Chapter 2

Domestic Economic Policy for the Mid-1960's

THE PROGRESS of the American economy in 1961 and 1962, and the further advance expected in 1963, have been discussed in Chapter 1. The record is one of steady gains in output, progress toward balance in our international accounts, maintenance of reasonable price stability, and a steady rise in incomes which—although moderate in money terms—translates almost entirely into higher living standards. These are achievements which we all welcome.

But this record is not good enough. Since 1957, progress in creating new jobs, absorbing idle capacity, and achieving a satisfactory rate of growth has not measured up to our earlier postwar performance; neither has our competitive position in the world improved sufficiently to solve our balance of payments problem. Our economy has not met the standards rightly expected of it by the American people. Given effective public and private action to make full use of our human and physical resources, our economy could readily be producing at a rate $30–40 billion higher than it is. Given effective policies, as discussed in Chapter 4, our balance of payments problem can be solved.

Our review shows that progress is not likely to be interrupted in the near future by a recession of the type experienced in 1949, 1953, 1957, and 1960. Thus we do not now face a cyclical emergency compelling immediate action. But the record does disclose that, for more than 5 years, the U.S. economy has lacked the buoyancy and vigor which spell full employment and rapid growth. The unemployment rate since mid-1957 has averaged 6 percent. Excess manufacturing capacity has averaged 5 percentage points higher than in the preceding decade. The result has been smaller advances in total payrolls and profits, and lower levels of investment and consumption, than we are willing to, or need to, accept.

Unemployment and excess capacity also take their toll by slowing down our long-run growth. They weaken the vital incentive to expand capacity and to innovate. They hold many of our resources—especially our human resources—in inferior uses. And they often generate resistance to mechanization and superior technology.

The need for early action lies, then, not in imminent recession but in continued waste of manpower and machines, and in thwarted opportunities for more rapid growth. Any program adequate to the task will take time

to enact and to become fully effective. Two recessions and two incomplete recoveries in the past five years bear witness that there is ample cause for action and no cause for delay.

FISCAL POLICY FOR FULL EMPLOYMENT AND GROWTH

The pace of expansion foreseen in business, consumer, and government expectations promises no easy resolution of our problem. Indeed, the prospective pace of expansion in 1963 promises little if any reduction of unemployment, little if any narrowing of the gap between actual and potential output. Positive action to invigorate the economy is required to reverse the record of the past 5 years and bring output, employment, and income up to their potential.

Accordingly, the President is recommending a major program of tax reduction and tax reform to expand private purchasing power and to strengthen private incentives—a program which will thus attack the problem of idle men and machines at its source and provide new vigor to the forces for expansion of the U.S. economy. It is the key instrument of policy for meeting our responsibilities for high employment and faster economic growth in the mid-1960's.

By reducing taxes, stimulating cost-cutting investment, strengthening incentives, and promoting a more efficient allocation of productive resources, a balanced tax program serves to lower unit costs. It thereby lays a firmer foundation for continued price stability and an improved U.S. competitive situation in world markets.

This chapter will examine the employment and growth objectives which confront tax and other economic policy this year, summarize the major elements of the proposals for tax reduction, examine the process by which tax revision generates higher levels of economic activity, consider monetary and debt management policies appropriate for complementing the tax changes while aiming at international equilibrium, and review briefly other policies for economic expansion.

GOALS OF HIGH EMPLOYMENT AND FASTER GROWTH

Need for more jobs

Today's unemployment, excessive as it is, provides only a partial measure of the employment problem confronting us—the problem that gives us the most dramatic single index of the need for tax action. The measure of the problem can be illustrated by the number of new jobs that would be needed to reduce unemployment to 4 percent by the end of 1963. This number can be divided into four parts:

1. The jobs needed to reduce unemployment among the present labor force from 5.6 percent even to 4.0 percent: 1.1 million.

2. The jobs needed to employ the added workers who would be drawn into—or drawn back into—the labor market by strong employment opportunities: perhaps 800,000 within a year (a larger number as unemployment remained at 4 percent.)
3. The jobs needed to employ the normal annual increase in the labor force: in 1963, an estimated 1.2 million.
4. The jobs needed to absorb the workers released from their present employment by mechanization, by technological advance, by improved organization and management, in a word, by rising productivity—jobs required merely to "hold our own" rather than to absorb today's unemployed or tomorrow's new entrants into the labor force.

The fourth category represents the replacement jobs needed, the other three, totaling 3.1 million, the extra jobs needed, to achieve the 4 percent unemployment level by the end of 1963. Raising the total number of jobs by 3.1 million would represent an increase in employment of 4.7 percent from December 1962 to December 1963, exceeding the rate of increase for any postwar year except the boom year 1955. And to supply, net, 3.1 million *additional* jobs, would require creating an even larger number of *new* jobs in 1963.

Costs of unemployment

Unemployment is an important index of economic slack and lost output, but it is much more than that. For the unemployed person, it is often a damaging affront to human dignity and sometimes a catastrophic blow to family life. Nor is this cost distributed in proportion to ability to bear it. It falls most heavily on the young, the semiskilled and unskilled, the Negro, the older worker, and the underemployed person in a low income rural area who is denied the option of securing more rewarding urban employment. Especially serious is the discouragement, disillusion, and bitterness generated among young people, entering the labor market for the first time, when the economy leaves them without opportunities of finding employment.

The concentrated incidence of unemployment among specific groups in the population means far greater costs to society than can be measured simply in hours of involuntary idleness or dollars of income lost. The extra costs include disruption of the careers of young people, increased juvenile delinquency, and perpetuation of conditions which breed racial discrimination in employment and otherwise deny equality of opportunity.

There is another and more subtle cost. The social and economic strains of prolonged underutilization create strong pressures for cost-increasing solutions. The longer the economic slack continues, the more difficult it is to resist the efforts of its victims to claim, often quite plausibly, prosperity incomes out of undercapacity output. On the side of labor, prolonged high unemployment leads to "share-the-work" pressures for

shorter hours, intensifies resistance to technological change and to rationalization of work rules, and, in general, increases incentives for restrictive and inefficient measures to protect existing jobs. On the side of business, the weakness of markets leads to attempts to raise prices to cover high average overhead costs and to pressures for protection against foreign and domestic competition. On the side of agriculture, higher prices are necessary to achieve income objectives when urban and industrial demand for foods and fibers is depressed and lack of opportunities for jobs and higher incomes in industry keep people on the farm. In all these cases, the problems are real and the claims understandable. But the solutions suggested raise costs and promote inefficiency. By no means the least of the advantages of full utilization will be a diminution of these pressures. They will be weaker, and they can be more firmly resisted in good conscience, when markets are generally strong and job opportunities are plentiful.

Demand and employment

The demand for labor is derived from the demand for the goods and services which labor participates in producing. Thus, unemployment will be reduced to 4 percent of the labor force only when the demand for the myriad of goods and services—automobiles, clothing, food, haircuts, electric generators, highways, and so on—is sufficiently great in total to require the productive efforts of 96 percent of the civilian labor force.

Although many goods are initially produced as materials or components to meet demands related to the further production of other goods, all goods (and services) are ultimately destined to satisfy demands that can, for convenience, be classified into four categories: consumer demand, business demand for new plants and machinery and for additions to inventories, net export demand of foreign buyers, and demand of government units, Federal, State, and local. Thus gross national product (GNP), our total output, is the sum of four major components of expenditure; personal consumption expenditures, gross private domestic investment, net exports, and government purchases of goods and services.

The primary line of attack on the problem of unemployment must be through measures which will expand one or more of these components of demand. As will be explained more fully below, the tax reduction program being proposed for enactment in 1963 will reduce unemployment by increasing the consumption and investment components of demand, thus raising production and creating new jobs.

Full employment, however defined, is a moving target. The GNP needed to achieve full employment is also a moving target; indeed, it moves faster than the employment target. The GNP target rises from year to year not only because the labor force increases but also because output per worker grows each year, as new technology is introduced, as workers are better educated and trained, and because capital investment provides each worker with more as well as better tools and machinery with which to work.

As an illustration of these relationships, based on average experience in the past, GNP in 1962 prices must grow by about 3½ percent a year, or nearly $20 billion in 1963, merely to keep the average unemployment rate at the 1962 level. To have the unemployment rate fall by 1 percentage point in the course of a year, GNP in constant prices would have to grow by an additional 3 percent, or a total of about 6½ percent. For the unemployment rate to be reduced from 5.6 percent to 4 percent within one year would require an 8 to 9 percent increase in GNP at constant prices.

Once a satisfactory level of employment has been achieved in a growing economy, economic stability requires the maintenance of a continuing balance between growing productive capacity and growing demand. Action to expand demand is called for not only when demand actually declines and a recession appears but even when the rate of growth of demand falls short of the rate of growth of capacity.

Structural aspects of unemployment

Although increased demand must be the major line of attack on unemployment, other measures are needed as well. Some workers are unemployed because they are not properly trained. Some are unemployed because they are geographically separated from the places where jobs are opening up and they are unaware of the existence of such opportunities. As a result of insufficient geographic and occupational mobility, bottlenecks and shortages of particular types of labor may occur as job opportunities expand at a time when there are still many unemployed workers.

A high percentage of the currently unemployed are unskilled and teenagers. But past periods of expansion have demonstrated industry's capacity for employing and training large numbers of persons who were considered unemployable in times of slack. If the total demand for labor expands, hiring specifications may be made less rigid, jobs redesigned, and on-the-job training programs expanded. But past experience also makes it clear that to facilitate the reduction of unemployment to minimum levels without undue upward pressure on wages and prices calls for vigorous government measures to improve the mobility and skill structure of the labor force.

Such measures as the Manpower Development and Training Act of 1962 and the "adjustment" provisions of the Trade Expansion Act of 1962 (both of which are outlined in Appendix A) will help to bring employee skills into better balance with employers' job requirements and to improve the geographic balance of labor supply and demand. These measures are an integral part of a program to reduce unemployment to a minimum. The policy circle will be closed only when markets for goods and services are strong enough to create new jobs for the retrained and relocated workers. The problems of structural unemployment and the key role of labor mar-

ket policy will be further developed in the first annual Manpower Report of the President, to be issued early this year.

It would be wrong to think of the problem of structural adaptation of our manpower supply only in terms of re-adapting present members of the labor force to new jobs. Much of the matching of supplies of skills with demand for them must take the form of appropriate education and training of new entrants into the labor force. The importance of this factor becomes readily apparent when we consider that nearly one-third of all workers in our labor force in 1970 will have entered it during the 1960's. By correctly anticipating the economy's needs for upgraded knowledge and skills, and aiming our education and training efforts to meet them, we can steadily improve the fit of available manpower to available jobs.

Success in a combined policy of strengthening demand and adapting manpower supplies to evolving needs would enable us to achieve an interim objective of 4 percent unemployment and permit us to push beyond it in a setting of reasonable price stability. Bottlenecks in skilled labor, middle-level manpower, and professional personnel tend to become acute as unemployment approaches 4 percent. The result is to retard growth and generate wage-price pressures at particular points in the economy. As we widen or break these bottlenecks by intensified and flexible educational, training, and retraining efforts, our employment sights will steadily rise.

But reaching an interim goal, a way-station, of 4 percent would be no small achievement in itself. The benefits would be felt by all, but particularly by those who bear the brunt of today's unemployment—the one in eight teenagers, the one in eight unskilled workers, the one in nine Negroes. However, an unemployment rate of 4 percent is an unacceptable target. Therefore, we must expand the various programs that would assist us in pushing below it.

The growth objective

Economic policies for 1963 couple pursuit of employment objectives with stimulation of more rapid economic growth. U.S. growth has been lagging. From 1955 to 1962, the economy's potential grew at an estimated annual rate of 3½ percent, nearly a percentage point lower than its growth rate from 1947 to 1955. Actual output grew even more slowly, averaging 2.7 percent a year in the 1955–62 period. This performance falls short of our aspirations, both as stated by the President and as translated into our share of the Organization for Economic Cooperation and Development commitment to a 50-percent growth target for the 1960's (for the 20 member nations as a group). These aspirations can be realized only by stepping up our growth rate to 4 percent and beyond as we move through the decade.

Our commitment for the pursuit of policies for faster growth is not only to our allies in the Atlantic community; it is first of all to ourselves. More rapid economic growth raises living standards, enhances job oppor-

tunities, and permits satisfaction of many needs now beyond our reach—in short, it improves the quality of our lives. But it does more. It builds a broader base for free world leadership, not only in easing the burdens of defense and foreign aid but, more important, in demonstrating the continued capacity of a free market economy to expand production, improve distribution, and increase well-being.

Fuller utilization of existing resources provides the primary spur to growth; indeed, it is a virtual prerequisite to speedier growth. A tax program aimed at high employment simultaneously stimulates growth by (1) pushing production increasingly toward higher use of plant capacity and thereby stimulating new investment to expand that capacity, (2) drawing more workers into the labor force and upgrading others from inferior to superior uses, (3) decreasing the resistance of labor and management to the risks of technological change, and correspondingly relaxing the grip of restrictive practices, (4) providing a business climate which tests ingenuity and invigorates a spirit of boldness and innovation, and (5) increasing the profitability of business investment, and generating an enlarged flow of funds to finance such investment.

More directly, as discussed below, the 1963 tax program will provide business with greater incentives and financial ability to invest in new capacity and new products. Incentives to risk-taking and to human effort will be strengthened by rising markets for goods and services, which increase the flow of profits, and by lower tax rates, which increase business profitability and personal disposable income. A lowering and restructuring of income tax rates will be the major stimulus to growth. But the 1963 tax program will also contribute significantly to the growth objective by removing or reducing tax distortions which interfere with the optimal use of resources. Tax reforms to promote a more even-handed treatment of income from different sources will contribute to a more efficient allocation of investment and manpower, i.e., to greater output per unit of input.

While the proposed 1963 tax actions are central to a program for faster growth, a rounded policy embraces many other measures. A later section of this chapter deals with selected additional aspects of the growth program.

A TAX PROGRAM FOR THE MID-1960'S

The Administration's 1963 tax program will be presented in a forthcoming Presidential message. Its major outlines are sketched here to serve as the basis for a review of its impact on total demand and thus on production, income, and employment.

In the first stage, beginning on July 1, 1963, the rate reductions will cut individual liabilities by a total of $6 billion at annual rate. For wage-earners, most of this cut will be translated immediately into greater take-home pay, through a reduction in the withholding rate; other taxpayers will realize the benefit of this reduction in rates by adjusting their quarterly tax payments; some will receive refunds during the first half of 1964 for

overpayment of 1963 tax liabilities. Further reductions will occur in the rates applicable to 1964 and 1965 incomes, and these will be offset only partially by enlargements of the tax base.

The proposed gross annual reduction in individual and corporate income tax liabilities, ocurring in three stages, is estimated at $13½ billion, based on current levels of income. Most of this gross reduction—$11 billion—is in individual income tax liabilities. The proposed final rate structure will range from 14 to 65 percent, contrasted with the present range of 20 to 91 percent. The largest part of the total reduction will be received by the lower and middle income groups of taxpayers.

The corporate profits tax rate will be reduced in stages from the current 52 percent to 47 percent. This represents a reduction in corporate tax liabilities of about $2½ billion annually at current levels of profits. Payment of corporate income taxes will, however, be placed on a more nearly current basis, adding about $1½ billion annually to administrative budget revenues for the next several years.

In addition to the tax rate reductions described above, the program incorporates structural changes—offsetting about $3½ billion of the rate reduction—designed to improve the equity of the tax system and to encourage greater efficiency in the use of resources. The present income tax system contains numerous provisions that allow special treatment for income derived from particular sources, for expenses incurred in certain ways, for capital gains that are sometimes thinly disguised transformations of current income. Such exceptions have a number of consequences: (1) they provide a strong element of "horizontal" inequity, taxing differently persons in essentially similar income positions; (2) they complicate enormously the task—for the taxpayer and the Government—of ascertaining any individual's liability, and they divert energies from productive activities to tax avoidance and enforcement; (3) because some forms of production receive preferential tax treatment, resources are allocated to the production of certain goods at the expense of others whose value to the economy is greater; and (4) because they reduce the tax base, the exceptions compel higher rates on incomes that remain subject to tax, compounding the inequity and resulting in rates that may interfere with incentives to work, to assume risks, and to invest.

To eliminate in a single step all forms of unjustifiable special treatment is not feasible. But the President's program will make decisive progress in this direction.

Much, though not by any means all, of the income that currently escapes full taxation is received by persons who are, or would be, in the higher income tax brackets, paying rates on marginal income ranging up to 91 percent. The very height of these rates is, of course, partly the reason

for the exceptions: taxpayers looking for ways to escape rates which seem oppressive have sought special treatment, and have often obtained sympathetic response. Those high rates, where paid, undoubtedly have a dampening effect on incentives to invest and take risks; and they impair the ability to accumulate investment funds. Since a higher rate of investment of risk capital is essential to a higher rate of growth, it is appropriate to reduce significantly the highest income tax rates at the same time that a more comprehensive tax base is provided. For these reasons, the President is recommending a top marginal rate of 65 percent on taxable income, together with measures to deal with tax preferences that pull resources away from their most efficient uses.

TAX REVISION: IMPACT ON OUTPUT AND EMPLOYMENT

Tax reduction will directly increase the disposable income and purchasing power of consumers and business, strengthen incentives and expectations, and raise the net returns on new capital investment. This will lead to initial increases in private consumption and investment expenditures. These increases in spending will set off a cumulative expansion, generating further increases in consumption and investment spending and a general rise in production, income, and employment. This process is discussed in some detail in this section. Tax reduction may also have financial effects associated with the increased budget deficit that it will initially produce. Since these effects—in the first instance, at least—depend on the methods used to finance the deficit, they are left for discussion in a later section dealing with monetary and debt management policy.

Initial effects: consumption

Effects on disposable income. The proposed reduction in personal income tax rates will directly add to the disposable income of households. In addition, the reduction in corporate tax rates will increase the after-tax profits of corporations as a result of which corporations may be expected to increase their dividend payments. The initial direct effect on the disposable income of households resulting from the entire program of tax reductions should be approximately $8½ billion, at current levels of income.

Consumer response to increase in disposable income. The ratio of total consumption expenditures to total personal disposable income has in each recent calendar year fallen within the range of 92 to 94 percent. Although there are lags and irregularities from quarter to quarter or even year to year, the change in personal consumption expenditures has in the past, after a few quarters, averaged roughly 93 percent of any change in personal disposable income. On this basis, the initial addition to consumer expenditures associated with tax reductions would be on the order of $8 billion, although all would not be spent at once.

Additions to after-tax incomes resulting from tax reduction are likely to be spent in the same way as other additions to income. The largest

part of the proposed tax reduction will be reflected in reduced withholding of taxes from wages and salaries, and therefore in larger wage and salary checks; thus, it will be indistinguishable from additional income arising from wage or salary increases, greater employment, or longer hours of work. Similarly, part of the reduced corporate taxes will be passed along to stockholders in increased dividend checks. Stockholders will not be able to identify the source of their additional dividends. Tax reduction dollars carry no identifying label, and there is no reason to expect recipients to treat them differently from other dollars.

Recent experience with tax reduction demonstrates clearly that additions to disposable income from this source are spent as completely as any other additions. Taxes were reduced by about $4.7 billion on May 1, 1948, retroactive to January 1, with resulting large refunds in mid-1949. Again taxes were cut, net, by about $6 billion, effective January 1, 1954, with further cuts later that year. Table 8 shows that the percentage of disposable income spent by consumers remained within the normal range of quarterly fluctuation during the periods following the enactment of each of these tax reductions.

TABLE 8.—*Personal consumption expenditures as percent of disposable personal income during two postwar periods of tax reduction*

1948–49		1953–55	
Quarter	Percent	Quarter	Percent
1948: I	97.3	1953: IV	91.5
II	94.0	1954: I	91.8
III	92.6	II	92.8
IV	93.2	III	93.0
1949: I	93.9	IV	93.2
II	95.2	1955: I	94.5
III	95.7	II	93.5

Note.—Based on seasonally adjusted data.

Source: Department of Commerce.

It is sometimes suggested that tax reductions which add only a few dollars to the weekly pay check of the typical worker would do little good even if the money was spent, since the amounts involved would not be large enough to permit major expenditures—say on washing machines or automobiles. Instead, the money would be "frittered away" on minor expenditures and would do little good for the economy. But all purchases lead to production which generates income and provides employment. Therefore, the purpose of tax reduction is achieved when the proceeds are spent on any kind of goods or services.

Actually, of course, tax reduction which expands take-home pay even by a relatively small amount each week or month may induce recipients to purchase durable goods or houses of higher quality, since the increased income would permit them to handle larger monthly installment payments. It may even induce a rearrangement of expenditure patterns and thus bring about purchases of durable goods that would not otherwise be made.

Initial effects: investment

Investment is a more volatile element than consumption in national expenditure. The timing and magnitude of its response to tax changes is less predictable. But a cut in tax rates on business income will stimulate spending on new plants and new machinery in two ways. First, it will strengthen investment incentives by increasing the after-tax profits that businessmen can expect to earn on new productive facilities. Second, it will add to the supply of internal funds, a large part of which is normally reinvested in the business (though part of this effect may initially be offset by the proposed acceleration of corporate tax payments).

Since the largest part of business investment is made by corporations, the proposed cuts in the corporate income tax are especially significant. But investments of unincorporated businesses will also be encouraged by cuts in personal income tax rates, especially in the upper brackets.

Two important reforms affecting the taxation of business income designed to stimulate investment in plant and equipment were put into effect during 1962: the new depreciation guidelines and the investment tax credit. (For details of these changes, see Appendix A.)

Evidence to date clearly indicates that these measures are already stimulating some capital spending that would not otherwise have taken place. The impact of the 1962 actions and the 1963 proposals to reduce taxes on business will, of course, differ from company to company and industry to industry, depending in part on the adequacy of their internal funds and their levels of capacity utilization. Though the speed of response may vary, industry after industry will begin to feel pressure on its capital facilities and funds as markets for its products are expanded by the 1963 tax program.

Furthermore, there are many individual companies for which the supply of internal funds is a constraint on investment, and many others that do not have excess capacity. Moreover, it is estimated that some 70 percent of the investment in plant and equipment is for modernization and replacement rather than expansion, that is, it is designed to produce new or better products, or to reduce production costs rather than primarily to expand productive capacity. For this large segment of capital spending, the stronger inducement to invest provided by the business tax changes already adopted and those now proposed will translate much more readily into actual purchases of plant and equipment.

As production expands and existing capacity is more fully utilized, the depreciation guidelines and the investment tax credit and the new business tax reductions will provide an even stronger stimulus to investment.

Cumulative expansion: the consumption multiplier

Tax reduction will start a process of cumulative expansion throughout the economy. If the economy is already undergoing slow expansion, this cumulative process will be superimposed upon it. The initial increases in spending will stimulate production and employment, generating additional

incomes. The details and timing of this process will vary from industry to industry. The first impact may be to draw down inventories rather than to expand production. But as inventories are depleted, retailers will quickly expand orders. As manufacturers' sales rise in response and their own inventories of finished goods decline, they will activate idle production lines, hire additional workers, place orders for materials and components. Thus the expansion will spread to other industries, leading to further expansion of production, employment, and orders.

Expanded sales mean increased profits. Increased employment means greater wage and salary income. Each additional dollar's worth of gross production necessarily generates a dollar of additional gross income.

But expansion does not proceed without limit. A considerable fraction of the value of gross production is shared with governments or becomes part of corporate retained earnings and does not become part of consumers' after-tax income. Some of the increase goes to pay additional excise and other indirect business taxes. Typically, when GNP is rising toward potential, corporate profits increase by about one-fourth of the rise in GNP. But a substantial part of this increase in profits is absorbed by Federal and State corporate income taxes, and another part is ordinarily retained by the corporations. Only the remainder is passed on to the households in dividend payments. Part of the additional wage and salary incomes associated with added production is absorbed by higher social security contributions. At the same time, increased employment means a drop in payments for unemployment insurance benefits.

When all of these "leakages" are taken into account, a little less than two-thirds of an additional dollar of GNP finds its way into the before-tax incomes of consumers in the form of wages, dividends, and other incomes. Part is absorbed by personal taxes, Federal, State, and local. The increase in personal disposable income is 50 to 55 percent. Of this amount a small fraction—about 7 percent—is set aside in personal saving, and the remainder—about 93 percent—is spent on consumption, as indicated earlier. Thus, out of each additional dollar of GNP, initially generated by the tax cut, roughly half ends up as added consumption expenditure. But the process does not stop here.

The additional expenditure on consumption that is brought about by the rise in GNP generates, in its turn, further production, which generates additional incomes and consumption, and so on, in a continuous sequence of expansion which economists call the "multiplier process." The "multiplier" applicable to the initial increase in spending resulting from tax reduction, with account taken of the various leakages discussed above, works out to roughly 2. If we apply this multiplier only to the initial increase in consumption (about $8 billion), the total ultimate effect will be an increase in annual consumption—and in production (and GNP)—of roughly $16 billion. Lags in the process of expansion will spread this increase in GNP over time, but studies of the relationships between changes in disposable income,

consumption, and production of consumer goods suggest that at least half of the total stimulus of an initial increase in disposable income is realized within 6 months of that increase.

Cumulative expansion: the investment response

Tax reduction will also have important cumulative indirect effects on investment in inventories and in fixed productive facilities. These effects are much more difficult to predict than the induced effects on consumption.

Inventory investment. The stocks of goods that businessmen wish to hold depend upon current and expected rates of sales and production and the volume of new and unfilled orders, as well as on price expectations and other factors. An expansion of aggregate demand can be expected to raise business inventory targets. Production for inventory will generate further increases in demand and income over and above the multiplier effects discussed above, and will in turn induce further increases in consumption spending.

Inventory investment is volatile, and induced inventory accumulation can add significantly to the expansionary effects of tax reduction within a few months. At the same time, it should be recognized that inventory investment is exceedingly difficult to forecast. As the increase in production and sales tapers off, stocks and the rate of inventory investment will be correspondingly adjusted.

Business investment in plant and equipment. A tax reduction large enough to move the economy toward full employment will also stimulate business investment in plant and equipment. General economic expansion will reinforce the initial stimulus to investment of cuts in business taxes. In the first place, narrowing the gap between actual and potential output—now estimated at $30–40 billion—will increase the utilization of existing plant and equipment. As excess capacity declines, more and more businesses will feel increasing pressure to expand capacity. At the same time, increases in the volume of sales and in productivity will raise corporate profits—in absolute terms, relative to GNP, and as a rate of return on investment. Internal funds available for investment will rise, while at the same time higher rates of return on existing capital will cause businessmen to raise their estimates of returns on new investment. When investment incentives are strengthened by rising demand, internal funds are more consistently translated into increased investment than when markets are slack.

Residential construction. The demand for housing depends on growth in the number of families, on the existing stock of houses, and on the cost and availability of mortgage credit. But housing demand also responds, to some extent, to changes in disposable income. Thus, tax reduction will have some direct effect on residential construction. And as production, employment, and income generally expand, the demand for new homes can be expected to increase further. This increase will, in turn, reinforce the other expansionary effects of tax reduction.

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State and local government expenditures

State and local government units have found it difficult to finance the needed expansion of their activities. Given the present importance of income and sales taxes in State and local tax systems, government revenues at the State and local level expand automatically as GNP rises. The additional State-local revenues generated by economic expansion will assist these governments to meet their pressing needs. Moreover, since Federal tax liabilities are deductible under many State income tax laws, reduction in Federal tax rates will automatically generate some further addition to State-local tax revenues. Finally, a reduction in Federal taxes will enlarge the tax base available to State and local government units and may make it easier for them to raise rates or impose new taxes.

Undoubtedly, some of the added State-local tax revenues will be used either to retire existing debt or to reduce current borrowing rather than to increase expenditures. Whether the net result will be expansionary will depend upon whether the proportion of additional tax revenues spent on goods and services by State and local government units is greater or smaller than the proportion which would have been spent by the taxpayers from whom they collect the additional taxes. But whether or not the response of State and local government units is such as to strengthen the aggregate impact of Federal tax reduction on income and employment, the Federal tax program will ease, to some extent, the problems of these units in obtaining revenues needed to finance urgent public activities, such as education, transportation facilities, and urban development.

Summary of effects on GNP

Tax reductions for consumers will have initial direct effects on the demand for goods and services, as consumers raise their spending level to reflect their higher after-tax incomes. Corporate tax reductions and the lower tax rates applicable to the highest personal income brackets will stimulate investment directly, through raising the rate of return on new investments and providing additional funds for their financing. Some of the tax reforms will also have a directly stimulating effect on productive investment.

These direct or initial effects on spending would occur even if total output, employment, and incomes remained unchanged. But the increased spending cannot fail to increase total output, employment, and incomes. And as activity responds to the initially increased level of spending, cumulative impacts begin to develop in which the several elements interact to carry the expansion far beyond its initial point.

The higher incomes which consumers receive from the added production of both consumer and capital goods will lead to a further step-up in the rate of spending, creating further increases in incomes and spending. The same expansion process raises rates of capacity utilization, thereby interacting with the initial impact of tax reduction on business incomes to make investment both for modernization and expansion more profitable.

This in turn generates higher consumer incomes and more spending, helping to provide the added demand which justifies the higher investment.

If there were no investment stimulus—either initially, or as a result of the cumulative process of expansion—we could expect that GNP would ultimately expand by about $16 billion. If the result were no more than this, the tax reduction would still be abundantly rewarding in terms of greater production, employment, purchasing power, and profits. What will really be given up to produce added output will be only unwanted idleness of workers (whose families have reduced neither their needs nor aspirations) and incomplete utilization of plant and machinery (which have continued to depreciate).

But the pay-off is much more than this purely consumption impact. There is also an investment impact, and each extra dollar of investment that is stimulated should bring roughly another dollar of added consumption and encourage still further investment.

A strong expansion can alter profoundly the whole climate within which investment decisions are made. If not at once, then somewhat later, subtle but significant changes in business attitudes occur in response to the trend in the economic outcome. We have referred earlier to the cautious investment attitudes that more than 5 years of slack markets have generated. This caution did not arise at once in mid-1957, when output first began to fall away from the track of potential expansion. It developed gradually, fed on itself, and in part helped to justify itself. The reverse can and will happen.

No one can pretend to estimate with precision the ultimate impact of a program so far-reaching as that which the President will propose: it would come into operation in stages extending from July 1, 1963 to January 1, 1965, and its effects would cumulate and spread into 1966 and beyond.

Our study of the program, and our tentative projections based upon it do, however, convince us that the program measures up to the challenge that the 1960's present to our economy: that it will surely set us on a path toward our interim employment target; and that it will lay the foundation for more rapid long-run growth.

TAX REVISION: IMPACT ON THE BUDGET

When the Congress legislates changes in income taxes, it defines or redefines the income subject to taxation—by setting the exclusions, exemptions, and deductions allowable for various reasons—and sets the new tax rates that are applicable to various fractions of that income. Given the levels and structure of current incomes, these new definitions and rates can be translated into fairly precise estimates of the new tax yield in billions of dollars. This can be compared with the actual yield at the old rates and definitions. The difference is the gross cost of (or gain from) tax revision, and it also measures the initial change in deficit or surplus.

This would be the whole story if the tax revision had no effect on incomes. But a prime purpose of tax revision is precisely to affect production, employment, and incomes. The President's tax program for 1963 is designed to end 5 years of undercapacity production, excessive unemployment, and unnecessarily depressed incomes.

Tax revenues do not depend on tax rates alone, but on the tax base as well. The tax base is determined by the level of income. Because tax revision will raise incomes, it will also raise tax revenues, through a "feedback" out of the expanding tax base. Greater prosperity will also reduce some important types of Federal expenditures, such as unemployment insurance, area redevelopment assistance, and public works acceleration. For these reasons, the net cost of tax revision will be less—substantially less—than the gross cost.

FINANCING ECONOMIC EXPANSION IN 1963

In 1963, the financial policies of the Government, like the fiscal policies, will place high priority on expansion of the demand for goods and services to reduce excess capacity and unemployment while maintaining general price stability. Monetary and debt management policies will continue to play a significant role in facilitating balanced economic expansion and in fostering longer-run economic growth. At the same time, these policies continue to bear special responsibilities to sustain our progress toward balance of payments equilibrium. And since they are the most flexible instruments of general economic policy available to the Government, they can and should be used flexibly. If, contrary to present expectations, aggregate demand should expand too fast and too far, seriously jeopardizing stability of prices and the balance of payments, monetary and debt management policies are the first line of defense.

In what follows, these policies will first be discussed in terms of domestic objectives; then in terms of balance of payments objectives. This order indicates nothing as to relative importance. Monetary policy must reconcile, as best it can, both objectives.

FISCAL POLICY, MONETARY POLICY, AND DEBT MANAGEMENT POLICY

As explained earlier in this chapter, the President's program of tax revision will, by increasing the disposable incomes of consumers and business and by strengthening incentives to invest, cause an expansion in private spending, which will, in due course, increase production and employment by a multiple of the original tax cut. Initially, however, the tax cut will increase the budget deficit, and the increased deficit will have to be financed—that is, the money to cover the excess of expenditures over taxes will have to be raised by the Treasury. The financing of the deficit will have effects on private spending in addition to those produced by the tax cut itself. Depending on the methods employed, the financing may either add

to the expansionary effects of the tax cut or cancel out a portion of these effects.

Fiscal policy—mainly past fiscal policy—determines the size of the Federal debt. From the financing of past Federal deficits less surpluses the public has accumulated a certain total net claim upon the Government. Only time and future fiscal policy—deficits and surpluses—can change this total. But monetary control and debt management can change its composition, and changes in composition can affect aggregate demand through affecting the level and maturity-structure of interest rates and the availability of credit at various maturities.

The Treasury influences the composition of the interest-bearing Federal debt by deciding what types and maturities of securities to issue to finance current deficits or to replace maturing issues. Part of the interest-bearing Federal debt is owned by the Federal Reserve Banks. When the Federal Reserve purchases Treasury securities in the market, whether from banks or from other private holders, the reserve balances of commercial banks on deposit at the Federal Reserve increase. In this way, Federal Reserve open market purchases reduce the interest-bearing government debt held by the public, and increase bank reserves by an equal amount. An increase in bank reserves permits in turn a multiple expansion of bank deposits and bank credit. Similarly, Federal Reserve open market sales replace bank reserves with additional public holdings of interest-bearing government securities, requiring a multiple contraction of bank deposits and credit.

Thus, in effect the Treasury and the Federal Reserve together determine the composition of the Federal debt held by the public—the Treasury deciding the composition of its interest-bearing debt, and the Federal Reserve the division of public claims on the Government as between interest-bearing securities and bank reserves and currency. By its choices of which kind of government securities to buy or sell, the Federal Reserve also affects, in some degree, the composition of the interest-bearing debt in the hands of the public. The net result of the transactions of these agencies with the public, therefore, determines how the Government borrows from the public to finance a new deficit.

But their powers are not confined to transactions in new debt. These agencies can also—in refunding maturing debt, or in transactions with the public in existing securities—change the composition of old debt. In all these transactions, the government agencies must act within the framework of investors' preferences; they can sell securities of different types and maturities only on terms consistent with these preferences.

FINANCING BUDGET DEFICITS

How can the Federal Government raise the money to finance a budget deficit?

At one logical extreme—which of course no one seriously contemplates—the Federal Reserve could buy Treasury securities and increase the quantity of bank reserves in an amount equal to the deficit. In this way, the reserve base of the banking system would be increased by virtually the entire amount of the deficit, paving the way for a multiple expansion of bank deposits and bank credit. This is the most liquid and most expansionary way of increasing the debt of the Federal Government.

At the other extreme, the Government might finance a deficit while the Federal Reserve permitted no increase in bank reserves. This means that the Treasury would not be able to sell any of its securities, directly or indirectly, to the Federal Reserve Banks. The Treasury would have to sell them either to the public or to the commercial banks; and the banks would be able to buy them only to the extent that they in turn sold other securities to the public or denied loan accommodation to private borrowers. The effects of this policy would depend to some degree on the type and maturity of the new Treasury obligations. Short-term securities, such as Treasury bills, are highly liquid; they satisfy the needs of banks for second-line reserves and are fairly close substitutes for cash in the working balances of other financial institutions and business firms. Long-term bonds are less liquid. Selling only long-term bonds to the public would be the most illiquid and most restrictive way to finance a deficit.

Sometimes the sale of government bonds to commercial banks is considered *per se* expansionary, while the sale of bonds directly to the public is considered neutral. But this distinction is not a reliable guide. When commercial banks increase their government bond holdings, it is one thing if bank reserves and deposits rise correspondingly and quite another if the banks have to unload other securities on the public to make room for the new securities. The important things are *how much* and *what kind* of new indebtedness the Government (together with the Federal Reserve) incurs to the banks and other public creditors rather than *to whom* the indebtedness is incurred.

Ordinarily, neither of the extreme methods of financing deficits mentioned above is appropriate monetary and debt management policy. There are, of course, many gradations between them. The considerations which determine how new debt should be financed are the same as those which guide the monetary authorities and debt managers in their daily decisions on the composition of old debt. These considerations are well known.

A more expansionary method of financing is needed when unemployment is substantial and considerable excess capacity is available than under conditions when the economy is closer to its potential. Thus, the "proper" way of financing a deficit is that which contributes to the goals of increased output, growth, price stability and payments balance. It cannot be determined by preconceived rules.

In 1961 and 1962, budget deficits which increased the Federal debt by $13.3 billion were successfully financed during a period of economic expansion without causing inflation or aggravating balance of payments difficulties. In current circumstances, monetary policy and debt management have to reconcile carefully the needs of domestic economic expansion and those of the U.S. international payments position. But prospective budget deficits do not, in themselves, warrant any shift in the way this reconciliation should be sought. More forceful use of tax policy in support of economic expansion, however, gives greater freedom to monetary policy to maintain conditions in our money and capital markets which are favorable to our balance of payments position.

Monetary policy as well as debt policy must be coordinated with fiscal policy to secure the objectives of higher employment and growth without inflation. We are now, and for some time still will be, in a situation of substantial slack in labor force and capital resources, a situation in which expansionary policies are required. Even after the proposed tax revision begins to release consumer demand and spur investment, other phases of public policy, including monetary and debt policy, can serve to support the absorption of unused resources. When the economy approaches higher levels of capacity utilization and employment, labor as well as capital markets will tend to tighten, and the policy mix will need to be adjusted to changing circumstances. Public policy thus involves a continuous process of adjustment, and no validity attaches to general rules of "tight" or of "easy" money meant to be valid under all conditions. What matters most at this time is that financial policy should be designed to facilitate rather than retard the expansionary process which the tax program is designed to launch.

The ease or tightness of monetary and credit conditions depends only in part on the supplies of bank reserves and liquid government obligations. It also depends on the balance between these supplies and the economy's demands for money, liquid assets, and credit accommodation. Economic expansion increases these demands. As private income and wealth increase, so do the public's needs for money and liquid assets. Normally, the public will wish to place part of its new saving every year in additional holdings of checking accounts, thrift deposits, and other liquid assets. Likewise, business requirements for loans to finance inventories and trade credit expand. When unused productive resources are available, it is not inflationary to permit a parallel expansion in the supplies of money and liquid assets and in the availability of bank credit.

On the other hand, it would clearly be a restrictive monetary policy to hold bank reserves constant while the monetary and credit needs of the economy increase. Interest rates would tend to rise, and private borrowers would find it both more expensive and more difficult to obtain bank loans or to float securities in the capital markets.

Immediately following World War II, the economy was oversupplied with liquid assets accumulated during the war; liquidity requirements were low relative to demands for producers' and consumers' durable goods and were further reduced by the spread of inflationary expectations. But in the 1950's the economy grew up to its supply of liquidity; demands for durable goods became less urgent; and price stability in recent years has dissipated inflationary psychology. Therefore, resumption of growth in liquidity parallel to the growth of the economy's potential has been appropriate.

Over the past year, one measure of liquid assets—including the money supply, savings and time deposits and shares, U.S. Government savings bonds, and short-term marketable U.S. Government securities—grew by about 8 percent, in contrast to an average annual growth of slightly over 4 percent in the period since the war. The growth in liquid assets in 1962 was desirable for the domestic economy. In fact, since economic activity also rose, the ratio of liquid assets to GNP is still only moderately above its postwar low. The stock of liquid assets in the United States does not pose inflationary dangers at this time. These data are summarized in Table 9.

TABLE 9.—*Selected liquid assets held by the public, 1946, 1957, and 1960–62*

Liquid assets	1946	1957	1960	1961	1962 [1]
	Billions of dollars [2]				
Total selected liquid assets [3]	239.1	356.0	399.2	424.6	458.7
Money supply [4 5]	108.5	133.5	138.4	142.6	144.8
Money supply and time deposits at commercial banks [5]	142.4	191.0	211.5	225.1	242.2
	Percent of GNP				
Total selected liquid assets [3]	113	80	79	82	83
Money supply [4 5]	51	30	27	27	26
Money supply and time deposits at commercial banks [5]	68	43	42	43	44

[1] Preliminary estimates by Council of Economic Advisers.
[2] Seasonally adjusted, end of year.
[3] Money supply, time deposits at commercial banks and mutual savings banks, Postal Savings System, savings and loan shares, U.S. Government savings bonds, and U.S. Government and Federal agency securities maturing within one year.
[4] Demand deposits and currency; data are for last Wednesday.
[5] Agrees in concept with data in Table C-45 except for deductions to avoid duplication of items in liquid assets series.

Source: Board of Governors of the Federal Reserve System (except as noted).

Sometimes concern about monetary aspects of government deficits focuses on the risks of inflationary consequences in the long run. The stimulus to private spending associated with increased liquid claims against the Government may be appropriate and welcome at the time the claims are created. But at some future time, when the economy is tight and prices are under upward pressure, this stimulus may be an embarrassment. More-

over, at such a time the public's desire for liquid assets may sharply decline; as they try to unload liquid claims, they add fuel to inflationary flames.

This possibility is not a reason for avoiding deficits, or for avoiding expansionary monetary policy, when the economy needs stimulus; the dangers of high blood pressure are no reason to permit a patient to suffer chronically from low blood pressure. It is, however, a reason for not flooding the economy with liquidity even at times like the present when the economic malady is quite the opposite of inflation. It is, above all, a reason for flexibility in monetary policy and, indeed, in fiscal policy as well. Government authorities need not stand by helplessly in times of inflationary peril; the same mechanisms which supply the economy with liquidity can be reversed—and very quickly—to restrict liquidity and credit.

The tremendous growth of the public debt resulting from wartime Federal budget deficits did, to be sure, interfere with the effectiveness of the Federal Reserve in opposing inflation after the war. In order to facilitate the sale of government securities at low interest rates during the war, the Federal Reserve committed itself to "peg" the prices of these securities. To prevent a fall in these prices—a rise in interest rates—after the war, this "pegging" policy was continued with the result that the Federal Reserve had to buy from the public and the banks all the securities they wished to sell. This meant that it was virtually powerless to prevent large quantities of government debt inherited from the war from being converted into member bank reserves with consequent multiple expansion of the money and credit supply. This policy was ended in 1951 by the Treasury-Federal Reserve accord, which restored effective monetary powers to the Federal Reserve. At present, the authorities are not hamstrung by any "pegging" commitment. They are free to manage the debt flexibly in the light of current domestic and international needs of the economy.

In a situation where there existed a perfect mix between fiscal and monetary policy—a situation where both together gave the precisely right degree of stimulus to the economy—adoption of a more expansionary fiscal policy would have to be matched by a more restrictive monetary policy to avoid inflation. But this is not our present situation. A substantial degree of net expansion is clearly required. Since the budget and tax program is a gradual and conservative one, it is not likely to overshoot the mark; and the objective of orderly growth would seem to be best served by a monetary policy which supports economic expansion. As the program succeeds and a widespread tightening of markets develops, changes in the policy will be needed.

MONETARY POLICY AND THE BALANCE OF PAYMENTS

The needs of the domestic economy are clearly for expansionary monetary policy. But monetary and debt management policies are formulated in the context of an open economy, and must continue to aim at external balance as well as domestic expansion. The monetary authorities, in facilitat-

ing domestic expansion, must also consider the U.S. international payments position.

First of all, of course, the authorities can continue to adapt their techniques of monetary control and debt management so as to reconcile to the maximum degree possible their domestic and external aims. One method open to the Federal Reserve and the Treasury is to adjust outstanding supplies of government securities of various maturities so as to keep upward pressure on short-term rates, most important in international competition for funds, and downward pressure on long-term rates, important for domestic expansion. In the past 2 years, the Federal Reserve and the Treasury have consistently sought to supply bank reserves and provide for needed increases in currency in ways which would not reduce short-term interest rates and drive mobile funds to foreign financial centers. The Federal Reserve discount rate, the central pivot of the interest rate structure, has remained constant at 3 percent since August 1960. The differential between rates on 3-month Treasury bills and on long-term government obligations narrowed from 1.6 percent in January 1961 to 1 percent in December 1962. In 1962, the Federal Reserve, in purchasing, net, $1.9 billion of U.S. Government securities bought, net, $1.8 billion of securities of over 1-year maturity, mainly in the 1- to 5-year range, and only, net, $100 million of securities of under 1-year maturity. In 1961, the Federal Reserve, in purchasing, net, $1.5 billion of U.S. Government securities, had acquired $2.6 billion of securities of maturity of over 1 year, offsetting this by sales of $1.1 billion of under 1-year securities.

Treasury debt management operations in 1962 were even more important than Federal Reserve operations in affecting the maturity structure of publicly held U.S. Government securities. The Treasury expanded its cash offering of securities of maturity of under 1 year. Advance refunding operations moved some securities out of the "under 1-year maturity" category, but the net increase in such securities held publicly (i.e., outside of the Federal Reserve and U.S. Government investment accounts) amounted to about $1 billion in 1962. The increase in outstanding regular Treasury bills, meanwhile, was considerably larger, about $7 billion. Such increases offset downward pressures on short-term rates resulting from monetary expansion, and they are consistent with present needs for increased liquidity in the economy. In addition, the Treasury, in administering the portfolios of government investment and trust accounts, continued to buy longer-term rather than short-term securities. At the same time, through advance refunding operations, the Treasury offered existing holders of some government securities an opportunity to exchange them for other securities of longer term. This lengthened the debt structure with a minimum impact on other investment flows. The average maturity of the publicly held marketable debt thus actually rose by 5 months.

Other monetary techniques can also help to meet the needs of both payments balance and domestic expansion. At the beginning of 1962, ceiling rates on time and savings deposits in commercial banks, under Regulation Q, were increased. This was an important and successful measure. On the one hand, it enabled U.S. banks to compete more effectively for funds that otherwise would be deposited abroad. (Subsequently, the possibility of attracting into time deposits the balances held as monetary reserves by foreign governments and central banks was further enlarged by enactment of legislation exempting such deposits from all interest rate ceilings.) On the other hand, it increased the flow of funds through the savings departments of commercial banks into mortgages and other longer-term assets, and actually helped to reduce rates charged domestic borrowers. In late 1962, the Federal Reserve released reserves to the banking system by lowering the reserve requirement on time and savings accounts from 5 to 4 percent. This action made it unnecessary for the Federal Reserve to supply these reserves by purchasing short-term government securities in the open market.

While a balance must be continuously struck between credit and interest rate policies in support of domestic economic expansion and policies to protect or improve the balance of payments, any conflict is more a short-run than a long-run one. In the long run, the U.S. balance of payments probably has much to gain from a fully operating, rapidly gaining domestic economy. Only this will create profit opportunities that would keep more American corporate and equity funds at home and attract more long-term foreign capital. Only this will induce the productivity-increasing investments and innovations necessary to improve America's competitive position and increase the export surplus. Only this can create the basic confidence in the U.S. economic future on which confidence in the dollar depends. Without the dynamic of an expanding economy operating at full steam, monetary measures could scarcely be of more than transient help to the balance of payments. No country can permanently balance its international accounts by interest rates so high that its productive potential is kept underutilized and its labor force underemployed. Nevertheless, defense of the currency may require vigorous use of monetary instruments, and there can be no doubt that the U.S. authorities are prepared to take whatever steps are necessary to defend the dollar. An expansionary fiscal policy will give them greater freedom to do what has to be done.

International capital flows are, of course, not a U.S. problem alone. They concern all the major monetary countries, those with payments surpluses as well as those with payments deficits. When interest rates and credit conditions are out of line among major countries, it cannot always be taken for granted that the lower rates should rise. If international borrowing is centered too much on the United States, one clear implication is that other countries should improve their capital markets and relax or dismantle the

remaining restrictions on borrowing in their markets. Finally, shifting attitudes toward currency exchange parities may well be at least as important as interest differentials in inducing movements of liquid funds between countries. International arrangements to offset speculative flows are both more effective and more desirable than unilateral action to compensate fears and expectations of currency devaluation with high interest rates. In recent years, remarkable progress has been made in international consultation and coordination, both with respect to national policies affecting the payments balances of the major countries and with respect to concerted measures to defend the international monetary system against speculative attacks. These are discussed in Chapter 4.

ECONOMIC GROWTH

In the Council's Annual Report in 1962, a chapter was devoted to the analysis of economic growth and to a full discussion of its significance. It is unnecessary to repeat that detailed discussion again at this time. We have found no reason to revise that statement of the importance of this goal and the feasibility of achieving it.

DETERMINANTS OF GROWTH

Starting from our present position of underutilization, it has been estimated that we can achieve an increase of about six-tenths of a percentage point in our average annual growth rate for the 1960's by reducing our unemployment rate to 4 percent with the concomitant increase in utilization of capital facilities. This rise in the growth rate comes as a bonus to successful employment policy. Once underutilization of productive capacity has been eliminated, our rate of growth will depend upon the pace at which productive capacity itself expands. Growth of productive capacity in turn is the sum of (a) the percentage rate of growth of the labor force adjusted for changes in the average workweek, and (b) the percentage rate of increase in productivity per man-hour. Public policy can accelerate growth of productivity mainly by stepping up the pace of our efforts to:

—improve the education, health, occupational skills, motivations, and attitudes of the labor force;

—build up the stock of private producers' plant and equipment, and improve its composition by age, type, and location;

—increase the stock of public physical capital, including roads, water systems, school buildings, and hospitals;

—improve the terms on which the economy has access to natural resources, whether through domestic production or imports;

—advance the level of technology, covering the range from managerial and organizational competence to scientific and engineering understanding;

—raise the efficiency with which capital, resources, technology, and labor are used;

—improve communications systems so as to accelerate the dissemination of information on technological, commercial, and employment opportunities.

CABINET COMMITTEE ON ECONOMIC GROWTH

In order to emphasize the high priority of economic growth in the formulation of Federal policies and programs, the President, in August 1962, established a Cabinet Committee on Economic Growth. (For a description of the Committee, see Appendix B.) The first task of this Committee was to identify key measures for the achievement of more rapid growth. The President has directed the Committee to continue to serve as a focal point for concentrating the Government's interests and activities on the growth objective. The Committee has emphasized the importance of achieving and maintaining full employment as a prerequisite to an effective growth policy. In addition, it has made a number of initial recommendations for longer-range programs to stimulate more rapid growth.

The Committee in its work thus far has focused on a number of Federal programs which make or could make important contributions to economic growth. These include public investment in natural resources and agricultural development, in transportation, in urban and rural development; they emphasize investment in human resources—education and health—and in advancing knowledge. Where existing programs are involved, the recommendations of the Cabinet Committee have pointed up the growth-stimulating features of the programs and, in some cases, have urged increased budget support. These recommendations are reflected in the President's budget for fiscal 1964 and do not require repetition here. Education is one of these program areas. The contributions that education has made and must continue to make to economic growth and other national objectives are so important that the proposed new program will be presented in a special Presidential message.

The Administration is proposing programs which are especially relevant to two of the key determinants of economic growth—private investment and civilian technology.

PRIVATE INVESTMENT

The Cabinet Committee has emphasized the importance of private investment as a source of economic growth. The analysis in this chapter has shown how the proposed tax program, together with the tax revisions of last year—the investment tax credit and depreciation reform—will stimulate a higher level of private investment.

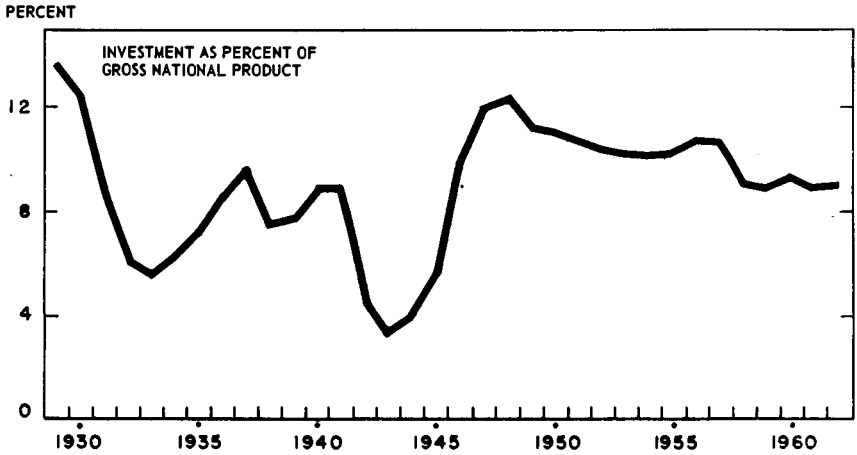
Investment in private plant and equipment is a principal source of long-run gains in productivity. Both in this country and in others, periods of

rapid growth have been associated with high rates of investment. In the United States since 1947, the stock of privately owned plant and equipment per worker has increased by nearly 50 percent. During this period the rate of growth of output per worker has been nearly twice its rate during the 1929–47 period when capital growth only barely kept pace with the growth of employment.

The rate of growth of the capital stock is determined, in part, by the share of GNP allocated to investment in new plant and equipment. Chart 7 shows the fluctuation in the share of output devoted to private investment

CHART 7

Business Fixed Investment in Relation to Total Output



NOTE: PERCENT IS BASED ON DATA IN 1962 PRICES. INVESTMENT CONSISTS OF PRODUCERS' DURABLE EQUIPMENT AND NONRESIDENTIAL CONSTRUCTION.

SOURCES: DEPARTMENT OF COMMERCE AND COUNCIL OF ECONOMIC ADVISERS.

since 1929. Many factors determine the amount of investment that is needed to achieve a given rate of growth of potential GNP. However, given the expected rate of growth of the labor force during the 1960's—an annual rate of 1.6 percent—and assuming technological progress at roughly the rate experienced during the 1950's, the Council's calculations suggest that to achieve a growth of potential output of 4.0 percent a year will require private investment to be between 10 percent and 11 percent of GNP. As the chart indicates, this is above the proportion achieved during the past 5 years; but we did even better during the early postwar years. We do not need to settle for less in the years ahead; indeed, our aim is to regain and exceed the earlier pace of growth.

A high rate of investment is needed to equip our growing labor force with better and more modern equipment. Without new equipment, the new

inventions and designs which flow from research and development lie fallow; with it, they can contribute fully to economic growth. Some estimates suggest that during the past few years almost 70 percent of investment has been for modernization and replacement, rather than to increase capacity. The stimulation of capacity increases will provide further impetus to modernization, since the two go hand in hand. When the capacity of an industry is expanded rapidly by new investment, the proportion of new equipment tends to increase, the average age of capital tends to decline, and the average quality of capital in place improves substantially.

The investment needed to gain our growth objectives will be achieved only if we eliminate economic slack—only if we strengthen demand and broaden incentives to take risks. The tax program is designed to help us reach this objective.

CIVILIAN TECHNOLOGY

The Cabinet Committee on Economic Growth as well as the White House Panel on Civilian Technology and officials of the Department of Commerce have identified an urgent need to stimulate more rapid development and fuller use of technology in those sectors of the civilian economy which, despite high potential returns to the Nation, have not been able, or have not been motivated, to seize the opportunity without assistance.

In recent years, there has been a dramatic increase in total expenditures on research and development and in the number of scientists and engineers engaged in these activities. However, defense and space efforts have accounted for nearly three-fourths of the increase. The research laboratories of industry and the universities have been important sources of new products and processes for the civilian economy, but most private research and development is still concentrated in a relatively few industries and is carried on by a few large firms. With the exception of a few hundred manufacturing firms, most enterprises neither undertake much research and development nor have sufficient trained technical manpower to take advantage of the research and development done by others. Our economy would be strengthened significantly over the long run if our civilian research and development resources were expanded to meet better the wide range of private and public needs.

The private business firm, stimulated to meet the needs of the economy by the opportunity for profit and the spur of competition, is generally the most effective organization to conduct and support research and development for the advance of civilian technology. But private business firms are not always in a position to undertake research, especially where one company takes the risks and covers the costs but many companies share widely in the benefits. Research on process improvements not subject to patenting—a major source of productivity growth—and analysis of materials and methods are important cases in point. Experimental work which

explores advanced concepts and designs is also likely to provide interesting and useful information without leading directly to a patentable product that can be marketed by the firm sponsoring the research. Unless cooperative arrangements are made, these types of research will not receive enough support.

There are also some serious problems with respect to the dissemination of technical information. Many business firms are not fully aware of the technological possibilities open to them; without a strong technical staff they are often unable to follow and understand the new developments published in the technical literature and communicated informally among technicians.

Government has a responsibility for maintaining a suitable environment for private research activity and for supporting programs which are in the public interest but which are not adequately stimulated by private market opportunities alone. Agriculture provides an outstanding example of the successful role Government can play by supporting and sponsoring research in cooperation with State institutions and private organizations. The fruits of this cooperative research effort, initiated in the last century, are seen in the spectacular increases in American agricultural output and productivity through the improvement in techniques and products.

The details of the programs for Federal support of civilian technology are included in the Administration's 1964 budget proposals. The efforts in the first year will necessarily be modest in budgetary terms and exploratory in nature, but over the long run the program promises great returns.

It is proposed that the Department of Commerce sponsor a pilot program for an industry-university engineering extension service. This program will include identification of technical problems, technical advice, in-plant demonstrations of new technologies, and short courses and conferences. The objective is to strengthen the scientific and technical competence of management and supervisory personnel, to develop the facilities of universities to meet local and regional technological needs, and to reduce the gap between the technologies of leading and lagging industries and firms.

A selective program of research and development support is recommended, designed to take advantage of promising technical possibilities now being ignored. Industries would be selected where there is promise of significant returns from research and development applied to their technology, but where there is little prospect that the firms in the industry, acting alone, will do the job that is needed. The development and improvement of technical information services would also be supported. Grants would be made to industry research associations or industrially oriented development institutions, to encourage technical work which is not called forth in adequate quantity by the prospect of private profit because the results must be shared with firms not supporting the research, and to provide research

facilities for small firms which do not have a broad enough spectrum of products to support a research and development effort.

Of particular promise is an experimental program designed to develop new means of translating results of government-financed research and development into a form usable by private industry oriented to civilian markets. The possibilities of adapting to civilian industry the techniques developed in advanced space and defense activities would receive special attention.

To increase the supply of scientists and engineers with appropriate training and interest in industrial research and development, it is planned that support be provided for university research on problems of civilian technologies.

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