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PROSPECTS OF INFLATION IN THE TRANSITION PERIOD

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Among the economic problems which confront the United States at the close of the greatest war in history, one of the most pressing is the stabilization of the general level of prices at an appropriate figure. Probably, indeed, its importance is surpassed only by that of national policies regarding domestic labor relations and international trade. Up to the present time the exigencies of Treasury finance have stood in the way of a realistic approach to the problem; the time has come when a rational choice can be made between the respective hardships of further inflation and of the measures which would be necessary for its prevention.

The task of this paper is to analyze the probable direction and extent of pressure on the price level over the next 18 months; that is, the changes that would occur if both price restraints and price supports were eliminated and no new control policies were initiated. This is not a prophecy which can be recommended for individual guidance in business or speculative operations, because it does not predict in sufficient detail the actions that may be taken by such agencies as the Federal Reserve System, the Treasury, the OPA, nor predict the success that is likely to attend their efforts. Neither does it undertake to formulate for public authorities a detailed program of monetary and fiscal reform. Pamphlet No. 8 in this series will deal with the technicalities of credit control and their applications to the postwar era. Our purpose here is to analyze the situation that the control agencies will have to deal with, rather than to say what they will or should do about it. Such an analysis is the necessary first step toward the formulation of a control program.

GENERAL CHARACTER OF THE TRANSITION ERA

The economic setting of the transition period can be forecast more precisely than that of the years after industry has been fully reconverted to a peacetime basis. If we were drawing up a plan for 1950–52, we should have to guess whether we shall have a labor force of 55 million or 60 million; whether, and how much, productivity will prove to have been affected by both wartime stimuli and wartime deterrents to investment, research, and technical education; how the savings habits of people will

be affected by changes in the level of income and the volume of employment; what will happen to interest rates; and what will be the impact of Government policy and trade union policy on wages and the form of labor relations. Looking forward five or seven years we cannot be certain whether our price problem will be one of inflation or deflation; whether we shall have a longer or a shorter work week; whether liberalism or mercantilism will characterize our foreign trade policy; whether the Treasury will be operating with a surplus or a deficit.

For the period of demobilization and reconversion, the case is much clearer. We know that taxes will be lower than in 1945, but high by prewar standards. We know that in comparison with the war years the Government deficit will be very small. We know that there will be a huge export demand for both consumption goods and replacement capital goods and that our imports will be much smaller than our exports. Civilian durable goods, especially automobiles and houses, will be demanded in volume exceeding their supply, regardless of whether the general situation is one of boom or depression.

Some of the wartime controls are already being abandoned or losing their effectiveness, and others will become ineffective during the next year or two. For example, the Victory Loan was announced as the last of the bond drives. Consumer rationing is nearly gone and controls over materials have been greatly reduced in scope, and wage controls have been weakened. Some wartime controls are being reintroduced, but they meet increasing public resistance.

The following factors in the current situation are extremely favorable to an orderly reconversion:

(1) The re-allocation of workers started in a situation in which there were more jobs than job-seekers in the civilian economy. This is still true eight months after V-J Day, with more than half the Army and most of war industry already demobilized. To some extent the workers are more versatile, having acquired new skills in addition to those which they had already, though it seems likely that only in a minority of cases are the newly acquired skills of much value.

(2) The financial situation is favorable to investment. A large proportion of the businesses that will have to make substantial investments to get on a civilian basis are in a strong liquid position. Although in some industries a large investment in fixed capital must precede an expansion of output to the scale which the market would justify, the indications are that ample private capital is available.

(3) In a wide range of industries the market situation is probably more favorable for expansion of output than it ever was before. There are backlogs of demand for almost everything durable, an unsatisfied current demand for a wide range of nondurable goods and services, and a large volume of liquid funds in consumers' hands. A year ago there were widespread fears that transitional unemployment and transitional loss of business income caused by the demobilization of war industries would engender a slump in consumer buying and start a downward spiral of business liquidation, distress sales, falling prices and secondary unemployment. Nothing of the sort has happened or is happening today. Though there are a few conspicuous exceptions to the general trend, the upward pressure on prices is still strong. Whatever danger this pressure may threaten from the standpoints of long-run stability and of equity in distribution, the strength of the market is a factor highly favorable to reinvestment and reconversion.

(4) As compared with 1941, a larger proportion of workers have funds sufficient to move themselves and their household goods, and to support themselves while choosing employment. This is slowing up re-employment and the recovery of production for civilian use, but is an important factor in the favorable market situation mentioned in the preceding section.

Against these favorable factors must be set the widespread dissatisfaction of management with current prices and of labor with current wages. Accidents of price control administration distort the relative profitability of different lines of production, and management tends to allocate resources to the lines where ceilings are most favorable rather than those where unsatisfied demands are greatest. Controls designed to prevent wage increases have been restored in weaker form after being abandoned, but Government influence is directed toward encouragement of substantial wage increases. Competition, in a sellers' market, works in the same direction. Wage increases generate demands for higher price ceilings. In dealing with these demands, the price control agencies are confronted with a delicate problem in balancing the risk of a runaway inflation against the risk that restrictive measures will obstruct the process of reconversion.[1]

This summary of the characteristics of the transition era has omitted

[1] Controlled wages held too low in proportion to prices might stimulate an investment boom; the reverse error might destroy the incentive for industry to convert to a peacetime basis. Moreover, even perfectly reasonable controls known to be temporary may lead to postponement of business operations.

one important variable, namely, the direction of movement of prices. Will reasonable stability of prices in the transition era depend on successful planning to maintain public buying power, or on continued efforts to check its excessive use? In other words, should public price policy be aimed primarily at prevention of inflation or of deflation? Before this question can be discussed intelligently it is necessary to analyze the concept of inflation and the process by which inflation is generated.

CONCEPTS OF INFLATION

In this paper, as is customary, we shall apply the term "inflation" to all sharp increases in the price level, as measured by any representative retail or wholesale price index.[2] However, since price movements differ widely from case to case as to their causes, their effects, and their susceptibility to control, we shall distinguish four types of inflation, and devote most of our space to the types that are of current or early prospective importance.

The first class, which we shall call sporadic inflation, consists of cases in which the average of a group of prices rises because of sporadic increases in individual prices due to abnormal shortage of specific goods. This does not mean mere market shortages due to distortions in the price structure —particularly, cases in which costs have risen because of upward adjustments in wages or raw material prices and ceilings have not been adjusted to make production profitable. It means cases in which supply is restricted by physical conditions which cannot be cured quickly. In most such cases the shortage of current production is paralleled by a backlog of deferred demand. Under these conditions free market prices would be very high, and the price increase would do little to hasten the restoration of supply. Typical cases are increases in the prices of food following a crop failure, of manufactured articles following the formation of a successful monopoly which curtails the output, and of commodities whose production has been interrupted and capacity curtailed by war. The postwar shortages of automobiles, housing, silk, and tin are cases in point. The prices of these things, if not controlled, would rise very sharply from their present levels even if

[2] The writer would prefer to define "inflation" as meaning a rise in prices which is apparently due to an increase in the supply of money. This differentiates inflation from "rising prices" by both excluding what is called in the text sporadic inflation, and the increases which are associated with recovery from depression. But the term "inflation" is used in popular speech so loosely that an attempt to tie ourselves to a narrow definition would lead to misunderstanding, since readers generally interpret a word in accordance with their own understanding of its meaning, regardless of an author's explicit statement that he uses it to mean something not quite the same.

monetary conditions were such that most commodities showed little or no upward tendency.

This type of price disturbance does not call for correction by credit contraction or restrictive fiscal policy. To rely on such controls would amount to an attempt to push other prices down to compensate for the rise in the prices of the scarce items. The forced decline of demand for goods not unusually scarce would tend to cause unemployment in those industries without helping the situation in the area of shortage.

On the other hand, this situation is the one in which direct price control, if skilfully used, is most likely to be beneficial to the community at large. Such control is most appropriate in cases where the scarce commodity is so widely used, or so essential to certain persons, that the community will not tolerate allocating it on the basis of ability to pay a high price. We would not tolerate the use of price to allocate salt if it became rare, nor to allocate a drug which would cure meningitis during an epidemic of that disease, though we do not object to prices being used to allocate beaver skins and yachts. Selective control is also justified, though not so imperatively needed, whenever the demand for a scarce commodity is so strong that uncontrolled prices would go up more than is necessary to stimulate the recovery of production, creating windfall profits for those who are lucky enough to control the limited supply.

It is to be emphasized, however, that in cases of physical shortage, price control is at best a palliative. It does nothing to hasten, and may delay, the restoration of normal supply conditions. Nor does it help in determining who shall get the short supply and who shall go without. Unless coupled with a plan of rationing, it leaves the allocation to be effected by dealer favoritism or the formation of queues or the tossing of coins. Or else those who have leisure and patience to chase advertisements and investigate rumors fall heir to the priorities which in the absence of price control would accrue to those who are willing and able to pay the highest prices.

Little more need be said about the sporadic type of inflation. It is obvious that in this meaning of the term we do have inflation and are likely to have it for six months or a year. We shall need selective price control, therefore, until the supply bottlenecks are widened. But the area of shortage is much less than the whole economy and is contracting.

The second type of inflation we shall call monetary inflation. This is an over-all adjustment of prices to an increased supply of money, which is

not accompanied by a corresponding increase in the demand for cash balances nor offset in its price effects by a corresponding increase in the flow of goods and services.[3] In the absence of control, the excess of money above the desired level of balances leads to accelerated spending. This raises the scale of production (if there are unemployed resources) or causes higher prices, or does both. The expansion continues until prices and the volume of trade reach a level where the money supply is no longer excessive. Unless by this time a speculative boom has been generated (see below), the price trend will level off. This is the most frequent type of inflation. In United States history it has been illustrated by the cases of 1915–16, the recovery from the price collapse of 1921, and the upturn of 1933–35. In fact, a moderate price inflation of this general type characterizes the later stages of almost every period of industrial recovery and boom.

In a fiscal monetary inflation, especially its earlier stages, the price rise is generally less than the increase in the supply of money, so that the purchasing power of the total stock of money increases in spite of the declining purchasing power of a single unit. In other words, demand for balances increases but not enough to offset fully the increase in supply. This is partly because the expansion of industrial output which is likely to accompany the expansion of money makes large business balances necessary, and partly because the increase in money income usually stimulates some increase in the use of cash balances as a storehouse of savings.

The third category of inflation is the "speculative" type, in which prices rise more than in proportion to the increase in the quantity of money. This often happens in an advanced stage of expansion when prices have risen long enough to create a general belief that they will keep on rising. The value of the total stock of money falls, while its nominal quantity remains stable or rises.[4] A speculative boom is viciously self-inflammatory because the rise in prices, instead of curtailing the demand, stimulates it. This is the kind of inflation which has given rise to the false maxim that a boom is inevitably followed by a collapse. The maxim is true only if many prices have reached a level which people pay only because they think they

[3] Theoretically, a monetary inflation might arise also from a decrease in demand for cash balances without an increase in supply of money. Such cases are rare in pure form though brisker spending of balances often characterizes the first stage of recovery from depression, and, as is pointed out below, a general attempt to reduce cash balances is a dominating monetary factor in the astronomical inflations which sometimes result from a breakdown of public taxing power and public credit.

[4] In the technical language of economists, M rises and V falls or remains constant in a monetary inflation; in a speculative inflation, both M and V rise.

can sell before the boom is over. When this stage is reached, it is only a question of time till prices collapse. The boom cannot level off, because too many holders are in the market only as in-and-out traders. Any price is too high from such a trader's standpoint unless he thinks it is going higher. The booms of early 1917 and early 1920 are familiar cases of this type of inflation.

There is little indication of this third type of inflation in the United States at the present time. There is no general reluctance to hold cash assets, savings bond sales are running about as high as redemptions, savings deposits continue to rise, and commodity hoarding is not immoderate. The farm land boom has not, in most areas, outrun the proportions of an adequate adjustment to changed income prospects and capital markets. The low level of long-term interest rates at which earning assets are now capitalized, the sellers' markets for almost everything that industry can produce, the temporary Government guarantee back of farm prices, would make the old level of land prices inappropriate even if the general level of commodity prices should move no higher.

The fourth order of inflation, which we may call the public bankruptcy or astronomical type, is the case where a monetary inflation based on a budget deficit financed by the issuance of new money has reached uncontrollable proportions. Prices rise so fast that Government expenditures expand faster than the Government can increase its tax collections. It cannot borrow either, except by creating more and more paper currency or bank deposits. There is a flight of capital, and the currency depreciates rapidly on foreign exchanges. This case is fortunately rare. In American history the outstanding examples are those of the Continental currency and the Confederate currency, both associated with complete collapse of the taxing power and of public credit. The numerous wild inflations of Continental Europe in the early 20's and the Greek and Chinese inflations of World War II are other examples.

There is not the slightest ground for apprehension concerning this fourth type of inflation in the United States. The rapid curtailment of public expenditures, the maintenance of a high level of wartime taxes, and especially the maintenance of taxes on the lower incomes deducted at the source, give assurance that the Government has not lost control of the fiscal situation and is in no danger of having to resort to wholesale creation of money.

For practical purposes, the range of immediate uncertainty narrows down to the prospect of an inflation of the second, or monetary, type,

which might be followed later by the third type. As to the first type, sporadic inflation, spotty shortages due to accumulation of deferred demand and impaired production are unavoidable, but temporary. Housing, automobiles, cereals, and silk are perhaps the most serious. Nearly all other cases should be cleared up by the fall of 1946.

Since each shortage presents a different situation its price consequences can best be mitigated by direct selective controls. As was indicated above, the problem here is to avoid on the one hand the development of a temporary price bulge that will be followed by a decline after generating excessive profits and encouraging excessive wage demands, and on the other hand, to avoid making control so drastic that labor and capital resources will be diverted to other fields of production where their output is less urgently needed, thus prolonging the shortage. A serious inflation of the third type may appear later if the monetary inflation runs very far. The fourth type, as was indicated above, is out of the question. But the prospect for the second type, a general markup of goods and services corresponding to the growing abundance of money, requires more detailed analysis before the answer can be clear. The first step in such analysis is an examination of the process by which monetary inflation develops.

PROCESS OF MONETARY INFLATION

It will not be disputed that the organization of production and the method of finance which developed during the war were, and still are, of a strongly inflationary tendency. Government expenditures have been enormous by all previous standards and they have been financed in large part by methods which did not curtail private spending to offset the increase in public spending. The pattern is that made familiar in previous wars—expansion of currency and sale of bonds to banks as an offset to new deposits created by public expenditures. War loan accounts were made free of reserve requirements, and as the funds were spent and reappeared in private pocketbooks and bank accounts, new currency and new bank reserves were made freely available by expansion of Federal Reserve credit. Thus the total volume of currency and credit rose without putting any pressure on the banks to restrict private credits. Since the end of 1939 demand deposits (other than Federal Government and interbank) have much more than doubled in volume, time deposits have nearly doubled, and currency in circulation has nearly quadrupled. The volume of these three forms of money amounts to 151 billion dollars; the stock in 1939 was only 63 billion. Leaving out time deposits, the increase is from 36

billion to 102 billion dollars. Practically all the new money came into existence through Government borrowing.

As this money was spent, total income rose, and the increase in taxes, though substantial, was not sufficient to hold the income available for private use down to its previous level. Of course the supply of goods and services available for purchase by the public did not expand correspondingly; in many cases it was actually reduced. Thus the total income generated by public and private expenditures (after payment of taxes) came to be much greater than the cost of the goods and services that were available for private purchase. Part of the difference was used to purchase war bonds, and most of the rest was accounted for by the accumulation of currency and bank deposits in private hands.

In this process net total saving (including under this term funds that represent unspent depreciation allowances and liquidation of working capital assets) was equal to the amount of Government deficit plus the small amount of private investment. It could not be less, since every dollar of the difference between taxes and Government expenditures was reflected in an addition to security holdings either of nonbank investors or of commercial and Reserve Banks. To the extent that the second took place, new bank deposits or currency was created and appeared in someone's unspent balance.[5] Although these deposits, currency holdings, and bond accumulations constitute individual savings, the economy as a whole has accumulated no earning assets or consumable goods to correspond to them; they are claims against wealth that does not exist.[6]

This response of uninvested savings to monetary expansion always occurs, since someone accumulates money equal to the issuance of currency and the expansion of bank deposits. Someone may ask why, in that case, the price level is ever pushed upward by expansionary deficit finance. The answer is that the equivalence of saving and monetary expansion is only in dollar terms. In real terms, that is, in command over goods and services, the increase in the amount of unspent balances that the public is willing to hold may be more or less than the equivalent of the new money at the old price level. In either of these cases, in the absence of subsidies and direct controls, prices must change so as to adjust the pur-

[5] Except for an amount equal to the increase in the banks' capital.

[6] One minor exception is to be noted. The surplus property held for sale by the Government is an offset and as sold will mop up a corresponding amount of money, just as would a corresponding amount of taxes. In addition the surplus property will relieve some of the acute commodity shortages if it is sold before supplies become normal.

chasing power of the total money stock to the effective desire of the community to hold purchasing power in that form.

If the community desires to increase its uninvested savings, measured in command over real goods and services, in line with the increase of money supply as measured in dollars, no monetary inflation occurs. It is not anomalous that the wartime monetary expansion did not promptly generate the proportionate offsetting change of prices which would be called for by the classical quantity theory of money. The response of spending and saving to monetary expansion is influenced by changes in income distribution, by the availability of goods and services, by price control and rationing, and by propaganda promoting sales of bonds and of Government insurance. If people would expand their cash balances sufficiently to absorb the new money without increasing their expenditures, a Treasury could finance itself, interest free, without disastrous consequences.

During World War II such devices as rationing, price control, and bond campaigns were remarkably successful in stimulating an increase in saving and thus slowing down the pressure on prices. Although there have been substantial price increases, the value of the total stock of money (including bank deposits) as measured by commodity prices, either wholesale or retail, is at least 50 per cent greater than it was in early 1940. It is still greater as measured by the level of rents and of services, most of which have been controlled more rigidly than commodity prices, although neither the housing nor the services are available in the quantities demanded at these prices. In addition the nonbanking public, despite very low interest rates, has accumulated bonds to the extent of more than four months' national income at the level of 1945. The ratio of individual saving to disposable income of individuals rose from less than 9 per cent in 1938–39 to over 25 per cent in 1942–45. The major share of the savings went directly into bonds, and most of the rest remains in unspent balances, against which low-yield Government securities are held by commercial and Federal Reserve Banks.

One factor which has helped to hold back the rise of personal expenditures is the general belief that in a short time it will be possible to spend money in a better market, not necessarily a lower priced market, but one where the increased variety and the improved quality of goods will justify waiting even though prices may rise. The belief has been an effective inducement to saving only because the increase in prices which is generally anticipated is of moderate proportions. If a wild inflation were expected,

spending would be stimulated instead of delayed by the narrow range of choices.

Moreover, during the later stages of the war effort a considerable amount of expenditure incurred both by Government and by members of the armed forces was made in foreign markets and hence exerted its inflationary force abroad.

OUTLOOK FOR PRICE CHANGES

The outlook for continuance of general upward price pressure during 1946–47 in areas where there is no bottleneck on the supply side due to nonmonetary conditions, will depend on three things: the flow of current savings and dissavings, the level of investment expenditure, including the Government deficit, and the volume of goods and services produced.[7] The volume of money is important only as it bears on the first of these. Abnormally high cash holdings and holdings of bonds redeemable on demand offer an opportunity for abnormal expenditures; they do not guarantee that it will actually occur. The dissavings of those who treat their wartime savings as temporary must be deducted from the new savings of others to determine total savings; if these fall below the level of investment expenditure, national income and gross national product (as measured in dollars) will rise; if they exceed investment, income and gross product will fall. If production in physical terms does not change, prices rise with rising money income, and fall with falling money income. If production increases, however, prices fall more, or rise less, than total money income and national product. With this background of general considerations, we turn to consideration of the prospect for 1946–47.

Inflationary Factors. The factors making for a general price rise may be summarized as follows:

(1) Many goods that are being produced in normal volume are now lower in price than market demand would justify. This is clear from the promptness with which goods disappear from merchants' shelves. In some cases price control has prevented any adjustment since 1942 or 1943, while direct costs and consumer buying power have risen. In a few important cases, prices are below costs and the difference is made up by subsidies. As these are removed—and we cannot assume that it is national policy to continue them indefinitely—prices must rise unless costs fall.

[7] To make the statement accurate, "savings" must include accumulation of unspent depreciation reserve funds, and balances resulting from liquidation of inventories and charge accounts; "investment" must include reinvestment, all of course in current dollar amounts.

(2) Some excess of Government spending over tax revenues may continue through 1946. The January budget estimate was for a deficit of 10 billion dollars in the first half of calendar 1946 and 4 billion for the fiscal year 1946–47. The estimate for January–June 1946 has since been reduced to 3.6 billion; a price and wage inflation, even a moderate one, might wipe out the deficit for 1946–47 entirely. The inflationary potential arises from the fact that the deficit is to be financed from balances already held by the Treasury rather than from nonbank borrowing, so that no one's purchasing power will be reduced to offset even partly the effects of the Government expenditures. This means that private incomes will be greater than the output of goods for private consumption by the full amount of the deficit. The inflationary effect of a deficit financed by the transfer of funds from inactive Treasury accounts to individual and corporate balances is the same as that of a comparable deficit financed entirely by borrowing the proceeds of bank credit expansion or printing new money.

(3) Both directly, and through the International Bank and the International Monetary Fund, the United States Government will lend dollars on balance to the rest of the world, and these dollars will be provided in such a way that they do not correspondingly reduce the purchasing power otherwise available in the market for consumers' or producers' goods.[8] The loans will increase the demand of foreigners for American goods, without causing an offsetting decrease of demand elsewhere. In a period of depression and unemployment such a stepping up of demand might generate an increase of production rather than a substantial rise of prices; in a setting of full employment it is almost purely inflationary.

(4) As was noted above (page 8), currency and bank deposits have already reached extraordinarily high levels, even in proportion to the high wartime rate of productive activity and the current price level. In the absence of a change in credit policy they will continue to expand through 1946. Furthermore, there is a large volume of bonds that are either redeemable or marketable and under present policies are practically cash. If they should be cashed in large volume they are likely to be replaced by bonds sold to banks.

The three factors last named provide the purchasing power which makes possible a continuation, or intensification, of the present upward pressure

[8] Part of this expenditure is already accounted for under the deficit, but the funds advanced to the IMF are to come from the Stabilization Fund and are not counted in the budget estimates of the deficit.

on retail prices. The next four points have to do with the prospect that this excessive buying power will actually be used to an extent greater than the offsetting accumulation of new uninvested savings.

(5) There is a huge accumulation of deferred demand for durable and nondurable goods. A substantial part of the liquid assets of individuals is being held with a view to financing the purchase of goods, both durable and perishable, that are not yet available.

(6) Demobilization of the armed forces is stimulating an increase in retail buying, which will continue for another six months. Dismissal pay and unemployment protection postpone acute job worries.[9] Returning members of the armed forces are short of conventional necessities, especially civilian clothing. Some of them do, of course, exercise restraint in spending until their employment plans are settled. With a strong labor market, however, and assurance of income in the event of unemployment, there is no pressure on them to postpone expenditures.

(7) Organized labor is pressing for large wage increases, in many cases outrunning the decrease of "take-home" pay that results from decrease of overtime and shift differentials. It is certain to obtain at least a substantial part of what it asks. Any or all of three consequences may follow.[10] These are, first, redistribution of income between owners and employees; second, an upward adjustment of prices to cover all or part of the wage increases; third, curtailment of production because costs become too high at existing prices and ceilings are not adjusted.[11] The second and third are clearly inflationary; the first is at least not deflationary, since wage income is taxed, on the average, at a lower rate than the profits of business, so that

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[9] Dismissal pay probably does not, on the average, equal regular service pay plus sustenance and dependency allowances. It is, however, superimposed on earned income if the veteran is at work, and in other cases on unemployment compensation. Moreover, it is spent in this country, whereas a large part of the servicemen's pay, maintenance, and other expenses paid by the Government have been creating purchasing power in foreign communities and not at home.

[10] This is apart from the consequences of possible increases in savings and in productivity, which are discussed below.

[11] General wage increases cannot in general come out of savings in corporate income and excess profits taxes since the latter are concentrated in the most profitable concerns, whereas wage increases fall on profitable and unprofitable concerns alike, and the costs that govern prices are those of marginal concerns. This is not to deny the possibility that strong unions may succeed in getting from prosperous concerns wages above the competitive level. Such increases would not be inflationary except to the extent that the workers' spending rate might be higher than that of the corporation or its stockholders. It has been suggested also that wage-rate increases may not increase wage costs because they are offset by decreases in overtime and shift differentials. These decreases, however, result from a decreased scale of operations which increases the general overhead cost per unit of labor; we cannot generalize that the net effect would be to decrease unit costs if basic wage rates were unchanged.

wage income (after taxes) is increased more than profits (after taxes) are reduced.

(8) Some policies of the Federal Government are restrictive and others are expansionary. In general, however, the deflationary policies (primarily high taxes and price control) are generally regarded as concessions to war necessities while the expansionist policies (largely developed in the 30's to combat deflation) are deeply rooted in the thinking of both the leadership and the rank and file of the population. Unemployment insurance is midly anti-inflationary in times of high employment and midly anti-deflationary in times of heavy unemployment. The farm credit, housing, and veterans' loan programs are purely promotive; if inflation develops, they may be curtailed, but certainly they will continue to be instruments of expansion. The rule against bringing back surplus property held abroad retards the restoration of supply. Much more important are such broad policies as public works designed primarily to create current income, protective tariffs, the support of farm prices based on the parity principle, compulsory collective barganing, and the doctrine that wages should be adjusted to upward movements in the cost of living. Farm price parity and wage parity, if effectively applied, would make an endless spiral of any initial upward movement in the level of prices.[12] While they would become effective only after an inflation had been started by other factors, it is in just such a period that they would have the greatest popular appeal. They would probably not be abandoned for a long time even in the face of rapid inflation.

Anti-Inflationary Factors. As against these considerations four reasons are often given for the belief that the transition process will involve an early reversal of the upward trend of prices. One of these is the decline in the expenditures of the Federal Government, which when completed may amount to 70 billion dollars per year. A second is a possible serious rise in unemployment, with a consequent check on the spending habits of those who are employed. Third, there is a belief that when reconversion is completed and labor controversies are settled, the production of goods and services will be so great that the expanded supply of money will be found to be no larger than will be needed to finance the output of industry at present price levels. And fourth, it is argued that people have formed

[12] Of course the parity principle never can be 100 per cent effective, without lag, because the prices against which parity is measured have to move first, before any compensatory action is indicated.

habits of saving, the persistence of which will more than offset the forces making for inflation.

First, as to reduction of the Federal deficit. Because of rapid demobilization and the high level of business activity the deficit is declining faster than was anticipated at the close of the war or even at the end of 1945. Private investment on the other hand is reviving rather more slowly than was anticipated. The danger to price stability in 1946 is not in the size of the deficit, which could all be taken care of by sale of bonds to nonbankers, but in the prospect that it will be financed by drawing down Treasury war loan balances. The method is even more inflationary than the wartime deficit financing, since no one's purchasing power is decreased to offset the Government's expenditures,[13] whereas much of the wartime deficit was covered by sale of bonds to persons whose expenditures were correspondingly reduced. It may add 10 billion dollars to the present supply of money. A deficit financed by new money is not a deflationary factor merely because it is lower than it was at a previous date; it is only a weaker inflationary factor than it was before. Nevertheless it is true that the change in Federal budget requirements will soon remove the chief factor which has been generating inflationary pressure. There will still be danger of a delayed reaction from wartime financial policies but it will be much less difficult to exercise credit controls, if they become necessary, than was the case when the money markets were dominated by Treasury deficit operations.

The second point relates to the indirect effect on the general rate of spending of the displacement of labor incident to demobilization and reconversion. Undoubtedly there will be more frictional unemployment over the next year than there was during the war, even if boom conditions continue to prevail in civilian industry as a whole. Employment in the airplane, ordnance, and explosives industries has contracted rapidly and all three of these industries are located to a large extent in communities where industrial activity of prewar types, even at a high level, would not provide employment for all the war workers.[14] Either these communities must develop entirely new industries or part of the workers must move elsewhere if they remain in the labor force. Reabsorption, however, is taking place more rapidly than was generally anticipated.

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[13] Except that it requires an increase in total bank reserves, since war loan accounts are free of reserve requirements.

[14] However, in California, aircraft factories were actually advertising for help in December 1945.

It is obvious that a situation in which some millions of workers are unemployed is less inflationary than the one in which they were employed at war work, because their buying power has been reduced, while in either case they contribute nothing to the supply of consumables. This is really just another way of stating part of the anti-inflationary effect of the reduction of the deficit. As compared with the employment of these workers in peacetime industry, however, the effect of their unemployment on price pressures is not so clear. Whether 60 million people are at work in civilian industry, or 50 million are at work and 10 million unemployed, affects both sides of the demand-supply equation. A smaller number of workers will have less spending power than would a larger number, but they will also produce less goods. The common notion that unemployment is a direct cause of price deflation is mostly an illusion resulting from the fact that the two usually go together. The primary relationship is that falling prices, whether caused by a monetary deflation or by a rise in the rate of uninvested saving, tend to cause employment[15]—not the other way around.

Two qualifications of this statement are necessary, however. One relates to the effect of unemployment on the buying psychology of those who remain employed; the other to the effect of contraction of economic activity on the inventory policies of manufacturers and distributors. As to the first, it is true that when unemployment increases, some employed workers cut their spending as a precaution against the rainy day. But against these unspent savings must be set the forced expenditure by the unemployed and their relatives of past savings, plus unemployment insurance and relief payments, which are not balanced by a contribution to the output of goods. Neither effect is particularly important while employment stands at its present high level.

As to the second point, it may be suggested that in making the transition from an economy of 60 million to one of 50 million workers, inventories of goods in process and retail stocks would have to be reduced in size, and this reduction would cause a temporary buying recession and slump in production far greater than the permanent change. The point would be a good one in normal times but is irrelevant to the present situation, in which stocks of the goods people want are extremely low and unbalanced. In normal times a curtailment of industrial workers' buying

[15] This is chiefly because of the rigidity of wages against downward readjustment. Falling prices which merely reflect technological progress do not tend to reduce either wages or employment.

comparable to that which has recently been caused by cutbacks, shutdowns, downgrading, and disappearance of overtime, would have led to reduction of dealers' inventories, cut-price sales, and liquidation of consumer credit lines corresponding to the contraction of productive activity. Inventory and credit losses and shrinkage of volume would wipe out many dealers' profits and produce a crop of bankruptcies.

Some observers expected this sequence to follow the abrupt discontinuance of munitions production in 1945. They forgot two things: first, that a cutback confined to war workers does not reduce, and may eventually increase, the scale of civilian goods' production and the appropriate level of inventories; second, that dealers' inventories were already below the level that would normally accompany the present scale of civilian industry.

Moreover, the displaced workers still have a lot of spending power—as is evident from the record of Christmas sales in war-plant centers and from the slowness with which these workers are accepting jobs in non-war work. The current unemployment, what there is of it, is quasi-voluntary. It reflects dissatisfaction with the kind of jobs available and with the current wage scale rather than a lack of job opportunities. Some of it is fictitious, arising from the requirement that aspirants for unemployment compensation register as job seekers and reject at least one job as unsuitable.

Third, the prospect of an increase in production which is significant for a judgment of price outlook involves two distinct issues. First, an increase in the production of civilian goods and services will certainly result from the transfer of labor, capital, and managerial effort from wartime to peacetime tasks. Second, some observers confidently expect a major increase in total output above prewar levels, partly because of a higher level of employment, but chiefly because of improvements in productivity that have occurred during the war or are expected to occur in the immediate future.[16]

The writer's judgment is that current expectations as to the productivity of industry during the transition period are far too optimistic. This is true even if current rosy forecasts of the increase in production over the next decade are justified. The technological situation in 1946 and 1947 will be dominated by the immediate effects of the war and not by the long-term rising trend of knowledge. For four years we have concentrated the research brains of the country on the improvement of techniques and the

[16] See Pamphlet No. 1 in this series; also Mr. Williams' paper in this pamphlet.

increase of investment in war industries, which we had been neglecting for 25 years. During this period we have correspondingly neglected to maintain the equipment and develop the techniques of peacetime industries; the reasonable expectation is that in 1946–47 they will be technologically worse off than they would have been had there been no war.

Moreover, account must be taken of a conspicuous decline in the individual productivity of workers due partly to wartime upgrading and partly to the weakening of discipline which accompanies an extreme abundance of jobs.[17] During the war—as was the case also during and just after World War I—this appeared in exaggerated form. There is no reason to assume that the loss of individual productivity is permanent but it will probably remain important at least through 1946.

These considerations are disregarded by many observers because of statistical evidence that man-hour productivity has actually increased during the war much more rapidly than it did in prewar years. The facts are astonishing rather than convincing, however, since there are several reasons why the output of labor and other resources employed in war production, as conventionally measured, is higher than the potential output of the same resources in peacetime. The difference is partly real and partly fictitious. The fictitious element arises from two factors. First, cost-plus, and virtual cost-plus, arrangements cover into value of gross product much unnecessary expense, spoiled work, hoarded labor, and other ordinarily unrecoverable costs. Second, some apparent gains of productivity have been made by accelerating the depletion of natural resources, as in the petroleum industry and in agriculture, or by using up inventories, as in the feeding of old grain stocks to meat animals.

Reconversion involves a fictitious loss corresponding to these fictitious gains. The writer is skeptical also of the permanence of most of the genuine gain, for the following reasons: First, a considerable increase in productivity resulted from the transfer of labor into munitions industries from service lines and the less mechanized industries. This is only a temporary gain.

Second, a very large part of the genuine gain in productivity resulted from the standardization of output which accompanied concentration of whole factories on Government orders. Obviously, labor can be much more "productive" in making uniforms by the hundred thousand than in producing diversified garments for civilian use. Food can be preserved

[17] Compare W. H. Beveridge, *Full Employment in a Free Society*, pp. 194–98.

more economically in large containers for army use than in small containers for retail distribution. These gains are not transferable to peacetime industry.

Third, a large temporary gain in man-hour productivity has resulted from abnormally full utilization of the capacity of both labor and equipment. A porter does more work if he services a sleeping car or a hotel that is always full than one that is half empty several days in the week; under peacetime conditions if the demand does not decrease, more hotels and sleeping cars will be built and operated. Similar economies of full load or overload are apparent in hospital and medical service, in truck and rail transport of freight, and in many other industries. In retail trade, overload enables a dealer to curtail service and advertising and to effect a larger turnover per unit of labor, of space occupied, and of equipment. This is not in any real sense an evidence of increased productivity of labor and other resources employed in distribution. The increased load is temporary, being due to the wartime decline in number of retail outlets and to the excessive buying power of customers as compared with quantity of available stocks as currently priced.

Fourth, much of the wartime increase in productivity resulted from the adoption in the munitions industries of mass production methods which were already in use in peacetime industry but not in the relatively small-scale war industries. Particularly is this true of the airplane industry, which changed over from a handicraft to a line-assembly mass-production industry. The shift effected an enormous increase in the ratio of output to labor employed, in spite of notoriously wasteful use of labor. But little of this improvement is now available to increase the output of the automobile industry, in which mass-production methods were already in use before the war, and from which, indeed, the wartime airplane industry borrowed them. Likewise, great improvements were made in the production of ships, but we shall build few ships in 1946–47, and there is no reason to think that much of this new technique will be carried over into the production of houses, for example.

Fifth, food production has been favored not only by great advance in plant breeding and insect control, which is permanent, but also by an extraordinary series of good crop years which cannot be expected to continue indefinitely. The so-called efficiency gains of agriculture will suffer severe deflation if the dustbowl takes to the air again. Moreover, for staple food crops, the relevant question of productivity relates not to American agriculture but to world agriculture. European agriculture has

received a terrible setback from destruction of animals, neglect of fertilization, demoralization of transport, and dispersal of workers, to say nothing of the wastage of fields and woodlands in battle zones.

Some carry-over of new techniques there will be, of course. Much of what has been learned in chemistry will be useful to peacetime industry, and shipbuilding and aircraft production in their restricted areas will benefit enormously from the wartime experience. But in most lines the genuine gains from the research done in wartime will accrue in the more distant future; they will count for little in 1946–47 because their application to non-war industry will require added research, new investment, and added experience.

In view of these facts any increase in man-hour productivity from 1941 to 1946 except that due to fuller use of capacity, say 5 per cent over-all industry, seems improbable.[18] By 1947 the effect of new investment in peacetime industry will begin to show itself, but a further increase of 3 per cent would be an optimistic expectation.[19]

The prospective volume of production is dependent also on the size of the postwar labor force, and here also the writer believes that most current expectations are too high. Withdrawals from the labor force are running higher than was generally forecast; the writer guesses the average labor force in fiscal 1946–47 at 59 million rather than the usual figure of 62 million. If we allow for 3 million unemployed and 3 million in the armed forces, 53 million jobs would constitute substantially full employment. This is about 18 per cent more workers than were employed in 1940. Allowing for a 7 per cent increase in man-hour productivity and no change in working hours we get a gross national product of 163 billion dollars at 1944 prices from civilian effort.[20] This would provide for, say, 33 billion dollars of Government purchases; private capital formation (including net exports and housing), 22 billions; new automobiles, 5 billion; other durable goods, 10 billion; and non-durables and services, 93 billion. The last figure represents just about the level of 1945. Acceptance of the higher estimates of labor force and productivity generally current would raise these figures by about 15 per cent.

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[18] This is on the assumption that weather conditions in agriculture will be no more favorable than average.

[19] For contrary view see Williams' comments in this pamphlet, p. 59. Hagen's estimates for the second quarter of 1947 in Pamphlet No. 1 (p. 28), as well as Williams', involve an assumption of about 3 per cent per year increase in productivity from 1940.

[20] Seven per cent for fiscal 1946–47 corresponds roughly to 5 per cent for 1946 and 8 per cent for 1947.

Whatever may be the volume of total production, houses and automobiles are too scarce to be supplied before the end of the calendar year 1947 in such quantity that their prices would not, if uncontrolled, be substantially further above prewar than are prices in general. It seems clear also that foreign needs will keep cereal foods very scarce at least through the spring of 1947. I see no escape from selective control over such commodities for two years unless we are willing to pay very high prices for the goods that are hardest to restock.

Price control will not seriously delay the restoration of normal supply conditions in manufactures, but rent control will reduce residential building unless its effects are offset by subsidies or new construction is exempted from control.

Spending and Saving. Quite distinct from distortions caused by obstructed production is the over-all pressure on prices which may be generated by excessive purchasing power and may carry over into peacetime if employment remains at a high level. This is the most obscure factor which we have to appraise. It really presents two distinct problems; namely,the effect of the rise in the level of incomes above prewar, and the effect of freedom from debt and possession of a backlog of bonds and cash.

As to the first factor, it does not seem to the writer probable that lifting people to higher income brackets will automatically give them the saving habits of the people previously in those brackets. Differences in individual saving capacity vary greatly between members of the same income class, and the qualities of character and past environment which put people in a high- or a low-income class probably would also give them high or low saving capacity at any income level.

The second factor works both ways. Some people will save more because they have acquired the habit, others will spend more freely because they have something put aside for an emergency.

This matter of holding savings in cash balances is another way of stating the old question of the relation between the money supply and the price level. On this point the writer is more optimistic than might be inferred from the enumeration of price pressures in the preceding pages, although the supply of money has increased from less than 35 per cent of gross national product in 1942 to nearly 46 per cent in 1945, with a prospective rise to 55 or 60 per cent for 1946 if prices remain stable.[21] To reduce this to 38–40 per cent would require a 50 per cent rise in prices.

[21] Cash outside banks plus demand deposits other than Government and interbank, at mid-year, compared with estimated gross national product for calendar year.

It would be rash, however, to predict that the existence of such an enlarged supply of money will force a corresponding upward readjustment of prices.

On the one hand it may be argued that the increased holdings of liquid funds have been made possible only by rationing, war savings propaganda, and successful enforcement of price control, which has made it almost as easy to save money as to spend it. Many individuals are holding cash as a temporary investment and expect to spend it for investment or for durable consumption goods when conditions are more stable and goods more readily available. A considerable volume of funds has been absorbed into capital through the liquidation of consumer credit, a process which may be reversed as durable goods become available. More important, the restoration of inventories, the reconversion and expansion of equipment, and the construction of new buildings will be financed to an unusual extent by the activation of bank balances and the liquidation of securities held by corporations.

On the other hand, money is a means of conserving past savings as well as of making expenditures, and its use for that purpose has been increasing for more than a decade. The fall in interest rates has been weakening the incentive of individuals to seek maximum use of temporarily available funds. Insurance of bank deposits has increased the attractiveness of unspent balances as semi-permanent investments. The higher level of postwar income will tend to stabilize balances, since in general recipients of higher incomes carry larger proportions of their incomes in unspent balances. Moreover, the wartime habit of keeping more money in proportion to one's income and wealth will surely persist in some degree, unless too rapid a rise of prices should stimulate speculative attempts to convert cash into goods.

A most encouraging feature of the situation is the fact that the ratio of time to demand deposits, which has been falling for many years, has now turned definitely upward.[22] In the three years 1940–42, demand deposits increased over 19 billion dollars, time deposits less than 1.5 billion. In 1943 over one-fourth of the growth was in time deposits; in 1944–45 over one-half. Savings bond sales, since the close of the Victory Loan Drive, have been about equal to redemptions. This is an excellent showing in view of the extent to which wartime propaganda stressed the

[22] The ratio of time deposits to total deposits (exclusive of Government and interbank) at mid-year, has fluctuated as follows: 1941, 35.5 per cent; 1942, 28.4; 1943, 26.7; 1944, 26.3; 1945, 27.6. Of the increase in adjusted deposits from January to December 1945, 55 per cent was in time deposits.

needs of the war period rather than those of the whole period of war finance. So far as nonbusiness funds are concerned, the money is probably finding its way steadily into the hands of the more thrifty and stable members of the community, who are not likely to rush into a spending spree as the supply of goods begins increasing.

If full employment continues, which now seems a reasonable assumption, and if the level of taxation is not changed, private investment in 1946–47 will be large by all past standards, though much less than the level of Government deficits of the past four years. Likewise the levels both of taxes and of voluntary saving will be very high by past standards though lower than during the past four years. Conversely, dissipation of money previously saved will be greater than during the war. The combined effect, unless price control remains rigid, will be to push up the money value of the national product by more than any possible increase in physical output, so that average prices will rise. The rise will be largely in service industries, where technological progress is relatively slow and price control has been more rigid than in the commodity field. Assuming for 1946 continuance of general price control and for 1947 control over rents and the prices of automobiles and basic foods insatiably needed for war-stricken nations, a rise of 20 per cent by the end of 1947 seems a reasonable allowance for the delayed direct effect of wartime inflationary finance.

Wages. This analysis, however, does not take account of the wage situation, which is rapidly becoming the primary source of inflationary pressure. The present national policy is to encourage and support demands for higher wages even though such increases may necessitate higher prices. Continuance of this policy would step up the prospective rate of inflation to an extent that cannot be predicted.

Some wage increases will necessitate higher ceilings; others will have no effect; none will cause lower ceilings. Hence the immediate effect of a series of wage increases is necessarily to raise the average level of prices. But even if wage increases are allowed only where no price increase is necessary, the net effect of collective bargaining under present standards is still inflationary. For stability of prices does not mean stability of all prices; it means that some prices rise and others fall. If the excessive profit margins that would otherwise lead to competitive price reductions are regularly absorbed in wage increases, the cases where prices rise for other than wage reasons are not offset in the general average by cases where they decline. In addition, higher prices in one industry often mean higher cost of materials in another, and higher wages in one industry create

added pressure in others. Hence, unless the upward pressures are counteracted by anti-inflationary credit and fiscal policies, which reduce other prices to offset the cases where cost increases force higher prices, the price level steadily rises.

The current drive for wage increases is not based on increases in either cost of living or productivity of labor but on the ability of an individual corporation or industry to pay. Ability to pay is of course influenced by productivity but in the present state of demand, price increases are as fruitful a source of "ability" as are productivity increases. We appear to be heading toward a situation in which strikes will be directed against OPA with management playing the role of innocent bystander. This is the logic of the "floor" plan under which price relief is given if wage increases encroach on profits of 1936–39, since whenever a concern has no hope of making better than floor profits under its ceilings, but has a market that would stand higher prices, it has no immediate incentive to resist demands for wage increases. The inflationary effect is parallel to that of a very high excess profits tax, which also removes the incentive to resist wage demands or exercise close control over other items of expense.

The difficulty arises more from full employment than it does from an excessive supply of money and a deficiency of goods, though of course these factors underlie the full employment situation. The fact is that collective bargaining with strong unions, price stability, and full employment are incompatible. We can have any two of these, but not all three. So long as union power is not dampened down by unemployment there is no apparent power in the state strong enough to check a parallel upward sweep of wages and prices.

The basic difficulty is that although the unions have a degree of monopoly power that is sufficient to make them irresistible in their respective fields, the bases are not broad enough to bring their specific interests into balance with the over-all consequences of their policies. The decision whether to demand wages so high as to force higher prices is made by each industrial union separately; the price consequences are spread over the whole community. No union's successful demands will raise its own members' living costs by nearly as much as it will increase their incomes. Even if each unionist believed that the effect of a series of wage increases in different industries would be nullified by the resulting inflation, it would still be good policy for each union to try to get its increases first and make them bigger than the average. Even in times of considerable unemployment (as in 1937) this situation existed but usually it has been held in

check somewhat by the fact that an industrial union which moves too far ahead of the procession may force its employers to curtail activity because the market will not pay prices that cover the costs. But in a market like the present one this danger is remote. It will generally be remote in a period of full employment because full employment usually accompanies a condition of high demand, in which prices can be pushed up much further to meet wage increases than is usually the case. Since there is no prospect of a reversal of the policies established in 1933 and following years to strengthen the bargaining power of labor, new wage bargains are likely to work toward inflation for a long time.[23]

This is not to say that the current upward pressure on wages is all due to union policy in a setting of union power. It is largely due to competition for labor. It seems fairly clear that even under present price ceilings, if there were no unions and the labor market was free, wages would be driven above recent levels by competitive forces. As was noted above, certain elements of cost are abnormally low because of large volume, and this gives an incentive to bid up other cost items (chiefly wages and rent). This would create no problem if the low costs were due to permanent advances in technology. But in so far as the economies are those of temporary high plant loads and of selling in a sellers' market the translation of economies into wages would foreshadow a later struggle to reduce wages or an industry-wide reduction of employment.

PUBLIC POLICY

The responsibility of public authorities in dealing with the threat of inflation is twofold—to take appropriate steps to reduce and finally eliminate the upward pressures on the price level as rapidly and as completely as that can be done without creating worse evils, such as mass unemployment; and second, to provide interim controls that will minimize the shocks of transition from a wartime to a peacetime economy, and later from a regime of controlled to one of free prices.

As was stated on page 1, appraisal of credit controls, fiscal policies, and measures to stimulate production is the task of other pamphlets in this series (particularly Nos. 1, 3, and 8). Here we shall merely indicate some of

[23] Compare W. H. Beveridge, *Full Employment in a Free Society*, pp. 198–203. Beveridge suggests as remedies either pooling of the efforts of all unions, so that competitive upward pressure on prices may be minimized and more regard given to stabilizing prices, or compulsory arbitration with price stability as the criterion for the arbitrator. The latter suggestion is very similar to the policy adopted in this country last fall and now abandoned. See also League of Nations, *Economic Stability in the Postwar World* (Report of the Delegation on Economic Depressions, Pt. II), 1945, pp. 207–08.

the alternatives that must be appraised as possible parts of a reasonable anti-inflation program. Price control is not discussed in other pamphlets in the series and we shall therefore offer certain comments with regard to price control policy in the transition era.

There will probably be general agreement that Government surplus property of kinds that are scarce should be disposed of rapidly with a view to their maximum usefulness, even though more money might be realized by holding them off the market till price ceilings have been lifted. The prohibition of return of surplus property to the United States should obviously be repealed or suspended till price control is no longer deemed necessary. There will be little dispute also that major public works should be postponed until the danger of inflation seems to be past, except those which are intended to meet a need arising from the war (such as veterans' hospitals) or to make up a deficiency of public capital which accrued during the war (such as street and highway maintenance, expansion of water and sewer facilities in newly settled urban areas).

Beyond these items we run at once into disagreements that reflect both clashes of conflicting interests and genuine differences of judgment as to the results to be expected from various suggested measures. For example, it is not disputed that sufficiently heavy taxation, creating a budget surplus, would have an anti-inflationary tendency. But there would be considerable disagreement, first, as to whether taxes high enough to stabilize prices would not have an adverse effect on the present high level of employment; second, as to what particular taxes would be most appropriate; third, as to whether we would rather pay the tax or have the inflation. The first of these questions arises also as to the use of credit restraints on further expansion of money—a subject which will be discussed in Pamphlet No. 8 of this series. Suspension of protective tariff duties on all goods subject to price control (except as offsets to excises) would offer a powerful check on inflation, but those who believe that the country derives benefits from the protective tariff would probably consider inflation control an inadequate compensation for the loss of those benefits. Likewise, those who believe that this country derives benefits from the National Labor Relations Act will give those benefits considerable weight in deciding whether suspension of the Act would be justified as a means of checking inflation. Proposals to expand the scope of parity price supports, for example by including labor costs in the parity base, are obviously inflationary, but supporters of the parity program may argue that the benefits expected from such expansion will justify the resulting inflation.

Even if anti-inflationary measures adopted are adequate to check further expansion of purchasing power, there will be acute pressure for from 6 to 18 months on the prices of articles that will continue to be short. This will justify continuance of price control in those areas. Moreover, in all probability, pressures will be strong for another year even in fields where supplies are of normal proportions. The objective of general control should be to facilitate an orderly transition to a price level that will balance demand and supply when the bottlenecks in supply are eliminated. Decontrol of the trivial features of the price structure might well begin at once. Control over prices of commodities which are in abundant supply, or could be supplied in abundance under a price stimulus, can probably be discontinued within the calendar year 1946.

The difficulty here is to distinguish genuine capacity shortages which are independent determinants of price policy (such as automobiles) from market shortages which are attributable to price control itself (such as men's shirts). For example, at present meat is far more abundant than before the war and flour comparatively scarce, in part because the relative height of the ceilings has encouraged feeding grain to animals rather than to human beings. A similar relation appears to exist between prices of butter and of other dairy products. Relative slowness in the readjustment of such distortions is an inescapable disadvantage of price control. Nevertheless, continuance of control on a diminishing basis seems justified, in view of the risk that its sudden withdrawal would precipitate a speculative boom that would carry prices to a level which would invite a speculative crash.

EMPLOYMENT AND WAGE POLICIES[1]

by

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This paper is concerned with selected aspects of postwar employment and wage policies. Its purpose is to bring together and interpret significant employment and wage developments and to offer some suggestions which may be helpful in stimulating thought about policies in these fields. The emphasis is on the institutional, organizational, and human aspects of full employment and on the relationship between wages and full employment. It does not attempt to outline a complete program for full employment opportunities and high standards of living.

Since this paper is only one of a series on postwar policies, the discussion is limited largely to material not included or included only incidentally elsewhere in the series. As a consequence, many important issues relating to employment and wage policies are left untouched or are stated in a summary manner without full explanation of the reasons for positions taken. Similarly, the economic theory underlying the analysis in this paper is given little explicit attention in the text. Briefly, the theory is as follows: production large enough to provide continuing full employment opportunities is possible only if the total income of the nation is constantly increasing in line with the growth of the labor force and increasing productivity. The total income must be spent currently either on consumer goods and services or saved and used for new investment directly or indirectly. There is no satisfactory basis for assuming that the flow of income into consumer expenditures and new investment will be maintained automatically at a full employment level. As we learned during the depression, it is possible for the economy to be stabilized for a long period at levels substantially below full employment.

The goal of economic policy should be the guarantee of full employment opportunities, not merely the maintenance of a high level of income or of a high average living standard. Although a high level of income is necessary for full employment, full employment may not result automatically

[1] John M. Crawford, on military leave from the Board, participated as joint author in an earlier draft of this paper. Although this version is a substantial revision, Mr. Crawford's assistance in providing much of the underlying material is gratefully acknowledged.

from a high level of income. The flexibility of the economic system permits the combination of different quantities of labor with other factors of production even at approximately equal levels of income. The less well-known flexibility of the supply of labor makes it possible for a given amount of employment to be associated with varying amounts of unemployment.

The wage analysis is not intended to indicate the level of wage rates required for full employment or to imply that wage action alone can assure full employment. The purpose is rather to bring into the open for discussion the implications for wage policy of current estimates of the level of national income needed for full employment in 1950. The intention is to outline in an approximate way a probable level of wages in 1950 under conditions of full employment and free collective bargaining *if* the general price level is maintained at about the 1944 level. The wage-price-income relationships postulated for 1950 are not inconsistent with past experience in this country.

Before the war, Government had no wage program outside of the fields of minimum wages, wages paid on some Government contracts, and wage standards for its own employees. Unless one is willing to accept a substantial amount of direct Government intervention in economic affairs, reliance in the long run should continue to be placed on free collective bargaining and usual market forces to determine wages, above the substandard level, in private employment. It would be unwise to effect the changes in wage rates outlined for 1950 by Government intervention through compulsory arbitration, price control, profit limitation, or the use of similar direct controls. Measures affecting wages indirectly through their influence on the economy as a whole, such as those embodied in fiscal and monetary policies, of course, will need to be continued and improved if the economy is to function effectively.

EMPLOYMENT POLICIES

The Goal. "The greatest evil of unemployment is not the loss of additional material wealth which we might have with full employment. There are two greater evils: first, that unemployment makes men seem useless, not wanted, without a country; second, that unemployment makes men live in fear and that from fear springs hate." (Sir William Beveridge.)

Full employment is a desirable goal not only on economic but also on moral grounds. The end purpose of economic activity is to serve people. Participation in common effort, security of social status, and the feeling of

being wanted are satisfactions which an economic system should provide in the same way it provides material satisfactions. Similarly, desire for freedom, individual expression, and recognition of individual dignity are also satisfactions towards which the economic as well as the political system should be directed. A good economic system is not only highly efficient in turning out material goods and services but it also makes certain that the less tangible human wants are not neglected or improperly subordinated to other ends.

This emphasis on satisfaction of non-material needs of individuals, including the safeguarding of the rights of minorities, is a primary mark of distinction between a democratically organized economy and a totalitarian system. Fortunately, as the war demonstrated, there is no conflict between efficiency in the material sense and enhancement of individual dignity. Reports from Germany since V-E Day indicate that the much publicized efficiency of German war production was considerably less than ours. Our war production effort was helped by the democratic traditions of individual initiative, freedom of competition, and voluntary cooperation.

In the last 30 years the ability of the economy to satisfy some intangible wants has been reduced although at the same time the ability to produce material goods has been increased greatly. Mass unemployment, personal insecurity, and fear have been allowed to develop on a larger scale than heretofore. Although prior to World War I full employment was rare, the destructive effects of unemployment were less. The average percentage of unemployment was lower and the duration of idleness shorter. It was ordinarily taken for granted that jobs were available, or soon would be available, for practically all who were seeking work and able to work.

The structure of the economy before World War I contributed to minimizing the destructive influences of changes in economic conditions. A large proportion of the labor force was in agriculture, about one-third in 1910 as compared with one-sixth in 1940. Low prices for farm products created poverty among farmers then as now. Poverty of any kind is deplorable but in a rural economy it does not have some of the consequences that mass unemployment of industrial workers has. The farm operator does not lose his social status; he still holds his place in society; and he is still wanted. To the farmer, useful work, if not an adequate income, may be available. Unemployment for an industrial worker is different. It often destroys his attachment to and his place in normal society. It frequently

uproots him physically from his surroundings and usually forces the abandonment of rights acquired in a particular job in the form of untransferable skills, seniority, and similar special factors; and of course it deprives him of an income and the means of consumption.

Reaction against the frustration, demoralization, insecurity, and loss of human values involved in mass unemployment of industrial workers is the main driving force behind the popular demand for full employment. Other phrases such as high national income, full production, business prosperity, or high standards of living have been suggested as alternative goals for economic policy but they fail to win the same degree of popular support as full employment. This is evidenced by the fact that the two major presidential candidates in 1944 called for the achievement of full employment as the first job of peacetime Government. In a speech on September 21, 1944 Governor Dewey said: "If at any time there are not sufficient jobs in private employment to go around, the Government can and must create job opportunities, because there must be jobs for all in this country of ours."

In the context of American traditions and in the framework of our capitalist system, full employment is hardly a revolutionary goal. In a limited sense it reflects a desire for a demand and supply relationship for labor not fundamentally different from that which frequently prevailed before World War I. The full employment goal as most people interpret it calls for no sacrifice of personal freedom, no imposition of heavy direct Government controls, no fundamental change in the role of the State as the servant of the people. It calls for real jobs, not made work. The goal expresses the sturdy traditional demand for the right to "earn one's own way and stand on one's own feet."

Properly defined, the full employment goal always should be stated as one of "full employment opportunities" since there is no intention to suggest that jobs are to be guaranteed individual workers. The intention is rather to provide an economic environment in which qualified workers are assured the opportunity to obtain jobs within a reasonable time if they are willing to make reasonable adjustments should they be necessary in location and occupation.

Full employment does not mean the complete absence of unemployment. Some unemployment of an in-between-job frictional sort is necessary in a free and progressive society, not merely as a convenience to the employer but also as a safeguard against infringement of workers' free-

dom. Rigidly interpreted, the complete absence of unemployment would necessitate the compulsory direction of labor because no worker could change his employment until a replacement were found for his position. This is obviously not what is meant by full employment. Even during the war when all workers normally looking for work were engaged and 7.5 million additional persons were induced to accept worker or armed force status some unemployment continued to exist.

In one sense, full employment is a political concept rather than a statistical one. In our economic system, where Government has only the residual responsibility for providing full employment and private enterprise has the major responsibility, full employment really means that enough jobs are and will be available to make unnecessary Government action to create additional jobs. What number of jobs is considered enough will depend on political attitudes as well as on economic facts. Political attitudes about unemployment and employment will vary with time, location of unemployment, cause of unemployment, and who is affected.

Undoubtedly, Government action to provide additional jobs will be taken at a considerably lower level of unemployment after the war than before the war. If unemployment is concentrated among veterans,Government action will be taken more quickly than if among civilians. Action will be taken more quickly if unemployment is concentrated in strategic political locations than if it is distributed widely. Action will be taken sooner if it appears that unemployment is a result of a fundamental change in conditions than if it is the result of priority or reconversion lay-offs or of other influences which are expected to be temporary.

A Government commitment to guarantee full employment should be interpreted in the light of considerations of this kind. Naturally, at any given time some groups will want Government intervention to stimulate increased job opportunities at a lower level of unemployment than other groups. Out of the debate between those who want a tight labor market and those who want a loose labor market will come some general agreement as to when Government is to take action. This is the inevitable process of democracy. There is little reason to think the broad results of the democratic process will be any less successful in discharging a residual responsibility for employment than in discharging other equally serious Government responsibilities.

It is sometimes said that full employment is undesirable because

workers will not put forth their full efforts unless faced with the threat of unemployment and deprivation. Nearly everyone can cite from personal experience an example of a worker who when assured of a permanent job refuses to put forth maximum effort, or is unwilling to accept the usual requirements of industrial discipline. Nevertheless, to assume that such an example is typical and that most workers react in this way is clearly wrong. As Beveridge says, "The essence of civilization is that men should come to be led more by hope and ambition and example and less by fear."

In the years immediately before the war, the predominant cause of job separations was lay-offs attributable to unfavorable economic conditions. Discharges for cause have never been a significant proportion of total job separations. Lay-offs are likely to affect the best workers as well as the worst. Maximum individual effort is no insurance against unemployment when the plant shuts down. The connection between unemployment and individual effort is not very close in the experience of most workers. People have many motives for working hard and pleasing their superiors aside from fear of unemployment. Pride of workmanship, self-respect, a stake in group insurance plans, seniority in the plant, hope for advancement, and acquisition of untransferable skills—all of these and other influences operate to encourage workers to put forth their best efforts and would continue to be effective in a full employment economy.

On the other hand, the fear of being unable to find a job if one loses his present job has serious restrictive effects on efficiency. Fear of unemployment lies deeply rooted in most efforts either to limit output or make the job last. It lies back of many jurisdictional conflicts among workers. It is a powerful force against the adoption of incentive wage systems and against the introduction of new machinery and more efficient methods.

During the war, the adoption of properly designed incentive wage systems has frequently resulted in increases in output per man-hour of as much as 40 per cent. This is a striking illustration of the kind of thing that is possible in an economy of continuing full employment. In most jobs, the individual worker (or groups of organized or unorganized workers) has wide discretion in the amount of his output. Management cannot exercise close enough supervision to eliminate the wide margin of performance which is subject to the will of the employee. If fear of unemployment and serious personal loss were removed, and if by proper labor relations policies the full cooperation of workers could be obtained, there is little question that output per man-hour throughout the economy could

be increased greatly without significant additional expenditure for new capital equipment.

It also is said that full employment is undesirable because it enhances unduly the bargaining power of workers. According to this view the bargaining power will be misused and wages and prices will be forced upward to inflation levels unless prevented by direct Government controls over wages and prices. Again, an example can be cited from personal experience in which a specific group of workers has taken advantage of an exceptionally favorable bargaining position to price itself or its employer out of the market. However, to assume that this would be the normal behavior of workers and that it would be attributable to full employment is open to serious question.

Attributing to full employment the danger of wage inflation overlooks the fact that well-organized unions can obtain wage increases even when unemployment is great. This happened in 1936–37. The solidarity of the union and its ability to win popular approval for its actions are far more important than the volume of unemployment in determining the success of organized efforts to raise wages. In recent years, few important strikes have been broken by hiring unemployed workers to replace strikers. If there is danger of inflation from rising wages, the danger exists with or without full employment.

It is true, of course, that if unemployment is largely eliminated a powerful deflationary force is removed and to this extent the danger of inflation is enhanced. Moving away from one extreme necessarily brings one closer to the other extreme. However, it is questionable if labor as a whole is able to obtain even its proper share of the national output when unemployment is substantial. Except when there is a relative equality of bargaining power, which exists only in full employment, it is likely that labor obtains less than its economic share of the total product. The fact that labor may be able to obtain a larger share of the total product under conditions of stable full employment than under conditions of fluctuating unemployment does not in itself prove that it obtains more than its economic share.

There are other restraints on excessive wage rate increases. These include the extremely large frictions and lags in the wage system. Inertia and resistance to sharp changes in wages are great. Another factor is the constant increase in productivity which tends to correct automatically over a period of time any errors which might arise from wage rates becoming

too high in relation to prices. The usual volume of frictional unemployment also constitutes a source of additional workers. More important than these is the large labor reserve of women, youth, and older persons outside the labor force but available for employment when needed.

The Nature of Full Employment. Technically, full employment is not a given figure such as 60 million or any other specific number of jobs. Sixty million jobs may be the number required for full employment at a given time, but again at other times, 65 million or 55 million jobs may satisfy the requirement. The important thing is not the specific number of jobs, but the balancing of the relationships between supply and demand for labor.

The labor market is not one national market, but a series of loosely interconnected local and industry markets. For full employment to exist, jobs must be available in the right location and at the proper wages for the kind of skills possessed or reasonably attainable by the workers available for the jobs. In other words, the supply and demand for labor should be fairly evenly balanced in each labor market. A shortage of doctors and a surplus of welders may balance numerically in the over-all statistics; but unless adjustments can be made in the labor force to increase the supply of doctors and reduce the supply of welders, or to decrease the demand for doctors and increase the demand for welders, the situation is not one of full employment even though the statistics indicate that the number of workers seeking jobs is no greater than the number of vacant jobs.

The purpose of these remarks is to suggest some of the realities back of the aggregate figures of the labor force, employment, and unemployment, not to question the usefulness and meaning of these figures when properly understood. In practice, there is a strong thread of continuity running through economic events and labor market behavior. After leaving school and before retiring, practially all physically able men expect to work, and if work is not available, they consider themselves unemployed. The majority of women in the same age groups do not expect to work outside the home, but a large and constantly growing proportion of women do expect to work outside the home and consider themselves unemployed if jobs are not available.

The desire for employment is reasonably consistent over time and can be predicted fairly accurately if proper allowances are made for the age, sex, and marital status of the population. The size of the labor force and its composition are affected, however, by institutional arrange-

ments and the nature of the economy. The proportion of the population in the labor force in Great Britain is higher than in the United States, largely because the school-leaving age is lower, and agriculture is a much smaller part of the total economy. In agricultural areas, the proportion of women counted as employed or unemployed is usually considerably lower than in urban areas. In this country, the establishment of public nurseries unquestionably would increase the number of married women seeking jobs. Raising the average school-leaving age of youth would reduce the size of the labor force. Lowering the customary retirement age would also reduce the size of the labor force.

The point of these comments is that the labor force is not a fixed quantity, or even a fixed proportion of the total population. It tends to change over time following a consistent pattern, but this pattern and the total labor force can be modified by conscious policy. If, as during the war, strong efforts are made to encourage the tendency to work, it is possible to increase substantially the supply of labor available.

It is more difficult than usual to predict the size of the labor force in the period ahead. Projections of past patterns of labor force participation by age and sex indicate that in 1950, the normal labor force in the United States should be approximately 60.5 million as compared with 54.5 million in 1940 and 48.7 million in 1930. However, if as seems likely, any substantial number of the "extra" workers brought into the labor force during the war remain in the labor market, the labor force will be greater than 60.5 million.

The size of the labor force is not independent of the number of jobs available. If job opportunities are plentiful and unemployment exceptionally low the labor force may be larger than if job opportunities are limited. On the other hand, if unemployment is very large and the primary breadwinner in many families is out of work, the labor force may also be exceptionally large because the wife and children may be forced to seek jobs in order to obtain sufficient family income.

Although it is now well established by statistical investigation, it is not yet fully appreciated generally, that the labor force is not a fixed number of people who are in the labor market the year around, who work regularly the customary established number of hours per week, and who become unemployed if such work is not available. Instead, the labor force is a fluctuating group working a variety of hours each week and varying in number from week to week. Within the year it varies from seasonal causes by 3 to 4 million. The number representing the labor force at any

time is a net figure concealing a large inflow and outflow of individuals. In a given month about 2 million workers may leave the labor force and be replaced without causing any net change in the size of the labor force.

Ordinarily the labor supply is flexible. Under any except the most strained circumstances, such as at the peak of the war, there is always a large reserve of labor, neither unemployed nor in the labor force, that can be employed if conditions are favorable. The labor reserve may come into or stay out of the labor market for a variety of reasons. To the extent that potential workers remain outside because of discriminatory hiring practices or because of scarcity of job opportunities, the requirements of full employment are not being met even though the number counted as unemployed may be relatively small.

Because there is so much misunderstanding, it may be well to point out that in our official statistics unemployment does not include people who do not want work. Unemployment is not synonymous with idleness. Unemployment is by definition involuntary. Only those involuntarily idle are included in the official Census figures of unemployment. Workers on strike are usually counted as employed, not unemployed as is commonly thought. Also workers laid off with definite instructions to return within 30 days are counted as employed, not unemployed. Workers on vacation, whether or not paid, are usually counted among the employed. Workers need not be employed full-time to be counted as employed. With some minor exceptions, persons working only a few hours a week are considered employed, not unemployed. Thus, even in the statistically employed group there is always a substantial labor reserve that can be utilized if needed.

War Employment Experience. Although the war has demonstrated that full employment can be achieved, it has not shown how full employment can be provided in peacetime when Government is no longer the primary factor in the market. The war mobilization experience, however, throws some light on the nation's capacity to provide jobs and constitutes the background for postwar developments.

In 1944, approximately one-half of the nation's manpower was devoted to war purposes. Of those utilized for war at the end of 1944, about 12 million persons were in the armed forces and an additional 20 million were estimated to be producing combat matériel, services, food, clothing, transportation, etc., for the armed forces and our allies. In 1940, less than one-half million men were in the armed forces, and no more than one-half

million civilian workers were employed in supplying their needs and those of foreign nations for war and defense purposes. The utilization of manpower is shown in the table below for April 1940 and December 1944.

MANPOWER UTILIZATION

(In millions of persons)

Distribution of manpower	1940 April	1944 December
Total manpower supply	53.8	63.2
Unemployed	7.8	0.7
Devoted to non-war activities	45.0	30.5
Devoted to war activities	1.0	32.0
Armed forces	0.5	12.0
War production	0.5	20.0

In about four and a half years, 31 million men and women engaged in other labor force or non-worker activities in 1940 were diverted to war activities. This was accomplished by shifting some 14.5 million from non-war employment, utilizing for war 7 million of the unemployed, and bringing into the total labor force over 9 million persons who were outside the labor market before the war. Of the net additions to the labor force some 7 million were war-induced entrants, youth normally in school, women customarily engaged in housework, and older people. The other net additions—over 2 million in all—represent the normal increase in the labor force arising from the regular growth in the population of working age.

The manpower mobilization achieved in so short a period is an outstanding accomplishment. It indicates the flexibility, resilience, and power of the economy to adjust successfully to difficult and rapidly changing conditions. Raising an armed force of 12 million placed heavy drains on civilian production. Nearly two out of every three men in the ages 18 to 37 were drawn into the armed forces. A larger armed force was raised than many analysts at the time thought possible without seriously restricting war production or impairing severely civilian living standards. The rate of mobilization also was faster than appeared practicable in the early stages of the war before the capacity of the economy to adjust to rapidly changing conditions was fully appreciated. In part, of course, the flexibility was due to under-utilization of capacity in 1940, but the under-utilization was also an obstacle and in some ways reduced the degree of flexibility.

Civilian manpower was also attracted into the labor force, mobilized, and allocated to war work in large numbers and at exceptional speed. This is more evident as one looks back on the process than it was in the midst of the apparent muddling through and delays which seemed all too common at the time. Nevertheless, with a minimum degree of direct compulsion on the individual and with major reliance on voluntary and cooperative methods, civilian manpower was mobilized, trained, and directed into essential activities; and the results compare favorably with those obtained in other countries by the use of stringent direct compulsion on the individual worker.

The various manpower programs, such as classification of labor market areas, hiring controls, training programs, *etc.*, performed highly important functions. Nevertheless, the most important single factor in bringing "extra" workers into the civilian labor force and directing workers to essential jobs was the high level of wages prevailing in war industries and the relatively favorable differentials in wages paid on war jobs as compared to non-war jobs. Before the war, wage rates tended to be among the highest in those industries in which war production was later concentrated. Longer hours of work at premium rates, together with the already favorable basic rates, widened still further the gap between earnings in war industries over those in non-war industries. The inducement of these favorable wages was powerful and, when coupled with patriotic appeal and direct production controls, it largely explains the expansion of employment in war industries.

Prospects for Postwar Employment. In the period immediately ahead, when industry is being reorganized to peacetime markets and the armed forces are being demobilized, unemployment will inevitably reach substantial levels. Although the early impact of the end of the war on the labor market was less than had been anticipated by most observers, lay-offs in munitions industries were heavy, unemployment increased, and claims for unemployment compensation rose sharply. Approximately 10 million of the armed forces are expected to be demobilized between August 1945 and the summer of 1946. This means that more than a million persons a month will be returned to civilian activities, and a large proportion of these—probably around 90 per cent—will want jobs.

There is no evidence, either from an analysis of prospects for employment by industrial lines or from past experience, to suggest that those demobilized from the armed forces and additional lay-offs in war industries can be absorbed quickly into regular employment. This is true

even if business is prosperous and national income remains at a very high level. Never in the past, even during the rush of war preparations in 1941, has the economy provided employment to more than 5 million additional workers in the space of one year. Even if total demand is large, it takes time to organize jobs, to select the right workers, and to get operations running smoothly. Thus there is reason to think that unemployment may reach 4 or 5 million or so in the spring or summer of 1946 and continue to be large throughout 1946 unless withdrawals of women and others from the labor force are greater than anticipated.

Most economic analysts are anticipating a period of very active business and high production after industry has become adjusted to the civilian market. The heavy curtailment of Federal war expenditures is expected to be offset to a large degree by heavy deferred demands for durable consumer goods, such as automobiles, refrigerators, furniture, *etc.*, for housing and other kinds of construction, for business capital equipment, and for relief and reconstruction of other nations. Optimism regarding the outlook for general business seems to be warranted. Indeed, there is a substantial danger that in this period of deferred demand, rising prices occasioned by short supplies of some crucially important goods, excessive inventory accumulation, or speculation in capital assets, may create a serious inflation. Inflation, if held within limits, would tend to stimulate employment while it lasts but to increase greatly the volume of unemployment when the inevitable collapse comes. If, by the adoption of sound governmental policies aided by the cooperation of labor and management, inflation can be avoided, the outlook for prosperous economic conditions for some years appears to be bright. This will be especially true in relation to past peacetime levels of output and national income.

Should economic conditions develop favorably along these lines, full employment still may not be achieved. Some workers who might easily have continued to do satisfactory work in their present jobs will find it impossible to make the adjustments necessary to obtain new jobs once they have become unemployed. This is particularly true of older people, some youths with insufficient or narrowly specialized experience, some women, and certain groups subject to discrimination in hiring, especially when the labor market is loose. However, unless technological advancements of an extraordinary nature suddenly force the displacement of large groups of workers, it is probable that, during the period of heavy deferred demand, employment will reach higher levels than ever before.

After the deferred demand has been satisfied there is no way of predicting whether employment can be stabilized or increased further, or whether the nation will again head into a protracted depression. If the favorable business situation of the next few years is accepted as a period of grace in which to make the adjustments needed to maintain relatively full employment, a depression may be avoided. If the period of favorable business activity is taken as evidence that another "New Era" has arrived and that adjustments should not be made, another serious depression is almost inevitable.

Among the facts that should receive attention is the increasing importance of service and non-commodity activities in the employment structure. Customarily, major emphasis for providing employment is placed on commodity producing industries, such as manufacturing, agriculture, mining, construction. This emphasis gives too little weight to the long-term trend toward expansion of service and distribution lines relative to commodity producing activites. By 1940, commodity producing activities absorbed less than one-half of the total manpower supply as compared with more than three-fourths in 1870. By 1950, if full employment is attained, the proportion engaged in commodity producing industries is expected to be reduced even further. The table following shows the percentage distribution of the labor supply by broad commodity producing and service groups from 1870 to 1940.

PERCENTAGE DISTRIBUTION OF THE LABOR SUPPLY, BY COMMODITY PRODUCING AND SERVICE INDUSTRY GROUPS, 1870–1940

Year	Grand total	Commodity producing				Services		
		Total	Manufacturing	Agriculture	Other[1]	Total	Trade	Other[2]
1870	100	76	17	52	7	24	6	18
1880	100	75	19	49	7	25	7	18
1890	100	71	20	43	8	29	8	21
1900	100	68	21	38	9	32	9	23
1910	100	63	22	31	10	37	9	28
1920	100	62	26	27	9	38	10	28
1930	100	53	22	22	9	47	12	35
1940	100	49	23	17	9	51	13	38

[1] Includes forestry and fishing, extraction of minerals, and construction.

[2] Includes all transportation and public utilities, finance, public service, professional service and amusements, domestic and personal service, and industry not specified.

SOURCE: Derived from unpublished estimates prepared by Daniel Carson and submitted to the Conference on Research in National Income and Wealth of the National Bureau of Economic Research.

During the war, the ratio of commodity producing to service employment increased moderately. Manufacturing employment increased sharply, more than offsetting the drastic decline in construction employment in the latter stage of the war and the moderate reduction in mining employment. Many service activities were restricted substantially by manpower and material shortages during the war, and hence failed to expand in line with the rise in national income. Within the service group there were some divergent trends, however, with employment in transportation and Government increasing substantially, while domestic service and self-employment declined. The table below shows the size of the labor force and its distribution by broad industry groups in 1940 and 1944.

DISTRIBUTION OF THE TOTAL LABOR FORCE, 1940 AND 1944

Type of activity	Millions of persons (Annual averages)		
	1940	1944	Change 1940–44
Total labor force	54.6	64.0	9.4
Armed forces	0.5	11.4	10.9
Civilian labor force	54.1	52.6	−1.5
Distribution of civilian labor force			
Unemployment	7.6	0.8	−6.8
Employment	46.5	51.8	5.3
Commodity producing industries	22.8	26.2	3.4
Agriculture	9.3	8.1	−1.2
Manufacturing[1]	10.9	16.6	5.7
Mining	0.9	0.8	−0.1
Construction	1.7	0.7	−1.0
Service activities	23.7	25.6	1.9
Transportation and public utilities	3.0	3.8	0.8
Trade	6.9	7.0	0.1
Finance, service, and misc.	4.3	4.4	0.1
Government (excl. mfg.)	4.0	5.4	1.4
Self-employed, domestic services, etc.[2]	5.5	5.0	−0.5

[1] Includes Government manufacturing arsenals and Navy Yards.
[2] Includes adjustment of Bureau of Labor Statistics series to Census Bureau series.

The outlook for employment in the next few years, even assuming optimistic prospects for the level of national income, suggests that main reliance for the expansion of employment must be placed on construction in the commodity producing group and on trade and miscellaneous service activities in the service group. Manufacturing employment (including Government manufacturing), which totaled 10.9 million in 1940, increased to a peak of 17.7 million during the war; but by September 1945, it had already receded to 12.5 million. Further reductions in munitions industries will occur, but it is to be hoped that these will be offset and later reversed by increased employment in other manufacturing lines, such as textiles, clothing, and furniture, and by expansion of other activities when plants are again adjusted to peacetime markets. Mining employment declined from less than 1 million in 1940 to about 800,000 by the end of the war. Little significant change, one way or the other, is probable in this field in the next several years.

On the whole, assuming a high level of national income, it is difficult to envisage an increase of much more than 1 million above present levels of employment in manufacturing and mining, unless average weekly hours of work are reduced below 40. In these industries, technological advances are rapid, and even with a rising output of manufactured products, the number of employees needed is unlikely to increase correspondingly. This opinion is supported by past experience. For example, manufacturing employment in 1940 was at about the same level as in 1929 and 1919. Manufacturing output, however, was higher in 1940 than in 1929, and in 1929 it was substantially higher than in 1919. At the same time, average hours of work in 1940 were approximately one-sixth below those in 1929, and 1929 hours were somewhat lower than those in 1919.

The construction industry is counted upon to provide a substantial number of additional jobs in the next three or four years. From an all-time high point of about 2.6 million in the fall of 1941, employment in this industry was reduced to about 700,000 in 1944, as the result of war restrictions on manpower and supplies. Unless the pent-up demand for housing, for industrial and commercial construction, and for public works is dissipated by high prices, the construction industry should be extremely active for several years. It may be able to employ as many as 3 million additional workers when it reaches full volume of operations.

Although there is a substantial shortage of farm labor in some areas, in other areas underemployment and surplus manpower still present un-

solved problems. During the war, total agricultural employment declined from 9.3 million in 1940 to an average of about 8.1 million in 1944, although in the same period the physical volume of agricultural production increased about one-fifth. Although the war decline in farm employment was unusually sharp, it represented the continuation of a downward trend that has been under way for a long time. Making ample allowance for the possible expansion of dairying, truck gardening, and some other lines which use labor in large quantities, it appears probable that agriculture could give up an additional 1 or 2 million workers without reducing total agricultural production, if the workers released were drawn from the marginal and submarginal farms. If the mechanical cotton picker comes to be widely adopted, as seems possible within the next few years, employment in agriculture can be reduced considerably more. However, unless urban job opportunities are ample, employment in agriculture is likely to increase rather than decrease as workers seek refuge from unemployment by returning to or remaining on farms.

Prospects for providing jobs to additional workers appear to be brighter in the service field, although even here there are divergent trends. Government employment (excluding manufacturing) averaged about 5.4 million in 1944 as compared with 4 million in 1940. Of the total in 1944, about 2.8 million were in the Federal service, and of these, 1.6 million were in war agencies. Although the long-term trend of Federal employment is upward, a major proportion of the 1.6 million in war agencies is likely to be displaced, and total Government employment is unlikely again to reach its war level. State and local governments may be expected to increase their employment during the next few years, but in the absence of Federal stimulation by increased grants-in-aid for welfare purposes, an increase of more than 500,000 employees by 1950 appears to be unlikely.

In transportation and public utilities, the number employed increased by only 800,000, or by about one-fourth during the war. Employment on railroads, even at the peak of the war, however, was more than one-third below its level in 1920. Employment in public utilities was lower in 1944 than in 1930. Even allowing for a substantial increase in employment in air transportation, it seems unlikely that the total engaged in 1950 in public utilities and transportation will exceed by an important amount the level reached during the war.

In trade, employment has been restricted severely by war shortages of manpower and goods. If a high level of national income is maintained, trade volume and employment should increase greatly. It is possible that

as many as 2 million additional workers may be able to find jobs in retail and wholesale trade in the next four or five years, raising the total engaged in these fields to around 9 million. In professional service, amusement, domestic and personal service, and self-employment, substantial increases in employment are likely if national income is maintained at a high and stable level.

Government Programs. Special attention should be given by Government to the expansion of employment in those fields in which it has a primary responsibility and which contribute greatly to higher standards of living generally. These fields include the expansion of public health facilities, the employment of several hundred thousand additional teachers to fill the gaps in the educational system and to provide increased public facilities and programs for recreation. In addition, Government should provide encouragement for the training and employment of several hundred thousand nurses, doctors, dentists, and other personnel needed to provide a minimum standard of medical care for the whole population.

The large and often neglected role of service activities in the employment structure and the desirability of the expansion of these activities as a means of increasing living standards and employment contain some implications for general economic theory. Main theoretical reliance is usually placed on the maintenance of a high level of investment expenditures in order to provide adequate offsets for savings and thus to maintain national income at a high level. It is usually assumed that consumption expenditures are fairly stable in relation to income received by consumers and that the major concern of Government policy should be with expanding and stabilizing investment expenditures. Investment expenditures are expected to filter through and assure the expansion of consumer expenditures. There is no doubt but that investment expenditures do play a strategic role as the "spark plug" of the economic machine. However, more effective and permanent results in achieving full employment are likely if greater emphasis is placed on increasing and stabilizing consumption directly.

If the market for consumer goods and services is maintained at a high and stable level, investment undertaken in order to produce the goods to satisfy the market is almost certain to be forthcoming. Moreover, a market based upon free consumer choice, even if consumers are subsidized directly or indirectly by Government, is likely to offer a secure inducement to private investment. The enterpriser is, understandably, more familiar with a demand that originates with consumers than a demand that filters

back from direct Government expenditures on investment type projects. In this respect, the enterpriser is not unlike the farmer who is opposed to direct subsidies if there is a possibility of obtaining an equivalent return from higher prices.

The economic system has become increasingly subject to unstabilizing influences, which magnify themselves and force wide swings in total employment and consumption. These unstabilizing influences seem to have become greater since World War I because of the increasing proportion of the output of the economy that takes the form of durable goods, nonnecessities, and public improvements, the purchase of which can be curtailed or postponed for long periods. If consumers lack security, if they lack confidence in the maintenance of their jobs and incomes, they tend to spend a smaller proportion of their incomes and are unable to make proper use of credit in financing the purchase of homes and other large-cost items.

Some indication of the basic nature of our economic problem is suggested by consumer behavior and business activity in Austin, Minnesota after 1935 when the Hormel Company extended its guaranteed annual wage plan so that it covered a large majority of its employees on a plant-wide basis. A survey in 1941 showed that the proportion of homes, automobiles, refrigerators, and similar large-cost goods owned by Hormel workers was substantially higher than it was in comparable communities in which incomes were as high as in Austin. On the other side of the scale, time deposits, shares and deposits in the Hormel Company credit union, and building and loan accounts in Austin are reported to have increased only 10 per cent between 1932 and 1940, although the population increased 50 per cent and average weekly earnings of Hormel employees also rose 50 per cent. This suggests that assurance of stability of consumer income in itself may be a significant factor in expanding and maintaining full employment.

Government policy should be directed specifically toward expanding consumption on a stable basis by underwriting minimum incomes, establishing a residual program of public work, expanding public activities in the fields of education, health, recreation, and similar programs, and by encouraging higher average wage and salary rates, particularly among the low-income groups, as well as by undertaking desirable investment programs.

If one approaches the problem of assuring full employment from the point of view of the structure of the labor force, one is impressed with the fact that sole reliance upon heavy public works and developmental

projects fails to provide fully for the unemployed. Nevertheless, as a means of implementing fiscal policies and of providing an environment favorable to high national income and production, heavy public works serve an essential purpose. They should be undertaken for several reasons:

(1) The completed projects are necessary or highly desirable on their own merits as a contribution to a higher standard of living.

(2) Expenditures on such programs provide a direct stimulus to business activity, national income, and total employment, and increase the productivity of the whole economy.

(3) Many projects of this type open up wide avenues for new private investment in complementary or supplementary lines.

(4) They provide considerable direct on-site employment as well as off-site employment to a substantial number of other workers in supporting activities.

These merits of heavy construction and developmental projects are well known. The fact that it is customary for such projects to be prosecuted under private contract and at prevailing wage rates adds to their appeal.

Extensive programs of this type are not enough to assure continuing full employment and to minimize the loss of human values involved in unemployment. Additional supplementary measures are needed. Unemployment compensation, for example, provides a temporary partial offset to the loss of wages by employees covered under the program. It is desirable to extend its duration and coverage, and raise the average level of benefits; but such changes should not go so far as to turn unemployment compensation into a dole requiring workers to remain idle for long periods if regular jobs are not available.

In addition, a supplementary program is needed to provide public jobs directly to those who are ineligible or who have exhausted their unemployment compensation rights and who are unable to obtain jobs in private activities, in regular Government administration, or on heavy developmental types of projects. Such a supplementary residual public work program should be designed to:

(1) Operate flexibly in terms of timing, expanding, and contracting rapidly as the number of unemployed seeking work on the program fluctuates.

(2) Provide work opportunities to the unemployed, who because of age, sex, occupation, skill, or geographical location are unable to fit into the employment structure of construction and developmental programs.

(3) Offer opportunities for work of a training and retraining nature.

(4) Produce results useful to the community although not necessarily highest on a priority list of immediate needs.

(5) Pay prevailing wage rates for standard work performance but permit differentiation in work assignments and in wages to make use of workers who may not wish to, or be able to, undertake standard performance. Differentiation would be particularly helpful in the case of some older workers for whom less exacting standards of performance and correspondingly lower earnings would be a reasonable solution. Differentiation also would be helpful in the case of some women unable to devote their full energy to the job, but needing work and additional income to hold the family together.

(6) Avoid competition with private enterprise, regular public activities, and heavy public works and developmental projects.

(7) Provide jobs of a type reasonably suitable to those who are unemployed, as far as possible. Heavy construction projects, for example, are not adapted to the employment of women workers, most professional workers, white collar people, and many workers in rural areas.

No public work program that succeeds in avoiding competition with private industry can offer jobs of the type that fit more than very roughly the occupational characteristics of the unemployed; but if attention is directed toward selecting projects to provide suitable work of a conservation, public service, or light construction type more can be done in this direction than if sole Government reliance for direct employment is placed upon heavy construction and developmental projects. This consideration is particularly important in the period ahead when private and regular construction activities should be at exceptionally high levels and the number of unemployed construction workers unusually small.

A supplementary work program of the type outlined should be a permanent but residual part of a full employment program. Such a residual program should not be a substitute for developmental projects and other essential public works. It should be planned in advance so that if a recession comes suddenly, it will be available for use before developmental projects, tax incentives, and other stimulants to private business begin to absorb the unemployed. It is to be hoped that the supplementary program would not need to employ more than 3 or 4 million workers at any time. When other employment opportunities are available, the program should be reduced, although it is unlikely that employment on the program would ever be entirely eliminated under normal labor market conditions.

A supplementary work program should provide work to all who are able

and willing to work, seeking work, unable to find other jobs, and capable of meeting acceptable standards of performance. There should be no stigma attached to work on the program and no social investigation or demonstration of need. However, care will need to be exercised to see that workers on the program are genuinely seeking other jobs and are willing to make reasonable adjustments, in terms of occupation, location, and compensation, in order to obtain other jobs.

If the supplementary work program is properly planned and administered, make-work projects would be unnecessary. Projects and work assignments should be such as to permit workers to take pride in their accomplishments. However, it should be recognized frankly that a residual program of this type should not be evaluated solely in terms of the merits of the completed projects. In addition to the merit of the individual projects, weight should be given to the safeguards the program establishes against the loss of human values, the security it provides to all workers whether or not they ever need to accept jobs on the program, the assurance of stable markets it provides business, and the value of maintaining the work habits and self-respect of those who are unemployed.

In any short-run period in a progressive rapidly changing economy, there will always be workers, who, for a time at least, will not be able to fit into the structure of regular employment, even if a high level of total demand is maintained. In periods of high employment, such workers may be largely older persons, ineligible for retirement, and women capable of high standards of performance, but who, having lost their jobs, find the restrictions on hiring too difficult to be surmounted quickly. For many older people caught by the loss of the market for their skills, the process of adjustment and the time required to learn new skills may be too great or available jobs may be so located as to make migration to the job impracticable. Workers of this type are sometimes classified as marginal workers or even considered unemployable. However, the war opened our eyes to what can be accomplished by many of these people. Many of these so-called unemployables of the depression became the key workers in war industry. Standards of employability are not fixed. During the depression, men over 40 were considered too old to be hired in some industries. Many of the underemployed workers on marginal farms were believed to be incapable of adjusting themselves to industrial employment. During the war it was discovered that many of the prewar standards of employability were higher or more rigid than necessary even in terms of business efficiency.

Forced retirement of older workers on old-age pensions or old-age assistance, and direct relief to so-called marginal workers on a needs test basis are unnecessarily cruel solutions for the people affected, and are also a social and economic waste. The nation needs the contribution anyone can make to a higher standard of living. Standards of living of many in this country are still pitifully low. Since an unemployed worker produces nothing, anything he may produce on a public work program is a net economic gain to society as long as his output is greater than the difference between the wage he receives for working and the direct relief or other income he would receive if idle. In modern societies, workers are not left to starve; some provision, haphazard and inadequate though it may be, is usually made for them. In so far as possible, of course, it is desirable from the social, as well as from the individual enterpriser's, point of view for manpower and other resources to be allocated to their optimum uses. The requirement of optimum allocation of manpower, however, should not be carried to the point of requiring workers to remain idle because they cannot at the moment be put to use at maximum efficiency producing goods and services of highest priority.

A residual public work program of the type suggested here should help to expand and stabilize consumption expenditures and thus provide increased private employment opportunities, higher standards of living, more stable markets for business, and enhanced inducement for long-term business planning and investment. Such a program, however, should not be considered an alternative for other desirable programs or policies needed for attaining and maintaining an economy of full employment opportunities. It should be viewed as a supplement to other programs and intended to fill a relatively small but important gap in the national effort to develop a sound economic structure that satisfies the intangible as well as the material needs of the people.

WAGE POLICIES

As background for appraising wage developments during the next several years, it may be well to review briefly wage policies and wage developments during the war.

War Wage Policies. During the war, direct Government control of wages and salaries was established primarily as an instrument of general economic stabilization policy. As in the case of manpower controls, wage and salary controls were applied gradually and came later than some other forms of war controls which impinged less directly on individual freedom.

The necessity for controls of wages and salaries received official recognition first in April 1942, when the President announced a seven-point program for economic stabilization. Living costs and wages, which had been fairly stable prior to the end of 1941, had begun to increase rapidly by then and exceptional measures were required if inflation was to be forestalled. The seven-point program called for stabilization of wages, among other things.

The National War Labor Board had been established in January 1942, to settle industrial disputes affecting the war effort. Implementation of policies for wage stabilization was left largely to the War Labor Board. In the Board's decision in the "Little Steel" case in July 1942, a formula was first announced for general wage adjustments to be applied to cases brought before the Board. In its decision the Board stated:

> For the period from January 1, 1941, to May 1942, which followed a longer period of relative stability, the cost of living increased by about 15 per cent. If any group of workers averaged less than a 15 per cent increase in hourly wage rates during, or immediately preceding or following, this period, their established peacetime standards have been broken. If any group of workers averaged a 15 per cent wage increase or more, their established peacetime standards have been preserved.
>
> Any claims for wage adjustments for the groups whose peacetime standards have been preserved can only be considered in terms of the inequalities or of the substandard conditions specifically referred to in the President's message of April 27, 1942.

When the War Labor Board announced the "Little Steel" formula, it had authority only over dispute cases brought before it for settlement. It had no authority to control wage increases granted voluntarily by employers. As the manpower situation continued to tighten and living costs continued to rise, wage increases granted voluntarily by employers came to be an increasingly serious threat to economic stabilization. As a result, Congress passed an amendment to the Emergency Price Control Act in the fall of 1942 authorizing the President to stabilize prices, wages, and salaries in so far as practicable at the levels existing on September 15, 1942.

This Act was amplified by an Executive Order of October 3, prohibiting any increases or decreases in wage rates unless first authorized by the War Labor Board, and the War Labor Board was instructed to disapprove any increase in wage rates above those prevailing on September 15, unless such an increase was necessary to correct maladjustments or inequalities, to eliminate substandard wages, to correct gross inequities, or to aid in the effective prosecution of the war. This Act and Executive Order thus gave

the Board complete control over all wages whether or not in dispute. The War Labor Board interpreted its authority to correct "maladjustments" as including only these adjustments permissible under the "Little Steel" formula.

With some further tightening of controls, the policies outlined in the "Little Steel" formula and in the Executive Order of October 3, 1942 remained in effect throughout the rest of the war. These policies did not require rigid freezing of wages, as this would have been inequitable and a serious obstacle to the use of the wage system as a means for allocating manpower, and would have placed a substantial restriction on the maximization of production.

In addition to the adjustment of general wage rate levels permitted under the "Little Steel" formula, increases were permitted to correct substandard wage conditions, to reduce interplant and intraplant wage inequalities, and to aid in effective prosecution of the war. Under the substandard provision, the War Labor Board, before the end of the war, had permitted increases in wage rates to bring the minimum wage up to the level of 55 cents an hour, or 15 cents above the minimum established under the Fair Labor Standards Act. Widespread but individually small increases were permitted to moderate interplant and intraplant inequalities in order to improve the economic functioning and the equity of the wage system. The War Labor Board used very rarely the authority to make adjustments to aid in the prosecution of the war. This authority, if loosely interpreted, might have been used to sanction wage increases of practically unlimited size. Individual wage increases were permitted for merit, seniority, up-grading, and for similar reasons of minor importance in their effect upon the general level of wages but essential to the functioning of normal personnel programs. Also, for administrative reasons, the Board excluded from its control wage increases granted by employers with eight or fewer employees.

The Fair Labor Standards Act, which had been enacted during the depression partly as a means of discouraging long hours of work in order to spread employment, remained effective throughout the war although it was subject to severe criticism early in the war on the ground that it deterred employers from increasing hours of work. However, the differential wage advantage of war industries was enhanced by the premium pay requirement for hours over 40, and it generally served a useful purpose in facilitating the flow of manpower into essential work. On the other hand, it also permitted basic wage rates to be held at lower levels than might otherwise have been practicable. The disappearance of overtime work at

the end of the war and the consequent sharp reductions in "take-home" pay have posed the difficult problems of making offsetting adjustments in basic rates.

The establishment of wage controls as a part of general economic stabilization policies and the sharp emphasis placed on restraining wage increases meant that less attention was given to other desirable aims of war wage policy. In particular, wage control policies were not specifically directed toward facilitating the allocation of manpower resources to their most essential uses. Fortunately, the wage structure before the war, the changes in wage rates that occurred prior to the imposition of controls, and the premium pay for overtime requirement were such as to provide a substantial, if rough, incentive for the movement of workers from less essential to more essential work. However, this was not the case in some war industries, such as foundries, where the failure to make adequate wage adjustments at the right time contributed greatly to the serious manpower shortage that developed and resulted in shortages of some key war products.

On the whole, however, war wage control policies were highly successful in minimizing industrial disputes, in forestalling excessive pressures on prices arising from increasing labor costs, in raising the level of substandard wages, and in removing many of the interplant and intraplant inequalities which, if left uncorrected, would have caused widespread discontent and inefficiency. The only major failure of war wage policy was that of being unprepared for smoothing the reconversion from war to peace. This problem might have been solved in a reasonable manner if specific steps had been taken in advance of the end of the war to arrange for an upward adjustment in wage rates timed to offset the sharp decline in "take-home" pay when hours were reduced and premium pay for overtime largely eliminated.

Wage Developments during the War. Wage statistics are confusing. On the surface they appear to be easily understood, but if one examines them, he often finds they do not mean what they appear to mean. This was particularly true during the war when hundreds of new jobs were created, women displaced men, inexperienced workers filled jobs formerly held by persons with long experience, workers moved in large numbers from low to high wage industries and areas, hours were increased sharply, multiple shift operations became common, up-grading was accelerated, and promotions and merit increases were granted more liberally than usual. Failure to distinguish among the various influences which affected wage changes during the war is a common source of misunderstanding

among people who might find themselves in agreement if they clearly understood one another.

In order to clarify the later discussion, it may be well at this point to explain the meaning of certain statistical measures of wages.

(1) *Total pay rolls*—The aggregate amount employers pay workers.

(2) *Average weekly earnings*—Weekly "take-home" pay per worker before tax, bond, union dues, and other deductions are made. They are measured by dividing total weekly pay rolls by the number of workers employed.

(3) *Average hourly earnings*—The gross amount paid per hour of work including premium pay for over-time, night shift differentials, changes in the proportion in which occupations with various base rates are combined, changes in output under incentive wage systems, inter-industry and inter-area shifts, and similar influences. Average hourly earnings are measured by dividing total pay rolls by total man-hours.

(4) *Straight time hourly earnings*—Average hourly earnings with overtime premium pay eliminated.

(5) *Straight time average hourly earnings with constant industry weights*—Straight time earnings with the effect of changes in the distribution of employment among industries with varying wage levels eliminated.

(6) *Wage rate*—The price paid for a specific job or occupation. This is sometimes called the basic rate or the occupational rate. Thus, a janitor may be paid 40 cents an hour, a skilled machinist $1.50 an hour, a semi-skilled assembler so much per piece turned out.

The importance of the differences in these measures is illustrated below by a comparison of the percentage change in each measure from 1940 to 1944 for all nonagricultural employees.

INCREASES IN PAY OF NONAGRICULTURAL EMPLOYEES AS SHOWN BY VARIOUS MEASURES, 1940 TO 1944

Wage Measure	Estimated percentage increase	
	In money terms	In real terms[1]
Total pay rolls	104	57
Average weekly earnings	63	25
Average hourly earnings	47	13
Straight time hourly earnings	41	7
Straight time hourly earnings with constant (1940) industry weights	35	4
Wage-salary rates	30	0

[1] After adjustment for an estimated 30 per cent increase in living costs.

From 1940 to 1944, total nonagricultural wages and salaries increased by 49 billion dollars or more than 100 per cent. Only a portion of this increase was due to higher basic rates. Much of it was attributable to other influences, some of which are disappearing now that the war is over. Because the several wage increase factors operated together, it is mathematically impossible to determine accurately the portion of the increase in the total wage bill that is attributable to each increase factor. Nevertheless, it is worth while to estimate in a rough way the relative importance of the various influences that tended to increase wages and salaries during the war. This is done for nonagricultural wages and salaries for the period 1940–44 in the table below.[2]

	Per cent
Increase in nonagricultural wages and salaries (49 billion dollars)	100
Increase in number employed	31
Increase in average hours	13
Increase in basic wage-salary rates	40
Increase in premium pay for overtime	7
Inter-industry migration, night-shift differential pay, up-grading, and all other factors	9

The major influences in the rise in total wages and salaries during the war were increases in employment and hours worked and increases in basic wage-salary rates. Higher basic rates appear to have accounted for about two-fifths of the increase in aggregate wages and salaries. Longer hours of work, premium overtime pay and inter-industry migration, night-shift differentials, up-grading, and similar factors largely important only during the war accounted for between one-fourth and one-third of the total rise in wages and salaries. With the termination of the war the influence of most of these factors is being reduced or is disappearing. Loss of premium overtime pay, the shift toward lower paying jobs and industries, and the return to a 40-hour week together might result in a loss of total nonagricultural wage and salary income in the neighborhood of one-fourth of the total in 1944, even though employment and basic rates remained at 1944 levels.

Changes in the internal structure of wages and salaries during the war are important as well as changes in the average level of wage and salary

[2] The influence of each factor was calculated separately on the assumption that all other factors remained constant. This process, however, did not account for the total increase since it failed to include the effects of cross multiplication of the increases in each factor. The effects of cross multiplication, therefore, were allocated arbitrarily to each factor in the same proportion obtained when the influence of each factor was calculated separately.

rates. If the structure is distorted badly it may require drastic overhauling to be sustainable in peacetime. On the other hand, if the structure at the end of the war is internally sound, attention can be devoted largely to issues of wage and salary levels and their relation to total output and prices. Close examination of the evidence available indicates that although some wage rates are out of line and may need to be reduced, the degree of war distortion in this direction is less than might have been expected. On the other hand, some important influences have operated to improve considerably the internal wage and salary structure.

Wage and salary rates in nonmanufacturing activities as a whole were not increased as much as in manufacturing, but the differences in rates of advance from 1940 to 1944 were fairly small. For example, available data indicate that straight time hourly earnings in manufacturing increased 41 per cent from 1940 to 1944. In the same period, straight time earnings in nonmanufacturing activities as a whole increased 37 per cent. In terms of weekly or gross hourly earnings the differential rate of increase favored manufacturing more heavily since hours increased more sharply and premium pay for overtime was greater in manufacturing than nonmanufacturing industries. Up-grading, shift differentials, and similar influences were also more important in manufacturing than in nonmanufacturing lines.

Within manufacturing, straight time earnings in both munitions and nonmunitions industries increased by about the same percentage from 1940 to 1944. Munitions industries are here defined to include metal working, chemical, and rubber manufacturing. The level of straight time hourly earnings in 1940 in the industries later classified as munitions averaged about one-fourth above those for nonmunitions industries. The prewar differential in level was not increased significantly during the war. However, wage rates tended to advance earlier in munitions industries as manpower shortages appeared there first. After the establishment of firm wage stabilization controls in the fall of 1942 wage rates tended to increase faster in nonmanufacturing and in nonmunition lines than in munitions industries. For the whole period, 1940 to 1944, straight time hourly earnings advanced by larger percentages in construction, trade, and in finance, service, and miscellaneous activities than in manufacturing. Among major groups the smallest increases occurred in communications, public utilities, and Government.

Extensive wage differentials are characteristic of the economy and in the main serve a sound economic purpose. However, the width of

many of the differentials and indeed some of the differentials themselves, appear not to have any present economic basis. In some cases, the differentials reflect underlying economic conditions which no longer exist. Custom, social attitudes, inertia, and similar factors account for some of the differentials. When many of these differentials are given an objective examination, such as that made by the War Labor Board, little justification can be found for their continuation. Although the differential wage structure is exceedingly complex and general conclusions are somewhat dangerous, the evidence appears to indicate that a moderate narrowing of differentials occurred during the war. This narrowing has been such as to improve the ability of the wage system to measure the relative economic contribution of workers and to meet more closely some of the requirements of equity.

In general, wage rates of the lower paid groups have increased by larger percentages than those of the higher paid groups during the war. For example, hired farm workers, who as a group received substandard incomes before the war, have gained more than any other large group of workers during the war. Average daily wages without board of all farm workers increased 177 per cent from July 1940 to July 1945. In the South in mid-1940, average wages per day were $1.17 without board and for the country as a whole the average was only $1.62. In the middle of 1945, the average farm wage for the country as a whole was $4.48 a day without board and in the South the average was $3.15.

In nonagricultural activities the lower wage groups also obtained the largest percentage increases in wage rates. In part, this was the result of the War Labor Board policy of permitting increases outside the "Little Steel" formula to ameliorate substandard wage conditions. In part, it was caused by the general shortage of manpower which made common labor as well as skilled labor an object of employer competition. Also, in part, it is ascribable to the policy followed by large segments of organized labor of favoring wage increases in terms of cents per hour instead of percentages. Thus, a 15-cent an hour increase for a 50-cent an hour worker is a rise of 30 per cent, but for a worker paid $1.50 an hour it is a rise of only 10 per cent. An equal percentage increase of 15 per cent would mean an increase of only $7\frac{1}{2}$ cents for the 50-cent an hour worker and one of $22\frac{1}{2}$ cents for the $1.50 an hour worker.

Geographical wage differentials also were narrowed during the war. Traditionally, wages in the South have been substantially below those in other sections of the country, except for some of the highest skill

groups. During the war, the location of war plants in the South, increased union organization, some industry-wide collective bargaining, and the general manpower shortage reduced the North-South differential. Wage differentials between large cities and small cities also were reduced by the war. In the past the level of wage rates was related directly to the degree of urbanization. Wages tend to be higher in large cities than in small cities for the same work, and in small cities wages are higher than in rural areas. Differentials in the cost of living, although tending to vary in the same way, provide only a partial explanation for the much wider differentials in wage rates. The sharp rise in farm wages, the migration of excess rural manpower to war industry centers, and the placement of some war contracts in smaller towns and cities, all worked toward reducing wage differentials among urban areas during the war.

On the whole, the wage and salary structure was strengthened, its inequities reduced, and its balance improved during the war. It should be able to function more effectively than the prewar structure as an instrument for the allocation of manpower and for the measurement of the relative economic contribution of groups of employees. The improvement in the internal wage and salary structure should be a favorable factor in the functioning of the economy in the period ahead.

Postwar Wage Policy. The problem of wage policy in the next few years is one of the most difficult to be faced by management, labor, and Government. The problem is baffling enough when it is approached as objectively as possible, aided by the best statistics available; it becomes even more difficult when it is surrounded, as it always is, by the emotional coloration of differing economic interests and by differing practical views about the relative importance of certain strategic factors in the functioning of the economy.

In the period immediately ahead, probably few issues require more delicate handling than the issue of wage rate increases, their timing, magnitude, and general effects. If excessive wage rate increases are made, pressure will be placed upon prices and the result may be a substantial loss in real earnings for employees and the disruption of the reconversion program. If inadequate wage rate increases are made, serious industrial unrest and widespread disruption of production may occur and lead to even larger price advances than might result if more generous wage increases are granted. In addition, strong deflationary forces may be initiated and, although unlikely to become effective immediately, they

might lead to an unbalanced demand structure and sooner or later to business stagnation and mass unemployment.

The discussion here, however, is not directed to the immediate situation but toward the longer run implications of wage policy. The year 1950 has been selected as far enough ahead to serve as a focus for the main issues of wage policy in a full employment peacetime economy. The analysis suggests that, in the absence of other offsetting influences such as might operate through fiscal policy, basic wage and salary rates must be substantially higher at a full employment level of income than in 1944. Otherwise a gap between purchasing power and production will develop and result in a sharp reduction of prices below their average level in 1944, or in a substantial redistribution of income away from employees. However, if we permit or induce the price level to decline below the 1944 average, the increases suggested here in wage and salary rates should be adjusted downward. On the other hand, if the price level is higher in 1950 than in 1944, the increases outlined below in wage and salary rates should be adjusted upward.

In the long run the basis for any increase in real wage and salary rates is higher productivity. In the period immediately ahead, some increases also can be obtained from the reduction in tax rates and the elimination of premium pay for overtime and similar special costs. The only sustainable source of increased wage rates per unit of labor input, however, is higher productivity. Higher productivity arises partly from increased personal efficiency of workers, partly from better management, and partly from a Government environment favorable to expansion, but its main sources are increased investment in and greater efficiency of capital goods, and near-capacity rates of utilization of manpower and equipment.

In the past, output per man-hour has increased regularly, if not evenly, in virtually every line of activity—agriculture, transportation, mining, and manufacturing. For the trade and service industries, as well as for Government, measurements are less adequate, but the trends are no less real. Reasonably reliable estimates indicate an average of $2\frac{1}{2}$ per cent a year compounded for the economy as a whole from 1914 to 1940 and over 3 per cent a year for manufacturing. There is no reason to think these trends will not continue in the decade from 1940 to 1950.

Information available for the war period shows that productivity increased at an unusually fast rate; but there is little agreement among

analysts on how much of the gains are translatable into peacetime production. It seems reasonable to believe that some of these gains will be translated readily into peacetime production if national output is held at a high level. The tendency to underestimate the permanence of wartime productivity gains appears to develop from: (1) allowing less weight than seems warranted to the automatic increase in output per man-hour that comes with high volume output even though no new or improved methods are introduced; and (2) confusing productivity changes with changes in personal efficiency of the workers. Individual workers may be less efficient than before the war and at the same time average output per man-hour may well have risen sharply. Personal efficiency is an important factor, but it may be outweighed by the amount and efficiency of the capital equipment with which the individual works and the efficiency with which the business is organized and operated.

Also, the tendency to underestimate the increase in productivity during the war period may be traceable to a confusion between the measurement of changes in output per man-hour and changes in the distribution of the total product. An increase in output per man-hour merely means that there has been a greater relative increase in output than in labor input. The measurement does not indicate how the increased output should be distributed among the various claimant groups. In certain circumstances, all of the increase properly should be assigned initially to capital. In other circumstances, all of it should be assigned to labor. In other instances, the increase should be passed on to the consumer in lower prices. In the usual situation, however, the increase in output should be distributed in about the same manner as total income is shared. It should be noted parenthetically that in our economic system, capital is supposed to be remunerated in proportion to the volume of investment and the risk borne. There is no theoretical economic basis for the widespread business custom of using constant gross margins per dollar of sales, irrespective of investment or risk. The lesson of mass production and mass consumption is that the policy should be one of declining margins per unit of output but larger profits per dollar of investment.

As indicated earlier in the paper, basic wage and salary rates of nonagricultural employees as a whole increased about 30 per cent from 1940 to 1944. This is roughly equivalent to the rise in living costs in the same period. If these estimates of increases in wage and salary rates and living costs are correct, *real* basic wage and salary rates of nonagricultural employees as a group were about the same in 1944 as in 1940. To the extent productivity of the economy increased in that period, employees

therefore failed to obtain their normal share of the gain in the form of advances in basic wage and salary rates. During the war high business taxes absorbed a large proportion of wartime productivity gains although the sharp rise in net profits after taxes indicates they failed to absorb all of the productivity gains; or else the rise in prices and living costs has been much greater than that indicated by the usual indexes. The rise in "take-home" pay of most employees, although it largely represented compensation for longer hours or for other forms of increased effort and output, obscured and made less unsettling than in peacetime the gap between real wage rates and higher productivity.

With the war over, with the disappearance of the special factors operating to increase average "take-home" pay, and with the prospect of reductions in corporate and other business taxes, wage and salary rates are too low in relation to 1944 selling prices at full employment levels of national income. The basic issue of long-term postwar policy is thus one of increasing rates to a level consistent with 1944 prices and current productivity, or of holding wage and salary rates stable and accepting a decline in the general price level. Policies designed to promote general price stability around current levels and to adjust real wage and salary rates to them appear to offer more prospects of success than alternative policies designed to reduce prices to the level consistent with the 1944 level of basic wage and salary rates.

The nature of the problem can be illustrated by some calculations showing the relations between aggregate wage and salary income and national income for 1940 and 1944, and estimated relations for 1950 at full employment. Several experts have made estimates of the level of gross national product and national income required for full employment in 1950. For the purpose of this paper, no new estimate was made but one prepared by Everett E. Hagen was accepted.[3] Hagen's figures call for a gross national product in 1944 prices of approximately 200 billion dollars in 1950. After allowance for business taxes and depreciation, he estimates the comparable full employment level of national income at 174 billion dollars.

From the 174 billion dollar estimate of national income, deductions are made for what appear to be reasonable estimates of corporate net income after taxes, incomes of farm and nonfarm proprietors, interest, net rents and royalties, agricultural wages, pay of the armed forces, and supplemental items. The deductions are made on three bases to allow

[3] "Output and Demand after the War" in *Jobs, Production, and Living Standards*, the first pamphlet in this series.

for a reasonable range of choice. The amounts remaining after the deductions represent estimates of total nonagricultural wage and salary income. The accompanying table illustrates the calculation process using actual data for 1940 and 1944 from the Department of Commerce. The estimates for 1950 are mine except for the level of national income itself, which is Hagen's.

DISTRIBUTION OF NATIONAL INCOME, 1940 AND 1944, WITH ESTIMATES FOR 1950

(In billions of dollars)

Type of share	Actual		Estimates for 1950		
			Assumptions[1]		
	1940	1944	A	B	C
Gross national product	97.1	198.7	200.0	200.0	200.0
National income	77.6	160.7	174.0	174.0	174.0
Less:					
Corporate net income, after taxes	5.8	9.9	14.0	12.0	9.5
Net income of nonagricultural proprietors	7.6	12.3	17.0	14.0	11.5
Net income of farm operators	4.4	11.8	14.0	12.0	10.0
Wages of hired farm workers	1.0	1.6	2.5	2.5	2.5
Interest, net rents, and royalties	7.4	10.6	13.0	13.0	13.0
Armed force pay and supplemental items	4.2	18.1	7.5	7.5	7.5
Subtotal	30.4	64.3	68.0	61.0	54.0
Nonagricultural wages and salaries	47.2	96.4	106.0	113.0	120.0
Nonagricultural wages and salaries as a percentage of national income	*60.8*	*60.0*	*60.9*	*64.9*	*69.0*

[1] See accompanying text.

Assumption A allocates to nonagricultural employees approximately the same proportion of national income as in 1929, 1940, and other fairly recent peacetime years. Assumption B allocates a moderately higher proportion of national income to nonagricultural employees, on the ground that net incomes of corporate and unincorporated business and of farm operators are higher in Assumption A than are likely to be sustained in a peacetime competitive situation. Assumption C allocates a still larger proportion of national income to nonagricultural employees, on the same grounds.

Dividing the estimate of total nonagricultural wage and salary income under each of the three assumptions for 1950 by an estimate of man-hours

to be worked at full employment in 1950, yields estimates of average hourly earnings in 1950. The estimates of average hourly earnings in 1950 when compared with rates in 1940 and 1944 provide a rough measure of the range of increases needed in average wage and salary rates for a full employment level of income in 1950. These estimates indicate that average basic wage and salary rates of nonagricultural employees as a group should increase in a range, under the assumptions stated, of about 30 to 45 per cent above basic wage and salary rates in 1944. Increases of these magnitudes would bring average rates in a range of 70 to 90 per cent above the level prevailing in 1940.

The estimated increases in rates appear to be startlingly large. In relation to 1940 the gains of all groups are substantial under all three assumptions. National income is more than double that in 1940; corporate net income after taxes is in a range of 65 to 140 per cent above 1940; income of nonagricultural proprietors ranges from 50 to 125 per cent higher than in 1940; and net income of farm operators ranges from 125 to 220 per cent higher than in 1940. In these comparisons for the decade from 1940 to 1950 no allowance is made for the increase in prices and living costs between 1940 and 1944. The percentage increases indicated should be reduced accordingly to obtain measures of the real increases involved.

It should be noted that the large percentage increases indicated for basic hourly wage and salary rates from 1944 to 1950 are somewhat deceptive. In terms of average hourly earnings, the increases indicated range only from 15 to 30 per cent. Average weekly earnings, on the same assumptions and allowing for a scheduled 40-hour week, would range from 2 per cent below to 11 per cent above weekly earnings in 1944. The percentage changes in various measures are shown below for the period 1944–50.

ESTIMATED PERCENTAGE INCREASES IN EARNINGS AND MAN-HOURS IN NONAGRICULTURAL ACTIVITIES, 1944 TO 1950[1]

Measure	Assumptions		
	A	B	C
Total wages and salaries	+10	+17	+25
Total man-hours worked[2]	−4	−4	−4
Average weekly earnings	−2	+5	+11
Average hourly earnings	+15	+23	+30
Basic wage-salary rates	+30	+39	+47

[1] Assumes no change in living costs or average prices from 1944 to 1950.

[2] Assumes a scheduled work week of 40 hours, or an actual work week of 38 hours, and an increase from 1944 to 1950 of 5.3 million in the number employed in nonagricultural activities.

These changes would bring weekly money earnings in 1950 between 60 and 80 per cent above 1940. After allowance for higher living costs, real weekly earnings would be only 25 to 40 per cent above 1940. Basic rates would increase a little more than weekly earnings because average hours worked are assumed to be lower than those that prevailed in 1940. Percentage changes from 1940 to 1950 in selected wage measures are shown in the following table.

ESTIMATED PERCENTAGE INCREASES IN NONAGRICULTURAL EARNINGS, 1940 TO 1950

Measure	In money terms			In real terms[1]		
	Assumptions			Assumptions		
	A	B	C	A	B	C
Average weekly earnings	60	70	81	23	31	39
Basic wage-salary rates	69	80	92	30	39	47

[1] Assumes an increase of 30 per cent in living costs from 1940 to 1950.

The estimates of the approximate range of increases in basic wage and salary rates consistent with 1944 prices and full employment are consistent with past changes in basic real rates in this country. The data available for demonstrating this fact are rather inadequate for nonagricultural activities as a whole, but the point can be illustrated by the more reliable statistics for manufacturing. Real hourly earnings in manufacturing increased approximately one-fourth from 1909 to 1919; one-fifth from 1919 to 1929; and two-fifths from 1929 to 1940.

These estimates, while necessarily rough since the data on which they are based contain a great many gaps and incomparabilities, illustrate graphically the relationship between wages and prices. They also suggest the implications for wage and price policies of current estimates of the levels of national income and gross national product needed for full employment in 1950. It is hoped that stating the issues in this way will be helpful in clarifying thinking about postwar wage and price policies.

Underlying the selection of assumptions used in the estimates above is the belief that it is advisable to maintain prices in general around current levels and to offset accumulated and future increases in productivity by higher wage and salary rates and higher money returns to other income claimants. An increase in general productivity of $2\frac{1}{2}$ per cent a year compounded, which is a reasonable prospect, would result

in a total increase of 64 per cent in 20 years. Unless offset in some way, this rise in productivity would result in a decline in the average level of prices of about 40 per cent. A policy that led to a reduction in the price level of 40 per cent or more in less than a generation would place excessive strains on the functioning of the economy.

Many economists believe the policy of holding money wages and salaries constant while prices are reduced as productivity increases is a sounder national policy. It is true that the incomes of some groups in the economy are sticky and are unlikely to increase as rapidly as productivity advances. For these groups, such as those receiving old age pensions, public employees, and others, a policy of stable wages and salaries and declining prices would offer a more certain opportunity to obtain the benefits of advancing productivity. On the other hand, the incomes of most of these groups are not rigidly fixed except in the short run. With some time lag, they tend to follow changes in other incomes.

A number of reasons can be given for maintaining stable prices:

(1) With a postwar Federal debt of about 275 billion dollars and a total public and private debt of around 450 billion, declining prices would increase the relative burden of paying interest charges on or retiring debt. Stable prices with rising wages and salaries and other forms of income would make the interest burden relatively less heavy.

(2) Generally stable prices will permit the necessary postwar adjustments within the price and wage structures to be made more easily than a policy of declining prices. Stable prices and rising wages and salaries permit collective bargaining in a favorable atmosphere, since both employers and employees can take the cost of living and the price level largely for granted. Also, in the short run a substantial portion of family expenses are fixed and increases in money income tend to decrease the burden of such fixed expenses.

(3) The anticipation of stable or slowly rising prices is more favorable to a high level of business investment than the anticipation of falling prices.

(4) Declining prices are undesirable from the point of view of international economic relations. For many years, the United States has exported considerably more than it imported. Its comparative economic advantage in world markets in the period ahead is likely to be even greater. A policy of declining prices would add to this advantage. It would probably be better for us and the world if our price level were higher than the 1944 level assumed in this discussion, rather than lower. A reasonably

high price level in this country should tend in the long run to reduce our exports and to increase our imports and thus to bring about a better balance in our international trade.

At any particular time prices of some goods and services are rising while others are falling. In those industries in which productivity is advancing at exceptionally rapid rates it probably would be desirable for such gains to be reflected partly in lower prices or improved quality. This would enable some of the fixed income groups to obtain the benefits of increased productivity earlier than they otherwise might. It also would help to ease the adjustments to be made within the general wage structure. In those industries in which productivity is advancing at less than the average rate, or not at all, it probably is desirable to increase both prices and wages but somewhat less than the rise in wages alone in the more efficient segments of the economy. These qualifications may result in some decline in average prices but the decline should not reflect the full cumulative effects of increasing productivity.

Conclusion. Although this discussion of wage policies does not provide a guide to policy in the immediate period ahead or indicate how wage adjustments should be made among industries and occupations, it does suggest the nature of the long-range wage problem in a full employment economy. This problem is fundamentally one of adjusting wages and prices to increases in productivity. A policy of increasing money returns in line with productivity gains while holding average prices relatively stable around current levels is recommended as a better course than attempting to hold money returns stable and reducing prices as productivity increases.

Note: This study was completed in October 1945, using statistics then available. Figures for the labor force, total employment, and unemployment shown throughout are those published by, or consistent with, the *Monthly Report on the Labor Force* of the Bureau of the Census before the revision in this series initiated in July 1945. The revised series shows a somewhat higher level for labor force and total employment than the unrevised series. Use of national income and wage data for the year 1945 would not materially change the analysis and relationships indicated in this study on the basis of the statistics for the year 1944.

MONOPOLY AND UNEMPLOYMENT

by

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Monopolistic practices throughout the economic system are a principal cause of unemployment in its massive, recurrent, and persistent occurrence in modern capitalism. This fact entails a heavy responsibility upon producers, whether industrialists, laborers, farmers, or merchants, who pursue monopolistic courses, and also upon Government, which in the last analysis controls the "rules of the game." The responsibility is onerous not only because mass unemployment is "intolerable" (whether actually tolerated or not), but also because clearly discernible courses of action can provide an economic environment favorable to competitive enterprise. The responsibility is fateful because a failure to surmount the problem of unemployment within the framework of a capitalist or private enterprise economy will simply mean collectivist or totalitarian solutions.

No one can doubt the capacity of a modern political state to reduce unemployment to the vanishing point or at least to conceal it by making work through public expenditures. Those who favor an attempt to reduce unemployment through improving and extending the competitive price system believe, however, that in contrast to authoritarian devices, this system would secure advantages highly prized in a country with a strong traditional respect for personal freedom. (1) Resources are put to the *best uses* as defined by the choice of individuals, both as producers and consumers. To make these best uses determined democratically and fairly requires a more equitable distribution of wealth and income but not the determination of use by political authority. (2) Jobs and resources are allocated amongst possible claimants by an *impersonal* mechanism, *i.e.* the "market," in contrast to boards or commissars. (3) The economic power and control lying back of the market mechanism, while not distributed equally, is still *diffused*. (4) The presence of alternative *demanders* and alternative *suppliers* has a positive value in the direction of political and economic freedom.

It is not inconceivable that a competitive price system could be made the administrative basis of a socialist state. Aside from the complete absence of property incomes and property inheritance, such a "liberal socialism" would not contrast categorically with a truly competitive

capitalism. Indeed a profound lesson can be derived from the reflection that, if it were animated by a desire to avoid the allocation of jobs and and resources by *authority* (bureaucracy), a socialist state would indeed need to develop something strikingly similar to a competitive price system under private enterprise. Consequently it also would have to cope with the problem of monopolistic practices.

In dealing with the unemployment caused by monopoly, we are in no wise constrained to deal with perfect competition as the alternative, but only with an increase of competitive elements in the mixed and highly complex structure of markets as they are, and only with a workable though imperfect competition as the compassable objective. Quite aside from the intrusion of monopoly elements, the mere lack of perfect foreknowledge and the mere cost of moving factors would permit cyclical fluctuations and unemployment to arise from the disturbances produced by political factors and wars and the wave-like character of innovation, of business psychology, of crops, and of building. Physical facts, human nature, and the lack of omniscience cannot be eradicated by reducing monopoly, and they inhere in any usable concept of competition, or for that matter, of planned collectivism. Similarly a good deal of the limited monopoly achieved by firms through brands, advertising, and other selling efforts would persist in anything short of collectivism, though this does not imply that the presence of these elements necessarily thwarts the force of competition nor that they cannot be rendered relatively harmless.

In many cases it will not be difficult to identify the practices which limit competition and output. The simplest cases pertain to supplying raw materials, labor, and capital. In the case of further stages of production beyond these so-called "primary factors," the problem becomes more involved. Clearly a workable sort of competition lies somewhere between the extremes of cut-throat competition and an industry preempted by one supplier. It implies that price competition will normally not carry price below average costs at optimum output—average including normal returns on investment—and that price will not for long remain substantially above that level. Naturally all of this involves judgment as to the specific meaning of "normally," "normal returns," "for long," "substantially," *etc.* Furthermore the details of the structure of an industry which are compatible with the norm of workable competition will be revealed only by wide experience and intensive study. The intricacy of these problems is as patent as the fact that more and less competition still has meaning, despite the multi-dimensional character of the concept.

The advocate of an attack upon unemployment through extending competitive elements in the economy should make clear that this policy may well involve extensive economic controls. In certain crucial instances it may become clear that private monopoly cannot be bridled by other means than by the substitution of Government operation or ownership. Elsewhere intervention by the state can be designed to expand and facilitate instead of supplanting the private enterprise price economy. The increase of Government activity to modify postwar market structures toward a more competitive character should eventually make possible a slow withdrawal of interventions. In the present situation especially, with the enormous displacements caused by the war, more intervention immediately can mean an ultimate economy in the aggregate of controls.

A program of reducing monopoly restriction in order to expand output and employment does not require for its justification that competition would eventually eliminate all unemployment. The question should be posed in relative form: would a substantial reduction in monopoly in the decade or two following the war promise a substantial reduction of the resort to Federal deficits and other measures to prevent mass unemployment? Furthermore, a realistic discussion is not primarily concerned with supposed ultimate situations and final outcomes. Misgivings about secular trends, and least of all fatalism on the same grounds, do not justify a refusal to put the problem in its current setting against currently applicable remedies.

Also, by way of setting the problem in its correct perspective, the liberal economist does not maintain that all private monopolies are bad in their effects or that all monopolies can or should be supplanted by pure competition. Examples can undoubtedly be adduced of firms possessed of monopoly power which appear, nevertheless, to choose not to maximize monopoly profits through restricting output or debasing quality. As for the second point, the implication of a liberal economic program is clearly that in cases where technological or other factors make monopoly inevitable, it is not a futile attempt at enforcing competition, but Government regulation, operation, or ownership which should supplant private monopoly. Finally a liberal program carries with it no adverse presumption against mere bigness, but only against restriction of output.

Beside monopoly, unemployment may be caused by a tax system adverse to private enterprise, by ignorance of opportunities, by the costs of movement, by economic and political uncertainty, by barriers to domestic and international trade, by too rapid technological change to

be absorbed currently in an incompletely flexible economic structure, and by uncertainty concerning Government policies with regard to international trade, wages, taxes, price levels, labor contracts, and the sphere of Government activity—all of which can cause business risks to be high.[1] An attack upon monopoly as a cause of unemployment by no means excludes simultaneous procedure against these other causes. The case for expanding competitive elements in the economy depends then upon the *connection* between monopoly and unemployment, the *importance* of this relation, and the availability of *effective* policies.

HOW MONOPOLY CAUSES UNEMPLOYMENT OF RESOURCES

It is a familiar principle of theoretical economics that, unless costs are sufficiently reduced or demand sufficiently increased by the process of monopolization, the most profitable output for a monopoly will be smaller than for competition. We shall inquire in a moment concerning the importance of the qualifying phrase, but at present assume that in the case of a given commodity, monopoly restricts output below the competitive level. The question then arises, can monopoly in many *individual* lines of production cause *general* unemployment? In theoretical terms, can monopoly in particular equilibrium situations, cause unemployment in the general equilibrium situation?

The Positive Case

Unemployment in the general situation results if (1) there is a reduction in the flow of purchasing power from a full employment level of output without (2) an immediate and frictionless reduction of prices to clear all markets. There are good reasons for believing that monopoly prices do actually restrict the flow of expenditures for both productive investment and consumption. If, as appears probable, there are minimum rates of *monetary* rewards demanded by capital suppliers, laborers, or risk-bearers, then a reduced flow of money payments—under these circumstances—will result in unemployed capital, labor, and business ability.

Consider first investment. In the particular equilibrium sense, monopoly consists essentially in investing less than the competitive limit. Capital—and with it also labor, managerial forces, and materials—is excluded from entry and thus tends to fall into the "unprotected" or open competitive segments. If all money rates of remuneration and the prices

[1] Even this catalog is by no means exhaustive.

of materials declined immediately and without resistence, earnings of the factors would fall but not employment. On the other hand, resistance to downward revision of money rates—the "downward inflexibility" of interest, profit margins, and wage rates— results in system unemployment. Money which otherwise would have flowed into productive investment lies idle.

Monopoly prices inhibit consumption not merely of the high-priced monopoly goods but generally. Weighing the advantages of a dollar more or less spent consumptively against holding the dollar for future contingencies, the economic subject finds the attractiveness of consumptive expenditure *in general* reduced by the existence of the monopoly prices. Money which otherwise would have gone into consumptive expenditure lies idle.

Thus both productive and consumptive expenditures are retarded by the influence of monopoly upon the average citizen who spends or holds money. But the restrictive influence of monopoly extends past the disposition of *given* money resources to influences on money incomes themselves. Monopoly undoubtedly increases inequality of income. If we take *as given* the various obstacles to the movement of savings into investment, then the greater the inequality of income, the greater the idle holding of money.

These restrictive influences of monopoly are such as to exercise a continuous or "secular" drag upon employment. If, now, the *cyclical* effect of monopoly were of the opposite sign, *i.e.*, stimulative of output and employment, it would be imperative to weigh secular against cyclical effects. However the tendency of monopolies and monopolistic businesses to maintain prices and reduce employment in depressions is notorious. Thus from the fall of 1929 to the depression low in 1932 and 1933, prices were reduced relatively little in industries where the monopoly element was strong while production was reduced a great deal. It is difficult to interpret this course with precision because of the great differences in markets and products for the output of different industries, but the failure of monopolistic industries to adjust their prices to changed market conditions was obvious.

Finally, in appraising the restrictive effect of monopoly upon investment and consumption, one should not overlook the fact that it would not always require an absolute rise of price or an absolute reduction of output for such restriction to be present. Suppose the introduction of economies in production to be attended by a process of monopolization. Then output

may remain at the former competitive level and still signify a substantial restriction below what would be possible under competition.

Critical Attitudes toward the Present Propositions

The Thesis of the Technical Superiority of Monopoly. Marxian economists have derived an inevitable tendency toward monopoly from a supposed superiority in productive efficiency; and, by a curious paradox, this view is sometimes shared nowadays by business economists. The logical conclusion of such a process would of course be universal or practically universal monopoly under collective (socialist or fascist) or private auspices.

Obviously an independent investigation of the technical superiority of monopoly would be an undertaking of colossal proportions and we must rely on existing studies. The largest volume of empiric evidence thus far assembled is the work of the Temporary National Economic Committee.[2] Differences in costs per unit of output within the relevant range amongst different sized plants were found to be smaller than anticipated. For most industrial enterprises, if demand increased the supply was increased through reduplicating productive units rather than by building larger ones. On the whole, the staff report concludes, there is scant evidence that "competition must inevitably give way to monopoly as large establishments drive their smaller rivals from the field." It may be noted that this conclusion does not ignore the advantage of research carried on by large and powerful corporations. Naturally the Temporary National Economic Committee conclusions are generalizations which admit the inevitability of monopoly from cost economies in specific fields. But it needs very explicit emphasis that *even if* monopoly secured net cost economies, these savings *to the monopolist* would have to be very large in order to make his price lower and his output larger than they would be with competition serving the same demand.

Accepting for present purposes the Temporary National Economic Committee findings regarding technical savings, let us not forget the financial advantages which accrue from the superior *bargaining* position of monopoly, in hiring labor, borrowing capital, purchasing materials, *etc.* These undeniably exist, but to the degree that they accrue as gains to one firm they cause reduced income elsewhere and cannot therefore add up to an expansionary force in the system as a whole. Furthermore

[2] T.N.E.C., *Final Report and Recommendations* (Document No. 35), p. 309.

these gains are rather the attributes of *large size* of the enterprise than of monopoly.

Impressed by the large outlays upon sales effort in the form of branding, advertising, salesmanship, and the like, people sometimes believe that competition is very wasteful. But it requires the leaping of several formidable hurdles before this observation can lead to a conclusion favorable to monopoly on the score of output and employment.

(1) It is the essence of monopolistic competition that even a "monopolized" commodity or service must compete against others for consumer outlays. In general, firms in a near-monopoly position because of their fewness do not appear less lavish of selling outlays than competitive firms; indeed the opposite is generally the case.

(2) Probably only a collectivist state could completely eliminate these purely sales-effort costs (contrasted to physical distribution and the provision of information) and a reasonably workable competition may require a certain amount of such outlays. But the very fact that consumers' tastes are spontaneously differentiated would seem to result in a wide variety of brands and in an effective competition at the fringes of these specialized markets, even without large selling outlays.

(3) Except to the degree that consumers actually get their money's worth for sales outlays, the employment created directly by selling outlays cannot be regarded as anything but concealed unemployment or waste, *i.e.*, a use of resources which would yield more to consumers if transferred to other uses.

(4) It must be sharply emphasized that the economies of large-scale operation secured by national advertising and a national market are, in the absence of regulation, savings to the monopolistic firms. For the economies to redound even partly to the benefit of consumers and employment as a whole they must be sufficiently large that even the optimum monopoly position gives lower prices and larger outputs than competition.

The foregoing considerations would seem to establish a strong presumption, though of course in default of exhaustive empiric studies objective proof cannot be attained, that the Temporary National Economic Committee conclusions respecting the technical savings of monopoly also extend to the possible savings of large-scale output developed under the shelter of substantial selling costs.

The Thesis that Monopoly Expands Effective Demand. Extremists have argued that a policy adverse to monopoly and favorable to competitition would lower prices and that falling prices are adverse to business

expectations and the realization of full employment. Such a conclusion implies, in the first place, that a program against monopolistic restriction would precipitate a rapid decline in prices. It implies, in the second place, that monetary expansion would be impotent against this force. Neither is justified. At best the substitution of competitive for monopoly elements would be the work of two or three decades; and a reasonable expectation exists that monetary and fiscal devices would offset this falling tendency of prices. Proponents of greater flexibility of prices do not advocate a decline of all prices in depression, but only the removal of monopoly price policy, which keeps one segment of prices high *relative to others*.

Account must also be taken of the possibility that, far from limiting output and employment, monopoly might actually have an expansionary force since monopoly profits encourage investment more than competitive profits. Now there can be no doubt that high profit rates induce more investment than low, yet this argument ignores that high profits secured through monopoly are by the same token secured through limitation of output and of investment. For a short run it may be a desirable policy to permit monopoly profits through patents, infant industry tariffs, and the like to encourage innovation and development. But in a mixed economy such as ours, to assure some investment a permanent monopoly position is tantamount to increasing the cyclical and other risks in the more competitive industries, where the incentive to invest is correspondingly attenuated, without however necessarily reducing the aggregate risks borne by monopolies. If the argument is intended, on the other hand, to mean that all-round monopoly would promote investment and employment, its significance is curiously transformed. All-round monopoly not under state control would imply a regime of status such as the medieval craft and merchant system; and all-round monopoly under state control would imply, certainly not the contemporary socialist state of the liberals, such as Lange and Lerner, which is competitive, but a completely bureaucratic regime of fascist character. It seems more profitable to point out these implications of permitting or furthering monopoly to encourage investment than to weigh the pros and cons of these economic and political systems.

THE EXTENT OF MONOPOLY

The degree of monopoly power possessed by a single firm producing a single commodity lends itself to several quantitative measurements, each valid from a particular viewpoint. But there is no objective measure

of monopoly in an entire economy. Individual firms have monopolistic power in some dealings and not in others, in some commodities and not in others, and at some times and not at others. Monopoly control differs also in its quality from the outright ownership of a unique resource or a legal monopoly to the less secure control attributable to the popularity of a brand; it varies from greater and lesser community of ownership to mere "price leadership" or the insecure superiority of "know how." Furthermore even if monopoly were sufficiently homogeneous for objective measurement, we should constantly have to bear in mind the great differences in results upon social welfare which arise from its particular incidence, *e.g.*, bread *versus* caviar, its purpose, *e.g.*, a fiscal monopoly of salt *versus* a private monopoly, and similar contrasts.

For the purpose of forming an approximate appraisal of the absolute extent of monopoly at a given time and place, it is of course possible, following a practice of the Temporary National Economic Committee,[3] to proceed industry by industry, characterizing each as preponderantly competitive or monopolistic, and trying to indicate by gross categories the severity of monopoly where it is present. Thus fairly "workable" competition seems to characterize the broad fields of wholesale and retail distribution, the service trades (theatre, publishing, laundry, repair shops, trucking, *etc.*), agriculture and certain other extractive industries (lumber, bituminous coal, petroleum production, fisheries), and numerous manufactures, such as cotton textiles, woolen and worsted goods, silk and rayon, knitted goods, men's clothing, women's apparel, boots and shoes, leather, furniture, household appliances, and many food products. Needless to say, competition on the selling side characterizes also large segments of the markets for factors of production—labor (particularly unskilled and some professional classes) and capital. With respect to capital, competition amongst the ultimate suppliers (savers) is keener than amongst middlemen.

At the other extreme we can rather easily identify the fields in which a virtually complete monopoly rests in the hands of one or two firms. One firm can be said to have possessed a virtually dominating position in each of the following fields prior to the war: aluminum, shoe machinery, glass container machinery, optical glass, nickel, molybdenum, beryllium, and magnesium. Transportation, communications, and local utilities are generally monopolies, but usually regulated by public authorities. Cases

[3] T.N.E.C., *Competition and Monopoly in American Industry* (Document No. 21), *passim.*

of monopoly shared between two firms include bananas, plate glass, electric lamps, electric business machines, airbrakes, oxyacetylene, and sulphur.

Between the antipodes of workable competition amongst numerous firms and complete or virtually complete monopoly by one or two firms lies an intermediate zone in which sellers are relatively few in number and take account of the action of rivals in price, labor, and production policies. Certain activities of trade associations and cartels fall within the intermediate zone, and systems of delivered prices, such as the basing-point device, also belong here. But it is not necessary that the monopoly restraint take on the formal aspect of pricing, market sharing, or patent pooling agreements, for effective control often appears through the mere price leadership or dominance of an important firm. Though elusive of determination and control, these informal controls are substantial and qualitatively important. The monopoly power conferred by distinctive brands, advertising, and other devices (known to economists as "product differentiation") may vary from a virtually complete control to a situation in which monopoly profits vanish through a crowding in of firms with similar products. To this list belong also some cases of local monopoly by newspapers, banks, labor unions, professional persons, merchants and the like, limited of course at some point by buyers' recourse to other and more distant sources of supply.

The point in reviewing the segments of our present economy which are competitive, monopolized, and monopolistic is to emphasize anew what is already a thrice-told tale: that monopolistic elements pervade the larger part of our markets. Since the preceding section points toward an intimate connection between monopoly and the unemployment of men and other resources in particular cases, the pervasiveness of monopoly appears, by parity of reasoning, as an important cause of unemployment throughout the system.

It would be fatuous to expect a transformation of the American economy with respect to the degree of monopoly in a few years. In the meantime direct measures to support employment may be necessary on a large scale: public works, Government subsidies, guarantees, doles, and the like. But on the other hand it would be well to guard against that myopia which regards monopoly in its present forms and extent as nearly permanent. Early in the present century there were at least eight firms which controlled 90 per cent or more of the output of their respective industries.

Three decades later, partly through anti-trust action, partly through technological advances, and partly through internal changes, all of these but one had suffered substantial reductions of their power. Competitive and monopolistic firms alike are constantly in a state of flux in both directions. The next section argues that public policy can turn the scales decisively in the direction of increasing the competitive elements.

The preoccupation of the present analysis with such economic magnitudes as prices, output, and employment need not imply that these are necessarily the most important evil consequences of monopoly upon our society. The control over human destinies involved in the employer relationship, the ineffable "influence" of great aggregates of power, to say nothing of the more overt and sinister devices of political corruption, may attend mere size without monopoly. But it is difficult to believe that the addition of monopoly does not immeasurably aggravate these threats to political and economic democracy.

ACHIEVING FULL EMPLOYMENT DOES NOT IMPLY REDUCED SAVING

The proposal to exploit more fully the force of competition to increase effective demand, to expand investment and reduce unemployment, has to meet the objection of those who are convinced that such measures are largely irrelevant as long as we do not succeed in reducing the amount which people desire to save. A systematic appraisal of the oversaving explanation of unemployment would lead too far afield, but a brief statement seems requisite in clearing the ground for policy recommendations.

The oversaving thesis has been supported by three main types of argument—technological, psychological, and institutional. The first points to the dependence of profitable investment upon innovation. Keynes seemed generally to assume a lack of innovation in the future sufficient to provide attractive investment opportunities, and he added also that future technological improvements may be capital-saving rather than capital-using.

It is just as impossible to refute this argument as it is to prove it because we cannot foretell the future course of technology. Many observers stress heavily the accumulation of technical improvements during the war and consider the future bright with promise for profitable investment.

Others, viewing the same facts, look upon them with alarm as increasing the magnitude of national income necessary to produce full employment. Indeed it is difficult to decide whether the oversaving and stagnationist school of thought regards increases in productive efficiency as favorable or unfavorable to employment. One strain of thought emphasizes the favorable effect of innovation because it increases the productivity of capital, and is pessimistic because innovations *will not* be forthcoming. Another stresses technological unemployment—the displacement of labor by new machines—and is pessimistic because innovations *will* appear. On balance it is impossible to say which effect will preponderate, just as it is impossible to say how much innovation will actually be forthcoming. The technological argument that saving will be redundant and result only in hoarding and unemployment is conjectural and completely inconclusive.

As for the psychological arguments, no one would deny that pessimistic forebodings will result in hoarding, declining investment, and unemployment. But it is difficult, if not impossible, to find substance in this argument without reference to institutional obstacles to investment, since it is difficult to imagine a general pessimism without objective justification. Keynes himself gave a *psychological* explanation to one of the important *institutional* obstacles to full employment in his own system, the downward inflexibility of money wage rates. Its existence rested upon what he regarded as the typical labor psychology of resistence to a cut of money wages but of acquiescence in a reduction of real wages through rising prices; and, indeed, he relies explicitly upon the latter for a part of the expansionary effect of public spending. But this attitude toward real wages directly conflicts with the idea that a *rise* in real wages is expansionary because it increases consumption. Currently the oversaving school seems to have abandoned the real-wage depressing effect of monetary expansion in favor of its real-wage sustaining or increasing effect through consumption.

The psychological argument has another variant in the obstacle to employment presented by the unwillingness of potential investors to accept less than a certain rate of return because of investment risks. As in the case of pessimistic anticipations, it requires an explanation as yet not forthcoming, as to why hoarders would in the long run prefer no return to abating somewhat their requirements as to investment yield, since over a sufficient term of years the loss of yield will amount to the entire principal at stake.

It is the institutional obstacles to investment, also mentioned but not stressed by the oversaving theory, that supply not only the chief causes of underemployment but also the most promising fields for effective public policy. If oversaving exists relatively to the capacity of existing institutions to utilize funds, the cure is a reform of those institutions, not an onslaught upon savings. Amongst the promising lines of attack is the opening up of areas for investment to which monopolistic elements bar the way.

A PROGRAM TO EXTEND AND FACILITATE THE OPERATION OF THE COMPETITIVE PRICE SYSTEM

A systematic effort to combat monopoly restriction of output and to extend and facilitate the operation of the competitive price system would appear to require the following main lines of action.

(1) Measures to facilitate movement of savings into competitive enterprise.
(2) Government research and publication.
(3) Public and private efforts to develop a higher plane of economic ethics.
(4) Removal of Government or legal support of monopoly restriction of output.
(5) Anti-trust action.
(6) Action to prevent restriction of output by labor.
(7) Government regulation, operation, or ownership of monopolies.
(8) Action to prevent limitation of output in the international sphere.

Measures to Facilitate Movement of Savings into Competitive Enterprise

Policies Designed to Stabilize National Income at a High Level. Not only is the attainment of some reasonable degree of stability of output and employment itself an economic goal, but it is furthermore a condition which facilitates a movement toward full employment. One of the channels through which stability contributes to the realization of more employment and production from given resources is the encouragement it gives to competition. Cyclical ups and downs breed monopoly and restriction.

Thus the fear of unemployment supplies labor unions with an important motive for restrictive entry and wage policies; and fear of depression moves businesses to seek the entrenched position of monopoly. A general economic depression, with its characteristic falling prices, unemployment, and widespread business losses, is furthermore an unpropitious time to think or speak of effective measures against monopoly; when unemploy-

ment prevails, public sentiment and Government alike are loath to discourage business of any kind.

In depression, monopolies thrive less than in good times; but the process of *monopolization* is accelerated through the failure of weaker and smaller firms. In boom times monopolization is accelerated through the incentive and opportunity offered by lush profits to construct holding companies or to buy out competitors. Thus both boom and depression (*i.e.*, the mere fact of marked economic fluctuation) favor monopoly. On the other hand a completely static economy does not encourage competition. Its best milieu is a secularly progressive state, but one in which the evolution is stable.

The successful combating of depression might be furthered by an explicit declaration of Government responsibility for the maintenance of national economic activity at a high level. But such a declaration would not necessarily imply that "spending" would have to be the only or even the chief anti-depression policy. Indeed, beside the increase of outlays upon relief, social security, and public works, the reduction of tax revenue ought to be thoroughly explored as a lever against sagging private expenditures for consumption and investment.

We need not accept the thesis that crises and depressions are caused fundamentally by oversaving to recognize that, once depression prevails and additions to productive equipment for the time being in most industries are not economically rational, the encouragement of consumption may provide a general economic stimulus. At such times equalitarian measures take on added significance because of the relatively larger expenditures upon consumption by low-income groups. In a private enterprise economy, where consideration must be given to the productivity of labor and entrepreneur realization of profits, there are distinct limits to the raising of real wages, and hence corresponding limits to the stimulation of consumption through raising rates of remuneration. Similar narrow limits exist to increasing consumption through progressive taxation. Because the poor are so much more numerous than the rich, even very strong degrees of progressiveness do not accomplish much in taking taxes off the mass of consumer income. Reducing inequality through progressive taxation of income is not a promising way out of a depression.[4]

Encouraging consumption and investment in cyclical depression thus

[4] Cf. Moses Abramovitz, "Savings and Investment: Profits vs. Prosperity?," *American Economic Review*, June 1942, especially pp. 80-81; cf. also, more recently, Richard A. Musgrave, "Federal Tax Reform," in *Public Finance and Full Employment*, No. 3 in the present series.

chiefly depends upon public spending—presumably mostly through deficit financing—and upon releasing both consumption and investment from the restraints of monopoly. The more that can be accomplished through the latter, the less the hostages which must be given to the future in the form of increased monetary purchasing power and increased public debt, in order to remove a given volume of unemployment.

Measures to Move Resources from Sectors of Chronic Oversupply. Contrasting with the general savings-investment problem, the difficulties engendered by chronic over-supply in certain lines of production do not yield to general expansionist devices. War is a great propagator of excess capacities in the metal, chemical, and certain other industries; and the war did not witness any very extensive exploitation of the excellent opportunity it afforded to move resources from chronic lines of agricultural over-production. In the reconversion period, a temporary resort to subsidies, coupled with budgetary expenditures to aid in the movement of labor from depressed areas, would be the economically rational course. Restoration or attainment of stable competitive conditions will await also the clearing away of excess industrial capacities, since the survival of firms in a general loss situation may be more dependent upon size and the financial resources necessary to last out the bad times than upon productive efficiency. The imminent danger is, however, that a defensible policy of temporary support to incomes in these fields will be joined with perpetuating the excess outputs, through price-parity legislation in agriculture and through cartel action in the industrial raw materials.

Encouragements to New, Small, and Competitive Enterprises. The perennial threat to established monopolies from new industries and new firms should be substantially furthered. Indeed, many authors see in the new techniques developed during the war one of the most promising avenues toward fuller employment. But since these techniques may be subjected to patent-based restriction, the reform of the patent laws needs serious consideration. Competitive business should have better access to financing; proposals to increase the ability of the Federal Reserve Banks to guarantee the bank loans of the smaller enterprises are well conceived. The monopoly position of many firms would be undermined by a reduction of tariffs through international agreement. Federal outlays upon technical and industrial research and provision for research upon a regional basis would encourage new entrants and offset, at least partly, the advantage enjoyed by old and powerful firms having extensive research facilities of their own.

Reform of Taxes Handicapping Small and Competitive Businesses. All taxes adverse to risk-taking are by the same token adverse to competition. It is impossible to devise taxes which do not in some measure adversely affect the spirit of business venture, but direct discrimination against stocks relative to bonds can be corrected. Thus measures have been suggested for Federal action to discourage State and local government issues of tax-exempt bonds.

The integration of corporate and personal taxes to eliminate double taxation of dividends would also enhance the venturesomeness and competitiveness of investment. Permitting more latitude in the timing of depreciation and obsolescence deductions, extending the "carry-back" and "carry-on" provisions for net business losses, and liberalizing or abolishing the segregation now enforced in the deduction of capital losses—all these would aid particularly the small firm with limited financial resources.

To eliminate the present handicaps imposed upon unincorporated businesses with fluctuating incomes, it is possible to devise a system of averaging income over several years for personal income taxation. Finally there would be a strong case for exempting new independent firms of small size from taxation upon retained income for a limited period, say 5–10 years.

Government Research and Publication

A discriminating treatment of monopoly requires that it be dealt with industry by industry according to the peculiarities of each case. Sufficient knowledge is frequently lacking for the formulation of appropriate policies. Intensive study over a decade by a corps of experts, utilizing amongst other things the rich experience of the War Production Board and the Office of Price Administration, is necessary in many instances to reveal industry and market structures as the basis of anti-restriction measures.

Scientific research bearing upon products and productive processes could be subsidized still more extensively by Federal and State governments to offset the superior financing resources of large firms. The advantage of size and long life and experience of large and monopolistic firms can also be compensated by the extension of Government research and publication concerning the general course of business—savings, investment, price and income effects on demand, *etc.*

Finally research and consumer education are weapons against those monopolies and near monopolies which rest upon a pre-empting of the

market through sales efforts. Part of the attack upon this basis of monopoly depends upon patent reform. But the ultimate remedy against both types of waste is consumer education, not merely in the passive fashion of Bureau of Standards tests, but in an active sense, as for example, through instruction in the public schools.

Public and Private Efforts to Develop a Higher Plane of Economic Ethics

One of the reasons why collectivist or "planned" societies appear attractive is that frequently they are known only through literary description of their ideal or pure form, whereas private enterprise is experienced first-hand in its far-from-ideal actuality. Thus the beguiling character of planned economies often rests upon postulates of wise, perfectly informed, and incorruptible administrators and boards. Reflecting thus, one would more reasonably be impelled toward raising the standards of economic illumination and morals in the world about him than toward championing a society which would be ideal if its citizens were wise and guileless. Any system is conditioned by the morals of its members. It does not appear less possible to develop the morality necessary to the beneficent working of competition than to insure the beneficent working of fascism, socialism, or a planned economy—quite the contrary. To be compatible with a competitive system, social stigma has to be removed from the "profit motive" and attached to monopoly gains and living from inherited wealth or other adventitious position. Thus the "professional ethics" of the American Medical Association, and the ideology of the Farm Bureau, the Congress of Industrial Organizations, and the American Federation of Labor and the National Association of Manufacturers are as relevant to the effective working of private enterprise as the business philosophy of the United States Steel Corporation. In the present scene, the preservation of American ideals of liberty, opportunity, and justice depends immediately and ultimately upon whether these large aggregates of power turn toward restriction or toward full use of resources. There exists no formal or mechanical substitute for economic morals.

Removal of Government or Legal Support of Monopoly Restriction of Output

Reduction of Protective Tariffs. The emergence of the United States as the most powerful industrial nation of the world has made the "infant

industry" apology for protective tariffs a piece of hypocrisy. American participation in an International Monetary Fund would indicate that, if monetary devices such as competitive currency devaluations and exchange controls are gradually to disappear as methods for "exporting unemployment," the United States must for its part repudiate the use of tariffs to combat depression. Thus the American tariff system can stand only because of military reasons or because of the vested interest of the inefficient producers and monopolistic industries which it fosters.

Recent statistical studies have shown that when the prices of imported articles decline, the quantity imported into the United States does not increase very greatly: in technical language, the American demand for imports is inelastic with respect to price.[5] From this fact some economists have deduced that protective tariffs or their reduction are relatively unimportant to the American economy. But this deduction ignores two factors quite vital to the social gains of a movement toward freer trade. In the first place the reduction of tariffs generally lowers the price of goods more if demand is inelastic than if demand is elastic; and consequently there would be marked social gain from the lower prices for our imports. In the second place an inelastic demand for imports signifies *per se* that there is a relatively small shift of purchasing power to foreign goods and consequently a small shift of production to export channels. Finally inelastic demand for imports does not interfere with the efficiency of tariff reductions in exposing domestic monopolies to foreign competition, with consequent gains for domestic consumers.

Removal of Barriers to Trade between States and Regions. Just as sovereign countries engaged in cut-throat practices in the international trade of the thirties to "export unemployment," so within our own borders the States proliferated sanitary regulations, packaging requirements, and discriminatory taxes against products originating in other States in order to "make work" at home. While most of these practices fell into disuse in the full employment of the war years, the revival of attempts at regional protection from competition can be expected in a postwar recession unless Congress intervenes.

Repeal of Miller-Tydings and State Price-Maintenance Acts. Amongst the various ways in which Government has itself contributed to the efficacy

[5] But Mr. Hans Adler demonstrates in his article on "United States Import Demand during the Interwar Period," *American Economic Review*, June 1945, that the price elasticity of duty-free imports considerably exceeds that of all imports taken together.

of monopoly price policies and the elimination of price competition, none is more notorious than the Federal law and the epidemic of State statutes in the thirties which enabled manufacturers to dictate the retail prices of their products. An economic justification of these measures has yet to make its appearance. The case for immediate repeal is strong since adequate prices, particularly in these markets, can scarcely be regarded as a present problem.

Revision of Federal Aid to Agriculture. Agriculture is notably in all but local and isolated cases an industry of small-scale ("atomistic") competition. Such monopoly features as have appeared in recent years—price maintenance and the resort to production quotas—have been imposed by Government intervention rather than by monopoly within the industry. The animus of the Agricultural Adjustment Acts from 1933 on to offset the handicap of agriculture relative to the administered prices and controlled outputs of industry cannot be branded as mistaken policy. But the instruments of this policy have been sadly mistaken. The guarantee of prices through the parity formula produced an outcry from the non-agricultural part of the economy because it saw that, as long as resources were not diverted, but on the contrary effectively retained in the fields of over-supply, there would be no end to the process; and this is a legitimate objection. The subsidizing of agricultural products adopted in the war, partly as an alternative and partly as a supplement to parity prices, produced an outcry from the farmers for precisely the opposite reason, that they feared the support would be temporary; and in view of the farmers' position, this too is legitimate. The one really sound and basic corrective, to which neither producer nor consumer can legitimately object, is the appropriation of Federal funds for training programs to diversify agriculture, for introducing capital equipment necessary for this change, for re-allocating land suitably to the new types of production, and for moving labor that cannot be rehabilitated to some other industry.

Patent Reform. Recommendations with regard to the reform of patents made by the T.N.E.C. deserve renewed interest because of the prospect of extensive technological changes in the immediate postwar period. In order to curb monopolistic abuse, consideration should be given to proposals for compulsory licensing of patents, and for licensing without restriction upon licensee or buyer of the patented article. Since much of the control exercised by monopolies proceeds not so much directly from the patent as from aggressive use of infringement suits and the costs they im-

pose upon small competitors, appropriate protection of the defendant in such cases should be provided.[6]

Anti-Trust Action

Any serious program against monopoly involves a strengthening of the anti-trust agencies by providing adequate budgets for the Anti-trust Division of the Department of Justice and the Federal Trade Commission, the explicit endowment of the latter—in accord with the intent of the Act—with power to establish findings of fact, and effective collaboration—also as originally intended—between the two agencies. An aroused public sentiment against monopoly restraint of production and hence of employment would, of course, be paralleled by a general program of prosecution of collusive agreements and other restraints—whether by industry, labor, or agriculture—in place of the limited sporadic descents of the Department of Justice, imposed by its limited personnel. In order to purge away some of the actual defense of monopoly involved in certain Federal Trade Commission rulings, Congress should codify the law of unfair competition into a unified statute; and in order to enforce national standards of business practices, it should enact a Federal incorporation statute. Besides the stiffening of penalties, liability for violating the anti-trust laws should be extended to corporation *directors*, as recommended by the T.N.E.C.. If this rigorous course is adopted, corresponding pains must be taken in the administration of anti-trust laws to avoid arbitrary and unjustified prosecution or threats of prosecution.

Action to Prevent Restriction of Output by Labor

To assess quantitatively the amount of output restriction and unemployment ascribable first and last to union activity is probably impossible. We know that barriers to membership have been erected by some of the older craft unions, and that wage scales in specific cases have had the same effect as limiting entry. We know that union demands concerning seniority, hiring, and piece-work have sometimes resulted in limitation of output, not always showing itself in unemployment. We know further that overt "restraint of trade" is involved in some union contracts which (1) prevent the utilization of new techniques and machines, (2) prohibit the use of goods and materials upon which certain labor operations had been carried on outside the immediate locality, and (3) require the hiring of

[6] T.N.E.C., *Final Report and Recommendations* (Document No. 35), pp. 36-38.

superfluous labor. Without doubt some protection of the individual laborer from technological unemployment is warranted in the form of dismissal wages, unemployment insurance, and the like; and yet the enumerated practices—clearly in restraint of trade—cannot be defended, and any anti-monopoly program will include their elimination.

The economic and political power of the unions in and after the war raises the fundamental issue as to how far wages can be advanced, by collective bargaining or otherwise, without producing unemployment. I think there can be no doubt that in certain industries, where very high rates were paid during the war in order to move labor rapidly into the field, downward adjustments should and will come about. But the question of the prospective *general level* of wages requires examination under three aspects: (1) monopoly profits in the industry; (2) technical progress; (3) lack of both.

(1) The presence of monopoly profits in a particular industry or even firm is apt to persuade the union, and sometimes even economists and regulatory authorities, of the justice of a wage increase. In fact, however, such a wage increase has precisely the same outcome as collusion between producer and employee against the consumer, which would violate anti-trust laws and represent the acme of all-round restrictionist mentality. Even so, some well-meaning "friends of labor" demand this procedure as a political necessity in a world where the more indirect processes of industrial monopoly regulation and monopoly taxation seem to move slowly and uncertainly. But this action would certainly make the industrial monopoly problem insoluble.

Once employee participation in monopoly profits is sanctioned in a particular firm or industry, two movements are set afoot which tend to reduce employment even beyond the point involved in the original monopoly. In the first place rates on similar kinds of labor in other industries may be forced up by imitative action which would universalize the wage advance in the original monopoly-profits industry. But if the other industries are competitive, advances in wages will be purchased by lessened employment if, as we are now assuming, there is no increase in productivity. In the second place the mere fact that a monopolist already enjoys large profits does not at all prevent that, if compelled to pay higher wages upon these grounds, he will *still further* reduce employment and output to maximize profits. These considerations reinforce the conclusion that monopoly profits in a particular firm or industry cannot on principle be accepted as legitimate grounds for an advance of wages.

(2) With a general improvement in techniques or management, a good case can be made for permitting the gain to accrue to labor by a combination of approximately stabilizing the average of prices of consumer goods and permitting money wages in all industries to rise parallel to the *average* increase of efficiency. Firms which achieve no economies in production would experience a rise in costs parallel to the increased wages, a somewhat smaller rise of the price of their products, and reduced profits. Those achieving economies above the average would experience a decline in costs despite the increased wage rates and despite a fall in the price of their products, and their profits would rise. The firm of average technical improvement would experience the rise of wage rates with unchanged costs, prices, and profits.

Such a combination of wage and price policies would recommend itself upon the ground of its equalitarian effect. Secondly it would permit these gains to accrue in a way which answers better to the character of collective bargaining than stable money wages and falling consumer goods prices. It is, for example, difficult to imagine longshoremen striking because the price of rubber tires does not decline. In other words it would turn to account the fact that an increase of money wages seems to possess a greater appeal than a decline of consumption costs.

On the other hand a policy of stabilizing money wages and permitting increased productivity in the economy to work itself out in falling commodity prices has something to recommend it. In the first place it would be more democratic than the alternative policy of increasing money wages, because non-wage-earners and also non-unionized labor would share more promptly and more fully in the gains of technological progress. Furthermore the penalty of falling profits on industries not experiencing increased productivity would be avoided, and there seems no clear logic in such a contractive force. But the burden of debt—private and public—would not be lightened relatively to national income as in the alternative scheme. Moreover, secularly falling commodity prices may exercise a dampening effect upon private enterprise.

In view of the violent oscillations of the business cycle in recent years we could count ourselves lucky if in the near future we achieve a degree of stability no greater than would leave unsettled the question of the most desirable of the two policies we have just reviewed. Meanwhile, a combination by which increased productivity worked itself out partly in rising money wages and partly in falling commodity prices might afford the more practicable working ideal.

Applied to the postwar period in the United States, this working ideal would, because of the cumulation of technological and managerial economies during the war, probably imply that wage rates should not be reduced; indeed, as another paper argues, there would be good reason for some increase.[7]

(3) We confront also the situation where neither monopoly profits nor windfall gains from improvements exist, and where an increase of wages could come about only from exaction by a labor monopoly. Extremists sometimes seem inferentially to justify such increases from the fact that a forced transfer of income from higher to lower brackets increases the aggregate propensity to consume and thus expands markets and employment. It may readily be granted that this effect might follow inheritance or progressive income taxation; but a forcing of wages above the economic value of the work in competitive industries acts as a direct tax on employment. Measures to increase consumption in the aggregate and measures to secure a more equal distribution of income must proceed upon a *general* basis, *i.e.*, by taxation, and by the provision of education, social security, housing, medical care, and by general wage increases governed by the productivity of the economy, rather than by monopolistic wage increases in *particular* fields unless we are willing to accept chronic unemployment and investment stagnation. In a competitive enterprise economy relative wage rates should tend to be settled for each occupation on the basis of free entry and a price that over a longer period "clears the market." The benefits of progress, accumulation, and equalitarian measures should accrue to *all* labor as a "social dividend" and should be divided upon some rational basis or other; their incidence should not depend adventitiously upon the artificial scarcities created by monopoly at this point or that. If we really desire a competitive market economy, this principle of clearing the market must occupy a central place in the national wage policy.

The supply-and-demand principle, it must be observed, pertains to relative wages. It does not imply that cutting the general level of wages is the way out of depression. Against cyclical depression even in a workably competitive society, against postwar episodic depression, and against a persisting tendency toward underemployment as long as monopoly is as prevalent as it is, compensatory spending by the Government may prove to be essential.

[7] Cf. Kenneth B. Williams, "Employment and Wage Policies," pp. 58–66 of this phamphlet.

Furthermore a market-clearing or supply-and-demand principle does not preclude exceptions for "sub-standard" or sweated labor markets (minimum wage laws), for extensive subventions to aid in the movement of labor from regions of relative oversupply, to provide technical education, or for other general welfare expenditures for labor.

Finally, extreme measures with respect to labor unions are inappropriate to the character of the liberal competitive order or "guided capitalism" which most Americans seem to desire. On the one hand, in view of the many legitimate and socially beneficial activities of the unions not embraced under mere "benevolent society" functions—the elaboration of working agreements as to safety, work day, discipline, vacations, dismissal pay, grievances and the like; in view also of union activity on behalf of "sub-standard" or "sweated" wage groups; and finally in view of the unions as symbols of achievement and hope of further economic advancement of labor, it would be folly to propose their elimination. On the other hand, the danger of "syndicalism" (in the Italian sense of economic and political governance by groups of producers) cannot be gainsaid.

The best guarantee against this perversion is ultimately a developed public sentiment and proximately a responsible union leadership which recognizes that "we cannot all get rich by restricting production," and, admitting the general principle that the wage which "clears the market" with free entry for qualified applicants in each classification is the economically justifiable wage, applies it in every specific case. The trial-and-error method in working out these relative wage rates by collective bargaining stands as the best available means of putting such a policy into effect. Its efficacy in a liberal economic order depends upon the abandonment of the philosophy that a "victory anywhere on the labor front is a victory everywhere," by employees and employers alike. Its efficacy also depends upon whether, by a combination of the manifold lines of promising action, reasonably full employment is achieved, since the risk of unemployment and the loss of markets for particular skills undoubtedly induce unions and non-unionized labor to use restrictive devices as a precaution against bad times.

As a part of the liquidation of wartime controls, the general and direct Government regulation of wages will disappear, as incompatible with a general market-controlled economy. Chief reliance for non-restrictive union policies must rest upon cessation of industry warfare against unions, an improvement in the personnel and outlook of union leaders, and the intervention of Government to mediate in or arbitrate disputes, prosecute

outright restraint of trade by unions or by industry, and prevent employer-labor collusion. It remains to be seen whether the militancy of unions or managements will require that Federal arbitration be made universally compulsory. Whether these tribunals should be tripartite or wholly public depends again upon the course of events. During the present war the tripartite panels have undoubtedly played an important educative rôle for all parties; but since minority dissent is apt to follow industry-labor lines, the rulings carry less conviction than a completely public tribunal.

Government Regulation, Operation, or Ownership of Monopolies

The present essay rejects the course of encouraging or tolerating labor monopolies as offsets to industrial monopolies. But by parity of reasoning this means that monopolistic restraint of output is not to be tolerated in industry. We have already discovered a number of lines of action which would tend to reduce monopoly restriction in its manifold forms. Something is to be said also for the "philosophy of low price," for an attempt to convince business men of the benefits which would accrue to them through full use of resources. There can be little doubt that these benefits are substantial, however great the short-run gain to a particular firm from a high-price restrictive policy. But the short-run gain, not being conditioned upon other firms' adopting the same policy, is apt to be preferred as more certain.

Consequently it does not seem possible for an anti-monopoly-restriction program to dispense with the compulsory power of the state. As a last resort, to prevent monopolistic extortion and the attending restriction of output, Government will have to be ready to regulate, operate, or itself own the facility. If it is generally recognized that Government will actually intervene, the necessity for intervention may be infrequent. A well scared private monopoly may not behave so very differently from a publicly managed undertaking.

Action to Prevent Limitation of Output in the International Sphere

For the most part the restriction of employment in international exchange has been national and unilateral, by means of tariffs, quotas, and exchange controls. There is, besides, a wide field of restriction on output, exports, prices, and the like imposed by international agreement, either private or governmental. In this general field we can distinguish three

main categories: (1) agricultural raw materials and foodstuffs, produced for the most part competitively; (2) minerals and metals, usually more or less monopolistically controlled; and (3) fabricated products, for which monopoly by patent is characteristic. What can be said of an international buffer stocks arrangement, of an international commodity authority, and of cartels from the present viewpoint of monopoly restriction of output?

The buffer stock proposal would absorb surpluses in times of depression or of overproduction and sell them in times of strong demand or low agricultural output, stabilize agricultural incomes, and thus reduce the industrial cycle itself. In the case of the great agricultural staples such as rubber, cotton, wool, wheat, tea, coffee, cocoa, and sugar, the efficacy of this action would depend in large degree upon concerted international action.

As applied within one country, the buffer stock and ever normal granary schemes have encountered four great difficulties: (1) the inadequacy of the operation actually to stem the depression of agricultural prices; (2) the resistence of producers to the sale of buffer stocks even though farm income is satisfactory; (3) the difficulty or impossibility of distinguishing cyclical from secular surpluses; (4) the difficulty of offsetting the tendency of price-maintenance to preserve or increase the underlying surplus capacities. On an international basis buffer stocks would reduce the first difficulty, but they would make the fourth still more serious. To date the collaboration has not extended past the purely negative device of setting export quotas and prices. Quite aside from the delicate question of quota allocation and the difficulty of raising an international fund of sufficient magnitude, any advance beyond this essentially negative and restrictionist phase encounters the practically insoluble question of inducing national measures to *move resources* out of the protected field and into useful production, *i.e.*, to serve the ultimate interests of consumers.

It is by no means impossible to envisage methods of financing an international commodity corporation, though the actual forthcoming of the funds may be doubtful. It is furthermore not impossible to invent mechanical devices to prevent the indefinite accumulation of stocks by such a corporation. Thus it might be directed to make its purchases at a certain margin (say 20 per cent) under a base price computed as a ten-year moving average. Furthermore, in protracted depression net losses of the corporation could be reduced and the real income of unemployed or relief sections

of the population could be increased by "two-price" or other discriminatory price policies.

Wherever a larger amount of more *immediate* control promises a smaller amount of control in the foreseeable future, there is a clear case for intervention. On this basis one may hope that buffer-stock agreements may eventually be formulated which provide assurance of a correction of underlying oversupplies. In the present scene, however, all-round reduction of trade barriers would seem to be the more promising from a political angle, since it requires no entrusting of operating funds to an outside agency and no explicit surrender of sovereignty, such as any agreement would have to entail regarding the reduction of resources devoted to the protected field.

Misgivings of the sort which are involved with the great agricultural staples would seem to be even more justified when we consider tin, copper, chrome, steel, aluminum, zinc, and the like. Whereas net losses of public funds in the stabilization of farm production usually benefit mostly the lower income groups, iron, steel and non-ferrous metals are largely characterized by monopoly. In the immediate postwar scene there may be areas of intense over-supply and over-capacity; if so, it will be in the public interest for the sake of income maintenance in general to prevent a sharp fall in prices. But the danger of an international organization's being captured by monopolistic producers is so great that direct national subsidies, *coupled with* domestic measures to move resources from these war-inflated industries, would seem to be the saner course.

Similar considerations are also pertinent to the diagnosis of international cartels. The investigations of the T.N.E.C. and the Senate Kilgore Committee have revealed the perniciously restrictive influence of cartels in controlling prices, impairing quality, allocating territory, subjecting supply to quotas by country and even by concern, restricting productive capacity, limiting the use of inventions, and various devices to harass and weaken independent companies. This says nothing concerning their sinister political powers to thwart national laws, carry on espionage and propaganda, and finally under private auspices to establish systems of international power.

No one, I believe, holds that cartels do not occasionally or in some respects lead to results acceptable from a public viewpoint, for example, the interchange of technical knowledge if not accompanied by exploitative patent-based exclusive-territory agreements, and—for another example—

the artificial limitation of output from excess capacity if accompanied by measures to remove the redundant resources. But this acknowledgment is very far from an acceptance of the institution of international cartels as a part of the "wave of the future." Both of these desirable objectives can be achieved without cartels. Thus the general availability of technical information can be greatly furthered by compulsory patent licensing (as a part of a uniform national patent act for all countries) and by extension of publicly supported technological research. To cope with the immediate impact of wartime excess capacities, direct subsidies coupled with measures to convert plant can be undertaken by national governments without cartel action. If this really honest procedure should prove politically not to be available, it is sometimes argued that temporary import quotas conducted by governments would seem less dangerous than quotas conducted by private monopolies. But the certain evidence of the history of Government-fostered or "regulated" cartels appears to be that there is no significant difference between their policies and straight monopoly practices. On the other hand, an international convention to prevent undesirable cartel practices would form a part of a liberal international program.

The present age seems to be characterized by a ground-swell of desire for greater economic security, and no economist would deny that security is an ultimate economic value. But the safety of the individual achieved through successful resistence to the changes required by shifting demand and new techniques, through special privilege and through monopoly, is a beggar-my-neighbor kind of security. The only kind of security of one group or interest compatible with the security of other groups and interests is the security which accrues to all members of the society through a high and sustained level of national income. The elimination of monopoly thus works in two directions toward the realizing of the desirable sort of security: on the one hand it proceeds directly against the adventitious and anti-social sort; and on the other, by clearing away restrictive practices, it works powerfully in the direction of the security which comes from abundance.