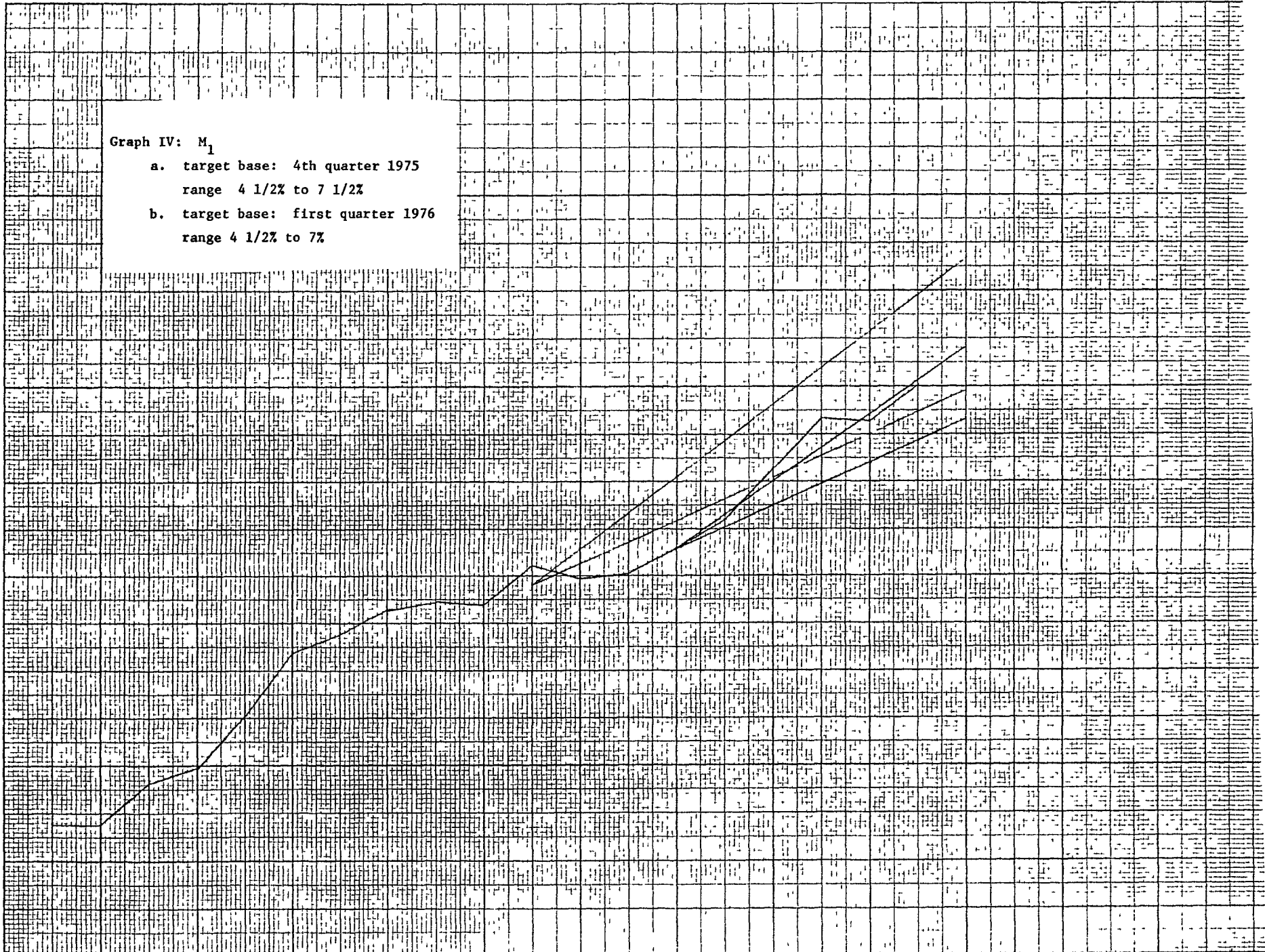
          range 4 1/2% to 7%

MILLIONS OF DOLLARS

Graph V: M_1

    a.   target base: first quarter 1976

        range 4 1/2% to 7%

    b.   target base: 2nd quarter 1976

        range 4 1/2% to 7%

Graph VI: M_1
a. target base: 2nd quarter 1975
   range 5% to 7 1/2%
b. target base: 2nd quarter 1976
   range 4 1/2% to 7%

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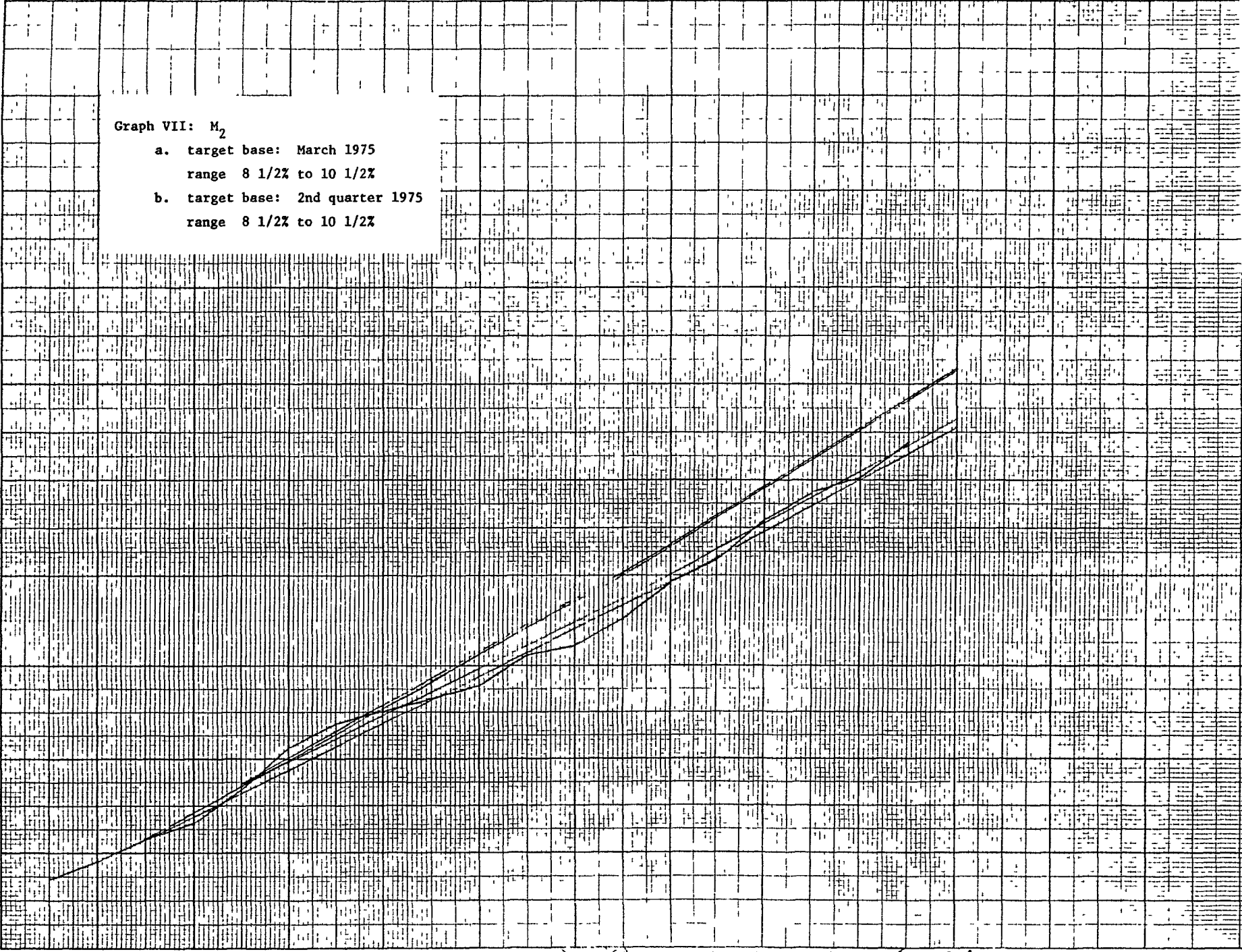
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Graph VII: M_2

    a.   target base: March 1975

          range 8 1/2% to 10 1/2%

    b.   target base: 2nd quarter 1975

          range 8 1/2% to 10 1/2%

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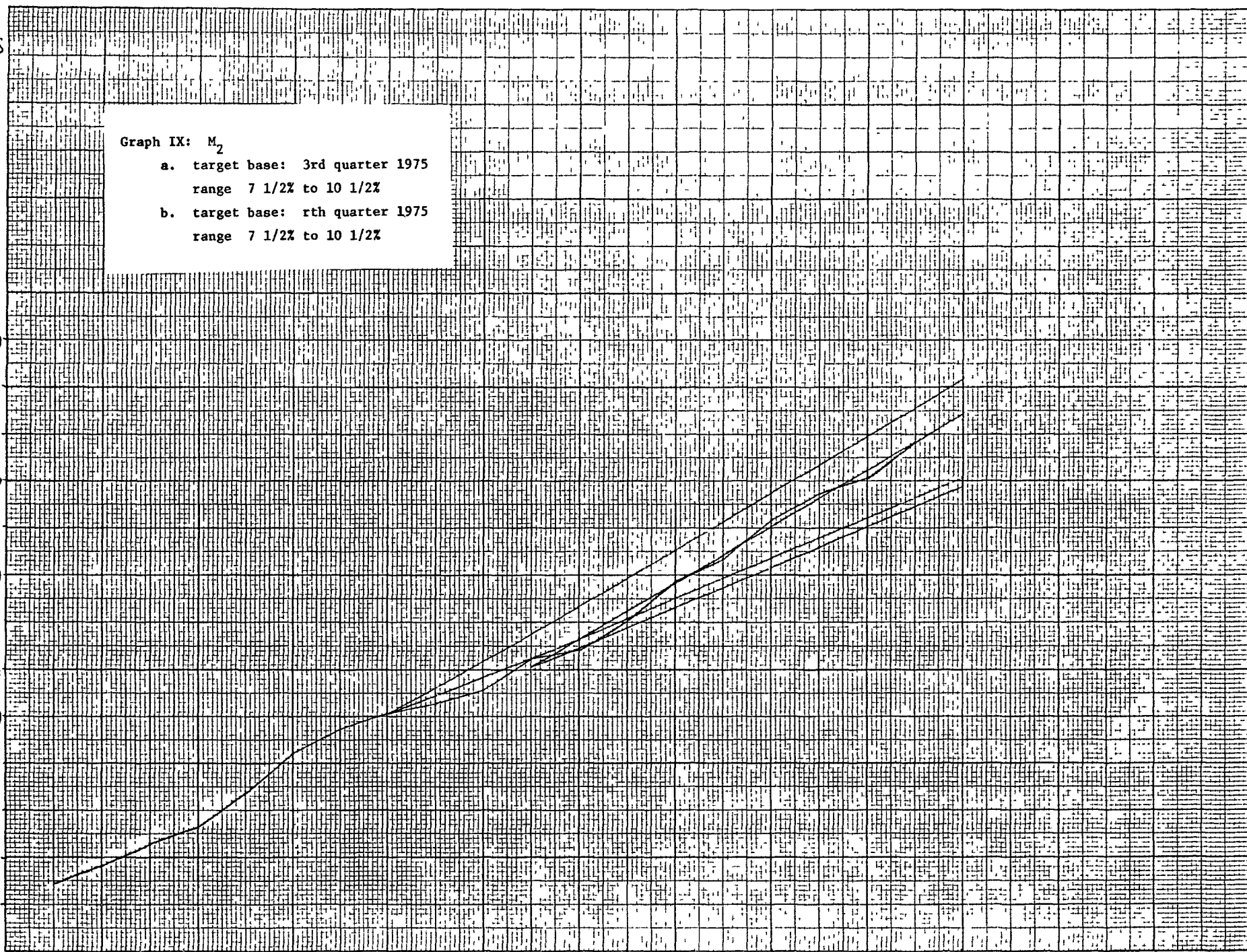1975   1976

Graph VIII: M_2
    a.   target base: 2nd quarter 1975
          range 8 1/2% to 10 1/2%
    b.   target base: 3rd quarter 1975
          range 7 1/2% to 10 1/2%
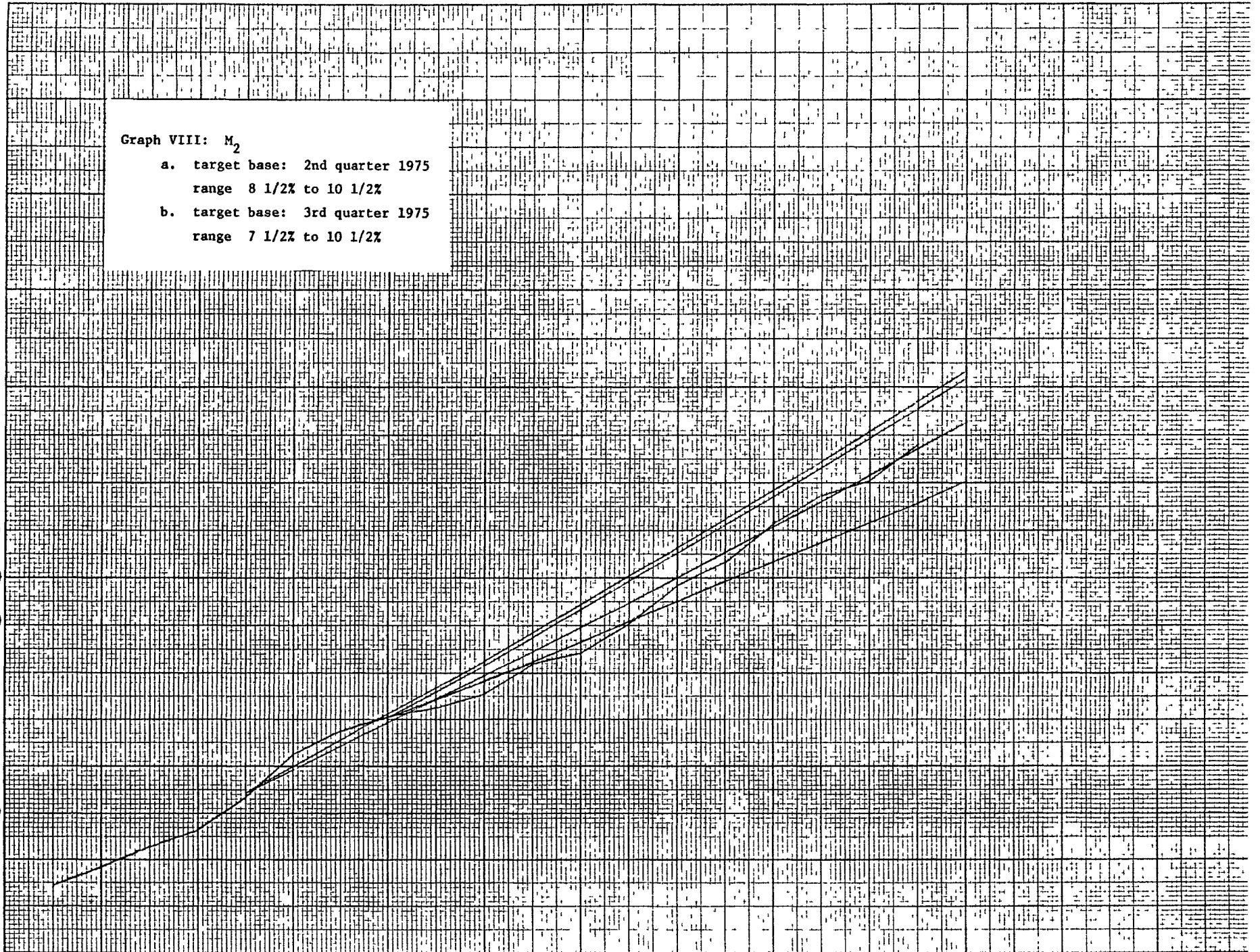
Graph IX: M_2

    a.   target base: 3rd quarter 1975

          range 7 1/2% to 10 1/2%

    b.   target base: rth quarter 1975

          range 7 1/2% to 10 1/2%

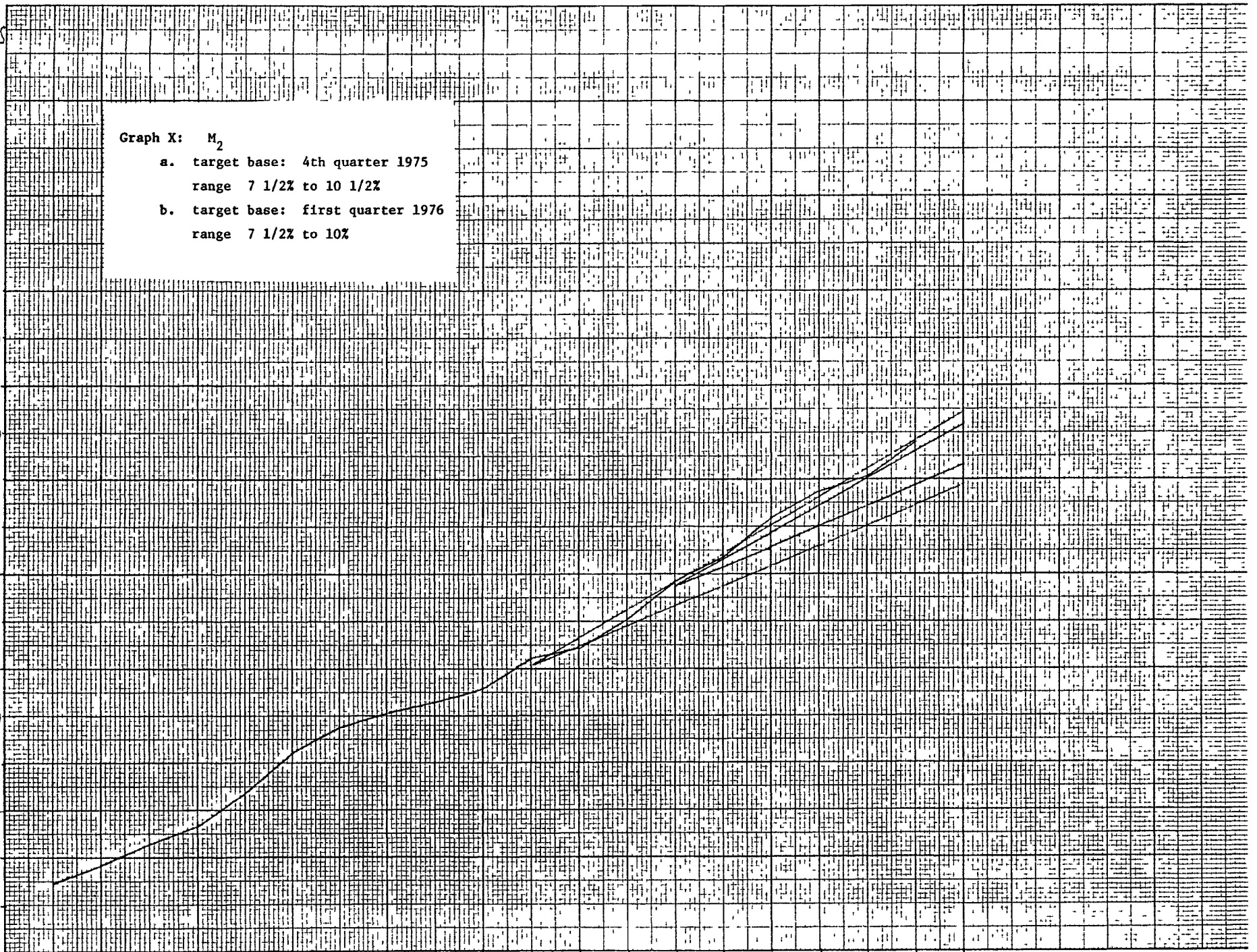Graph X: M₂

a.   target base: 4th quarter 1975
     range 7 1/2% to 10 1/2%

b.   target base: first quarter 1976
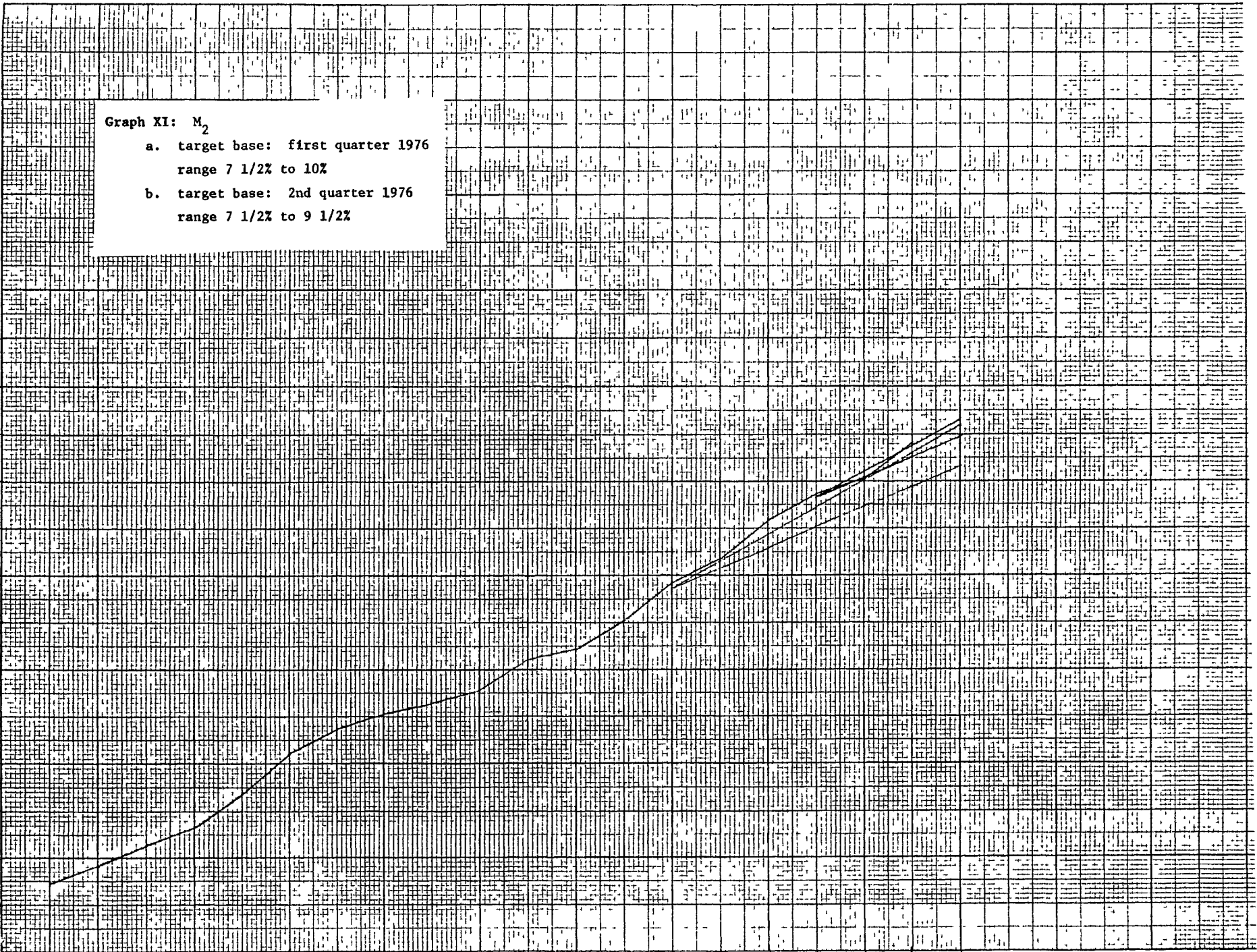   range 7 1/2% to 10%

Graph XI: M_2

    a. target base: first quarter 1976

        range 7 1/2% to 10%

    b. target base: 2nd quarter 1976

        range 7 1/2% to 9 1/2%

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Graph XII: M₂

    a.   target base: 2nd quarter 1975

        range 8 1/2% to 10 1/2%

    b.   target base: 2nd quarter 1976

        range 7 1/2% to 9 1/2%

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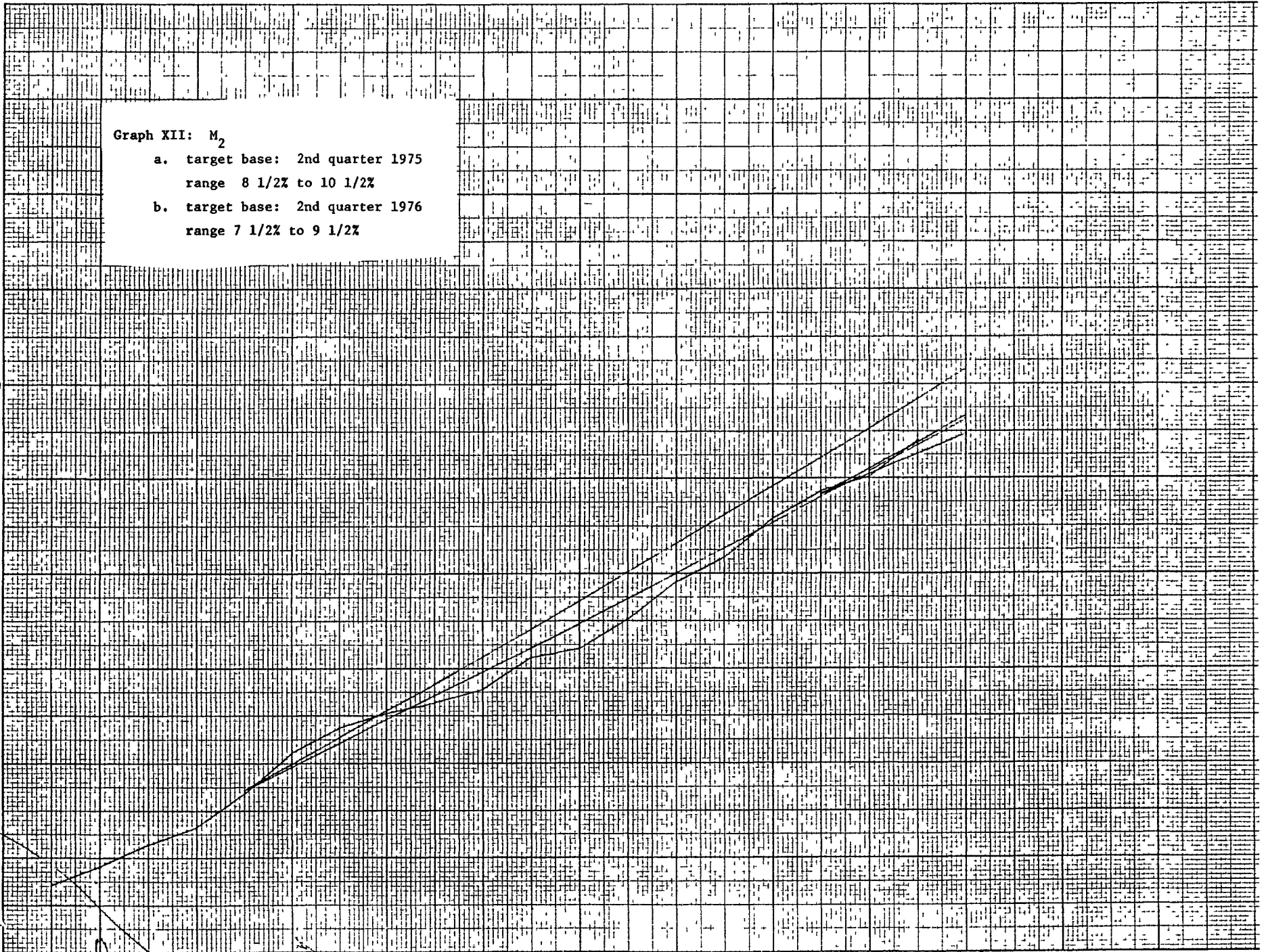
TO _____ File

FROM _____ Jerry L. Jordan _____ PHONE No _____

SUBJECT _____ NOTES ON GNP FORECAST PROCEDURE _____ DATE _September 3, 1976_

Begin the analysis with IV/73. Assume that at that time there was full utilization of economic capacity and that the aftereffects of the wage and price control program and decontrol and the changes in relative prices associated with the devaluations of the dollar were fully adjusted for. In other words, the economic system was largely in equilibrium.

Second, assume that in the fourth quarter of '73 the oil embargo and subsequent quadrupling of oil prices resulted in a decrease in real economic capacity of 4.5 percent.

Currently, real GNP in 1972 prices is reported to be $1,242.6 billion in IV/73. Decreasing that number by 4.5 percent gives $1,186.7 billion in 1972 prices. Next, assume that from that point real economic capacity grows at 3.5 percent annual rate which is slightly less than the historic trend rate. That growth would produce the following levels of real economic capacity at the end of each respective year:

IV/74	$1,228.2 billion
IV/75	1,271.2
IV/76	1,315.7
IV/77	1,361.7

In II/76 real GNP is reported currently as being $1,259.4 billion. For the sixth quarter period from II/76 to IV/77 real GNP would have to grow at only a 5.3 percent rate to be equal to the potential GNP level for IV/77 arrived at by the above means.

Assuming that industrial capacity suffered the same 4.5 percent loss as overall real output and that the industrial production index could also be decreased in IV/73 by 4.5 percent to obtain an index of industrial production capacity, the following numbers would be obtained:

IV/73	127.25
IV/74	132.34
IV/75	137.63
IV/76	143.14
IV/77	148.90

Given the final number of IV/77 and given the approximate 129.5 that
actually prevailed in the II/76, the industrial production could grow at
a 9.8 percent rate for the six quarter period before reaching capacity.

The above exercise produces some interesting implications for inflation,
given the Fed's announced money growth targets. Growth rates of M1 and
M2 respectively from IV/73 to II/76 have been at 4.9 percent and 8.6 percent
annual rates. Growth of money in each of the successive four quarter periods
has been:

		M1	M2
Percent change 4-quarters ending:	IV/74	5.0	7.7
	IV/75	4.4	8.3
	II/76	5.2	9.8
	III/76	4.5e	9.7e

For the longer period from IV/73 to II/76, M2 velocity has risen only a
0.2 percent annual rate while M1 velocity rose at a 3.7 percent annual
rate. For the next year and a half there's no reason to assume that
either measure of money velocity should exceed the past rates; consequently,
the growth of M2 itself sets an upper bound of the growth rate of nominal
GNP that should be expected from II/76 to IV/77, while M1 growth rate
plus 3.5 percent would set a similar upward bound. Therefore, if the Fed
increased M1 and M2 at the upper end of the currently announced targets,
in other words 7 percent and 9-1/2 percent for M1 and M2, respectively,
then growth of nominal GNP in the range of 9-1/2 percent to 10-1/2 percent
for the period II/76 to IV/77 could be expected. Similarly if M1 and M2
grew at the lower end of the announced ranges, that is 4.5 percent and
7.5 percent, then nominal GNP growth of 7-1/2 percent to 8 percent would
be expected. If real GNP grew at the 5.3 percent rate consistent with exactly
achieving assumed full capacity by IV/77, then prices over the six quarter
period would rise in the range of only 2.7 percent to 4.7 percent annual rate.
These results would mean that output was growing at a 1.8 percent faster
rate than economic potential and that would seem to be consistent with
the decline in the unemployment rate to about 6 percent by the end of 1977,
assuming that an approximate 7 percent rate of unemployment is achieved
by the end of 1976.

JLJ/nl

GNP PROJECTIONS
(FOMC Money Growth Targets)

	Nominal GNP		Real Output		Prices		Implied Velocity M1		M2	
Actual II/75–II/76	12.9%		7.0%		5.6%		7.3%		2.8%	
	A	B	A	B	A	B	A	B	A	B
Projections II/76–II/77	9%	10.5%	5.2%	6.1%	3.8%	4.4%	3.5%	3.5%	1.5%	1.0%

A Alternative: M1 = 4.5%; M2 = 7.5%
B Alternative: M1 = 7%; M2 = 9.5%

- -

Projections	M1	M2	GNP	Real Output	Prices	Unemployment Rate
II/76–IV/77	4.0	7.0	8.0	5.3	3.7	6.0

TO _____ File

FROM _____ Jerry L. Jordan _____ PHONE No _____

SUBJECT _____ SHADOW OPEN MARKET COMMITTEE MEETING--9/13 _____ DATE __ September 3, 1976

At the March, 1976 meeting, the SOMC recommended growth of M1 at a rate of 4.5 percent from I/1976 to I/1977. At that time it was assumed, that M1 would average $300 billion in the month of March, 1976 and $297.5 billion for I/1976. Assuming these base figures, the recommended rate of growth would imply III/1976 M1=$304 billion and I/1977 $311 billion. The actual level of M1, I/1976 was $296.5, one billion less than assumed. It currently appears that the level of M1 for III/1976 will be about $2 billion greater than recommended by the SOMC last March.

Retaining the target level of M1 for I/1977 of $311 billion would imply a growth of 4.9 percent from the actual level I/1976, but a rate of only 3.2 percent from currently estimated III/1976. Subsequent to the SOMC meeting, the Federal Reserve announced on May 3, 1976 that their own target for I/1976 to I/1977 for M1 was 4.5 percent to 7 percent. Thus the lower end of the FOMC's target range for M1 was the same as the SOMC's recommended growth rate. In July, 1976 the FOMC announced that target growth rates for II/1976 to II/1977 for M1 and M2 respectively were 4.5 percent to 7 percent and 7.5 percent to 9.5 percent. It is a good bet, based on the discussion in the Record of Policy Actions for the July FOMC meeting, that the FOMC will set a lower limit for M1 when the targets are moved to III/1976. Lowering the M2 lower-end also should not be ruled out. Best guess at this time would be that the FOMC will set targets for III/1976 to III/1977 for M1 and M2 respectively of 4 percent to 7 percent and 7 percent to 9.5 percent.

Note: Since the actual level in II/1976 for M1 was considerably above the Fed's target and more than consistent with the SOMC recommendation, the lower growth rates now indicated by the FOMC still imply more rapid money growth since they begin with a higher base. The SOMC recommendation of 4.5 percent (based on an assumed I/1976 level of $297.5) would give a level $314.3 for II/1977. The current FOMC range for II/1977 is $316.3 to $323.9. Consequently, there has been an upward rachet in the FOMC's money targets.

In the first five quarters of economic expansion from I/1975 to II/1976, M1 grew at a 5.7 percent annual rate while M2 grew at a 10 percent annual rate. Even the non-monetarists agree that a slower growth of money is appropriate in the second year of expansion and there is no basis for recommending higher growth in the year ahead than

occurred in the past year. Nonetheless, Professor Modigliani, in an article in the Boston Fed Review, argued for higher growth and the Congressional Budget Office, in its August 3, 1976 report Sustaining A Balanced Expansion, argued for an 11 percent growth in M2 II/1976 to IV/1977. Their prescription is less extreme than a year ago, but there is no reason to expect that they are any more correct now than they were a year ago.

As a tentative recommendation, I would suggest a target growth of M1 for the period III/1976 to III/1977 of 4 percent. The level of money for I/1977 set at the March 8, 1976 SOMC meeting was $311 billion; I recommend raising that to $312, which would be a 5.2 percent increase over actual I/1976, and a 5.3 percent rate of increase over estimated III/1976.
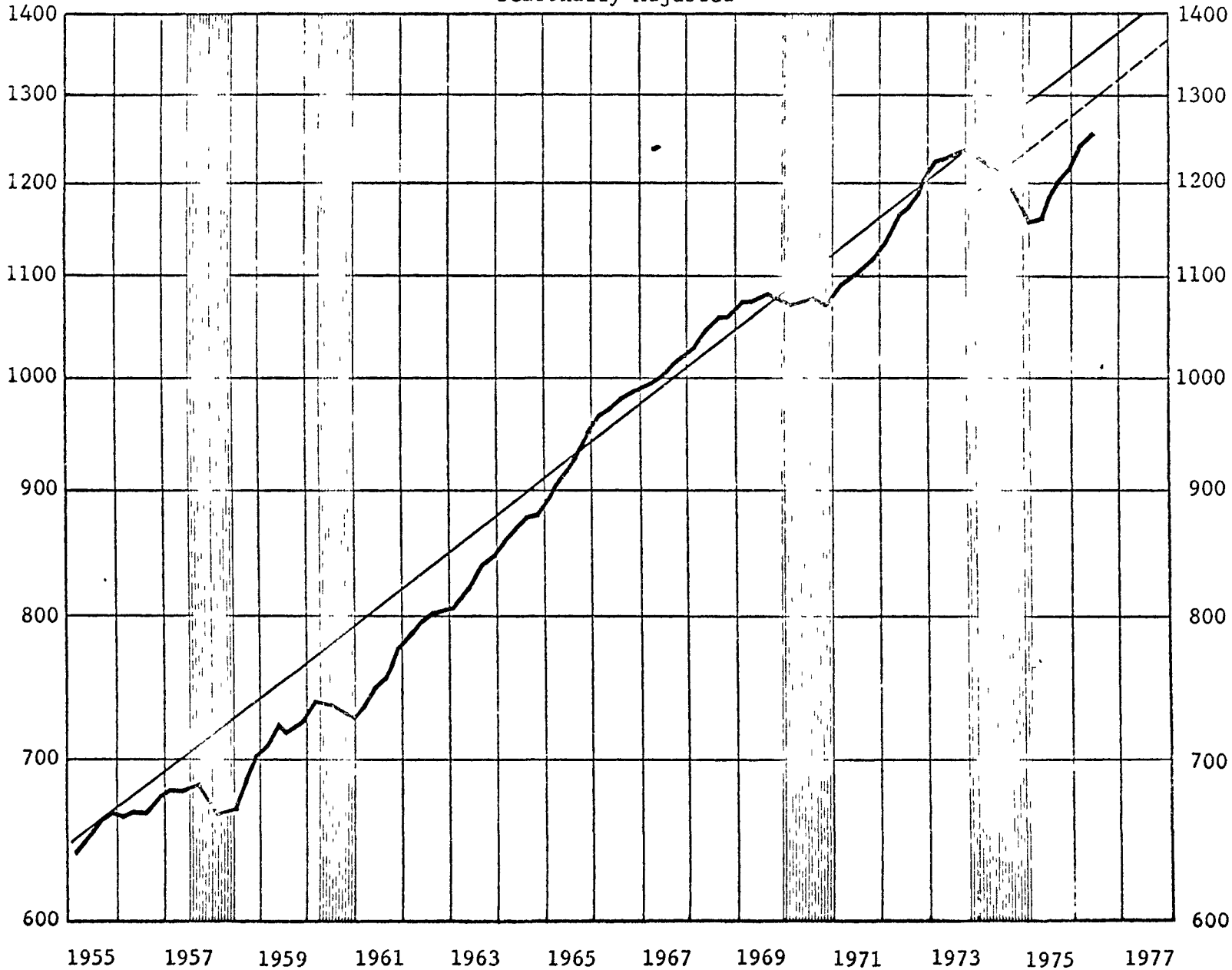
JLJ/nl

THE TREND OF OUTPUT

Ratio Scale
Billions of Dollars

Quarterly Totals at Annual Rates
Seasonally Adjusted

Ratio Scale
Billions of Dollars

PITTSBURGH NATIONAL BANK

Quotations from Franco Modigliana and Lucas Papodemos

I   Brookings Papers on Economic Activity I -- 1975 - Page 163 (from Conference, April 24 & 25, 1975)

"If the Federal Reserve should fail to accommodate the recovery in money income and insist on containing the growth of monetary aggregates within some historical average range, as in 1974, one can confidently predict short-term market interest rates will again escalate into the two-digit range, taking the wind out of the sail of recovery and possibly causing a new recession, much as in 1974. This time, however, the episode would start from an unemployment of 8 percent or more, and the consequences would be far more tragic."

II   From an article printed in the Boston Fed New England Economic Review reprinted in the Money Manager, April 12, 1976 - Page 15

"....the best judgment one can make from historical experience as to the rate of growth of money needed to hold interest rates around current levels over the next 2 to 3 quarters is around 9% - 10%, but we would not be too surprised if that number turned out to be as high as 12 or instead to fall short of the current target range."

"This is a large nargin of uncertainty, but fortunately there is no need to be concerned about it, since our policy target is stated in terms of interest rates, not in terms of money supply."

"Indeed, the great uncertainty about the demand for money is one major reason why, at the present time, the target of monetary policy is best stated in terms of interest rates rather in terms of growth of money."

"The large margin of uncertainty and the wide range of possible outcomes for the growth rate of money further imply that neither Federal Reserve nor the public need panic if the maintenance of the current level of interest rates for the next 2 to 3 quarters were to require in some quarters a rise in the money supply, well about 10%."

"There is no danger that such a growth rate of the next 2 or 3 quarters would lead to increasing inflation contemporaneously or even at some later date, as long as it resulted from maintaining current interest rates, rather than from a policy of forcing them down."

THE STATE OF THE FLOAT
BRIEFING FOR SHADOW OPEN MARKET COMMITTEE MEETING
SEPTEMBER 13, 1976

by

WILSON E. SCHMIDT[1]

As is well known, floating exchange rates are no longer sinful. This
was agreed in Jamaica in January by the Interim Committee of the International
Monetary Fund. The tedious process of getting formal parliamentary approval
of this is well on its way, with the real possibility that the United States
may have approval in hand by the Manila meetings of the Fund early in October.

The rhetoric about par values, central rates, and most other vestiges of
the Bretton Woods system has shifted almost completely. The Bank for
International Settlements writes "...experience has now taught us that
relative stability of exchange rates cannot be achieved merely by market
intervention, even on a massive scale."[2] The Managing Director of the Inter-
national Monetary Fund said in June: "No par value system could have been
sustained with the large imbalances and the wide variations in inflation we
have seen in recent years."[3]

But if the rhetoric about floating is moving in the right direction, it
is not at all clear that the facts about floating are also moving the same way.
The amount of foreign exchange market intervention by central banks and

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Treasuries through sales and purchases of foreign exchange appears to be

increasing, perhaps substantially. The Organization for Economic Cooperation

and Development stated in June that "Over the past several months, official

interventions have been substantial, probably the largest since the

generalizing of floating in early 1973."[4] Recent press reports relying on

Fed sources indicate that intervention by major central banks averaged $7

billion in February through April (a record high since March, 1973 when the

float began) and $7.5 billion in May and July.[5] And the Federal Reserve-Treasury

operations in our foreign exchange market during February-April 1976 increased,

measured at an annual rate, by 45% over the preceding year. Not counted in

those operations is the massive $5.3 billion bundle for Britain, of which our

share was $2 billion, on June 7. Recent press reports indicate that $400 million

was drawn under that facility from the United States in May and June and that

the Italians repaid $550 million under their swap arrangements with us in the

same period.[6] On an average monthly basis, this suggests at minimum (because we

don't know as yet all of the transactions that occurred) a 57% increase in

Fed-Treasury intervention over the year prior to February. (Exactly what

constitutes intervention is a matter of dispute. I have taken a broad definition

namely the sum of the sales and purchases identified by the Fed in its frequent

official reports and the activation of swaps with the U.S. by other countries

since the latter requires the approval of the U.S. Government. A much

narrower definition would be to count only those sales of foreign exchange

by the Fed. Provisionally, I reject this because it seems that purchases of

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[4] _Economic Outlook_, Paris, July, 1976, p. 47.

[5] _The Journal of Commerce_, September 2, 1976.

[6] _Ibid._

foreign exchange affect rates as well.)

There is, however, some good news. Various reports indicate that drawings under our swap arrangements will be more conditional than ever before, less automatic than they seemed to be in the 1960's, and less likely to be rolled over after their six month life.[7] Also, while there was a pronounced increase in restrictions on current (as distinguished from capital) transactions in 1975 and through the first four months of 1976, "...in only a few instances were they applied as a major instrument of balance of payments management." To some extent perhaps exchange rate changes are being allowed to replace controls that otherwise might have been imposed. The other piece of good news is that the United States Government has abolished the concept of an overall balance of payments surplus or deficit, a decision which will properly distract attention from the condition of our balance of payments, which is no longer a problem.[8]

It is much too early to tell if we shall be turning to a system of de facto par values, created out of a system of de facto targets for exchange rates. The hints are there. An Alternate Executive Director of the Fund recently wrote that the "majority of policymakers" . . . "dream of 'advancing' again step by step to a par value system."[9] And the mechanism is in place because under the reform agreed upon at Jamaica, the Fund "...shall exercise _firm_ surveillance over the exchange rate policies of its members, and shall adopt _specific_ principles for the guidance of all members with respect to those policies." (Italics added) Only time will tell how far the Fund will go in its exercise

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[7]_World Financial Markets_ (Morgan Guaranty Trust, June, 1976).

[8]_Statistical Reporter_, June, 1976.

[9]Tom de Vries, "International Monetary System." _Foreign Affairs_ (April, 1976) p. 591.

of responding to this mandate which began last week.

And if guidelines are established, only time will tell how much power the Fund will have to enforce them. Dr. Guido Carli, long-time Governor of Italy's central bank, recently reminded us that "...as originally conceived, the Fund's prescriptive powers derived from its ability to exclude refractory countries from access to conditional credit."[10] He sees the private banking system, particularly U.S. banks, as having taken over the function of providing international liquidity, thereby diminishing the ability of the Fund to enforce its rules of conduct.

On the other hand, the Managing Director of the Fund seems to see enhanced effectiveness of the Fund under the float in dealing with exchange rates. Under the par value system, it was virtually impossible to discuss changes in exchange rates among countries in advance in the Fund because of the effects of ensuing leaks and rumors on capital flows. He now reports "...we have already seen a greater willingness on the part of the Fund members to engage in effective discussion of their exchange rate policies."[11] Curiously, the Managing Director seems to complain that the reform agreement provides no arrangements for the control of international reserve creation.[12] Clearly, the exchange rate principles to be adopted will do that. If the guidelines require central banks to support foreign currencies, under any circumstances, reserves are apt to be created; if the guidelines prohibit it, then reserves are not likely to be created.

Whether or not the Fund will have more power (and how much international reserves are created) depends in part on how many favors it has to dish out.

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[10] _IMF Survey_, July 19, 1976, p. 212.

[11] _IMF Survey_, June 21, 1976, p. 182.

[12] _Ibid._, p. 179.

("Favors" is the right word, since it starts its lending at 4.5%). These clearly have been increased by a little noted part of the reform agreed upon at Jamaica. Quotas of the members have been raised from 29 billion SDRs to 39 billion SDRs. The actual increase in Fund resources is "considerably greater" than one third because the existing resources of the Fund contributed by some nations were not available in practice before the Jamaica agreement was negotiated but now presumably will be.[13] Pending approval of the quota increase, a decision was made to increase the credit tranches of the Fund by 45% which has approximately the same effect.

In a fundamental sense, this mandate for exchange rate principles and surveillance puts the cart before the horse. A new perception of how the world could obtain exchange rate stability was worked out at Rambouillet and Jamaica. It says that if countries stabilize their underlying economic conditions, stable exchange rates will be the derivative. To this end, increased consultation among the leading countries has been achieved which hopefully will lead to better coordination of national economic policies.

If one were to dream about the ideal form of coordination, one might ask the members of the Fund to set a target for the growth in the world money stock. The members would then divide that target among themselves. (This would not be unlike the Congressional Budget Resolution exercise.)

By setting a world target, world inflation might be stopped. And since floating does not always provide perfect independence from foreign events for a floating nation, internal inflationary pressures within the more sober floating

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[13]Testimony of Jack F. Bennett, International Finance Subcommittee, Senate Committee on Banking, Housing and Urban Affairs, August 27, 1976.

nations might ease. And the world target might help put pressure on the inflationary-hippies of the world to come to their senses which, while probably good in itself, would help the more restrained nations and the world as a whole indirectly by reducing the uncertainties created by inflation.

If the members divide up the world money target in a manner which stabilizes their underlying economic conditions, stable exchange rates are likely to ensue because their relative postions are not likely to change. (Paradoxically, it is then that the greatest dangers for pressures to return to fixed rates will prevail.)

In such circumstances, over the longer pull, there is no need for specific principles of exchange rate management. For example, if the Federal Republic of Germany's appropriate target is 8%, then it doesn't matter whether the German central bank achieves that objective by buying foreign exchange (thus adding to world international reserves) or by internal measures to expand the monetary base. The German price level will be the same in either case and the exchange rate will have to conform to it relative to prices in other countries in the longer run no matter whether the central bank intervenes in the market place or not. In effect the level of world reserves has nothing to do with the world price level and world economic activity for the latter are determined by the world target for monetary growth. The so-called liquidity problem (too much or too little) drops out. If all the countries of the world by some coincidence sought to achieve their proper target by buying foreign exchange, the difference would be that all central banks would be holding far more reserves and far fewer assets of domestic origin.

In this scheme, one starts from the top - a world monetary growth target - and, if that target is properly divided among nations, stable exchange rates ensue and the issue of the proper amount of international liquidity drops out of sight.

Of course, this is a dream, but perhaps one worth thinking about. It is a dream because floating rates probably do not conform in the short-run to relative price levels as quickly as politicians would like. As Secretary of the Treasury Simon warned the OECD last June, in those inflation-prone countries with floating rates the downward pressures on their exchange rates may tempt their governments to restrict trade to the detriment of their more sober neighbors.[14]

And it is a dream for another reason. With the inherent desire of politicians in power to pursue expansive policies before elections and tight one's after victories (the political business cycle), it will be hard if not impossible to get the appropriate division of the world target among nations simply because elections are scheduled at different times among nations.

While it is not clear that the Fund will enjoy an increase in its power to influence its member's exchange rate policies, it is rather clear that if the Fund uses the carrot of lending rather than the stick of withholding its resources, the result could be more world inflation without a world monetary growth target. There are two reasons for this.

First, when the Fund lends the currency it has of Country X to Country Y, then when Country Y uses the X currency to pay Country Z, Country Z then enjoys an increase in its reserves if the central bank of Z chooses to buy the X currency. There is a direct increase in the monetary base of Country Z.

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[14]Statement, June 22, 1976.

Second, when the Fund lends the currency of Country X, that country, under Fund procedures, enjoys an increase in its net reserve position at the Fund, which is a balance guaranteed in terms of SDRs. Country X can draw an equivalent amount of foreign exchange from the Fund virtually automatically. While there is no necessary direct impact on the monetary base of Country X, the monetary authorities may well feel less constrained in their domestic monetary policies by their increased holdings of international reserves.

While it is impossible to foretell what the Fund lending policy will be, it is not difficult to make some rough estimates of the possible impact on world inflation of this increase in quotas under various assumptions. By mid-1976, net lending by the Fund to its members equalled almost half of the quotas of its members. If we assume that the same ratio prevails for the increment of 10 billion SDRs and the increment in lending is divided equally over three years, recent econometric research by H. Robert Heller[15] suggests that by 1980 the world price level would be almost two-thirds of 1% higher than it otherwise would be. (This probably exaggerates the effect of Fund lending because the Fund often imposes conditions on borrowers to perform better internally. To the extent that the Fund is successful in this respect, and experience suggests that it is, this effect tends to offset the inflationary effect of Fund lending elsewhere in the world, i.e., in the country ultimately receiving the foreign exchange and in the country enjoying a net increase in its reserve position. On the other hand, 10 billion SDRs understates the effective increase in the Fund's resources as noted above. But there is at present no way to sort these things out.) To achieve a

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[15] IMF Staff Papers (March, 1976). For a critique of this model see a forthcoming paper by Richard Sweeney and Thomas Willett, "Eurodollars, Petrodollars and Inflation."

zero rate of world inflation, the internally generated growth of the stock of money in the world as a whole, given the Fund generation, will, according to Heller's equations, have to be held to 3.2% in the period 1978-80.

Formulated in that manner, these calculations reveal the fundamental question which underlies (or at least should underly) the discussions of guidelines for exchange rates. That question is how much should the world rely on adjustment through exchange rate changes versus financing of balance of payments disequilibria (as throug'. the IMF)? The answer to that question rests in part on what ratio of world trade to world output one thinks is optimal because, the more financing of disequilibria, the larger the volume of world trade and the smaller the portion of the money stock that can be generated internally. While this question is too complicated to try to answer here, one might start with a presumption against financing instead of adjustment on the grounds that the Fund loans are at non-market rates.

Comments on Fiscal Policy Developments for
Shadow Open Market Committee Meeting April 13, 1976

Thomas Mayer
University of California, Davis

In this memo I will follow the format set out by Bob Rasche in his memo

at our last meeting. Much new information has become available in the last

six month, but, as discussed below, some new problems have arisen which

increase the range of uncertainty about any fiscal forecasts.

Previous Developments

Table 1 is an update of Bob Rasche's Table 1 from our last meeting. I

have added the data for two quarters and revised the data for the other

quarters in accordance with the revisions of the NIA data. The figures in

the first five columns are taken from the NIA budget and are seasonally

adjusted quarterly rates. The data for 1975 IV and 1976 I show a continuation

of the trends pointed out by Bob Rasche at our last meeting. Real government

purchases of goods and services are up only slightly, but transfers are up much

more. The NIA deficit is still very substantial.

The other data in Table 1 are from the unified budget and indicate the

financing requirement. They are not strictly comparable with the NIA data shown

in the first five rows so that the last column is somewhat inaccurate. There

are definitional differences; for example, governmental sales (e.g., oil leases)

are included in the unified budget, but excluded from the NIA budget. In addi-

tion, the unified budget, unlike the NIA budget counts outlays when payments are

actually made, rather than on an accrual or delivery basis. These differences

can be quite large.

TABLE 1
DEFICITS AND BORROWING
REQUIREMENTS, 1975 I-1976 I

	1975				1976
	I	II	III	IV	I
			(Billions of Dollars)		

A. NATIONAL INCOME ACCOUNT CONCEPTS-S.A. QUARTERLY RATES

1. Fed. Gov. Purch. of Goods & Services	29.8	29.8	31.0	32.5	32.8
2. (1) in 1972 $	23.4	23.1	23.7	24.0	24.0
3. Transfers	52.9	56.5	58.2	59.3	61.2
4. Receipts	70.9	62.5	73.3	75.5	78.2
5. Deficit (-)	-11.8	-23.8	-15.9	-16.3	-15.8

B. UNIFIED BUDGET CONCEPTS

6. Outlays	83.120	88.083	90.805	93.618	89.612
7. Receipts	65.129	76.061	72.274	67.056	66.910
8. Deficit (-)	-17.991	-12.022	-18.531	-26.562	-22.701
9. Financing	-18.281	-14.477	-21.701	-27.760	-24.847

C. CHANGES IN CASH ACCOUNTS

10. F.R.	1.158	1.502	2.301	-.788	-.141
11. T+L Accounts	-.603	-.667	.687	-1.003	-.295
12. Other	.622	1.294	-1.004	-.312	-.299

D. BORROWING

13. F.R.	.917	3.331	2.249	.936	1.819
14. Public	18.541	13.275	21.436	24.721	22.293

Sources:

col.	1- 5:	National Income and Product Accounts, Survey of Current Business, Tables.
col.	6- 8:	Federal Fiscal Operations: Summary, Federal Reserve Bulletin, p. A32.
col.	9:	Federal Fiscal Operations: Summary, Federal Reserve Bulletin, p. A32: US Budget Surplus or Deficit Plus Other Means of Financing.
col.	10-11:	Federal Fiscal Operations: Summary, Federal Reserve Bulletin, p. A32: Selected Balances (End of Quarter-Beginning of Quarter).
col.	12:	Federal Fiscal Operations: Summary, Federal Reserve Bulletin, p. A32: Selected Balances - Other Depositories (End of Quarter-Beginning of Quarter) + Other Cash and Monetary Assets.
col.	13:	Consolidated Condition Statement of all Federal Reserve Banks, Federal Reserve Bulletin, p. A10, Total U.S. Gov't. Securities (End of Quarter-Beginning of Quarter).
col.	14:	(Col. 10 + Col. 11 + Col. 12 - Col. 9 - Col. 13).

As Bob Rasche pointed out at our last meeting, since 1971 the Federal Government has required approximately $115 billion of new financing. In the two quarters I have added this has risen by about $50 billion of which the Fed picked up $2.76 billion, i.e., 5.5 percent. This contrasts with the 20 percent the Fed picked up on an average over the 1971 I-1975 III period covered by Bob Rasche at our last meeting. The Treasury financed $2.8 billion of the deficit by running down its cash balances over these two quarters.

The Previous Fiscal Year

The final figures for FY 1976 are now available, and show the following pattern:

	Actual	Previous Estimates	
		Jan. 1976	Mid-session Review (July 1976)
		(Billions of Dollars)	
Receipts	300.0	297.5	299.4
Outlays	365.6	373.5	369.1
Deficit (-)	-65.6	-76.0	-69.6

Thus the deficit was $10.4 billion (14 percent) less than was expected in January 1976. And even the mid-session review, two weeks prior to the end of the fiscal year was $4 billion off, due to an overestimate of expenditures. However, some of these expenditures were merely deferred. Since Congress authorized the carry-over of appropriations into the current transition quarter, the usual last minute rush to spend funds did not occur. However, some of these expenditures will occur during the transition quarter since funds cannot be carried over beyond that to fiscal 1977. Compared to the January estimate,

actual expenditures were $7.9 billion less. Some, but not all of this, will therefore be made up in the current transition quarter; glancing at some of the specific items involved I would guess that perhaps $2.5 billion or so will be permanently "lost."

Transition Quarter

The July Mid-Year Review lists the following estimates for the transition quarter:

Receipts	$ 82.1 billion
Outlays	$ 102.1 billion
Deficit (-)	$ -20.0 billion

It is worth noting, however, that these estimates, while they include congressional actions through June, assume that Congress will follow the President's program subsequently. However, the C.B.O.'s expenditure estimate is lower, $98.6 billion.

According to OMB if one combines FY 1976 and the transition quarter, the error in estimating expenditures is greatly reduced, a reflection of the shift of expenditures into the transition quarter. The figures are as follows:

	July estimate	January estimate	Difference
	(Billions of Dollars)		
Receipts	381.6	379.4	2.2
Expenditures	471.2	471.5	-0.3
Deficit (-)	-89.6	-92.1	-2.5

Projections

Before looking at the projections for FY 1977 and beyond, two warnings are in order. One is that uncertainties about the strength of the current expansion make it hard to predict both revenues and expenditures. Both the O.M.B. and C.B.O. projections assume a continuing expansion. I have not tried to adjust

them for a possible slowdown, because I am guessing that a healthy expansion will continue, and that the current signs of a slowdown are only the hesitancy frequently seen part-way through an expansion, what at one time was referred to as a stage in a "Mack cycle."

Second, it is hard to know how the new congressional budgeting system will work. Expenditures have been set on the assumption that taxes would be raised by $2 billion. This seems unlikely as of today (Aug. 30) though this may change before our meeting. The alternatives one can play with here are numerous. I do not know which one of the many alternatives to choose, and have therefore not made any adjustments to the figures. The reader may want to lower receipts by $x billion and add $x billion to the deficit. With these two provisos, here are figures for FY 1977 as obtained from the staff of the C.B.O. and from the O.M.B.'s Mid-Session Review of the Budget.

FY 1977[1]

	C.B.O.	O.M.B.
	(Billions of Dollars)	
Receipts	362.5	352.5
Outpay	413.3	400.0
Deficit (-)	-50.8	-47.5

The C.B.O. and O.M.B. estimates differ for two reasons. One is that the O.M.B. expenditure figures are based on the assumption that Congress will enact the President's program, though it does, of course, take account of Congressional actions prior to July when it was issued. The C.B.O. budget, on the other hand, is based on congressional proposals. In this respect the C.B.O. figures are probably the more realistic.

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[1]O.M.B. figures are from Mid-Year Review, p. 8. C.B.O. figures are unpublished estimates supplied through the courtesy of the C.B.O.

Another difference is in the underlying economic assumptions which are as follows:

	Calendar Years			
	1976		1977	
	OMB	CBO	OMB	CBO
Real GNP growth	6.8%	5.0%	5.7%	5.0%
Inflation Rate (CPI)	5.7	5.0	5.6	5.5
Unemployment Rate	7.3	7.3	6.4	6.4

It is hard to choose between these estimates. Fortunately, such a choice is not really necessary because both the O.M.B. and C.B.O. deficit projections are not very far apart; we are dealing here with a difference of $3.3 billion. This is not very large in view of the other uncertainties that are involved. To illustrate with just one example, estimated FY 1977 interest payments on the Federal debt are about $40 billion. If the average interest rate on the debt is 10 percent lower than is assumed in this $40 billion estimate, then, even after making some allowance for the resulting reduction in tax receipts, the deficit could be, say $2 billion lower. And given the recent peculiar behavior of interest rates, a 10 percent error is far from unlikely. This illustrates an important point; although the new Congressional budget system is an immense step forward, there is still a great deal of uncertainty about what next year's deficit will be. This is an example of the familiar statistical point that if one tries to estimate a small residual it is a good idea to have an unlisted phone number.

Longer Run Projections

Table 2 shows the O.M.B.'s economic assumptions as given in its July 1976 Mid-Session Review. These differ from the ones given in the January Budget discussed by Bob Rasche at our last meeting. The estimate for GNP in current dollars has been lowered by $3 billion for 1978, $6 billion for 1979, $61

billion in 1980 and $130 billion for 1981. The real growth rate has been changed as follows:

	July estimate	January estimate
1977-78	5.9%	5.9%
1978-79	6.3	6.5
1979-80	4.4	6.5
1980-81	3.7	4.9

The assumptions about the unemployment rate are now uniformly more optimistic. The inflation rate expected for some years has gone up, and for others down. The most notable difference is that the new projections have sharply reduced the inflation rate projected for 1981, to less than 3 percent in what seems like an act of faith. One can well sympathize with O.M.B. in trying to forecast the inflation rate that far ahead. Economics simply does not provide the tools needed to make such a forecast. All the same, I would be surprised if the inflation rate would actually be below 3 percent in 1981. And given the high inflation-elasticity of revenues, I suspect that 1981 revenue is probably understated, and the same may well be true for 1980 as well.

Table 3 shows the C.B.O. assumptions. These assumptions, which are unpublished updates of the ones published in March, no longer use the format of Path A and Path B projections. The real growth rate is assumed to be 5 percent until we return to a 4.5 percent unemployment rate when it will fall to 3.5 percent.

It is instructive to compare the old Path B with the new estimates in terms of unemployment and inflation rates:

TABLE 2
O.M.B.'S LONG RANGE ECONOMIC ASSUMPTIONS
(Calendar Years; dollar amounts in billions)

	Assumed for Purposes of Budget Projections			
	1978	1979	1980	1981
Gross national product				
Current dollars:				
Amount......................................	2,121	2,370	2,575	2,747
Percent change.............................	12.2	11.7	8.6	6.7
Constant (1972) dollars:				
Amount......................................	1,418	1,508	1,575	1,634
Percent change.............................	5.9	6.3	4.4	3.7
Incomes (current dollars):				
Personel income............................	1,720	1,920	2,083	2,220
Wages and salaries.........................	1,121	1,252	1,361	1,452
Corporate profits..........................	201	223	242	258
Prices (percent change)				
GNP deflator:				
Year over year.............................	6.0	5.1	4.0	2.9
Fourth quarter over fourth quarter........	5.7	4.7	3:6	2.5
CPI:				
Year over year.............................	5.6	5.1	4.1	2.9
December over December.....................	5.4	4.7	3.5	2.4
Unemployment rates (percent):				
Total......................................	5.7	5.1	4.8	4.7
Insured 1/.................................	4.1	3.2	3.2	3.2
Federal pay raise, October (percent).......	7.0	6.5	5.75	5.0
Interest rate, 91-day Treasury bills (percent) 2/.................................	5.4	5.4	5.4	5.4

1/ Insured unemployment as a percentage of covered employment; includes unemployed workers receiving extended benefits.

2/ Because of the difficulty of forecasting interest rates, the budget has generally followed the convention of assuming that interest rates remain constant at the level prevailing at the time that interest outlays are estimated. The rates shown above for calendar years 1978 through 1981 were those prevailing at the end of June.

Source: O.M.B. Special Analyses of the Budget of the United States Government, Fiscal Year 1977, p. 47.

TABLE 3
ECONOMIC ASSUMPTIONS OF C.B.O.

Calendar Year	Growth Rate of Real GNP	Unemployment Rate	Increase in W.P.I.[a]	Increase in C.P.I.[a]	Treasury Bill Rate
1976	5.0	7.3	4.97	4.98	5.29
1977	5.0	6.4	5.91	5.52	6.59
1978	5.0	5.8	5.50	5.52	7.13
1979	5.0	5.3	5.40	5.39	7.13
1980	5.0	4.8	5.55	5.59	7.13
1981	3.5	4.5	5.78	5.88	7.13
1982	3.5	4.5	5.96	6.13	7.13

[a]4th quarter to 4th quarter.

Source: unpublished estimates provided through the courtesy of C.B.O.

	C.B.O.				O.M.B.	
	Growth rate of CPI		Unemployment Rate			
	Path B	New estimate	Path B	New estimate	Growth rate of CPI	Unemployment Rate
1977	6.9%	5.5%	7.5%	6.4%	5.7%	6.4%
1978	5.9	5.5	7.1	5.8	5.4	5.7
1979	5.6	5.4	6.7	5.3	4.7	5.1
1980	4.8	5.6	6.3	4.8	3.5	4.8
1981	5.0	5.9	5.9	4.5	2.4	4.7

These new estimates seem a substantial improvement over Path B, not to speak of Path A which Bob Rasche pointed out at our last meeting is quite unrealistic.

Compared to the estimates of O.M.B., also shown above, the price path indicated by C.B.O. seems more plausible. In particular, it avoids O.M.B.'s very optimistic assumption that we can get the inflation rate down below 3 percent in 1981. For 1977 C.B.O. is a shade more optimistic than O.M.B., which I also find plausible. C.B.O. is also a shade less optimistic about unemployment for 1978 and 1979. I am a bit uneasy about both the C.B.O. and O.M.B. unemployment estimates for the last two years. Unless manpower policy becomes much more effective, the natural rate of unemployment may well be high enough to make the unemployment and price projections, particularly O.M.B.'s, inconsistent, if one allows for the possibility that once we fall below the natural rate, memories of the current inflation will be revived very quickly.

The revenue and outlay projections that follow from these economic assumptions are shown in Table 4. Unfortunately, the only figures available are in calendar year terms for the O.M.B. estimates and in fiscal year terms for the C.B.O. estimates, though for the new fiscal year this does not matter quite so much. Despite this the differences between the two estimates are relatively modest for both outlays and receipts, but again the residual item, surplus or deficit, shows a relatively much larger difference.

TABLE 4

LONG RUN PROJECTIONS OF REVENUES, OUTLAYS AND DEFICITS
(Billions of Dollars)

| | 1978 | | 1979 | | 1980 | | 1981 | |
	O.M.B.[a]	C.B.O.[b]	O.M.B.[a]	C.B.O.[b]	O.M.B.[a]	C.B.O.[b]	O.M.B.[a]	C.B.O.[b]
Outlays	433.3	442.1	461.5	468.8	492.2	498.6	522.2	529.6
Receipts	405.2	406.3	462.6	453.7	513.9	507.4	558.3	565.1
Surplus or Deficit (-)	-28.1	-35.8	1.1	-15.1	21.7	8.8	36.1	35.5

[a] applies to calendar years

[b] applies to fiscal years

Source: O.M.B., Mid-Session Review of the 1977 Budget, p. 29, C.B.O. unpublished estimates.

In this connection it is worth noting that a fairly small difference in estimates of the deficit can have unpleasant consequences for monetary policy. For example, if one assumes that the Fed picks up, at the margin, a quarter of the deficit, and that the M_1 money multiplier is 2, then a $8 billion difference in the deficit translates into very roughly a one percent difference in the growth rate of M_1. For 1979 the difference between the estimates is about $16 billion, though much of this could be due to the fact that one set of estimates is for calendar years and the other for fiscal years.

It is worth noting that the outlay figures are meant to show different things. The C.B.O. outlay projections tell us what expenditures will be if current programs are maintainted in real terms, while the O.M.B. outlays are projections of expenditures if transfer programs remain fixed in nominal terms, except where current legislation or legislation proposed by the President has an escalator clause (e.g., Social Security). Actuality probably lies somewhere between the two. It is therefore not surprising that O.M.B. shows smaller deficits, or larger surpluses, than C.B.O.

The deficits shown by both projections for 1978 represent substantial declines from the current year's and the previous year's level, but are still large in absolute terms. O.M.B. then shows surpluses starting in calendar year 1979, while C.B.O. shows a surplus starting in FY 1980. For 1981 both show substantial surpluses. But I would be most surprised if anything beyond a modest surplus actually materializes. Continued deficits seem much more likely. Both projections assume no new programs, and this is hardly likely to happen, particularly if there is a surplus.

In summary then, it is reasonable to expect a deficit in the $30 billion plus range in calendar year 1978, and a considerably smaller deficit the following year-- assuming that few, if any, new costly programs are introduced. For the period beyond that, the existence of a deficit, and its size, will be determined by the size of new spending programs that are likely to be introduced by 1980.

Financing Requirements in FY 1977

As previously discussed the C.B.O. projects the deficit for FY 1977 at 50.8 billion, while O.M.B. estimates 47.5 billion. Table 5 shows the O.M.B.'s January projection of how the deficit will be financed. It shows that $53.5 billion will have to be borrowed from the public and the Fed. But the O.M.B.'s July estimate puts the deficit $6.5 billion below the January estimate, which suggests that borrowing from the Fed and the public will be $47 billion. Using the C.B.O. estimate this borrowing will be close to $50 billion. Some of this debt may be picked up by foreigners. Foreigners, mostly foreign central banks, increased their holdings by $10.2 billion in FY 1973, -$2.5 billion in FY 1974 and $9.1 billion in FY 1975. Hence, foreign central banks could potentially reduce the strain the deficit imposes on the American capital market, but since their purchases are erratic, I know of no way to predict whether they will oblige. Fortunately, as Table 6 shows, the agencies (including the off-budget ones) will not exacerbate the problem.[1]

I have not located any estimates of the FY 1978 borrowing requirement, but the previously discussed projections of the deficit for that year suggest that there will again be a substantial, albeit a declining, public borrowing requirement, even in the unlikely event that no new programs are started.

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[1]However, Conrail's problems will probably raise agency borrowing beyond the budget estimate.

TABLE 5
PROJECTED MEANS OF FINANCING THE FEDERAL DEFICIT

Description	1975 actual	1976 est.	TQ est	1977 est.
Budget surplus or deficit (−)	−43,604	−76 001	−16 077	−42 975
Surplus or deficit (−) of off-budget Federal agencies[1]	−9,544	−9 342	−4,040	−11,060
Total, surplus of deficit (−)	−53,149	−85,343	−20,117	−54,035
Means of financing other than borrowing from the public:				
Decrease or increase (−) in cash and monetary assets	−273	−1,411		
Increase or decrease (−) in liabilities for				
Checks outstanding etc[2]	1 362	167	131	422
Deposit fund balances	579	−1,589	−182	−591
Seigniorage on coins	626	672	168	704
Total, means of financing other than borrowing from the public	2,295	−2,157	117	535
Total, requirements for borrowing from the public	−50,853	−87,500	−20,000	−53 500
Reclassification of securities[3]				−340
Change in debt held by the public	50,853	87,500	20,000	53,840

[1] The off budget Federal agencies consist of the Rural Electrification and Telephone revolving fund Rural Telephone Bank Housing for the Elderly or Handicapped fund (as of September 1 1974) Pension Benefit Guaranty Corporation Federal Financing Bank Export Import Bank urt 1 October 1, 1976) Postal Service certain activities of the United States Railway Association and Energy Independence Authority

[2] Besides checks outstanding includes military payment certificate, accrued interest (less unamortized discount) payable on Treasury debt and as an offsetting change in assets certain collections in transit

[3] On October 1 1976 Federal debt held by the public is estimated to increase by $340 million due to a reclassification of Export Import Bank certificates of beneficial interest from loan asset sales to debt

Source: O.M.B. Special Analyses of the Budget of the United States Government, Fiscal Year 1977, p. 48.

TABLE 6
AGENCY BORROWING
(millions of dollars)

Description	Borrowing or repayment (−) of debt				Debt outstanding end 1977 estimate
	1975 actual	1976 estimate	TQ estimate	1977 estimate	
Borrowing from the public·					
Agriculture Farmers Home Admin [2]___	−1	....	....	−25	291
Defense_____	−87	−92	−25	−98	900
Health, Education and Welfare [2].......	· −1	....	....	−4	125
Housing and Urban Development					
College housing loans [2][3]_____	−1	....	....	....	....
Public facil ty loans [2][3]_____	....	....	....	....	....
Federal Housing Administration_____	61	90	19	50	576
Housing for the elderly [2] _____ .. _	−*	....	....	....	64
Gov National Mortgage Association [2]_	−73	−41	−17	−99	545
Revolving fund (liquidating programs)[2][3]_____ . _____	*	....	....	−4	391
Veterans Administration [2]_____	−44	−39	−18	−55	553
Export-Import Bank [4]_____	−295	4	....	−789	2,144
Postal Service____	....	....	....	....	250
Small Business Administration [2]	−1	....	....	−55	227
Tennessee Valley Authority_____	−570	−100	....	....	1,975
All other_____	−11	−*	−*	−*	2
Total, borrowing from the public [4]___	**−1,023**	**−178**	**−41**	**−1,079**	**8,042**
Borrowing from other funds:					
Agriculture Farmers Home Admin [2]___	1	....	....	−21	156
Defense____ .... _____	−19	−15	−2	−14	128
Health, Education and Welfare [2].......	1	....	....	−3	65
Housing and Urban Development					
College housing loans^ [3]_____	1	....	....	....	....
Public facility loans^ [3] _____	....	....	....	....	....
Federal Housing Administration_____	18	−3	....	....	67
Housing for the elderly [2]___ . _____	*	....	....	....	33
Gov National Mortgage Association [2]_	4	....	....	−62	442
Revolving fund (liquidating programs)[2][3]_____	*	....	....	−4	211
Veterans Administration [2]_____	4	....	....	....	549
Export-Import Bank_____	−6	−4	....	....	....
Small Business Administration [2]_____	1	....	....	−46	117
Tennessee Valley Authority_____	−51	....	....	....	....
Total, borrowing from other funds__	**−46**	**−22**	**−2**	**−149**	**1,769**
Total, agency borrowing included in gross Federal debt [4]_____	**−1,069**	**−200**	**−44**	**−1,229**	**9,810**
MEMORANDUM					
Borrowing from Federal Financing Bank:					
Tennessee Valley Authority_____	1,435	1,100	300	1,000	3,835
Export-Import Bank__ _____	4,049	1,437	393	2,028	7,908
Postal Service_____	1,000	1,280	500	1,398	4,678
United States Railway Association_ ____	34	−5	−1	−2	26
Total, agency borrowing from Federal Financing Bank_____	**6,518**	**3,812**	**1,192**	**/,424**	**16,447**

*Less than $500 thousand and
[1] Excludes agency borrowing from Treasury
[2] Certificate of participation in loans issued by the Government National Mortgage Association on behalf of several agencies
[3] The debt of the Public facility loan fund ($143 million) was transferred to the Revolving fund (liquidating programs) on April 1 1975 and the debt of the College housing fund ($467 million) is scheduled to be transferred on October 1 1976
[4] Borrowing in 1977 does not include the reclassification on October 1, 1976 of an estimated $340 million of Export Import Bank certificates of beneficial interest as debt instead of loan asset sales

Source: O.M.B. Special Analyses of the Budget of the United States Government, Fiscal Year 1977, p. 54.
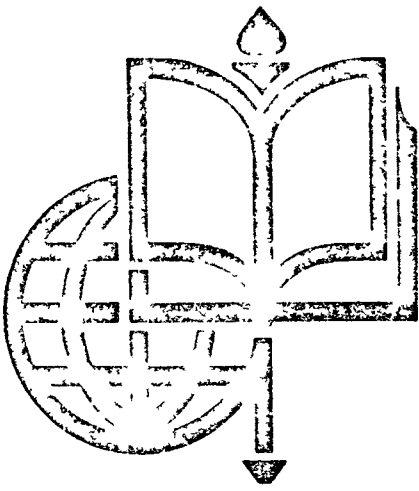
June-July Report

Long Run Outlook and Quarterly Update

June 30 1976

In this issue John Rutledge combines the quarterly update of the AFEC forecasts with a look at the economic and financial environment over the next five years The key ingredient in AFEC forecasts of real output, prices and interest rates over the next five years is the likely path of the monetary aggregates Given our appreciation of the powers which an administration can bring to bear on a reluctant Federal Reserve system, and the current odds on the Presidential election, Rutledge advises our Associates to be prepared to react to the consequences of an overly expansionary monetary policy over the next five years The big question in everyone's mind, of course, is that no one knows just what type of demand management policies a Carter administration would pursue, if elected That uncertainty itself, together with an almost certain swing to more expansionary policies, has already had and will continue to have adverse effects on asset markets We should look for a rise in short-term rates and a cooling of the performance of stock prices over the remainder of the year

The main message in this issue, then, is that in the short term we can expect the recovery to proceed as in our earlier forecasts, with inflationary pressures moderating somewhat Planning over a longer horizon, however, is much more difficult, because of massive uncertainties surrounding the

outcome of the Presidential election We would advise investors and executives to take steps to maintain their flexibility over the two-to-five-year horizon until we are more certain about the policies which will be adopted by the new administration

THE OUTLOOK FOR THE NEXT TWO YEARS

We currently face a situation which is not too rare in an election year We can be fairly confident about the economic outlook for the next year or two, because the policies which influence near-term economic and financial behavior are either already in the books or are unlikely to change substantially in the next year Even if there is a change in the Presidency it will take some amount of time for the new team to get assembled, to put together a policy package, and to implement its policy choices When we try to look past that period to forecast the economic and financial environment, say two to five years from now, the policies adopted by the winning party in this fall's elections will make a tremendous amount of difference Although we have analyzed the statements of Governor Carter and of his advisors to form our assumptions of possible policies the plain fact is that no one knows for sure what macroeconomic policies would be followed under a Carter administration The longer term

outlook, therefore, is clouded by great uncertainties at this time

For these reasons, we have decided to combine our quarterly update issue with a discussion of the factors which will determine the course of the economy over the next five years The first section of this issue discusses forecasts of output, employment, prices and interest rates over the next eight quarters The second section, assesses the effects of longer term uncertainty on the behavior of the economy and places bounds on the likely time paths of prices and interest rates over the next five years

SHIFT TOWARDS MORE EXPANSIONARY POLICIES

In the AFEC forecasting model, the behavior of the economy over time depends in a direct and important way on the monetary policies conducted by the Federal Reserve Board and on the taxing and spending decisions of federal, state and local governments A large increase in the rate of growth of the money stock will lead to a temporary business expansion or boom fairly quickly, as individuals use their increased money balances to finance higher spending on goods and services The gains in output and employment are only temporary, however, and are followed after a year or more by higher rates of inflation Anticipation of the higher inflation rate that eventually results from increased money growth leads investors and issuers in the bond markets to bid up market interest rates to protect the real value of loans, which would otherwise be eroded by the inflation

An increase in the rate of real government spending, on the other hand, can have several different effects, depending on how it is financed As James Meigs argued in the May report, higher spending financed through increased taxes raises the price level and real interest rates, and transfers control of resources from the private sector to the professional bureaucrats Extra spending financed by borrowing from the public raises interest rates and makes it more difficult for business to raise capital for expansion Increased spending financed by money creation brings inflation on two counts fewer goods and services are available for those in the private sector to buy. and they have more money to buy them with

Therefore the behavior of the economy can be radically different depending on the set of monetary and fiscal policies adopted by a particular administration. *An administration which opts for large scale public works and social programs, which is not worried by enormous budget deficits, and*

which is committed to a "go-go growth" platform will produce more inflation and higher interest rates and, in the longer run, lower profits, investment, and real growth than a more conservative administration with an emphasis on controlling inflation This makes the outcome of this fall's Presidential race critical when evaluating the likely performance of the economy over the next several years

The economic policies which would be followed by a Ford or Reagan administration are fairly well known Both place great emphasis on the role of free markets in the economy, and on the dangers of too much government interference in people's economic affairs They differ on relative emphasis in public spending decisions, to be sure, but both basically side with fiscal and monetary restraint, placing control over domestic inflation as a top priority

Either a Ford or Reagan White House, then, would strongly support Chairman Burns' announced intention of gradually purging the economy of inflation over the next few years This would mean rates of money growth slowly and steadily declining from their current values to about 1% or 2% annual rates over the next few years On the fiscal side, we believe that either a Ford or Reagan administration would push to limit growth in the federal budget, with defense spending rising at the expense of social programs This set of policies — in the absence of embargoes and crop failures — would produce gradually decreasing inflation and interest rates, and would allow a smooth transition between recovery and normal growth of the economy.

A Carter administration, however, is much more difficult to predict at this point We have few statements and little experience to go by when trying to nail down the policies which Carter would support if elected President The information that we do have, however, suggests that Carter would try to pursue strongly expansionary monetary and fiscal policies during '77 and '78 *His proposal "to give highest priority to achieving a steady reduction of unemployment and achieving full employment – a job for everyone who wishes one – as rapidly as possible, while reducing inflation" together with his endorsement of the Humphrey-Hawkins Bill, indicates that Governor Carter would urge the Federal Reserve Board to increase the rate of monetary expansion and would not balk at proposed public works spending projects*

But wouldn't such policies reignite the inflation that we have worked so hard to subdue? Governor Carter says no, that we need not worry about infla-

tion while the economy has so much excess capacity Besides, even if there did occur a resurgence of inflation, it could be treated "directly" via standby wage and price controls

At the root of Governor Carter's statements is his acceptance of the concept embodied in the Phillips curve, that inflation and unemployment are inversely related in a regular, predictable way In fact Professor Lawrence Klein — Governor Carter's chief economic advisor — was one of the first economists to apply computers to estimating large-scale models of the economy, built around the Phillips curve framework

We believe that the experience of the past decade and the results of recent economic research have discredited the idea that there is a useable tradeoff between inflation and unemployment, and that the uncritical acceptance of the tradeoff was one of the major factors leading country after country to opt for the "quick-fix" of inflation, rather than the more responsible approach of maintaining a stable economy without inflation The results were devastating, steadily increasing inflation rates, and steadily rising interest rates

We at AFEC reject the notion that there is a stable tradeoff between inflation and unemployment We are convinced that a monetary expansion will provide only a temporary – two or three quarters – stimulus to output and employment, and will leave both inflation and interest rates on a higher plateau Those who remember Phase I during the Nixon years will certainly agree that — except for all the nice people you meet while standing in lines — price and wage controls are not a serious alternative to sound economic policies

The policy assumptions underlying the forecasts discussed in this issue obviously cannot represent the full range of outcomes which could emerge after November. They will provide our Associates with a benchmark, however, and serve as an estimate of the central tendency of the likely policies As I mentioned above, the stage is largely set for the determination of inflation and, to a lesser extent, interest rates over the next year or two Differences between our policy assumptions and actual policies will, however, be very important for the longer-term outlook, as I will discuss later in this report

On the monetary side, we have assumed what we feel is the least inflationary policy which would be followed under a Carter administration We assume that the money stock grows at a steady 5% annual rate, after expanding rapidly during the second and third quarters of this year This scenario could arise with a reluctant Chairman Burns being pressured by an expansion-minded White House

With a Republican President, money growth would likely be lower, with a Carter White House, it could very well be higher

Finally, we have assumed that fiscal policy will not be a major problem, real government spending grows at a low annual rate Most of the differences in fiscal policy will likely be in the budgetary mix, with defense spending taking high priority with a Republican President and public works receiving emphasis under a Democratic President

With these assumptions, we will now outline the likely economic and financial environment which our Associates will face over the next eight quarters

THE FRAGILE TRANSITION FROM RECOVERY TO STEADY GROWTH

The AFEC forecasts for output and employment under the assumption that the Fed regains control over the money supply by the fourth quarter of this year and then holds a steady course at 5% money growth are presented in Tables 1 and 2 As we can see from the growth rates of both nominal and real output in Table 2 the 5% growth assumption would allow the economy to complete a strong recovery and make the transition between recovery and steady growth in output during the middle of '77 Rates of real output growth then would settle down on the longrun rate of capacity growth of about 2½% per year Nominal income, of course, grows at a much higher rate in the steady growth stage because the 5% money growth generates an inflation rate of about 4½% per year Early '77, then, should mark the end of an era in U S economic history that we could well have done without The U S suffered a drastic fall in real output, the worst inflation of the century, and a severe slump in asset prices Perhaps the only blessing of the period is that it serves as evidence that the market economy has the resiliency to recover from even the most severe blows dealt out by erratic and often irrational economic policies

The principal danger with the steady growth scenario which emerges from our steady money growth assumptions is that it is not glamorous enough for campaigning politicians The prospect of returning to a steady growth rate of only 2½% per year does not make for fiery speeches when compared with the high growth rates we have observed over the past year There is a great temptation, then, for the policy makers to make promises that they can keep the economy growing at such phenomenal rates for long periods of time In the past this has led to overexpansion and subsequent recession time and time again As the great

Chart 1
Over-Stimulating GNP
Growth Would Mean Trouble Later
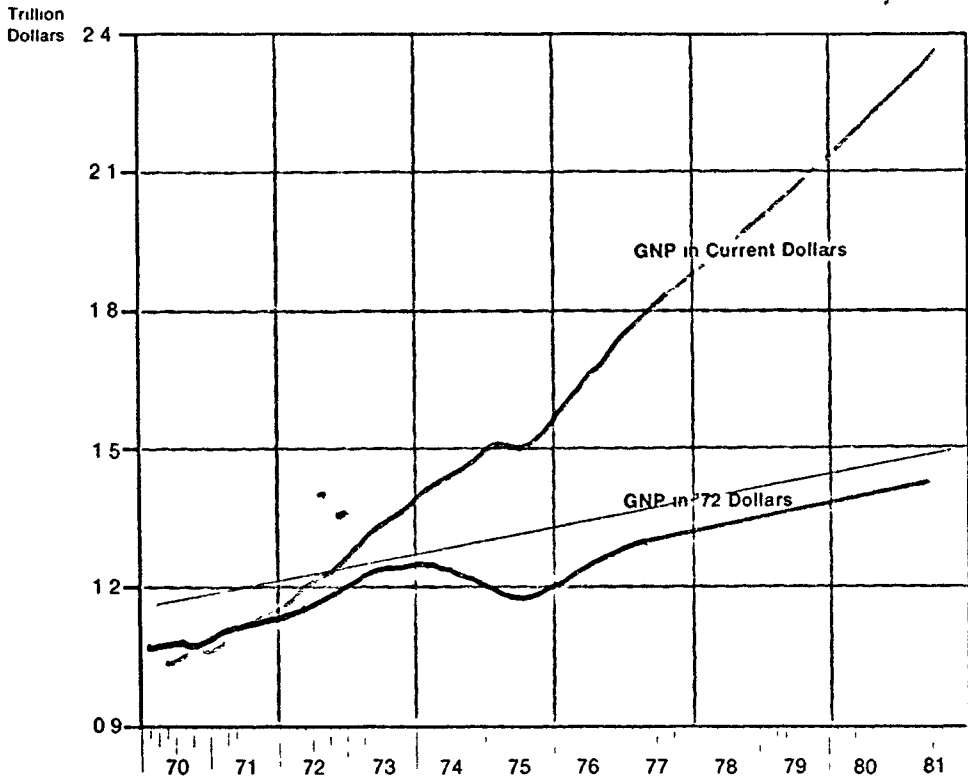
LEGEND

GNP in Current Dollars
GNP in 72 Dollars
Trend Lines

American economist, Irving Fisher, argued at the turn of the century, a business expansion which is created by artificially stimulative monetary policies contains the seeds of its own destruction Over long periods of time, the economy cannot grow faster than the rate of growth of the resources, including labor, raw materials, capital, and technology, which are the basis for production

A careful examination of Chart 1 gives a sobering example of the dangers of overly stimulative fiscal and monetary policies Chart 1 plots levels of real output since 1970 together with the AFEC forecasts of future real output based on the assumed steady 5% rate of change in the money stock

The trend line in Chart 1 indicates roughly the long-run normal growth path for the economy It represents what the economy could have been expected to produce over this period in the absence of abrupt changes in government policies, assuming no major external shocks to production — like crop failure and embargoes Its purpose is to serve as a benchmark for evaluating the actual performance of the economy since 1970

It does not take a magnifying glass to see that the U S economy did not follow the long-run normal growth path very closely over the past six years The two obvious detours are the period of rapid growth which accompanied the rapidly growing money stock in '72 and '73 and the subsequent — and now infamous — recession of '74 and '75 As we have

igued in previous reports, the recession was the joint outcome of several factors Nevertheless, I believe that it was in great part attributable to the over-zealous monetary expansion of the two previous years The rapid money growth rates of '72 and '3 combined with the tightening grip of the wage and price controls, produced an expansion of real output which was simply not sustainable over any substantial period of time The predictable result of increasing demand while prices are fixed by direct controls is an economy characterized by shortages, production bottlenecks, black markets, and uncertainty These factors, together with the slowdown in money growth in the third quarter of '73, generated the early signs of a recession by fourth quarter '73 To make matters worse, the recession was aggravated and prolonged by the oil embargo and the accompanying confusion about energy costs and policies A careful analysis will show, however, that the recession had already set in at the time of the embargo, and that the unsustainable growth of the two previous years and the slowdown in money growth both played major roles in this episode

This analysis is ample justification for the close watch we try to keep over developments in Federal Reserve policies It is not hard to imagine the whole succession of inflationary and recessionary shocks repeating itself if the Fed were to give in to those who call for more expansion For the reasons we have discussed already, however, we do not think that this is likely to happen within the next year *Chairman Burns has repeatedly issued strong warnings about the dangers of too much monetary expansion Of course, it is possible that the new administration might be so dissatisfied with Chairman Burns' conservative course of monetary policy that he would step down to let the President select a new chairman Again, however, this shift in Federal Reserve leadership and objectives would take time, so we believe a major change in monetary policy within the next year to 18 months is unlikely.*

In the longer term, however, there is nothing to prevent a resumption of the willy-nilly policies which brought on the debacle of the past six years The forecasts plotted in Chart 1 for the '77-'80 period, remember, were made under the assumption of steady money growth rates at 5% per year over that period There are two quite distinguishable characteristics to that policy assumption First, we have assumed that the average rate of growth of the money stock is 5% — this is what would set the general environment for inflation and interest rates over the period, higher money growth would produce both more inflation and higher interest rates

	1975			
	I	II	III	IV
Gross National Product	1434	1461	1529	1573
Total Final Expenditures	1458	1490	1531	1575
GNP in 1972 $	1159	1168	1202	1216
GNP Deflator	124	125	127	129
Personal Consumption Spending	926	950	977	1001
Durable Goods	119	124	132	138
Nondurable Goods	394	405	416	424
Services	413	422	429	440
Private Domestic Investment	169	161	195	205
Fixed Private Investment	194	191	197	207
Nonresidential Structures	149	146	146	152
Residential Structures	44	45	50	55
Change in Inventories	-25	-30	-2	2
Net Exports	17	24	22	22
Total Government Purchases	321	325	334	345
Federal Purchases	119	119	124	130
Defense	81	82	55	87
Other	38	37	39	43
State and Local	202	206	210	215
Money Stock (M1 = currency + dem dep)	253	288	293	295
Corp Profits After Taxes	60	67	79	80
Ind Prod Index 1967 = 100	112	110	114	118
Unemployment Rate	8 1	8 7	8 6	8 5

Incidentally, if we had a choice, we would prefer Arthur Burns' plan of gradually reducing money growth rates over the next several years in order to reduce the inflation rate to zero Our inflation estimates for a Burns-type policy are shown on the bottom line of Chart 2

Second, and in many ways more important, we have assumed that the money stock will grow smoothly at 5% per year This would provide a stable financial environment in which to conduct business, because it would enhance the predictability of prices and interest rates to investors and executives A money growth pattern characterized by fits and starts, by unforeseen increases and decreases in money growth rates, would upset the normal flow of information through the price system

TABLE 1

AFEC FORECASTS OF AGGREGATE ECONOMIC ACTIVITY

(seasonally adjusted, billions of dollars at annual rates)

*Forecast   June 30, 1976

1976				1977				1978		1975	1976*	1977*	1978*	1979*	1980*
I	II*	III*	IV*	I*	II*	III*	IV*	I*	II*	Annual Averages					
1620	1662	1702	1741	1778	1813	1846	1879	1911	1942	1499	1681	1829	1958	2098	2257
1605	1645	1685	1723	1760	1794	1628	1860	1891	1922	1514	1655	1810	1938	2076	2234
1242	1258	1274	1288	1300	1310	1319	1327	1335	1343	1186	1265	1311	1347	1382	1423
131	132	134	135	137	138	140	142	143	145	126	133	140	145	152	158
1030	1051	1074	1095	1116	1136	1156	1175	1194	1213	964	1063	1146	1223	1305	1397
146	150	154	157	161	164	168	171	174	177	128	152	166	179	193	209
431	439	449	458	466	474	482	490	497	505	410	444	478	509	542	579
453	462	472	480	489	498	506	515	523	531	426	468	502	535	570	609
232	242	254	264	272	279	284	288	292	296	183	248	281	299	323	353
217	226	237	247	254	260	265	269	273	276	198	232	262	279	301	330
158	165	173	180	186	190	193	196	199	202	149	169	191	203	220	241
59	61	64	67	69	70	72	73	74	75	49	63	71	75	81	89
16	16	17	18	18	19	19	19	20	20	15	17	19	20	22	24
9	10	10	10	11	11	11	11	12	12	21	10	11	12	13	14
349	359	365	372	380	388	397	405	414	422	331	361	392	426	458	494
131	136	139	142	146	150	153	156	160	164	123	137	151	166	181	198
87	91	93	96	99	102	105	107	110	114	84	92	103	115	126	139
44	45	45	46	47	47	48	50	51	51	39	44	48	51	55	59
218	223	226	230	234	240	244	250	254	258	208	224	241	260	277	296
297	303	308	312	316	320	324	328	332	336	290	305	322	338	355	372
86	89	93	96	98	100	102	104	105	107	71	91	101	107	114	122
121	123	125	127	129	130	131	132	133	134	114	124	131	134	137	140
76	75	71	68	67	65	64	63	62	62	85	72	65	62	60	56

which enables the economy to function efficiently A steady rate of inflation would be costly, a variable rate of inflation would be even more damaging

We could imagine several scenarios, then, which would make our policy assumptions overly optimistic First, if Governor Carter moves into the White House in January, he and his advisors may feel that the economy is moving too slowly Assume that they are successful, by one route or another, in convincing the Fed to raise its money growth target to 10% per year, but still at a steady rate The result would be a temporary boost to real output, inflation rates rising to about the 9% to 10% range, and rapidly rising interest rates Later, the American people would pay the price for the "quickfix" either through living with the permanently higher infla-

tion and interest rates, or through suffering the unemployment and business losses of the next recession, when policy makers finally decide to wring the inflation out of the system again More likely, policy makers would be tempted to deal with the inflation by the cosmetic remedy of wage and price controls Governor Carter has already endorsed their use on a standby basis In that case, the inflationary pressures would be augmented by the falling output of goods and services which accompanies the shortages and ad hoc rationing schemes of price and wage controls

Worse yet, there is a very real possibility that the new administration might follow monetary policies which are not only inflationary (high trend rates of money growth) but also erratic (variable and unpre-

CHART 2

The Inflation Rate Will
Be Determined by Money
Growth, 1976-81.

Per Cent

LEGEND
- Rising Money Growth
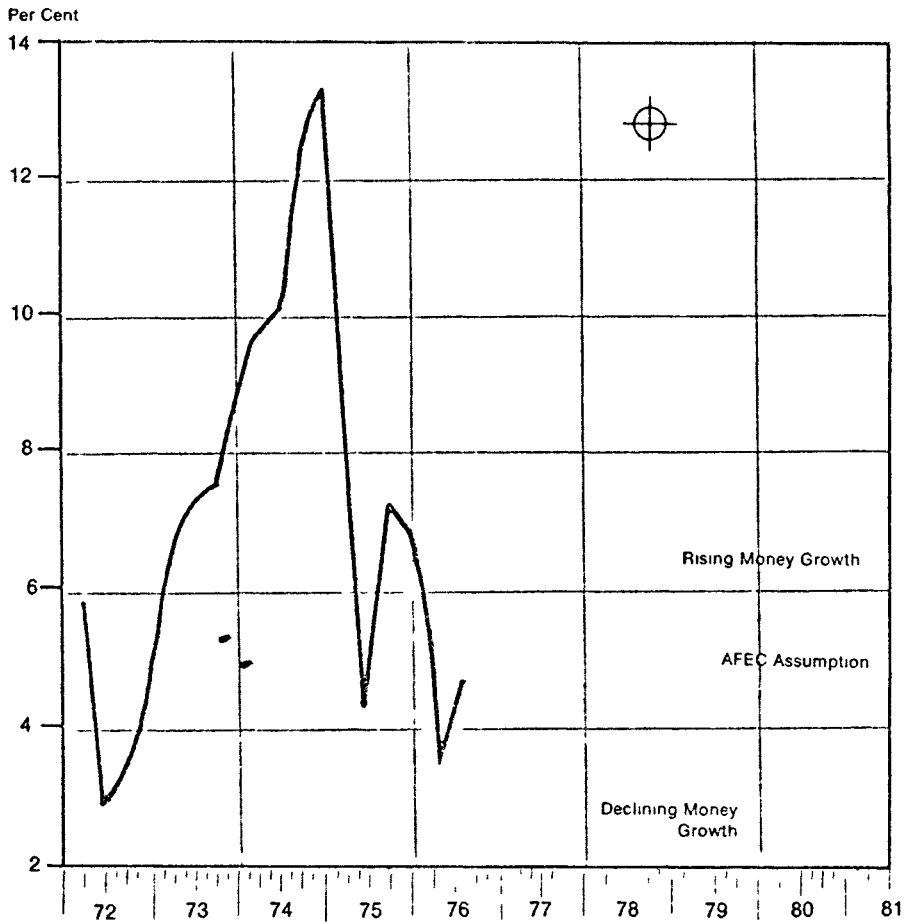- AFEC Assumption (5%)
- Declining Money Growth
- —— Actual

Rising Money Growth

AFEC Assumption

Declining Money
Growth

TABLE

COMPOUND ANNUAL R

***Foreca**

	1975				1976			
	I	II	III	IV	I	II*	III*	IV*
Gross National Product	-2 2	7 8	19 9	12 1	12 6	10 6	10 0	9 6
GNP in 1972 S	-9 2	3 3	11 9	5 0	8 7	5 4	5 0	4 6
GNP Deflator	7 8	4 3	7 1	6 8	3 6	4 9	4 8	4 9
Consumer Prices	7 5	6 4	8 8	6 5	3 9	4 9	4 3	4 5
Wholesale Prices	-2 1	3 3	7 9	9 2	-0 7	4 7	3 6	3 8
Personal Consumption Spending	8 2	10 7	11 9	10 0	11 9	8 4	9 1	8 2
Private Domestic Investment	-105 8	-18 5	20 8	23 4	63 3	18 4	20 4	17 5
Federal Purchases	4 1	-0 7	17 9	19 7	3 8	13 8	9 4	9 7
State and Local Govt Purch	11 9	7 3	8 8	9 7	6 3	7 6	6 9	6 7
Corp Profits After Taxes	-59 5	55 9	96 0	5 7	32 4	17 2	16 9	13 5
Industrial Production Index	-35 9	-4 7	14 6	12 3	11 0	9 0	6 3	6 5
Money Stock (M1 = currency + dem dep)	0 6	7 6	7 2	2 3	2 9	9 1	7 0	5 0

dictable money growth rates) This is the behavior we might expect from a new chairman who was a policy activist, committed to the idea that the Government can "fine-tune" the economy We have plenty of experience from the '60's to make us wary of policy makers who say they can use the cumbersome tools of monetary and fiscal policy to smooth out the minor wrinkles in economic activity For my part, I would sooner take the minor wrinkles than the type of economic and financial environment we have had over the past several years

For these reasons, we must advise our Associates that, although the stage is set for a smooth transition from recovery to growth, and although the economy will be strong over the next two years, that transition may not be allowed to happen The uncertainties over the development of monetary policies over the two-to-five-year horizon are so great that we believe it will be prudent to adopt management strategies which allow relatively great flexibility over the longer period It is not unlikely that inflation could accelerate sharply two or three years from now, and that interest rates will climb to record levels

We may be worrying too much It is possible that a Carter administration could follow the same conservative monetary and fiscal policies that we have had for the past two years The plain truth is that no one knows for sure what policies would be pursued by a Carter administration For that reason, the statements and press releases of Governor Carter, and the polls indicating his chances for winning the Presidency, will be very important in the behavior of financial markets in the near future.

INFLATION IN THE 4 - 5% RANGE THROUGH '77

The rate of increase in the price level is largely determined by the rate of increase in the money stock relative to the rate of production of goods and services Faster money growth at a given rate of real output increases inflation rates Factors which inhibit production — like crop failures, shortages, and price controls — also increase the price level In certain situations these supply restrictions can be very important for explaining inflation The U.S inflation rate in '74 was substantially worsened by the effects of the oil embargo and by the dislocations resulting from the price control period The overwhelming majority of inflationary episodes, however, can be traced to previous high rates of

2

ATES OF CHANGE

st   June 30, 1976

1977				1978		1975	1976*	1977*	1978*	1979*	1980*
I*	II*	III*	IV*	I*	II*	Annual Averages					
8 8	8 1	7 6	7 3	6 9	6 7	6 5	12 2	8 8	7 1	7 1	7 6
3 8	3 3	2 8	2 5	2 3	2 3	-2 0	6 7	3 9	2 5	2 6	3 0
4 8	4 7	4 7	4 6	4 5	4 3	8 8	5 1	4 8	4 5	4 4	4 5
4 2	4 4	4 5	4 5	4 6	4 6	9 1	5 2	4 2	4 5	4 3	4 1
3 8	3 8	3 8	3 8	3 6	3 4	9 2	4 2	3 8	3 6	3 4	3 5
7 7	7 4	7 1	7 0	6 7	6 5	8 8	10 3	7 8	6 8	6 7	7 0
13 1	9 9	7 6	6 0	5 3	5 6	-11 0	35 9	13 2	6 3	8 0	9 5
10 9	10 2	9 2	9 6	10 4	9 8	10 0	11 4	10 1	9 9	9 0	9 3
7 9	8 9	8 8	8 4	8 3	6 7	9 8	7 6	7 8	9 6	6 7	6 9
8 6	8 3	7 9	7 6	6 8	6 1	-10 7	27 5	10 8	6 6	6 0	7 0
5 4	4 4	3 6	2 9	2 3	1 9	-8 5	8 3	5 4	2 5	1 9	2 8
5 0	5 0	5 0	5 0	5 0	5 0	1 7	5 3	5 5	5 0	5 0	5 0

AFEC INTEREST RAT.

(percent per year, quai

*Forecas

	1975				1976			
	I	II	III	IV	I	II	III*	IV*
SHORT TERM RATES								
Four to Six Month Prime Commercial Paper	6 56	5 92	6 67	6 12	5 29	5 47	5 75	6 11
Federal Funds Rate	6 30	5 42	6 16	5 41	4 83	5 23	5 54	5 94
Prime Rate	8 98	7 32	7 56	7 58	6 83	6 92	7 17	7 49
Three Month Treasury Bills	5 75	5 39	6 33	5 63	4 92	5 30	5 55	5 88
90 Day CD, New York Secondary Market	6 73	5 96	6 81	6 28	5 18	5 52	5 81	6 20
90 Day Euro-Dollar Rate	7 58	6 47	7 26	6 78	5 51	5 88	6 20	6 62
LONG TERM RATES								
AAA Corporate Bonds	8 71	8 87	8 91	8 81	8 56	8 53	8 62	8 64
AA Corporate Bonds	9 16	9 61	9 72	9 54	8 80	9 10	9 20	9 22
Long-Term Government Bonds	6 67	6 96	7 08	7 22	6 91	6 88	6 94	6 96
New Home FHA Mortgages	8 84	9 05	9 40	9 42	9 01	9 05	9 12	9 13
Bond Buyer 20 Municipals	6 65	6 95	7 23	7 38	6 96	6 77	6 83	6 85

money expansion Our assumption about the be-
.vior of monetary policy over the next few years,
.erefore, forms the base of the AFEC inflation
. ecasts

Chart 2 illustrates the inflation consequences of
.ree alternative monetary policies by plotting ac-
.l rates of change in the implicit price deflator
.r the past few years together with the AFEC
.ecasts of inflation rates based on three money
.owth assumptions The series labelled AFEC
.resents the inflation forecasts of Table 2 based
. the assumption that the money stock grows at a
.ady 5% annual rate through 1980 Chart 2 shows
.t a 5% money growth rate would result in an
..tion rate which fluctuates in the 4 - 5% range
. the next five years Thus, with a 5% money
..th rate inflation would not get any worse, but

CHART 3
Interest Rates Would
Stabilize with a Steady
5% Rate of Money Growth
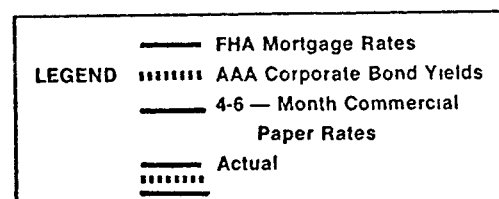
LEGEND
————— FHA Mortgage Rates
.... AAA Corporate Bond Yields
————— 4-6 — Month Commercial
Paper Rates
————— Actual
....

3

E FORECASTS
terly averages)

t
June 30, 1976

	1977			1978		1975	1976*	1977*	1978*	1979*	1980*
I*	II*	III*	IV*	I*	II*			Annual Averages			
6 41	6 62	6 74	6 80	6 84	6 81	6 32	5 66	6 64	6 71	6 18	6 16
6 27	6 50	6 64	6 70	6 75	6 72	5 82	5 39	6 53	6 60	6 01	5 99
7 75	7 93	8 04	8 09	8 13	8 10	7 86	7 10	7 95	8 01	7 54	7 53
6 15	6 34	6 45	6 50	6 54	6 51	5 53	5 41	6 36	6 42	5 94	5 92
6 51	6 73	6 86	6 92	6 97	6 98	6 44	5 65	6 76	6 83	6 24	6 25
6 97	7 20	7 34	7 41	7 46	7 43	7 02	6 05	7 21	7 31	6 69	6 68
8 67	8 71	8 73	8 74	8 79	8 85	8 83	8 59	8 71	8 74	8 64	8 52
9 26	9 30	9 32	9 33	9 39	9 45	9 51	9 08	9 30	9 44	9 22	9 09
6 98	7 01	7 02	7 03	7 07	7 10	6 98	6 92	7 01	7 10	6 96	6 87
9 16	9 19	9 21	9 22	9 26	9 31	9 18	9 08	9 20	9 30	9 14	9 04
6 88	6 90	6 92	6 92	6 96	7 00	7 05	6 85	6 91	6 99	6 85	6 76

Per Cent

FHA Mortgage Rate

Commercial Paper
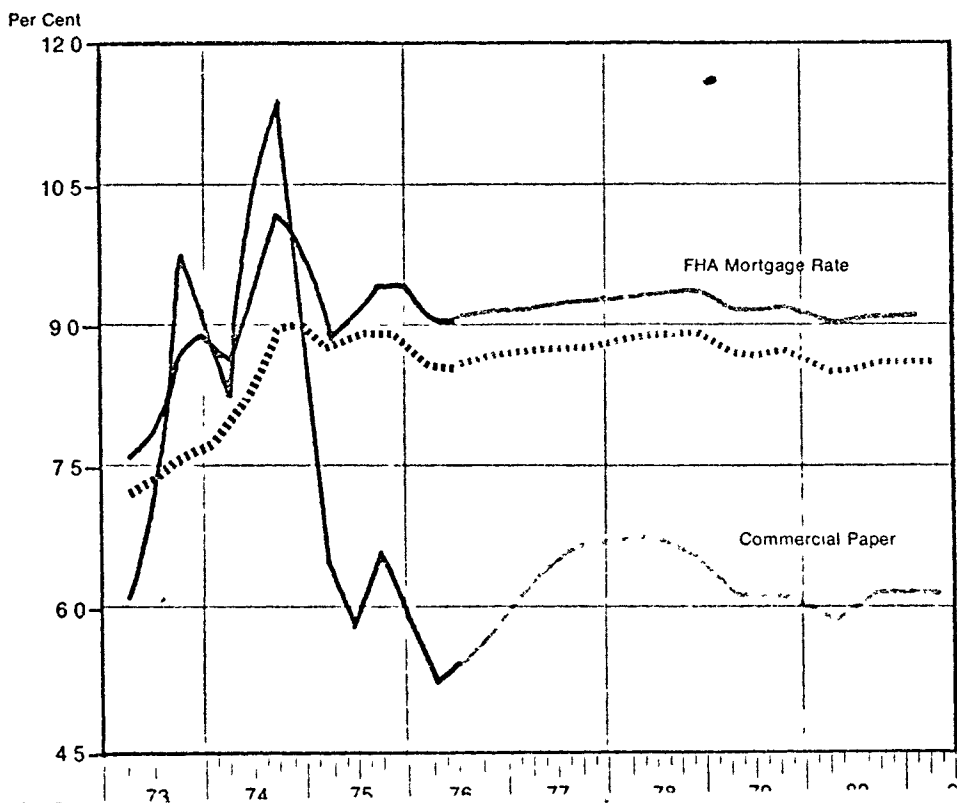
neither would it get any better This assumption would simply maintain the underlying inflationary pressures in the economy at this time which resulted from the roughly 5% annual rate of money expansion over the past two years

The lower line represents the path of inflation if the Fed were to stick to Chairman Burns' announced intention of gradually decreasing the annual rate of growth of the money stock to 2% over the next two years, and then hold a steady 2% annual growth rate After hovering for awhile in the 4 - 4½% range, inflation would drop steadily to about 2½% by 1980 In fact, a 2% money growth rate would eventually result in prices which were either stable or growing at only 1% per year

The series which is heading uphill represents future inflation rates assuming that the annual rate of growth in the money stock is steadily increased to 8% over the next two years, then held at 8% through 1980 This represents an expansionary policy which could emerge either as the result of White House pressure on the Federal Reserve Board, or of futile Fed attempts to hold down the rising interest rates which would accompany large deficit-financed public works projects Under this policy, inflation would rise from about 4½% per year to about 6½% per year by 1980, and would eventually settle down on an annual rate of about 7%

Because money growth determines inflation rates with a substantial lag – between one and two years for the U S – there is not much room for variation in inflation forecasts through '77 Inflation should stay in the 4% to 5% range over the next 18 months under a fairly wide range of likely monetary policies From '78 on, however, the story has not yet been written, and inflation rates can differ widely depending on the particular policies adopted by the Fed over the next few years

This, of course, is the policy makers' dilemma Politicians know that by sharply increasing the rate of money growth, they can get a temporary surge of real output and a temporary dip in the unemployment rate The inflationary consequences of their folly, however, won't be felt for one to two years As long as elections can be "just around the corner" and as long as politicians believe votes will be cast according to the state of the economy on election day, we can be quite confident about the choice which policy makers will make Controlling infla-

tion thus reduces to controlling the policy makers, a much more complex and unmanageable problem

INTEREST RATES RESPOND QUICKLY TO CHANGING MONETARY POLICIES

As we have argued in previous reports, short-term interest rates are extremely sensitive to changes in monetary policy Changes in money growth are quickly translated by market traders into inflation forecasts which have immediate effects on market interest rates The AFEC forecasts of both short- and long-term interest rates are presented in Table 3 The forecasts, like those of output and prices presented above, are based on the assumption of a steady 5% annual rate of money growth through 1980

Chart 3 illustrates the AFEC forecasts for selected interest rates *We expect a fairly sharp rise in short-term interest rates and a somewhat more moderate rise in long-term rates over the next year* The 5% money growth assumption does not result in a return to the interest rate peaks of '74, but does leave interest rates at historically high levels Commercial paper rates should rise to about 7% in the next year, then decline to the 6½% level This would leave a return to short-term investors after inflation of about 2½% *The factors causing the interest rate rise are the revival in business loan demand during the next two quarters, and the increased uncertainty about the economic policies of the new administration Treasury borrowing will also add pressure to both short and long rates as it swallows up more and more capital to finance the continuing budget deficits*

If the new administration follows a much more inflationary course than the one underlying our forecasts, however, interest rates will rise more rapidly than indicated in Table 3 and depicted in Chart 3 *Higher money growth rates mean more inflation, and our research has shown that market traders are well aware of the relationship between money and prices The result is that a sharp increase in money growth rates would increase inflationary expectations, raising market interest rates Conversely, a policy like that advocated by Chairman Burns, of slowly reducing the rate of money growth, would result in declining market interest rates*

CHART 4

**Unemployment Falls as
Production Rises**
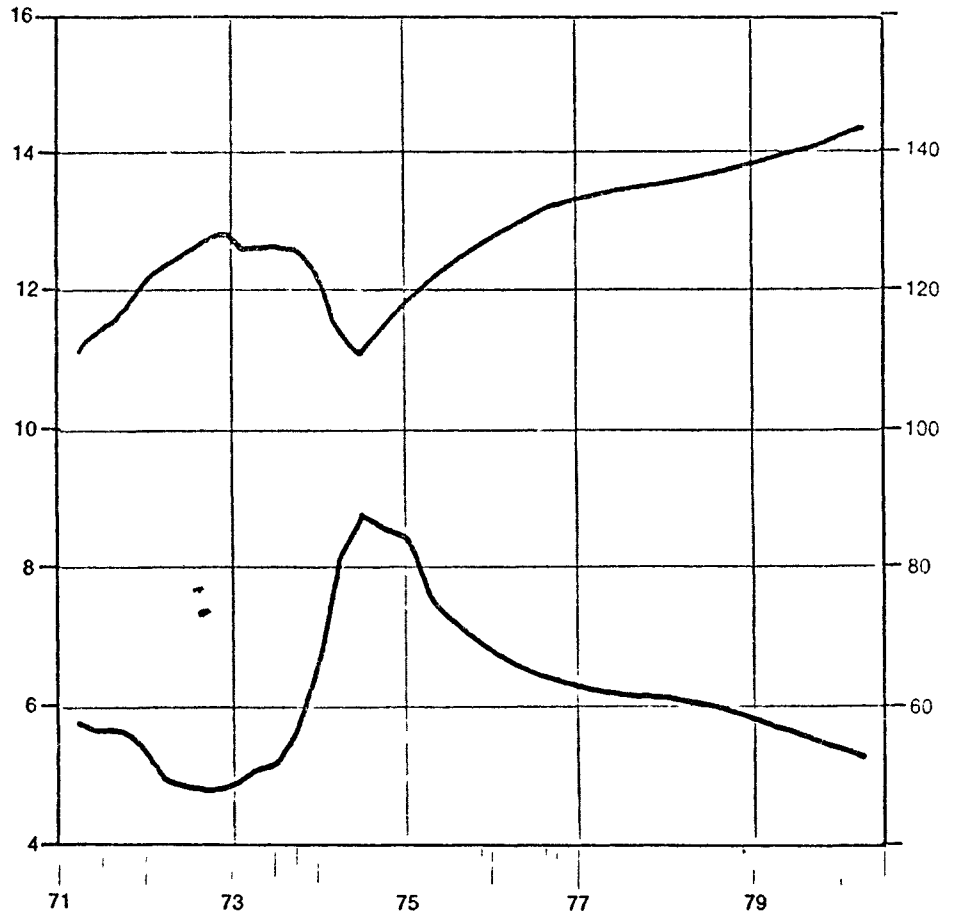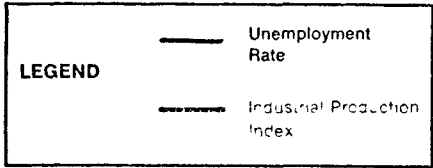
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