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STABILIZATION POLICY AND EMPLOYMENT

A Paper Presented by

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The central task which national stabilization policy must face during the next year or so is the stoppage of domestic inflation without creating excessive levels of unemployment. The primacy of these goals apparently is generally accepted by the vast majority of public officials responsible for fiscal and monetary policy as well as by most market participants, private commentators and academic observers. However, there also appears to be much less agreement about the possibility of achieving these twin objectives simultaneously.

While I share the desirability of pursuing such targets, I am convinced that, in the short-run, there is little likelihood of terminating (or appreciably reducing) the current inflation without some increase in unemployment. But I am also convinced that the long-run growth and prosperity of the American economy require that the current inflation be brought to a halt. If this is not done reasonably soon, the spreading expectations that inflation will become more intense will be strengthened -- in fact, thus insuring that actual inflation will be further aggravated.

In my personal judgment, the key issue is this: how much more unemployment should we expect to experience as a by-product of a national

* Member, Board of Governors of the Federal Reserve System. I am indebted to several members of the Board's staff for assistance in the preparation of this paper. Miss Ruth A. Fabricant developed the statistical estimates of the responsiveness of different types of unemployment to variations in the growth rate of real gross national product. Miss Mary Ann Graves, my assistant, worked on the paper at various stages, particularly on the estimation of excess aggregate demand.

policy aimed at reducing inflation substantially over a reasonable period of time? Posing the primary question in this manner raises other subsidiary questions: How much easing in inflationary pressures should be our goal and over what period of time should we expect to achieve it? The answers to both of the latter questions must necessarily depend on the assessments made by each of us individually. My own appraisal has led me to believe that, given the varying impediments to competition in many of our markets for products, labor and other services, it is not reasonable to expect stabilization policies to create an environment in which the general price level is absolutely stable. On the other hand, I do believe that a proper combination of fiscal and monetary policies can keep the year-to-year rise in prices quite modest -- perhaps in the neighborhood of 1 - 1-1/2 per cent, and much of that attributable to improvements in quality that are reflected in prices, which is something apart from higher prices for the same products. If this range is accepted as a target -- and given the intensity of the current inflation -- it is unlikely that we can achieve it within the course of one year. Although considerable progress can be made in moderating inflation over the next twelve months, reducing the annual rate of advance in prices from roughly 4 per cent to well below 2 per cent in that period -- without generating an unacceptable level of unemployment -- would be difficult -- to put it mildly.

Just how much additional unemployment would be acceptable to the American public obviously cannot be predicted. Last December, total unemployment amounted to 3.3 per cent of the civilian labor force; in the same month a year earlier, the rate was 3.7 per cent. For 1968 as a whole, it averaged 3.6 per cent compared with 3.8 per cent for both 1966 and 1967. In 1965, the unemployment rate was 4.5 per cent, and it

ranged between 5.2 per cent and 5.7 per cent for the three years 1962-64. If one were to be guided by the views expressed publicly by numerous elected officials and spokesmen for a variety of labor, management, civil rights and other groups, one might conclude that substantial segments of American society would find it difficult to accept the re-emergence and persistence for an extended period of time of the higher rates of unemployment which lingered from the late 1950's until the mid-1960's. But, how far into the range between the recent low levels and those prevailing earlier in the present decade the actual rates of unemployment could rise and still not be considered unreasonable is clearly the critical issue.

The considerable uneasiness voiced by some observers over the possibility of even a modest rise in unemployment (although it may emerge as a by-product of the fight against inflation) stems in large measure from the fear that the main burden of greater joblessness would fall mainly on certain marginal participants in the labor market -- particularly on nonwhites and young people. This type of concern is strengthened by evidence which suggests that, even in periods when the economy is operating close to capacity, these groups still experience unemployment rates far in excess of those experienced by the working population in general. For example, while 3.3 per cent of the total civilian labor force was unemployed last month, the rate was 6.0 per cent for nonwhites. For adult males as a group, joblessness amounted to 1.8 per cent, but it was 1.6 per cent for white men and 3.4 per cent for nonwhite men. The corresponding rates for adult females were 3.5 per cent for the total, 3.2 per cent for white women, and 5.9 per cent for

nonwhite women. Among the youngest members of the civilian labor force (those 16-19 years old), the unemployment rate was 12.6 per cent last December -- with the rate for whites being slightly lower at 11.6 per cent and that for nonwhites being substantially higher at 21.5 per cent. For both nonwhites and youths, the unemployment rates at the end of last year were at or close to the lowest recorded since the Korean War.

Moreover, while many observers applaud the decline in unemployment among nonwhites over the last few years because of what it implies for the improvement of living standards, many of them also see it as a major element in the campaign to develop solutions to our pressing urban problems. In their view, a sharp reversal of these favorable employment trends would seriously hamper these efforts.

Without necessarily expressing a judgment about the validity of such a presumed linkage between unemployment trends and urban economic development, numerous observers have recognized the conflict between the objective of minimizing increases in unemployment and the objective of terminating inflation. In view of such a conflict, some of these same observers have asserted that inflation can be halted without an inevitable rise in unemployment. Still others assert that the rise in unemployment can be kept small.

In my opinion, this vital issue of public policy cannot be resolved simply by a strong assertion of the outcome one would like to see. Instead, an informed public policy must rest on a careful analysis of the available evidence. Not only is it necessary to have an understanding of the sources of the current inflation in the United States,

but one must also have an understanding of the relationship between the performance of the national economy and the behavior of unemployment.

In the rest of this paper, an effort is made to contribute to our understanding in both areas:

- First, it is shown that the current inflation has emerged primarily from the excess demands placed on the economy since the acceleration of the Vietnam War in mid-1965. A rough estimate suggests that such excess claims on our resources, which may have been less than \$5 billion in 1965, amounted to over \$20 billion in 1968.
- Secondly, reflecting the persistence of excess demand, inflation has intensified. For example, while prices rose by about 1-1/2 per cent in 1964, the increase in 1968 was in the neighborhood of 4 per cent. If the pace of inflation is to be checked, it is necessary to reduce substantially the volume of excess demand, and that means achieving a much slower rate of growth in the real output of goods and services.
- Thirdly, with the economy expanding at a much slower rate, employment opportunities must also expand more slowly, and the level of unemployment would be expected to rise.
- Fourthly, this expected response of unemployment to a decline in the pace of economic activity is not simply a matter of logic. It has been demonstrated by statistical studies in the past showing the way in which total unemployment responds to changes in the rate of growth of real output. In new statistical estimates I have just obtained, not only is the general pattern shown to hold -- but the differential impact of changes in output on marginal groups in the labor force is shown to be particularly sharp. Moreover, a given percentage decline in output has a much greater effect on the unemployment level for all segments of the labor force than does an increase in output of the same proportion.

The conclusions I reach on the basis of the above analysis strike me as self-evident: we must get on with the task of checking

inflation in this country, although as a by-product of this effort the level of unemployment may rise somewhat. At the same time, we must not lose sight of the fact that a significant share of the real cost of bringing inflation to a halt may well fall on some of those groups whose position in the labor force is already marginal. However, in my personal judgment, the proper course for public policy is not simply to tolerate continued inflation -- but to expand existing training and job placement programs and to devise new ones designed especially to reach such marginal groups. Even so, we must not allow ourselves to be tranquilized into believing that the fight against inflation is a costless campaign.

The Origins of the Current Inflation

As I mentioned above, the mainsprings of the domestic inflation can be found in the excess demand for goods and services that has prevailed since mid-1965. In fact, not only has the demand for output generally exceeded our available resources during the last few years -- but the margin has widened steadily. While the rise in the Federal Government's purchases of goods and services (particularly for defense purposes) was the major source of pressure on real resources during much of the period, variations in business expenditures for fixed equipment also had a significant role.

The part played by several principal sectors in economic expansion over the last eight years is shown in Table 1. It will be noted that in the early part of the decade, 1961-64, economic expansion was reasonably well balanced, with no major sector varying appreciably the

share of total output which it absorbed. For example, consumer expenditures accounted for just under two-thirds of GNP in 1961 and 1964, and such outlays represented about three-fifths of the growth in GNP during the intervening period. Private domestic investment (mainly spending on residential construction and business fixed investment) as a share of GNP was essentially the same in both years. Government purchases of goods and services in relation to GNP also showed little change. The Federal Government's absorption of output declined slightly in relation to GNP, primarily reflecting only a modest increase in defense spending. Net exports of goods and services (due mainly to a sharp rise in our trade surplus) expanded somewhat faster than the economy as a whole.

During these early years of the decade, the economy was still struggling to overcome the backlog of unused capacity inherited from the 1950's. For example, over the period 1953-60, GNP in current dollars grew at an annual average rate of 4.7 per cent; and after allowing for price increases, the rate of growth of real output was 2.4 per cent, compared with a long-term average rate of 4 to 4-1/2 per cent. Unemployment averaged over 5 per cent. Subsequently, the recession of 1961 held the rise in GNP in that year to 3.3 per cent in current dollars and to 1.9 per cent in real terms. Unemployment for that year was 6.7 per cent.

It was against this background of substantial unused resources that fiscal and monetary efforts were undertaken to stimulate economic expansion. These various measures need not be examined here. However, it should be recalled that they included special tax incentives for business investment adopted in 1962 and 1963 and a sizable reduction in

Federal income taxes in 1964. Here we see -- in the investment incentives -- the sowing of seeds which subsequently produced a major source of excess demand.

By 1964, outlays for business fixed equipment had become a main driving force behind the rise in economic activity. In the years 1961-62, such expenditures accounted for about 13 per cent of the growth in GNP, although they represented only 9 per cent of aggregate spending in 1961. In 1964 alone, the rise in such outlays was equal to 16 per cent of the expansion in GNP, and the share rose further to almost 20 per cent in 1964. In 1966, the proportion receded to 16 per cent of the increase in GNP, but the plant and equipment boom in the business sector remained a prime source of excess demand in that year.

Furthermore, it was in 1966 that the acceleration of military activity in Vietnam began to have a substantial impact on the domestic economy. Federal defense spending, which amounted to \$50 billion in calendar year 1964 (and which had risen by only \$2.2 billion during the years 1961-64), climbed by \$10.5 billion in 1966. This jump represented 17 per cent of the increase in GNP in that year. In the previous two years, there had been almost no change.

Federal spending for non-military goods and services registered virtually no net gain in 1966, and purchases by State and local governments rose at roughly the same rate as GNP. Yet, the advance in military spending in 1966 was large enough to lift to 31 per cent (from 16 per cent in 1965) the share of increased output absorbed by governments at all levels. In 1967, the Federal Government

sector became an even greater source of excess demand. It accounted for just under one-third of the expansion in GNP in that year, almost double the proportion in the immediately preceding year and nearly ten times what it was two years earlier. Again, the great bulk of the increase centered in defense spending, but non-military expenditures by the Federal Government also rose somewhat. During these four years (1964-67) of drastic shifts in both the composition and rate of growth of GNP, the consumer sector was not a major source of autonomous changes in the demand for output. In each year, it accounted for just over three-fifths of aggregate spending -- and (with one exception) for roughly the same proportion of the year-to-year rise in GNP. The one year in which this was not true was 1966, when personal consumption expenditures represented about half the expansion in total output -- as both the Federal Government and the business sector strove simultaneously to enlarge the share of resources at their command. Even in 1968, when the ratio of saving to disposable personal income declined to 6.8 per cent from 7.4 per cent recorded a year earlier, the proportion of the expansion in GNP absorbed by consumers decreased somewhat (to 60 per cent compared with 64 per cent in 1967). Nevertheless, since the actual rise in consumer expenditures in 1968 (\$42 billion) was substantially larger than the rise in the previous year (\$27 billion), the behavior of this sector certainly did not facilitate any easing of excess demand pressures.

Moreover, the business sector in which the rate of accumulation in inventories declined by \$9 billion in 1967 again expanded significantly its claims on resources in 1968. Outlays for fixed equipment rose by

\$6 billion, and net inventory investment accelerated by \$1.5 billion. Since spending on residential construction (which had declined in both 1966 and 1967) turned around sharply last year, this sector also added further to the strain on the nation's resources.

Financing of Excess Demand

While the above analysis focused on the attempts of leading sectors of the economy to enlarge their respective claims on output in recent years, we must not overlook the fact that these increased demands could not have been translated into claims on resources without an expansion of credit. For the most part, the banking system met the expanded demand for funds, and in turn their enhanced lending ability rested on the provision of reserves by the Federal Reserve System.

For example, net borrowing by the corporate business sector amounted to \$19 billion in 1965, and it rose further to \$23-1/2 billion in 1966 and to \$28 billion in 1967. In the third quarter of last year, such borrowing was at a seasonally adjusted annual rate of \$29 billion. The Federal Government, reflecting the growing budget deficit, greatly expanded its borrowings in the money and capital markets. On a net basis, it raised \$3.6 billion in calendar year 1965, and \$6.3 billion in 1966. By 1967, such net borrowing had risen further to \$12.7 billion. From mid-1967 on, the Federal Government's demands on the capital market were particularly strong -- because of the need to finance a budget deficit of \$25 billion in the fiscal year that ended last June 30. In the second and third quarters of calendar year 1967 and in the first quarter

of calendar year 1968, net Government borrowing was \$35 billion, \$29 billion and \$33 billion, respectively, at seasonally adjusted annual rates. Mainly because of the concentration of income tax receipts, there was little net borrowing in the second quarter of last year. However, in the third quarter, the net funds raised by the Government again totaled \$33 billion at a seasonally adjusted annual rate.

Looked at in a different perspective, the magnitude of these demands for funds takes on added significance. In 1965, corporate business accounted for just over one-quarter of the net funds raised by all nonfinancial sectors. During the next two years, corporate business' share of the total rose steadily -- to 34 per cent in 1966 and to 40 per cent in 1967. In the third quarter of last year, it was back to roughly one-quarter. The expansion of Government's net borrowing has been even more dramatic. In 1965, its share of the net funds raised was only 5 per cent. However, it rose to 9 per cent in 1966 and to 18 per cent in 1967. By the first quarter of last year, it had jumped to one-third of the total. After a sharp drop in the ratio in the second quarter, it had returned to over 27 per cent by the third quarter of 1968.

Partly to meet these demands for funds (and especially because of the sharp rise in Treasury debt financing) the Federal Reserve System considerably expanded the volume of funds supplied directly to credit markets -- particularly in 1967 and 1968. In 1965, Federal Reserve credit rose by \$3.8 billion. However, reflecting the severe credit restraint brought about in 1966 in an effort to restrain the emerging inflation, the Federal Reserve allowed a more modest increase (\$3.3 billion) in the

funds supplied to the market in that year. In 1967, as a whole, partly to aid the economy's adjustment to the liquidation of business inventories in the early months of that year, Federal Reserve credit rose by \$3.9 billion. But, as the enormous volume of Treasury borrowing moved through the capital markets in 1968, the Federal Reserve supplied \$8.3 billion directly to the market in the first quarter and \$10.2 billion in the third quarter -- all at seasonally adjusted annual rates.

In response to these developments, on a net basis, commercial banks also expanded sharply the volume of funds supplied to the credit markets. In 1965, such credit increased by \$29 billion. However, in the next year, under the impact of a restrictive Federal Reserve monetary policy, the net rise was kept to \$18 billion. In 1967, commercial banks supplied directly to the credit markets about \$36 billion on a net basis -- again reflecting the strong demands for funds by both the public and private sectors. Because these credit demands (and especially those of the Federal Government) had not subsided appreciably by the third quarter of last year, the net expansion in commercial bank credit in that period amounted to \$40 billion at a seasonally adjusted annual rate.

Of course, the Federal Reserve was not compelled to allow an increase in bank credit which in turn permitted a substantial part of the excess demand to be registered in the market place. But, in my personal judgment, a refusal to allow some expansion in bank credit over the last few years was not really a meaningful alternative. With so much of the excess demand originating with the Federal Government -- which can always command the best terms when it borrows to cover a budget deficit -- a

decision not to permit some increase in bank credit would have subjected the money and capital markets to far more strains than it is reasonable to expect them to bear. So, in my judgment, the best course for public policy is to see that large budget deficits are not allowed to generate excessive claims on real resources when the economy is already working at or close to capacity.

The Magnitude of Excess Demand Demand

It is relatively easy to identify the main sources of excess demand and its financing in recent years. However, trying to estimate the magnitude of the current inflation encounters a number of difficulties. In the first place, as argued above, there is no doubt that the pressure of aggregate demand on real resources accounts for a substantial share of the rapid rise in prices -- particularly since 1965. On the other hand, the expansion in real output during much of this period probably would not have been as large as it actually was in the absence of a strong demand for goods and services.

Despite the obstacles in trying to unravel the inter-relations among changes in demand, production and prices, one can devise a rough measure of the magnitude of excess demand and the current inflation. One approach is summarized in Table 2, showing changes in GNP traceable to the growth of domestic demand vs. net sales abroad and changes in real output vs. changes in prices since 1964. The acceleration in growth of aggregate demand through 1966 is clearly sketched. But the sharp rise in real output is also clearly marked. It will be noted that the real growth rates actually achieved in 1965 and 1966 substantially exceeded

the long-run rise of 4 - 4-1/2 per cent in real output. Against this background, the parallel acceleration in prices is also understandable. In 1964, although some inflation was evident (as measured by the 1.6 per cent rise in the implicit GNP deflator), almost four-fifths of the rise in GNP in that year represented an increase in real output. In contrast, in 1967, over half of the apparent gain was accounted for by higher prices. Last year, despite the fact that the rate of growth of real output rebounded sharply from that achieved in the previous twelve months, more than two-fifths of the increase in GNP still reflected price advances.

In terms of the U. S. balance of payments, the domestic inflation has also had seriously adverse consequences. The sizable increases in domestic demand have led to a sharp advance in imports which in turn has greatly narrowed our current account surplus. In 1964, exports of goods and services rose by \$2.6 billion more than the increase in imports. This rise in net exports represented over 6 per cent of the increase in GNP and was clearly of substantial benefit to our balance of payments. However, in 1965, net exports declined by \$1.6 billion compared with the year before. Since then, with the exception of 1967 when the slow-down in the pace of domestic activity moderated temporarily the rate of expansion of imports, net exports have dropped compared with the level in the previous year. By 1968, the year-to-year decline had reached \$2.3 billion.

Thus, the recent growth of domestic demand has outstripped the rise in domestic output, with a rise in imports making up the difference.

On the other hand, without the sharp rise in imports, domestic prices probably would have risen much faster than they actually did during these years. But in any case, domestic inflation has had a major adverse impact on the U. S. trade account and on the balance of payments as a whole.

Returning to the question of the over-all magnitude of excess domestic demand in recent years, a very rough calculation suggests that such demand may have been in the neighborhood of \$20 billion or more in 1968. In 1964, there may have been a deficit of \$2-1/2 billion in aggregate demand -- because of substantial under-utilization of resources.^{1/} Beginning in 1965, however, the situation changed strikingly. In that year, the total demand for goods and services may have run ahead of total production at reasonably constant prices by more than \$4 billion. Over the next three years, the corresponding estimates were: 1966, \$10 billion; 1967, \$13 billion, and 1968, \$21 billion. After allowing for a sharp deterioration in the trade account, almost all of this excess demand last year had to be absorbed by an increase in prices greater than normal.

^{1/} These estimates were obtained by using a technique developed by E. M. Bernstein and I. G. Patel. Essentially, "excess domestic demand" is defined as the amount by which aggregate domestic demand increased in a given period more than output at "normal" prices. The increase in aggregate domestic demand is defined as the rise in GNP minus the increase in net exports of goods and services, valued at current prices. The increase in output at normal prices is taken as the current year's real output at the previous year's prices -- adjusted for a specified rise in the implicit GNP price deflator, assumed to be 1.5 per cent under current conditions in the U. S.

Let me stress again that these rough estimates of the magnitude of excess demand that has prevailed over the last few years are simply approximations. As emphasized above, a sizable share of the rise in aggregate demand over this period represented an increase in real output substantially above that suggested by the long-run trend. Undoubtedly, some part of this enlarged supply of real goods and services served to moderate the pace of inflation. But however one may judge the reasonableness of the above quantitative estimates, the presence of a considerable amount of excess demand in the economy cannot be disputed.

As I mentioned at the outset, the really critical question relates to the probable impact on unemployment of a slower rate of expansion in output brought about as a necessary condition to halt inflation.

Economic Growth and Unemployment

The relationship between changes in real output and unemployment has been studied by a number of economists. Several years ago, Arthur Okun, now Chairman of the Council of Economic Advisers, undertook such an examination. Among other results, he found that, for the economy as a whole, a 4 per cent rate of growth was about the minimum required to absorb the increase in the labor force and to compensate for disemployment associated with improvements in productivity. From this minimum rate, each 1.0 per cent increase in real GNP reduced the unemployment rate by about 0.30 percentage point.

About three years ago, I undertook a study similar to Okun's. However, I concentrated on the behavior of unemployment rates for several

marginal groups in the labor force (especially nonwhites and youths) in response to changes in real GNP during the years 1954-65. I found (as Okun did) that a 1.0 per cent growth in GNP above the growth rate necessary to keep the unemployment rate constant would reduce the aggregate unemployment rate by about 0.30 percentage points. But I also found that the unemployment rates for nonwhites and youths are far more (and those for whites somewhat less) sensitive to changes in GNP than the rate for the total labor force.

Recently, I have re-examined the question, and the results greatly strengthen the conclusions obtained earlier.^{1/} In Table 3, the most important of the findings are summarized.^{2/} The first thing to note (which one would expect) is that it makes a great deal of difference in terms of the responsiveness of unemployment whether real GNP is rising

^{1/} The most recent study was undertaken with the assistance of Miss Ruth A. Fabricant of the Board's staff. In the earlier model, a symmetrical relationship was assumed to hold between unemployment and real GNP for positive and negative growth rates of output. To test for the presence of asymmetry, the latest model, based upon previous work of Lester Thurow, was created by entering positive and negative rates of growth of output separately.

The statistical technique used to derive these estimates was a multiple regression equation relating the change in the unemployment rate to rates of growth in real output. Regressions were fit to seasonally adjusted quarterly unemployment data for the period IV 1954 to II 1968, cross-classified by age, sex and color. The results can be used for predictive purposes assuming no structural changes.

^{2/} Although not shown in Table 3, the multiple correlation coefficient (which in this case measures the degree of variation in unemployment explained by changes in real output) suggests that the unemployment rates for adult males have the greatest sensitivity to output growth and the rates for adult women have somewhat less sensitivity. Youth unemployment rates show little relationship to GNP changes, particularly the nonwhite group. The unemployment rate -- GNP relationship is not as strong for nonwhites as for whites.

or declining. For example, a change of 1.00 per cent in the rate of growth of real GNP -- when output is expanding -- leads to a change of roughly .303 points in the rate of total unemployment, .175 points in the current quarter and .128 points in the following quarter.^{1/} On the other hand, a change of 1.00 per cent in the rate of growth of real GNP -- when output is actually declining -- changes the total unemployment rate by .627 percentage points -- an amount twice that for an expansion of output. The same pattern is evident when unemployment is classified by color -- simply more dramatic: for whites the changes are .292 and .528 points respectively for a 1.00 per cent change in the rate of growth of real GNP in periods of growth vs. periods of decline. The corresponding changes for nonwhites are .366 and 1.336 points.

Table 3 also shows several other interesting differences in the general reaction patterns of the three main groups to changes in output. For example, it appears that if the economy were not to grow at all in real terms (although not declining either), the total unemployment rate might rise in the short run by .214 percentage points per quarter.^{2/} In other words, a zero rate of growth of GNP does not insure a constant unemployment rate. It is necessary to provide employment growth to offset increases in productivity of labor and growth of

^{1/} For every unemployment group, the best estimates were obtained by using output growth both in the current quarter and output growth lagged by one quarter. This suggests that perhaps six months are needed for the reaction of unemployment to change in GNP to be completed.

^{2/} Of course, if the economy ceased growing for a protracted period, additional factors would come into play and likely result in an accelerated rise in unemployment.

the labor force. To yield no change in unemployment, positive rates of output growth are required.

The Table also shows that, on the basis of the experience during the period studied, it requires a real growth rate of about 3.7 per cent per year to hold the total unemployment rate constant. The required growth rate to do the same for nonwhites is not appreciably higher. The rate of increase in real output required to reduce the unemployment rate of nonwhites by 1.0 percentage points in one year is about the same as for whites (6.7 per cent vs. 7.0 per cent -- for both whites and the total labor force). Since the unemployment rate for nonwhites has tended to be about double that of white workers, the relative impact on nonwhite unemployment rates would be about half that on white rates.

On the basis of these results, I conclude that a national policy to end the current inflation might result in some increase in unemployment, and the impact may not be shared equally.

Concluding Remarks

As I said at the outset, I am convinced that we cannot tolerate the conditions of inflation in the United States at the rate evident in the last few years: thus, there is no doubt in my own mind that we must press onward with the task of bringing inflation to an end. At the same time, however, I also appreciate the fact that we cannot reach that objective unless we can also reduce the pressures caused by aggregate demand for goods and services growing more rapidly than our ability to supply such demand at constant prices. Since achieving the

desired moderation in the rate of expansion of real output may very well lead to higher unemployment (especially for those groups marginally placed in the labor force), I think it is vital that we undertake training programs (in both the public and private sectors) which would particularly equip members of such groups to withstand the lessened rate of growth of job opportunities.

That real progress can be made in this direction is amply illustrated by the sharp reductions which have been accomplished in recent years in the backlog of long-term unemployment. For example, in 1964, the number of workers unemployed for 15 weeks or more averaged more than 950,000. Since then the level has dropped steadily year-by-year, so that that in 1968 it averaged just over 400,000. Moreover, the decline which occurred during 1968 was particularly sharp, and by December the number in this category was just over 300,000.

So let me say again, I am still optimistic about the prospect of ending the current inflation without creating excessively high levels of unemployment.

Table 1. Gross National Product and Expenditure, 1961-1968
(Amounts in billions of dollars)

Output and Expenditure	1961		1964		1968 ^{e/}		Distribution of Change					1968 ^{e/}
	Amount	Percent	Amount	Percent	Amount	Percent	1961/64	1964	1965	1966	1967	
Gross National Product	520.1		632.4		860		112.3	41.9	52.5	62.8	42.0	70.6
Percent		100.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0
Personal Consumption Expenditures	335.2	64.4	401.2	63.4	535	62.1	58.8	62.5	60.2	52.1	63.6	59.9
Gross Private Domestic Investment	71.7	13.8	94.0	14.9	126	14.7	19.9	16.5	26.9	20.2	-15.5	16.9
Residential Construction	22.6	4.3	27.1	4.3	30	3.5	4.0	0.2	0.2	-3.8	-0.5	7.4
Bus. Fixed Equip.	47.0	9.0	61.1	9.7	89	10.4	12.6	16.2	19.4	15.9	5.5	8.1
Government Purchases of Goods and Services	107.6	20.7	128.7	20.4	197	22.9	18.8	14.8	15.8	30.6	52.9	26.5
Federal	57.4	11.0	65.2	10.3	100	11.6	6.9	2.4	3.2	16.7	31.4	13.5
Defense	47.8	9.2	50.0	7.9	79	9.2	2.0	-	0.2	16.7	28.1	9.1
Net Exports of Goods and Services	5.6	1.1	8.5	1.3	3	0.3	2.6	6.2	-3.0	-2.9	-0.7	-3.3

Source: U. S. Department of Commerce. Figures for 1968 are estimates.

Table 2. Composition of Changes in Gross National Product, 1964-68
 (Amounts in billions of dollars)

Period	GNP (Current Dollars)	Change in GNP (Current Dollars)	Source of Change in GNP		Composition of Change in GNP (Per Cent Change)		
			Domestic Demand	Net Exports	GNP (Current Dollars)	Real Output	Prices
1964	632.4	41.9	39.3	2.6	7.1	5.5	1.6
1965	684.9	52.5	54.1	-1.6	8.3	6.3	2.1
1966	747.7	62.8	64.6	-1.8	9.2	6.4	2.8
1967	789.7	42.0	42.3	-0.3	5.6	2.4	3.2
1968 ^{e/}	860.3	70.6	72.9	-2.3	9.0	5.1	3.9

^{e/}NOTE: GNP for 1968 is estimated.

Table 3. The Rate of Economic Growth and the Responsiveness of Unemployment 1/

Type of Unemployment	Effect on Unemployment Rate of a Marginal Change in Real Output			Annual Rate [*] of Growth of Real Output Required:	
	1.0 Per Cent Increase in GNP	1.0 Per Cent Decrease in GNP	Zero Change	To hold the unemployment rate constant (Per Cent)	To reduce the unemployment rate by 1.0 percentage points in one year
Total	-.303	+.627	.214	3.7	7.0
Males, adult	-.305	+.639	.202	3.5	6.8
Females, adult	-.260	+.521	.185	3.6	7.5
Youths	-.549	+.845	.490	4.0	5.8
Whites	-.292	+.528	.215	3.6	7.0
Males, adult	-.297	+.532	.210	3.5	6.8
Females, adult	-.250	+.464	.186	3.7	7.7
Youths	-.569	+.695	.513	3.8	5.5
Nonwhites	-.366	+1.336	.168	4.0	6.7
Males, adult	-.396	+1.497	.127	3.5	6.0
Females, adult	-.328	+1.014	.177	3.8	6.9
Youths	-.464	+1.983	.418	6.2	8.4

Note: Adults are 20 years of age and over. Both males and females, 16-19 years old, are classified under youths.

1/ Derived from regressions fitted to quarterly data covering the period IV 1954 to II 1968.