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REVIEW



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The 1974 National Economic Plan: Riding Out the Storm

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THE Administration recently presented to Congress and the public its national economic plan for the eighteen-month period ending June 30, 1975. The Administration's plan is contained in three documents — the *Federal Budget*, the *Economic Report of the President*, and the *Annual Report of the Council of Economic Advisers*. Included in the economic plan are: (1) a proposed program for the Federal budget; (2) goals for gross national product (GNP), output, prices, and employment; and (3) recommendations for monetary actions by the Federal Reserve System.

Goals for the U.S. economy in the months ahead are outlined in the Council of Economic Advisers' (CEA) *Report* and are conditioned by economic forces already in motion, as well as the expected impact of planned policy actions. Because of conditions existing at the beginning of the year, the CEA indicates that the idea of a "goal" is more relevant to the latter part of the year than to the months immediately ahead. The Administration's goals include: an 8 percent advance in GNP from calendar 1973 to 1974 (or about 7.5 percent from fourth quarter 1973 to fourth quarter 1974); an increase in output of 1 percent from 1973 to 1974; a rise in prices, as measured by the GNP deflator, of 7 percent; and a rise in unemployment to an average slightly above 5.5 percent of the labor force in 1974.

Proposed as consistent with these economic projections for 1974 is a Federal budget program containing expenditure increases (on a national income accounts basis) of 15 percent from calendar 1973 to 1974.¹ Tax changes consist of an increase in the tax base for social security contributions and a proposed emergency windfall profits tax. The Administration indicates that

¹The Administration does not provide estimates for calendar 1974. Such estimates have been prepared by this Bank on the basis of fiscal year projections in the budget and actual data through fourth quarter 1973.



an 8 percent growth of the broadly measured money wage would be consistent with their economic projections for 1974.

This article summarizes and evaluates the Administration's 1974 economic plan. First, as background, the economic experience of 1973 is summarized in light of plans and projections made in January 1973. Second, the proposed Federal budget program is discussed in some detail, along with the CEA recommendation for monetary policy. Third, the economic plan for 1974 is evaluated in terms of its feasibility and internal consistency.

REVIEW OF THE 1973 ECONOMIC PLAN

In late 1972 and early 1973 the U.S. economy was in the midst of a strong economic expansion. For the

year ending fourth quarter 1972, output grew 7 percent and reported prices rose 3.3 percent. In early 1973 wage and price controls were in the process of being relaxed by the Administration. In general, the objective of Administration policy at that time was to slow the economy to a maximum sustainable growth of output. Furthermore, with proposed policies of moderate restraint, inflationary pressures were expected to subside by late in the year. However, the record of developments in 1973 is all too familiar; problems evolved which were not accurately foreseen by the Administration, or by anyone else for that matter.

Economic Goals vs. the Record

The CEA Report of a year ago projected an increase in GNP of 10 percent from 1972 to 1973. The realized increase was 11.6 percent. In only one other year out of the last twelve has the CEA underestimated the rise in GNP by such an extent – in 1966 (see Table I). And, interestingly, 1966 was also a year racked by excess demand and inflation, though in retrospect, the severity of the problem at that time appears mild by comparison.

Table I
CEA Projection Accuracy for GNP

	CEA Projected Change	Actual Change*	Error**
1962	9.4%	6.7%	2.7%
1963	4.4	5.4	- 1.0
1964	6.5	6.6	- 0.1
1965	6.1	7.5	- 1.4
1966	6.9	8.6	- 1.7
1967	6.4	5.6	0.8
1968	7.8	9.0	- 1.2
1969	7.0	7.7	- 0.7
1970	5.7	4.9	0.8
1971	9.0	7.5	1.5
1972	9.4	9.7	- 0.3
1973	10.0	11.6	- 1.6
Average absolute error			1.2%

*Based on data given in the CEA Report for the year following the forecast year.
**No adjustment is made for deviation of policy realizations from plans, or for major strikes.

An examination of the 1973 projection of GNP according to its distribution between output and prices indicates that the error in projecting GNP was associated with an underestimate of the extent of price inflation (Table II). The CEA projected a 6.8 percent increase in output, compared to actual growth of 5.9 percent. Prices were projected to increase 3 percent, but actually rose 5.4 percent. The projection of

Table II
Projected and Actual Changes in Economic Activity: 1973

	CEA Projection	Actual	Error
GNP	10.0%	11.6%	- 1.6%
Output	6.8	5.9	0.9
Prices	3.0	5.4	- 2.4
Unemployment Rate	4.7	4.9	- 0.2

unemployment to average 4.7 percent of the labor force was close to the actual average of 4.9 percent.

The error in the 1973 GNP forecast is shown in greater detail in Table III. A large portion of the error in projecting total GNP took the form of an underestimate of the increase in personal consumption and a turnaround in the nation's net export position. These underestimates were offset partially by an overestimate of inventory accumulation.

Table III
Projected and Actual Changes in GNP and Components: 1973
(Billions of Dollars)

	CEA Projection*	Actual	Error
Personal consumption	\$ 68.9	\$ 77.5	\$ - 8.6
Business fixed investment	16.6	18.0	- 1.4
Change in inventories	6.7	2.0	4.7
Residential construction	1.6	4.0	- 2.4
Federal purchases	0.6	2.2	- 1.6
State and local purchases	18.1	20.0	- 1.9
Net exports	2.6	10.4	- 7.8
GNP	\$114.9	\$133.9	\$- 19.0

*Estimated by this Bank and based on 1973 CEA Report.

There were, of course, special factors which came into play during the year that contributed to the deviation of economic performance from the CEA's goals. Reference is made to the circumstances relating to agricultural prices, the energy situation, distortions built into the economic system by price and wage controls, and foreign exchange rates.

Policy Plans vs. Realizations

Normally, ex-post assessment of any economic plan depends on more than just a comparison of realized and projected values of GNP, prices, and output. A more complete evaluation also takes into account a comparison of policy plans with policy realizations. This section indicates that the error in projecting the major economic aggregates cannot be traced to sharp deviations of monetary and fiscal actions from original plans and recommendations. Significant projection er-

rors do raise the possibility that the economic impact of prior and current monetary and fiscal actions was miscalculated. It is difficult, however, to gauge the extent of this miscalculation, given special factors like reduced supplies of farm products and petroleum.

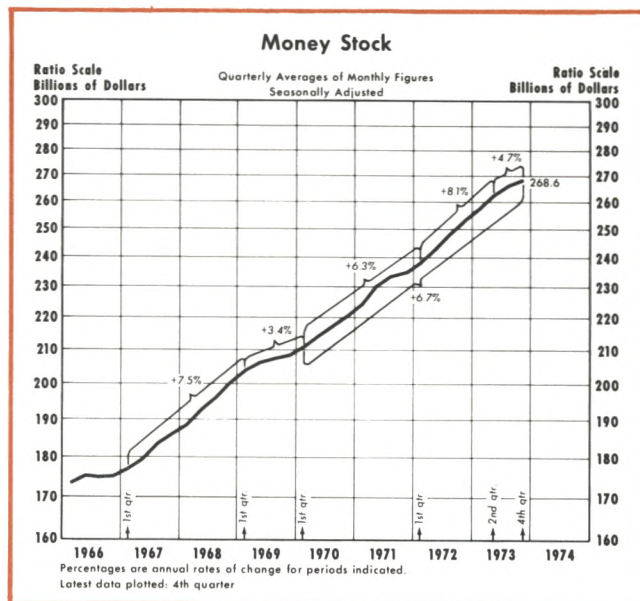
Federal budget plans are compared with the actual results in Table IV. Indications are that Federal expenditures were almost exactly on target in calendar 1973, while receipts were substantially underestimated. As a result, the NIA budget recorded a slight surplus during the year, or a decline in the deficit of \$17 billion, compared to a projected increase in the deficit of \$4 billion. The faster-than-expected rise in receipts is, of course, related to the underestimation of GNP and the pace of inflation. In particular, the unexpectedly rapid increase of corporate tax accruals contributed to a large underestimate of total Federal receipts.

Table IV
Planned and Actual Changes in the Federal Budget:
1973

	(Billions of Dollars)		
	Budget Plan	Actual	Error
NIA Receipts	\$ 19.1	\$ 36.5	\$- 17.4
NIA Expenditures	23.0	19.4	3.6
NIA Surplus or Deficit	\$- 4.0	\$ 17.1	\$- 21.1
High-Employment Receipts	\$ 23.6	\$ 30.9	\$- 7.3
High-Employment Expenditures	24.7	20.8	3.9
High-Employment Surplus or Deficit	\$- 1.1	\$ 10.1	\$- 11.2

Planned and realized increases in receipts and expenditures, on a high-employment basis, are also shown in Table IV. Normally, an examination of high-employment budget plans provides a more meaningful basis of comparison of policy plans and realizations than does the NIA budget. However, during times of rapid inflation, the high-employment budget gives a distorted picture of the extent of fiscal stimulus or restraint. That is, according to Table IV, it would appear that there was more restraint than planned as evidenced by a surplus \$11 billion greater than planned in January 1973. High-employment receipts, and thus the net surplus or deficit, reflect inflation, and thereby suggest that the budget is showing more restraint than is actually the case. Some rough guesses can be made of the magnitude of the inflation bias, but there is no generally accepted method of making an inflation adjustment in the high-employment budget.

With regard to monetary actions as a part of the economic plan for 1973, it is very difficult to deter-



mine, in retrospect, whether monetary expansion during the year was consistent with the CEA recommendations in January 1973. In their 1973 Report, the CEA specified the role for monetary policy as follows:

A gradual slowing of the expansion of money GNP to a steady rate consistent with the long-run potential growth rate of the economy and reasonable price stability is also an appropriate goal for monetary policy. This is likely to require a slower increase of the supply of money and credit than was proper when the main objective was to encourage a quickened economic expansion in an environment of substantial unused resources.²

On the basis of recently revised figures for the money stock, it appears that, on average, the course of monetary expansion in 1973 was consistent with the CEA's general recommendation. Money grew 6.1 percent in the year ending fourth quarter 1973, compared to a 7.8 percent increase in the previous year. It should be pointed out, however, that this slowing in monetary growth occurred in the second half of the year. Given the lag with which monetary actions affect economic activity, the deceleration in money growth probably had little effect in slowing the growth of nominal GNP during the year. Money grew at a 7.4 percent annual rate in the first half of 1973, only slightly less than the 7.8 percent increase in the previous year.

Analysis Based on St. Louis Model

Substantial error in the CEA's GNP forecast, in the absence of any significant deviation of monetary-fiscal

²1973 CEA Report, p. 75.

policy realizations from plans, raises the possibility that there was a miscalculation of the impact of current and past policy actions on economic activity. To aid in the assessment of the CEA's 1973 economic plan, some simulation results with the St. Louis model are presented.

Two after-the-fact projections of the St. Louis model are presented in Table V. The first projection uses money and high-employment expenditures as they were recorded in 1973. The second projection is the result of using money and high-employment expenditures consistent with the recommendations of the Administration in January 1973. The first projection, using actual movement in the policy variables, indicates that the St. Louis model projected the increase in GNP at \$118 billion, or \$16 billion less than actually occurred. The second projection indicates that move-

Table VI

**Changes in GNP and Components:
1973 and 1974**
(Dollar Amounts in Billions)

	1973		1974*	
Personal consumption	\$ 77.5	10.7%	\$ 65.0	8.1%
Business fixed investment	18.0	12.7	16.0	11.7
Change in inventories	2.0	—	2.1	—
Residential construction	4.0	7.4	-8.5	-14.7
Federal purchases	2.2	2.1	11.1	10.4
State and local purchases	20.0	13.3	20.7	12.1
Net exports	10.4	—	-4.6	—
GNP	\$133.9	11.6%	\$101.8	7.9%

*Estimated by this Bank and based on 1974 CEA Report.

the energy problem and the scheduled dismantling of the system of price and wage controls. Monetary and fiscal actions seem to be assigned a secondary role in the assessment of the 1974 economic outlook.

The 1974 projections of the broad economic aggregates differ substantially from the actual experience in 1973. Furthermore, substantial differences are projected in the composition of GNP (Table VI). The most notable differences are with reference to personal consumption, residential construction, Federal purchases, and net exports. Personal consumption is projected to slow to an 8 percent increase, in contrast to a 10.7 percent rise in 1973. Residential construction is expected to decline by about 15 percent, after increasing 7.4 percent in 1973. Federal purchases are projected to rise over 10 percent, compared to a 2.1 percent increase in 1973. The net export position is expected to decline from the substantial surplus registered in 1973.

Table V

**Projected Changes in Spending, Output, Prices,
and Unemployment: 1973**
(Dollar Amounts in Billions)

	GNP	Output	Prices	Unemployment Rate	
CEA Projection (1/31/73)	\$114.9	10.0%	6.8%	3.0%	4.7%
Actual	133.9	11.6	5.9	5.4	4.8
St. Louis Model Projections:					
Changes in money and Federal spending as actually occurred	118.2	10.2	6.1	3.9	4.5
Changes in money and Federal spending consistent with CEA assumptions of 1/31/73	116.7	10.1	6.0	3.9	4.5

ments of the policy variables in line with Administration recommendations would have increased GNP by \$117 billion. Thus, to the extent that the impact of monetary and fiscal actions is accurately captured by the St. Louis model, the effect of policy error on GNP can be assessed as negligible. Within the framework of the St. Louis model, \$16 billion of the \$19 billion error in the CEA forecast reflects the operation of special factors on the income velocity of money.

POLICY PLANS AND RECOMMENDATIONS FOR 1974

The Administration's projections of a 1 percent rise in output and a 7 percent rate of inflation in 1974 reflect the expected adjustment of the economy to some special factors relating to uncertainties surrounding

Federal Budget Program for Calendar 1974

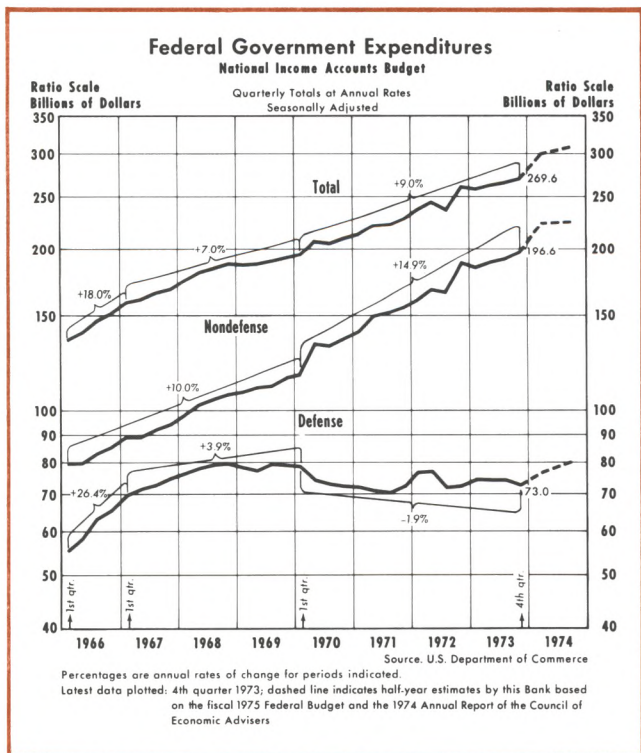
The budget plan for 1974 is to restrain the decline of the economy during 1974 but to inject no fiscal stimulus to push the economy above its average rate of expansion. Consequently, the budget plan is designed as a middle-of-the-road policy, supposedly geared so as not to contribute further to either unemployment or inflation.

The purpose of this section is to present the quantitative details of the Federal budget program on an

NIA basis for calendar 1974.³ The budget on an NIA basis is considered by many analysts to be more accurate than the unified budget for evaluating the economic impact of fiscal actions. On a unified basis some misleading information can be emitted because of matters of timing in expenditures and receipts, as well as transactions in existing assets. A judgment is offered as to the possible accuracy of the Administration's assessment of the economic impact of its budget.

Expenditures — The budget program indicates a \$41 billion increase, or 15 percent, in Federal expenditures on an NIA basis for calendar 1974 (Table VII). This compares with an 8.2 percent advance in 1973 and a 7.7 percent average rate of increase from 1968 to 1972. If realized, the 1974 increase in expenditures would be greater than 82 percent of all year-to-year changes since 1947.

Defense spending is projected to increase in 1974 by 5.5 percent, compared to no change in 1973 and a 1.3 percent average annual rate of decline from 1968 to 1972. This planned increase in defense spending reflects an attempt to meet the higher costs of maintaining forces and stocks of equipment and supplies, as well as an effort to produce new weapons systems.



³As indicated above, all calendar year estimates for 1974 are prepared by this Bank. The chief basis for these estimates is Table C-68 in the 1974 CEA Report, though fourth quarter 1973 figures have been revised since the Report was published.

Table VII
Planned Changes in Federal (NIA) Budget: 1974*

(Billions of Dollars)	
NIA Receipts	\$29.7
Change due to growth	32.8
Change due to cycle	— 8.7
Change due to tax rate adjustments	5.6
NIA Expenditures	40.7**
Change in defense	4.1
Change in nondefense	36.6**
NIA Surplus or Deficit	— 11.0**
High-Employment Receipts	38.4
High-Employment Expenditures	38.0**
High-Employment Surplus or Deficit	0.3**

*Estimated by this Bank from the *Federal Budget* for fiscal 1975.
**Includes rupee transfer to India of \$2.2 billion.

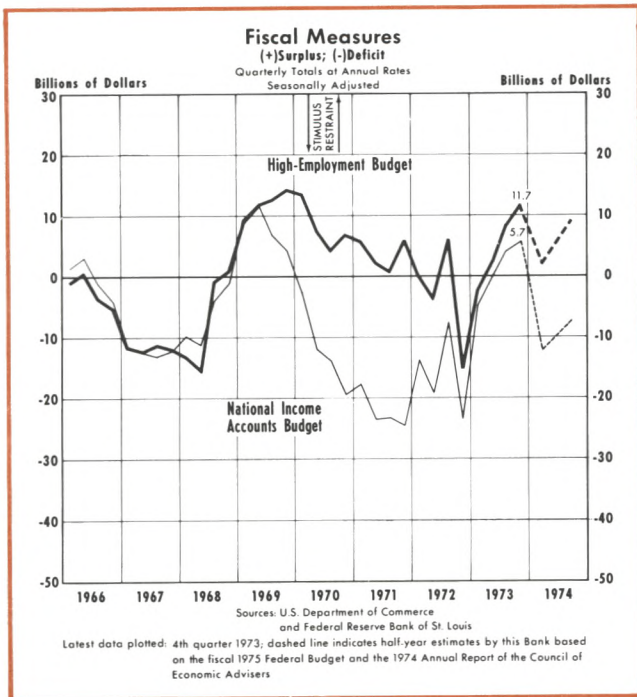
Nondefense spending, according to the Administration's budget, is projected to advance 19 percent in 1974, compared with 12 percent in the previous year and a 13 percent average rate of increase from 1965 to 1972. Within recent years there has been a dramatic shift in the size of nondefense spending relative to the total. The estimated proportion of Federal expenditures going toward nondefense purposes in 1974 is 74.3 percent, compared to 56.9 percent in 1968.

Receipts — Federal receipts on an NIA basis are projected to rise by \$30 billion, or by 11 percent, in calendar 1974. By comparison, receipts rose by 16 percent in 1973 and 15 percent in 1972. These year-to-year comparisons require interpretation in light of changes in tax rates, as well as the advance of economic activity.

To aid in the interpretation of receipts projections, estimates of the sources of changes are given in Table VII. The receipts projection for 1974 reflects two major tax changes. Existing law calls for an increase in the tax base for social security contributions from \$10,800 to \$13,200, effective January 1, 1974. The only other major change is a proposed emergency windfall profits tax, although there is no indication in the budget as to when this new tax is expected to be effective.⁴ In addition, there are other minor proposed changes in tax laws which would have a negative effect on receipts — namely, liberalized deductions and tax structure simplifications.

Thus, given the estimated effect of changes in the tax structure, the estimate of the rise in receipts attributable to the advance of economic activity (including both growth and cyclical factors) is estimated

⁴The calculations in Table VII were based on the assumption that the new tax would be fully effective by second quarter.



at \$24 billion. However, when allowance is made for the rise in receipts that could be expected from normal growth of the economy, it is apparent that cyclical forces are contributing to a decline in receipts in 1974.

Surplus/Deficit Position – The combined effect of expenditures rising more rapidly than receipts results in a substantial shift in the net position of the NIA budget from a \$1.2 billion surplus in 1973 to a \$9.8 billion deficit in 1974. As indicated above, this shift toward deficit reflects a projected slowdown in economic activity, as well as changes in expenditure plans and tax laws.

The results of these calculations for the budget program for 1974 on a high-employment basis are given in Table VII. The high-employment budget is projected to show a surplus of about \$5 billion in 1974, about the same as the estimated surplus in 1973. Superficially, these figures indicate that the budget program is one of continuing restraint, but it should be recalled that these calculations are influenced in substantial measure by inflation. Thus the Administration's budget plan for calendar 1974 is more stimulative than indicated by the movement of the high-employment surplus.

Monetary Policy Recommendations for 1973

The Administration's discussion of stabilization policy focuses on the Federal budget, with monetary policy receiving secondary emphasis. This emphasis

tends to be dictated by the nature of the mandate of the Employment Act of 1946 and the way the CEA interprets its role in fulfilling the conditions of that legislation. For 1974, the CEA Report states its recommendation for monetary policy as follows:

The monetary expansion in the second half of 1973 can be described by an increase in the narrowly defined money stock (M_1) of somewhat under 5 percent and an increase in the broadly defined money stock (M_2) of about 8 percent, at annual rates. Continued growth in M_2 at approximately this rate would be consistent with our expectations concerning the increase in GNP during 1974.⁵

Though the discussion relating to this recommendation is limited, the precision of this recommendation represents a break with past tradition. Never before has the CEA given such a precise indication of its monetary policy recommendation. Usually such recommendations take the form of statements like "The role of monetary policy in the expansion ahead will be to provide for the increase of liquidity required to support increases in activity and income."⁶

EVALUATION OF 1974 ECONOMIC PLAN

According to the CEA, "the main functions of policy [in 1974] will be to keep the dip in the early part of the year from going too far and to assist the revival later in the year, but to avoid stimulating too rapid a surge." Clearly, the Council is fully aware of the uncertainties relating to the economic outlook, and wishes to keep its options open so that policy can be flexed in either direction, depending on the actual course of developments during the year.

In general, the special circumstances which are present in shaping the course of the economy in 1974 are quite unique. As a result, econometric models are less useful than otherwise in providing information about the probable course of economic events. Econometric models, by necessity, are structured on the basis of experience. However, despite their limitations, model results, particularly as they relate to the response of the economy to monetary and fiscal actions, should not be overlooked just because certain special circumstances seem to be so overwhelming in their implications. For this reason, it is still useful to conduct simulations for purposes of gaining insights into the expected effects of planned monetary and fiscal actions in 1974. These simulations have to be given a liberal interpretation but can still serve as a general

⁵1974 CEA Report, pp. 31-32.

⁶1972 CEA Report, p. 26.

guide in the assessment of the Administration's economic plan.

This section evaluates the 1974 economic plan with the use of the St. Louis model. This is a policy-oriented model and is based solely on past experience. As a result, the St. Louis model does not lend itself to manipulation for purposes of analyzing energy problems or programs of price and wage control or decontrol. Given these qualifications, simulations of the St. Louis model are presented for purposes of determining (1) if the projected increase in total spending (GNP) by the Administration is consistent with the proposed set of monetary and fiscal actions, and (2) if the price and output projections are consistent with the forecast of total spending.

Feasibility of Total Spending Projection

The Administration's projection of an increase in GNP of \$102 billion, or 8 percent, is examined by considering two simulations of the St. Louis model. One simulation uses an 8 percent rate of steady growth in M₂, and the other uses a 5 percent rate of growth in M₁.⁷

Both simulations use a path of high-employment Federal expenditures which is somewhat different than implied in the budget. Budget estimates imply an intra-year pattern for 1974 which consists of a substantial acceleration in spending in the first half of calendar 1974 followed by a sharp deceleration carrying through the first half of calendar 1975. A more likely path is used for simulation purposes which involves a gradual approach to a 10.7 percent annual rate of increase of expenditures by second quarter 1974. This path still implies a substantial pick-up in expenditure growth in the first half of 1974, but the subsequent deceleration is much less marked than strictly implied by the budget plan. This deviation from the budget plan is premised on the recent budget experience of overestimating current (fiscal) year expenditures.

The results for these combinations of policies are shown in Table VIII. The two combinations of monetary and fiscal actions yield GNP results which are higher than the CEA projection. In other words, the

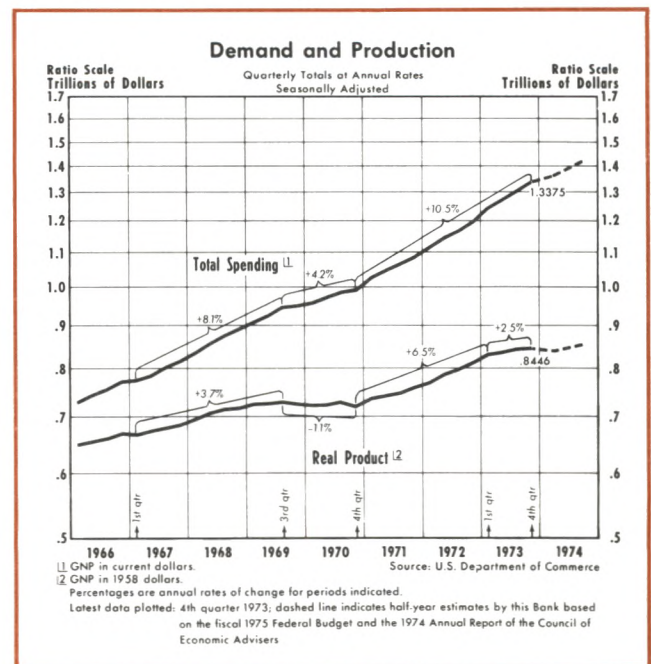
Table VIII

Projected Changes in GNP: 1974 and 1975
(Dollar Amounts in Billions)

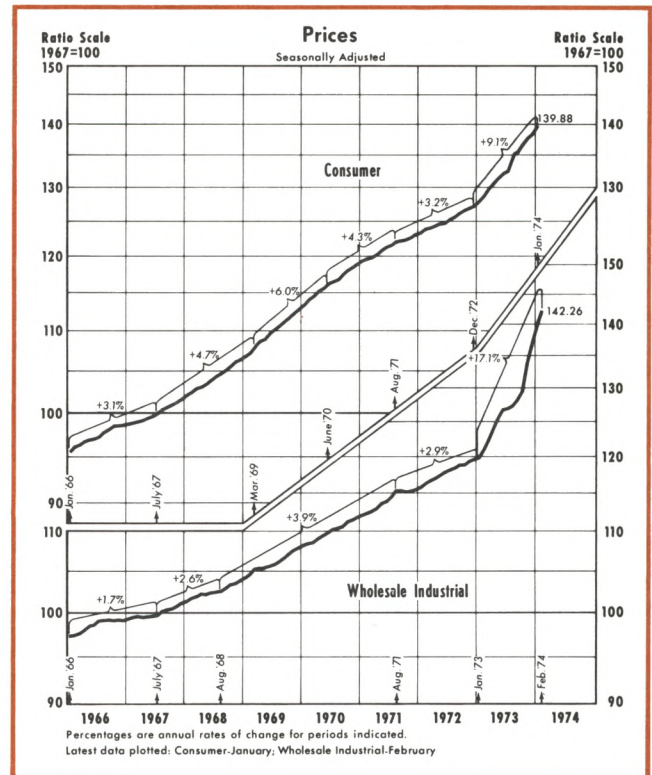
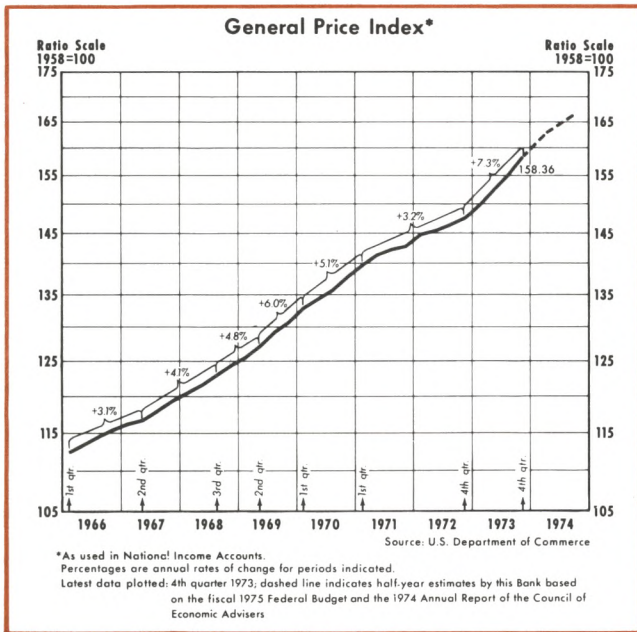
	1974		1975	
CEA Projection (2/1/74)	\$101.8	7.9%	—	—
St. Louis Model Projections				
1) With 8 percent growth in M ₂ and Federal spending based on 1975 budget	123.6	9.6	\$111.3	7.9%
2) With 5 percent growth in M ₁ and Federal spending based on 1975 budget	114.5	8.9	97.7	7.0

estimated impact of past monetary and fiscal actions, when combined with policy plans for 1974, appear to be greater than foreseen by the Council. An interpretation is that the Council envisions a slower growth in velocity as a result of special factors relating to the energy problem and the program of price and wage decontrol. With little past experience to draw on, it is not possible to assess the validity of this interpretation. Nevertheless, the CEA projection appears to be within the range of error of the St. Louis model's GNP equation (though this judgment is questionable with regard to the results based on the M₂ equation), so there is no firm basis for considering the GNP projection to be inconsistent with the policies they recommend.

An implication of these results with the St. Louis model is that, at a minimum, monetary growth should be kept from exceeding the recommended rates in



⁷Since the Administration is not specific in recommending a growth rate for M₁, the 3 percentage point spread between M₁ and M₂ growth experienced over the last two years is used to provide an estimate of M₁ growth.



order to avoid a faster-than-desired increase in GNP. Given existing capacity constraints, a rise in GNP faster than projected would be reflected primarily in prices rather than in output.

Implications of Total Spending Projections

Given the feasibility of attaining the CEA's projection for GNP, the question remains whether the distribution of GNP growth between prices and output is consistent with the CEA projection. Examination of this question depends critically on what assumptions are made about the aggregate price effects of the energy problem, as well as the program of price and wage decontrol.

There have been some studies that have purported to measure the success of the price-wage control program, and thus carry implications about what the economic response might be to a program of decontrol.⁸ Closer examination indicates that such studies shed little, if any, light on the problem. For example, predicting what a price index would have done in the absence of controls and comparing that hypothetical result with what actually happened provides little insight because it is assumed that all of the effects of controls are reflected in a chosen price index. Since controls distort the operation of relative prices as an allocative mechanism in a market economy, the effect of controls on an aggregate index is simply impossible to measure. Furthermore, there are output effects re-

lated to a control program which affect the interpretation of a particular price index. In other words, the market basket is changing because of the control program which invalidates the price index as a measure of intertemporal price changes.

It appears that the most important aspect of the CEA's 1974 price and output projections is not so much whether or not they are likely to be realized, but rather the lessons they carry for the formulation of future monetary and fiscal policy. The relatively bleak 1974 outlook for prices and output shows the interdependence over time of economic policy decisions. The Administration, by becoming impatient in mid-1971 with the pace of economic expansion and the rate of deceleration of inflation, adopted policies which formed the basis for an adjustment which appears to be developing in 1974. Interference with the operation of free markets beginning in August 1971, followed shortly by stimulative monetary and fiscal actions, set the stage for the economic problems which began to surface in 1973.

Special circumstances undoubtedly play an important role in the analysis of current problems of inflation and capacity constraints. However, pointing to special circumstances as the chief cause of the current inflation demonstrates a lack of perspective. Instrumental in the development of some of these special circumstances were the policies adopted in late 1971

⁸For a general discussion of price-wage controls in this context, see Robert J. Gordon, "The Response of Wages and Prices to the First Two Years," *Brookings Papers on Economic Activity*, 3 (1973), pp. 765-78.

and the subsequent inordinate monetary and fiscal expansion. The demand for energy is not unrelated to the rapid pace of economic expansion and the 1971 policy emphasis on stimulating the automobile industry. Furthermore, the supply of energy is not unrelated to the administration of the program of price controls. Worldwide inflation would probably have been less rapid if the U.S. expansion and the associated demand for imports had been restrained. It is true that these policy actions cannot be undone, but such mistakes can be avoided in the future.

SUMMARY

The Administration has projected a year of rapid inflation and little growth in output, on balance. However, by focusing on the second half of calendar 1974, the CEA projection turns more optimistic — a pick-up in output growth and a slower rate of inflation.

Offered as consistent with these projections is a Federal budget program which is allegedly neutral in its impact, but on closer inspection is more stimulative than in 1973. The Administration's monetary recommendations are couched in terms of an 8 percent growth rate in M_2 , or slightly less than the growth in the previous year.

Using the St. Louis model as an aid in evaluating the 1974 economic plan, it was found that the CEA projection of GNP appears to be less than implied by the recommended 8 percent growth in M_2 . Given the capacity constraints operating in the economy, underestimating the growth of GNP raises the specter of inflation in excess of the CEA's projection of 7 percent.

An accurate assessment of the Administration's projections for prices and output, given their GNP projection, is simply not possible given short-run considerations such as the energy situation and the scheduled program of price and wage decontrol. Aside from the question of whether the price and output projections are consistent with the projected GNP path is the more important consideration that the developing economic situation be viewed in perspective so that similar situations can be avoided in the future. The interplay of "special circumstances" does inject *some* element of doubt over the future course of the economy. It should be noted, however, that the 1974 economic situation is not evolving independently of the inordinate monetary expansion of the previous two years and a price-wage control system that distorted the operation of a free market economy.



The 1974 Outlook for Food and Agriculture

CLIFTON B. LUTTRELL and NEIL A. STEVENS

THE U.S. Department of Agriculture has forecast a further increase in food prices in the first half of 1974, followed by rising farm production and relatively stable food prices in the second half of the year.¹ Farm commodity and food prices rose sharply last year, reflecting, in part, a number of short-run supply and demand forces. In response, farmers are expected to increase production this year. Both crop and livestock product prices are expected to average somewhat above the 1973 level. However, in contrast to the rising prices during 1973, farm commodity prices are forecast to decline in the second half of this year. With rising farm production during the year, domestic food supplies per capita should rebound from the 1973 level which was 2 percent less than a year earlier and the lowest in four years.

This article provides both an analysis of national food and agriculture developments over the past two years and a general outlook for food and agriculture. Also included is outlook information for major crops and livestock products of the Central Mississippi Valley.

FOOD

Per capita food supplies in 1974 are expected to recover from most of their 1973 decline. Further increases in food prices have occurred this winter, but the average price of food at home is expected to stabilize about mid-year.

Rising production is expected to result in per capita consumption gains in livestock-related foods of about 1.5 percent for 1974. Per capita red meat production is expected to rise about 3 percent from last year's relatively low level and poultry supplies should also be up following a 2 percent decline last year. Per capita egg production may increase somewhat. Dairy production will probably be down for the second consecutive year, but dairy imports are rising, hence the per capita consumption of dairy products will likely

be up. Per capita supplies of crop foods for domestic consumption are expected to be about the same as a year ago.

While retail food prices are up in the first quarter of this year as a result of both declining farm output and rising marketing margins, they are expected to level off later in the year as increased farm output and declining farm product prices will tend to offset rising marketing costs.

Food Output Down Last Year

Reflecting a number of short-run factors, per capita food supplies last year declined from the 1972 level. The decline was led by a 7 percent reduction in meat output which was only partially offset by a small gain in crop-related foods. This was the largest year-to-year decline in meat supplies in a quarter of a century. Per capita red meat available for domestic consumption was down about 14 pounds from 189 pounds in 1972. Most of the decline reflected reduced beef and pork supplies; however, veal, lamb, and mutton were also down somewhat.

Total production of livestock products in 1973 was down about 5 percent from the previous year. Domestic production, however, was augmented slightly by increased imports which accounted for 4.6 percent of livestock food supplies in 1973. Imports of dairy products rose sharply, accounting for 2 percent of domestic use.

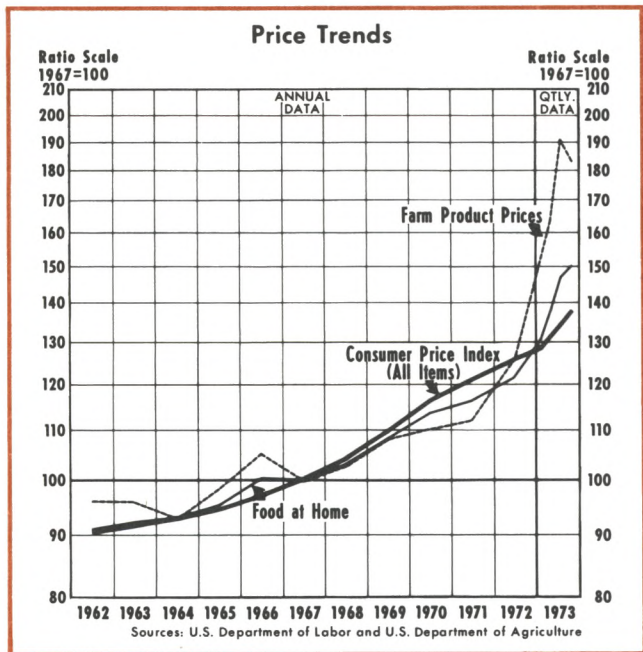
Crop production last year was up about 5 percent, but most of the gain was in feed crops which were harvested in the late summer and fall, and had little impact on the 1973 domestic food supply. Crop exports were up as a result of rising world demand and reduced world supplies, and imports, consisting largely of sugar and a number of tropical products, were down slightly. Consequently, domestic use of crop foods did not rise enough to offset the decline in livestock-related food.

Prices Sharply Higher in 1973

The decline in food output last year in the face of a strong demand resulted in a sharp run-up in prices.

¹The forecasts cited throughout this article are a summary of the U.S. Department of Agriculture reports given at the 1974 National Agricultural Outlook Conference held in Washington, D.C., in December 1973 and reports of subsequent months.

Led by a rapid increase in meat prices, the price index of food in grocery stores rose 16 percent from 1972 to 1973 (see accompanying chart). Average food prices rose 23 percent from August 1972 to its peak in August 1973—more than during the entire period from 1967 to mid-1972. Meat, poultry, and fish prices rose 41 percent during this 12-month period. Food prices declined somewhat in September and October, but turned up again later in the year.



Until the recent upsurge, food prices have increased at a slower rate than other consumer prices since the acceleration of the inflation in the mid-1960s. From 1965 until 1972, the price index for food at home rose at an annual rate of 3.5 percent, while the index for all consumer items rose at an annual rate of 4.1 percent.

Reflecting the rising demand and reduced supply of food, all farm product prices last year averaged 37 percent higher than in 1972. Crop prices were up 43 percent and livestock prices rose 33 percent. Much of the increase in crop prices was the result of an increase in derived demand for, and reduced supplies of, livestock feed prior to harvesting last year. Feed demand derived through demand for livestock products continued to rise reflecting rising personal incomes both here and abroad. World supplies, however, were down as a result of relatively poor crops in 1972. Livestock feed prices rose 84 percent from August 1972 to August 1973, and for the calendar year 1973 they averaged 52 percent higher than a year earlier. Hence, the short-run supply of livestock products was reduced as feeding became more expensive;

that is, a smaller quantity would be offered by producers at any given price level.

Reduced Output and Higher Prices Caused by Short - Run Forces

While some of the increase in food prices last year reflected the expansion of aggregate demand for all goods and services, much of the rise can be traced to a series of short-run supply and demand factors in the food industry. Price-wage controls in some cases, particularly the freeze on meat prices last summer, prevented part of the rising demand signals from reaching the producers, thus delaying increases in production. Sales of wheat and feed grain to the Russians in mid-1972 served to reduce domestic stocks and increase prices. The sharp decline in production of Peruvian fish meal led to a shortfall in world protein supplies and an unanticipated increase in export demand for soybean meal. Unfavorable crop harvesting weather in the United States in the fall of 1972 reduced crop output from expected levels. A decline in world crop production in 1972 and a realignment of world currencies led to an unexpected increase in export demand for U.S. crops. In addition, the sharp price increases for livestock tended to increase the numbers of animals going into domestic breeding herds and reduce the number placed in feedlots for slaughter.

Food Output and Prices Adjusting to Longer - Run Forces

These short-run fluctuations in food prices and output are self-correcting in a free market economy. Given sufficient time farmers can adjust their capital, labor, land, and other inputs so as to increase production. Hence, in the long run farm production is more responsive to price changes than in the short run. The higher prices for livestock feed and other crops in early 1973 provided incentive for an upswing in crop production last year.² Total crop output jumped about 5 percent from the 1972 level or well above the average annual rate of 2 percent during the previous ten years. Acres planted to feed grains, wheat, rice, and soybeans rose 5, 8, 20, and 22 percent, respectively.

With larger feed crops, livestock production began to expand in the fourth quarter of last year. Red meat production was forecast at 9 billion pounds in the fourth quarter, up from 7.9 billion in the third

²Less restrictive Government planting controls were also a factor in the larger feed crop output.

Table I

	Commercial Meat Production					
	1973				1974 ¹	
	I	II	III	IV ¹	I	II
Total red meat (millions of pounds) ²	8,773	8,345	7,912	8,975	8,474	8,700
Percent change from:						
Year earlier	- 3%	- 8%	-10%	- 4%	- 3%	+ 4%
Previous quarter	- 6	- 5	- 5	+13	- 6	+ 3
Poultry (chickens & turkeys, millions of pounds)	2,357	2,560	2,900	n.a.	n.a.	n.a.
Percent change from:						
Year earlier	- 1%	- 1%	- 4%			
Previous quarter	-19	+ 9	+13			

¹Forecast²Beef, pork, lamb, and muttonSource: U.S. Department of Agriculture, *Livestock and Meat Situation* (December 1973), and *Poultry and Egg Situation* (November 1973).

n.a. — not available

quarter (Table I). Some decline is indicated for the first quarter of this year, but following this temporary setback, output is expected to turn up and increase further in succeeding quarters.

Poultry production also turned up in 1973, rising from 2.4 billion pounds (ready-to-cook basis) in the first quarter to 2.9 billion in the third quarter. Some further increase was projected for the fourth quarter, but total production for the year was still less than in 1972. A temporary decline may occur in the first quarter of this year followed by rising output in the remaining quarters.

Further gains in the production of most crops are anticipated this year. The January 1 survey of grower planting intentions points to major increases for most crops in the 35 leading farm states surveyed.³ For example, corn acreage is expected to rise 10 percent or more, durum and other spring wheat may be up 39 and 20 percent, respectively, and intended cotton acreage is up 18 percent. Prospective plantings to all four feed grains combined (corn, sorghum, oats, and barley) are up 4 percent from 1973 and 10 percent from 1972. The increases in livestock feed provide the inputs for further gains in production of meat and other animal products.

The acreage increases last year and the planned increases this year are in response to relaxed Government production controls and the higher feed prices. The higher feed prices were, in turn, a response to the rising demand for feed caused by higher livestock and food prices. This is the way the market system

³U.S. Department of Agriculture, *Crop Production* (January 22, 1974).

adjusts following a short-run disturbance. Producers quickly respond with additional output when prices rise and major opportunities for profit occur. Increased production, in turn, leads to a downward adjustment in prices. Some of that downward adjustment in food prices to more normal supply and demand conditions may occur this year.

If a high rate of inflation continues, most of the food price adjustment may occur through a decline in relative food prices rather than an actual price decline. Reflecting both short-run factors in the food industry and excessive demand, the general price level (measured by the GNP price deflator) has risen at an annual rate of 4.6 percent since early 1971 and the rate has accelerated in recent quarters. From fourth quarter 1972 to fourth quarter 1973, prices rose 7.3 percent, but most of the price acceleration during this period reflected rising food costs. Thus the relatively stable food prices forecast for late this year would contribute to a slower rate of inflation, and with continuing or accelerating inflation in prospect for other items, stable food prices should result in a resumption of the long-run downtrend in food costs relative to disposable personal income.

Share of Personal Income Spent on Food Unchanged

Although expenditures for food increased sharply last year, disposable personal income rose at a similarly high rate, resulting in little change in the portion spent on food. Food expenditures absorbed 15.8 percent of the total, only a fraction of a percent more than in 1971 and 1972 (Table II). Cost of food used at home was 12.3 percent of disposable personal income, the same as a year earlier, and slightly less than in 1971.

While the share of disposable personal income spent on food has not declined in recent years, it may still be lower in the United States than in any other major industrial nation (Table III). In 1970 U.S. consumers spent only 13.4 percent of national income on food, beverage, and tobacco, the smallest percentage reported for these items by any major industrial nation of the Organization for Economic Cooperation and

Table II
Percent of Disposable Personal Income Spent on Food

Year	Disposable Personal Income (billions of dollars)	Percent Spent on Food at Home	Percent Spent on Total Food
1960	\$350.0	16.2%	20.0%
1965	473.2	14.6	18.1
1970	691.7	12.7	16.2
1971	746.0	12.4	15.7
1972	797.0	12.3	15.7
1973	882.6	12.3	15.8

Source: U.S. Department of Agriculture, *National Food Situation* (February 1974).

Development (OECD). A number of countries, including Canada, Japan, France, and Germany, made rapid progress in reducing food costs during the decade ending in 1970. However, it is still unlikely that any of them, except possibly Canada, can claim equality with the small share of disposable personal income spent on food in the United States.

Table III
Percent of Disposable National Income Spent on Food in Selected Industrial Nations

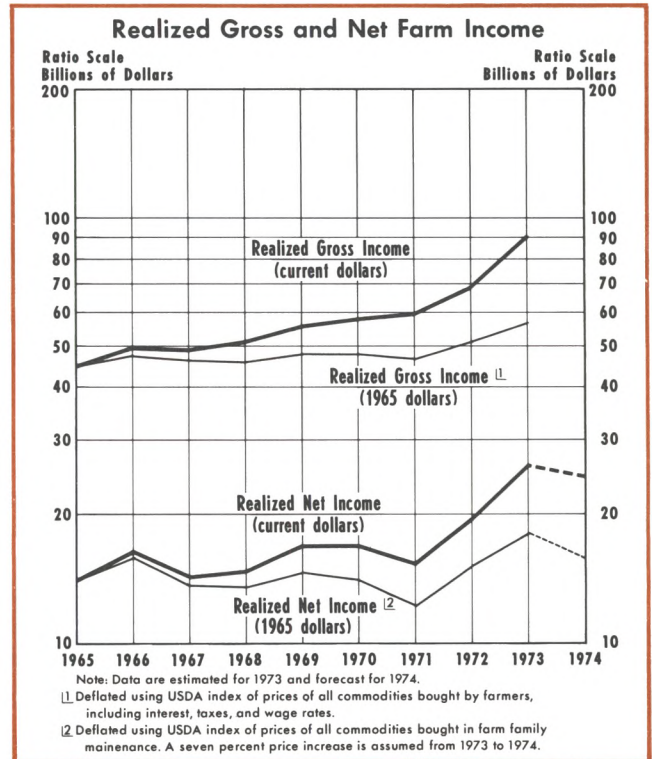
Selected Industrial Nations	1960	1970
United States*	15.7	13.4
Canada*	19.7	14.8
Japan	35.6	27.4
Austria	30.2	n.a.
Belgium	24.6	20.1
Denmark	20.8	n.a.
Finland*	28.6	23.5
France	29.2	22.6
Germany*	23.7	18.5
Netherlands	26.5	n.a.
Sweden*	22.0	19.0
United Kingdom*	26.9	22.6

*Percent spent on food, beverage, and tobacco.
n.a. — not available
Source: Derived from data in *National Accounts of OECD Countries, 1960-1970*.

AGRICULTURE

Realized net farm income is expected to total about \$24 to \$25 billion in 1974, a decline from the record \$26.1 billion estimated for 1973 (see accompanying chart). Cash receipts from farm product sales are likely to be higher, reflecting a larger volume of production and higher average prices; direct Government payments to farmers, however, will probably be down sharply from the \$2.6 billion last year, and farm production expenses will rise. Nevertheless, the forecasted net farm income is still well above the amount realized in any year except 1973.

The decline forecast for realized farm income this year is based largely on rising farm production expenses. Resources for production are being bid up throughout the economy and farmers are facing sharply rising prices for most farm supplies. As a result of both the higher prices and a larger volume of resources used, farm production expenses are expected to be well above the estimated \$64.4 billion last year.



Although the forecasted net farm income for 1974 is relatively high when measured in current dollars, it is only about 18 percent more real income than the average received during the period 1965-72 inclusive. Deflated by the 1965 price index of commodities purchased for farm family living, the average realized net income was \$14.1 billion per year for the 1965-72 period, compared with the forecasted net for 1974 of \$15.8 billion (midpoint of forecast). Real income per farm, however, has increased somewhat faster as a result of the downtrend in the number of farms. Such income from farming averaged \$4,613 in 1965-72, an estimated \$6,329 last year, and is forecasted at \$5,601 for this year.

Factors Affecting Farm Product Supply

The supply of farm products for 1974 will tend to be reduced as a result of the sharply rising prices for productive resources. As indicated earlier, inflation has accelerated in recent quarters as a result of generally rising demand and a number of short-run factors

affecting the food industry; a high rate of general inflation is forecast for 1974. This rising demand for final product has been translated into demand for resources as producers bid for their use. In addition, the problem is further exacerbated this year by the oil embargo of the Middle-Eastern nations which will tend to reduce the supply of farm resources. Resources such as labor, fuel, and capital used for the production of most goods and services are also important farm resources. Hence, prices that farmers must pay for many resources are determined by supply and demand conditions in all sectors of the economy.

The index of prices paid by farmers for all items used in production, including interest, taxes, and wages, was advancing sharply late last year. In December the index was 17 percent above a year earlier, and a continued uptrend in prices is anticipated this year for a number of major items, including fuel, labor, fertilizer, and some other chemicals.

Fertilizer, which accounts for about 5 percent of total farm production expenses, is likely to rise in price by about one-third from the 1972 average. The higher price reflects both reduced supply and higher demand. Rising production costs and price-wage controls have tended to reduce fertilizer production, while rising prices for farm products plus the lifting of Government controls on farm production have increased fertilizer demand.

Until 1973 fertilizer prices had been relatively stable for several years as a result of large increases in manufacturing capacity, especially nitrogen, in the late 1960s. Returns on investments had been depressed, tending to discourage investment in new capacity, at the time the price-wage controls were established in 1971. As output approached capacity levels in 1972, the controlled fertilizer price was not sufficient to provide incentive for new investments. The higher prices following removal of the controls will no doubt result in plant expansion. There is a lag, however, between the decision to invest in fertilizer facilities and increased fertilizer output; thus, the current year's fertilizer supply will not be enhanced greatly even with the higher prices.

In addition to abetting the capacity problem, the controls served to intensify the domestic fertilizer shortage last fall by providing greater incentive for producing firms to export their product than to sell to domestic farmers. World fertilizer prices had risen 30-35 percent above the Government controlled domestic prices. Many farmers were thus unable to obtain the desired amount of fertilizer for fall planted grain

which will mean lower wheat production than would have otherwise occurred. Since the price controls were removed, American farmers can bid for fertilizer on the same basis as farmers in other countries.

Further exacerbating the fertilizer supply problem is the rising cost of natural gas, a major raw material for making ammonia. North America still has major reserves of "sour" natural gas which can be used, although the processing of such gas is more expensive than other gas. Also, naphtha, fuel oil, and synthetic natural gas are higher priced substitutes for natural gas. In addition to the rising cost of raw materials for domestic fertilizer manufacturing, which tends to retard output, the Middle-Eastern countries are building nitrogen fertilizer plants based on their vast reserves of low cost "sweet" gas. Such competition will tend to inhibit further investment in domestic nitrogen plants, but will alleviate the world fertilizer supply problem.

Higher energy prices will also increase the cost of power for agricultural production. In 1972 farm fuel costs accounted for about 4 percent of total farm production expenses and about 3 percent of total gasoline and diesel fuel sales. However, farm purchases accounted for 17 and 22 percent, respectively, of liquid petroleum and propane gas sold. Prices paid by farmers for motor supplies, largely fuel, were 12 percent higher in mid-February than in mid-November and 26 percent higher than a year earlier.

In the allocation of energy, the Administrator of the Federal Energy Office has given top priority to agriculture. He reported that agriculture would be supplied with 100 percent of its "needs" for gasoline, propane, butane, and residual fuel oil. "Needs," however, tend to vary with price; that is, quantity demanded tends to decline as the price rises and to increase as the price declines. Agriculture would be in a more favorable position than the rest of the economy with respect to energy only if rationing or some form of a multiple price system is maintained. Otherwise the farm use of fuel will be determined by supply and demand conditions in a free market, and the fuel will be allocated according to the price that users are willing to pay.

One factor tending to offset the impact of rising input prices on farm product supply is reduced Government controls. Under the Agriculture and Consumer Protection Act of 1973, farmers have acquired more freedom to produce. Base acreage allotments have been maintained on which a guaranteed price will be paid. The guaranteed price, however,

Table IV

Carryover Stocks of Farm Products¹

	Annual Average 1962/63- 1971/72	Percent of Annual Use	1972-73 ²	Percent of Annual Use	1973-74 ³	Percent of Annual Use
Feed grains, mil. short tons	43.1	24.0%	32.4	15.0%	26.6	12.2%
Soybeans, mil. bushels	116.2	12.4	59.6	4.6	240.0	17.3
Wheat, mil. bushels	771.1	54.4	438.0	22.2	178.0	9.0
Rice, mil. cwt.	8.0	9.8	5.1	5.7	4.7	5.0
Upland cotton, mil. 480-lb. bales	9.8	78.3	4.0	30.8	3.8	29.0

¹Stocks at end of marketing year. For corn and sorghum the marketing year ended September 30; barley and oats, June 30; soybeans, August 31; wheat, June 30; rice and cotton, July 31.

²Preliminary

³Projected

Source: U.S. Department of Agriculture, *Agricultural Statistics*, 1972; *Feed Situation* (February 1974); *Fats and Oils Situation* (February 1974); *Wheat Situation* (February 1974); *Rice Situation* (September 1973); *Cotton Situation* (February 1974); *Statistical Handbook Release* (December 31, 1973).

generally has been set well below the current market price, greatly reducing the taxpayer burden, and program eligibility does not generally require a reduction in crops such as a conserving base or set-aside acreage. With the more liberal planting provisions and the higher price incentive last year, the number of harvested acres rose sharply, increasing 10 percent to 312 million, and the forecast is for another increase of 10 million acres this year.

Factors Affecting Farm Product and Food Demand

Domestic food demand is expected to continue up in 1974. Demand for food tends to rise with population and personal income growth. Population grew only about 0.8 percent from third quarter 1972 to third quarter 1973. However, personal income continued sharply upward, rising 10.3 percent from 1972 to 1973; another sizable gain is forecast for 1974. Rising domestic demand for farm products is thus in prospect.

Demand for farm products for export and for inventory buildup may also be up this year. Exports of farm products are forecast to total \$19 billion in the marketing year 1973-74 — almost 50 percent above the previous record of last year. Most of the expected increase this year stems from higher prices as little change in volume of exports is anticipated. Exports jumped 60 percent to a record value of \$12.9 billion in fiscal 1973. Increased volume (mainly grain and grain products) accounted for more than half of the gain, and prices accounted for the remainder.

The expected increase in inventory demand is based on the relatively low level of carryover stocks for most major crops last year and the sharp increase in prices

near the end of the marketing year. The carryover of soybeans was only 4.6 percent of annual use, just slightly more than the average quantity crushed during a two-week period. In contrast, the average carryover of soybeans from 1963 to 1972 was 12.4 percent of annual use (Table IV). Carryover stocks of rice, wheat, feed grains, and cotton in 1973 were also well below the 1963-72 average and are expected to remain relatively low in 1974.

During the past two decades, the Government has held sizable quantities of farm commodity inventories at the taxpayer's expense — a method of inventory holding with which the private sector could not compete. Now that the Government has liquidated most such inventories, there will be greater incentive for private investors to participate in price-stabilizing operations through inventory holding. While private inventory holdings will no doubt average less than Government holdings during the last two decades, they will probably exceed the relatively small inventories carried over last year since most inventory holders realized sizable profits in 1973.

OUTLOOK FOR MAJOR FARM PRODUCTS OF THE CENTRAL MISSISSIPPI VALLEY

Feed Grains

Total feed grain supplies for the nation in the current marketing year⁴ are estimated at 237.8 million tons, or 4 percent less than a year ago. The 1973 crop was somewhat larger than a year earlier, but carryover stocks last year were down. Domestic use of feed

⁴Year beginning July 1, 1973 for barley and oats and October 1, 1973 for corn and sorghum.

grain in the current marketing year is expected to be down slightly from a year ago (171 vs. 173 million tons), reflecting reduced feeding last fall and some decline in the volume of exports. Stocks at the close of the year are forecast at 27 million tons, down 18 percent from a year earlier. Production in 1974 is projected at 235 million tons, 13 percent more than in 1973.

Feed grain prices in the first half of 1974 are expected to average well above the level of a year ago. Reduced supplies will tend to keep prices high until about mid-year. As the larger Southern Hemisphere crops move into world markets this spring, and as our own crops approach maturity in the summer, prices are likely to trend downward, and by next fall they may average below current levels.

Wheat

Wheat supplies for the current marketing year ending June 30, 1974, are estimated at 2,150 million bushels, down 11 percent from the 2,409 million bushels of a year ago. Production of 1,711 million bushels in 1973 was up about 10 percent from a year earlier, but last year's carryover of 438 million bushels was only about 50 percent of the year-earlier level and 40 percent of the 1963-72 average.

The forecast of wheat usage in the current year of 1,972 million bushels is the same as in 1972-73. Closing inventories may be down 50 percent or more from the relatively low carryover last year. Domestic use of wheat may be down to about 772 million bushels this year from 787 million a year ago, largely reflecting a reduction in the use of wheat for livestock feed. Exports are expected to total 1,200 million bushels, up about 1 percent from a year ago and about double the average annual commercial exports for the decade 1962-1972. Larger wheat supplies are in prospect for 1974-75. Total production may exceed 2 billion bushels which, coupled with some decline in exports, would result in a sizable increase in carryover stocks next year.

Rice

Despite some increase in production last fall, rice will remain in relatively short supply this year. Carryover last July 31 was down to 5.1 million cwt., less than half the 1965-71 average; carryover this year is forecast at 4.7 million cwt., the lowest since 1952. Rice production last year totaled 92.8 million cwt., up 9 percent from a year earlier. Exports this year are projected at 55.4 million cwt., slightly above last year's level, and domestic use for food and brewing is

expected to continue upward. Total use is projected at 93.7 million cwt., slightly in excess of production last year.

The mid-August 1973 farm price of \$10.70 per cwt. for rice was almost double that of a year earlier. For the marketing year ending July 31, 1974, the price is expected to average about double the loan rate of \$6.07 per cwt. The national rice acreage allotment was reduced for 1974, but marketing quotas were lifted and there are no controls on the acreage that can be planted.

Soybeans

Soybean production in 1973 rose 23 percent in response to higher prices, yet supplies remain relatively "tight" and the average price of \$5.50 per bushel during the harvest season was more than double that of a year earlier. The total supply of 1,626 million bushels this year is a record high, 21 percent above the supply last year. Usage is expected to increase about 100 million bushels, but with last year's higher production, carryover on August 31 may rise to 240 million bushels, up from 60 million last year. Both domestic crushings and exports are expected to rise somewhat, but not sufficiently to prevent a sharp buildup of stocks.

In contrast to the sharp increase in the price of soybeans to more than \$10 per bushel following harvesting in 1972, soybean prices may be at a peak this winter. Nevertheless, prices during the 1973-74 marketing year are expected to average about \$5.65 per bushel. The lower soybean-corn price ratio this year is likely to cause farmers to shift from soybeans to corn since the two crops are often competitors for the same land. Hence, acreage planted to soybeans may be down from the 57 million acres a year ago.

Cotton

The supply of upland cotton, totaling 17 million bales, is slightly above the 16.8 million bales of a year ago, reflecting somewhat larger beginning stocks. As a result of excessive rainfall and floods in the Mississippi delta areas, production in 1973 was down to 13 million bales from 13.6 million a year earlier. Mill consumption is expected to decline to 7.4 million bales from 7.7 million a year ago, but exports may rise to 5.7 million bales from 5.3 million. Total cotton usage, domestic plus exports, is estimated at 13.1 million bales, which would be slightly above that of 1972-73. Carryover stocks at the close of the current year are forecast to be down slightly from the 4 million bales last year.

The guaranteed target price for the 1974 cotton crop is 38 cents per pound, while the current market price of 60-65 cents per pound is more than double that of a year ago. Given this price incentive and no set-aside or conserving base requirement, larger plantings are anticipated. Forecasts indicate an 18 percent acreage increase.

Tobacco

The tobacco crop was a little larger last year than in 1972, but tobacco consumption is up and carryover stocks at the end of the year are expected to decline. The supply of both flue-cured and burley tobacco is down somewhat from the 1972-73 level and usage of both has been slowly increasing.

Sizable amounts of tobacco still remain under Government loans, and Government price supports for the crop are mandatory. The support price, which usually determines the price to farmers, will go up 8 to 9 percent for the 1974 crop. Furthermore, the national marketing quota may be increased for burley tobacco.

Beef Cattle

The 1974 forecast for fed beef cattle is for somewhat higher prices and a smaller volume of marketing in the first quarter followed by a rising volume of marketings and declining prices about mid-year. This outlook is based largely on the cattle inventory which has moved upward since 1967 and accelerated in recent years. On January 1, 1974, there were 127.5 million cattle and calves on farms, 5 percent more than a year earlier. With a 5 percent larger beef calf crop, and a 7 percent increase in steers weighing 500 pounds and over, inventory growth of feeder cattle has increased from the relatively high rate of inventory growth in 1973.

Despite the rising inventory of feeder cattle, the number on feed in 23 major feeding states on January 1 was 6 percent less than a year earlier. There was 55 percent more cattle than a year earlier in the 1,100 pound-and-over weight group and 11 percent more in the 900 to 1,099 pound group. However, there were fewer cattle than a year ago in the lighter weight groups, and fed cattle marketings this winter are expected to be down slightly from last winter.

Larger numbers of heavier animals are expected to be placed on feed in early 1974. These feeders will reach market weight more quickly than usual, resulting in larger beef supplies by summer. Some increase is also forecast for cow slaughter this year.

Hogs

Hog slaughter in the first half of 1974 is forecast to lag year-ago levels. However, this winter, with the high price incentive and the larger feed supplies, farmers are expected to increase their brood sows and their March-May farrowings. This should result in some increased slaughter next fall.

Hog prices will be heavily influenced by beef supplies and prices. Consequently, the smaller winter production forecast for beef and pork should result in higher hog prices, but they may not rise seasonally in the spring if beef supplies increase as anticipated. With rising supplies of both pork and beef in the second half of the year, pork prices will likely decline.

A recent U.S. Department of Agriculture report on hogs and pigs indicates a higher rate of slaughter in the first half of 1974 than was anticipated at the December Outlook sessions. This report shows that for every weight group the number of market hogs and pigs on farms as of December 1, 1973, was greater than a year earlier. If the higher rate of slaughter is achieved, hog prices this winter and spring could be lower than was anticipated in the earlier outlook reports.

Poultry and Eggs

Poultry and egg production is expected to be up in 1974 after lagging year-earlier levels in 1973. Broiler production is expected to expand moderately and turkey production is projected to run well ahead of the year-ago levels. Egg production is expected to expand very rapidly in the early spring as a result of a 14 percent increase in the number of pullets available for flock replacement.

Weekly broiler chick placements for December 1973 marketing were up slightly from a year earlier, and the placements for early 1974 marketing were down about 4 percent. However, the hatchery supply flock is growing and may exceed the 1973 flock by spring. This larger broiler supply base, coupled with higher red meat prices in prospect for this winter, is expected to encourage broiler output since broilers are a substitute for red meat. Turkey poults for marketing in early 1974 were 13 percent above the year-ago level. Turkey eggs in incubators, from which the poults will be hatched for marketing in the second half of 1974, were 8 percent more on November 1 than a year earlier.

Both broiler and turkey prices are forecast to increase during the early months of this year, but then

lag 1973 prices in the remaining months. Egg prices are expected to decline seasonally this winter and spring and to be less than year-earlier levels by mid-year.

Dairy Products

Milk production is expected to decline slightly again this year following a 3 percent reduction last year. Production, estimated at 116.8 billion pounds for 1973, was about the same as two decades ago. The number of milk cows and heifers on farms has declined almost 50 percent since 1950, but rising production per cow prior to last year about offset the reduction in cow numbers. Cow numbers continued down last year, but for the first time in almost 30 years production per cow declined, reflecting unfavorable milk-feed price relationships.

Most of the decline in milk production this year is expected to occur by mid-year. The milk-feed price ratio should improve during the year and provide greater incentive for feeding and production in the second half of the year. Dairy supplies have in recent years been augmented by rising imports, which accounted for about 2 percent of domestic consumption last year.

Farm milk prices last year averaged about \$1 per hundred pounds over the 1972 level of \$6.07. In the first quarter of 1974, milk prices continued to show strong gains over year-earlier levels; however, they may tend to stabilize after mid-year.

SUMMARY

The nation's farmers in 1974 are expected to increase their output and receive somewhat higher average prices for their products than a year ago. Farm production costs will rise sharply, however, and direct Government payments to farmers will be down.

Hence, net farm income will likely decline from the record \$26.1 billion estimated for last year.

Food output and prices are adjusting to longer-term trends following a decline in output and sharply higher prices last year. Food output this year is expected to recover from most of the 1973 decline. However, most of the gain will come in the second half of the year.

Food prices are up again in the first quarter of the year, but with rising farm output later in the year, they are expected to stabilize. Declining farm commodity prices will then tend to offset rising food processing and marketing costs.

While food costs may appear to be high to most consumers, such costs as a percent of disposable personal income have remained relatively stable since 1972. The cost of food used at home has remained at 12.3 percent of disposable personal income for two years and is down from 16.2 percent in 1960.

Rising prices for resources used in farm production are tending to shift the supply schedule for farm products to the left; that is, reduce output at any given price level. Reflecting rising general demand for resources, and in some cases reduced supplies, major price increases are in prospect for a number of critical farm inputs such as labor, fertilizer, and fuel. Government crop production controls, however, are being eased which tends to increase the supply of farm products and to offset the output effects of the higher priced farm resources.

Demand for farm products continues to rise at a rapid rate, reflecting a small increase in population and large increases in personal income and export demand. Thus, despite the supply response this year to the sharply higher food prices, only moderate downward adjustments in farm commodity prices are likely after the mid-year peak.



Letter on Monetary Policy

To SENATOR WILLIAM PROXMIRE
From PROFESSOR MILTON FRIEDMAN

Senator Proxmire, Wisconsin, is Vice Chairman of the Joint Economic Committee of Congress. Professor Friedman is the Paul Snowden Russell Distinguished Service Professor of Economics at the University of Chicago, and has served for a number of years as an Academic Consultant to the Board of Governors of the Federal Reserve System. Recently, Professor Friedman has been named by the Board of Governors as a member of a "Committee on Monetary and Credit Statistics."

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

DEAR SENATOR PROXMIRE:

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

The Reply makes many valid points. Yet, taken as a whole, it evades rather than answers the criticisms. It appears to exonerate the Federal Reserve System from any appreciable responsibility for the current inflation, yet a close reading reveals that it does not do so, and other evidence, to which the Reply does not refer, establishes a strong case that the Fed has contributed to inflation. The Reply appears to attribute admitted errors in monetary policy to forces outside the Fed, yet the difficulties in controlling and measuring the money supply are largely of the Fed's own making.

The essence of the System's answer to the criticisms is contained in three sentences, one dealing with the Fed's responsibility for the 1973 inflation; the other two, with the problem of controlling and measuring the money supply. I shall discuss each in turn.

RESPONSIBILITY FOR INFLATION

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

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

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

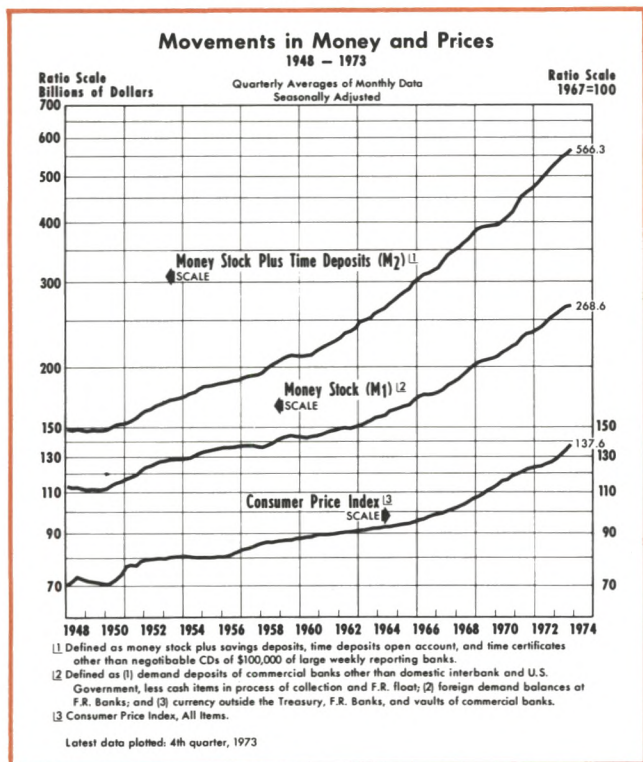
The Reply recognizes that "the effects of stabilization policies occur gradually over time" and that "it is never safe to rely on just one concept of money." Yet, the Reply presents statistical data on the growth of money or income or prices for only 1972 and 1973, and for only one of the three monetary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

From calendar year 1970 to calendar year 1973, M_1 grew at the annual rate of 6.9 percent; in the preceding decade, from 1960 to 1970, at 4.2 percent. More striking yet, the rate of growth from 1970 to 1973 was higher than for any other three-year period since the end of World War II.

The other monetary concepts tell the same story. From 1970 to 1973, M_2 (M_1 plus commercial bank time deposits other than large CDs) grew at the annual rate of 10.5 percent; from 1960 to 1970, at 6.7 percent. From 1970 to 1973, M_3 (M_2 plus deposits at nonbank thrift institutions) grew at the annual rate of 12.0 percent; from 1960 to 1970, at 7.2 percent. For both M_2 and M_3 , the rates of growth from 1970 to

1973 are higher than for any other three-year period since World War II.

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



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

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

There is much evidence on the shorter-term as well as the longer-term relations. Studies for the United

States and many other countries reveal highly consistent patterns. A substantial change in the rate of monetary growth which is sustained for more than a few months tends to be followed some six or nine months later by a change in the same direction in the rate of growth of total dollar spending. To begin with, most of the change in spending is reflected in output and employment. Typically, though not always, it takes another year to 18 months before the change in monetary growth is reflected in prices. On the average, therefore, it takes something like two years for a higher or lower rate of monetary growth to be reflected in a higher or lower rate of inflation.

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

Table I

Money and Prices
(Annual Rates of Change, First Qtr. to First Qtr.)

	Monetary Measures			Consumer Prices	
	M ₁	M ₂	M ₃		
1959-61	0.8%	2.5%	4.6%	1.1%	1961-63
1961-63	2.4	5.9	7.6	1.3	1963-65
1963-65	4.1	6.9	8.3	2.7	1965-67
1965-67	3.7	7.2	6.7	4.2	1967-69
1967-69	7.3	9.4	8.8	5.5	1969-71
1969-71	4.8	6.3	6.3	3.9	1971-73
1971-73	7.2	10.4	12.6	9.1*	1973-

*First quarter 1973 to fourth quarter 1973.

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

This conclusion holds not only for the three years as a whole but also for each year separately, as Table II shows. The one encouraging feature is the slightly lower rate of growth of M_2 and M_3 from 1972 to 1973 than in the earlier two years. But the tapering off is mild and it is not clear that it is continuing. More important, even these lower rates are far too high. Steady growth of M_2 at 9 or 10 percent would lead to an inflation of about 6 or 7 percent per year. To bring inflation down to 3 percent, let alone to zero, the rate of growth of M_2 must be reduced to something like 5 to 7 percent.

CONTROLLING AND MEASURING THE MONEY SUPPLY

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

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

Nonmember deposits do raise problems in measuring and controlling the money supply, but they are minor compared to other factors. The Reply's emphasis on them is understandable on other grounds. Almost since it was established in 1914, the Fed has been anxious to bring all commercial banks into the System, and has been worried about the defection of banks from member to nonmember status. It has therefore seized every occasion, such as the Reply provides, to stress the desirability of requiring all banks to be members of the System, or at least subject to the same reserve requirements as member banks.

Control

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

Table II

Recent Monetary Growth Rates (Percent Change, Annual Data)

	M_1	M_2	M_3
1970-71	7.0%	11.8%	12.8%
1971-72	6.4	10.2	12.5
1972-73	7.4	9.5	10.7

A far more important problem with respect to control is the lagged reserve requirement that was introduced by the Fed in 1968. This change has not worked as it was expected to. Instead, by introducing additional delay between Federal Reserve open market operations and the money supply, it has appreciably reduced "the precision with which the money supply can be controlled by the Federal Reserve." Other measures taken by the Fed have had the same effect. In an article on this subject published recently, George Kaufman, long an economist with the Federal Reserve System, concluded, "by increasing the complexity of the money multiplier, proliferating rate ceilings on different types of deposits, and encouraging banks, albeit unintentionally, to search out non-deposit sources of funds, the Federal Reserve has increased its own difficulty in controlling the stock of money. . . . To the extent the increased difficulty supports the long voiced contention of some Federal Reserve officials that they are unable to control the stock of money even if they so wished, the actions truly represent a self-fulfilling prophecy."

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

An alternative procedure would be to operate directly on high-powered money, which the Fed can control to a high degree of precision. Many of us believe that the changes in high-powered money required to produce the desired change in monetary

aggregates can be estimated tolerably closely, even now. They could be estimated with still greater precision if the Fed were to rationalize the structure of reserve requirements.

Measurement

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

The one source of measurement error mentioned in the Reply is the unavailability of data on nonmember banks. This is a source of error because nonmember banks report deposit data on only two, or sometimes four, dates a year. The resulting error in estimates for intervening or subsequent dates has sometimes been sizable, but mostly it has accounted for a minor part of the statistical revisions. In any event, this source of error can be reduced drastically by sampling and other devices which the Fed could undertake on its own without additional legislation.

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

It has long seemed to me little short of scandalous that the money supply figures should require such substantial and frequent revision. The Fed is itself the primary source of data required to measure the money supply; it can get additional data it may need; it has a large and highly qualified research staff. Yet for years it has failed to undertake the research effort necessary to correct known defects in its money supply series.¹

CONCLUSION

For more than a decade, monetary growth has been accelerating. It has been higher in the past three years

¹On January 31, 1974, after this comment had been drafted, the Board of Governors of the Federal Reserve System announced "the formation of a special committee of prominent academic experts to review concepts, procedures and methodology involved in estimating the money supply and other monetary aggregates." I have agreed to serve as a member of this committee.

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

I recognize, of course, that there are now, and have been in the past, strong political pressures on the Fed to continue rapid monetary growth. Once inflation has proceeded as far as it already has, it will, as the Reply says, take some time to eliminate it. Moreover, there is literally no way to end inflation that will not involve a temporary, though perhaps fairly protracted, period of low economic growth and relatively high unemployment. Avoidance of the earlier excessive monetary growth would have had far less costly consequences for the community than cutting monetary growth down to an appropriate level will now have. But the damage has been done. The longer we wait, the harder it will be. And there is no other way to stop inflation.

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

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

Sincerely yours,



MILTON FRIEDMAN
Professor of Economics

