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AGRICULTURE AND THE STATE: MARKET PROCESSES AND BUREAUCRACY

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Abstract

This paper considers the political economy of agriculture and the implications for economic analysis. In doing so, four topics are addressed. First, problems of private choice are contrasted with those encountered in collective choice. Second, the "market failure" rationale for government redistribution programs in agriculture is contrasted with "rent seeking". Third, implications of information and incentive problems inherent in collective choice are explored. The subjective nature of cost is shown to be important in economic regulation, including cost of production as a basis for agricultural price supports. Finally, the results of the analysis are related to the work agenda of agricultural economists. The Robbinsian maximization approach is contrasted with radical subjectivism. If information about means and ends is assumed given, the economic problem becomes computational. The challenge is to develop economic analyses that provide more satisfactory explanations of human behavior in a world of uncertainty, where outcomes of plans differ from predictions. Economic efficiency studies traditionally have focused on outcomes of the market process. However, since costs and benefits are subjective, it is argued that efficiency is more appropriately judged by the process through which transactions are carried out than by the results. Insights from public choice theory and neo-Austrian economics are held to be important in improving the institutional framework in public policy analysis.

1. Introduction

Agriculture continues to be a heavily regulated industry throughout the world. However, barriers to free markets and an open trading system are more frequently being recognized as anachronistic in an increasingly interdependent world. Indeed, with revolutionary transformations in Eastern Europe, the movement toward free markets accelerated dramatically in 1989 (Econ. Rept. of Pres., 1990). And the Uruguay Round of the General Agreement on Tariffs and Trade, which is to be completed in 1990, represents an historic attempt to liberalize and expand trade in agriculture.

The types of market distortions in agriculture vary widely. Industrial countries tend to subsidize agriculture, whereas less developed countries tend to tax it. Centrally directed economies mismanage agriculture as they do all other sectors.

Results throughout the world suggest that the economic and political system is highly important in achieving a productive agriculture. Indeed, there is no example of a productive agriculture under a collectivist economic system. Yet other supposed alternatives to decentralized markets such as "market socialism" hold perennial appeal.

This seems to be an opportune time to consider the political economy of agriculture and the implications for economic analyses. This paper has four specific objectives:

(i) Briefly to contrast private choice with collective choice (the political process);

(ii) to contrast the public interest or "market failure" rationale with the income redistribution of "rent seeking" justification for government farm policies;

(iii) to describe information and incentive problems inherent in collective choice; and

(iv) to discuss the implications of these problems for agricultural economics.

2. Private versus collective choice

There are only two ways of coordinating economic activity in a modern economy - the market and central direction. In any society, an important policy problem is to determine which economic activities in agriculture and other sectors should be organized through markets and which through the political process. This decision is likely to have profound influence, both on the productivity of agriculture and on economic growth. However, an intelligent decision about which activities should be private and which public cannot be made without knowledge of how markets and political processes work. This knowledge about private choice and collective choice also has implications for the work agenda of agricultural economists.

Most academic economists outside the Marxist orbit recognize the merits of price and profit signals in determining output mix, resource allocation, income distribution, rationing, and economic progress (Knight, 1933). At the same time, most neoclassical economists place a great deal of emphasis on "market failure" problems. In this approach, markets may fail for many reasons including lack of clearly defined and enforced property rights, "improper" distribution of income, monopoly, market instability, lack of information, and high transactions costs (Aranson, 1981).

The problem of determining when there *is* market failure warrants a great deal of attention. In assessing the operation of real world markets one must use a norm, and market failure frequently has been found by comparing real world markets with the norm of perfect competition (including perfect markets).

Perfect competition is a highly idealized market situation characterized by two conditions:

(i) price-taking behavior in buying inputs and selling products; and

(ii) perfect markets including perfect communication, instantaneous equilibrium, and costless transactions (Hirshleifer, 1988).

The problem is that if one uses perfect competition as a norm, "market failure" is foreordained. That is, *all* markets "fail" when measured against this standard. It is easy to criticize the use of perfect competition as a norm, but it is difficult to find a satisfactory substitute. Indeed, economists have yet to describe economic efficiency meaningfully in a world of uncertainty and costly information (Demsetz, 1969:19). Unfortunately, there are many scholarly economic papers about monopoly, market instability, and other "market failure" problems which do not reflect this insight.

Moreover, policy analysts too often have implicitly assumed that an imperfect market implies the need for government action. Government action is no panacea, however, because problems similar to those giving rise to "market failure" also are present in collective choice (Aranson, 1981). Thus, "government failure" is the analogue of "market failure". The real world political process too will always fall short when it is measured against a perfect polity in which voters, elected and appointed public officials are perfectly informed and are always motivated to serve the "public interest". Public choice theory, which attempts to explain how political processes actually work, implies that real world markets should be compared with real world political processes (Buchanan, 1989:24-36).

Incentive problems confronting decision makers in the political process are a central focus of public choice theory (Mitchell, 1988). Incentive problems arise in collective choice because of the separation of *power and responsibility*. That is, those having decision making power in government agencies do not bear the responsibility for their actions - at least not to the same extent as profitseeking entrepreneurs. Moreover, there are no signals in the collective decisionmaking process that are comparable to profits and losses in the entrepreneurial market process.

The consequences are far reaching. First, there is no reliable way to judge the efficiency of government bureaus where output is not produced and sold under competitive conditions. Consider the U.S. Agricultural Extension Service (AES) or any other publicly funded agency providing information to farmers. It is no accident that the AES uses number of farm visits, requests for information, and other measures of *input* as measures of the agency's *output*. It is also no accident that collectively provided goods and services generally are priced "too low", i.e., below the costs of providing the services. There is an advantage to political officials and government employees in keeping prices low because the law of demand applies to outputs of government agencies, just as it does to market goods and services. In the United States, for example, there is a chronic shortage of services provided by the AES to its rural and urban clientele. However, the shortage is fully predictable, since these services are provided either free or at a nominal cost. Moreover, the use of such "shortages" to justify additional appropriations is unwarranted and "rent seeking" may well result in overspending for these services.

Rent-seeking is a recently developed concept used to describe resource-wasting activities that occur as individuals seek transfers through the aegis of the state (Buchanan *et al*, 1980). These resource costs, including outlays of time and money for lobbying, campaign contributions, and so on, are incurred with the expectation that some special interest group will benefit at the expense of the public at large. The unproductive nature of rent seeking becomes clear when it is contrasted with profit seeking, which focuses on ways to increase income through entrepreneurship - through improvements in the production and marketing of goods and services. In contrast, rent seeking focuses on ways to increase the wealth of an individual or group not through superior entrepreneurial activity but by restricting competition, which decreases the production of goods and services. Much of the potential gain to groups benefiting from legal restrictions on competition may be competed away in attempts to obtain and maintain government assistance. The outlays of time and money used in this way may be considered wasteful because rent seeking merely redistributes income and produces nothing of value from the standpoint of the public at large.

Rent seeking appears to be a useful concept in explaining and predicting a great deal of government activity in agriculture (and in other sectors). Consider two examples - one from U.S. agriculture and one from government policies affecting agriculture in less developed countries.

2.1 Sugar price support program in the United States

The domestic price of sugar in the United States is supported by a system of country-by-country import quotas. During the past five years, sugar prices in the United States typically have been considerably above world prices - often two to three times world price levels. A recent study by the U.S. Department of Commerce found that the costs of the U.S. sugar cartel far outweigh its benefits (Ives and Hurley, 1988). Why does the sugar program, which benefits only 10 000 domestic sugar producers at the expense of 250 million consumers of sugar, persist?

The rent-seeking explanation of public choice theory seems persuasive. The benefit from the program averages some $300 000 per year to each of the domestic producers, whereas the cost to consumers, in contrast, is trivial - averaging no more then $50 per family per year. Under those conditions, where benefits are highly concentrated and costs are widely diffused, the producers are much more likely to influence the political process, even in a democratic society.

2.2 Agricultural Policies in the Less Developed Countries (LDCs)

There is a great deal of evidence that state-imposed disincentives in agriculture are important in the developing countries (Bates, 1981:2). Why do governments in less developed countries frequently employ price controls, thereby benefiting the relatively small number of urban consumers at the expense of the large number of producers of farm products? Bates (1988) suggests that these government policies that impede agricultural output are better explained by public choice theory than by public interest theory. That is, public policy is the outcome of rent seeking by groups seeking satisfaction through the political process. The costs, as suggested previously, are borne by the mass of small-scale farmers, whereas the benefits are received by the relatively small percentage of urban customers. In this case again, there is widespread deprivation (of farmers) but selective benefits (to consumers).

Why does the political process respond to the interests of the urban minority in this case? Bates (1988) contends that urban consumers, though comprising no more than 10 percent of the total population, are a potent political force because they are geographically concentrated and control transportation and communication facilities. In contrast, most of the farmers are peasants and are not politically powerful, even as a group. Moreover, governments build rural support by targeting subsidized credit, machinery, and other benefits to large farmers having the most political clout. In this way, governments secure the deference of the privileged few who would stand to gain most from higher product prices to programs that are harmful to farmers generally and that impede economic progress (Bates, 1988). These examples using rent-seeking theory appear to be helpful in explaining why government programs in agriculture frequently are harmful from a public policy standpoint.

The short-run nature of the political process also is important in explaining the bias toward overspending when resources are allocated through the political process. Government budgets tend to be treated as a common-pool (or common-property) resource that creates fiscal irresponsibility. A common-

property resource such as the air, oceans, whales, public parks, and so on, which no one owns but many have access to, tends to be overused because users of a common-property resource have little incentive to properly husband its use. For example, where use is on a "first come-first serve" basis, the individual who holds back attempting to conserve is likely to harm only himself without reducing the rate of use of the resource in question.

The analogy of the government budget to a dinner check is useful in illustrating the overspending bias inherent in a representative democracy such as the United States (Thaler, 1983). Assume that 100 people go out to eat. Compare the likely behaviour of each diner under two different arrangements - in one situation, each person pays his own bill; in the second, the bill is divided evenly. The cost of a one-dollar dessert to diner Smith is one dollar when each individual pays for what he eats. However, if the check is split evenly, the cost of the additional dessert to diner Smith is only one cent. Thus, each person has an incentive to spend more under the check-splitting arrangement. The check-splitting effect in the political process leads to "pork-barrel" legislation in agriculture and other areas as long as spending projects in a particular geographic area are financed by taxpayers from the nation as a whole. In a representative democracy, each elected official has an incentive to respond to pleas by farmers (and other special interest groups) for increased spending in his or her legislative district. For example, the cost of a new agricultural research facility in a particular location financed by the national government is likely to have large benefits and small marginal costs to citizens in that area[2,3].

The analogy of the government budget to a dinner check can be carried one step further. Assume that the check is divided evenly but ordering is done by committee so that there will be separate committees for appetizers, salads, entrees, and desserts. Who will wish to serve on the various committees? If each person is able to serve on the committee of his choice, we might expect to find vegetarians on the salads committee, sweet-tooths on the dessert committee, and "lushes" on the drinks committee. This arrangement, which closely resembles the committee structure of the U.S. Congress, further exacerbates the tendency toward overordering and overspending. For example, it is congressional representatives from agricultural districts who dominate the agricultural committees in the U.S. Congress.

The analogy of the government budget to a dinner check is even closer if one assumes that the diner can use a special credit card that does not have to be paid off if the diner loses his job or retires. "Buy now - pay later" is very appealing to a representative concerned primarily with getting re-elected. The eventual result of such redistributive activities is graphically described by F.A. Hayek: "So long as it is legitimate for government to use force to effect a redistribution of material benefits ... there can be no curb on the rapacious instincts of all groups who want more for themselves. Once politics becomes a tug-of-war for shares in the income pie, decent government is impossible" (Hayek, 1979:150).

What are the implications? Two major approaches have been proposed to deal with the overspending bias inherent in a democratic political process. The first relies on education and improving the quality of public officials. In this case, the focus is on electing people who will consider the interests of the public at large instead of catering to rent-seeking special interests. Proponents of this approach contend that increased public recognition of the problem and public pressure on government officials can solve the rent-seeking problem. In contrast, public choice theory holds that the problem lies in the incentives faced by political decision makers, not in the individuals themselves. That is, it is the incentive structure or the rules of the game that must be changed. The implication is that the destructive consequences of majoritarian democracy cannot be escaped by electing better politicians (Gwartney and Wagner, 1988b:54).

A second means of coping with the overspending bias of the political process, the constitutional approach, is identified most closely with Nobel Laureate James Buchanan. Buchanan emphasizes that the rules of politics determine the pattern of outcomes "almost independently of whom we may elect and who writes policy papers offering policy advice" (Buchanan, 1984:5).

Why are the constitutional rules so important? Even if the harmful long-run effects of efforts by farmers and other groups to achieve income transfers are fully recognized, there is a "you-first" problem (Anderson and Hill, 1980). Each recipient of government largesse, even if fully aware of the societal wastes of rent-seeking activity, has the incentive to take the position: "I will give up my government assistance if other groups give up theirs" - but no one has an incentive to be first. Indeed, farmers (like other groups) have an incentive to attempt to maintain their income transfers while favouring a reduction in transfers, import quotas and other government programs that redistribute income to other groups. The "you-first" problem suggests that the overspending bias can be solved only by constitutional or institutional means. Each group will find it advantageous to agree to constitutional limits on programs benefiting it if all other groups simultaneously also agree to do so.

The constitutional dilemma is similar to the classical "prisoners' dilemma". The prisoners' dilemma is a nonzero-sum game that when played in its non-cooperative form, leads the players to a pair of outcomes that they jointly less prefer to another pair of outcomes (Aranson, 1981:646).

Consider the prisoners' dilemma problem depicted in Figure 1 (Wagner, 1987:107).

	Individual B	
	Production and exchange	Rent seeking
Production and exchange	\$60 for A	\$20 for A
	\$40 for B	\$50 for B
Individual A		
	\$70 for A	\$30 for A
Rent seeking		
	\$10 for B	\$20 for B

Figure 1: The prisoners' dilemma and implications for rent-seeking activity.

Income for A and B jointly, or national income if A and B are sectors of the economy, is maximized when both parties engage in production and exchange. In this case, the incomes of A and B are \$60 and \$40, respectively. However, if both engage in rent-seeking redistributive activity, production of goods and services decreases and incomes are reduced to \$30 and \$20, respectively. These lower incomes reflect the nonproductive time and money spent in influencing the political process rather than on entrepreneurial activity. Thus, A and B would be better off if some force other than immediate self interest (such as belief in the Golden Rule) induced each individual not to engage in rent-seeking activity (Ellman, 1989:6).

The case for constitutional contract[4] rests on a recognition that there are situations, as in the prisoners' dilemma, in which even though the outcome of people pursuing their own interests generally will be undesirable, people individually will have little incentive to act differently because to do so would leave them

even worse off (Wagner, 1987:107). For example, if A successfully engages in rent seeking while B engages in production and exchange, A's income increases from $60 to $70 but B's income falls from $40 to $10. But if B also resorts to rent seeking, his income rises to $20. This is less than it would have been had both A and B refrained from rent-seeking but more than it would have been. Likewise in rent-seeking each person may make an individually rational decision to rent-seeking, but as a result be worse off than if all had chosen not to engage in rent-seeking.

The constitutional view is that ordinary legislative processes will not naturally prevent government from becoming an instrument of rent seeking. The prisoners' dilemma model and the theory of rent seeking explain why rent seeking is likely to be substituted for production and exchange in a majoritarian democracy unless rent seeking is restrained through constitutional rules. Public choice scholars have suggested a number of possible constitutional approaches to limit rent seeking (Gwartney and Wagner, 1988a, 1988b). These include such things as a constitutional requirement to mandate a balanced budget and a change in voting rules affecting fiscal policy. For example, one might require a two-thirds vote rather than a simple majority to increase taxes or spending. However, further consideration of possible ways to constrain rent seeking is beyond the purview of this paper.

3. Information Problems

The preceding discussion focused on incentive problems of collective choice. Information problems arising because of the separation of *power* and *knowledge* also are endemic in the political process. Those who have power in the political process do not have access to much of the information that motivates individual decision makers. In a decentralized market system, prices play a crucial role on organizing economic activity, including the allocation of resources. Market prices, reflecting supply and demand conditions, coordinate and transmit information to consumers and producers more quickly and accurately than can be done in any other known way. Much of the information incorporated in market prices cannot be articulated and conveyed to a central authority in statistical form. The advantages of the market as an information system have been known, if not fully appreciated, since F.A. Hayek's seminal article, "The Use of Knowledge in Society", in 1945 (Hayek, 1945).

There is another aspect of the market also emphasized by Nobel Laureate Hayek that is still little recognized - viz., the market as a *discovery* process (Hayek, 1978). Indeed, the market probably can be most accurately viewed as an entrepreneurial discovery process. Farmers and other entrepreneurs must attempt to discover the most profitable pattern of production and marketing under constantly changing economic conditions. This view of the most profitable pattern of production as a dynamic search process is consistent with the view of the market as a profit *and* loss process. It also places the emphasis on entrepreneurship instead of on mathematical calculation.

Israel Kirzner (1985, 1988) has helped to increase awareness of the role of disequilibrium prices in stimulating entrepreneurial discoveries. Indeed, in equilibrium all profit opportunities have been exploited and there is no scope for entrepreneurship. However, the real world is characterized by uncertainty and constantly changing conditions, affording opportunities for profit-seeking decision makers. A key task of the entrepreneur is to cope with uncertainties and, as Kirzner (1980:6-7) suggests "Making the right decision ... calls for far more than the correct mathematical calculation: it calls for a shrewd and wise assessment of the realities (both present and future) within the context of which the decision must be taken". This suggests that proficiency in the tools of modern decision theory are unlikely to be the crucial variable in explaining differences between successful and unsuccessful farmers. This point may be more apropos in countries with a highly developed agriculture. In less developed countries, the payoff from an increase in basic education and ability to perform simple mathematical calculations may be higher than that from any other kind of new knowledge.

4. Opportunity Cost and Government Regulation

The conventional theory of regulation heavily discounts or ignores information problems endemic in the political process. In contrast, information problems are stressed in neo-Austrian economics and related specifically to the nature of opportunity cost (DiLorenzo, 1990). The opportunity cost of any action is the value of the highest sacrificed alternative - this much virtually all economists agree on. What is not generally recognized is that opportunity cost of any action is *subjective* because the sacrificed alternative is not actually experienced (Buchanan, 1969). What is the cost to Farmer Jones, for example, of using a tract of land for maize instead of wheat? It is the expected value of using the land for wheat production - if wheat is considered to be the most profitable alternative. However, the expected returns to land from wheat production will vary depending upon one's assessment of future agronomic and economic conditions. Thus, the opportunity cost of land in maize for Farmer Jones is unlikely to be the same as that for Farmer Smith.

The implications of the insight that opportunity cost is subjective are dramatic for economic regulation. Consider two common examples - marginal-cost pricing[5,6] and cost of production as a basis for agricultural price supports. Marginal cost pricing has been widely suggested as the correct approach to the pricing of public utilities and other services produced or regulated by government. But because cost is subjective, there is no reason to expect that the cost estimates of regulatory agencies will correspond to the costs that influence entrepreneurial decisions. Jack Wiseman's colourful description of the shortcomings of marginal cost pricing appears sound: Quote "To prescribe that the products of nationalized industries should be priced at long run marginal cost is, of itself, of little more practical help than to prescribe that they be priced on the principle that God is Love" (Wiseman, 1989:153).

Consider another implication of opportunity cost theory - the feasibility of cost of production as a basis for agricultural price supports (Pasour, 1980). In the late 1970's, cost of production was embraced in U.S. farm legislation, as the primary guide in setting the level of price supports for farm products. There are two problems with this approach. First, opportunity cost is subjective and the outside observer cannot determine or measure the opportunity costs that influence the producer's decision. It should not be surprising that costs of production for different producers appear to vary widely on the basis of on-farm accounting records. In the North Carolina Dairy Records Program at N.C. State University, for example, the net cost of production was about twice as high for the highest-cost 10 percent when compared with the lowest-cost 10 percent of enrolled dairy farms. However, as shown below, average costs will tend to be equal, provided they are properly computed so as to include the rents to specialized resources (Friedman, 1976:148).

A recognition that resources are specialized suggests a second problem in setting price supports on the basis of cost of production. Benefits are capitalized into higher input prices when product price is arbitrarily raised above the competitive market level. Consequently, an effective price support means that prices of land, rights to produce, and other specialized resources will be bid up so that production outlays will tend to equal product price, regardless of how high price is set (Gardner, 1981:125). Thus, competition ensures that an effective price-support program inevitably will increase cost of production. Moreover, if a price support is based on cost, the increase in cost will cause the price support level to increase,

which will then lead to higher costs, and so on. The conclusion is that cost of production cannot be determined independently of demand or product price when there are specialized resources - as there always are in agriculture (Friedman, 1976:147). Thus, cost of production is not a defensible basis for setting the level of price supports, even if one ignores all other equity and resource allocation effects.

Information problems endemic in the collective choice process also are central to the theory of economic calculation (Lavoie, 1985). This theory was developed as a result of various socialist proposals in the early 1900's to replace markets with central planning as the means of resource allocation. In 1920, Ludwig von Mises showed that the structure of production in a socialist system could not efficiently reflect consumer wants because of knowledge problems (Mises, 1951). The ensuing economic calculation debate (ECD) that raged during the 1920's and 1930's pitted Mises and Hayek against Oskar Lange, Abba Lerner, and other central planning theorists. The ECD demonstrated that the structure of production cannot adapt efficiently to people's wants in the absence of competitive markets and the information and incentives that market prices convey (Wagner, 1989:208). That is, rational economic calculation is impossible in a socialist economy in which prices are necessarily absent. The ECD debate reveals that even if decision makers in the political process were completely altruistic and fully dedicated to serving the public weal, they do not have and cannot obtain the information to do so. Specifically, a government official cannot obtain the information on resource availability, production opportunities, and individual preferences necessary to determine the pattern of production that is in the "public interest" (Niskanen, 1971:39). That is, regardless of his personal motivations, it is impossible for the decision maker in the political process to act in the public interest because of the limits on his information and conflicting interests of others. This leads even the most selfless bureaucrat to choose some other more feasible goal such as budget maximization. This theory of bureaucracy appears to be just as applicable to collective decision making in agriculture as it is in other sectors.

5. Implications for Economic Analysis

The foregoing analysis has important methodological implications for the work agenda of agricultural economists. This can perhaps best be shown by Roger Garrison's description of positions taken by economists concerning the information and uncertainty issues discussed above. There are two polar approaches that an analyst can take in economic analysis - perfect knowledge and perfect ignorance (Garrison, 1982:132). On one side, the perfect ignorance approach, is the Shackelian radical subjectivist view that equilibrium is impossible because we can never know what we need to know to achieve perfect coordination. This approach focuses on the importance of uncertainty and implies that economic analysis should embrace *unimagined* outcomes because economic decision makers must cope with problems created by the unknowability of the future. Radical subjectivists, including Lachmann (1977), Shackle (1972), and Wiseman (1989:159), question whether models that assume the future is known can provide satisfactory explanation of human behaviour in a world where the outcomes of their plans differ from their predictions.

The other polar situation, the perfect knowledge approach, is that of conventional neoclassical economics. It abstracts from information and uncertainty problems and assumes that markets are always at or near equilibrium. This is the Robbinsian approach in which economic analysis stresses optimization techniques (Kirzner, 1973:32-33). The problem with this approach is that if information about means and ends is assumed *given* to the economic analyst, the problem becomes one of mathematics - everything becomes computational (Buchanan, 1987:25). But means and ends, of course, are not given - either to the decision maker or to the economist as outside observer.

A problem arises when the observing economist substitutes his own estimates of the costs and benefits that influence his subjects' actions. A good example is provided by studies purporting to measure the efficiency of individual or market activity. Consider the example of the maize farmer who knowingly goes fishing when additional weeding would increase yields and profits. The fact that the farmer could produce more maize and increase net income by reducing leisure, however, does not imply that the farmer is inefficient (Pasour, 1981). Utility is measurable *only* to the individual decision maker and if the leisure is valued more highly by the farmer than the foregone maize, there is no legitimate basis for concluding that increased maize production would increase economic efficiency, as Stigler (1976) emphasizes in his criticism of "x-inefficiency" theory.

This finding can be generalized. All action is purposeful and forward looking and every action is positive in the sense that it is the best that the decision maker can do, given the individual's subjective evaluation of the alternatives (Mises, 1966:92). Thus, a finding of inefficiency means that the economist has inaccurately estimated the costs and benefits that motivated his subjects' actions (Buchanan, 1987:5; Staten and Umbeck, 1989).

What are the implications of the preceding analysis as to what economists *should* do? Buchanan (1987) suggests that maximization techniques are not the proper focus of economics. Instead emphasis should be on the institutions and arrangements among individuals that facilitate their participation in voluntary organized activity - whether in markets or in the collective choice process. This political economy approach implies an expanded logic of choice in economics that treats the market as only one of many social institutions that create, direct, or facilitate individual choice (Wiseman, 1989:171).

The concept economic efficiency has a different thrust in this approach. In conventional analysis, the focus of efficiency studies is on the *outcome* of the economic process - on the *results* of consumer and entrepreneurial activity. But as implied above, the economist cannot determine efficient outcomes because any measurement of costs and benefits must involve interpersonal comparisons that are highly conjectural (Robbins, 1981).

In the alternative formulation, behaviour relates to the *procedures* through which decisions are reached rather than to the actual outcome of the implemented plans. Efficiency in this sense is concerned with the extent to which the institutions of a society are responsive to the values and choices of individual citizens, and efficiency must be judged by the processes through which transactions are carried out, not by the results (Sandmo, 1990:57). What is the appropriate decision rule to use for collective decisions? Buchanan stresses the Wicksellian criterion, which requires unanimous consent, in collective decision making. That is, no policy to which any citizen objects would be implemented under a voting rule of unanimity. A naive interpretation would be highly restrictive, since few (if any) public policies would ever be selected under a unanimity rule.

A more sophisticated version of the unanimity voting rule relates to the decision-making process and the totality of expected consequences emerging over time. Buchanan, for example, applies the unanimity principle at the stage of constitutional choice - at the time of choosing the rules by which citizens agree to live (Baird, 1989:224). For example, at the constitutional stage, people might unanimously agree that post-constitutional annual budgets for agriculture would be determined by majority voting among elected representatives. When viewed in this light, people are likely to accept as efficient social arrangements involving outcomes that may disadvantage them (Wiseman, 1989:274). Moreover, the losing minority at the post-constitutional stage could not then legitimately claim that it was being improperly coerced. The crucial requirement for efficiency is that individuals do not feel themselves *improperly* coerced. A key concern of economists in

the constitutional approach is to identify the kinds of social arrangements that will contribute to or be most consistent with efficiency in this sense. However, this is much easier said than done. In current U.S. policy debates about agricultural programs[7], for example, we are clearly not in a situation that resembles the constitutional stage, and political choices inevitably involve gains for some and losses for others (Sandmo, 1990:63). Thus, the intractable problem of avoiding improper coercion in collective choice remains to be solved when the constitution is already in plan. In SA, however, it appears that you will soon be at the constitutional stage and James Buchanan's work in constitutional economics is highly relevant.

How does the constitutional approach relate to conventional economic analysis[8]? It certainly does not suggest that conventional neoclassical economics is not useful. Goods and services get produced and marketed and economic theory has been useful in understanding the production and marketing process. However, some of the conventional analysis has been misdirected, as suggested by the above example of the maize farmer who willingly and knowingly substitutes leisure for additional maize and is judged by the observing economist to be guilty of x-inefficiency. Also, much of the post-World War II economic development literature fails to pinpoint the Achilles Heel of collectivism - the information and incentive problems endemic in collective choice. Consider, for example, a recent study by the International Institute for Applied Systems Analysis designed to alleviate current world food problems and to prevent future ones (Parikh, 1988). Seven case studies are presented covering a variety of economic systems including market, developing, and centrally planned economies. However, there is no recognition in any of the studies of the link between method used in coordinating economic activity and agricultural output. The crop production model for the Soviet Union, for example, considers only physical factors of production, completely ignoring the information and incentive problems associated with central planning. In ignoring this relationship between the political and economic system and agriculture, there can be little doubt that the authors have failed to take into account the most important consideration affecting agricultural production in the Soviet Union.

However, a recognition of the information and incentive problems that arise when property rights are not clearly defined and enforced is becoming more common in conventional economic analyses - including those in agricultural economics. A good example is Mike Lyne's recently completed dissertation. This study investigating distortions of land and labour resources in KwaZulu pinpoints institutional factors having policy implications. It demonstrates, for example, that land renting and privatization of grazing land could have a significant beneficial impact by increasing the efficiency of land use and by reducing the overutilization of grazing lands (Lyne, 1989).

In conclusion, the preceding analysis suggests that agricultural economics can benefit from a healthy dose of economic insights from public choice theory and neo-Austrian economics (Littlechild, 1978). These insights will not solve all of our economic problems - nothing will. But increased recognition of information and incentive problems will facilitate the economic analysis of agricultural problems in two ways. It will help the analyst to ask the right questions and it will help avoid policy advice that cannot be justified and sometimes has been counterproductive.

Notes

1. So-called pork-barrel legislation is designed to benefit particular legislative districts rather than the nation as a whole.

2. The problem of determining whether public expenditures for agricultural research and educational services are adequate is beyond the scope of this paper (Pasour, 1990:214-226).

3. This problem is not unique to representative democracies. The checksplitting effect is present in any political system that targets expenditures financed by general tax revenues to small geographical areas.

4. The contractarian approach can be interpreted in terms of the principal-agent relationship. "The people or the constitutional assembly are the principals' and politicians or bureaucrats are the agents. The contract between them should be set up in such a way that the agents are motivated to act in the interests of the principal" (Sandmo, 1990:61).

5. "The central policy prescription of microeconomics is the equation of price and marginal cost. If economic theory is to have any relevance to public policy, that is the point at which the inquiry must begin" (Kahn, 1970:65).

6. "Marginal cost pricing as a policy is largely without merit. How then can one explain the widespread support that it has enjoyed in the economics profession? I believe it is the result of economists using an approach that I have termed blackboard economics: The policy under discussion is one which is implemented on the blackboard. All the information needed is assumed to be available and the teacher plays all the parts. He fixes prices, imposes taxes, and distributes subsidies (on the blackboard) to promote the general welfare. But there is no counterpart to the teacher within the real economic system ... Blackboard economics ... may have a role in developing the skills of an economist, but it misdirects our attention when thinking about economic policy" (Coase, 1988:19). For a discussion of problems of marginal cost pricing as they relate to electric power utilities in the United States, see Pasour (1986).

7. Moreover, when a government program confers benefits that are capitalized into higher prices of land and other specialized resources, there is a transitional gains trap (Tullock, 1975).

   The gains are once-and-for-all and the program cannot be abolished without imposing windfall losses on all owners of affected resources, including those who received no windfall because they purchased resources after program benefits were capitalized into higher asset prices.

8. The classic approach of Lord Robbins views the economic problem in terms of the efficient allocation of scarce means among competing ends. "The common feature of all Robbinsian formulations of the problem is the need to achieve the pattern of manipulation of given means that will correspond most faithfully to the given hierarchy of ends" (Kirzner, 1973:32).

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