

March-April
1962



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Meat Consumption and Livestock Price Trends

DURING THE PAST 80 years, food consumption patterns in the United States have changed significantly and have had an important bearing on the structure of the economy, particularly in rural areas. Since changes in food consumption evolve rather slowly, past changes can offer valuable information for projecting future trends.

A conspicuous feature of the changes in food patterns has been the decline of daily calorie intake per person, according to a study made by Food Research Institute at Stanford University.¹ During the eight decades covered in the study, daily per capita calorie consumption declined about 550 calories, or 15 per cent, nearly all of which was in the vegetable products category. Per capita consumption of animal products has held within a narrow range of 1,200 to 1,300 calories a day.

The analysis also showed that per capita calories derived from the cattle herd tended to rise, while the calorie consumption from pork fell slightly. A substantial decline is noted in

the calories derived from grain crops. In short, the study points out that "During the past three prosperous decades, for which basic data are presumably the most reliable, public preference seems to have turned somewhat away from the pigmeat and 'other' products, in favor of beef and veal and of a group made up of fowl, eggs, and cheeses."

Price changes are not helpful in explaining the large rise in beef consumption per capita since 1930, the study notes, because prices for beef have increased more than for competing meats. On the other hand, poultry prices have declined substantially relative to most other meats and this may have influenced the recent sharp upward trend in fowl consumption. For the most part, however, the shifts in consumption patterns reflect alterations in the choices of consumers, implemented by increasing incomes, since the changes in many instances cannot be explained by relative prices.

Such changes in consumption trends are of special importance to the Tenth Federal Reserve District, since meat and meat animal production are major industries in the area. Trends in meat consumption and livestock prices since World War II will be discussed in

¹ Merrill K. Bennett and Rosamond H. Peirce, "Change in the American National Diet, 1879-1959," *Food Research Institute Studies*, Stanford University, Vol. 11, No. 2, pp. 95-119.

Meat Consumption and

this article. The analysis will be confined to beef, pork, lamb and mutton, and chicken, which account for about 95 per cent of all red and poultry meats.

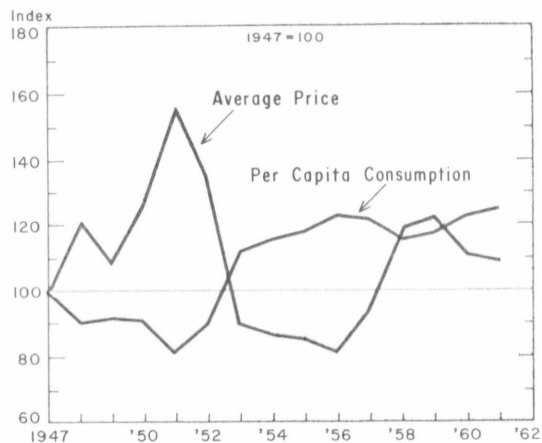
MEAT CONSUMPTION AND LIVE ANIMAL PRICE PATTERNS

More than half of the retail dollar spent for meat goes to the farmers who sell meat animals. The remaining share goes to processing and marketing interests. Since farmers receive a relatively large part of the meat dollar, any changes that occur in consumer preference for meat are of particular significance to them.

In this part of the study, the trends in prices received by farmers for cattle, hogs, sheep and lambs, and chickens will be compared with the trends in per capita consumption of each of the meats produced from these animals for the postwar period. Such an analysis should be helpful in evaluating changing consumer preferences for the different meats. Relatively high cattle prices in recent years, despite the high per capita consumption of beef, are indicative of an increasing consumer preference for beef. On the other hand, relatively low hog and sheep and lamb prices, even though per capita consumption of pork and lamb and mutton is substantially below 1947 levels, are indicative of a declining consumer preference for these meats. Only in cases where marketing and processing costs have changed enough to more than offset the influence of changing live animal prices on retail meat prices does this conclusion need to be altered. In all charts in this section, average annual per capita consumption is viewed as the quantity that cleared the market at the prevailing level of prices received by farmers for meat animals during that year.

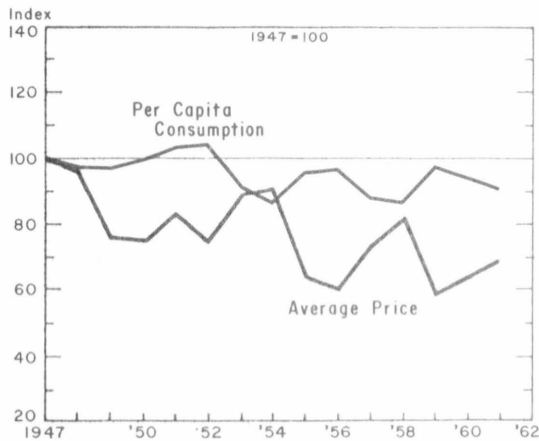
Chart 1 shows the trend and cyclical influences that have prevailed in both prices received by farmers for cattle and per capita consumption of beef. Cattle prices have trended

Chart 1
**PER CAPITA CONSUMPTION OF BEEF
AND FARM PRICE OF BEEF CATTLE**
United States



upward in relation to per capita consumption during the postwar period. In recent years, farm cattle prices have averaged higher than in 1947, despite the fact that per capita beef consumption has been substantially above 1947 levels for almost a decade. Specifically, since 1958 average annual cattle prices have varied from 9 to 23 per cent above 1947 levels, while average annual beef consumption per capita has been from 16 to 26 per cent above 1947 levels. As was pointed out previously, such a relative increase in cattle prices in relation to per capita consumption of beef with the passage of time indicates either that consumers have increased their preference for beef or that processing and marketing costs for beef decreased enough to more than offset the effect of increasing cattle prices on retail beef prices. Actually, processing and marketing costs for beef increased substantially during this period, according to the U. S. Department of Agriculture. Thus, cattle prices are higher in relation

Chart 2
**PER CAPITA CONSUMPTION OF PORK
 AND FARM PRICE OF HOGS**
 United States



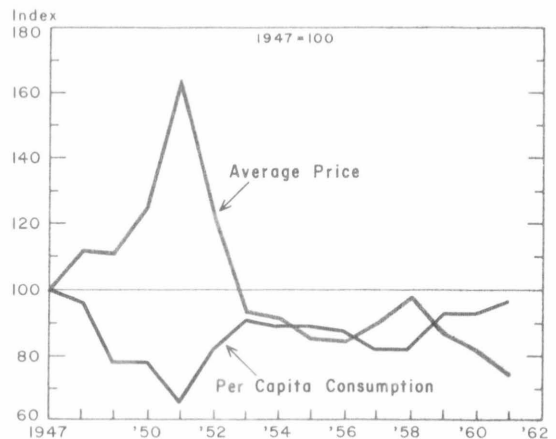
to per capita consumption of beef because of an increasing consumer preference for beef.

The upward trend in the relationship between cattle prices and per capita beef consumption has not obliterated cyclical influences. During the 1947-51 period, per capita supplies of beef available for consumption were in a cyclical decline. Cattle prices rose rapidly and vigorously as per capita consumption declined. From 1951 to 1956, supplies available for consumption were increasing cyclically—at a rapid rate from 1951 to 1953 and more moderately from 1953 to 1956. Prices again responded by dropping substantially in the early part of this phase of the cycle and at a more moderate rate during the latter part of this phase. From 1956 to 1958, consumption again declined and cattle prices increased sharply until early 1959. Between 1958 and 1961, beef consumption again increased moderately and cattle prices decreased moderately from early 1959 to 1961. This indicates that, despite an increasing consumer preference for

beef, it is necessary to reduce prices to clear the market if supplies for consumption are increased too rapidly.

Prices received by farmers for hogs trended downward rather sharply during the postwar period. Despite this declining trend in farm hog prices, per capita consumption of pork also trended downward. The price and per capita consumption lines in Chart 2 reflect the influence of the cycle in hog production. Farm hog prices, on a cyclical basis, tended to be inversely related to per capita pork consumption, but tended to increase less rapidly as consumption was reduced and to decrease more rapidly as consumption was increased. Available evidence indicates that the major reason for the decline in farm price of hogs has been a declining consumer preference for pork. Although processing and marketing costs for pork increased substantially, as compared with a decline for chicken, they did not in-

Chart 3
**PER CAPITA CONSUMPTION OF LAMB AND
 MUTTON AND FARM PRICE OF SHEEP
 AND LAMBS**
 United States



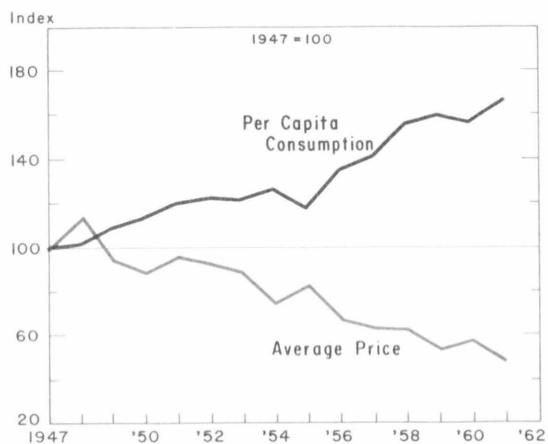
crease as rapidly as for beef or sheep and lambs.

Despite a declining trend in prices of sheep and lambs, per capita consumption of lamb and mutton remained below 1947 levels throughout the postwar period. Chart 3 shows that there was an inverse relationship between farm sheep and lamb prices and per capita consumption of lamb and mutton. However, sheep and lamb prices declined at a relatively more rapid rate than did per capita consumption. Even though per capita consumption was below 1947 levels throughout the period, sheep and lamb prices have been below 1947 levels consistently since 1952. Last year, sheep and lamb prices were 26 per cent below the levels of 1947, even though per capita consumption was 4 per cent lower.

As in the case of hogs, available evidence indicates that the major reason for the decline of sheep and lamb prices has been a drop in consumer preference for lamb and mutton. Processing and marketing costs for lamb and mutton increased somewhat more than for pork, but they did not increase as much as those for beef.

The price received by farmers for chickens has shown a sharp downward trend during the period. Per capita consumption of chicken, on the other hand, has increased substantially. This type of diverging trend suggests that consumers are eating more chicken either because the price is lower or their preference for chicken has increased. Recent studies indicate that the major reason for the increased consumption of chicken is the declining trend in prices. This declining trend in prices has been caused by rapid increases in the efficiency of production and intensive competition in the industry. Because of improved techniques, substantial increases also have been made in the efficiency with which chickens can be processed and marketed. Thus, chicken currently

Chart 4
PER CAPITA CONSUMPTION AND FARM
PRICE OF ALL CHICKEN
United States



is a good purchase for the domestic consumer and is competitive in the world markets.

THE CURRENT SITUATION

The previous analysis should be helpful in reviewing the current meat animal situation. If the trends discussed continue to prevail, they will influence the price outlook for the different kinds of meat animals.

Current evidence points toward a continued strong and relatively stable demand for beef in the foreseeable future. If this is correct, supply factors are likely to be responsible for most of the price variability in the next few years.

According to the *Livestock and Poultry Inventory* released by the U. S. Department of Agriculture, a record 99.5 million head of cattle were on farms at the beginning of this year—an increase of 2.2 million head, or 2.3 per cent, during 1961. Such a rate of increase is somewhat higher than the rate of increase in population growth. The number of cattle on

feed also has been establishing new record highs in recent years. At the beginning of this year, a record high 7.8 million head of cattle were being fed in the 26 major feeding states. With an increasing population and growing demand for grain-fed beef, this number on feed does not appear to be excessive.

If all factors are considered and if weather conditions in the major beef-producing areas are favorable, it seems most reasonable to assume that both cattle numbers and slaughter will continue to increase for some time. The rate of increase in slaughter for this year should be about in line with expected increase in demand. Total supplies are expected to be large enough to maintain per capita consumption at near last year's record high of 88 pounds. The strong demand for beef and the fact that veal supplies are likely to remain near the relatively low level of 6 pounds this year will be additional incentives for maintaining cattle prices.

It now appears that pork supplies this year will be large enough to provide from a one-half to 1-pound increase in per capita supplies from the 63 pounds of last year. Farmers indicated that they increased last fall's pig crop by about 4 per cent and this spring's crop by about 2 per cent. The *Livestock and Poultry Inventory* verifies these intentions, since it indicates that there were almost 57 million hogs on farms at the beginning of the year—an increase of 3 per cent as compared with a year earlier. If per capita supplies of pork increase, hog prices this year may average somewhat lower than last year since—as was previously pointed out—consumer preference for pork ap-

parently has not been increasing as has that for beef.

Per capita consumption of lamb and mutton increased from 4.8 pounds in 1960 to 5.1 pounds in 1961. This increased consumption in 1961 can be attributed largely to herd liquidation. The *Livestock and Poultry Inventory* indicates that there were 31.4 million head of sheep on farms at the beginning of this year. This is a decrease of 5 per cent in numbers of sheep in 1961. Many lambs that normally would have been used for replacement were slaughtered in 1961, but this situation is not expected to be repeated this year. Thus, per capita supplies of lamb are likely to be lower in 1962 than in 1961. The reduced supplies will be a price stimulant but, as noted earlier, demand for lamb and mutton in recent years has not been strong.

Although production of poultry meats can be changed rapidly, price difficulties in 1961 are expected to discourage any additional expansion in supplies this year. On a per capita basis, supplies of poultry meat in 1962 are more likely to be somewhat lower as compared with 1961.

In summary, per capita supplies of meat in the aggregate probably will not vary substantially from 1961 levels. Per capita supplies of pork are likely to be slightly higher, while those of beef, lamb and mutton, and poultry may be slightly lower. In terms of animal prices, this would suggest a somewhat lower level of hog prices, and perhaps slightly higher cattle, sheep and lamb, and poultry prices as compared with a year ago.

Average Labor Productivity

as a

Guide to Wage Adjustments

STEMMING the growth of inflationary pressures has been a prominent consideration in determining public policies throughout the postwar period. Recently, persistent deficits in the United States balance of payments have brought the potential dangers of inflation under increasing scrutiny. Because the changing over-all competitive position of U. S. producers in world markets depends heavily on price movements here and abroad, one of the key factors that will influence future balance of payments developments is the price level of U. S. goods. The adverse consequences of inflation have thus taken on a new dimension. It is perhaps more important now than at any time in recent years to find a means by which high employment levels and rapid economic growth can be accomplished without putting upward pressures on the price level.

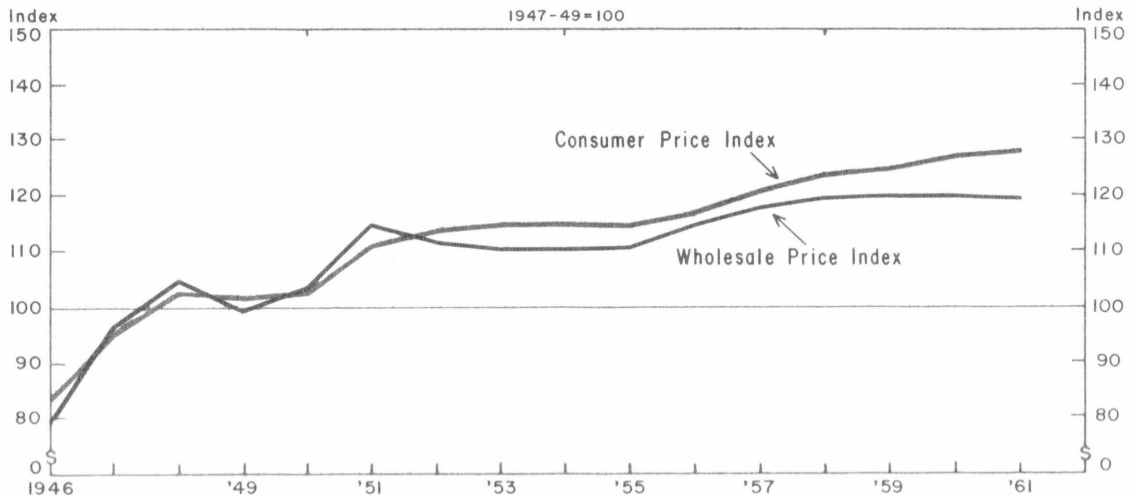
Although the need to protect the position of the dollar in world markets has become increasingly apparent, it is important to note that for about 4 years there has been relatively little inflation in this country. The chart shows movements of wholesale and retail prices over the postwar period. However, it must be recognized that during recent years the U. S. economy has not been performing as well as most observers would like. Capacity has not been

fully utilized in most industries, and unemployment has posed a serious problem throughout the period. Currently, there is widespread hope that this situation is being corrected and that within the next year or so the economy will have attained a more nearly complete utilization of its productive capacity.

While such a development would be welcomed in terms of its meaning for economic efficiency, it would bring with it increased fear that upward movements in the price level may be resumed. Inflationary pressures might stem directly from shortages created by excessive aggregate demand—"too much money chasing too few goods"—as full capacity was reached, or they might be brought about by what are often called "structural" causes—a complex and imperfectly understood set of forces which may give rise to price increases even in the absence of shortages created by excessive demands. These structural factors are usually considered to be most potent when the economy is in high gear, because generalized excess capacity and unemployment dampen their force.

In line with the possibility that a return to full-fledged economic expansion might unleash either or both of these inflationary forces, much thought has been given to various ways of

CONSUMER AND WHOLESALE PRICES, 1946-61



SOURCE: U. S. Department of Labor.

containing them. Attention has been focused particularly on the possibility of price pressures arising from increased production costs, especially unit labor costs. The proposition has been advanced that negotiated wage increases should be geared to changes in the average productivity of labor in order to guard against this source of inflationary pressures. At times, discussions of this guide to wage settlements have been marked by a large measure of confusion as to the nature and implications of the proposed policy. There are, furthermore, some important limitations surrounding the use of average labor productivity measures as a benchmark for wage adjustments that deserve attention.

This article is intended to clarify some of the matters involved in appraising the usefulness of this guide. First, it outlines the basis of the proposition that confining wage increases to average labor productivity gains provides a means of avoiding inflation. Second, it points out some of the complexities involved in using average productivity changes as guides for ac-

tual wage settlements in particular firms or industries.¹

REASONING BEHIND THE PROPOSAL

To understand the proposal, it is easiest to start with some definitions and simple arithmetic. In the present context, average labor productivity is usually conceived on a nationwide basis. It is defined as the total real output of goods and services divided by the total number of man-hours during a given period, usually a year. It is a physical measure of output in relation to input that is not affected either by changes in the level of prices or in wage rates.

National Income is a dollar measure, defined as the net financial gain arising out of production over a year. National Income from production is, by definition, equal to the total dollar value of goods and services produced, net of capital consumption, and can be viewed, alter-

¹ An earlier article, "Productivity: What Does It Tell Us?" in the December 1959 *Monthly Review* also dealt with this general problem, with a somewhat different emphasis.

natively, as the "cost" of producing the goods and services. Labor income and the labor cost of production in this country historically have comprised about 60 to 70 per cent of National Income. The remaining 30 to 40 per cent has represented income to other resources involved in production in the form of rent, interest, and profits.

It should be kept clearly in mind that the measure of average labor productivity—total production divided by man-hours—is an arithmetic measure only. It does not tell us what part of production is due to labor as opposed to other productive resources. Similar measures, such as output per acre of land, or output per dollar of invested capital, can be—and are—constructed, and they too are simply arithmetic ratios.

Nonetheless, there is reason to believe that the average labor productivity measure has useful applications in analyzing price level movements. If total dollar income paid to workers rises at precisely the same percentage rate as total real output of goods and services, then average labor costs per unit of output are not altered. When an increase in total output results entirely from an increase in numbers of man-hours worked, average labor costs remain unchanged only if wage rates are constant. But to the extent that rising output traces to increases in productivity per man-hour, it is possible for average hourly wages to rise without an increase in unit labor costs. Thus, if total production rises by 5 per cent while man-hours worked rise by only 2 per cent, productivity has increased 3 per cent. A commensurate 3 per cent increase in average hourly wages will leave average labor costs per unit of output unchanged.

This simple arithmetic is the basis for the contention that increases in average hourly wage rates equal, in percentage terms, to average productivity increases will not exert up-

ward pressures on the level of prices. The corollary of this rule is that if average wage rates rise more rapidly than average output per man-hour, average labor costs of production will rise. If this occurs, either prices must rise or the share of nonlabor resources in the National Income must fall. The likelihood is that prices will rise, whenever market conditions are sufficiently strong to absorb the rise.

An important exception to the implications of this simple arithmetic must be noted, however. The example used above assumes implicitly that the increase in output per man-hour for the Nation as a whole reflects productivity gains in individual industries. It is possible, however, for total output per man-hour to increase even though productivity did not change in any industry. For example, if a change in the pattern of demand for goods and services led to an increase in output of those industries in which productivity was higher than the national average, and a reduction in industries where productivity was relatively lower, total output per man-hour for the entire economy would have increased. But in these circumstances, rising wage rates would exert upward pressures on unit labor costs and prices. Calculation of the appropriate productivity measure for national output, therefore, must be done in such a way as to eliminate the influence of a changed distribution of output by industry.

PROBLEMS OF INTERPRETING THE PROPOSAL

Two important features of this average productivity-wage rate formula deserve particular emphasis because they are sometimes not grasped. First, it should be recognized that making wage rate increases equal in percentage terms to gains in average labor productivity does not mean that labor gets the entire benefit of increasing output per man-hour in the form of increased wages, leaving no room for increased remuneration to other factors of

production. This point, though sometimes not understood, can be seen by considering a simple example.

Constant Labor Share of Increased Output

Suppose, referring back to the earlier discussion, that labor income (and hence labor costs) have been running to six tenths of the total dollar value of national output, which we assume for purposes of illustration to be \$300 billion. Labor income is thus \$180 billion, and the remaining four tenths—\$120 billion—is distributed to other productive resources. A 5 per cent increase in average labor productivity would permit the physical volume of output obtained from the same amount of labor resources to be 5 per cent larger. If the average hourly wage rate were increased by 5 per cent, total labor income would rise \$9 billion, to \$189 billion. But if the price level is unchanged, total National Income also increases by exactly 5 per cent—or \$15 billion—and there is room for a \$6 billion rise (also a 5 per cent gain) in total nonlabor incomes. Labor income and labor costs remain at six tenths of the total value of output, and the gains of increased output are distributed proportionally to labor as wages and to other income claimants as rent, interest, and profits.

Under the circumstances described, the average productivity guide to wage adjustments is neutral with respect to relative shares of total income. The position sometimes taken that the proposal involves distributing all of the gains to labor is incorrect.

Carrying the above example one step further may help to indicate why pressures on prices may result from wage rates increasing faster than productivity gains. Suppose, in the above example, that wage rates were increased sufficiently to raise labor incomes by \$15 billion—the full increment in output due to rising productivity. Wage rates, then, would have

risen by 8.3 per cent, or considerably in excess of the gain in productivity. If prices were stable, nonlabor incomes would remain at \$120 billion, thus comprising 38.1 per cent of the new level of total National Income. Since wage rates in this case advance more rapidly than labor productivity, average labor costs per unit of output rise. If producers try to preserve profit margins, prices will be marked up.

Actual Use of the Guide

A second and more subtle source of confusion as to the use of a productivity guide for wage adjustments turns on the distinction between *averages* of productivity, wage rates, and prices for the entire economy, and developments in *particular* firms and industries. Unless this distinction is properly understood, it is possible to fall into the trap of making the application of the proposed guide appear simpler than it really is.

The impact of productivity gains is nearly always selective, striking different firms and industries with differing intensity. Although the national interest in avoiding cost-induced inflation may be properly tied to preventing *average* wage gains in excess of *average* productivity gains, changes in output per man-hour may not offer a very desirable guide for actual wage adjustments on either an industry-by-industry or a firm-by-firm basis.

For example, one way to assure that unit labor costs do not rise in any industry would be to adjust wages according to average productivity gains on an industry-by-industry basis. Thus, if output per man-hour in the chemical industry were to rise by 8 per cent in a given year, an equal percentage increase would be made in the wages of chemical workers. If, over the same time period, average productivity in, say, the flour-milling industry rose by only 1 per cent, wages of those workers would rise by just 1 per cent.

Average Labor Productivity as a

This kind of wage-adjustment formula, if used in all industries, would keep unit labor costs constant in every industry and thus would eliminate pressures on prices due to changing labor costs. However, it would do considerable violence to the proper functioning of labor markets. As a general principle, efficient operation of labor markets requires that wage rates tend to be equal for a given type of labor skill no matter what industry uses it. A key economic function of wage rate differentials is to attract workers into fields where they are most urgently needed, away from their less urgent uses. Use of an industry-by-industry guide for wage adjustments would in all probability produce vast and uncalled-for differentials in the wages paid for equal skills used in different lines. Under such a system, wages would rise most rapidly in exactly those industries whose productive capacities were growing most rapidly. Precisely because of the sharp increase in productivity, labor requirements in those industries might be rising little, if at all, and might even be declining.

Recognition of this problem has led most proponents of the productivity guide for wage adjustments to stress that it is the average wage rate for the entire economy that should be kept from rising faster than average output per man-hour for the entire economy. This requirement can, of course, be met without adjusting wages to productivity changes on an industry-by-industry basis.

One simple interpretation of the guide that would achieve this result involves adjusting all wages in all industries by the change in average output per man-hour for the entire economy. Thus, a 3 per cent increase in average productivity could be accompanied by a uniform 3 per cent wage increase while holding average labor cost per unit of output constant.

Because this method would assure that wages did not rise most rapidly in the industries where

output per worker increased most, it would avoid the problem of making work most attractive in those industries where additional labor might be needed least. However, such a rigid formula would freeze *relative* wages among different industries and thereby prevent changing wage differentials from performing the function of reallocating the labor force among industries.

The potentially adverse consequences of following an average productivity guide to wage settlement on either an industry-by-industry basis or on a nationwide average basis can be illustrated by considering some of the ways in which society has, historically, realized the benefits of increased productivity. Very often the benefits from rising output per man-hour in one line of production have been realized primarily through freeing resources to produce other things. Thus, the process of economic development tends to generate increases of productivity per man-hour in agriculture that make possible a reduction in the portion of the labor force committed to raising food supplies. Rising productivity in agriculture has thereby played a key role in the development of modern industrial economies. More recently, advances in industrial productivity in this country have freed sufficient resources to expand greatly the output of service trades, where productivity gains have apparently been less dramatic, while maintaining an expanding output of industrial products.

On the basis of the historical record, then, there is reason to expect that in many cases the economic benefits of increasing productivity in any one line may be greatest if they are taken in the form of increased production of other goods and services. Of course, this need not always be the case. The rapid gains in productivity in the U. S. automobile industry arising out of the introduction of mass production methods in the 1920's were realized largely in

the form of increased output of automobiles, which became inexpensive enough to put them within reach of millions of buyers. On the other hand, more recent gains in automobile industry productivity have not, apparently, led to such a rapid extension of markets, and there is reason to suppose that further gains may be most usefully translated primarily into expanded production of other goods and services made possible by the lessened labor requirements of the auto industry.

Need for Operation of Market Forces

Thus the pattern of economic growth arising out of productivity gains depends not only on the pattern of changes in output per man-hour, but also on the decisions made as to the use of resources released by the advance. In a market-oriented economy, efficiency requires that these decisions depend largely on the demands of the buyers of products. If per capita real income of the Nation grows because of advancing labor productivity in industrial pursuits, but people wish to use an increasing share of their rising income to purchase services, economic efficiency requires a shift of resources out of other uses and into the production of services.

A market-oriented economy performs this function through the complex interplay of supply and demand forces. The growth of real income is accompanied by a growing demand for services relative to demand for industrial products as people shift their spending patterns. The resulting tendency towards a shortage of services exerts upward pressure on their prices and induces producers in that field to expand output. This involves, among other things, attracting more workers by raising pay rates in service pursuits relative to industrial wages.

Under these circumstances, wages in the service industries must rise faster than those in the industrial sector where productivity gains

are greater. Clearly, tying wages to average labor productivity increases on either an industry-by-industry basis or on a nationwide average productivity basis would interfere with efficient resource allocation.

In the situation outlined, the appropriate response of wage rates to the change in productivity would involve a rise in wages in the service industries relative to those in the nonservice sector, even though the productivity gains were greater in the latter. For the increase in average wages to stay within the bounds of the over-all productivity increase, wages in the nonservice industries would have to rise less rapidly than productivity in that area, if at all. In the service industries, the increase would have to exceed the rate of productivity gain. Since unit labor costs and prices would rise in the service area, they would have to fall in the industrial sector if the average price level were to remain stable. Such a decline in industrial prices would not reduce profit margins in the production of industrial goods if the fall in prices were equal, in percentage terms, to the reduction in unit labor costs.

While the foregoing example is hypothetical, some analysts have argued that the postwar trend of production in this country does indeed suggest that increasing average productivity of labor—due to technological advance, increasing capital investment, and rising labor skills in the manufacturing sector—is freeing resources that are being used to expand the output of services. It is on this basis that they have explained the apparent rise of costs and prices in the service area relative to those in manufacturing. It should be noted that the quality of services has also risen during the period. Difficulties encountered in measuring quality changes make it hard to measure both the extent to which service prices have risen and the extent of productivity gains in the service areas. Nonetheless, if future productivity gains are, in fact,

concentrated in manufacturing, maintenance of over-all price stability will require the productivity increase in manufacturing to express itself in declining costs and prices. In the service sector, costs and prices would rise as productivity gains in that sector failed to keep pace with increasing wage rates.

HOW CAN THE GUIDE BE USED?

Since any rigid, mechanistic method of adjusting wages according to changes in average labor productivity would interfere with the workings of markets which impart the adaptability and flexibility needed in a changing economy, the question arises as to just how productivity figures can be used to help contain inflationary pressures that might arise out of wage settlements.

It seems reasonable to hope that the public interest in price level stability can be served if average labor productivity trends are used as a kind of benchmark in wage negotiations. They can provide labor and management with a concrete idea of what might be the "normal" course of wage rates which would provide labor with its proportional share of the gains from

increased productivity in the over-all economy, within the context of stable labor costs of production, stable prices, and a given pattern of demand for goods and services.

Superimposed on this "norm" are the special factors which create the need for adjustment of wage differentials. For example, a shortage of labor in a particular area or industry would indicate a possible need for wage gains in excess of average labor productivity increases, while labor surpluses might be taken as a signal that wage increases should be held below this rate.

Negotiated wage increases offer only an imperfect method of establishing appropriate wage differentials—differentials that provide inducements to workers to shift occupations so as to produce those things most wanted in the markets. This is true whether or not a productivity gain "norm" is used. However, the norm suggested by the proponents of the productivity gains guide seems better suited to the task of guarding against inflation than no guide at all, because it indicates the general trend of wage rates that can be tolerated without increases in unit labor costs.



BANKING IN THE TENTH DISTRICT

District and States	Loans				Deposits				Loans				Deposits			
	Reserve City Member Banks		Country Member Banks		Reserve City Member Banks		Country Member Banks		Reserve City Member Banks		Country Member Banks		Reserve City Member Banks		Country Member Banks	
	February 1962 Percentage Change From								January 1962 Percentage Change From							
	Jan. 1962	Feb. 1961	Jan. 1962	Feb. 1961	Jan. 1962	Feb. 1961	Jan. 1962	Feb. 1961	Dec. 1961	Jan. 1961	Dec. 1961	Jan. 1961	Dec. 1961	Jan. 1961	Dec. 1961	Jan. 1961
Tenth F. R. Dist.	-1	+4	+1	+8	-1	+5	-1	+6	-4	+10	+1	+8	-7	+4	-1	+7
Colorado	-1	+7	+2	+12	†	+12	†	+9	-2	+10	†	+10	-11	+13	-2	+8
Kansas	-1	+3	†	+6	+1	+1	-2	+6	-10	+9	†	+4	-5	+1	†	+7
Missouri*	-1	†	†	+4	-2	†	-4	+5	-4	+8	-1	+4	-7	†	-2	+5
Nebraska	-3	+7	-1	+7	†	+3	-2	+6	+1	+12	+3	+7	-5	+3	+1	+7
New Mexico*	**	**	+1	+2	**	**	-2	†	**	**	+2	+9	**	**	+1	+7
Oklahoma*	-2	+6	+3	+8	†	+6	†	+7	-5	+10	+1	+11	-4	+1	-1	+8
Wyoming	**	**	+2	+13	**	**	-1	+7	**	**	†	+12	**	**	-3	+6

* Tenth District portion only. ** No reserve cities in this state.

† Less than 0.5 per cent.

PRICE INDEXES, UNITED STATES

Index	Feb. 1962	Jan. 1962	Dec. 1961	Feb. 1961	Jan. 1961
Consumer Price Index (1957-59=100).....	104.8	104.5	104.5	103.9	103.8
Wholesale Price Index (1957-59=100).....	100.8	100.8	100.4	101.0	101.0
Prices Received by Farmers (1910-14=100).....	243	242	240	244	241
Prices Paid by Farmers (1910-14=100).....	305	304	302	302	301

TENTH DISTRICT BUSINESS INDICATORS

District and Principal Metropolitan Areas	Value of Check Payments			Value of Department Store Sales		
	Percentage change from previous year					
	Feb. 1962	Jan. 1962	Two Months 1962	Feb. 1962	Jan. 1962	Two Months 1962
Tenth Federal Reserve District.....	+7	+11	+9	+4	-1	+1
Denver.....	+7	+18	+13	+2	0	+1
Wichita.....	+8	+8	+8	+6	-7	-1
Kansas City.....	+7	+7	+7	+7	-3	+2
Omaha.....	+8	+9	+9	-6	-2	-4
Oklahoma City.....	+13	+10	+11	+8	+1	+4
Tulsa.....	+3	+16	+10	+6	-2	+2

