



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

POLICY RESEARCH IMPLICATIONS UNDER TRADE LIBERALIZATION

T. Kelley White

Much of the current interest focuses on a historic opportunity with respect to change in domestic agricultural and agricultural trade policies. There are arguments that the current mix of domestic agricultural policies employed by the United States and other countries and existing agricultural trade policies -- largely enacted to facilitate domestic policy -- have created chaos in world markets, have become prohibitively expensive, and have failed to achieve their domestic objectives. Why this sudden disillusionment with the status quo in domestic agricultural and trade policy? There is little evidence that the goals and objectives -- varied and ill-defined as they are -- of agricultural policy in the United States and other countries have changed during the 1980s. The policy instruments employed in pursuit of these goals and objectives are essentially the same as have been employed since the 1930s.

The technology employed in agriculture has changed, and so has the economic environment within which agricultural policy is applied. The two words most frequently employed to describe these changes are "interdependence" and "globalization." Interdependence refers to linkages between the agricultural sector and other sectors of the economy within a country while globalization refers to the increasing linkages among nations.

The confluence of trends toward greater interdependency of all nations' agricultural sectors with other sectors of their economies and the increasing globalization of markets has radically altered the setting in which countries attempt to adopt agricultural and agricultural trade policies to meet the traditional goals and objectives of the agricultural sector and consumers of agricultural commodities. Policy issues confronting the United States and other nations with respect to their agricultural sectors and trade with other countries are largely a product of the increasingly interdependent and global nature of agriculture. Not only have policy issues been modified as markets have become global and national agricultural sectors less insular, but the same characteristics have placed constraints on the effective policy options from which countries may choose. The new setting has also changed the effects of and the incidence of effects of traditional policies, and has limited the ability of individual countries to control the destiny of their agriculture through sectoral policies.

The outcome of the Uruguay Round of the GATT (General Agreement on Trade and Tariffs) will have a strong influence on the policy mix shaping agriculture in the industrialized nations during the 1990s. The basic issue is whether the global and domestic policy setting will be a continuation of that of the recent past (with only minor modification) or whether the setting will be one of reduced government interference with greater reliance on market forces and comparative advantage to guide agricultural production, consumption, and trade. Liberalization of agricultural trade depends not only on the outcome of the Uruguay Round but also on changing national agricultural policies. Changing policy, in the USA and other countries, will not be easy. There are vested interest in the status quo, there will be gainers and losses from change, and there will be spillover effects among countries and sectors within countries. These considerations reflect a set of sub issues that can be grouped as follows:

- Global trade and welfare issues.
- National agricultural sector and trade issues.
- National agricultural policy consistent with global trade liberalization.
- Issues of consistency between trade liberalization and resource, environmental and rural development policies.
- Macroeconomic issues related to trade liberalization.

GLOBAL TRADE AND WELFARE ISSUES

There are valid economic reasons for global trade liberalization and policy reform, but they do not automatically translate into political support necessary to achieve either international agreement or domestic policy change in individual countries. The potential global welfare gains from trade liberalization have strong appeal for economists, but are of limited value in building a political base for reform.

Whatever the magnitude of the global net welfare gains from trade liberalization, it is clear that the gains from liberalization will be unevenly distributed among countries and that some countries may even be net losers. The policy issue within each country is whether and under what circumstances that

country would gain from global trade liberalization. There is a further issue of identifying gainers and losers, within the country, and developing means for compensating losers to the extent necessary to build political support sufficient to achieve needed policy reform.

Another important policy issue from a global perspective is the wide variety of societal goals that have led to the differing mixes of agricultural, trade, and other policies which distort agricultural production, consumption, and trade patterns within and among countries. The multilateral negotiation process will have to deal with and resolve the issues growing out of these national interests and differences among countries. Individual countries will have to decide the degree to which they are willing to subject pursuit of national interest and objectives to limitations on the policy instruments they are able to use to achieve these objectives in return for the potential national and global gains from freer world trade.

Theoretical and empirical models used to estimate the gains from freer trade depend on the assumption of competitive markets and comparative advantage derived from differences in resources or technology. There are arguments, that trade is no longer driven by comparative advantage but by economies of scale and the size of markets for differentiated products -- i.e., conditions approaching natural monopoly. Thus, they argue that free trade may not be optimal for an individual country and in some cases not even for the world. While these conditions do not appear to apply to primary agricultural production, they may well apply to industries providing inputs or services to agriculture. There are legitimate questions raised as to whether the number of participants in international trade in individual commodities is sufficient to meet the condition of perfectly competitive markets. Certainly some countries, including the United States, are not price takers for all commodities traded. Many countries utilize some form of state institution to conduct trade. To truly liberalize trade may well require that some countries make fundamental changes in their economic institutions. This may be a price higher than most countries are willing to pay unless there are clearly identifiable gains of sufficient magnitude to justify such radical institutional modification.

Finally, given all the arguments for and against liberalizing global agricultural markets and identifying the difficulties that will have to be confronted, the basic question is what are the available alternatives? What are the benefits and costs associated with each, and can a way be found to equitably share the global benefits in order to make reform politically acceptable? Countries need to consider as alternatives to a more liberalized trading system, not only the

status quo, but also the consequences of an all out trade war.

NATIONAL AGRICULTURAL SECTOR AND TRADE ISSUES

Most of the discussion and debate about trade liberalization has been rather general thus far. Commodity interest groups are just beginning to raise questions about how their particular commodity producers will fare. The central issue for the agricultural sector, in most countries, is who will gain and who will lose from trade liberalization, and whether adequate means can, and will, be adopted to compensate losers.

Most industrialized countries' agricultural sectors are very diverse in terms of commodities produced, technology employed, farm size, soil and water quality and availability, and climatic conditions. The amount of government support and the mechanism for providing that support also varies widely among commodities. Since many of these characteristics are geographically linked, there are implications for rural areas. Given this agricultural diversity, the question, "will trade liberalization be good for me, for members of my commodity group, or members of my constituency," is a very complex one. Answers will be different not only for producers as a group, as opposed to consumers and taxpayers, but also for the many subsets of producers -- producers of different commodities or producers of the same commodity in different parts of the country.

The effect of trade liberalization will not be limited to commodities currently receiving government support and protection. As commodities lose protection and become less competitive for factors of production, these factors will shift into other production enterprises. Thus, the well being of those previously producing the commodity into which resources are being transferred will also be impacted.

The effects of policy reform and trade liberalization will not be restricted to agriculture -- narrowly defined as on-farm production. As changing competitiveness and relative profitability occur, the result will be changes in production patterns, volumes of production, and in regional concentration of production. Changes in technology and purchased input use are also likely to result. Thus, the impacts of agricultural trade liberalization and policy reform are likely to spill over significantly into the up- and downstream industries supporting primary agriculture.

Another set of issues, associated with trade liberalization, will be factors of production employed in agriculture. Not only will there be reallocation of resources among agricultural commodities as relative prices change, but liberalization is also likely to change relative prices and factor returns between agriculture and other sectors of the economy. For the more mobile factors, capital

and labor, the resulting adjustment will take place primarily through reallocation of resources. However, for the less mobile factors, land and fixed capital, the adjustment will have to occur through asset reevaluation. Thus, gains and losses will affect resource owners -- whether or not they are producers -- and impact the wealth position as well as income. The effects and adjustment costs of policy reform will depend on how efficiently intersectoral factor markets transfer excess resources out of agriculture. Are these markets sufficiently open and efficient, or will new policies and government actions be needed to facilitate intersectoral adjustment?

The effects of trade liberalization can be considered from two perspectives. First, is the consideration of the final effect, after adjustments have occurred, and the system has reached a new equilibrium. Possibly of more concern to affected individuals is the adjustment process of getting from the current situation, as shaped by past and present policies, to the new free trade situation. Individuals and groups will want to know the nature of the adjustment process, the cost of adjustment, and the incidence of the adjustment costs.

NATIONAL AGRICULTURAL POLICY CONSISTENT WITH GLOBAL TRADE LIBERALIZATION

Support and protection to agriculture is provided through a combination of domestic agricultural and border policies. Liberalization as proposed to the GATT by the USA will require elimination of border protection, and phaseout of production and trade distorting domestic policies. The USA proposal does permit countries to continue supporting their agricultural sectors at a safety net level, so long as the policy instruments used are decoupled (do not affect production or trade). The USA proposal provides a 10-year period for phaseout of distorting policies and presumably would allow higher levels of support through decoupled payments as a transition mechanism.

A GATT agreement to liberalize global trade would require that countries adopt a very different set of domestic policies. This raises a number of issues to be resolved. There is the basic question of whether, after the phaseout of trade distorting policies, agriculture would be left completely without support, or whether some level of support would continue through decoupled programs. Should it be decided to leave agriculture without support, the important policy issue would be the process of phasing down existing policies. There are two sets of issues associated with the phase down. First there is the question of what the country would like to achieve with its policy set during the phase down period. Alternatives here would include maximizing trade, building market share for particular commodities, minimizing government costs, or facilitating the smooth transition of the agricultural sector. The

second consideration is choosing a phase out process which is perceived to equitably distribute the adjustment burden among the various interest groups.

The other set of issues associated with making domestic agricultural policy consistent with global trade liberalization is related to the use of decoupled programs. It will be necessary to determine the objective to be pursued through use of decoupled programs. Many alternatives exist -- a few of which include: 1) providing some level of income support or income stability for farmers, 2) compensating individual for the capitalized value of the program benefits lost through liberalization, 3) market stabilization, and 4) probably many others that society might find legitimate. It will also be necessary to identify the alternative policies that meet the criteria, which will presumably be established through the GATT negotiating process, required to qualify a policy as decoupled. A critical set of issues is likely to evolve from the attempt to identify truly decoupled policy instruments to achieve society's goals. Since the degree to which a particular policy is decoupled is primarily dependent upon the criteria used to determine eligibility for receipt of benefits under the program, it may be difficult to find decoupled policies to achieve some societal goals which may be deemed desirable through the political process.

TRADE LIBERALIZATION AND RESOURCE, ENVIRONMENTAL, AND RURAL DEVELOPMENT POLICIES

There are two basic sets of issues of consistency between trade liberalization and policies used to achieve resource, environmental, and rural development objectives. The first evolves from the potential for policies pursued for resource conservation, environmental quality or rural development objectives to have production and trade impacts. A result of the GATT negotiations will be a determination as to whether policies -- adopted to achieve objectives in one or more of these areas, but which result in some degree of production or trade distortion -- are to be included in measures of support or distortion to be phased out. If they are included, it will be necessary to assess implications of removal of these policies and to study possible modifications of the policy mix employed. Given they are exempted, a potential loophole will be available to countries to use policies, ostensibly adopted for these acceptable objectives, as a means of providing support to these agricultural sectors.

The second set of issues derives from the likelihood that agricultural trade liberalization and associated policy reform will have important effects on resource use, manufactured input use intensity, regional concentration of production, demand for up- and downstream industrial and service inputs, and regional income distribution. These linkages significantly broaden the likely

incidence of gains and losses from trade liberalization and therefore the breadth of interest that will be brought to bear on the political process.

MACROECONOMIC ISSUES RELATED TO TRADE LIBERALIZATION

Macroeconomic policies and conditions were as important as agricultural and trade policy in creating the turmoil in world agricultural markets in the 1980s. During the three decades 1960-1990, the world has undergone numerous sudden and radical changes in macroeconomic policy and conditions. Such macroeconomic forces can easily overwhelm the effects of agricultural and trade policy liberalization. One basic question is the degree to which the existing international macro policy environment is consistent with agricultural and trade policy reform, and if not what changes should be made.

In a world of globalized financial markets and flexible exchange rates the linkages between commodity and financial markets are very close. This means that effects of agricultural and trade policy changes on commodity market conditions quickly spill over into financial markets especially for large countries. These spillovers can significantly change the magnitude and incidence of effects of the policy changes within and among countries. The important implication here is that the impacts of trade liberalization in agriculture can be fully understood only in a general framework which considers these macroeconomic relationships.

Macroeconomic policies can be used to provide support or protection to a sector or subsector in international markets. Managed and/or multiple exchange rates are examples of macroeconomic policies which could be used by countries to enhance or negate the effects of agricultural policy reform.

Much of the impetus for agricultural and trade policy reform has come from the rising cost of disposal of surplus production by industrialized exporting countries during a period of stagnant economic conditions and resulting stagnation in demand for agricultural imports. The outcome of the trade negotiations will depend heavily on economic conditions over the world in the near future. Should economic growth and world demand for agricultural commodities begin to grow rapidly, surpluses would decline and the gap between world market prices and internal subsidized prices would narrow. This scenario will also be accentuated by production short fall such as occurred in the USA during 1988. The irony is that a macroeconomic condition which would reduce the adjustment cost of liberalization, and therefore make it easier, would also reduce the pressure for reform and therefor possibly reduce the political will for reform.

RESEARCH IMPLICATIONS

Policy Research

The policy issues identified above imply that agricultural and trade policy research should be focused on the consequences of radical domestic and global policy reform. Research should be designed to provide information needed for tax payers and policymakers, and negotiators at GATT to make rational decisions about changes in national agricultural and trade policies, and global policy reform that would be in their individual and collective best interest. Research should also provide information which would assist public and private decisionmakers in the adjustment to a new policy environment. This implies three broad policy research thrusts. First, we need research which would provide quantitative, behavioral understanding of national and international agricultural markets including the policy distortions that currently exist. Second, we need research which would increase our understanding of the interests and forces within countries which determine the policy process in order to understand what is politically feasible in the way of policy reform. Third, we need research which would estimate the effects and the distribution of effects of total and partial removal of the policy induced distortions.

Market Behavior and Distortion Research

It is basic to policy analysis that we have good behavioral understanding of factor and product markets in terms of direct and cross price relationships, income level and distribution, health issues, population and its composition, and policy and institutional factors that affect market behavior. Ideally we should have sufficient research and data to provide the basis for construction of a global, general equilibrium model with commodity, country, and sub-national disaggregation. This ideal model would be dynamic and account for structural change. The model would also include detailed representation of policy instruments. But, we do not live in this ideal world and do not have the research results which would permit us to build such a model. We do not have time to conduct all the research if we are going to be relevant to the policy process of the decade of the 1980s: including the 1990 Farm Bill in the USA. Such a model would be unmanageably complex and the results of model solutions little more enlightening than observations of real world phenomenon. Therefore, we need to assess our inventory of existing knowledge, identify the most critical gaps in that knowledge base and launch research to fill those gaps as rapidly as possible.

Research on agricultural commodity markets has been heavily focused on a few of the major commodities such as grains, oilseeds, and cotton, and program commodities which have come under close scrutiny including sugar,

dairy, and peanuts. This research has often been done in a single-commodity market framework with less than adequate attention to cross commodity affects. Commodity market research has been focused, in most cases, on the USA and a limited number of other principal countries. Even for these best understood commodity markets, the research on supply and demand for other countries has been at a very aggregate level -- for example, estimation of excess supply and demand functions without adequate understanding of internal supply and demand relationships, and the role of policy and institutions in influencing either internal or border response to market signals. The inadequacy of our knowledge is reflected by failure of agricultural economists to reach any consensus about something as basic as the order of magnitude of trade elasticities.

Insight and understanding of animal product markets is even less adequate. More research on both supply and demand relationships for the principal animal commodities is needed. Better understanding of the cross-commodity demand relationships among animal products is needed. Better understanding of the effect of income and its distribution on demand, especially in the low and middle income countries, is also needed. On the supply side, we need better understanding of the economic and technical relationships among animal and crop enterprises.

Knowledge of supply and demand conditions for fruits, vegetables, and other specialty crops is extremely limited. These crops, are important to diets and in individual countries or areas within countries, and are becoming increasingly important in trade. They have different marketing institutions than do the major bulk and more durable commodities. Under a radically different policy environment for the major commodities; fruit, vegetable and ornamental commodities would be affected. We have little basis for evaluating the nature of these interactions.

A large proportion of the agricultural economics professions' research on agricultural markets is conducted within the framework provided by the theory of competitive markets. This is probably adequate for the major bulk commodities in the United States. However, in many other countries internal markets are not competitive. And, international trade is conducted through institutional arrangements which raise serious questions about the adequacy of competitive market theory to explain real world behavior. Insight and understanding of the behavior of centrally planned economies is very limited. A greater research effort needs to be focused on these areas.

Factor markets are less well understood than agricultural commodity markets. This could be a key deficiency in our ability to analyze the effects of radical policy change.

It is through the factor and finished goods markets that agriculture is linked to other sectors of the economy, and it is through these linkages that the impacts of policy reform will be transferred. Also, these are the linkages through which much of the long-term adjustment will occur, and through which the incidence of gains and losses will be determined. Research programs should give high priority to research on factor markets and finished goods markets in the USA. However, while our knowledge of factor and finished goods market behavior in the United States is deficient, it is almost non-existent with respect to most of the other countries of the world. This deficiency severely limits our ability to understand the effects of policy reform in other countries.

Considerable research during the 1980s has improved our understanding of the effects of macroeconomic conditions on agricultural market behavior. While this research needs to be continued, it is probably more important, for research related to the current GATT round, that what has been learned from macroeconomic linkage research be integrated into our understanding of commodity and factor market behavior.

Research on the Policy Process

Basic understanding of government intervention in agriculture has been greatly enhanced by the work on consumer and producer subsidy equivalents conducted by the USA Department of Agriculture's Economic Research Service, as well as in the Organization for Economic Cooperation and Development. We need to continue this work to maintain timely input, and we need to expand our coverage, especially for the developing countries of the world. There is also the need for research to resolve some of the measurement issues that limit the usefulness of this measure in the GATT negotiations. Measurement issues include treatment of exchange rate affects, choice of reference price for price gap calculations, and appropriate treatment of supply control policy instruments. Additional research on the distortive effects of different policy instruments under different economic and policy environmental conditions is also needed.

Policy formulation is a political process, and policies are implemented through institutions. Therefore, policy analysis, in general, is enhanced by knowledge of the process of policy formulation, including the interest groups which help to shape the policy, and the institutional environment within which policies are implemented. In the conduct of analysis of effects of changes in agricultural trade policy on international trade, it is important that the political and institutional environments be considered. We often conduct our analysis of trade impacts of policy change assuming that other countries will not change their policies or institutions. This severely limits the usefulness of trade policy analysis, because

the policy response of one country to another's policy action is often more important in determining the outcome than is the purely market response.

In order to effectively conduct impact analysis of trade liberalization, especially if we are considering less than total liberalization or considering unilateral changes in national policy, we need to enhance our ability to incorporate factors that reflect the political and institutional environment and response.

Research on Impacts of Trade Liberalization and Domestic Policy Reform

Analysis of impacts of trade liberalization and associated reform of national agricultural policy must be conducted largely by drawing upon our existing stock of knowledge of the types discussed in the previous two sections. The key to effectively utilizing our knowledge for impact analysis is the organization of this knowledge within formal and informal analytical model structures. These structures need to incorporate the most important linkages at the appropriate level of aggregation in order to provide assessment of impacts on selected target groups. This is a complex and difficult planning and management problem because the linkages are numerous and impacts can be evaluated for interest groups at many levels of aggregation.

Impacts can be analyzed in terms of comparative statics which provides insight about impacts after sufficient time for adjustments. This analytical framework is useful, but does not satisfy the need to understand the adjustment process, the associated cost of adjustment, and the incidence of these costs. The remainder of this section will propose a "bare bones," but workable agenda for impact analysis of trade and policy liberalization.

It is absolutely essential that we have analyses of the global impacts of trade liberalization. These analyses need to be conducted within a framework which will provide an assessment of the changing nature of market performance -- the direction and relative magnitudes of changes in prices and quantities of major agricultural commodities traded in world markets, and the net trade effects for the major trading countries. Moreover, research should provide insight into the effects on the less developed countries and the centrally planned countries. Analyses should provide the basis for evaluating aggregate commodity impacts (production, consumption, and trade) for the major commodities or commodity groups within the important countries. It should also provide for an assessment of the incidence of adjustment impacts among major aggregates such as consumers, producers, and taxpayers.

More detailed analyses of trade liberalization are needed at the country level

for selected important countries. Analyses will need to incorporate detailed representation of supply and demand conditions, including commodity disaggregation. Research should extend into secondary commodities which would be affected by changes in production and consumption of the primary traded commodities. Country analyses should take into account the specific policy instruments employed by specific countries, the political and institutional environment for policy and policy change within countries, and intersectoral and macroeconomic linkages. Specific country analysis is needed to assess the reasonableness of the impacts derived from global modeling, and to provide feedback which can lead to modification of parameters of global models which will improve its ability to produce more realistic aggregate impacts.

Analyses of the impacts of trade liberalization for the United States (from the perspective of a Government Agency such as ERS) needs to be considerably, more detailed than we can afford to do for other countries. It is important to identify different policy and program mixes, particularly policy instruments that would be consistent with different levels of aggregate reduction in government support/protection to agriculture. It is important to analyze in detail the cross-commodity effects of changing policies for specific crops. This should include the effects on commodities that have traditionally not been directly affected by policies and programs. It is also important to analyze the adjustment process from the current situation to the target level of liberalization in terms of both the progressive modification of policy instruments and the effects of policy change on the economy. In addition to analyses of the effects on individual commodities, there is a growing need to analyze effects on different geographic regions of the country. There is also need for analyses of impacts on farm structure and the differential effects on farms of different types (size, income level, commodity specialization, ownership, and dependence on farming for family income).

Our analyses need to incorporate impacts on the more broadly defined agricultural economy including up- and down-stream agribusiness sectors. Analysis is needed of the effects on intersectoral resource transfers and on asset values and factor prices.

In addition to more detailed analyses of impacts disaggregated by country, it is important to evaluate the impacts of trade liberalization on world commodity markets. This can probably best be done by using individual commodity market models which more fully reflect policies of different countries directly affecting markets for that commodity. Such models can more realistically reflect the structure of commodity markets. It is important that these individual commodity market models account for cross commodity effects even though analysis will

likely be done with other commodity prices exogenously determined.

Analyses are needed of the impact of trade liberalization on the rural economy, including rural employment and income affects. These analyses will be important not only for liberalization in the context of removal of government support but also in the context of defining domestic agricultural policies which maintain levels of income (transfers) to farmers, and other individuals under decoupled programs. The implications of changes in production patterns and input use intensity on the resource base (especially land and water) and on environmental quality need to be assessed.

Other Research Considerations

Need for additional research on supply/demand, agricultural and trade policy mix, and the political/institutional environment of the Less Developed Countries was identified throughout the paper. However, the critical importance of these countries in the future agricultural trade situation and the importance of the role(s) they can have in the success or failure of global trade liberalization may not have been sufficiently stressed. Research on these countries present a difficult challenge because of the large number of economically small countries involved and the lack of data. We need to find an efficient means of including these countries in our analysis without having to treat each country in the same detail as the large countries. These countries, as recipients of food aid, are the focus of a different set of exporter policies and play a different role in agricultural trade which needs to be captured.

Analyses of domestic and trade policy reform have been discussed solely in the context of effects of liberalization of agricultural policy and trade on agricultural and other sectors. There needs to be analyses of the effects of nonagricultural trade liberalization on the macroeconomic conditions determining demand for agricultural commodities, on factor markets, and on the adjustment to agricultural and trade policy reform. Implications for the rural economy could be more important than those of agricultural policy reform.

T. Kelley White is Director, Agriculture and Trade Analysis Division, Economic Research Service, U.S. Department of Agriculture. The views expressed in this paper are those of the author and do not represent official positions of USDA.