

# PROBLEM SOLUTION CONCEPTION OF AGRICULTURAL PRICE CONTROL

by Dr. ELSAYED GABALLAH

## (A) The Problem and Method of Analysis.

At the most general level the problem investigated is the possibility of formulating the framework of principles underlying agricultural price control in order to determine more clearly the implications of scientism to the formulation of agricultural price policy. Underlying this investigation are the justifying presumptions concerning the reconstruction possibilities of the agricultural economic process by controlling the price instrument, the extensive resort to agricultural price control with the multitude of problems that such control has given rise to, and the unsettled differences regarding the criteria in terms of which farm prices should be controlled. The analysis will not be concerned with the purely marketing problems of farm products; but rather, with the production aspects of agriculture as they bear on farmers' incomes and consumers' satisfaction, and with agricultural price control as a public corrective measure.

Methodologically, the investigation will be carried out in terms of formulating the principles derivable from the characterization of the agricultural economic problems arising from the operation of the free or uncontrolled agricultural price system and the reduction of each problem by the relevant type of agricultural price control. This approach is suggested not merely by the necessity to differentiate the types of problems involved in the operation of the free agricultural price system, but also by the necessity to specify the character of the categories and their inter-relationships which obtain in the price control of each problem. With the clarification that this approach provides it would become possible to determine what to expect from agricultural price control as a policy instrument, and to settle some of the fundamental issues that has been raised over the last decade in the treatment of that controversial instrument.

Now that the focus of the investigation is the farm economic problems arising from the operation of the free agricultural price system and the possibility of their reduction by agricultural price control the question would be raised concerning the agricultural price functions which give rise to economic policy questions.

### (B) Dual Instrumentality of the Agricultural Price System.

The agricultural price system is of no concern to self-sufficient farming. It concerns only commercial agriculture-with far reaching effects on both farmers as income earners and on every member of the society as a consumer of farm products. In the capacity of an economic maximisation instrument, it integrates and regulates the specialised agricultural economic process with production, income, and consumption consequences depending on the institutional framework in which it operates. As it performs its regulatory and integratory functions it simultaneously serves as a controlling instrument of agricultural production or what may be termed as the resource allocation function of farm prices, and as a controlling instrument of agricultural income or what may be termed as the income allocation function of farm prices.

As an instrument of private economic maximization, the free or uncontrolled agricultural price system determines the structure of an enterprise agricultural organisation. The particular prices, prevailing or expected, of farm products and resources serve as guides to the individual producers who in the attempt to maximize their net positions from the cost price relationships would keep readjusting the kinds and quantities of outputs to produce, the relative quantities of the various resources to use, and the methods of production to follow. In the very undertaking of such production functions the agricultural price system also determines the distribution of agricultural income and its adjustments by prices paid to the services of the resources that enter into production. The prevailing relationships among such price payments clearly determines the pattern of income distribution within agriculture.

Though analytically separate, a close interdependence ties up the two allocative functions of the agricultural price system in a particular structural setting. In the first place, because of the fact that the use of resources is determined by expected incomes and that incomes arise as prices paid to the services of the resources used a close interdependence exists between the two price functions and the systems of allocation they bring about. In the second place, the resource allocation function of farm prices is, by implication, subordinated to their income allocation function. This relationship signifies the fact that the agricultural price system serves consumers indirectly by guiding farm pro-

duction in terms of private maximization. Alternatively stated, since the production objective is to maximize the private income position of farmers, they will be primarily concerned with the income allocation function of farm prices, and will use prices as guides to resource-use only to the extent that such price guidance is expected to maximize their net income position. In this connection sight should not be lost of the fact that for producers to maximize their private ends they have to produce the output most valued by consumers.

The maximizational capacity with which the uncontrolled agricultural price system operates and the relationship between its two allocative functions are institutional attributes that characterize it as a capitalist instrument. This institutional character necessarily reflects the institutional character of the enterprise agricultural organization for which the price system acts as the machinery of economic allocation. More specifically, the private maximizational character of the agricultural price system is a necessary implication of private property and production. In this capacity the price system acts as the market instrument of private acquisitiveness: a function that is bound to bring pressures to control it in the interest of special groups. This very maximizational character of the agricultural price system implies that as a logical necessity and with regard to the future, the system must be rooted in uncertainty and would consequently be only expectational. Such uncertainty arises from privacy of decision-making or privacy of enterprise by independent economic units: An institution that obtains as a necessary implication of private property and the pursuance of profit. Closely tied with these two institutional attributes is the subordination of the resource allocation function of farm prices to their income allocation function, and consequently the subordination of production to the maximization of private ends.

### (C) Analytical Character of Agricultural Price Control.

As a logical consequence of the interdependence between the income allocation function of farm prices and their resource allocation function the control of either function would necessarily result in the simultaneous control of the other, with a new and different system of farm resource and income allocation thereby obtaining depending on which function has been primarily controlled. More specially, this consequence means that in addition to the existence of the free agricultural price system and the system of farm income and resource allocation it gives rise to, there could exist other two agricultural price systems and their corresponding systems of farm resource and income allocation. These price and allocation systems are:

(a) The agricultural price system in which the income allocation function of prices has been primarily controlled to raise or lower farm income than what

would have otherwise been the case under the free agricultural price system. This type of price control which focuses on the income flow between the farm and non-farm sectors of the economy and to that end starts with the manipulation of the income allocating capacity of farm prices, would also result in a secondary but necessary effect, namely, the control of the resource allocation function of farm prices to the extent that the control of the income allocation function requires. This is another way of saying that for a farm output to be sold at a given price to yield a given income, the quantity of that output must be such as can be sold at that price. But as it responds to price, the control of farm output to the desired extent would involve the control of the resource allocation function of farm prices to that extent.

With both agricultural price functions thus controlled a new agricultural price system and a new corresponding system of farm income and resource allocation would emerge, with such price and allocation systems differing from the free agricultural price system and the system of income and resource allocation it gives rise to.

(b) The agricultural price system in which the resource allocation function has been primarily controlled to reconstruct the production organization of agriculture. This type of price control which focuses on the way resources should be used, and to that end starts with the manipulation of the resource allocating capacity of farm prices, would also result in a secondary but necessary effect, namely; the control of the income allocation function of farm prices to the extent that the control of the resource allocation function requires. This is another way of saying that for a given production organization to obtain, the prices paid to the services of the various resources (their incomes) must be such adjusted as would induce each resource to enter into production as would add up to the desired organization. But the control of the relative incomes to the services of the various resources to the specific income structure corresponding to the desired production organization would involve controlling the income allocation function of farm prices as would transmit to the resources used relative incomes that would add up to that specific income structure.

With both functions of the agricultural price system thus controlled a new agricultural price system and a new corresponding system of farm resource and income allocation would obtain with such price and allocation systems differing from both the free agricultural price systems differing from both the free agricultural price system and its systems of allocation, and the agricultural price system in which the income allocation function has been primarily controlled as mentioned in (a).

The above analysis of the possibilities of controlling the free agricultural price system leads to the conclusion that on account of the interrelated func-

tional duality of the agricultural price system the term "agricultural price control" is a composite conception that has to be comprehended in terms of its two analytically separate components, namely; (a) agricultural price control of farm income in which prices are primarily treated as income vehicles with the understandable result that parties to the exchange of farm products would be concerned directly as income earners with any change in the income allocating capacity of farm prices, and indirectly as farm output users with the production consequences that such income change requires; (b) agricultural price control of resource use in which prices are primarily treated as vehicles to farm production reconstruction with the understandable result that parties to the exchange of farm products would be concerned directly as users of such products with the change in the resource allocating capacity of farm prices, and indirectly as income earners with the income consequences that the production reconstruction requires.

The fact that both types of price control precipitate farm income and resource use changes should be no reason to confuse one type with the other, or to obscure the composite nature of the term "agricultural price control" which necessarily means both types unless the type of function primarily controlled is specified. For the differences between the two types are not merely structural: which function has been primarily controlled with the other function subordinately changing correspondingly, but they are as will be clarified in what follows both functional and institutional that each type of control stands not merely independent but decidedly contradictory with the other.

#### (D) Agricultural Price Solutions of the Farm Allocative Problems.

Between themselves, the two allocative functions of the agricultural price system bring about through the free operation of that system the economic problems of agriculture as it is tied to the exchange system. The nature of those problems clearly derives from the nature of those price functions; consequently, a farm income problem and a farm resource use problem could obtain with the operational content of each problem depending on the specific price solution adopted for each. Before analysing those problems and their possible reduction by price control, it is necessary to state that those problems and their solution are translatable into price terms since the policy measure adopted is a price control measure. However, the particular price relationships specifying one problem and its solution differ from those specifying the other, with the consequence that the types of measures necessary to bring about one solution differ from those necessary to bring about the other.

## 1. — Agricultural Price Control of Economic Equality :

A farm income problem would exist when the amount of income transmitted to agriculture by the free agricultural price system creates unrest on the part of farm or non-farm producers. Since farm commodity prices are the income vehicles to commercial agriculture and non-farm prices are the income vehicles to the non-farm sector of the economy, the farm income problem would find expression in the ratio of farm to non-farm prices; and the price correction of this problem consists of the social adjustment of that ratio as to yield agriculture only the amount of income considered as "just" or "reasonable". As a consequence of the political determination of the price solution of the farm income problem it would characteristically remain indeterminate. The adoption of any particular farm to non-farm price ratio, and hence the degree of income distributive equality between agriculture and the rest of the economy, would depend on the relative strength of the conflicting forces shaping the farm price legislation, with the prevailing conception of equality as a social value playing a major role in reconciling those conflicts.

Institutionally, the regulation of the income flow between the agricultural and non-agricultural sectors by controlling the income allocation function of farm prices (or agriculture's terms of trade) does not change the character of the agricultural price system as a capitalist instrument. Under such control the agricultural price system continues to serve as: (a) an instrument of special economic maximization through which farmers and non-farmers stand to gain at the expense of each other, relative to what would have otherwise prevailed under the free agricultural price system, depending on in whose interest and to what extent such control is made; (b) an allocating instrument in which the resource allocation function is subordinated to the income allocation function. The fact that collective action on the part of farmers and non-farmers is involved in such public control and that the gains realized are collectively shared by farmers or non-farmers (a situation that differs from the free agricultural price system situation where private producers try to maximize their private gains) has no effect regarding the general political economy character of such controlled agricultural price system.

Within the above general institutional framework, a particular institutional change takes place as a result of the control under consideration, namely; converting the free agricultural price system from a competitive instrument into a monopolistic one. This change which arises as a logical necessity of the arbitrary change of the income allocating capacity of farm prices for against farmers is required to counterbalance a monopolistic position that favors or disfavors farmers. Broadly speaking, farmers normally stand to lose relative to non-farmers on account of the fact that they sell their output in

a competitive market and buy their supplies in a monopolistic one. Their injury deepens over periods of increased farm technology and productivity as well as over depression periods when, on account of the agricultural cost structure and competitiveness, the same level of farm production has to be maintained. When agricultural incomes deteriorate over such periods farmers press for farm price support and the production and marketing restrictive measures that go with it to counterbalance the monopolistic privileges of the non-farm sector. On the contrary, when the demand for farm products outruns their supply as would generally occur during a war, serious inflation, and rapid industrialisation, farmers would stand to charge excessive prices if the market were left uncontrolled. Even if it were assumed that resources were available and could be channelled into farm production, output cannot be expanded before a production lag that may extend for several years. The inability to expand farm output at the same pace with the demand for it, even though inherently technical, would create a situation analogous to a monopolistic one in which production is consciously restricted. Over such periods consumers would justly press for farm price ceilings and consumption restriction to check the "temporarily — monopolistic" farm position.

The types of measures for and particular effects of agricultural price control of farm income are well treated in the literature to deserve any further treatment here. However, a significant remark concerning this control as a policy instrument is in order. The continued resort to such control in spite of its established theoretical and practical limitations arises from the fact that, politically, it is the more readily available alternative to alleviate the implications of inter-dependence between a competitive sector of the economy and other sectors that not only enjoy varying degrees of monopoly power, but also behave in such manner that threatens with periodic collapses and inflationary pressures. Agriculture finds it more practical to press for higher prices than to press for trust control, monetary stabilization and economic growth. Although fighting monopoly with monopoly would decidedly reduce the national product, its acceptance simply means that, in terms of practicability, it is more preferable to maintain equality among the various economic sectors than to a higher level of output. In a similar fashion non-farm consumers, particularly those with fixed incomes, find it more practical to press for price ceilings and consumption control than to press for inflation controls when inflation becomes politically an inevitable instrument. In such politico-economic setting, the economist accepts agricultural price control only as a political "realist, for his simplest economic notions indicate that farm price control as a policy measure does not go far behind treating the symptoms.

## 2. — Agricultural Price Control of Economic Efficiency :

A problem in the use of resources in agricultural world exist when the output forthcoming from such use as it is directed by the free agricultural price system is less than what it could have been had the available resources been most effectively guided in production. Theoretically, the perfect solution to the resource-use problem involves the reorganisation of the agricultural production system in such manner that not only no more output could be realised by any other production organisation, but also that any such reorganisation must reduce the forthcoming output. As a matter of definition the perfect resource-use solution or maximum economic efficiency is uniquely determined, with its insidious determinism arising from the fact that it obtains as the outcome of two "givens" namely, consumers' preferences, and the available quantities of resources viewed in their capacity as technical units and applied in production to achieve maximum consumers' satisfaction. Maximum output is by implication also deterministic and signifies the perfect optimality of output to consumers' tastes, with such output presumably produced by using the minimum amounts of resources technically required.

The maximum output solution to the resource-use problem originates in economic theory. It derives as an answer to the following question: It derives an answer to the following question: "If there is a given collection of resources how should they be organized in production to achieve the maximum output" ? Since the answer must be based on marginalism, (1) the particular prices involved in this solution would clearly be those specifying the marginally-adjusted production or the farm input-output price relationships that are such adjusted as to yield equal marginal returns to comparable units of resources. In price terms the agricultural resource-use problem would therefore be indicated by any discrepancy among the marginal returns to comparable resource units; and its correction requires the reconstruction of production in terms of marginalism. It goes without saying that the existence of the problem implies a reduction in output that results from the wastefulness with which resources are used; and as a consequence consumers, other things remaining equal, would be forced to pay unnecessarily higher prices.

The social agricultural price adjustment necessary to achieve the maximum output solution involves the control of the resource allocation function of

---

(1) Professor F. Knight carefully states the maximizational nature of marginalism in what follows", Economic theory is concerned with the allocative aspect of economic behavior. Its entire argument comes under the single "economic principle" that the total result is maximized through allocating means among alternative channels of use (each subject to a law of diminishing effectiveness) in such a way that equal increments of means yield equal increments of ends in all modes of use". See "The Nature of Economic science in Some Recent Discussion", American Economic Review, Vol. XXIV, June 1934, p. 228.

farm prices in such manner that marginalism would obtain throughout the agricultural production organization. Such control requires the adoption of two measures, namely, farm price foreknowledge to guide the allocation of resources among alternative types of output, with firms following a "profit" maximizing behaviour and an unrestricted mobility of resources among and within firms to make possible the needed marginal resources adjustments. From the farm production system emerging profit would disappear as an economic category, but the maximum output desired by consumers would be forthcoming.

Institutionally, the political economy character of the free agricultural price system as a capitalist instrument changes with controlling its resource allocation function to achieve maximum efficiency into a socialist instrument.

This change involves, structurally, the subordination of the income allocation function of farm prices to their resource allocation function; and, functionally, a maximizational instrumentality solely in terms of the social optimality of farm production. The socialist character of the agricultural price system under this type of control reflects the political economy character of the system of allocation it regulates. The two measures required for the achievement of maximum efficiency, namely, unrestricted resource mobility and price foreknowledge are socialist measures that when adopted, would complete the socialism of agriculture. For unrestricted resource mobility means that every firm is enabled to acquire the resources it needs which implies that resources cannot be privately held but rather have to be publicly-owned with each firm enabled to obtain the variety of resources it needs in terms of marginalism. And price foreknowledge means the ending of privacy of decision-making; for when all firms know future prices they could only operate as "quantity adjusters" of resources but not as profit-seekers.

Now that the political economy character of agricultural price control of maximum resource-use efficiency has been clarified it would be unnecessary to go any further into a discussion of its other attributes as it is of no concern to any agriculture based on private property regardless of the social regulation of the latter. It must be mentioned here, however, that the maximum efficiency solution which appeals only to "economic-purists" is valid only in theory and could easily prove disastrous in practice as may be inferred from the absence of a completely socialized agriculture in any part of the world.

#### **(E) Agricultural Price Control in Contemporary Agricultural Economics.**

The analysis of the possibilities of agricultural price control of the farm allocative problems leaves no doubt regarding the differences in purpose and

conception between price control of farm income equality and price control of farm resource-use economy. The differences which are structural, functional and institutional render each type of control contradictory with the other. To be sure, on account of the absence of private property and production under a totalitarian socialism there is no place for agricultural price control of farm income to establish a balance of economic power between farmers and non-farmers; but rather there is theoretically a place for agricultural price control of farm resource-use to achieve maximum economy. Nor would there be a place in an enterprise economy for agricultural price control of maximum resource-use economy because it is not the consumers who collectively own and operate the agricultural production system solely in terms of their own preferences, but rather, there is frequently a place for agricultural price control of farm income to establish a socially desirable income balance between farm and non-farm earners. The contradiction under consideration may be summed up by stating that both types of agricultural price controls cannot be simultaneously undertaken because farm production cannot logically be simultaneously both capitalist and socialist.

Now that it is all too clear that the maximum economy value is not and cannot be the overriding social value in an enterprise economy, the question would justly be raised regarding the relevance of the concern with controlling the resource allocation function of farm prices to achieve maximum economy when dealing with the agricultural price policy of an enterprise agriculture or any system of agricultural production that is in principle based on the existence of private property regardless of the extent of the regulation of the latter. The answer to this question originates in the very development of recent agricultural economics.

Over the last fifteen years the major development in agricultural economics has been in the area of agricultural price control of farm production efficiency. Since its embryonic stage in 1940, (1) this development has so vigorously grown that by now it stands as a major school of agricultural economic thought (2). In spite of the sporadic intellectual unrest it caused the

(1) Schultz, T.W., and Jonson, G.D., "Elements of a price policy for agriculture", Memo. 5 (minco), Iwa Agricultural Experiment Station, Ames, Iwa, 1942.

(2) Schultz, T.W., *Redirecting Farm Policy*, New York, Macmillan, 1943.

— *Production and Welfare of Agriculture*, New York, Macmillan, 1950, ch. 1, 5, 7, 9, 12.

— *Agriculture In An Unstable Economy*, New York, Mc Gron Hill, 1953.

Johnson, G.D., *Forward Prices for Agriculture*, The University of Chicago, Press, Chicago, Ill. 1947.

— *Trade and Agriculture*, New York, John Wiley and Sons, 1950, ch. 6 - 8.

Heady, E.O. *Economics of Agricultural Production and Resource Use*, New York, Prentice Hall, 1952. ch. 17, 18, 24 and 25.

school's (1) forceful domination and extreme complexity remained unchallenged. (2) (3).

No attempt will be made here to critically analyse that school; only the institutional characterisation reached in this investigation will be applied to throw light on the way for future analysis. Boiled down to its essentials the school consists of the following propositions:

- 1) Resource allocative efficiency should be adopted as the objective of agricultural price control.
- 2) Price foreknowledge (or Forward Pricing) to guide farmer's use of resources should be adopted as a first step toward the efficiency objective, pending the development of economics and the identification of the other necessary measures to achieve efficiency.
- 3) Efficiency is politically and economically justifiable not merely in terms of its compatibility with the existing social value system but also in terms of its being the production organisation that yields maximum profits to the farmers and maximum output to the consumers.
- 4) Agricultural Forward Pricing is politically and economically justifiable in terms of both its compatibility with the free agricultural price system and its profit and output maximization effects to the producers and consumers respectively.
- 5) Deviation of agricultural production from the efficiency conditions seriously injures farmers and consumers in terms of net incomes and output respectively.

(1) Froker, R.K., "Discussion of price policy winning papers", *Journal of Farm Economics*, Vol. XXVIII, 1946.

Persons, K.H., "The Problem — Solution Basis of Forward Pricing", *Journal of Land Economics*, Vol. XXV, No. 4, Nov. 1949.

Brewster, J.M. and Persons, H.L., "Can Prices Allocate Resources in American Agriculture", *Journal of Farm Economics*, Vol. XXVIII, Nov. 1946.

(2) In an essay contest sponsored by the American Farm Economic Association in 1945, the first and second award-winning papers recommended price control of resource-use. See: "A price policy for Agriculture consistent with economic progress, that will promote adequate and more stable income from farming." By William H. Nicholls, *Journal of Farm Economics* Vol. XXVII, 4, Nov. 1945.

(3) Commenting on that development Professor William O Jones states, "This elaborate any growing structure is built of observations and theory, in approximately equal parts. Each junction of the girders of theory is bound firmly by an empirical investigation, each empirical finding is firmly tied in to the rest of the structure by one or more theoretical girders..."

....It is hard to tell just what parts of it are sound now until it has been examined much more carefully than it so far has been. This is a big job. It will require time and talent. "See" *The New Agricultural Economics*", *Journal of Farm Economics*, Vol. XXXIV, Nov. 1952, p. 446.

- 6) Agricultural price uncertainty (the opposite to Forward Pricing) injures both the producers as to the scale of their operation, the size of their incomes and profits, and the consumers as to the quantity and structure of farm output.
- 7) The logic of perfectly solving simultaneously both the production problem and the distribution problem calls for their separation, and solving the former by price guidance of production to achieve efficiency and the latter by nonprice measures but directly by income redistributive measures.

In view of the political economy character of agricultural price control of maximum allocative efficiency as reached in the above section, the following definite conclusions can be made regarding the nature and validity of the above propositions:

- 1) The efficiency recommendation is a recommendation of socializing agricultural production; hence, it cannot be adopted by any agricultural based on some aspect of private property. The term efficiency that its advocates in agricultural economics used is a connotative term that is exactly definable as the term "The Competitive Solution" which is recommended by socialists.
- 2) The Forward Pricing Recommendation is a recommendation of socializing the agricultural price system to direct the use of the still privately — owned resources in terms of consumers use of output and not in terms of producers profit. Its adoption would split the institutional structure of the capitalist system by eliminating privacy of decision-making or enterprise, and leaving private property intact. The system of political economy it gives rise to is neither capitalism nor socialism, and should not be confused with the "Mixed Economy" systems.
- 3) The economic justification of efficiency in terms of profit maximisation by the producers contradicts the institutional character of efficiency as a production system that totally eliminates profit as an economic category and liquidates the private producers to start with. The political compatibility implication of efficiency with private production as such implication arises from the maximum profit justification is necessarily misleading. As to the maximum output justification, it has already been mentioned that its validity is only theoretical and no data is available to support it. In fact the absence of a totally socialised agriculture in any country points to the grave practical difficulties that face the adoption of such organization.
- 4) The appeal to farmers in terms of profit maximization by Forward Pricing is misleading since it amounts to the contradiction that a socialist measure could enrich the capitalists.

- 5) The attack on uncertainty is institutionally a disguised attack on privacy of enterprise, and similarly the attack on a production organisation that deviates from efficiency is an attack on non-socialist production. The relevance of the economic justification supporting both attacks cannot be evaluated here. It must be mentioned here, however, that socialists have no complaint regarding the productiveness of capitalist agriculture and their objections have mostly centred on the inequality it gives rise to.
- 6) The logic supporting the adoption of the economic system mentioned in proposition (1) above, poses a new ideological theoretical weapon that economists are not yet aware of. Its full possibilities has yet to be studied particularly in comparison with the traditional socialist weapon.

The possibility of making the above conclusions rested on the identification of the institutional character of the price control under consideration. This identification brought to the surface the severe contradictions that makes it imperative to refuse the economic justification that the school used to support its propositions. The fact still remains that the complex theoretical manipulations used to obscure and justify those economic contradictions have yet to be reconsidered. And until this is completed contemporary agricultural economics in its major development will continue to pose a serious case of academic confusion that has for long been left unnoticed.

DR. EL SAYED GABALLAH

---

(1) Lange, O., *On the Economic Theory of Socialism*, Minneapolis, Minnesota, 1938 in B. Lippincot, ed.