

SHADOW OPEN MARKET COMMITTEE

Policy Statement and Position Papers

March 8, 1974

1. Policy Recommendation of Shadow Open Market Committee, March 8, 1974
2. Position Papers

Monetary Growth and Monetary Policy – Karl Brunner, University of Rochester

Memo to the Shadow Open Market Committee – A. James Meigs, Argus Research Corporation

The International Outlook: A Briefing for the Shadow Open Market Committee Meeting of March 8, 1974 – Wilson E. Schmidt, Virginia Polytechnic Institute and State University

[Untitled] – Robert Rasche, Michigan State University

Policy Recommendation of Shadow Open Market Committee

March 8, 1974

The second meeting of the Shadow Open Market Committee was held on March 8, 1974.

The Committee considered two main questions: (1) appropriate monetary policy in light of the recent inflation, the slowing of the economy, and the consequences for the balance of trade and payments of the changes in world prices and production of petroleum; (2) means of improving Federal Reserve measurement and control of money.

Monetary Policy

Attempts to end inflation by expedient policies that ignore basic, well established and widely accepted economic principles have failed. Controls on prices, wages, interest rates, exports, and capital movements have been tried and, as usual, have been counterproductive. ~~For this reason, among others~~ the rate of inflation now is much higher than it was four years ago.

The failure of the various price-control programs to slow or stop inflation should not be taken as evidence of an inability to end inflation. Time and resources have been wasted by these programs. Shortages have been created and opportunities to bring inflation down have been lost. Effective policies to do so are no different now than in the past;

2

inflation can be brought under control.

Some favor drastic action to end inflation. Others are willing to accept permanently high, and even accelerating, inflation. We favor a moderate but continuing policy to reduce the rate of inflation.

At our September meeting, we concluded that the appropriate policy for the following six months was to slow the growth of money -- currency and demand deposits. We chose a policy of gradual reduction, in preference to a sharp reduction, because we wished to minimize the loss of employment and waste of resources during the adjustment to lower rates of inflation and, eventually, to stable prices.

Considerable progress has been made in reducing the rate of monetary expansion. From the first quarter of 1972 through the final quarter, the annual rate of expansion in money was 8.6%, a major contribution to the acceleration of inflation in 1973. During the first half of 1973, the rate of monetary growth was moderated somewhat to a 7.4% annual rate, and in the second half, the rate was reduced^d further to approximately 5%. We recommend that a growth rate of 5% to 5.5% be maintained during the coming six months.

Projections for the balance of the year suggest that recovery ^{will begin} ~~can be expected~~ by the third quarter if money continues to ^{be recommended} expand at this rate. Higher rates of monetary expansion will

3

have much greater effect on future inflation than on current employment. ^{In these circumstances} It would be wrong for the Federal Reserve to allow rising unemployment rates, increases in the size of the official government budget, and the larger deficits in prospect to push the money growth rate higher than ~~our recommended rate.~~ ^{higher} ~~A rate of growth of money higher than 5% to 5.5%~~ will do nothing to ^o solve the problems resulting from the petroleum shortfall.

The consequences for the U.S. balance of trade and payments of the changes in world prices and production of petroleum may not be so serious as some have conjectured. The projected deficit in the trade balance in 1974, because of higher prices ^{higher} for imported oil, may well be significantly offset by the foreign earnings of the major oil ^p companies. In any event, the international sector will not make much difference to domestic developments here because it will not change the stock of money. ^{la} Floating exchange rates will play a key role in minimizing the impact of the international sector on the domestic economy, ~~and the contribution of international payments to the~~

Joined from 11

Control of Money

The Federal Reserve has recently announced the appointment of a committee to propose changes in the definition and measurement of money. We believe this move is a constructive and long overdue effort that should ⁱⁿ prove the current statistics on money and thereby improve control of the money supply.

Improving the definition and measurement of money is one important step toward improved control of money. We believe

that other steps are needed. We recommend that the Federal Reserve:

- (1) Consider operating directly on the monetary base, which the Federal Reserve can control with a high degree of precision, and reduce reliance on money-market conditions.
- (2) Simplify the present overly complex arrangements for computing required reserves which would reduce variability in the money supply.
- (3) Eliminate lagged reserve requirements which have been a cause of increased variability in money.

We believe that floating exchange rates have made a major contribution to domestic and international economic stability.

We strongly recommend, therefore, that the Federal Reserve restrict or eliminate its intervention in foreign exchange markets.

Handwritten:
Quoted
10/13

MONETARY GROWTH AND MONETARY POLICY

Position paper prepared for the second meeting
of the Shadow Open Market Committee (SOMC).

KARL BRUNNER

University of Rochester

March 8, 1974

The first meeting of the SOMC on September 14, 1973 concluded with a proposal that monetary growth be held to a range between 5% and 6% (at annual rates). This proposal expressed the SOMC's evaluation of the longer-run policy required to moderate inflation. Our discussion at the meeting also expressed serious concern about the Federal Reserve's record in the past two years. It is thus noteworthy that Senator Proxmire addressed on September 17, 1973 a letter to the Chairman of the Board of the Federal Reserve System requesting "comments on certain criticisms of monetary policy over the past year". The Chairman of the Board replied on November 6, 1973 with a letter published in the Federal Reserve Bulletin and the Reviews of individual Federal Reserve Banks. The letter justifies the past record and absolves the Federal Reserve authorities from any responsibility for the renewed surge of inflation.

There emerged in the months following the first meeting of the SOMC another development deserving the SOMC's serious attention. Several members of the SOMC began to suspect the adequacy of the monetary data published at the time. Observations bearing on the behavior of velocity, the currency ratio and the time deposit ratio suggested that the data available on demand deposits seriously underestimated the true state of affairs. Allan H. Meltzer further developed and expressed these surmises in a comment published by several major newspapers. The revised data were eventually released at the beginning of February and revealed some interesting changes in the patterns of monetary growth. It appeared that the measurement error was particularly concentrated with non-member bank deposits. This circumstance offered the Federal Reserve Authorities an opportunity to obscure the inadequacy of their measurement procedure with assertions claiming an "erosion of monetary control" by the growing share of non-member

banks in the US monetary system.

The measurement problem remains however and it prompted the Federal Reserve Authorities to assemble an Advisory Committee of academic economists. This Committee is apparently instructed to survey the measurement problem and offer advice concerning the development of reliable technique. The SOMC should applaud the organization of such a Committee. We should also hope that the Advisory Committee will seriously attend to this task. The Federal Reserve System has vast resources available for data collection and examination. It is laudable that our Central Bank possibly considers to use these resources effectively for the acquisition of the relevant information required to pursue its function.

We encounter thus in recent developments of monetary policy several important issues. The measurement problem will be disregarded in this paper. It will be covered in the position paper prepared by James Meigs. The subsequent material describes the patterns of monetary growth observed in the recent past and traces the role of the monetary authorities and of other factors in the process. This discussion of actual and emerging patterns is followed by an investigation of the role of non-member banks in the money supply process and the Federal Reserve's proposal to Congress. The last section examines the Chairman's letter to Senator Proxmire and discusses the crucial elements in the Federal Reserve's justification of its record.

1. The Central Bank and Monetary Growth

Central Banks cultivate some common traditions. Our major tradition is the frequent denial of responsibility for pronounced accelerations or decelerations in the money stock. Our Federal Reserve Authorities share this propensity and frequently attribute variations in monetary growth to events evolving independently of the Federal Reserve's behavior. The role of the Central Bank in the money supply process deserves thus a critical examination. We can easily agree that the actual evolution of the money stock emerges from the interaction between banks and the public in response to the monetary authorities' behavior. The research accomplished over the past fifteen years by various groups of economists clarified the nature of this process. It also offered information about the relative role of banks, public and monetary authorities in this process.

The reader will find some indications of the general patterns in tables I and II. The regressions presented yield clear information concerning our question. The dominant dependence of a magnitude y on a magnitude x will be revealed by a regression of y on x combined with a regression of y on the remaining set of conditions suspected to affect y . With y dominated by x we can reasonably expect the systematic occurrence of regressions attributing a major role to x and a comparatively small role to the remaining magnitudes. We expect in other words under the circumstances that most of the variations observed in y can be reasonably attributed to variations in x , but not to the variations in the remaining magnitudes. It should be noted that this procedure does not infer "causality from correlations", but uses observed correlations to assess conflicting assertions about causality.

TABLE I. The Role of the Monetary Base in the Shorter and
Intermediate Run

1. Regression of percentage change of M between non-overlapping
three month moving averages of seasonally adjusted data on con-
tribution made by base B and remaining proximate determinants RPD

$$\hat{M} = .82 + .76 \hat{B} \qquad R^2 = .58 ; \quad DW = .29$$

$$\hat{M} = 3.27 + .48 \text{ RPD} \qquad R^2 = .10 \quad DW = .08$$

2. Regression of percentage changes of M between non-overlapping
six month moving averages of seasonally adjusted data

$$\hat{M} = .47 + .86 \hat{B} \qquad R^2 = .75 \quad DW = .10$$

$$\hat{M} = 3.23 + .46 \text{ RPD} \qquad R^2 = .05 \quad DW = .02$$

The data used in both regressions over the period 1/1947 to
6/1973. The remaining proximate determinants are the currency ratio
k, the time deposit ratio t, the adjusted reserve ratio (r+l) and the
Treasury deposit ratio d.

TABLE II. Regressions of Money Stock on the Monetary Base

1. Regression of percentage change of M between corresponding months in adjacent years on contribution made by base B and remaining proximate determinants RPD.

$$\hat{M} = .46 + .87 \hat{B} \quad R^2 = .81$$

$$DW = .2$$

$$\hat{M} = 3.23 + .32 \hat{RPD} \quad R^2 = .02$$

$$DW = .02$$

The data used in this regression were seasonally adjusted.

2. Regression of monthly changes in the money stock M on monthly changes in base B and Treasury deposits TRD for seasonally unadjusted data

$$\Delta M = -.07 + 3.06 \Delta B - .9 \Delta TRD$$

$R^2 = .7$; D.W = 2.47; constant term does not deviate significantly from zero at 10%.

The data in regression 1 cover the period 1/1947 - 6/1973.

The data in regression 2 cover the period 1/1947 - 12/1973.

The conflicting assertions under consideration involve propositions about the relative role of the Central Bank in the money supply process. We need to remember at this stage that the monetary base effectively summarizes the behavior of the monetary authorities. The base can be expressed as the sum of the monetary liabilities of the Federal Reserve's and the Treasury's monetary account. All the base money is issued by the monetary authorities and their behavior completely determines the magnitude of the base.

The four regressions in table I and II use different time units to express the data. Regressions 1 in table I examine percentage changes of the money stock between successive three month periods for seasonally adjusted data. The first regression under 1 shows that 58% of the variations in monetary growth between successive three month periods is attributable to variations in the growth rate of the monetary base. The second regression under 1 shows on the other hand that only 10% of the variations in monetary growth over the periods under consideration can be attributed to the operation of the remaining factors. The reader should also note the large difference between the constant terms in the two regressions. These terms inform us that the factor disregarded in the second regression (i.e., the base) contributes to an average monetary growth of 3.27% p.a. over the postwar period, whereas the RPD (i.e., the remaining proximate determinants) factors only contribute .82% p.a. once the effect of the base is explicitly recognized.

The regressions under 2 in table I examine a somewhat longer horizon. The percentage changes in the money stock are now computed between successive six month periods with no overlap. The reader will note that 75% of the variations in monetary growth over the longer period are reducible to variations in the monetary base and only 5% to variations in the remaining factors. The increasing influence of the base with the extension of the horizon is also visible with the larger coefficient attached to the base and

the smaller constant term in the first regression. We are thus informed by a comparison of the two constant terms (.47 and 3.23) that the average contribution of the base to average monetary growth remains essentially the same for the longer horizon, but the average contribution of the remaining factors is almost cut in half.

A further extension of the horizon was applied to obtain regressions 1 in table II. The percentage changes of the money stock pertain to changes between corresponding months in successive years. The reader will observe values for the constant terms practically identical with regressions 2 in table I. But the longer horizon raised the proportion of the total variation in monetary growth attributable to the monetary base. This proportion is now 81%, whereas only 2% of the total variation in monetary growth can be assigned to variations in the remaining proximate determinants.

Information from a very short horizon is presented in regression 2 in table II. Monthly changes of the money stock are regressed on contemporaneous changes of the base and Treasury deposits. Seasonally unadjusted data are used for this purpose. It should be emphasized that independent seasonal adjustment of causally related magnitudes seriously distorts the relative timing patterns of the time series involved and makes seasonally adjusted data quite unreliable for short-run analysis. The reader should observe that over the postwar period 70% of variations experienced in monthly changes of the money stock are attributable to variations in contemporaneous changes of the base or changes in Treasury deposits. It emerges clearly that accumulation^s of Treasury deposits lower

monetary growth and decumulations accelerate monetary growth. It is also noteworthy that the constant term in the regression essentially vanishes. The omitted factors contributed thus (in combination) little to the average growth trend of the money stock. They do account, however, for 30% of the variation in observed monthly changes of the money stock.

Additional information concerning occurrence and magnitude of the "remaining proximate determinants" may be found in tables III and IV. Each table lists for two different horizons the smallest and the largest contribution to monetary growth made by all the proximate determinants. The information in table III pertains to percentage changes (at annual rates) between successive four week periods in 1973. Table IV on the other hand presents the patterns associated with the percentage change of the money stock between corresponding months in successive years from 1969/70 to 1972/73. We note that the longer horizon compresses the range of variation. Table V offers a comparison of the two ranges. Changes in Treasury deposits became an insignificant factor in longer-run assessment of monetary events, but do clearly disturb the evolution of monetary growth

Table V: The Ranges of Contribution Made by Proximate Determinants of Money Stock in the Periods listed in Tables III and IV.

<u>M</u>	<u>B</u>	<u>k</u>	<u>t</u>	<u>r+l</u>	<u>d</u>
22.5	14.2	9.5	10.8	16	5.1
5.7	5.5	1.8	5.6	6	.58

The symbols are defined under table IV.

over shorter horizons. We also note that the range of money stock and base essentially coincide over the longer horizon. A similar range persists

TABLE III. Range of Values of Contributions Made By Proximate
Determinants of Monetary Growth

The data cover 1973 and are computed from non-overlapping four weeks moving averages of seasonally adjusted data. All numbers are percentages and refer to annual rates of growth between successive non-overlapping four week averages.

M	B	k	t	$r+l$	d
- 7.2	- 1.2	-5.3	-8.3	- 5.3	-2.3
15.3	13.0	4.2	+2.5	10.7	2.8

TABLE IV. Range of Values of Contributions Made by Proximate
Determinants of Monetary Growth

The data cover the period 1969/70 to 1972/73 and refer to percentage changes between corresponding months in adjacent years.

M	B	k	t	$r+l$	d
2.8	2.8	-1.3	-3.7	-2.9	-.24
8.5	8.3	.5	1.9	3.1	.34

M = money stock, k = currency ratio, $r+l$ = adj. reserve ratio

B = monetary base, t = time deposit ratio, d = Treasury deposit ratio

The reader should note that each percentage number describes the contribution of the factor listed to the stated percentage change of the money stock.

for the time deposit ratio and the adjusted reserve ratio ($r+l$). It should be noted however that the decomposition of the factors shaping monetary growth has not been fully executed. An important strand of the effect of t operates via the adjusted reserve ratio ($r+l$) and offsets the "direct" effect of t on M . It follows thus that a complete decomposition would lower the range of both t and ($r+l$) by a substantial margin. Still, the time deposit ratio and the adjusted reserve ratio remain the dominant factors beyond the base affecting monetary growth. They are joined in importance over the shorter horizons by the movement of the currency ratio.

The patterns presented yield some clear conclusions concerning the role of the Central Bank in the money supply process:

- (a) The public's and the banks behavior modify monetary growth substantially over shorter horizons.
- (b) Even within shorter horizons however the relative force of Central Bank behavior is clearly visible.
- (c) We can reasonably expect that Central Bank behavior dominates beyond the shorter horizons the evolution of monetary growth. Substantial accelerations or decelerations of the money stock over twelve month periods are rarely generated by the public's or the banks behavior. They occur in response to the Central Bank's behavior.
- (d) The shorter run patterns are conditioned by the prevailing institutional structure. This applies most particularly to ($r+l$) and t . The Federal Reserve Authorities never examined thus far the institutional modifications required to lower the variability of ($r+l$) and t and to improve thereby substantially the shorter-run controllability of monetary growth.

2. The Evolution of Monetary Growth

It is useful to place our current position into the context of monetary evolutions since 1969/70. Table VI summarizes the relevant information. We note four distinct phases since the beginning of 1970. From the first quarter 1970 until the third quarter 1971 (remember August 15, 1971) the monetary impulse applied to the economy persistently accelerated. The monetary impulse more than doubled over this period. The table also informs us that monetary acceleration was essentially due to the acceleration of the monetary base.

The second phase was initiated with President Nixon's NEP (new economic policy) in August 1971. This policy was accompanied by a substantial deceleration of the monetary impulse until the second quarter of 1972. About 50% of this deceleration is assignable to the decline in the growth rate of the base. It is quite clear however that the monetary authorities permitted over this phase a marked moderation in monetary growth. This moderation must be judged to have been quite appropriate in retrospect and we should commend the Federal Reserve Authorities for its modification of policy. Prices were decelerating since early 1970 and the monetary acceleration of the first phase would have seriously endangered the gradual decline in our inflation rate. The change in monetary evolution initiated in the late summer 1971 contributed to maintain the gradual deceleration in price movements. The third phase stretches from the second quarter 1972 to the first quarter 1973. The monetary impulse expanded over this period at a rapid pace and increased approximately by

TABLE VI. Percentage Changes of Money Stock and Monetary Base
Between Corresponding Quarters

<u>Period</u>	<u>Money Stock</u>	<u>Monetary Base</u>
1969I-1970I	3.3	2.9
1969II-1970II	3.8	3.7
1969III-1970III	4.8	5.2
1969IV-1970IV	5.5	5.7
1970I - 1971I	6.1	7.2
1970II-1971II	7.2	7.6
1970III-1971III	7.3	7.8
1970IV-1971IV	6.3	7.1
1971I-1972I	6.0	6.8
1971II-1972II	5.5	6.9
1971III-1972III	5.9	6.5
1971IV-1972IV	7.5	7.6
1972I-1973I	7.9	7.9
1972II-1973II	7.7	8.0
1972III-1973III	7.0	8.0
1972IV-1973IV	5.9	7.2

The computations were made with seasonally unadjusted data.

44%. The monetary base also accelerated and contributed about 40% to the monetary acceleration. The last phase covers the remainder of 1973. The monetary impulse hovers on a high level, recedes slightly in the summer and declines sharply in the fall. The monetary base also decelerates but its movement is again smaller than the monetary deceleration.

The SOMC should note with some interest that monetary growth did converge last year from the exaggerated levels permitted by the monetary authorities towards the range of 5%-6% recommended at our last meeting on September 14, 1973. This deceleration contributes to retard the rate of inflation fuelled by the Federal Reserve's inappropriate policies pursued since early 1972. Monetary policies directed to lower the rate of inflation would have to continue the growth pattern reached by the end of last year. The SOMC should thus be interested in assessing the probability of such monetary developments.

Some aspects of recent monetary growth presented in table VII offer some relevant information for our purposes. The reader should note that the table uses corresponding changes between monthly data. The basic pattern of money stock and base exhibited in table VI occurs somewhat amplified with these data. The reader is directed to the relatively smaller changes in the growth rate of the base relative to the changes in monetary growth. It is quite remarkable that the growth rate of the base fluctuates since last summer of 1971 in a narrow band of 6.8% to 8.1%. The changes in monetary growth beyond this band are due to the currency ratio k , the time deposit ratio t and the adjusted reserve ratio $(r+l)$. An examination of these patterns reveals some pronounced regularities. The contribution of the k -ratio moves in a cyclic fashion between .5 and -1.25 over the

TABLE VII. Contributions of Proximate Determinants to Monetary Growth (in percentage p.a.)
Between Corresponding Months of Successive Years

Period	M	B	k	t	r+1	d
1/1969-1/1970	3.7	3	-1	1.9	- .26	.03
7/1970-7/1971	7.9	8.1	.3	-2.8	2.2	.08
6/1971-6/1972	5.0	6.8	- .6	-2.2	1.2	-.15
1/1972-1/1973	8.6	8.0	.3	-1.4	1.7	0
6/1972-6/1973	8.4	8.0	- .2	-2.1	2.7	0
12/1972-12/1973	5.6	7.1	-1.1	-2.4	1.80	.1

All computations are based on seasonally unadjusted data.

past three years. An indication of these movements appears in table VII. The k-contribution recently fell to its lowest levels since the first half of 1970. We may thus expect no substantial further decline of this contribution. We may on the contrary expect over the current calendar year a gradual upwards drift of the k-contribution.

The time deposit ratio t produced for many years a larger numerical, but mostly negative contribution to monetary growth. This was due to the persistent rise of interest rates offered on many time deposit accounts. The t -contribution declined sharply from 1/1969 - 1/1970 to 3/1970 - 3/1971 from 1.91% to -3.68%. From 3/1970 - 3/1971 to 1/1972 - 1/1973 the contribution rises again from -3.68% to -1.36% and fell again during 1973 to -2.45%. Previous patterns suggest that the t -contribution is unlikely to fall substantially this year. I expect on the contrary a gradual increase of this contribution over the next six months. Similarly, the $(r+l)$ contribution is unlikely to continue its recent fall. The sum of my assessment thus implies that the monetary growth emerging for this calendar year will be centered by the growth rate of the monetary base. My assessment implies in particular that under current trends monetary growth converges to the growth rate established by the monetary base.

It may be useful to supplement our examination with data bearing on the shortest horizon. Table VIII presents the extreme points of short run monetary evolution over the past six months. The first row summarizes the state prevailing just before our first meeting of the SOMC. A rapid acceleration of the base until the middle of December carried monetary growth from -1/2% to about 12%. We notice also that the remaining

Table VIII: Contribution of Proximate Determinants to Monetary Growth (in percentage p.a.) Between Successive Four Week Periods.

The date lists the terminal day of the second four week period in the comparison.

<u>Period</u>	<u>M</u>	<u>B</u>	<u>k</u>	<u>t</u>	<u>r+l</u>	<u>d</u>
8/29/73	-.5	-1.1	-4.2	-5.5	9	1.3
12/12/73	11.7	13	-.3	2.3	-3.9	.7
2.6.74	-4	5.4	-5.0	-7.4	3.2	-.2

Factors essentially cancelled each other at the dates indicated in the first two rows. The effect of the base thus dominated the events. For two months beyond the middle of December monetary growth collapsed to -4%. The temporal distortions of seasonal adjustment may easily exaggerate this decline and blur our judgment. Still, a substantial decline seems probable. And we note in particular that the fall in the k and t contributions dominate the fall in the base contribution. An inspection of the shorter-run patterns of the k and t contribution thus suggests that a continuation of the recent trend is highly unlikely. It suggests on the contrary a gradual recovery of this contribution over the next three months. This implies again convergence of monetary growth to the central thrust determined by the Central Bank's behavior expressed by the monetary base.

And what can we say about the trend of the monetary base? The growth of the monetary base remained throughout 1973, when compared to the corresponding month in 1972, above the rate required for an effective anti-inflationary policy. Moreover, the 21 overlapping four week periods recorded thus far since our last SOMC meeting show 9 periods with an annual growth rate of the base in excess of 10%. There is no indication

at this stage that the Federal Reserve Authorities plan to moderate the growth rate of the base to a level assuring a gradual moderation of the new round of inflation unleashed in 1972. Two pervasive patterns assure furthermore a low probability for any receding growth in the base. They also assign a substantial probability to an increase in this growth rate. We note first the rapid increase over the next 16 months in the deficit of the Federal budget. We also know that the absorption of debt by the Federal Reserve System has been systematically associated with the magnitude of the deficit. The base thus retarded in periods of low deficits (or surplus) and accelerated in periods of larger deficits. This pattern has been created by the Federal Reserve's traditional concern to constrain movements in interest rates by suitable open market operations. The traditional response of our monetary authorities thus enhances the probability of a marked acceleration in monetary growth over the current year. This development would further entrench our high rate of inflation and move the whole structure of interest rates to a higher level.

3. The Alleged Erosion of Monetary Control by the Dual Banking System.

On January 28 the Board of Governors of the Federal Reserve System submitted to Congress "draft legislation designed to implement its recommendations for uniform reserve requirements". This request to extend the Federal Reserve's power to impose reserve requirements on non-member financial institutions has been motivated by the growing importance of non-member banks in our monetary system. The Board of Governors notes that "the purposes of the proposed legislation are to make the nation's monetary system more responsive to Federal Reserve action, to facilitate better management of money and credit, to provide a more equitable system of reserve requirements for financial institutions offering similiar deposit services, and to permit Federal Reserve credit assistance to a broader range of financial institutions...". This justification invokes essentially two points: monetary control and equity.

We omit considerations of equity but note in passing substantial skepticism concerning a government agencies attention to "equities". The control problem remains a serious and resolvable problem. It is unfortunate that the Federal Reserve authorities never examined the issue systematically. It is quite probable that our prevailing institutions substantially obstruct short-run control over the money stock. Among these institutions should be listed the variations in reserve requirements with respect to types of banks or deposits and with respect to magnitude of deposits, the lagging of required reserves with respect to the relevant deposit base,

the ceiling on interest rates payable on demand and time deposits, the measurement of the deposit base used to compute the volume of required reserves, etc. It would appear most appropriate that our monetary authorities systematically analyze our existing arrangement and examine the changes required to improve its control over the money stock. Such an examination should also assess the relative importance of specific institutions.

This is particularly important for the present case. The draft legislation submitted to Congress offers an exceedingly narrow proposal for a broad purpose, viz., extension of the prevailing (complicated) patterns bearing on member bank reserve requirement to all financial institutions with liabilities engaged in third part payments. We should also believe, it appears, that this extension raises the "precision of monetary control". It removes, we are informed, the erosion of monetary control caused by the increasing weight of non-member banks in our monetary system. The Federal Reserve reports an increase in the proportion of demand deposits issued by non-member banks included in the nation's money stock from 17.2% in 1960 to 25.4% in 1973. The relative weight of non-member banks thus rose over 13 years by 50%.

These changes seem impressive and obviously monetary control suffers. But we receive nothing beyond the Federal Reserve's assurance on this point and one wonders whether the Board seriously investigated this issue. A preliminary examination of the role of non-member banks in the monetary system assigns little significance indeed to the observed changes in the weight of non-member banks. Some detailed computation determines that the increase in the proportion of non-member bank deposits raised the money stock over 13 years by about 4%. This means that the shifting weight of

non-member banks added (in the average) less than one third of one per cent (i.e., about .3%) per annum to monetary growth. This is surely no magnitude endangering monetary control. In particular, if the process works with some regularity this minor contribution to growth conveyed via the $(r+l)$ factor could easily be discounted in setting the proper course of policy actions.

The Board of Governors might still claim, however, that the problem results from the erratic variations around the trend in the weight of non-member banks. The data attached by the Board to the memorandum justifying the proposal show two distinct subperiods. From 1960 to 1968 the proportion of non-member bank deposits rises with an average .475 percentage points and a range extending from .1% to .7%. From 1968 to 1973 the proportion rises at an average 1.08 percentage points with a range extending from .8 to 1.3 percentage points. The rate of increase in the weight thus more than doubled between the two subperiods. It is noteworthy that one major difference between the two subperiods is the cost of required reserves determined by the general level of interest rates. Interest rates in the second subperiod rise by more than 50% above the level exhibited in the first period. It should also be noted that this increase is essentially due to the inflationary policies pursued by the Federal Reserve System. The largest deviation from trend change in each subperiod is less than .4 percentage points. Appropriate computations determine that contributions to monetary accelerations (or decelerations) attributable to "erratic changes" in the proportion of non-member bank deposits around its average trend remain within a band of .15%. This is a negligible fraction of the monetary growth observed over the past years. I conclude thus that the proposal contributes little to effective monetary control and essentially

enlarges the political clientele of the Federal Reserve Authorities. The general purpose of an improved monetary control is most commendable and the SOMC should certainly support this goal. But the SOMC also hopes that the Federal Reserve Authorities would attend to the really significant changes in institutions under its immediate control which promise to raise the effective level of control. The radical simplification of reserve requirements and adjustments in the measurement of the deposit base governing the computation of required reserves would be among the first items on the required agenda.

It follows from the analysis of the role of non-member banks in the money supply process summarized above that the arguments of the Board submitted in support of its proposal are essentially irrelevant or misplaced. It adduces first the principle "that equivalent cash reserve requirements should apply to all deposits that effectively serve as part of the public's money balances...". But what does this sentence really mean? It surely could not mean equal reserve requirements. The proposal implies very unequal requirements for different banks and different magnitudes or deposits. So what are equivalent requirements? The reader obtains no information beyond the implicit suggestion that requirements imposed by the Federal Reserve Authorities on all financial institutions according to the legislation proposed are equivalent. "Equivalence" does not determine the institution, the institution controlled by the Board determine the meaning of "equivalence".

The Board also asserts that the proposal "would buttress the basic role of reserve requirements". It is also argued that the proposal strengthens the role of reserve requirements by changing the form in which

non-member banks may hold their reserves". The latter refers to the fact that the proposal would only admit base money for reserve purposes. But the result of the examination presented above indicate the irrelevance of this aspect. One also wonders whether an extension of the complicated reserve requirements developed over the past eight years to a larger group of financial institutions may not worsen the control problem. The lagging of required reserves introduced without much thought by the Federal Reserve Authorities injected random disturbances into the process lowered the level of montrol control. It seems hardly appropriate to extend and entrench even further a poorly designed institutional arrangement. Lastly, the Federal Reserve's general concern about the growth of depositary liabilities with third party payment features at non-member institution deserves some attention. We should admit that this development affects the Federal Reserve's political clientele. But we also should doubt its relevance, per se, for monetary control. But the Federal Reserve Authorities have the resources and facilities to explore this issue more systematically and seriously than in the past and may convincingly document the economic relevance of its concern. The SOMC should encourage such studies.

4. The Chairman's Justification of Recent Monetary Policy.

The Chairman's reply to Senator Proxmire's letter was addressed at two major issues: the general variability of monetary growth and the monetary acceleration experienced in 1972. The evaluation of the first issue depends crucially on the conception governing some fundamental properties of the economic system. In particular, it depends on the view concerning the "inherent stability or instability" of the process. The Chairman argues with many Keynesians that "neither historical evidence, nor the thrust of explorations in business cycle theory over a long century, give support to the notion that our economy is inherently stable". Once the Federal Reserve Authorities accept the "fundamental instability" of the economic process the general position concerning the nature of policymaking is essentially determined. Policies must be "discretionary and flexible". They will be "needed to cope with undesirable economic developments", developments emerging independently of public policy. Moreover, "economic forecasts are an essential tool of policymaking". The fundamental thesis also implies assignment of substantial weight to fluctuations in velocity. These fluctuations reveal the operation of the hidden forces driving the economy. The governing conception rationally determines moreover the use of "a blend of forecasting techniques". In particular, the monetary authorities must cultivate a wide range of diverse information channels. It also follows that the Federal Reserve necessarily cultivates an "eclectic approach". This "eclectic approach" eventually became more eclectic and includes monetary growth with all the previously assembled signals. And no doubt, the central thesis implies that it "would be unwise for monetary policy to aim at all times at a constant or nearly constant rate of growth of money balances". There

emerges furthermore the warning that "it is never safe", under the circumstances, "to rely on just one concept of money". The general idea of an unstable process is supplemented with a specific view that the "public's attitude towards liquidity" changes abruptly and widely. Such changes must be offset by suitable adjustments in open market operations. The fundamental thesis thus yields an array of consequences which explain and apparently justify the observed variations in monetary growth. It apparently also justifies an extensive apparatus to assure a broad range of contacts with the economy. We may only note in passing the usefulness of such designs for a political organization.

The Chairman's defense of the policies pursued in 1972 and 1973 is an immediate consequence of the general theme. We are cautioned that "monetary policy...had to balance the twin objectives of containing inflationary pressures and encouraging economic growth". The balancing yielded on expansion of M_1 in 1972 which was "low relative to the demands for money and credit". And lastly, the surge in prices occurring in 1973 "reflected a variety of special influences". And so follows the Chairman's final absolution: "The severe rate of inflation that we have experienced in 1973 cannot responsibly be attributed to monetary management or public policies".

The nature of a position paper prohibits a detailed exploration of the Federal Reserve Authorities justification. A short critique seems however necessary. More importantly, it should be emphasized that substantially more research efforts support the critique than the Chairman's apologia. The Federal Reserve's fundamental

thesis of an inherently unstable process generating on its own major fluctuation may be very plausible, just as plausible as the rotation of the sun around the earth. It is quite probable that this thesis guided much of the Chairman's previous activities at the National Bureau of Economic Research. Still, all the time series collected yield no relevant evidence favoring this thesis against the rival view of a fundamentally stable process. It is most intriguing that major pieces of work published by the National Bureau of Research yield information incompatible with the Federal Reserve's hypothesis. The detailed monetary history prepared by Friedman-Schwartz clearly established the responsibility of government policies, or of arrangements imposed by public policy, for major depressions or substantial inflations. Moreover, a detailed survey of econometric models established uniformly that substantial variations in policy variables are a necessary condition for the generation of larger economic fluctuation. None of the models examined justifies the thesis of internal instability. They exhibit on the contrary highly stable and shock absorbing processes. It is noteworthy that one of these econometric models has been developed with the aid of a grant from the Board of Governors and bears the label of the Federal Reserve.

An interesting implication of the instability thesis was explored by Milton Friedman. He examined in a contribution to the Forty Fourth Annual Report of the National Bureau of Economic Research the correlations between magnitudes of upswings and downswings in business cycles. The instability thesis implies that correlations between upswings and succeeding downswings are not significantly different from correlations between upswings and preceding downswings. The stability thesis implies on the other hand that correlations between upswings and preceding downswings significantly exceed correlations between upswings and succeeding downswings. He also presented data demonstrating the relative dominance of the former correlation yielding a

clear case against the instability hypothesis. The preliminary report on "The Role of Public Policy in Moderate Inflation" jointly prepared by the International Monetary Konsortium (Journal of Money, Credit and Banking, February 1973) also offers some relevant evidence. The data from three countries show that all substantial accelerations and decelerations in price movements were systematically preceded by substantial changes in government financial policies. Lastly, implicit in the Chairman's argument occurs a wondrous claim to superior knowledge. The instability thesis indeed justifies the proposition that appropriate variability of monetary growth dampens economic fluctuations. But the actual determination of this appropriate variability requires reliable information about the economy's detailed structure. Can we reasonably believe that the Chairman possesses such knowledge? The variability of monetary growth actually experienced remains thus properly suspect. We should recognize of course the political advantages offered to the Central Bank by the theory of an inherently unstable process combined with a claim to superior knowledge. It can always be used to absolve its policies from any blame.

The application of the general theme to the year 1972 exhibits the political advantages of a "flexible application" of the thesis. It is argued that a moderate "encouragement" was still appropriate. This encouragement balanced the dosage "against the rising inflationary pressures". The relative encouragement offered by monetary policy in 1972 is elaborated subsequently in terms of the relative movement of money demand and money stock. The forces of the economy operating independently of current or past monetary accelerations raised in the Federal Reserve's view the public's money demand.

A lesser increase of the money stock satisfied in the Chairman's opinion the requirement of an anti-inflationary policy and its actual increase injected the required modicum of encouragement. But the reader should note the hard dependence of this argument on the instability thesis which determines the dominant impulse driving the economy's private sector. The interpretation of the relative movement of money stock and money demand in the manner suggested by the Chairman's letter presupposes that the movements of money demand are dominated by non-monetary events.

The special justification of 1972 thus fails with its underlying thesis. We should also note the dependence of the argument on a very Keynesian view of assetmarkets denying "direct" substitution relations between money, or financial assets, and real assets. This view implies that increasing interest rates reveal an acceleration of money demand relative to money supply. An alternative view about the operation of assetmarkets rejects such interpretations and offers no analytic basis for the Chairman's rationalizations.

We should also note that the frequent references to the role of velocity yields no case for the instability thesis. The behavior noted by the Chairman is actually a consequence of a stable process driven by repeated monetary impulses. Monetary accelerations (or decelerations) operate with a lag on velocity. Larger fluctuations in velocity are thus the result of previous accelerations and decelerations of the money stock. In general, the larger the changes in velocity the larger was the previous acceleration or deceleration of the money stock. Inflationary experiences from many countries offer some interesting material in this respect. It follows that the motions of money demand are substantially influenced by

prior accelerations of the money stock. This argument extends to the surging inflation in 1973. Indeed, special factors were at work. They explain the rapid changes in specific relative prices and the emergence of food and oil in the upper tail of the distribution of price changes. The "special influences" do not explain however the movement of the whole distribution of prices. This movement, expressed by an accelerated increase in the average price-level, did result from the policies pursued in 1972. Indeed, the policies applied in 1973 exerted little effect on price movements in 1973. But this does not justify the Chairman's convenient refusal to accept the responsibility for the new inflation.

Memo to the Shadow Open Market Committee

IMPROVING MONETARY STATISTICS

The revisions in the money stock (M_1) and other monetary aggregates that the Board of Governors announced on January 31 have pointed once again to the persistence of serious deficiencies in the basic monetary data produced by the System. These deficiencies obviously raise the risk of error in the conduct of monetary policy by the Federal Reserve and cause great uncertainty among outside analysts who must try to predict the effects of Federal Reserve policies on income, employment, prices, interest rates and other important variables. The revisions are particularly exasperating this time because the apparent deceleration of money-supply growth in the second half of 1973, when combined with the shock of the oil embargo and the disruptions caused by wage-price controls, may have been enough to cause a recession this year. But the magnitude of the monetary deceleration is still in doubt; the recently revised estimates of the 1973 money stock are not yet the Fed's "final" estimates.

Large changes in estimated deposits at non-member banks were said to be the main reason for the January revisions in M_1 . These changes, in turn, stemmed from benchmark revisions based on non-member-bank call reports for December, 1972, and March, June and October, 1973. Because the year-end 1973 call reports were not used in the latest revisions, the 1973 money stock estimates probably will be revised again in the next "regular annual benchmark corrections," whenever these happen to occur.

The January revisions are of unusual interest also because of two related announcements from the Board. One was the Board's request to the Congress for authority to extend reserve requirements to "all deposits that effectively serve as part of the public's money balances" at savings banks and savings and loan associations as well as at non-member commercial banks. There may be more involved in this request than a simple desire to improve measurement and control of the money supply. The other related announcement was the appointment of a committee of academic economists, headed by G.L. Bach, to review procedures, concepts and methods used in estimating the money supply and other monetary data. If the Board supports the committee with unlimited access to competent staff people throughout the System and with ample computational assistance for experimenting, and if it takes the committee's recommendations seriously, the quality of U.S. monetary data could be much improved.

This memorandum reviews background information that the SOMC might want to consider in reacting to both of the Board's initiatives. Although questions concerning measurement and control procedures are inextricably mingled, primary emphasis here will be on possibilities for improving measurement.

Some General Dimensions of the Problem

The two charts from the Poole-Lieberman study in Brookings Papers on Economic Activity 2, 1972 illustrate the effects of sub-

sequent revisions on rates of growth of the monthly seasonally adjusted money stock. As Poole and Lieberman say, it is the preliminary series which is used for policy decisions, but the preliminary series is a poor predictor of the final series. When they regressed final rates of change over quarterly intervals (the Board's third-month to third-month concept of quarterly change) on preliminary rates of change, they found an R^2 of 0.679 and a standard error of 1.33. They argued that this standard error is great enough to warn against strong policy action in a quarter to slow money growth, for example, on the grounds that the growth reported for the preceding quarter was too high. They found that the situation was even worse with respect to monthly changes in seasonally adjusted data. The regression of final on preliminary had an R^2 of only 0.55 and a standard error of 2.40.

The revision process presumably should make the final series a better estimate of the "true" series than the preliminary series. However, researchers at the Federal Reserve Bank of St. Louis say that their model gets better fits with preliminary money-stock data than with the final, revised series. A possible reason is suggested by the charts; the final rate-of-change series is noticeably smoother than the preliminary. This suggests that smoothing filters out some information in the preliminary series that had explained part of the variance in rates of change in GNP. Consequently, deficiencies in the monetary series not only make life difficult for people inside and outside the System who have to use the preliminary series for current analysis and forecasting, but also raise problems for anyone doing monetary research.

The Non-Member Bank Problem

The Board's argument for extending reserve requirements to demand deposits of non-member banks and savings institution stresses the control problem. According to the Board and defenders such as Tom Waage of the New York Fed, a growing share of total demand deposits is outside the power of the Fed to control through open market operations or through changes in reserve requirements. This argument has been knocked down numerous times before, so should not concern us here, although the SOMC might want to comment on it later. There are numerous other possible changes in Federal Reserve procedures that would yield a far greater improvement in precision of control over the money supply than would the extension of reserve requirements to non-member banks.

Extending reserve requirements, however, would automatically improve the Fed's data on non-member-bank deposits, for it would require reports on daily-average demand deposits from all non-member banks except for the 3,000 small ones who would be exempt. But less costly ways of improving the data on non-member-bank deposits surely can be found.

The Board's current procedure is to use FDIC call reports as the source of non-member gross demand deposits, vault cash, savings and other time deposits, U.S. Treasury balances and cash items in process of collection. Weekly non-member bank data are then estimated by taking the ratios of the call-report data to similar items reported by a sample of country member banks on the same dates and multiplying them by the corresponding numbers that

Figure 1. Rate of Growth of Monthly Seasonally Adjusted Money Stock, 1961-70

Percent annual rate

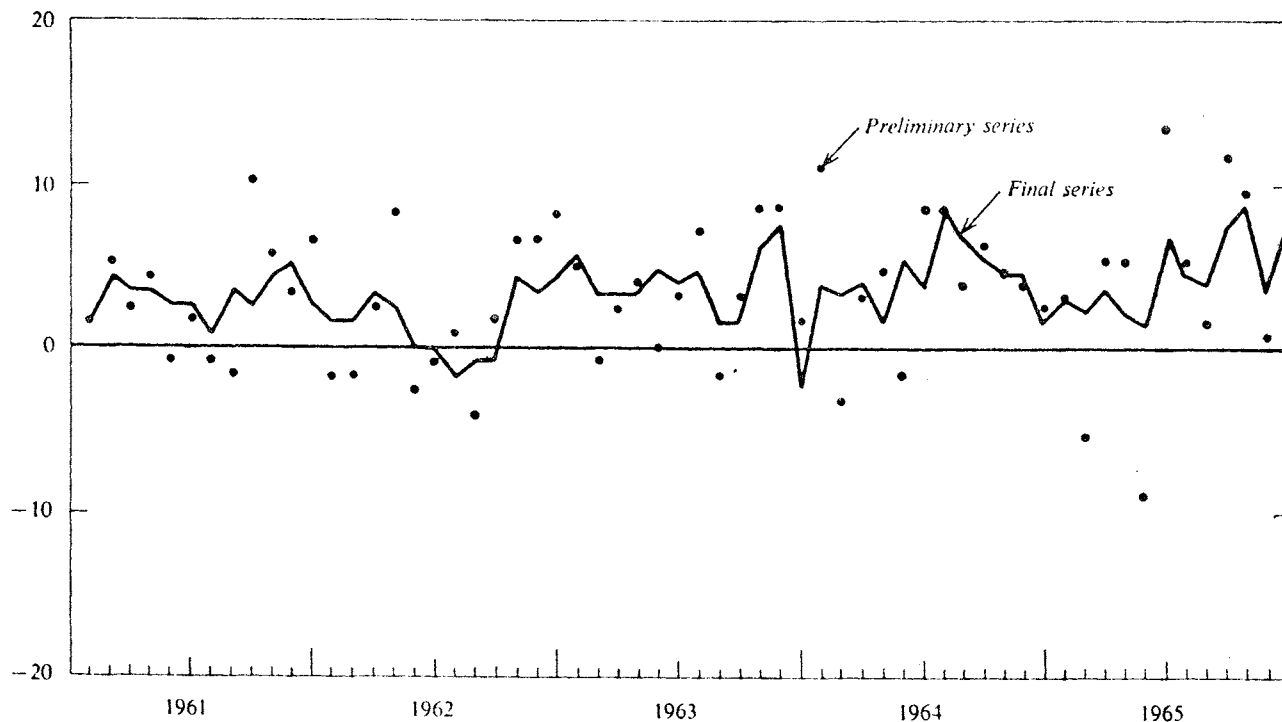
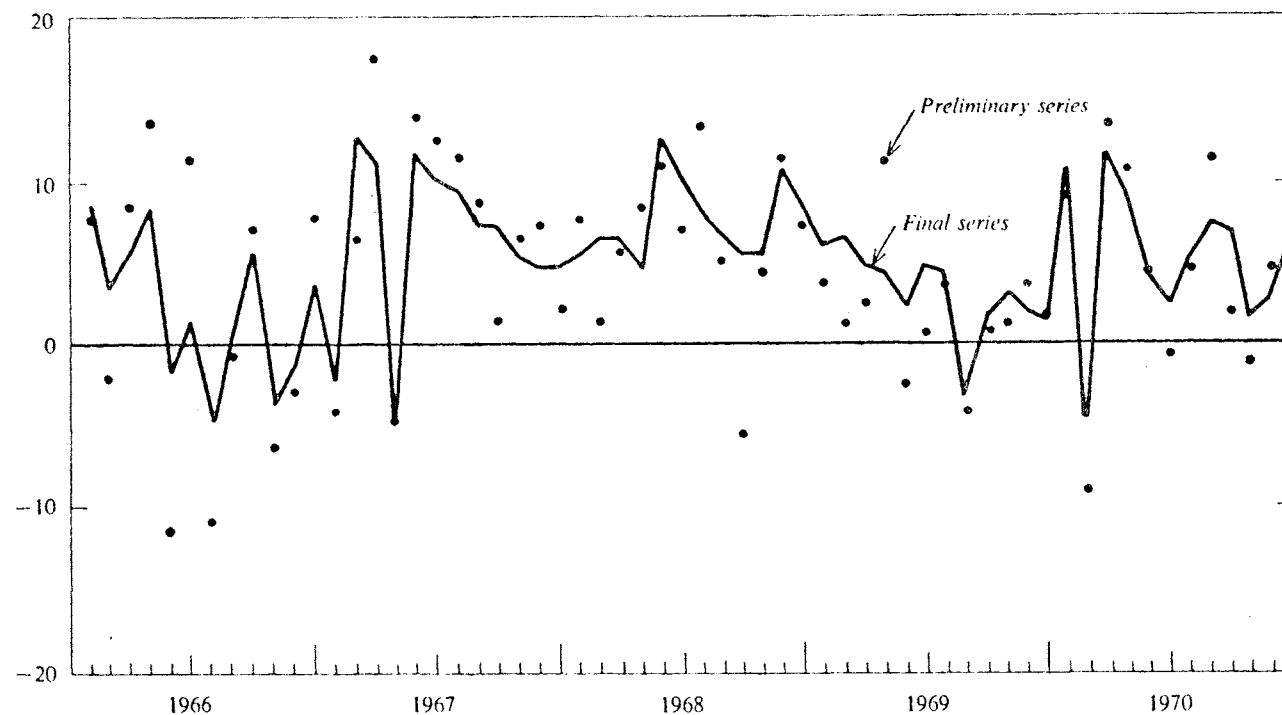


Figure 1. (continued)

Percent annual rate



Sources: Preliminary series, *Federal Reserve Bulletin*, issues in which first estimate for a given month is published, with changes calculated from the preceding month as reported in that issue; final series, *Federal Reserve Bulletin*, Vol. 57 (November 1971) and Vol. 56 (December 1970), table in article, "Revision of the Money Stock," in each issue.

Note: Chart copied from *Brookings Papers on Economic Activity* 2 for discussion at meeting of SOMC, not for publication.
Do not reproduce for publication without permission of The Brookings Institution.

are reported weekly by the sample member banks.

Until the January 1974 revision, June and December non-member call reports were used for the benchmark ratios. This time, March and October call reports were used as well, because, according to the Board, 1973 was the first year since the early 1960's that spring and fall call report data had been available for benchmark revision. How much difference the March and October call reports made we do not know. However, there is some reason to believe that the December 1973 estimate of non-member demand deposits might have been higher if the former June-December benchmark procedure had been used. This raises a question about the comparability of 1973 money supply estimates with those of earlier years. Perhaps the SOMC should ask the Board to publish the details of the benchmark computation so that their significance can be appraised. In any case, the non-member benchmark adjustment announced this January was the largest in the history of the series. It raised M1 by \$1.0 billion for December 1972, \$2.0 billion for March 1973, nearly \$2.8 billion for June 1973, and about the same amount for October 1973.

Reserve requirements for non-member banks would virtually eliminate the benchmark problem. However, it would be far less costly to improve the data by obtaining monthly reports from a sample of non-member banks than by subjecting most non-members to reserve requirements. The problem of arranging cooperation between the two bureaucracies -- FDIC and Federal Reserve -- might be difficult but it should not be insuperable.

In the interest of improving monetary measurement and control, the SOMC might conceivably endorse the Board's request for extending reserve-requirements to non-member institutions. However, some unheralded motives behind the Board's request should be considered. These stem from interests of the Board in areas other than monetary policy. One of these may be a bureaucratic imperative to extend or maintain the System's regulatory reach by stopping the drift of banks away from membership in the System. The other may be a desire to strengthen the Fed's claim to primacy in the electronic funds transfer system of the future.

Having failed to win the fealty of many state member banks through liberalizing discount-window privileges and through the shift to the two-week lag in reserve requirements, the Board may have decided to reduce the attractiveness of non-member status through making reserve requirements obligatory on members and non-members alike. The Board's stress on the monetary-policy aspects of its request, however, has not lulled the suspicions of such competitors in the regulatory field as the Conference of State Bank Supervisors. They have recently published a critical report entitled "Optional Affiliation with the Federal Reserve System for Reserve Purposes Is Consistent with Effective Monetary Policies."

The System also appears to be making a determined attempt to establish itself as the principal provider of interregional electronic-funds-transfer services, in the interest of avoiding the wasteful duplication and inefficiency that some Members of the Board believe would arise from the attempts of banks or other potential competitors to get into the business. If all banks of significant size and all savings institutions that provide third-party payments

services were required to hold balances at Federal Reserve Banks, the System's position in competing for funds-transfer business -- especially at a zero price -- would be immensely improved. The proposed extension of reserve requirements to deposits at saving banks and savings and loan associations "that effectively serve as part of the public's money balances", therefore, probably was motivated by more than an intellectual interest at the Board in determining what is money.

Banks and other interested parties have been asked by the Board to comment by March 8 on its proposals for new regulations affecting electronic funds transfers. Banker opinion appears divided at the moment and the positions of the various bank associations have not been announced. But it looks as though a major battle over who is to control the payments mechanism is not far off. Furthermore, the Justice Department may be involved, for Donald Baker has expressed strong opposition to allowing the Fed or anyone else to monopolize the funds transfer business.

Troublesome Deductions

Large revisions in the underlying data have at times been caused by the way the Fed defines demand deposits subject to reserve requirements. To avoid double counting, interbank demand deposits and cash items in process of collection are deducted from gross demand deposits. This net figure then is used not only in computing required reserves, but also as the member-bank part of the demand deposits component of the money supply (after deducting U.S. Treasury balances).

For a time during the late 1960's, several enterprising banks found that by repaying Eurodollar borrowings with bills-payable checks and London checks they could generate cash items in process of collection that could be deducted from head office demand deposits. This gave them a handsome saving on the costs of required reserves, but it also reduced the Fed's estimate of the money stock. This understatement was corrected in the August 1969 revision. At the same time, a revision of Regulation D required banks to include bills-payable checks and London checks used in repayment and borrowing of Eurodollars in gross demand deposits as well as in cash items in process of collection.

The 1969 episode influenced the debate between monetarists and the Board. The under-reporting in the first half (see chart) led some monetarists to warn of a recession. The upward revision in August encouraged Board members to ridicule monetarists and all their works. The 1970 recession came anyhow, but a little later than the early monetarists' forecast.

The November 1970 money supply revision resulted from a discovery at the Fed that some banks were enjoying a similar loophole in international transactions involving Edge Act corporations and U.S. agencies and branches of foreign banks. These transactions did not produce deposit liabilities at domestic commercial banks to offset the cash items that the banks were happily, though quietly, deducting from their reported deposits. Since 1970, interbank demand deposits of foreign bank agencies and Edge Act corporations have been added to gross member bank demand deposits to correct for the measurement error in the

demand deposit component of the U.S. money stock.

So far as we know, there aren't any more such opportunities in the Fed's rules that provide banks with a profit incentive for understating the money supply. However, the Fed's new advisory committee on monetary statistics might well want to review the cash-item-deduction problem and the Fed's remedies for it.

Seasonal Adjustment

According to Poole and Lieberman, revisions in the underlying data -- such as the benchmark revisions of non-member deposits -- and revisions of seasonal adjustment factors are of roughly equal importance in explaining revisions in the quarterly growth rates of the seasonally adjusted money stock. However, revisions in seasonal factors are nearly four times as important as revisions of underlying data in explaining revisions in monthly growth rates of the seasonally adjusted money stock.

It is obvious that the Board's method of seasonal adjustment should be carefully examined by the committee. The current methods result in an incestuous relationship between Federal Reserve policy operations and the seasonal adjustment factors used in the "final" seasonally adjusted money stock.

Extreme changes in the money stock in particular months influence the seasonal factors at subsequent revisions and so tend to be smoothed out. If the Fed were to overshoot its money-growth-rate target in the same month of two or three successive years, for example, these errors would gradually sink from view in the later revisions. What is worse, they would become part of the target in later years.

Furthermore, the seasonal-adjustment procedure is not replicable by outside analysts; it contains an unknown amount of Fed staff "professional judgment" with a smoothing pencil at the turns. It would be helpful for the advisory committee to have guidance from staff people at some of the provincial Reserve Banks who have had extensive experience in trying to match seasonals with the Board.

The advisory committee on monetary statistics could probably do the most good through focusing on the seasonal-adjustment problem, because it contains the knottiest theoretical and philosophical difficulties. The seasonal variation in unadjusted money stock arose in the first place from the Fed's efforts over many years to stamp out seasonal variation in short-term interest rates. And the policy of minimizing seasonal variation in rates was never justified except by harking back to ancient traditions that were established by the Bank of England and Winfield Diefler. If monetary policy shifts to a pure aggregates target, an explicit policy decision should be made regarding seasonal variation. This obviously is more than a problem in improving measurement of the money supply.

Conceptual Problems

Some of the Members of the Board of Governors want to include NOW accounts and other savings institution deposits involved

in third-party-payment systems in the money stock. This is worth thinking about because there is some pressure for making deposits at savings and loan associations and mutual savings banks more like checking accounts at commercial banks. Although the Hunt Commission Report appears to be in limbo, for the moment, some of its proposals may some day be put into effect.

Another interesting possibility would be to remove foreign-owned deposits from the money stock, if possible, in order to obtain a "domestic money supply" series, such as the one presented by the Federal Reserve Bank of St. Louis in their May 1972 Review. Although the proportion of foreign-owned deposits in the reported U.S. money stock is small and maybe stable, there could be times in which the domestic implications of a reported change in money stock -- as now defined -- could be misread because of a short-term increase or decrease in the foreign-owned component.

A.J.M.
2/26/74

The International Economic Outlook: A Briefing
for the Shadow Open Market Committee Meeting of

March 8, 1974

by Wilson E. Schmidt

Virginia Polytechnic Institute and State University

Naturally, the outlook for the U.S. balance of payments and its effects on U.S. economic activity has been dominated by a recent change in relative prices, namely the oil crisis.

I. The Good News

The crisis has produced at least three pieces of good news.

First, further efforts to deform the international monetary system have been stopped. In the face of uncertainties created by the oil situation, no country has been willing to fix the rules of the international monetary system. Instead countries have agreed only on some organizational changes which strengthen the power of the International Monetary Fund at the expense of the Organization for Economic Cooperation and Development and on some new accounting rules for Special Drawing Rights.

Second, the French have floated.

Third, the Keynesians (or the mercantilists as I prefer to call them) lost a market test to the monetarists. In the Fall it was widely believed that real output of our trading partners would decline more than our own because of their heavier dependence on oil.

If foreign exchange speculators were Keynesians, this presumption would have caused them to assume that our trade balance would deteriorate and that the dollar would depreciate; in fact, they anticipated appreciation. On the whole, monetarists are sympathetic to speculators; it is good to know that they reciprocate.

II. The Bad News

Seriously, on the somber view, seventy-four looks rather wild. Responsible estimates suggest that the OPEC countries may increase their oil receipts by \$40-90 billion. Few people think that they can spend all of this and, as a consequence, their current account surpluses are expected to rise to \$30-50 billion. Nobody can remember that kind of change, unless it might be the German reparations problem after the First World War. Even if the figures are rough and the range is wide, it's obvious that we have a problem, or perhaps several problems.

First, if the OPEC countries cannot spend their surpluses, they will have to invest them abroad. That would be fine because it means that the oil producers would lend us the money with which to pay their higher prices. But, they will gain interest income which would mean that by 1980, if things continue as expected in 1974, that OPEC countries would have additional assets of \$450 billion. Even though the total financial assets of the ~~OPEC~~ countries

OPEC

come to \$3 trillion today, that is a very large amount of funds to concentrate on the hands of a cartel. And there will be an obvious reluctance to borrow that much to finance consumption.

Second, there is no guarantee that the OPEC countries will invest their added receipts in each consuming country in proportion to the increase in their oil receipts from each consuming country. Hence, governments will feel the need to protect their balances of payments, possibly by competitive exchange rate depreciation or through a downward float, and by tightening of trade and capital controls. As unemployment rises, pressures for depreciation will strengthen.

But this won't solve the problem. As the elasticity of OPEC demand for imports is seen to be low, there is little chance for the non-OPEC countries as a group to increase their exports to the OPEC countries to solve the oil deficit.

Third, it is thought that much of the OPEC capital will come to the United States because we have the largest and most resilient capital market in the world. This would, it is believed, swamp any worsening on our trade balance due to the higher prices of oil. As a consequence, the dollar would appreciate, which would adversely effect our competitive position with implied troubles for the balance of payments. The present reluctance to pass tariff-reduction

legislation would grow as our trade balance worsens.

Even without a massive inflow of capital, if the U.S. plays its usual passive role in the international financial system, our trade balance will worsen because any improvement in the trade balances of other consuming countries would have to come at the expense of the U.S. trade balance as long as the OPEC countries imports ~~are~~ ^{are} relatively insensitive to price.

It is this somber scenario which no doubt underlay Secretary Kissinger's plea for international financial cooperation at the mid-February energy conference.

Looking at the United States balance of payments for 1974, the somber view foresees a substantial worsening of our trade balance because of the higher price of oil--perhaps \$10-13 billion. Thus for example, the influential Morgan Guaranty Bank foresees a shift from the trade surplus in 1973 of \$674 million to a trade deficit of \$3 billion and an equivalent shift in the current account. The Council of Economic Advisors, obviously uncertain about the effects of the oil crisis, thinks the net exports of goods and services in 1974 will come out at zero compared with a surplus \$6.4 billion in 1973.

Keynesians will see these shifts differently depending upon whether they are gross mercantilists (M_1) or net mercantilists (M_2). The net mercantilist thinks of all changes in exports and imports as autonomous, with only the net difference between exports and imports having an impact on demand conditions; as the current account is supposed to worsen in '74 this implies a slight deflationary pressure on the United States. The gross mercantilist concentrates instead on the levels of exports and assumes that all imports are a function of income; since exports can be expected to rise in 1974 above 1973 the foreign sector adds to internal demand, though probably by significantly less than the \$28 billion seen in 1973.

The monetarists of course see things rather differently. So long as the dollar floats, the balance of payments cannot have much impact on the stock of money, and thus on nominal income and prices, except as foreigners shift their dollar holdings among different assets and between the Federal ^{Reserve} and commercial banks. Any dollars paid out to foreigners by Americans must stay in the U.S. as long as the U.S. will not pay out gold or foreign currencies to foreigners; the floating rate assures equality between the dollars that want to go out and those that want to come in so there is no net effect on the stock of money.

For the monetarist, however, there is a potential effect on the desirable level of monetary expansion in the future through the change in the ratio of our export to import prices because of the large rise in the price of oil. If, as widely assumed, the higher price of oil worsens our terms of trade, that is equivalent to a proportionate reduction in the productivity of the American economy because our exports buy a smaller amount of real imports; we suffer a loss in real income at full employment levels. Looking just at oil, given the high weight of petroleum in the unit value indices for imports, we might expect a worsening of 15% in our terms of trade over 1973. With merchandise imports running over 5% of GNP, that results in a once-for-all decline in our real income of .8% which just about wipes out the rise in real output projected by the Council of Economic Advisors for 1974. This should be a significant factor in the formulation of monetary policy.

III. The Solutions

So much for the somber view of the oil problem. How should it be solved? The proposals range far and wide and do not include the use of our new found freedom to float. In fact, floating is seen by many as dangerous either because speculators will set the rates at the wrong levels or because governments will cause them to fall or let them fall as explained above.

One proposal would have the International Monetary Fund borrow the surplus dollars from the OPEC countries, guarantee them in terms of SDRs, and lend them to needy countries. This really isn't necessary, except possibly for some marginal countries, as the OPEC countries will presumably put their new resources into the Euro market and the U.S. where the oil consuming nations can borrow them. (This does not mean there won't be a demand for IMF funds; their charges are well below market rates.)

Another proposal to is to raise the official price of gold. This would be a neat solution to the oil problem, raising the price of something in return. It suffers however from the fact that the oil producers are now free to buy gold in the free market if they wish and governments are free to sell gold there as well now. Of course, it wouldn't solve the problem of distributing the newly created financial resources in accordance with need because gold holdings are poorly correlated with oil imports.

A third solution is to somehow persuade the oil producers to step up their aid to the LDCs. This might well help the LDCs, if not accompanied by a decline in assistance from the advanced countries, but this is slow because it takes years to convert development assistance commitments into projects and then into imports, and to solve the LDCs oil problem would require perhaps a doubling of present aid flows from all sources.

A fourth solution offered is a massive increase in SDRs, permitting the exchange of paper gold for black gold with the OPEC countries. It might be fun to watch the battle between the two seigniorages, but the implication of this for long-run inflationary pressures in the world are obvious.

A fifth solution would be for all consuming countries to aim for equilibrium in their non-oil international transactions and borrow the sums equal to their oil deficits on the world capital market. Already such borrowing is going on. This is neat because it minimizes adjustment to the oil problem. However, it is likely to be a rather unworkable rule. The OPEC money loses its identity when it enters the Euro-dollar market, and the governments will not know how much oil money they have gotten back through private transactions with world capital markets; hence governments are apt to over-borrow on this rule.

Thus, there are no neat solutions. Or are there?

IV. The U.S. News

For the United States balance of payments the oil problem is exaggerated.

To be sure, we can expect a substantial worsening of our balance of trade.

In saying that, on top of oil, there are as usual plenty of normal uncertainties--the possible effects of a dock strike in the fourth quarter, the diminution of our exports as price controls, which have diverted sales abroad, are relieved at home, the possibility of export controls to restrain price increases in grains, coal, etc.

My current guess on the trade balance in 1974 is for a deficit of 2 to 4 billion, exports of \$87-88 billion and imports of \$90-91 billion, compared with a \$674 million surplus in 1973. I assume a sharp decline in the rate of growth of industrial production among our trading partners, by half or more which holds down exports. However, I expect a continued surge in the value of agricultural exports, under the pressure of continued price strength, from \$18 billion in 1973 to \$21-22 billion. For U.S. imports, I use the GNP assumptions of the Council of Economic Advisors. With respect to oil, I assume an increase in imports of fuel and lubricants of \$13 billion given the January price of oil, continuation of the embargo, and consequently a 15-20% decline in the physical volume of imports.

As a rule, the shifts in the current account of the balance of payments are dominated by shifts in trade flows. But I suspect that during 1974 investment income will rise rapidly because of the

higher profits of the major oil companies. Statistically speaking, the oil crisis might wash: higher investment income may offset the rise in the value of imports. This is of course plausible because a very large part of the oil produced by U.S. companies overseas is sold abroad and profits on those sales will accrue to the United States.

Roughly speaking, I assume that production by U.S. oil companies in OPEC countries will be between three and four times our imports. I further assume that well over half of the U.S. overseas production is by companies that report their investment income on the basis of posted prices rather than market prices, both of which hold at their January levels. On those assumptions, the rise in investment income just about equals the rise in the value of imports. (This may be a gross exaggeration because it makes no allowance for the effect on profits of the so-called participation agreements and nationalizations. But the profits may reappear in the refining operations.) This points up the fact that, in terms of the flows of foreign exchange, the current account estimates are likely to be less meaningful because they include a substantial part of investment income based on posted prices rather than market prices. If I use only the market prices, the true investment income rises by almost half of the rise imports of

fuel and lubricants. But since we work with the government's numbers, my guess for the current account in 1974 is a surplus of \$9 to \$11 billion, which is a far different story than estimates elsewhere. I've seen no published estimates of the effect on investment income and I am very much aware of how weak my estimates may be. But it is useful to bring the question into focus because there is an offset of great potential in the investment income accounts.

On the capital accounts, frankly, I have to be silent because I do not know what to expect. There are no data on the present distribution of OPEC countries assets among foreign nations because the Euro-currency market hides these matters quite well. It is obviously plausible that a large amount of OPEC money would come to the U.S. because of the size of our capital markets, but clearly that depends upon numerous factors. What are the preferences of the OPEC countries among forms of investment? Outside the United States the short-term capital market is larger than the equity market whereas the U.S. short-term market is only a third of the size of the U.S. equity market. Finally, even if we were to gain in some sense a disproportionate part of the OPEC funds, with the removal of the U.S. capital controls, it is not as obvious that we would keep the money.

If I am right about investment income, the monetarist concern

for our terms of trade and what they might imply for monetary expansion must be reconsidered. In the event that the oil problem should wash, our true terms of trade would be unaffected: higher prices for our investment services just offset the higher prices for our fuel imports. When one adds the fact that it seems very likely that agricultural export prices will rise, it seems that our true terms of trade could well improve.

Let me sum it up.

If I were a net mercantilist (M_1), I would foresee another year of stimulus, though smaller, from abroad: net exports rose by \$11 billion between 1972 and 1973; they will rise by another \$2.5 to \$4.5 billion in 1974. If I were a gross mercantilist (M_2), I would foresee a sharp increase in the stimulus from abroad, approximately the same growth in merchandise exports as between 1972 and 1973 (about \$20 billion) plus a huge increase in investment income.

As a monetarist, I continue my theme at the last meeting: the international sector does not make much difference to what happens at home because the stock of money cannot change and the terms of trade will not be greatly affected by the oil crisis. In short, in the United States prosperity and problems are mostly made at home.

V. Floating as a Solution

If the United States problem does not look as serious as so many people seem to think, that still leaves the problem of the OPEC surpluses and the question of how to distribute them among the other oil consuming countries. Here it seems to me that much of the discussion has vastly underrated the value of the floating exchange rate system to meet the problem.

Oil is not the only international financial problem. Countries will go into surplus and into deficits for other reasons as well, e.g. the U.K. The problem is to lick both kinds of deficits; with floating rates and newly mobile capital, that will be automatic for individual countries.

But still it can be argued that floating will not solve the OPEC surplus problem, i.e., the consuming nations will simply depreciate continuously in terms of one another without affecting the size of OPEC countries surplus because OPEC's demands are insensitive to price. This assumption, no doubt based on the view of OPEC as a vast underpopulated desert wasteland, overlooks the fact that countries such as Algeria, Nigeria, Venezuela, Iran and Egypt which produce roughly half of the crude are stretching for economic growth and will import. It further overlooks the fact that there is some elasticity of demand for fuel in the consuming nations.

More importantly, those who argue that floating rates cannot solve the problem focus too much on the trade accounts and miss a fundamental point. The first problem is to figure out how to get the OPEC countries to increase production and depress their prices. If they won't, the next problem is to figure out how to avoid paying their prices with real goods and services. Here, portfolio adjustment theory as applied to exchange rates makes a major contribution to our understanding. If the United States devalues, the rest of the world suffers a loss in the real value of its assets in the United States when measured in foreign currency relative to home assets. As a consequence, foreigners will invest more in the United States to re-attain their equilibrium levels of real assets in the United States compared to their assets at home. It seems plausible that the same process will work vis à vis the OPEC countries. If the consuming nations can float downward relative to OPEC, the OPEC money will keep coming back to maintain OPEC countries' real assets in the consuming nations. In that way, we won't have to pay. I won't say that it will last forever, but it might be a good deal of help until the consuming nations can develop alternative supplies. If something like that does not happen, given the huge increase in OPEC foreign assets, the OPEC countries are apt to look at their portfolio of oil in the ground and foreign assets

abroad and decide to keep more oil at home, worsening the oil problem; we will have to pay higher interest rates, provide guarantees, and adjust our foreign policies, to obtain their funds, all of which are costly devices for meeting the problem. Thus, attempts to maintain stable rates rather than continuing the float are, like all price controls, apt to increase our misery.

MARCH, 1974

Bob Rasche

I have been asked once again to supply some comments on the projected state of fiscal policy. Two weeks ago the President's Budget Message projected a Federal budget for fiscal 1975 of 304.4 billion dollars (unified budget basis) to be accompanied by receipts of 295 billion for the same period, for a projected deficit of 9.4 billion dollars. This represents a projected growth of 9.3 percent in receipts and 10.7 percent in expenditures over current estimates of the respective figures for fiscal 1974. Some review of recent budget projections is warranted before we take these figures at face value.

RECENT HISTORY

This accompanying table indicates some recent official budget projections and their revisions at roughly six months intervals over the past year. The table indicates one well known factor of recent budget projections; the underestimation of revenues. This is mostly associated with the underestimation of the magnitude of the inflationary problem, and its impact of government tax collections, particularly the corporate income tax. However, it is obvious, that even within the fiscal year, there have been substantial revisions and forecasting errors on the expenditures side also. The record has not been very accurate, and this suggests that we should not take the official figures at face value.

THE CURRENT FIGURES

The written and verbal pronouncements of government economic officials suggest that they have become considerably less sanguine about the inflation prospects, at least in the near term future.

	Jan 73	July 73	Jan 74
Fiscal 72			
Receipts	[208.61]		
Expend	[231.9]		
Fiscal 73			
Receipts	225.0	232.0	[232.2]
Expend	249.8	249.8	[246.5]
Fiscal 74			
Receipts	256.0	266.0	270.0
Expend	268.7	268.7	274.7
Fiscal 75			
Receipts			295.0
Expend			304.0

If my interpretation of these pronouncements is correct, they seem to accept recent inflationary experience as indicative of the experience for the next six months, but are holding out for a substantial slowing of the inflation rate during the fall of 1974 and into 1975, when the energy crisis will presumably (hopefully?) be over, and the economy will resume a path of positive real growth. If this type of path of economic activity materializes, they clearly hope that unemployment will peak out at less than 6 percent. If unemployment jumps higher than this, or remains at high levels into fiscal 1975, then government expenditures for unemployment compensation will jump the budget figures above what is presently expected. There are some published reports (Business Week, 2/9/74) that the unemployment figures which were used in compiling the published budget figures are extremely low, and thus there may be underprojection of outlays in this category alone of something on the order of magnitude of 1 billion dollars even if the slowdown is no worse nor longer lived than projected at present. If the slowdown lasts beyond next summer, then even the administration seems to be saying that all bets are off as far as the outlays side of the budget is concerned.

On the revenues side of the budget, the current estimates project an increase of 25 billion dollars between fiscal 1974 and 1975. This is small relative to the currently projected increase of 37.8 billion from fiscal 1973 to 1974. However, the increase in revenues from fiscal 1973 to 1974 was accomplished by

increases in all types of tax receipts. From the fourth quarter of 1972 to the fourth quarter of 1973, on a national income accounts basis, personal income taxes increased by approximately 10 billion, corporate income taxes increased by over 10 billion (estimated), and contributions for social insurance increased by 18 billion.

In the next twelve to eighteen months, we can expect continued increases in revenues from the social insurance contribution category as a result of the increase in the tax base effective January, 1974 and further programed increases in the base for January 1975. Further, the Federal personal income tax will continue to generate increased revenues as nominal personal incomes increase, even if real personal income falls. However, the governments own projection for pretax corporate profits is for no change from calendar 1973 to calendar 1974. This suggests that little if any contribution to the incremental revenues can be expected from this source. It does not seem likely that 25 billion additional dollars in revenue will be produced essentially by the income and social security taxes alone during the coming fiscal year. A more likely figure would probably be on the order of magnitude of 20 billion additional revenues from all sources. Thus, given a high probability that within the current fiscal year, there will be some acceleration of outlays, particularly associated with unemployment benefits, a deficit of somewhat more than five billion is likely, while a current realistic projection for fiscal 1975 is for a deficit of the order of 15 billion dollars rather than 10 billion dollars.

THE FEDERAL GOVERNMENT RELATIVE TO THE TOTAL ECONOMY

In considering the growth of the Federal budget over the last five years, it should be realized that much of the increase in the dollar magnitude of the budget is a consequence of the recent inflationary experience. From the accompanying graph (Figure 1) it can be seen that since the Vietnam War peak in 1968, real Federal Government purchases of goods and services have been continually decreasing in magnitude. The deflator for government purchases, on the other hand, has been rising faster than the overall GNP deflator, since it includes the government wage component. The net effect has been to obscure the decline in the size of government demands on the productive capacity of the economy. The trend is perhaps better illustrated by the broken line in the graph which indicates the size of real Federal Government Purchases relative to real GNP. Except for the Vietnam period, there has been an almost steady downward trend in this ratio from around .12 in the mid fifties, to around .07 in recent years.

It is somewhat harder to measure the size of the redistributive function of the Federal Government. One possible measure is transfer payments to persons relative to total personal income. This however ignores the recent increase in previously Federal functions which have been channeled through State and local governments, and recent changes in Federal and State and Local relationships through things such as revenue sharing. It is not clear the extent to which such funding of State and Local governments by Federal Grants has caused governments activities at the State and Local levels to increase, or to what extent there has just been a change in the source of

funding for programs that would have been instituted in any case. Figure 2 indicates the growth of both the ratio of transfers to persons to personal income, and transfers to persons, plus grants in aid to State and Local Governments, plus Subsidies less Current Surplus of Government enterprises to personal income. Both of these ratios have basically the same behavior. They grow slowly during the late 50's, are essentially unchanged during the early 60's, and since the late 60's have been consistently growing.

Thus, while the Federal Government cannot be said to be increasing in the sense of making increased demands on the output of the economy over the last few years, there has been a sharp increase in its income distribution activities. Judging from the programs that are already scheduled to be implemented in the next few years, and current proposals for new programs, the recent patterns of decreasing real government purchases relative to real GNP and increasing transfers relative to personal income, are likely to continue.

FINANCING REQUIREMENTS

Finally I was asked by Allan to comment on the financing of any deficit. I regard this question as largely a residual one. Given the magnitude of the deficit, and given that we reach some conclusion about the size of monetary growth that we would like to see achieved over the next six to twelve months, (and the implications of that monetary growth for the growth of bank reserves and currency), we have run out of degrees of freedom. The remainder of the deficits will have to be financed by selling debt. I suspect that the implied magnitude of this problem is such that the Treasury debt management people will not be completely happy.

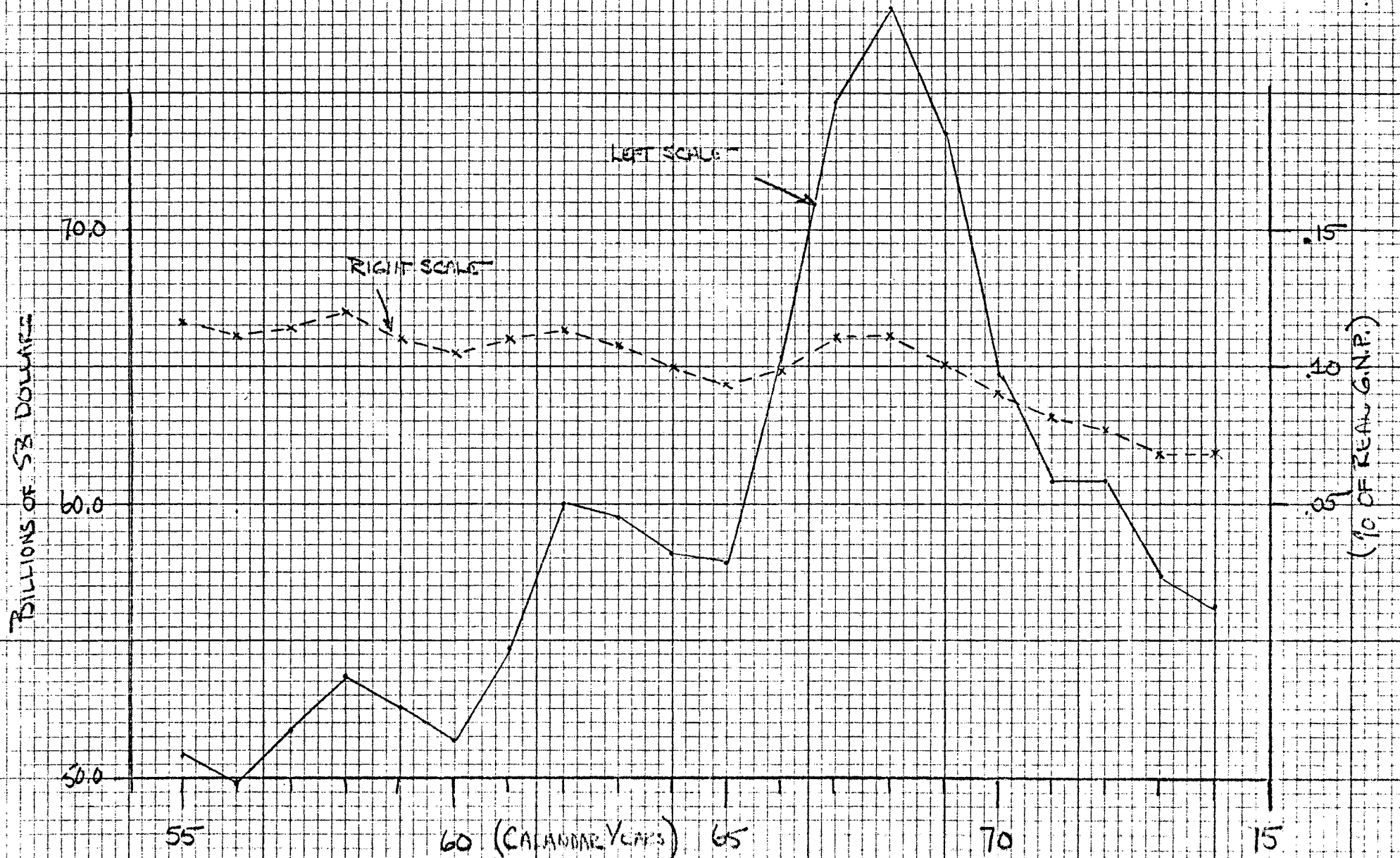


FIGURE 1
FEDERAL GOVERNMENT PURCHASES OF GOODS AND SERVICES

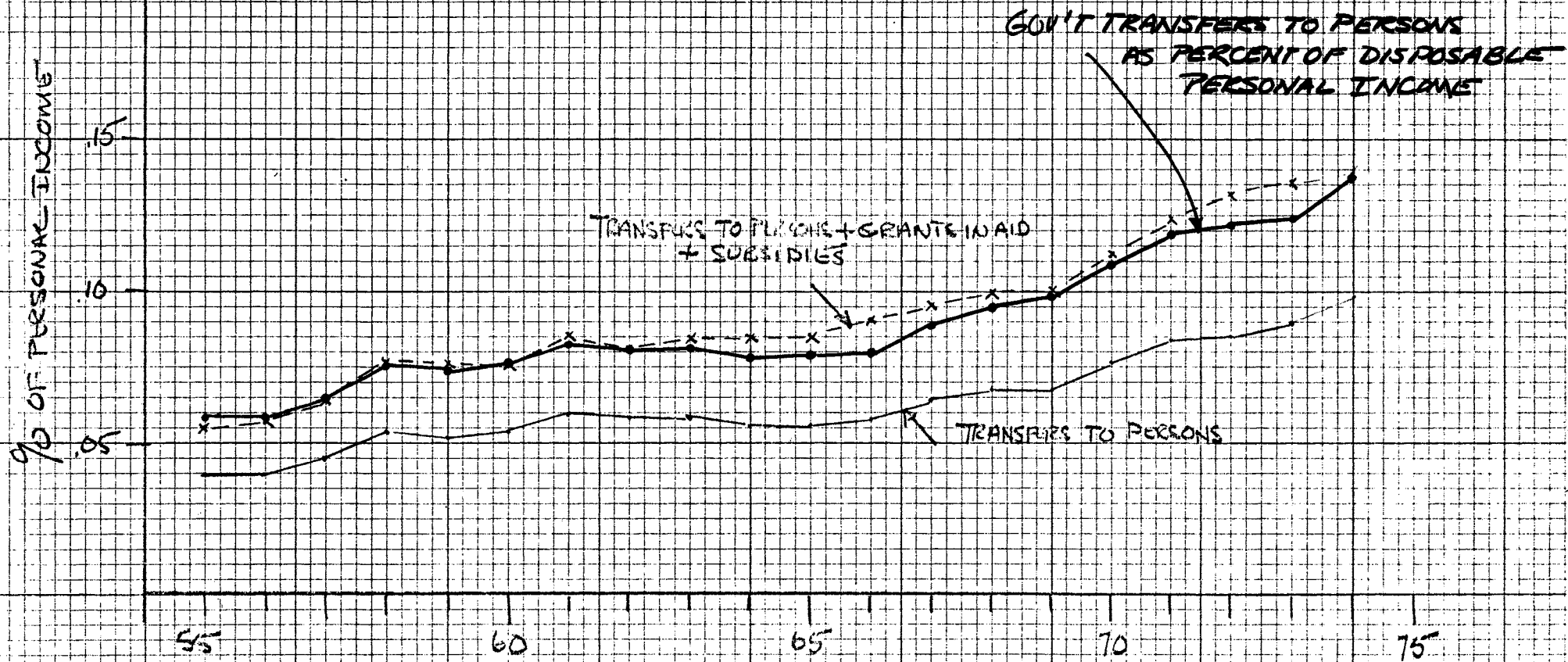


FIGURE 2
FEDERAL TRANSFERS RELATIVE TO PERSONAL INCOME