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Part Eight

INCOME PARITY FOR AGRICULTURE

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Discussion

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INCOME PARITY FOR AGRICULTURE

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THE PROBLEM of estimating income parity for agriculture is presented in the Soil Conservation and Domestic Allotment Act of Congress approved February 29, 1936, the declared purpose of which is the

> ". . . reestablishment, at as rapid a rate as the Secretary of Agriculture determines to be practicable and in the general public interest, of the ratio between the purchasing power of the net income per person on farms and that of the income per person not on farms that prevailed during the five-year period August 1909–July 1914, inclusive, as determined from statistics available in the United States Department of Agriculture, and the maintenance of such ratio." [1]

The question is, how shall we determine the ratio between the purchasing power of the net income per person on farms and that of the income per person not on farms that prevailed from August 1909 to July 1914?

I propose to leave aside questions concerning the fairness of the pre-War ratio, or the validity of any such ratio as a yardstick for guidance in government action. These are proper questions, but to answer them is not our immediate responsibility. Accepting the obligation as now prescribed by law, what should we do?

[1] Soil Conservation and Domestic Allotment Act, an amendment to the Soil Conservation Act, Public No. 461, 74th Cong., 2d Sess., Sec. 7 (a), (5).

I Interpretation of the Pertinent Text of the Soil Conservation and Domestic Allotment Act

First let us try to arrive at a common understanding or interpretation of the pertinent text of the Act. What is meant by "the ratio between the purchasing power . . . that prevailed during the five-year period"? In accordance with recent and current usage of the term 'purchasing power' we are interpreting this text to require that estimates of current income per person be divided by appropriate index numbers of prices of goods and services constructed on the prescribed pre-War base, and that the results for the current year be compared with the per capita incomes in the base period. Stated concretely, in computing the purchasing power ratio for 1936, income per capita for persons on farms would be divided by an index number (1909–14=100) of the cost of living on farms; the income per person not on farms would be divided by an index number (1909–14=100) of the cost of living elsewhere. Parity would require that the results for 1936 in terms of purchasing power have the same ratio as the incomes per person on farms and not on farms during the pre-War period.

One suggestion is to use simply the dollar income ratio as the purchasing power ratio. This would of course greatly simplify matters. Could it be interpreted as a fulfillment of the legal requirements? If the cost of living on farms and in towns were parallel, this simpler procedure might be approved as being equivalent to that understood to be required by the language of the Act. Can we assume that they are? Are the errors of representation in cost of living index numbers likely to be greater than the errors of comparing the unadjusted per capita incomes? If so, we might be warranted in interpreting the law to allow such a procedure, but we might be compelled to demonstrate the validity of such assumptions.

How shall we interpret the phrase "of the net income per person on farms"? This is a troublesome prescription involving many controversial points, but I shall try to deal with it briefly. Obviously it requires a departure from the practice of estimating income from agriculture per farm operator. The significant differences between the income per person on farms and the income from agriculture per farm operator cannot be disregarded. The only available statistical measure of the number on farms is the Census of Farm Population. As a practical matter it is necessary to accept Census definitions of farms and of farm population. Persons living on farms include farm labor families and some persons engaged primarily or entirely in nonagricultural pursuits. Apparently the income from sources other than agriculture accruing to those living on farms must be added to their income from agriculture to estimate the income per person on farms. Conversely, the income from agriculture accruing to persons not living on farms, whether they be farm operators or laborers, must be transferred to the nonfarm side of the balance of national income.

At this point we must take notice that in the Act the word 'net' qualifies the returns to those on farms, and does not apply to the income of others. It is commonly understood that net income from agriculture is gross income less payments for production goods and services provided by persons not operating farms. Presumably the *net* should be computed also for income accruing to farmers from sources other than agriculture. That is, a farmer who works in a quarry is entitled to have costs of transportation and of any equipment that he must supply deducted from his income from that source.

"Income per person not on farms" may be defined as what remains of national income per capita after net income to persons living on farms is deducted from national income. Thus it would not appear that the use of the word 'net' has any significance provided income per person not on farms or national income is estimated in a manner comparable with that used in estimating national income from agriculture.

If the payrolls of street car operators are added, without any adjustment, to the payrolls of clerks, the income of one group becomes in part an actual cost of the other, and adding the two tends to pad the income for the nonfarm group. It will be necessary to scrutinize carefully the procedures used in estimating nonfarm income of both those living on farms and those not living on farms.

Another phrase that deserves notice is "as determined by statistics available in the United States Department of Agriculture". I interpret this to mean that the Secretary of Agriculture has the legal responsibility of deciding what data and statistical procedures may be satisfactory or adequate for determining the per capita purchasing power ratio between the farm and nonfarm population. There are no absolute tests of adequacy and the results are to carry no burden of precise yardstick determination, such as the use of parity price in determining processing taxes. These findings in the Department are to be used with other facts in determining agricultural policy.

Perhaps the language of the Act could be interpreted to allow the Secretary to use the data now available. We are estimating income from agriculture and could simply divide this by the farm population. We could take one of the national income series of estimates, subtract the income from agriculture, and divide the remainder by the remainder of the population. The per capita income results could be divided by existing index numbers of cost of living to determine purchasing power ratios. This has been done.[2] Is this a reasonable and satisfactory interpretation of the law?

To me it seems doubtful and I believe that those interested in the improvement of social conditions should accept this responsibility as an opportunity to improve statistical estimates to be used as guides in social policy, and endeavor to comply with the spirit and not merely the letter of the legal formula.

How shall we define 'income'? Let me repeat what we have urged upon a previous occasion, that we should have current only one official estimate of national income. We now have two. Shall we produce a third for our special purpose? I believe fairly good technical reasons could be found for constructing a national income estimate for this special purpose, but I hope that it will not be necessary. I hope that we can prevail upon the Department of Commerce to join us in cooperation with the Central Statistical Board to develop a definition and procedure that can be used in both the farm and nonfarm fields and that will give the official estimate of national income.

The real income of the nation is its annual product of commodities and services. Our first step is to estimate the annual

[2] *Agriculture's Share in the National Income,* Agricultural Adjustment Administration (U.S.D.A., October 1935).

value of the product. Dividing the annual values by an appropriate series of price index numbers provides a measure of changes in real income which, converted to a per capita basis and related to the pre-War average, indicates the degree of parity as prescribed by the Soil Conservation and Domestic Allotment Act. This is easier said than done; the really difficult problems arise in developing the procedure for making such estimates.

Before we begin to discuss procedure, you may ask, why not build on the concept 'income paid out'? This suggests distribution of income although its meaning is not entirely clear. All income of the year accrues to some person or corporate body of persons. We find that the concept is used to set aside corporate savings, and there we find 'negative savings' or 'losses'. But the latter do not describe real savings or real losses in the ordinary sense of these terms in economics. Applied to agriculture the results are absurd. An allowance is set up for wages to the farmer and his family and this is included in the items paid out. It is a large item and has a very significant effect upon the total. When the farmer's income is large enough to pay himself something more than this wage allowance, there is a 'business saving'; when the farmer's income is insufficient, there is a loss or 'negative saving'. This is purely an 'if' or hypothetical computation and provides no real measure of anything. Furthermore, rent is not included in the 'income paid out' although in agriculture this is an important item, more important than dividends.

'Income paid out' seems to me to have a misleading connotation, even for corporations, in that the payments during a given year are not necessarily from the operations of the year. To the extent that an enterprise makes payments from accumulated cash balances, from liquidation of capital or borrowings against future income, there is no contribution to the national volume of goods and services. It is merely a matter of distribution, a transfer of ownership or conversion of use. The annual flow of payments to individuals has great significance, of course, but this should not be confused with national income.[3]

For a basic definition of national annual net income I propose to adopt that used by Simon Kuznets: "the total volume of com-

[3] See M. A. Copeland, Part One, Sec. V, 2, discussion by Simon Kuznets and Clark Warburton, and Dr. Copeland's reply.

modities and services produced during the year minus raw material, capital equipment, and other economic goods consumed in this production".[4] Perhaps as a practical matter, the word 'value' should be inserted in this definition because we commonly express income in terms of value. This definition corresponds to what has been attempted in the Bureau of Agricultural Economics. Our present efforts are directed towards improving the estimates of goods and services produced and of the annual expenditures for raw materials, capital equipment, and other economic goods consumed in production. This would give the contribution of agriculture to national income. To avoid confusion it may be desirable at this point to refer again to the terms of the Act. As I understand it, compliance with the Act would require the computation of an estimate that is different by being a division of incomes on the basis of where the recipient lives. In other words, we shall have an estimate of the contribution of agriculture to national net income and of the share of national income received by those living on farms.

II Special Problems in Estimating Purchasing Power of Per Capita Income to Persons on Farms

The Bureau of Agricultural Economics is now undertaking to improve the estimates of income from agriculture, to calculate the income of persons living on farms from sources other than agriculture, and to improve the index number of cost of living on farms for use in determining the relative purchasing power of per capita income to persons on farms. I shall not undertake to present the plans or review the many problems in detail, but shall mention a few in order to invite suggestions for solutions.

(1) What shall be done with inventories? Changes in inventory are often due merely to changes in valuations, price levels, and not to real changes in goods and services. The problem is found in concrete form in dealing with livestock. The product of the year may or may not be marketed that year. In some years the breeding stock are sold short and in others they are built up.

[4] *Bulletin 59,* National Bureau of Economic Research (May 4, 1936); *National Income, 1929–1932,* Senate Doc. 124, 73d Cong., 2d Sess.

Marked changes in prices may result in a low stock for breeding and feeding at the beginning of the year being valued more highly than a much larger stock at the end of the year. One device is to estimate the change in physical volume; apply to this change the average price for the season and add the result to or subtract it from the value of the sales for the year to obtain the value of the production or the net contribution. To many this seems preferable to taking the difference in inventory values as a modification of the value of sales.

(2) Farm machinery presents several problems. In the first place, annual valuations comparable to those of livestock do not exist. But both depreciation and the extent to which depreciation is offset by the purchase of new machinery can be estimated. Logically in years when machinery purchases exceed depreciation, the additional expenditures should be treated as capital investments and in years when purchases are insufficient the deficit should be treated as a decline in capital equipment. In addition to the problems of constructing reasonably dependable estimates of actual depreciation and replacement, we have to decide what is the best method of handling these estimates of deficits and excessive expenditures in the income account.

(3) A public utility charge may be treated as a service cost, but many of the irrigation and drainage enterprises are owned and operated by farmers individually or cooperatively as nonprofit enterprises, the annual assessments or charges varying with material and service costs. Shall we handle the farmer-owned enterprises in a manner similar to farm equipment, as if they were part of the farm?

Estimating water costs where irrigation and drainage are in use involves several problems similar to those of farm machinery, and others in addition. Estimates of annual replacements and real depreciation of drainage and irrigation are complicated by the fact that costs of operation and of maintenance or replacement are sometimes not kept in separate accounts. Furthermore, some forms of depreciation, such as the silting of reservoirs and the lowering of water tables, are very difficult to estimate. Operations, replacements and additions to plant may be made in part by the farmer's own labor. The latter may at times be a significant contribution to income in the form of investment. Likewise the annual assessments for water may be used in part for additions to the plant, that is, for investment.

(4) Insurance has not been handled satisfactorily in the farm income account. There ought to be annual estimates of losses from fire, flood, tornadoes and other such destructive forces. Replacements are necessary for the maintenance of the production plant. Insurance paid to farmers on this account should be deducted to determine the net loss and to this should be added insurance premium payments by farmers. This proposal applies particularly to such items as barns, granaries and pumping stations. Should erosion be taken into account as a production cost? To what extent is the coverage of such costs practicable?

(5) Shall the direct taxes the farmer pays be deducted from gross income in determining net income? These taxes are payments to others for services, but only a part of these services are direct contributions to production. The individual farmer may consider all taxes a cost but the services furnished in return for taxes to all farmers as a group are personal benefits or services. It is important to segregate the payments for services that may be considered personal from those that may be considered contributions to production because of the significant changes that have taken place over a period of years. To illustrate, not many years ago many roads in the country were maintained by farmers through labor or poll taxes contributed directly for the purpose. Not many years ago the children who went to high school from the farm had to pay tuition, and all school books were furnished directly out of the pockets of farmers. Today county or state tax funds maintain the roads and pay the tuition of the high school pupils from the farms as well as from the city, and in many states even textbooks are free. It seems reasonable therefore to divide the farmer's direct tax bill into two parts, the one to be deducted from gross income in determining net, and the other to be recognized as a portion of the farmer's net income paid to nonfarmers for services. Suggestions are invited as to principles to be followed in making this division in taxes.[5]

Turning to a consideration of a few problems in estimating gross income, let us ask, how shall we value: (a) farm products consumed on the farm; (b) the farmhouse as a place to live? In

[5] See Gerhard Colm, Part Five, Sec. II, 1 and III, 1.

the Bureau we have seen no satisfactory alternative to valuing food consumed on the farm at the prices farmers could obtain for the same products marketed in the village. The significance of the difference between the cost of the same foods on the farm at these prices and their cost to families not on farms should be recognized in the use of such data. What procedure would satisfy the critics and at the same time avoid other serious defects in making comparisons? Direct comparisons in other respects are also difficult, and the disadvantageous position of farmers in obtaining other goods and services offsets to a considerable extent the disadvantageous position of nonfarmers in obtaining their food.

We recognize that some income valuation should be placed upon the use of the farm dwelling. As with food, to undertake to compare the dwelling with a dwelling in town and credit it with the rent that would be charged for it in the city seems unreasonable. Many services and comforts are associated with city residences that do not exist or can be had only by additional expenditures in the country. I am introducing these two subjects to encourage discussion of both points in the hope that we may receive some practical suggestions.

The index number of cost of living on farms is being reconstructed with additional data to improve its dependability and make it more inclusive. The data used to establish the base of the index number series now current seem so scant that we feel that we must collect additional data for this period. It also seems desirable to include some additional items to make it more truly representative of the cost of living. Heretofore the index has been constructed entirely of commodity prices. Some service charges, including telephone and electric light charges, are being added. It is recognized that the weights must be revised and a few additional price items added in order to construct a series that will include and give due weight to commodities produced on the farm. We may be led to construct three index number series: (a) cost of living, including service charges, price of food furnished by the farm and commodities bought for use in the family living; (b) cost of living constructed from items weighted according to purchases; (c) costs or prices and service charges related to production. It has been suggested that we should have a price index number series related to investment. I find it difficult to visualize the construction of such an index number for farmers owing to the irregularity of investment and the difficulty of distinguishing between expenditures for investment and for maintenance.

To make comparable index numbers of cost of living on the farm and in the city presents an interesting and difficult problem. It seems to me that the best procedure is to aim first at obtaining representative index numbers without undertaking to match items or weighting. It should be recognized that the commodities and services consumed on the farm differ in kind, quality and quantity combinations. Any attempt to match them leads only to confusion. House rent, however, presents a peculiar problem that may deserve further consideration as probably requiring different treatment. Perhaps house rent or allowance should be omitted from the index numbers on both sides, omitting from the farm income any allowance for the value of the residence as a place to live and subtracting house rents from the income available to persons not on farms. What procedure would be best?

III The Distribution of Income

The distribution of income and of purchasing power among those living on farms is of course also important. While no distribution is required by the Act, the development of policies with reference to agriculture should take into consideration the effect of economic changes and programs or plans upon the position and well-being of farm laborers, tenants, subsistence farmers, commercial farmers and part-time farmers, as these may be affected differently to a significant extent. Is it feasible to classify persons living on farms and to estimate changes in income and in purchasing power by such a classification? One can see at once many problems in drawing classification lines for the population and obtaining satisfactory estimates of income distribution by this classification. The construction of index numbers of cost of living might not be so difficult, as this could be done simply by the use of budgets and the selection of items or commodities to be priced. The cost of savings for this classification, if such were considered, would be much more difficult. Distributions by size of income in the nonfarm and farm populations would also be very valuable information for an understanding of the significance of economic changes in production and distribution and of the effects of specific programs upon both the welfare of the people as a whole and the several groups of the population.

IV Sampling Personal Incomes

In view of the many difficult problems in arriving at a comprehensive estimate of national income, and at a division of income between farm and nonfarm population and in view of the importance of knowing the distribution of income for these two sections of the population, I submit the question, would it be better to approach the problem through sampling personal incomes?

Data could be obtained annually from representative agricultural producers, storekeepers, and from other large occupational groups. They could be collected by a sample census by the United States Bureau of the Census, or by the several government agencies that ordinarily have contacts with and offer some services to occupational groups. A special sample census could be supplemented by the state and Federal income tax returns. It would be possible to obtain more measures of real income through such a sample census schedule than can be obtained now from available data. The data collected would show significant year-to-year changes in the incomes of individuals and changes in the size distribution of incomes in the several occupational groups. Of course it would be difficult to develop a pre-War base with which to compare data collected for the present. We ought, however, to be considering the future as well as the past. If we believe this is the best procedure for obtaining such data we should now make plans.

Discussion

I M. R. BENEDICT

DR. STINE specifically disclaims consideration of the validity of a parity income yardstick for guidance in government action. This is undoubtedly a wise limitation in view of the scope of the subject and the fact that the Bureau of Agricultural Economics must for the present center its attention on the specific provisions of the Act. He has drawn attention in a very excellent way to the problems presented and to some of the possible lines of attack.

It seems only fair to Dr. Stine and his associates to state what he has merely implied, that this phase of the Act seems to be loosely drawn and ambiguous. As it now stands one can grant it little merit in clarifying objectives in national policy. It is no doubt an improvement over the old price parity concept in that it gets away from the extreme rigidity in price relationships which that criterion provided. It does not, however, segregate any reasonably homogeneous and distinguishable group which should be considered separately in national policy. The term 'per person on farms' throws into this category a very miscellaneous group. Some are commercial operating farmers on something that approximates the family-size farm, or the family-size farm with some small amount of hired labor. This is the group about which the public usually thinks most in considering policy with respect to farm problems. The provision as drawn, however, includes also a very considerable number of people who live on farms but work in cities, the large scale corporate farmers, and the large number of itinerant agricultural laborers, croppers and other groups which have a very low level of income. To put the matter briefly, it brings into the picture practically all the degrees of prosperity and lack of prosperity that exist in society as a whole, except that agriculture includes few, if any, of those with extremely large incomes. Nevertheless some even of these may be brought into the picture if the provision is interpreted literally, since some of the wealthiest people live on country estates.

No program oriented specifically to crops and land is likely to affect in the same way or even in the same direction the various members of such a diverse group as that included in the category 'per person on farms'. So far as the agricultural program is strictly a soil conservation program, it is proper that payments be related directly to land. To the extent that it is an income-transferring device, it should not be related directly to land held, since this means giving most to those who have most. Instead it would seem that it should be related to human groups in terms of needs or of merits, or both.

We should by now be thinking more precisely about the make-up and homogeneity of the groups we are dealing with in income and policy considerations. This means developing some sort of breakdown of the nation's population into groups that have some reasonable degree of homogeneity. We can then study income changes in terms of such groups whether they live in rural or in urban areas.

These comments are not presented in criticism of Dr. Stine's approach. They imply rather the need for a new outlook farther back than in the specific Federal agencies charged with developing income estimates. The new approach to the problem of parity for agriculture, handled along the lines that Dr. Stine's division is developing, will no doubt contribute materially to a better understanding of the income and expense situation of nonurban people. Unfortunately it will not throw much new light on the urban income situation and it still leaves us far short of an adequate approach to the problem of income estimates for the various important groups in nonurban areas.

There are few tasks that the Central Statistical Board might undertake with better reason than to develop either a centralized or a well-coordinated program of income estimates for the various significant and recognizable economic groups in society. Until some such procedure is developed, such a ratio as that called for in this Act will have little meaning scientifically. By any rules of statistical computation an average for groups so diverse as people on farms and people not on farms can have little significance. The maladjustments within the groups must necessarily be far greater than the differences between the two groups so defined.

If, however, we follow Dr. Stine's lead and think specifically of the provision set up in the Act, there are still several problems that seem not to be met adequately in any approach thus far developed. Ideally the comparison of groups such as those the framers of the Act had in mind would be in terms of the content of living in the different lines of activity. Unfortunately there has been as yet no satisfactory method devised for measuring this. The only thing that can be done is to get as many indicators of it as possible, and undertake to appraise relationships in living content in terms of these indicators. Direct money income is only one of them. As an example, let us take the change in the comforts of farm life within the last twenty years. A vast network of improved hard-surfaced highways has been spread over the country, most of it at public expense. This has improved conditions for both city and country residents but almost certainly has been a greater boon to the latter, since the former already had relatively easy access to stores, theaters, churches, etc. Such a change cannot be measured, nevertheless it is of great importance. Another widespread change is the improvement in the rural school situation. Less obvious and perhaps less directly a result of public action are the changes in availability of electric light and power, of telephone and mail service. Most of these improvements have come in since the base period indicated but will not be measured in a computation of direct money income. Yet they cannot well be disregarded as having accrued more or less equally to farm and nonfarm groups. Many were already available to city residents as early as 1910, though of course they have since become much more general.

Referring to the problem indicated by Dr. Stine with respect to possible double counting of income paid out for transportation, etc., it would seem that the ideal to strive for would be the income available for consumption goods, services and savings. Wherever possible it would seem desirable to follow the procedure he has mentioned, namely, to offset against one another items considered nonmeasurable or difficult to measure that are substantially the same in both groups. For example, if housing conditions could be regarded as substantially similar, a deduction of house rental from the income of the man in the city and its omission in considering farm income would seem justifiable. Unfortunately this can hardly be defended owing to the differences in qualities of housing. Here it is very easy to give unwarranted values to rather superficial qualities. The tendency is to compare the city worker's house, with its electric lights, running water and sewage disposal, with farm homes, most of which probably lack these conveniences. On the other hand, the farm home may have spaciousness, privacy and often attractive surroundings for which many a city dweller would gladly trade his modern conveniences if he could still be within reach of his work. If we consider the worst of the city dwellings and the worst of the farm dwellings, there probably is not much to choose between them.

Is it justifiable to divide estimates of income by 'appropriate' index numbers of prices of goods and services when part of such income would be in savings accumulations, which presumably are as valuable in the one place as in the other? It would seem to me more logical to try to evaluate on a comparable basis the consumption goods and services and add to these values the estimated savings, both in money and in such items as land value accruals. A ratio might then be established between the incomes thus indicated. Although this would undoubtedly be more difficult, the data now being gathered could be used in part for this purpose. Land value increases and decreases, even for farm lands, accrue, of course, to both city and country dwellers; so a computation of this kind would necessarily be extremely rough. Yet this is the form that most farmers' savings have taken in the past.

In 1910–14 farm land value accruals were an important source of income to landowners. In recent years this item has been in the main either small or negative. It seems now to be again positive.

The omission or the term 'net' before nonfarm income seems unwarranted though defended by some of those who participated in drafting the Act. Certainly to be justifiable in policy making the computations must seek to reflect the relative well-being of the two groups. This can be accomplished only by using net income for both groups, and by including both tangible and intangible items. Values of intangible items can be deduced only in terms of recognizable reactions to them. Of course, if the various intangible items can be assumed to have changed about equally in the two groups, the relatives of changes in cash items may afford a fairly acceptable rough yardstick. Certainly it would be a far more accurate measure of relative well-being than would a direct comparison of money incomes in the two groups, which has been presented from time to time and widely misinterpreted. There is considerable danger in using for the purposes here considered values of farm products sold plus inventory changes, because many crop and livestock sales are from one farmer to another. Much study has been given to this problem in the Bureau of Agricultural Economics, but it is sure to arise more sharply in these attempts to get at net returns in terms of goods sold minus production expenses.

For public utility and mutual service agencies it would seem to me that no great error would arise if farmers' cash outlay for these purposes were used. Inputs of farmers' own labor would not usually affect the situation materially, and except for large new capital ventures the ordinary ups and downs of inventory change, as in irrigation reservoir conditions and water-table levels, are probably reflected in land values as accurately as they can be appraised in any other way. Unless they are major changes continuing in given directions, they will tend to equalize over a period of years. The problem of losses and expense from fire, floods and tornadoes mentioned by Dr. Stine represents an important gap in the data but one for which there would seem fairly good possibilities of obtaining estimates. These, however, will present a difficult problem in avoiding double counting of values of new investments.

Since taxes are in part used as a means of transferring income from group to group and from area to area, the most feasible procedure would appear to be to attempt segregation of those public expenditures which contribute to local welfare and to regard these as income, but to treat all other taxes as expense.

In valuing contributions to family living, I am unable to find any suitable basis for direct comparison except to use urban prices or at least urban total budgets for both places. The point is made that the farm resident is put to greater expense in providing nonfarm items. This, however, is allowed for in the general expense of farm operation. It is largely a matter of time input; moreover it is offset partly by quantity buying at quantity prices. Without this provision the large decrease in self-sufficiency on farms since the base period may introduce a significant error.

It must be recognized that service charges, as for electric lights and telephones, were very minor items in the base period.

In general the rather lightly stressed proposal for studies of sample budgets would seem to me to offer the greatest promise of real contribution, especially if recognizably different groups are carefully sampled. The studies now being undertaken in lieu of this approach seem likely to add to our knowledge of the situation, but they are at best a makeshift.

In conclusion, it seems unfortunate that the effort now being expended must be directed so specifically to a relatively meaningless comparison with conditions of a quarter of a century ago. We should look now to significant studies of the incomes and living conditions of the various social groups, seeking bases for ameliorative programs wherever these are most needed, and should abandon the present approach, which is based on illogical groupings and on relationships in periods long past, as soon as Congress permits.

II JOHN D. BLACK

Dr. Stine has made a very careful analysis of the problem of determining income parity for agriculture under the latest version of the Agricultural Adjustment Act. I shall concentrate my attention upon a few issues that he did not develop.

From the standpoint of administration, I am inclined to agree with Dr. Stine's suggestion that income parity could have been determined more satisfactorily if it had been defined in terms of net income with purchasing power omitted. This could have been done very easily, simply by omission of the term 'purchasing power' before 'net income per person', in the language of the Act. If the Act had been so written, it would have been necessary merely to take the ratio between net income per person of the entire population and net income per person of those living on farms during 1910–14 and the current year.

There are good reasons for believing that the inclusion of purchasing power in the definition will not bring us any closer to the measure of change sought than a mere comparison of net incomes per person. In the first place, the index of purchasing power that is applied to total net income to adjust it to a content-of-living basis should relate to all classes of the nation's population. It is not satisfactory to have a cost of living index referring solely to the laboring classes or solely to low-income groups, as will be the case with the indexes based on the budget data now being collected. Cost of living indexes based on budgets of low-income groups are certain to overweight foods and other necessities and underweight such items as automobile costs which increase rapidly with increasing income. It may be that, for the purposes in hand, what we want is an index in terms of foods and other necessities. But if so we should not call it a purchasing power index for the entire population; it will be an index for the low-income groups alone.

Perhaps more important is the fact that the net income figures take account of changes in the quantities of goods produced as well as in the prices received for them, whereas an index of purchasing power measures price changes only; that is, does not include changes in quantities of goods consumed. As the content of living of the population rises, the quantities rise also. If it is in general true that all goods produced are consumed, except for temporary irregularities arising from varying proportions of producer and consumer goods production and the like, then it is important that the quantities on the consuming side be included along with the quantities on the producing side.

Finally, the content of living includes many intangibles that are difficult to reduce to a value basis. Their number may even be increasing along with the increasing expenditures of public funds on education, roads, health, sanitation, police protection, and also with the great increase in the amenities of life that come with modern inventions such as the telephone, radio and cinema. Who is ready to say that the changes since the base period have affected country and city alike?

Do not the foregoing considerations make one really doubt whether we shall get any closer to a comparison of per capita farm and nonfarm incomes after we have fooled around with an adjustment in terms of a purchasing power index than if we had been content with per capita net incomes alone?

Perhaps, however, introducing purchasing power into the measure of parity may prove in the end to have been worth while if only it leads to putting the entire comparison on an index basis, that is, the net incomes as well as the purchasing power. If that were done, then our comparison of parities would be in terms of ratios of index numbers, pre-War and current. The principal advantage of a comparison on an index basis is that it avoids statements in terms of absolute amounts, which the layman is bound to compare with one another, when in fact these absolute amounts are not really comparable. From this point of view, the statement of parity in the Act is a long step forward in that it recognizes that the ratio of farm to national income per capita need not be 100, but something perhaps much less than 100—perhaps as low as 60 to 70 in some sections of the country. These two income figures cannot be comparable, for they are in terms of sets of values in localities as different as Europe and the United States. I doubt, for example, if there is any more difference between the content of living of farm families in Denmark and the United States than there is between farm families and urban families in the United States generally. When we take into account geographic variations within the United States, the comparison becomes even less satisfactory. This is well illustrated by the circumstance that in the New England states the difference between farm wages with and without board, estimated by crop reporters most of whom are farmers, is about \$25 per month whereas in the southern states it is about \$10 per month. This large difference arises in part, it is true, from differences in the content of living in these two areas, but in large measure it arises from differences in the valuation of approximately equivalent utilities.

If this whole comparison were on an index basis, there would be a quantity index to go with the price index in the net income part of the equation. It would be at once apparent that we needed the two to make the income index. I do not mean that we would need price and quantity indexes calculated according to Dr.

Fisher's 'ideal' formula. For a few years, price and quantity indexes independently derived come very close to making excellent income indexes if based upon any good formula.

It would then be obvious that we needed both quantity and price indexes for the expenditure or living part of the analysis. Dr. Stine's presentation so far as I can see has overlooked the need for measuring quantity changes.

If this comparison were on an index basis, the choice of a base year or period would become important. It would be necessary to have such periods not too far apart if changes in production and living proceed at the pace of the last twenty-five years. This difficulty could be met by shifting to a new base period and a new weighting period at roughly ten-year intervals. It is not likely that the break in index numbers from the old series to the new would be at all abrupt. If it were, certain smoothing devices could be used.

The base is important for the purchasing power index even if income is not put on an index basis. Certainly it is not satisfactory to use weights of the 1910–14 period in a purchasing power index to be applied now. Using weights of a recent period makes comparison with 1910–14 also wide of the mark.

I note that Dr. Stine does not wish a comparison of farm and nonfarm purchasing power in terms of indexes using matched items; he wishes each index series to stand on its own feet. It seems rather strange for Dr. Stine to take this position in view of his insistence in the past that we need a special index number for each purpose. Here we have a situation in which separate indexes each made in terms of its own regimen produce results that are useful for comparisons of change in their own universes, but are not suitable for comparison between universes. If there is any solution at all, it must take the form of a regimen made up of items common to both, and as for the rest, of the best equivalents that can be found. The resulting comparison will by no means be precise, but it will come nearer to serving this special purpose than the two series each standing on its own feet. It is interesting to note, in this connection, Dr. Stine's insistence also on one agricultural income series that will serve all purposes.

Dr. Stine has suggested that the critics of the present agricultural income series, in which farm-produced commodities consumed by farm families are valued at the farm, should offer another solution if they do not like the present one. Here is a case where there can be no real solution, unless it is to have two separate index series, one in which all the commodities included are valued at the farm and another in which they are all valued in the city. The only possible approach to a single series is to match the two regimens as nearly as possible, as was suggested above for index numbers.

Dr. Stine has questioned whether rents should be included. Obviously if as the years pass housing becomes a significantly more or less important part of family living in the country as compared with the city, or vice versa, it will not do to omit rents in making up either an income or an index series.

The principal omission in Dr. Stine's paper is his failure to present the need for regional income parity comparisons. It seems to me that these are needed for major type-of-farming regions, for example, for the cotton states as a unit, the tobacco states, the dairy states. I see no reason why for index purposes some states should not be included in more than one region. The need for index series rather than income series becomes particularly evident when we conceive the comparison in terms of regions. Thus expressed it is possible to measure relative changes between regions from year to year and at various points in cycles of prosperity and depression. Of course the choice of the base period in which all the index numbers are made 100 becomes very important.

The final question that Dr. Stine raises is whether income parity comparisons should be based on totals as at present or should be based upon sample data collected for this purpose. A much larger sample would be needed than any that the Department of Agriculture has thus far developed; and it would not be safe to rely upon mailed questionnaires—there would be altogether too much selectivity in the results. We can also feel assured that we would need the total estimates as a check on the sample. No doubt, however, some details of the total estimate could be omitted.

Dr. Stine began his paper by saying that the Act had determined the choice of a base period for the income parity comparison. I have a letter from Robert Martin, the author of a recent National Industrial Conference Board book on farm incomes, in which he takes the position that Dr. Stine, or at least the Bureau of Agricultural Economics, is by no means free from responsibility for the choice of this base period; that the work of the Bureau of Agricultural Economics furnished the foundation for this choice, and that it no doubt participated in the working out of the price parity policy. Whether or not Dr. Stine is properly subject to this judgment, we can be assured that L. H. Bean must be, since he helped develop the income index series while in Dr. Stine's department and later helped devise the income parity comparison in the drafting of the latest version of the Adjustment Act.

III O. C. STINE

I find myself in accord with many of the points presented by Doctors Benedict and Black. Their discussions make material contributions to the development of the subject. Their answers to several questions proposed by me will be helpful in carrying out our plans for estimating purchasing power per person on farms. Perhaps one point deserves specific comment—the omission of the need for regional income parity comparisons. I quite agree with all that has been said on this point. My failure to present it is due to the fact that the Act does not prescribe it, and we failed to persuade those upon whom we are dependent for funds to consider the development of regional estimates and price indexes as being required under the Act and necessary at present.

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