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# Grain embargoes: criteria for success and failure

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Grain embargoes -- criteria for success and failure

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by

Donald Louis Sazdanoff

A Thesis Submitted to the  
Graduate Faculty in Partial Fulfillment of the  
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MASTER OF SCIENCE

Department: Economics

Major: Agricultural Economics

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Signatures have been redacted for privacy

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Ames, Iowa

1985

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## CHAPTER I. INTRODUCTION

"...the study of international political economy has been neglected. Politics and economics have been divorced from each other and isolated in the analysis and theory, if not in the reality, of international relations" (Spero 1981, p. 1).

This separation occurred with the evolution of modern Western academe and its liberalism. The liberal thinking of theorists separated international political economics into a dichotomized order. One reason for doing so, they argued, was that an economic system consisting of the production, distribution, and consumption of goods and services operated under natural laws. These natural laws could only function under the private enterprise system away from the confines of political involvement. This is because government operates under a system of power, influence, and public decision-making, which is not a conduit to the harmony necessary for the natural laws of economics to operate. Thus, they felt it only natural for the two to be looked at as the separate entities of international politics and international economics. This, of course, has lead to theorists oftentimes ignoring the fact that the two cover common ground (Spero 1981, p. 2). This has become especially evident during the past decade as international politics and economics have become linked in terms of relations between Developed and Developing nations; the United States, the European Economic Community, and Japan; and East and West, more specifically, between the United States and the Soviet Union. This is especially true when dealing with such basic commodities as food and feed grains. Through policy actions, this link can be manipulated, under



certain circumstances, by the President to improve a domestic political situation and/or an international political situation.

The principal problem of foreign political and economic policy, including the topic of this study - foreign agricultural policy - is the need to balance domestic and international considerations. Although a decision will have ramifications in both arenas, they will not necessarily be given equal weights. These decisions will entail

"...government actions with important impact[s] on U.S. relations with other governments and on the production and distribution of goods and services at home and abroad" (Destler 1980, p. 7).

Three situations when the President is likely to consider the manipulation of agricultural policy are: 1) when there is a disruption in the domestic economy, such as a short supply of grain, which can have both international political and economic effects, especially if the President employs an embargo to keep the grain within the United States; 2) when the international arena is disrupted and there can be ramifications in the domestic arena if the President embargoes a nation to protest actions taken by that nation; and 3) when the President uses foreign agricultural policy to improve both domestic and international relations, such as by negotiating grain agreements with foreign nations to build good will and at the same time alleviate large domestic supplies which may be holding down farm prices.

The increased importance of foreign agricultural policy within the last decade has been influenced by the increase in demand by foreign countries for American grain. In 1960, demand from abroad resulted in \$4.8 billion worth of agricultural exports and a \$1 billion surplus in the

balance of payments for the United States. At that time, this figure resulted in 44% of the world trade, which totalled sixty-six million metric tons. By 1980 the dollar amount had increased to \$40 billion or 58% of world trade, which was approaching two hundred million metric tons. This increased the agricultural balance of payments to a \$20 billion surplus (Hathaway 1981, p. 7).

This increase in demand is a consequence of four major factors. The first is a major increase in the growth of the world economy outside of the United States, especially in Western Europe and Japan. The second is the increase in population in the developing countries. The third is the failure of communist centrally planned economies to meet production goals in agriculture. The fourth is detente, which has lead to expanding trade with the Soviet Union, the Eastern Bloc, and the Peoples Republic of China. Two other factors which have been instrumental, but to a lesser degree, were the maintenance of United States price supports at or below world prices; and the devaluation of the dollar and the abolition of fixed exchange rate system which over-valued the dollar and over-priced American agricultural commodities.

These changes have brought about changes in politics and policy making. It has redefined the power structure within private farm groups and within the Executive branch of government. This redefining of structure has made it easier for these two actors to influence Congress, which has also undergone changes. All three of these groups are, of course, instrumental in making agricultural policy.

### Private farm groups

As the family farm became more specialized, the producer representatives which they sent to Washington did also. Previously, producers depended, to a certain extent, on general farm organizations for lobbying, but this is no longer true. These representatives now lobby for policies which influence specific commodities. Two other forces which have arisen are the farmer cooperatives and the agribusiness-exporters. These three groups lobby for policies which call for moderate price supports, high export levels, and full production of grain.

### Congress

There have been changes in Congress also but not necessarily as a result of the restructuring which has occurred in agriculture. However, this does not lessen the influence these changes have on agricultural policy making.

First of all, there has been a decline in the average tenure of members in both houses. Of the forty-seven members of the House Agriculture Committee, less than one-third of those who wrote the 1977 Farm Bill had ever written a farm bill before. This was equally true of the 1981 Farm Bill. This has been primarily caused by the landslide presidential victories of 1964, 1972, and 1980 (Hathaway 1981, p. 11).

The second change has been the influence of specialized producer representatives on these new members. These representatives exploit the inexperience of these new members to influence passage of programs that

subsidize industries which can result in surplus production. Two such programs presently favor the dairy and peanut industries.

However, two controls have evolved which can, to an extent, counteract these changes. The first is the amendment process which programs and policy must now go through; the second is the limits which the newly created budget committees can place on programs. These two controls lead to compromise and bargaining within Congress when deciding agricultural policy (Hathaway 1981, p. 12).

#### Executive Branch

This change in the complexion of American agriculture has also brought about changes in politics and policy making within the Executive branch. There have been power shifts between the Department of Agriculture and other agencies. Because of the increasing importance and complexities of agricultural trade, there has been more involvement from outside agencies, namely the State Department, Treasury, the United States Trade Representative, the National Security Council, the Council of Economic Advisors, and the Office of Management and Budget. Before this change, policy decisions were only shared with the latter two agencies and the U.S.D.A. The inclusion of these agencies has caused more decisions to come from the White House. This means that recommendations and decisions are being made by persons who may have less of an understanding of the agricultural situation than before but more understanding of international relations and of linkage between United States agriculture and the rest of the United States economy and other economies. This is especially true

since the agricultural sector is being used as a tool in other considerations, e.g., foreign policy (this has caused rifts between the Secretaries of Agriculture and State).

Using this sector as a foreign policy tool has upset farm groups, since they have at times been hurt by policy decisions. Previously, farm groups had access to the USDA's policy makers, and could influence policy. Now that influence has diminished with the influx of these other decision-making bodies. The USDA's role has been reduced to that of an arbitrator or intermediary between farm groups and the other executive agencies and is consequently blamed by both groups for agricultural problems.

Implementing agricultural policy within the Executive Branch requires coordination which involves two areas. The first is managing the policy decision processes. Before making a decision, the President and his senior advisors, should recognize and analyze all of the alternative policy interests and goals. Secondly, after the President makes a decision, the official actions which result should be overseen to insure that the goals set are accomplished (Destler 1980, p. 8).

Since Eisenhower, each successive administration has attempted to coordinate policy by forming interagency advisory groups and delegating responsibility differently to cabinet secretaries and advisors.

These three groups of actors all have an influence in deciding agricultural policy to different degrees. They use a bargaining process in order to obtain a policy favorable to them. This difference in policy choice results in conflict whose outcome is determined by power. This



means, of course, that the proportion of policy favorable to a particular group is related to the amount of perceived power it wields at that time.

Congress, with its power to levy tariffs and regulate foreign commerce given under the Constitution, tries to protect its constituents' vested interests. Special-interest groups also try to influence Congress for their constituents through lobbying. As stated before, the President may link agricultural policy to foreign policy, foreign economic goals, and domestic considerations. Thus, policy implementation and management is difficult, because it takes into account many different actors and groups. This brings one to the question of how decision makers, most notably the President, decide agricultural foreign policy?

Several conceptual paradigms have been developed to try and answer the question of how foreign policy is decided.

The first theorist was Graham Allison, who developed a paradigm that was known as the Rational Actor Model. This model was the result of a study Allison did on the Cuban missile crises. Unfortunately, the paradigm he developed did not offer an adequate solution and consequently was revised by Allison and several other theorists into the Enlarged Bureaucratic Politics Model. This also was not an adequate model. Whereas the Rational Actor Model was too narrow in scope, the Enlarged Bureaucratic Politics Model was too wide. Hence, it was divided into five more precise analytic paradigms known as the Bureaucratic Politics Model, the Organizational Process Model, the Electoral Politics Model, the Shared Values Model, and the Personal Values Model. Another model which was

developed, but not as an outcome of Allison's original work, was the Groupthink Model by Irving Janis.

William T. Weber tested these models by comparing their usefulness in explaining United States agricultural foreign policy choices. His study begins with the Eisenhower Administration and extends through the Nixon-Ford years. Weber concluded that the Electoral Politics Model was the most useful model in explaining agricultural foreign policy decision making. Joan Spero, in her study of the politics of international economic relations, agrees in part with Weber that electoral considerations influence policy decisions. Spero says,

"Very often, what shapes the political bargaining process are overriding strategic and diplomatic interests. Economic policy is frequently either shaped by political concerns or becomes an explicit tool of national strategic and diplomatic policy. Trade policy is frequently consciously linked with political goals" (Spero 1981, p. 9).

This present thesis will attempt to narrow the study of how the President decides agricultural foreign policy one step further by studying three of the grain embargoes which have occurred over the past decade. Those embargoes occurred in June of 1973 on soybean exports, in August of 1975 on grain exports, and in January of 1980 again on grain exports. Although all of these embargoes were initiated in response to actions taken by the Soviet Union, only the latter two were directed specifically at that nation and in the second instance also at its satellite nation, Poland.

The purpose of this thesis will be to determine if the Electoral Politics Model, which will be explained in the next chapter, can be used to explain the decision-making process which initiated these embargoes. There

There are two objectives for this. 1) By using the three embargoes, find the conditions for success and failure, so that a generalized list may be made to compare and contrast with future possible embargoes. Conditions may be eclectically chosen from the generalized list which would result in the highest probability of success when applied to a future embargo after the situation surrounding the pending embargo has been studied. 2) to determine the strengths and weaknesses of this model once the conditions are discovered, and, if possible, to suggest what this model fails to explain in terms of the decision-making process.

These objectives were chosen because they may provide reasons why past embargoes may or may not have served their purpose, and, if not, why not? In other words, were some of the conditions, which may have increased the probability of success, missing or ignored? And also, can future embargoes be made more effective by analyzing past ones?

Of course, not only must the embargoes be analyzed, but other areas as well, to give the essential background material and references necessary to clarify why certain actions were taken if they were at all, or what actions should have been taken if they were not. These areas involve an analysis of the agricultural philosophy of both the United States and the Soviet Union, an explanation of the reasoning behind the grain agreements, and a description of the international grain marketing system and the role of the multinational grain firms. The last area studied will be an analysis of the embargoes and the list of conditions which would provide the highest probability of success.



However, before doing so, it will be necessary to explain the paradigms being used and the origins of each. These will be examined in the following chapter.

## CHAPTER II. ALTERNATIVE PARADIGMS

Before beginning the explanation of the alternative paradigms, it is necessary to know that the primary source used for this chapter was a work done by William T. Weber to fulfill the requirements for a Doctorate at the University of Virginia in 1977. The purpose of his research was to "...test the internal consistency, validity and applicability of the various conceptual frameworks now being used to study the American foreign policy process" (Weber 1977, pp. 12-13). He tested these paradigms against past American agricultural export policies from the Eisenhower Administration through of the Nixon-Ford years. Agricultural exports include food aid, concessional sales, and commercial sales. This topic was chosen because of the high degree of government involvement necessary as compared to trade in other goods.

Therefore, for the sake of simplification, Weber's work will only be referenced when directly quoted.

The first model that attempted to explain the decision-making process was Graham Allison's Rational Actor Model. This was a simplified model which assumed all decision makers to be alike, weighing costs and benefits to make rational choices. However, Allison and other theorists decided that the Rational Actor Model did not offer a feasible solution because of three fundamental faults inherent in the model. These faults were: 1) it assumed the existence of a sole unitary decision maker; 2) decisions were based on economic criteria which are not necessarily acceptable or superior

when making political choices; and 3) it assumed a decision would be made in an absolute rational manner to obtain a global maximum.

Allison and several other theorists revised this model by editing several of the old concepts and adding, most notably, the concepts of persuasion and bargaining. After these revisions, the Rational Actor Model became known as the enlarged Bureaucratic Politics Model. Unfortunately, this model also did not offer a feasible solution. It focused on too many variables which often led to too many, and often contradictory, hypotheses. Thus, it was not a manageable paradigm that could be used to easily categorize the policy process. Again, revisions were made after many contributions of thought by theorists until the original enlarged Bureaucratic Politics Model was finally divided into five analytic paradigms which could more easily explain the policy process. These paradigms are "based on different answers to the question: Where do participants in the foreign policy process receive their primary clues for defining the national interest?" (Weber 1977, p. 56). There are five principal sources for these clues. They result from: 1) the parochial perception and concerns of the Executive branch; 2) the routines and standard operating procedures of governmental organizations; 3) public officials' electoral concerns; 4) societies' shared values and historical memories, and 5) an individual's personal experiences, interests, and memory of history. The five paradigms formulated were: 1) the Bureaucratic Politics Model; 2) the Organizational Process Model; 3) the Electoral Politics Model; 4) the Shared Values Model; and 5) the Personal Values Model.

All of these paradigms use a different unit of analysis when looking at the policy process. By the same token, each model is not an entity unto itself but may contain certain elements common to other models. Also, because the policy process is so complex, with the numerous elements and circumstances involved, no single model can fully explain a given situation or policy stance. This, however, is not their purpose. Each individual model focuses only on certain elements of the policy processes in order to suggest hypotheses about the way the process works. To make the policy process manageable, several models must be incorporated, each looking at different angles of the process.

#### Bureaucratic Politics Model

The Bureaucratic Politics Model has as its unit of analysis governmental action resulting from politics within the executive branch. The policy stance a particular individual takes will depend on his position within the branch.

Included in this model are the concepts of organizational alliances and parochial perceptions. Government is defined as a loose alliance of organizations that try to seek consensus with other groups in order to achieve goals. Consensus is reached as a result of bargaining and compromising. Compromising is a tactic where an agreement is reached by exchanging, or pretending to exchange, concessions over a fixed area of discussion. Bargaining occurs when the area of discussion is not taken as fixed. Since the participants assume that they must use compromise to achieve their objectives, they begin by trying to establish a strong

initial position. Bargaining and compromise are used by the participants until a common set of beliefs, goals, and criteria are attained.

#### Electoral Politics Model

"The Electoral Politics Model views policy as the result of electoral demands and supports. Participants in the foreign policy process formulate policies in order to win elections" (Weber 1977, p. 62).

This model has evolved from two earlier theories on political behavior; the first being from Anthony Downs. Downs believed that the actions taken by political groups or actors, such as political parties, interest groups, and individuals, were based on economic rationality. The primary goal was to maximize political support to become either elected or re-elected depending on the particular situation. This is based on the assumption that the political actors are operating with their own self-interest in mind but within the confines of the law and without harming others of the same political party.

The second theory was developed by David Mayhew. Mayhew agreed with Downs that the goal of the political actors is to become elected or re-elected in order to achieve other goals and objectives when finally in office. However, he based his theory on the premise that politics was "a struggle among men to gain and maintain power" (Mayhew 1975, p. 6).

The Electoral Politics Model was derived from several of the attributes of these two theories but ignores others. Under this model, the political groups or actors desire either to occupy the office or to influence those in office in order to reap the benefits which accrue, those benefits being power, prestige, income, and to fulfill the desire for



conflict. Consequently, the groups or actors will formulate policies to attain office in order to achieve these goals rather than trying to attain office in order to formulate policy.

Although similar in these aspects, the Electoral Politics Model is not based on the assumption that the groups or actors operate under economic rationality, and that they trying to maximize the political support of either their party or of other voters. They only try to garner enough support to win the election or to influence the elected.

Therefore, political groups or actors as well as their subordinates "will define the national interest in terms of their electoral perceptions and interests" (Weber 1977, p. 62). Elected officials such as the President will work quid pro quo with the bureaucracies who have both domestic considerations, constituents, and who need Presidential support in order to carry out policies which will in turn re-elect the President.

Legislators operate in a similar manner. They, too, will devise foreign policy programs and actions which they contend will benefit their constituents. There are three ways in which this is possible; they can "1) engage in mobilizing support for particular pieces of legislation; 2) determine the content of the measures they vote on; and 3) affect the way in which the legislation is implemented by giving post-enactment clues to the bureaucracy" (Weber 1977, p. 63). This strategy can also operate in the opposite manner by legislators opposing particular pieces of legislation.

Lobby or special-interest groups will try to influence public officials for the good of their constituents, who are also the constituents

of the office holder, by submitting proposals which they claim will benefit the voters. These policies in turn can be utilized by the official to help determine the desires and needs of the voter in order to appease them. The rationality of the proposal may be ignored in order to win the voter.

However, since both political groups and actors are only trying to gain a sufficient number of votes for their cause and not the maximum number possible, they must be wary not to give the opposition or voter material or cause to go against them. This is to prevent the marginal vote necessary for victory from going to the opposition. A fuller, more complete understanding of these organizing concepts can be attained when this model is employed in the analysis of grain embargoes.

The relationships inherent within this model are very complex and give rise to conflict. These conflicts can be resolved through the use of problem solving, command, persuasion (an appeal to common goals), compromise, and bargaining. All of these methods are utilized at various times because of the numerous participants, values, and resources involved in the model.

For example, since both the first-term President and his subordinates are opting for his re-election, their relations will be based on problem solving, command, and persuasion. However, this is rarely the case when the President, the Congress, and interest groups are involved. Because of the electoral positions being sought out, these individuals and groups use persuasion, compromise, and bargaining. Individual congressmen will use analytic (separating a problem into constituent elements) and bargaining strategies when dealing with each other. Lastly, "relations between

elected officials and the uncertain general electorate will be based primarily on persuasion couched in ideological and patriotic appeals" (Weber 1977, p. 65).

#### Organizational Process Model

The Organizational Process Model views decision making as a result of organizational output instead of politics. It is concerned primarily with implementation rather than the formulation of policies. Governmental action comes about from existing standard operating procedures (SOPs) and organizational make-up of the collection of organizations which comprise the government.

#### Shared Values and Personal Values Model

These two paradigms deal with values and attitudes instead of politics and processes. They utilize the roles that belief systems play in the decision-making process. They help in establishing general sets of goals for decision makers and allow them to compare new experiences or situations with the old. By analogy with the past, decisions can be made concerning present events. This may be detrimental, since individuals often will recollect what happened but not why it happened. The situations surrounding the old and new experiences may be different, making the solution for one inoperable for the other.

There are certain conditions under which beliefs can change. An established belief will be re-evaluated by the individual when new information that is contrary to the established belief, is received in large quantities. An individual's views may be restructured quickly when



this occurs. If the new information is received in small doses over long periods of time, the individual's views may then change more slowly.

The Shared Values Model centers upon the values and attitudes which individuals hold in common as a result of great shared experiences and events such as Depressions and World Wars. These experiences and events are instrumental in forming what is called a "national character." The national character of the United States is comprised of such traits as: 1) a high concern for private values, 2) a high degree of materialism and competitiveness, and 3) strong ideals favoring equality among peoples and equal opportunity. These last two traits can be partially attributed to the vast material abundance of the United States.

The idea of a high concern for private values leads Americans to react to foreign policy with inconsistent moods. These moods can be categorized as: 1) Withdrawal-Intervention, where Americans are indifferent during times of world stability and exert great pressure during times of perceived crises, 2) Mood-Simplification, where attitudes are unstructured during times of stability and oversimplified during times of crises, 3) Optimism-Pessimism, being optimistic during good times, falling to pessimism during bad times, 4) Tolerance-Intolerance, where Americans, during times of crises, are tolerant of ideological differences with allies and intolerant during times of normalcy, 5) Idealism-Cynicism, where American generosity and humanism are linked to a fear of being taken advantage of, and 6) Superiority-Inferiority, where Americans tend to over-react in their self-evaluations (Almond 1960, pp. 54-65).

The Shared Values Model assumes that decision makers possess these traits and characteristics and thus define the national interest, when formulating policy, using a similar framework.

The second paradigm, the Personal Values Model, concentrates on how "societal values and images are individually interpreted and combined with other values and attitudes which result from individual historical memories, political experiences, personal interests and idiosyncratic psychologies" (Weber 1977, p. 66) when defining national interests. This model is also influenced by the decision makers' psychological make-up, resulting from his genetic characteristics and acquired personality traits. Thus, government action is the result of individuals' idiosyncratic behavior or beliefs.

#### Groupthink Model

The Groupthink Model, which is not related to the other paradigms, was developed by Irving Janis and is described as "a mode of thinking that individuals engage in when they are deeply involved in a cohesive group" (Weber 1977, p. 72). Individual members' ability for rational thought is distorted when those members attempt to conform to group thinking resulting from group pressure. Members also lose their ability to exercise their normal moral judgement and to weigh alternative courses of action. At this point, an air of over-optimism develops as the group's thinking goes askew and the opposition or outgroup becomes rebuked. This is especially true the more closely knit is the group. The symptoms of Groupthink are the group develops an illusion of invulnerability resulting in risk taking;

they try to rationalize their decisions no matter how irrational, and group dissenters are pressured into conformity. This conformity results in an illusion of unanimity among the group. The last symptoms are a false sense of moral justification in their actions no matter how immoral they may be and a false sense that the outgroup's actions are immoral. Whereas several of the other models considered have a characteristic of diversification of goals or objectives, the Groupthink Model leads one to expect a distorted consensus among its members.

The five paradigms, plus the Groupthink Model, have been summarized by Weber in the following table. Since Weber has explicitly stated that he wanted to use several pure models to study agricultural export policy, he has, in his summary table, only listed the key elements and characteristics of each model while excluding minor qualifying points other theorists have introduced. Consequently, some items which previously may have been included in the original models, are not listed.

Weber has concluded that the Electoral Politics Model has been the most useful paradigm in explaining the decision-making process in agricultural export policy. It will now be seen if this model can be applied to the three grain embargoes being scrutinized and under what criteria this model will be successful given a similar situation, and, consequently, what are the weaknesses of the model? In other words, what has the model failed to explain in terms of the decision-making process?

Model Basic Unit of Analysis	Bureaucratic Politics Government action as a result of politics within the executive branch	Electoral Politics Government Action as a result of electoral demands and supports	Organizational Process Governmental action as a result of organizational output
Organizing Concepts	<ol style="list-style-type: none"> <li>1. Players in positions</li> <li>2. Parochial perceptions and priorities</li> <li>3. Stakes and stands</li> <li>4. Position determines policy stance</li> <li>5. Organizational alliances</li> <li>6. Action channels</li> </ol>	<ol style="list-style-type: none"> <li>1. Players in office, seeking office, or seeking to influence those in office</li> <li>2. Electoral demands and supports</li> <li>3. Policies formulated in order to win office</li> <li>4. Lobbies offering policies</li> <li>5. Subordinates sharing electoral goals</li> <li>6. Symbolic actions and tangible benefits</li> </ol>	<ol style="list-style-type: none"> <li>1. Factored problems</li> <li>2. Sequential attention to goals</li> <li>3. SOPs</li> <li>4. Decisions of government leaders</li> <li>5. Government as constellation of organizations</li> <li>6. Organizations as receptors and effectors</li> </ol>
Process Mechanism	Compromising and bargaining	Problem solving, persuasion, compromising and bargaining	Problem solving
Dominant Inference	Government action = resultant of compromising and bargaining	Governmental action = resultant of electoral demands and supports	Governmental action = resultant of SOPs and programs

Model Evidence	Bureaucratic Politics Bureaucratic concerns for budgets, missions, control of personnel	Electoral Politics Manipulation of policy in order to increase electorate satisfaction Campaign promises Uncommitted thinking	Organizational Process Grooved thinking Adaptation of past policies Incremental change
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Figure 1-1. Summary outline of models and concepts (Part I)



Model Basic Unit of Analysis	Personal Values Governmental Action as a result of idiosyncratic behavior and beliefs	Shared Value Governmental action as a result of common political socialization	Groupthink Governmental action as a result of stable in-group consensus
Organizing Concepts	<ol style="list-style-type: none"> <li>1. Personal beliefs</li> <li>2. Career development</li> <li>3. Influence of dramatic events</li> <li>4. Psychological make-up</li> </ol>	<ol style="list-style-type: none"> <li>1. Attitudes and values widely shared by members of society</li> <li>2. Societal values serve as guides</li> <li>3. Common experiences</li> <li>4. National character</li> <li>5. Beliefs change after dramatic national events and changes in personnel</li> </ol>	<ol style="list-style-type: none"> <li>1. Illusion of invulnerability</li> <li>2. Collective efforts to rational decisions</li> <li>3. Belief in morality of the in-group</li> <li>4. Opponents viewed negatively</li> <li>5. Pressure on dissenters</li> <li>6. Self-censorship</li> <li>7. Illusion of unanimity</li> <li>8. Mindguards</li> </ol>
Process Mechanisms	Problem-solving persuasion	Persuasion	Problem solving and persuasion
Dominant Inference	Governmental action = intellectual baggage	Governmental action = common perceptions	Governmental action = excessive unification
Model Evidence	References to past personal history Personal standard of behavior Subordinants chosen on the basis of personal values	Appeals to shared values Broadly defined goals References to national history	Presence of organizing concepts

Figure 1-1. Summary outline of models and concepts (Part II)

### CHAPTER III. AGRICULTURAL PHILOSOPHY OF THE UNITED STATES AND THE SOVIET UNION

Before trying to predict how a nation will react to a particular challenge or hardship, one must attempt to understand both its national character and its philosophy. What are the constituent elements of each? Why does it think and react the way it does? And how has it reacted in the past to accomplish its goals and objectives?

To do this one must understand several key items: the first would be the type of political system the nation functions under. More importantly, what were its past policies and objectives? The second would be the availability of essential resources for national self-sufficiency and well-being, and how does the weather affect these resources? Thirdly, the least looked at, but perhaps the most crucial factor many times, is the character of the people. How have the nation's adversities and successes affected them? What have the hardships of war and the effects of political policy change done to strengthen or weaken the people?<sup>1</sup>

#### United States Agricultural Situation

The United States is characterized by an abundance of natural resources, especially agricultural resources. Ideal soil composition coupled with relatively stable and predictable weather patterns provide the best possible growing conditions for commodities anywhere in the world.

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<sup>1</sup>The understanding of national character is probably something best left to other social scientists than economists. Economists often assume much more homogeneity in people than other social scientists, as evidenced, e.g., by assuming everyone has the same variables in the utility function.

Virtually any type of food or feed stuff can be grown somewhere in the United States from grains to vegetables to citrus. Once production is complete, this produce can easily be moved on a river, lake, rail, and highway transportation system which connects the major growing and consuming regions of the country. These factors along with the efficiencies of capitalist production and the family farm make the United States the breadbasket of the world.

#### National Character

This vast material abundance has been a vital factor in allowing citizens the advantage of fulfilling, to a degree, the American ideal of equality of opportunity. This has caused Americans to be highly individualistic and competitive. They are more concerned with "private" values than social-group, political, or religious-moral values as are other cultures. As explained in Chapter II, this has also led Americans to look at foreign policy in a different light than other cultures.

The land resources of the United States have also allowed the American people to be free of most of the hardships which other people have had to endure. Outside of the sacrifices of war and the Depression, the American people have lived in relative ease compared to others. Even during times of hardship, the situation for most Americans was not as critical as elsewhere, where unemployment and inflation were much more severe, and their countries were torn by the physical ravages of war.



## United States Agricultural Policy

### The Eisenhower Administration

One of the principal domestic problems facing the Eisenhower administration was the management of surplus commodities which had been developing since 1953 and continued throughout that decade. The administration decided to ship these commodities abroad to alleviate the price-dampening effects they created, which, in turn, transferred wealth to the American farmer. The policy action that accomplished this was the Agricultural Trade Development and Assistance Act of 1954, which contained the Public Law (PL) 480 program. This program transferred surplus commodities to less-developed nations who, under the conditions of the program, were eligible for aid and concessionary sales. The government financed the removal of these excess goods from the market, which meant, of course, that the taxpayer absorbed the cost.

Third World nations received these commodities by paying with inconvertible currencies which the United States government usually returned. The theory behind giving free food was that it would stop the spread of Communism into the Third World, because it would foster both economic and political stability. Along with this program came the condition that members of the communist bloc, particularly the Soviet Union, would not be permitted to benefit from the Act. The consequence was that many Third World nations became dependent on the United States for food. This led to the questioning by American leaders whether or not the United States was capable of feeding these people on a regular basis and if it was wise to do so if it was possible.

### The Kennedy-Johnson Administration

Although food donations and concessionary sales were not increased much, the PL 480 (Food for Peace) program, and foreign aid and economic assistance were given new images during the Kennedy years. Kennedy used Food for Peace vigorously in American foreign economic policy, because he also believed that it would promote economic and political stability and thus keep communism out of the Third World. He did, however, deviate from past policy by allowing the Soviets to purchase wheat from the United States in 1963. As stated, this was only a deviation and not a regular practice. Communist bloc nations were still barred from benefitting from the program.

When Johnson gained control of the Presidency, policy began to change. As the surplus of agricultural commodities began to diminish, and as decision makers began to take notice of the emerging global food-population crises, the idea of assisting the Third World with free economic aid came under criticism during the mid-1960s (Weber 1977, p. 178). Consequently, Congress began to decrease funds to PL 480 in 1964. President Johnson also began to initiate programs of self-help and long-term credit in lieu of past concessionary sales. But while preparing for re-election in 1968, Johnson reinstituted the concessionary sales segment of PL 480 to mitigate the dampening price effects of the agricultural surplus which was recurring.

### The Nixon-Ford Administrations

When Nixon took office, he was also faced with the problem of excess supply of agricultural goods. This occurred with the rise of the Green Revolution, which decreased the need for United States food. This depressed exports and caused a recession in the domestic farm sector. The Nixon administration attempted to solve the problem by selling the grain to the Soviets, who needed it to improve consumer diets and make up for poor harvests. However, President Nixon, and later President Ford, also used the grain sales as a bargaining tool in an attempt to direct Soviet conduct in international relations. The Soviets began purchasing so much grain that in 1974 and 1975 President Ford was forced to regulate this action to prevent a depletion of United States reserves and prevent domestic food price inflation. This was accomplished at first through voluntary constraints by the multinational grain exporters and later through negotiated grain agreements with the Soviets.

By 1974, the situation had dramatically reversed from one of surplus to one of scarcity as the global food crises emerged. This caused a continued demand for United States grain stocks, which by then were becoming depleted, and was partly caused by the increasing cost of fertilizers resulting from oil price increases. The United States increased the use of the Food for Peace program and proposed a program for world-wide food reserves to the United Nations General Assembly in April and September of 1974 (Hopkins and Puchala 1980, p. 64). However, there was no agreed-upon reaction to the suggestion.

### The Carter Administration

The Carter Administration continued the policy of increasing agricultural exports. Recognizing the importance of these exports to the United States economy and to foreign relations, President Carter set goals of reducing the barriers to trade and providing credits for exporters. He did this by adhering to the grain agreements signed under the Ford administration and by negotiating trade agreements at the Tokyo/Geneva rounds of the Multilateral Trade Negotiations in April of 1979. Although these agreements did not have any dramatic economic ramifications, they did achieve the objective of reducing trade barriers. The principal participants besides the United States were Japan and the European Economic Community. Others involved were Canada, Mexico, Brazil, Argentina, and Australia. Export markets were given a further boost in 1978 when China opened its ports for foreign trade and became the United States' 20th leading customer. After establishing diplomatic relations in January 1979, the United States and China signed a grain agreement in October 1980. The Carter administration also continued the past policy of providing humanitarian aid for refugees in such nations and Kampuchea and Somalia.

### The Soviet's Union Agricultural Situation

Although nearly 2 1/2 times as large as the United States in total land mass, only approximately 12% of the Soviet Union's land is suitable for grain production. This is because of the severe climate, which is similar to Canada and the North Central Plain States, and the large proportion of poor soils.

At one time Soviet leaders considered land as an unlimited resource. In order to increase agricultural production, one would just open more land for farming. However, since the most suitable land has been tapped and some lost to agriculture due to urbanization and erosion, it has been necessary to intensify production in order to gain an increased amount from each acre and thus increase output.

Climate Climatic conditions are perhaps the most limiting factor in crop production. The climate not only limits what land can be brought into production but also where specific crops can be grown. Production is constrained in the northern regions because of the extreme cold and short growing season. The southern region with its desert to semi-desert conditions lacks adequate precipitation.

It is difficult to maintain steady growth in production because of the variability in weather patterns. Late frosts and early snows occur frequently in almost all major growing regions with winterkill averaging around 15-20% per year and in some years reaching 30%. Approximately one-third of the Soviet Union cannot be used for any agricultural production because of the cold, and an additional 40% is so cold that only hardy, early-maturing crops such as spring wheat, barley, and oats can be grown. This means that less than 30% of the country has temperatures which can be classified as moderate to warm, resulting in a high degree of competition among crops which require such warmth. However, as stated previously, these areas often lack adequate moisture for proper growth (ACLI 1979, p. 5).

Annual rainfall over most of the agricultural land ranges from light to moderate (8 to 20 inches), but more than half of the land receives less than adequate moisture ranging from negligible to light (0 to 8 inches).

The two most important growing regions are the northwestern and northern areas of the European Soviet Union and the steppes of the southern European Soviet Union, which stretches from the southern Ukraine and northern Caucasus through the Volga basin to southwestern Siberia (consult map at end of chapter). The former region is supplied with fairly consistent and adequate moisture, which comes from the Baltic sea, but the latter region is grossly deficient in moisture. Not only are the southern steppes subject to drought but also to the famous sukhovey winds. These are hot, dry winds which occur several times a month, mostly during the summer. When a sukhovey occurs, the relative humidity falls below 30%, winds fluctuate from 5-30 miles per hour, and temperatures range from 80 to 110 degrees Fahrenheit. Plant damage is high, because these relentless winds do not allow plants to "rest" and restore their turgor or strength (ACLI 1979, p. 7).

Soil Unfortunately for the Soviets, the poorest soil types cover almost 70% of the land area. The majority of the poor soil is in the northern areas that receive the highest rainfall. These soils are known as the Podzols (a Russian term meaning underlain with ash). They are characterized by a lack of nutrients, high acidity, leaching, poor water and nutrient holding and storing capacity, and are highly subject to erosion (ACLI 1979, p. 8). Thus, they underutilize both the available water and fertilizer which is applied.

To the south of the Podzols lay the Chernozems and Chestnut soils (the Chestnuts being the southern most soils short of the desert region). These soils stretch from West to East and include the Ukraine, north Caucasus, central Chernozem, Moldavia, and through southern Volga, and into northern Kazakhstan and west Siberia. Although covering only 15% of the total land area, this region yields 70% of all grain production. They are the most fertile soils in the Soviet Union and can be compared to those found in Canada and the central Plains States. The Chernozems are similar to the soils of northern Saskatchewan, Alberta through Manitoba, the eastern Dakotas and western Minnesota, while the Chestnuts are similar to those soils west of the Rocky Mountains and west of the United States black soils belt (ACLI 1979, p. 9).

#### National Character

"In an age grown skeptical of undiluted patriotism, Russians are perhaps the world's most passionate patriots. Without question, a deep and tenacious love of country is the most powerful unifying force in the Soviet Union, the most vital element in the amalgam of loyalties that cements Soviet society" (Smith 1976, p. 303).

This sense of patriotism and national pride is an extremely strong emotion possessed by the Soviet people. This is especially true when dealing with outsiders or foreigners. They feel that it is their duty to defend the Motherland (Rodina) at all costs. Although they have the typical complaints about shortages, prices, and working conditions, they still have an unquestioned confidence in their way of life. They cannot conceive of the Motherland as ever being wrong in terms of its system and policies. They cannot comprehend of their country as being unvirtuous or



immoral, much as Americans viewed the United States before Viet Nam as being incapable of immoral behavior.

Perhaps the most unifying force for the people, besides the love of the Motherland, is the heroic struggle which they waged during World War II. Whereas for most Americans, that War is in the distant past; for the Soviets it is still a part of everyday life. At major battle fields and in virtually every city there are war memorials commemorating turning points in the war and praising the 20,000,000 who died. One of the most famous of the memorials is at the Piskarevka Cemetery in Leningrad which stands as a reminder of the 900-day siege of that city. Smith in his study of the Soviet peoples analyzes their thinking this way:

"A history of invasions from the Mongols and Napoleon through Hitler, of peasant revolts and civil wars, of czars and boyars mounting secret cabals or royal father out to kill royal son just as Stalin intrigued against and liquidated his fellow revolutionaries has made Russians prize order and security as much as Americans prize freedom. Most Russians, it seemed to me, are so genuinely dismayed at the unemployment, crime, political assassinations, drugs, and labor strife in American life that they prefer instead the disadvantages of censorship, police controls, arbitrary arrests, labor camps and enforced intellectual conformity. As I listened to older Russians describe their terrible ordeals, it gave me some appreciation why they recoil from any threat of instability. Some have lived near edge of the apocalypse most of their lives.... The Russian obeys power, not the law. And if Power is looking the other way, or simply does not notice him, the Russian does what he thinks he can get away with. This undercurrent of lawlessness and unruliness in the Russian temperament comes out in the many odd bits of life that authorities cannot control. The pervasive corruption is one sign of it" (Smith 1976, pp. 334-335).

Thus, the hardships which the people have had to endure in terms of war and famine, coupled with the love of the Motherland, have served to



make the Soviet people immune to many everyday hardships and has developed a strong national character and strength which is not easily jarred.

### Soviet Agricultural Policy

Agriculture plays an extremely important role in Soviet politics. Party heads can rise or fall depending, in part, on their competence in agricultural leadership. For example, Malenkov, Stalins's first successor, resigned in February 1955, after he demonstrated a lack of knowledge about agriculture. His downfall led the way for Khrushchev's rise, which was spurred on by his agricultural initiatives and innovations. Khrushchev, in turn, was overthrown in October 1964, after his authority was diminished by the 1963 agricultural disaster. Recognizing agriculture's importance, Brezhnev, after his election as First Secretary, presented as his first initiative a program to solve the nation's agricultural crises. Thus, it can be seen that the Soviets do not take agricultural politics and events lightly.

### The Stalin years

Agriculture suffered tremendously under Stalin. During his reign, which lasted until 1953, agricultural annual output never exceeded that produced before the 1913 Revolution. During the early Stalinist period, there was a move initiated to eliminate the kulaks, or prosperous farmers, and collectivize the farms under State control. This resulted in an actual reduction in farm output which culminated in the famine of 1932/33 which cost an estimated five million lives. While this was occurring, Stalin continued food exports. He also exported food during a poor harvest in

1946 to Poland and East Germany even though there were reports of cannibalism in the Ukraine (Hopkins and Puchala 1978, p. 95).

While in power Stalin had refused to aid the State farms financially and even tried to squeeze more money out of them. He did this to finance the industrial-military complex. This resulted in such poor grain production that there were times when the state had to draw down its reserves to feed the populace. This occurred while Malenkov, who at the time was Stalin's supervisor of agriculture, was announcing that the grain problem was solved.

#### The Khrushchev years

During the Khrushchev era (and later the Brezhnev era), however, the agricultural situation vastly improved. He reversed the declining trend by providing financial aid and incentives for farmers. Since his time agricultural investment increased in every one of the post-Stalin Five Year Plans.

He also opened the Virgin Lands. During the Plenum of February and March of 1954, the Central Committee adopted a proposal made by Khrushchev to cultivate these lands. They are an area in Soviet Central Asia and Siberia which cover 101,207,000 acres (Talbott 1974, p. 120). This proposal was contrary to the past agricultural policy of Stalin, who was vehemently opposed to opening new territory for production.

Getting this proposal adopted was difficult for Khrushchev, since there were those at the Plenum who were against the extensification of agriculture but instead wanted intensification. For Khrushchev intensification

meant developing agriculture for the future instead of for the present, which was what the people needed. In order to increase the yields per acre, the Soviets would have needed an experienced farm labor force and more material resources. Both at that time were scarce. There was also opposition from the members who represented the heavily populated regions of Kazakhstan, since resources would have to be diverted from them. Nevertheless, Khrushchev won enough support and in 1954 began to recruit workers from the Communist Youth League.

The Virgin Lands have been at times the salvation of Soviet agriculture. It contributed significantly to the bumper crops of 1956 and 1958 which prompted Khrushchev to state that the Soviet Union would soon overtake the United States in per-capita production of meat, milk, and butter. Also, after the poor harvest of 1963, record production in the Virgin Lands not only made up the deficit but provided a six-month surplus. Thus, Khrushchev's gamble to open these lands has paid off in some years at least.

However, his programs began to flounder. The Virgin Lands were being exploited, and consequently its productivity decreased. At the December 1959 Central Committee Plenum, Khrushchev proposed new programs which would increase output. He proposed replacing oats with corn, ignoring crop rotations, and adding more investment. After much persistence on his part, his first two proposals were accepted, but the latter was not. Since investment funds would have to be diverted from both the industrial and defense sectors, there was a great deal of resistance by those who advocated the advancement of these areas. Khrushchev's persistence to gain

this third concession only resulted in the alienation of powerful segments of the party, government, and military (Hahn 1972, p. 4). This, with the 1963 agricultural failure and several foreign policy blunders (most notably the Cuban missile crisis), led to his overthrow in October 1964.

#### The Brezhnev years

However, as early as the March 1965 Plenum, the Party members began to realize that increased investment was indeed necessary. But additional investment was only allocated when agricultural conditions presented crisis situations. Thus, when agricultural production began to meet expectations, the funds were diverted back to the consumer goods, military, and heavy industry sectors.

It was not until July 1970 that those lobbying for agriculture won enough support to have investment and resource allocation increased. This was predominantly for increasing livestock production, since meat shortages were reaching crisis proportions.

It was at this same time that Brezhnev, the leading proponent of livestock production improvements, solidified his position as head of the Politburo. After that time he made it clear that improving the consumers' diets would have a high priority. In order to accomplish this, a new "food program" was developed which involved reorganizing government bureaus for better coordination and functioning. New ministers also were appointed for various commodities, and new departments were developed.

### Soviet Union Agricultural Production

The production of agricultural commodities in the Soviet Union comes from two sectors. The first is the socialized sector, which consists of the State and collective farms (the State farms practice a higher form of socialism and conform more closely to communist ideology). The other sector is the private sector, which consists of small garden plots and individual livestock holdings. The former accounts for 2/3 of all agricultural output, while the latter accounts for 1/3.

State farms differ from collective farms in three ways. First, state farms are larger, averaging nearly 50,000 acres of planted ground, or they are large livestock enterprises. The difference, of course, depends on the location and area of specialization. The huge sizes of these farms result in them cultivating one-half of the total sown area. Although they have greater economies of scale and are exposed to better technology than the collective farms, their production is often below expectations. Secondly, state farms and their output are owned by the State and their workers are state employees. All production is sold to government procurement agencies at fixed prices. Employees' monthly wages are based on regulated government rates with bonuses being granted at the year's end if there was any production sold in excess of the farm's predetermined goal. Thirdly, they are specialized in operation for a specific purpose or specialty (i.e., each produces grain, or livestock, or poultry but not all).

Collective farms are different in that they have family members who gain their membership rights through birth. These families share the

profits of the farm with wages being based on either time or piece work. Bonuses are doled out in a manner similar to the state farms. They also differ because they do not specialize in production but instead grow grain and raise livestock and poultry.

One feature of the collective farm which causes criticism from party officials is that members tend to work according to their own schedule. However, they are expected to work on a full-time basis with their brigade (basic work force of the collective farm) and can be penalized if they do not complete a minimum number of work days. Although it has family members, it is still controlled by the Communist Party. Problems have arisen when the Party tries to initiate change, since the family community is very conservative and maintains its traditional values and ways.

Almost all Soviet citizens are granted the right to own a private plot and livestock for personal use. The maximum size of a plot can only be between  $1/2$  -  $3/4$  of an acre including any structures. These plots resemble backyard gardens in the United States. Production is intended only for the private use of the family, but anything grown in surplus is allowed to be sold in the markets of collective farms. The production which results from these plots is a very important plus when it comes to meeting planned production goals in vegetables, eggs, and livestock. It is estimated that they account for 30% - 40% of total production of these commodities.

Previously, the private ownership of these plots and livestock were criticized by Party members, since they are contrary to Communist ideology. But it is now recognized that without this private production there would



be a serious disruption in the food supply; consequently, production in this manner is highly encouraged. Since late 1978 it has been official Soviet policy that all inputs used in the production process on State and collective farms be also used on the private plots and in raising livestock.

Soviet agriculture is characterized by its high labor intensity. It now directly employs 25% of the total work force. Even with this large percentage of workers, there have been times when both urban workers and the Army have had to be mobilized to help with the harvest (this naturally reduces the productive capacity in other sectors). The reasons for the relatively low output per farm worker are imperfections in agricultural technology and the lack of incentives throughout the entire agricultural chain. Technological lags have resulted from insufficient capital investment. In the past, investment was concentrated in the industrial and military complexes. This is now changing as agriculture is receiving a priority share of capital investment. A lack of incentives has resulted in the production of poor quality inputs, which hampers productivity.

For example, a fertilizer plant manager may be more concerned with total tonnage produced than with quality, since he knows the farmer has no recourse but to accept shipment because of a lack of an alternative source. Also, production goals are sometimes met by distorting the figures. Feed and fertilizer may arrive at a farm several tons short of the original order; the consuming farm being the victim of a production manager shortweighing to meet his Plan. The consuming farm might then overcount the

number of eggs to be collected or short-weight their production to meet expected goals.

Another barrier to increasing agricultural productivity is the centralized management of the State and collective farms. Centralized planning and direction tends to inhibit creative farm management and discourages innovation and transition to new techniques (Hopkins and Puchala 1978, p. 94). Although this barrier has been recognized, it does not appear likely to be reformed. Since centralization is the keystone to the Soviet system, any attempt to disrupt it is political suicide. In 1973 Politburo member Gennadi Voronov had his career ended when he advocated the decentralization of State and collective farms. A similar situation occurred after the 1975 harvest failure when Soviet Minister of Agriculture, Dmitri Polyansky, opposed excessive farm centralization. In fact, the Soviets moved towards even greater centralization when, in June of 1976, the Central Committee endorsed a policy of "agro-industrial integration" (Hopkins and Puchala 1978, p. 95).

Consequently, an increase in agricultural productivity will have to wait until capital investments are transformed into technological improvements, since the Soviets probably will not significantly alter their system.

#### Fertilizer use

Since the early 1960s, the Soviets have given fertilizer use a high priority in helping to increase total grain output. The world rate of increase in fertilizer use has tripled since the early 1960s, and the

Soviets' rate of increase has been twice the world rate. The positive impact of this increase has been below potential because of problems in quality, storage, and application technology. At this time only half of the grain crop acreage is fertilized. Although fertilizer use has increased dramatically since the early 1960s, the production of fertilizer has fallen behind planned goals. The 1976-80 Five Year Plan called for annual increases in production of 6 million tons, while actual increases only averaged approximately 2 2/3 million tons. The enlargement of plant capacity has also fallen behind schedule. The 1976-80 Five Year Plan called for an additional 53 million tons of production capacity, but by 1979 only half of this had been accomplished.

This failure to increase production capacity will, of course, make the 1980-85 agricultural production goals unattainable. The 1980 plan called for production of 143 million tons of grain or a 50% increase over actual 1978 performance. The 1985 plan calls for production of 170 million tons, which in light of the slow capacity growth appears unreasonable (ACLI 1979, p. 14). This naturally will severely handicap the ability to attain goals set for future grain production.

Future grain production will also be hampered by a shortage of adequate irrigation, machinery, drying and storage facilities, and spare parts. The inadequacies in these areas result in a loss in potential grain output and in matured grain that will not be harvested in time or will spoil after harvest.

Grain production

These inadequacies have also caused the Soviet Union difficulty in maintaining a steady supply of food for its population. As stated before, there have even been periods of famine earlier this century which were exacerbated by political decisions (Stalin continued grain exports to improve hard currency reserves).

During the 1950s and 1960s, they did become self-sufficient in most years, but their diets were at a substandard level. This has begun to change, as over the past ten years the official Soviet policy has been to upgrade the diet by increasing livestock and egg production. This, of course, translates into an increased demand for grain. Since 1960 average total grain production has increased by 80% or by 6 million tons per year. Most of this increase has resulted from an increase in fertilizer use. Before this time, the Soviets depended on expanding acreage to increase grain production.

Of the grain which is produced, wheat is by far the most important. The Soviets are the world's largest producer, harvesting nearly 25% of the world total. This is approximately double the United States's output. It is grown so extensively simply because it is more adaptable to the adverse weather and growing conditions than other grains. Wheat and barley (grown for the same reason as wheat) comprise the majority of livestock feed and account for 75% of total grain production. Corn, on the other hand, plays a lesser role. The conditions for corn production barely exist because of the severe weather. Less than 20% of the acreage planted in corn matures, the rest being used as silage and green feed for livestock.

The Soviets have repeatedly failed to meet the goals set for grain production. In the past decade, their objective for annual average grain production for the 9th (1971-75) and 10th (1976-80) Five Year Plans were set at 195 million tons and 220 million tons respectively. The 11th Five Year Plan calls for production at 240 million tons (ACLI 1979, pp. 26-27).

It is doubtful that they will meet the goals of the 11th Five Year Plan just as they failed in the previous two. The majority of these planned increases were to be obtained by increasing yields instead of acreage. The only way increasing yields seems possible would be by improving agricultural technology dramatically, especially fertilizer technology.

#### Livestock production

One of the primary objectives of Soviet agriculture is the increase in output of livestock products. This fact is evident in a speech by General Secretary Leonid Brezhnev at the November 1979 Plenum of the Communist Party's Central Committee:

"The primary obligation of leaders of the agricultural branch and local party and soviet organizations, specialists and all animal husbandry workers is that of achieving a considerable increase in meat production throughout the country" (U.S.D.A.: U.S. Sales Suspension 1980, p. 3).

This is to help upgrade the consumer's diet and to meet the growing demand for meat. Soviet policy has helped fuel this demand, since meat prices have been held constant since 1963 despite increasing costs of production and increasing personal incomes. This has caused the production/consumption gap to widen despite efforts to increase production as rapidly as possible.

Soviet leaders realize the importance the consumer places on a high quality diet, since the consumer uses meat availability as a barometer of economic conditions; therefore, they are doing much to fulfill consumer demands. Meat availability is also used as an essential element in encouraging greater labor productivity. The Soviets also realize that the widening gap represents a latent demand for livestock products which could antagonize the population into riots similar to the food riots which occurred in 1962 under Khrushchev (which the Soviet Army had to quell) and the 1970-71 food riots in Poland. Workers did show their discontent when a widespread shortage of meat and dairy products prodded Soviet auto workers to strike in Togliatti and Gorky in May and June of 1980. (Auto workers are some of the highest paid laborers, and Togliatti and Gorky are two of the best provisioned cities.) This is exactly what the Soviet leadership wants to avoid.

In an attempt to increase livestock production to meet demand, the Soviets must, of course, increase feed availability. In the past after a poor harvest they would engage in "belt tightening" and/or "distress slaughter" and then curtail consumption until production and herd numbers were brought back into line. It appears now that they are no longer willing to do this as evidenced by the fact that after the poor harvest in 1972 the Soviets instead began to look abroad for food and feed grains. Even with record production the Soviets have imported grains for livestock. In 1979 they actually tried to expand livestock output despite their worst harvest in four years. Apparently, the Soviets are trying to hold to their objective of increasing livestock product output. Hence, the maintenance



of livestock numbers and livestock product output appears to be one of the major factors in decisions to import grains.

However, it seems unlikely that the Soviets will achieve the goals set for the future (19.5 million tons of meat output by 1985) for two reasons: 1) even if grain production met planned goals, which is doubtful, it would still be 10-16 million tons short of feed requirements; and 2) if the present grain output trend continues, the resulting gap between actual grain production and grain requirements would be greater than import capacity. In order to sustain present 1981-85 livestock plans, average annual grain imports would have to approach 25 million tons (ACLI 1979, p. 44). If these goals are to be kept by Soviet leaders, there will be severe ramifications in other sectors, both in the domestic and international arenas.

#### Political-Economic Perspectives

Political economic theorists have attempted to explain, and at times find a solution for the world food problem by placing it into the perspectives of different theories or ideologies. These theories and ideologies range from the market-economy (capitalist) perspective, to the Marxist perspective, all the way to the "Doomsday" or lifeboat ethics perspective.

These political economic theories or ideologies can also be used to explain or clarify (but not justify) the past policy actions of both the United States and the Soviet Union.

For instance, the Marxist perspective states that the world food problem can be solved by changing the socio-economic sphere, which the

Soviets have attempted to do not only in agriculture but throughout their entire system. Thus, certain elements or traits can be chosen eclectically from several different perspectives to help in this explanation and clarification process.

#### United States

The United States' policies can be explained in terms of the relative free market economy or capitalist perspective. In the past, United States farm policy was characterized by price supports and set-asides which limited farmers' marketing and production options. In 1965 policy began to change; moving to a less regulated economy where farmers were allowed to make planting decisions as they saw fit. The agricultural economy was also aided because of the utilization of grain for foreign policy use. As explained previously, this was done to decrease surplus, help Third World nations, and to fulfill the demand from developed nations.

Capitalists believe that a free market economy provides the best incentive for innovation and the most efficient production possible. They also feel that this is true for the world economy. Allow the free market to operate so that comparative advantage can be practiced to its fullest is their view.

Unlike the Soviets, the United States has cooperated with other nations in attempting to solve the world food problem. This has been done by PL 480 shipments as well as by participating in world food conferences and providing agricultural data and technology. These actions can be explained, to a certain degree, by the theological perspective. The

American people, because of their conscience, feel compassionate toward their fellow man and thus have attempted to help them by providing aid.

### Soviet Union

There are two political-economic perspectives which can be used selectively to help explain past Soviet policies. They are the Marxist and the "Doomsday" or life boat ethics perspectives.

The Marxist perspective, as put forth by Markov, states that inadequate production and unequal distribution are not caused by psychological, biological, and demographic factors as capitalist economists state but by socio-economic factors. The Marxists believe that many nations have a food problem because of the imperialist policy of capitalist nations. Capitalist nations, along with the multinational corporations, impede the growth and development of foreign domestic markets and economic progress because of the exploitation which results from their investments in those countries. The return on their investments is typically quite high, which means that these nations are being exploited, since they are not being paid for their products and services what many would deem fair. The vast majority of this foreign investment goes to the government and large land holders and is seldom passed on to the tenants. Thus, the tenant can never accumulate enough capital to invest on his own and expand his agricultural output.

In order for a nation to combat its food problem, socio-economic change must take place. In Lenin's words...

"A real struggle against famine is inconceivable without the appeasement of the peasants' land hunger, without the relief from the crushing pressure of taxes, without an improvement in their cultural standard, without a decisive change in their legal status, without the confiscation of the landed estates - without a revolution" (Talbot 1977, p. 21).

A nation's food problem will thus be solved when man stops exploiting his fellow man; when the working man is lifted from poverty, and when nations establish a system of cooperation. However, the Soviets have deviated from the concept of mutual cooperation among nations when solving the food problem.

Despite having an active role in the international food system, the Soviets still follow a policy of independence when it comes to the world food situation. Although they did send representatives to the 1974 Rome World Food Conference and to the meetings of the World Food Council, it was primarily to learn about the agricultural policies of other nations instead of to share information, which they refused to do. They have also refused to join the majority of international organizations and programs such as the International Fund for Agricultural Development (IFAD) and the Global Information and Early Warning System (under the FAO), since they would be required to share information about their grain reserve policy, which they consider as part of national security. (It is believed that the Soviets have accumulated large underground "war reserves" of grain which are segregated from their peacetime reserves.) Of course, the Soviets do not provide any financial support for these organizations and programs either.

The Soviets apparently feel no obligation towards alleviating the world food problem which exists today and are even inclined to enter the

world market during times of world food scarcity in order to fulfill their own goals at the expense of Third World nations who may be more in need.

Thus, the Soviets seem to be adhering also to the "Doomsday" or lifeboat ethics perspective. This perspective is based on the concept that the world has a limited capacity of productive resources which are quickly being depleted because of the demand created by an ever increasing population. This stems particularly from the Third World. Because of this ever increasing population, the world, given its present course of trying to feed the multitudes, will meet its doom. To prevent this, someone will have to be sacrificed. The Soviets seem to be determined not to be the ones to be sacrificed.

The Soviets are not exploiting their fellow man by entering the market when others are in more need but in effect are taking advantage of their position of relative wealth by purchasing food and feed grains which could have gone to the Third World.

The United States has recognized the selfish attitude of the Soviets as well as felt the effects of their policy actions when dealing with food and feed grains. Consequently, in an attempt to regulate the Soviets' actions, the United States, being the largest supplier in the international arena, forced the Soviets into signing grain trade agreements. This will be the subject of the next chapter.

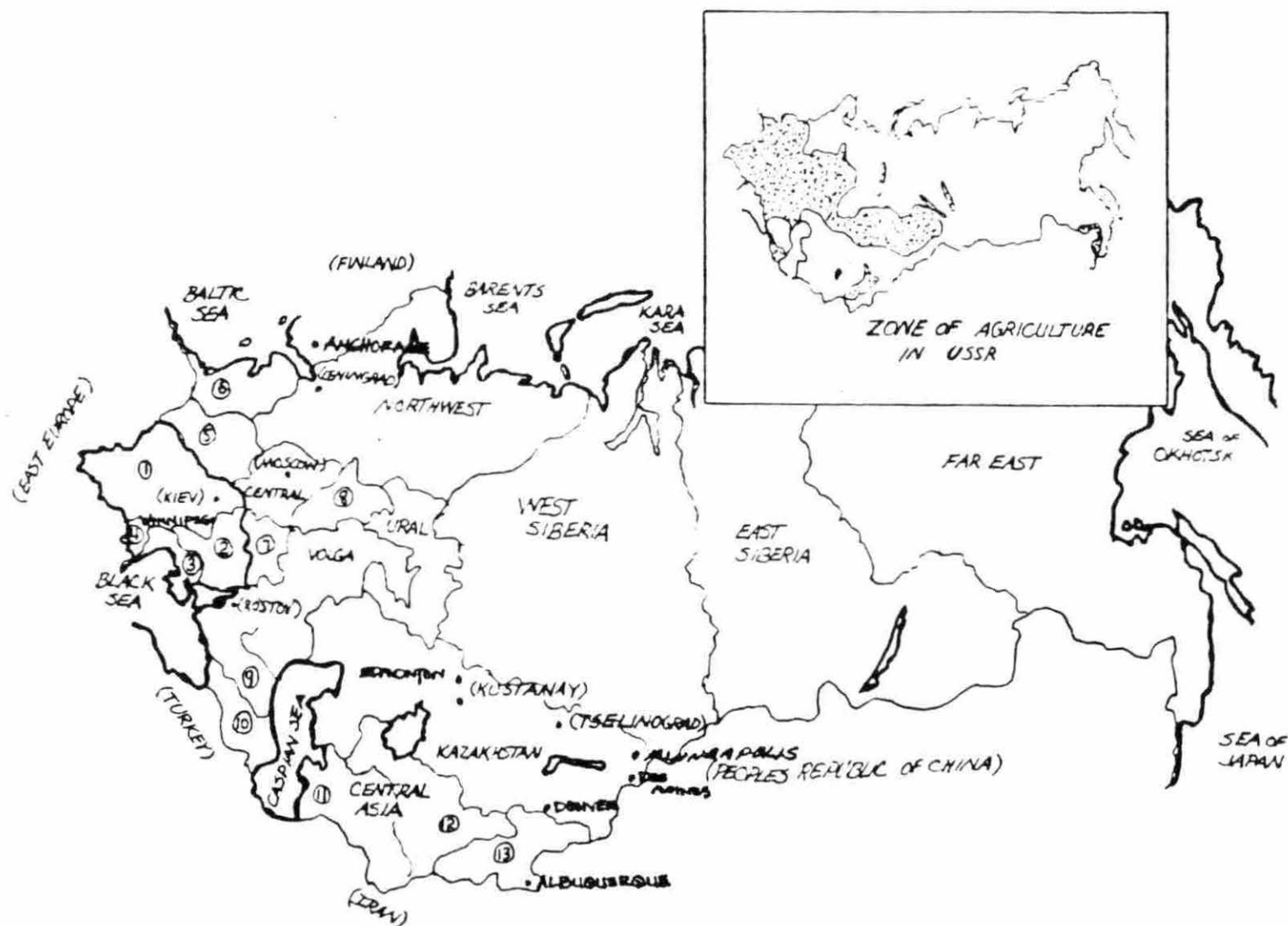


Figure 3-1. U.S.S.R. agricultural regime and North American geographic analogues



(Note: Smaller economic regions in western part identified by numbers below, with Ukraine outlined by dark border)

Ukraine incl. 1. Southwest 2. Donets Dnepr & 3. South. Other numbers identify 4. Moldavia SSR 5. Belorussia 6. Baltic 7. Central Chernozem 8. Volga-Vyatka 9. North Caucasus 10. Transcaucusus 11. Turkmen SSR 12. Uzbek SSR 13. Tadzhik & Kirgiz SSRs.

#### PRINCIPAL AREAS OF CROP PRODUCTION AND NORTH AMERICAN ANALOGUES

Winter Wheat	N. Caucasus, Donets Dnepr, South, Southwest/ South Dakota, Wyoming
Rye	Volga, Ural & Volga-Vyatka/ Montana, North Dakota, British Columbia
Spring Wheat	Kazakhstan, Volga, West Siberia, Ural/ Alberta, Saskatchewan
Barley	Central Chernozem, Volga, N. Caucasus, Donets Dnepr, Southwest, South, Belorussia, Baltic, Central/ North and South Dakota, Montana
Oats	West Siberia, Ural, Volga-Vyatka/ Central Alaska, Alberta
Corn	Donets-Dnepr, Southwest, South, N. Caucasus, Moldavia/ South Dakota, Western Nebraska
Soybeans	(Sb)--Far East/ Manitoba
Cotton	Uzbek, Turkmen, Kazakhstan/ New Mexico
Sunflower	Donets-Dnepr, N. Caucasus/ South Dakota

## U.S.S.R. and North American Analogous

<u>North America</u>	<u>Latitude</u>	<u>Longitude</u>
Anchorage, Alaska:	61.10N	149.50W
Edmonton, Alberta:	53.30N	113.30W
Winnipeg, Manitoba:	49.50N	97.15W
Minneapolis, Minnesota:	44.58N	93.20W
Des Moines, Iowa:	41.35N	93.37W
Denver, Colorado:	39.43N	105.10W
Albuquerque, New Mexico:	35.50N	106.47W
 <u>U.S.S.R.</u>		
Leningrad, Russian S.F.S.R.	59.55N	30.25E
Roston, Georgian S.S.R.	57.11N	39.23E
Moscow, Russian S.F.S.R.	55.45N	37.42E
Kustanay, Kirgiz, S.S.R.	53.15N	63.40E
Tselinograd, Kirgiz S.S.R.	51.10N	71.30E
Kiev, Ukrainian S.S.R.	50.28N	30.29E

## CHAPTER IV. UNITED STATES - SOVIET UNION GRAIN TRADE AND AGREEMENTS

Numerous factors were instrumental in bringing the United States and the Soviet Union together to negotiate the grain agreements in 1975. At that time the United States' grain reserves had been drawn down by previous large purchases by the Soviets and several other nations, which in turn resulted in higher consumer prices. The size of these Soviet purchases had not only surprised the United States government but caused a domestic uproar as well. Also, since the Soviets had secretly negotiated these deals with private multinational grain companies, there was concern that the multinationals had procured undue profits.

To prevent the Soviets from making another large and unexpected purchase, United States decision makers deemed it appropriate to control any future trade through agreements. Although the Soviets would probably have liked to continue their dealings clandestinely, they relented to sign the agreements for reasons of their own. The Soviets needed grain for use in food and feeding, and since the United States was probably the only nation capable of fulfilling the Soviets' needs, they (the Soviets) were in effect forced to negotiate.

Until the time of the 1972 grain purchases from the United States, the Soviets had been buying grain from the Canadians and the Australians. As mentioned in Chapter III, the United States had permitted the Soviets to purchase grain only once before, which was in 1963. There were two primary reasons for this lack of trade; the first was because of the "Cold War",

and the second was the stipulation that 50% of the grain sold to centrally planned nations would have to be shipped in United States vessels.

#### 1972 Grain Sales to the Soviet Union

With President Nixon in office, and with the advent of detente, foreign policy began to change. A year before the 1972 sales, President Nixon initiated steps to open trade with the Communist bloc nations by lifting several barriers to export. He did this on June 10, 1971, by eliminating the need for private grain companies to obtain permission from the Department of Commerce to sell grain to these nations. He also lifted the requirement that United States vessels had to transport 50% of the grain sold. Then Secretary of Agriculture Earl Butz was sent to the Soviet Union to negotiate a credit agreement. This agreement was instituted on July 8, 1972, when President Nixon arranged for the Commodity Credit Corporation to supply the Soviets with the necessary credit to purchase a minimum of \$750 million worth of grain over a three-year period. This credit was at an interest rate of 6% in amounts up to \$500 million including a \$200 million loan the first year (Hamilton 1972, p. 289).

The lifting of these trade barriers and the signing of the credit agreements cleared the way for representatives of the Soviet Exportkhleb and the Continental Grain Company to secretly negotiate a transaction which included 134 million bushels of wheat and 161 million bushels of corn. Less than one month later the Soviets purchased an additional 260 million bushels of wheat, 72 million bushels of corn, and 34 million bushels of soybeans (Destler 1980, p. 38). It was apparent that the agreement and subsequent sale were important elements in detente.

These substantial purchases had severe consequences in the food and feed markets, particularly in the wheat market. They totalled approximately one-half of the United States carryover stocks and over one-quarter of the 1972 United States production in wheat (Table 4.1). The majority of this was to be transported before the 1973 harvest. The purchases put a squeeze on the world wheat market because of the poor harvests which ensued in other major producing regions of the world (Table 4.2). This caused wheat export prices to increase from \$1.68 during the first week of July to over \$2.00 in early August to \$2.40 in late September (Hopkins and Puchala 1978, p. 47).

By negotiating secretly and quickly with the individual private grain firms, the Soviets avoided the resulting price increases which their demand caused. The Soviets also took advantage of the United States Department of Agriculture's export subsidies which had been implemented to reduce United States surpluses.

In spite of these developments, United States decision makers failed to alter agricultural policies to compensate for reduced wheat supplies and the subsequent price increases. Instead, the programs calling for acreage set-asides and export subsidies were left intact. Hence, these developments helped, to a certain degree, to stabilize the Soviets' food sectors while destabilizing the United States' food sectors.

There were several reasons why these policies were adjusted so slowly. First, United States decision makers did not know how substantial the sales were. This was because the private grain firms were not required to report sales. Secondly, the Soviets had never before purchased grain on such a

large scale (Tables 4.3 and 4.4). Thus, United States officials thought that the prevailing conditions would remain only temporary, whereby the wheat price would stabilize at the low levels of previous years. Plus, the sales were accomplishing the goals of Secretary Butz; those goals were to expand export sales and increase farm prices. Officials were also hesitant to reverse a policy decision, since many farmers base production and marketing decisions on these policies. Since some farmers had already made these decisions, policy makers deemed it unwise politically to reverse an already set program.

However, by January 1973, food price inflation was rapid (the wholesale price index for food products increased from 125.3 to 132.6 between December and January alone). The Nixon Administration, late that January, announced plans to reduce set-asides in time for the spring plantings. This action coupled with the decision to phase out export subsidies, in late September 1972, helped to allay the political pressure which had been developing.

Once United States officials realized how the Soviets had manipulated and exploited the markets, they attempted to regulate future sales. This was accomplished through export monitoring and bilateral negotiations. These controls on exports were, of course, infuriating to farmers who wanted free trade. Consumers, on the other hand, were upset because grain exports to the Soviets meant higher domestic food prices. Because of these protests, the United States entered into a bilateral agreement with the Soviets in October 1975.



The United States entered into the grain agreements for several reasons: 1) to prevent any more surprise or secret purchases by the Soviets which could possibly deplete United States reserves, in other words to stabilize Soviet grain purchases, 2) to prevent another inflationary price spiral similar to what occurred in 1972-74 after the first Soviet purchases, 3) to initiate a steady and assured export market for United States grain, and 4) to encourage the Soviets to increase their own stocks which would help prevent them from reducing world stocks during their own production failures. These were the reported intentions.

However, there is evidence to suggest that the more likely reasons were to appease the farm sector and to divert attention away from previous agricultural policy errors. There are five factors which support these reasons. These factors are: 1) based on previous estimates of Soviet production and consumption, it was known that the Soviets were in need of grain (Table 4.5 and 4.6); 2) even without these agreements the United States already supplied the majority of corn on the world market as well as almost all of the recent increases in total grain trade; 3) the United States had previously used export embargoes to combat large unexpected Soviet purchases; placing limitations on future purchases was a defacto embargo; 4) United States domestic agricultural policy had played a major role in the price increases since acreage restrictions had not been lifted until 1974 after the price increases were already underway. Also, although the USDA was aware of Soviet procurement intentions, they greatly underestimated the effect on prices, which was a political embarrassment (ACLI 1979, pp. 45-46).

The Soviets entered the agreements for several reasons also: 1) to guarantee access to United States grain, 2) to lessen the need for the Soviets to participate in a multilateral reserve system, and 3) to assure adequate feed supplies for livestock production.

#### Soviet Grain Sales and Agreement 1974-1975

Although not in the United States grain markets in July 1973 - June 1974, the Soviets did enter in the fall of 1974 to purchase 107 million bushels of grain and were ready to purchase an additional 67 million bushels. Since there was a slight shortage of United States grain supplies, and consumer food prices were rising, the Ford Administration advised the grain companies against these additional sales. The administration also asked that the grain companies obtain approval from the USDA before any future sales in excess of 1.7 million bushels took place to any country. Ford instituted these directives to appease the consumers and the Congress (who might have demanded future export controls) even though the total amount of wheat and corn asked for by the Soviets amounted to just 2% of total United States production. This amount was much less than the former purchases.

But by March 1975, all monitoring of sales were eased (except reporting requirements) as prices declined and the markets stabilized. Sales were continued until Secretary Butz announced a temporary suspension of Soviet grain sales because the March 11th crop projection was low.

It was also at this time that the maritime unions began to protest against the low shipping rates the Soviets paid and the low proportion of

United States ships being used to transport the grain. The timing of this protest was significant, since the end of the United States-Soviet Union Maritime agreement was approaching. Then, on August 18, 1975, AFL-CIO President George Meany stated that the International Longshoremen's Association would boycott loading grain ships for the Soviet Union if the interests of both the consumers and shipping industry were not protected. President Ford and Labor Secretary Dunlop met with Meany and other labor leaders twice, once on August 26, and then on September 9, to settle on an agreement. The unions suspended their boycott for a month, and the administration stopped new grain sales to the Soviets until mid-October. During this time the Ford Administration consented to try to negotiate with the Soviets, guaranteeing a long-term minimum purchase grain agreement.

President Ford sent a five-man team to negotiate, headed by Undersecretary of State Charles A. Robinson. This team negotiated and signed an agreement with the Soviets in October 1975, effective from October 1976 until September 30, 1981, based on an October-September crop year. The agreement was announced by President Ford on October 20, 1975.

Under this five-year grain agreement, the Soviets agreed to import a minimum of 198 million bushels of wheat and corn (3 million tons each) annually with a maximum of 267 million bushels. Anything over this amount required permission by the United States government. In the event that United States grain availability fell below 225 million tons in any year, sales for that year would cease (USDA Agricultural Situation: USSR 1981, p. 18). All trade which resulted from this agreement was covered under the

then new United States-Soviet Union Maritime agreement (signed on September 19, 1975), which also expired in 1981. Sales were also to be handled through normal commercial channels (i.e., multinational grain companies). Other provisions of the agreement included: 1) semiannual consultations scheduled to discuss the supply and demand situation of both nations, 2) "purchases were to be made at market prices at the time of purchase in accordance with normal commercial terms, 3) the United States would not impose export controls on wheat and corn purchased by the Soviets, and 4) all wheat and corn purchased by the Soviets would be consumed in the Soviet Union" (Talbot 1977, p. 318).

The Soviets had in the past financed a large part of their grain purchases by gold sales. During the 1960s and early 1970s, the sale of gold could be directly linked to grain imports of some magnitude. However, this link is not as easily recognized now, since the Soviets are also gearing gold sales to world spot market prices regardless of grain requirements.

This direct link has also become distorted as the gold-grain price relationship has changed. In the years that gold prices escalated, grain became relatively cheaper in terms of gold. Consequently, it took less gold to purchase the same amount of grain as previously. This means that gold sales should have decreased relative to annual grain imports instead of increasing, as they did for the Soviets.

The Soviets have been financing purchases as of late by negotiating long-term credit agreements and have borrowed on the Eurodollar market.

They have also at times used oil exports to earn hard currency to pay for imports.

It is now apparent that the Soviets no longer import grain in just low-production years. Even in good years they have been importing in order to keep livestock production in gear in an attempt to meet goals. If the Soviets plan on trying to sustain these goals, they must have average annual imports of at least 825 million bushels over the duration of the 1981-85 Five-Year Plan, given past trends in grain production. United States government agencies believe that the Soviets can handle this much grain at their ports, since it is estimated that they have an annual import capacity of approximately 1,320 million bushels.

However, even if the Soviets did require this much grain and could secure it, it would still be difficult to move the grain because of a limited amount of transportation and storage in the interior. Thus, the Soviets have begun to look more closely at logistics at domestic production when considering when to purchase grain in order to prevent a bottleneck at ports.

As can be seen in this chapter, the multinational grain firms play an important role in the international political-economic sphere. To a degree, the result of their secret negotiations with the Soviets led to events which forced the United States government to negotiate the grain agreements along with implementing the export reporting policy. The grain firms do, indeed, play a major role in international affairs. Exactly what their role is and how they play it is the subject of the next chapter.

Table 4.1 United States Wheat Production and Carryover (million bushels)<sup>a</sup>

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Production	1352	1618	1545	1705	1796	2112
Carryover	984	822	985	599	339	430

<sup>a</sup>Chicago Board of Trade Statistical Annual 1980.

Table 4.2 World Wheat Production (million bushels)<sup>a</sup>

	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Canada	331.5	523.7	533.3	628.8	488.5	624.6
Argentina	156.2	191.1	249.9	213.1	211.3	282.9
Brazil	63.6	73.5	25	70.2	103.6	91.9
EEC	1,087.6	1,257.7	1,513.1	1,509.8	1,661.7	1,417.3
Australia	289.9	306.6	239.2	400.5	413.3	404.2
World Total	10,573	11,496.2	12,164	13,347.6	12,869.5	13,055.1

<sup>a</sup>Chicago Board of Trade Statistical Annuals: 1970-1976.



Table 4.3 Soviet Grain Trade<sup>a</sup>

		<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
Wheat: <sup>b</sup>	Imports	1.4	.2	1.1	.5	3.4	15.6	4.5	2.5	10.1
	Exports	5.3	5.8	6.4	7.2	5.8	1.3	5.0	4.0	.5
	(Net)	(+3.9)	(+5.6)	(+5.3)	(+6.7)	(+2.4)	(-14.3)	(+.5)	(+1.5)	(-9.6)
Coarse Grains:										
	Imports	.4	.5	.1	.3	4.3	6.9	6.4	2.7	15.6
	Exports	.7	.9	.9	.9	.7	.4	.9	1.0	-
	(Net)	(+.3)	(+.4)	(+.8)	(+.6)	(-3.6)	(-6.5)	(-5.5)	(-1.7)	(-15.6)
Total: <sup>c</sup>	Imports	1.8	.7	1.2	.8	7.7	22.5	10.9	5.2	25.7
	Exports	6.0	6.7	7.3	8.1	6.5	1.7	5.9	5.0	.5
	(Net)	(+4.2)	(+6.0)	(+6.1)	(+7.3)	(+1.2)	(-20.8)	(-5.0)	(-0.2)	(-25.2)

<sup>a</sup> July-June year, in million metric tons.

<sup>b</sup> Incl. wheat equivalent of flour.

<sup>c</sup> Total grains here refer to wheat and coarse grains only, excluding an insignificant amount of trade in miscellaneous grains, paddy rice and/or buckwheat, which amounts to less than 1/2 million tons annually.

Table 4.4 U.S. Shipments as % of Total Soviet Imports

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	Wheat	Corn	Total Grains
1971	0	55	14
1972	33	76	46.4
1973	57	77	64.4
1974	41	59	57.7
1975	45	58	44.6

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<sup>a</sup> ACLI Commodity Services: 1979

Table 4.5. Changes in Soviet Total Grain Production

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1967	1969	1971	1972	1974	1975
%-13.6	-4.2	-3.0	-7.2	-12.1	-28.4

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Table 4.6. Soviet Wheat Acreage, Yield and Production (in million acres, bushels/acre, million bushels)<sup>a</sup>

	1966-70 average	1971	1972	1973	1974	1975
Production						
Area	45.1	51.1	37.0	Winter Wheat		
Yield	29.1	34.3	29.1	45.3	45.9	48.4
Production	1318	1755	1079	40.1	35.7	27.8
				1816	1642	1346
Area	121	107	107.5	Spring Wheat		
Yield	16.5	17.5	19.3	110.7	101.5	104.7
Production	1995	1873	2080	20.0	14.5	10.4
				2217	1440	1086
Area	166.1	158.1	144.5	Total Wheat		
Yield	19.9	22.9	21.8	156	147.4	153.1
Production	3313	3028	3159	25.8	20.8	15.9
				4033	3082	2432
Soviet Corn Acreage, Yield & Production						
(in million acres, bushels/acre, million bushels)						
Area	8.7	8.2	9.9	9.9	9.8	6.5
Yield	43.3	41.0	38.8	52.2	48.5	43.6
Production	376	338	387	520	476	288

<sup>a</sup> ACLI Commodity Services: 1979.

## CHAPTER V. THE STRUCTURE OF THE INTERNATIONAL GRAIN MARKETING SYSTEM

It is readily apparent that any study of the political-economic relations of two major grain-trading countries and their agriculture could not be undertaken without understanding the structure of the international grain marketing system and the actors and their roles. The actors in this system relevant to this study, aside from the United States and Soviet Union governments, are the five major multinational grain firms and the other major grain-trading countries, which include Canada, Australia, the European Economic Community (EEC), Argentina, and Brazil.

The structure and performance of the multinational grain firms provide perhaps the most complex component of the international grain marketing system. The extent and range of operations and holdings of these firms makes it virtually impossible for them all to be excluded when agricultural trade materializes between two countries. Together these companies handle approximately 90% of the United States' grain exports and 70% of the world's grain exports (Freivalds 1976, p. 116).

The five large grain firms - Cargill, Continental, Bunge, Dreyfus, and Andre (the last three are foreign-owned or controlled) - and most of their subsidiaries are private-family-owned and operated multiproduct, multinational, and multi-billion-dollar corporations. Since they are privately held, they are not required to file with the federal Securities and Exchange Commission. This allows them to be relatively free of public scrutiny.

These five companies - hereafter referred to as Big Grain - not only own the traditional facilities in grain trade (i.e., terminals, rail, trucking, barges, and ships), but they also own feed manufacturing plants, seed companies, oilseed processing plants, milling plants, agri-research facilities, hatcheries, ranches, and farms (Appendix I contains a partial listing of their holdings). Because of the cyclical nature of agriculture and the resulting fluctuations in profits, Big Grain has begun to diversify their operations by acquiring banks, restaurants, insurance companies, lumber facilities, and steel manufacturing plants to name a few. This diversification has allowed Big Grain to strengthen their position in grain trade even more, since a loss in trading can be offset by a profit elsewhere. Likewise, a loss in another operation can be offset by a profit in grain. The magnitude of these holdings and high market concentration provides Big Grain with oligopsonistic market power (few buyers purchasing from a large number of sellers).

Of course, although being highly concentrated is a major factor, it is not the exclusive reason for possessing market power. There are other indicators as well. The two principal reasons why only a few companies dominate the grain trade are: 1) the substantial economies of size in the physical operations and in trading on international markets; and 2) the information network they have developed allowing them to be privy to virtually any factor which could influence grain trade.

"The more there is specialized knowledge and inside information about prices, sales, costs, and profits, both present and future, within an industry or group of firms, compared to relative ignorance and uncertainty outside, the more can insiders be expected to use this effectively in developing and maintaining

market power...it is also true for monopoly positions which might be subject to intrusion of outsiders if they had more information" (Sheperd 1970, p. 34).

These firms are structured virtually identically with sales offices and agents located domestically and around the world. Their complex communications systems link these offices together providing information on buy-and-sell orders, deals, crop conditions, and political events. These information networks are only surpassed by the United States Department of Agriculture and the Central Intelligence Agency. Also, Big Grain is in a good position to utilize their information, since the United States relies on them, instead of a centralized board, to handle the grain trade.

Not only this, but there are in some cases working relationships between officers and directors of different grain companies. Many of them belong to the same trade associations (e.g., Terminal Elevator Grain Merchants Association, North American Export Grain Association, National Grain Trade Council) or are board members together at companies outside of, but still essential to, the grain trade, such as banks or insurance companies. Big Grain has also been known to hire ex-U.S.D.A. officials once their administration's term is over. The most notorious example was when former Assistant Secretary of Agriculture Clarence Palmby was hired by Continental Grain. Palmby helped negotiate the 1972 Soviet grain sales of which Continental was the largest seller. This "fraternization" among and between these companies allows them to trade and utilize information and resources to which others may not have access.

As mentioned previously, the substantial economies of size in terms of Big Grain's operations and holdings is also instrumental in exerting market

power. A brief synopsis of the individual holdings of each will allow one to better comprehend how economies of size can lead to market power.

(Since these companies do not make their operations and holdings public, it is difficult to estimate what exactly the totals are. The figures given below do not include those for facilities leased or rented, nor does it include operations unrelated to the grain trade.)

### Cargill

Cargill, based in Minneapolis, Minnesota, is the largest grain firm in the world with total sales approaching \$30 billion (WSJ, May 7, 1982). This would place Cargill in the top ten of Fortune's top 500 corporations. It has operations in 250 North American locations and in 36 foreign countries employing over 12,000 people. Cargill has elevators in 60 locations with a total storage capacity of 180 million bushels. Cargill moves this grain with a 1000-unit fleet of covered hopper rail cars, hundreds of trucks, and 44 barges. Once the grain reaches one of twelve export terminals located on all seacoasts of North America and the Great Lakes, it is transported on Cargill's eleven ships, registered in Liberia and Peru, to foreign ports. Cargill also owns feed-manufacturing and oilseed-processing plants in the United States and Europe. It has 35 feed plants in the United States and more than 20 in Europe with 14 and three oilseed plants in those locations respectively. Research is done in nine countries at 29 locations.



### Continental

Continental, owned by Michel Fribourg, is headquartered in New York City and Geneva, Switzerland. It employs over 3,000 people with sales of approximately \$5 billion. Continental has grain elevators all across North America. Grain is transported to and from these elevators on approximately 370 rail cars and 65 barges to export terminals with total storage capacity of three million tons. Storage capacity abroad totals approximately 500,000 tons. Continental's processing is done by Allied Mills, which was purchased in 1966. Allied processes both feed grains and oilseeds.

### Bunge

Bunge is headquartered in Buenos Aires, Argentina, with domestic headquarters in New York City. It has sales of around \$2 billion and employs 1,200 people with offices in 80 foreign nations. Bunge operates 100 country elevators in the United States along with 22 river, five interior-rail, and four port terminals with storage of around 100 million bushels. It moves its grain with 105 barges and 75,000 rail cars all located in the United States (Hamilton 1972, p. 29).

### Dreyfus

Dreyfus has domestic headquarters in New York City but has its main headquarters in Paris. Its United States elevator storage capacity totals approximately eleven million bushels, and it operates 13 ships chartered under French and British flags.

## Andre

Andre is a Swiss company located in Geneva with its American affiliate, Garmac, being located in New York City. Very little is known about Andre's operations except that it specializes in financing grain deals by unconventional methods. Andre deals mostly with eastern European and Third World countries through compensation, barter, triangular contracts, switch financing, and cooperation transactions. "This might involve shipping Swedish precision tools to Rumania in return for a shipment of canned meat, which is then sold to an Indonesian importer against payment in convertible guilders in a Dutch bank" (Morgan 1980a, p. 178).

Big Grain firms utilize their vast world-wide holdings to avoid high taxation, foreign exchange regulations, and export controls which hinder the operations of smaller national companies. They do this by trading grain indirectly through a third party subsidiary to circumvent these restrictions to the utmost.

An example will serve to clarify how one multinational could manipulate its trades to its advantage. Suppose Cargill sold a shipload of soybeans for future delivery to a Dutch processor. Cargill would physically move the beans from its inland elevators to the Mississippi River, where they would be shipped to Baton Rouge, Louisiana. The beans would then be loaded onto a cargo vessel bound for Rotterdam, The Netherlands. This transaction could have transpired with relative ease assuming it was operating under the concept of *ceteris paribus*. Unfortunately, this is not the case. The market and the conditions it operates under are in a constant state of fluctuation. Trade regulations, political-economic

relations and events, and prices are always changing, forcing the multinationals to adjust their trading strategies accordingly. If the political-economic atmosphere between the United States and the Dutch changed so that the United States placed trade sanctions on The Netherlands, the multinationals, if they elected to do so, could adapt to mitigate the effects of these changes.

Cargill, for this specific example, could offset the effects of the embargo or trade sanction by selling the soybeans to its subsidiary, Tradax/Panama, which would then hire Tradax/Geneva as its agent. Tradax/Geneva would then finalize the sale through Tradax/The Netherlands by having them arrange to sell Tradax/Panama's soybeans to the Dutch processor. Tradax/Panama, a tax-haven company, would receive the profits, and Tradax/ Geneva would earn a management fee for brokering the deal. Of course, this would only involve the title to the grain and not the physical commodity. This means that Cargill cannot only guard its profits against United States taxes, but it also has the capability to minimize the effects of trade sanctions placed on any country by the United States government.

However, Cargill not only must guard its transaction with the Dutch against changes in trade regulations and political-economic conditions, but also against price changes. Cargill could lock in a profit by purchasing soybean futures contracts the next day (if prices were low enough to insure a profitable transaction) on the Chicago Board of Trade. They could have done this to guard against a price increase before the soybeans actually had to be purchased and delivered. But Cargill may not be able to accomplish this if the CBT markets increased rapidly enough and eliminated the

profit margin before all of the contracts could be purchased. Instead, Cargill, again through its Geneva office, would purchase soybean meal and oil from European processors, or sunflower seeds or rapeseeds from eastern Europe to "cover" its sale (sunflower seed and rapeseed prices respond in a similar manner to soybean prices). When Cargill actually purchased the soybeans, it would then sell whatever product it purchased to offset any loss which may possibly have accrued between the time the soybeans were contracted for and actually delivered to Rotterdam.

Another reason Cargill may not contract for an offsetting position on United States futures markets is because the position would have to be reported, as well as be under the auspices of, the regulations set by the exchanges. Consequently, the multinationals resort to offsetting their cash trades by the above-mentioned practices. The multinationals and others involved in grain trade have also instituted their own private "futures" market. They have accomplished this by trading the rights to the cargo while the ships were at sea. These ships carry cargo of between 15,000 and 20,000 tons of grain. Several advantages of these private "futures" markets are that no margin money is required; trading is done by word of mouth instead of by formalized contract, and, of course, these transactions are never reported.

Big Grain is not the only actor in the international grain marketing system. As mentioned previously, the major grain-exporting countries (Canada, Australia, the EEC, Argentina, and Brazil) also are influential.

Of the major grain-exporting countries, the United States (Table 5.1) is the only one which does not operate through some type of centralized

marketing board. In most instances, these boards are the sole authority to move grain. This is also true of the major importers. Japan, the Soviet Union, and China all have some type of centralized agency which handles all grain movement. This is true for many developing nations as well, including India and Bangladesh.

Of the trading done by the exporting countries, Big Grain handles approximately 90% of the movement.

As with the multinationals, a descriptive synopsis of the functions of the exporting countries will serve to better clarify how the international grain-marketing system functions.

#### Canada

Canada uses a grain-marketing board, the Canadian Wheat Board, to control wheat movement. It has the authority to buy and sell whenever and wherever it chooses at whatever price it decides upon, with the objective of maximizing producers' returns. Producers retain possession of the grain until it is called for by the Board. Since the Board does not own exporting or storage facilities, it contracts with private firms or sells to Big Grain.

Payment to producers is divided into two stages. Producers receive a partial payment from the country elevators on behalf of the Board after the year's harvest is delivered. Sales proceeds, minus costs, are given to the producers in the form of a final payment after the wheat is sold. The justification for having a board is that the volume of wheat handled results in economies of scale when moving and selling on both the domestic

and international markets. Table 5.2 presents data on Canadian grain trade.

#### Australia

Australia also has a wheat board, which functions in a similar manner to Canada's board. The Board pools the wheat into bulk handling facilities, which are provided by state sanctioned cooperatives. The Board sells this grain directly to domestic users or to the Australian government for use in food programs. All surplus wheat is sold to foreign governments and to international commercial grain traders. Prices are negotiated based on the current market conditions.

The Australian government tries to influence the supply of wheat by offering subsidy payments for fertilizer use and rail transportation. The effect of these subsidies and preferential rates is to increase the amount of wheat available for export at any given price (Jones and Thompson 1978, p. 39). Table 5.3 presents data on Australian grain trade.

#### Argentina

Up until March of 1976, the Argentine government maintained low food prices by way of market and price controls. However, after April of 1976, their policies were completely reversed to encourage production. This was done by decontrolling domestic prices, raising support levels to more closely reflect world levels, returning both domestic and foreign marketing to the private sector, and by increasing the amount of credit available to cover production costs and increase storage capacity. Foreign trade was

encouraged by reducing export taxes and by periodically devaluing the peso. Table 5.4 presents data on Argentinian grain trade.

### Brazil

Brazil has established itself as a major force in the soybean market. Since 1968 the government has encouraged soybean meal and oil exports through favorable tax and subsidy policies. Soybeans, on the other hand, have been subject to taxes and export embargoes. Soybean production has also increased because of the Brazilian wheat policy. The government supports wheat production at high levels to increase self-sufficiency, which in turn increases soybean production. This is because these two commodities are double cropped. Double cropping is done to spread capital costs between the two. Table 5.5 presents data on Brazilian grain trade.

### The European Economic Community (EEC)

Grain trade to and from the EEC is influenced by the Common Agricultural Policy (CAP), which was devised to regulate all of agriculture.

To insure an adequate income for the farm sector, the EEC uses a system of support prices. The three main prices are the target price, the intervention price, and the threshold price. The target price is announced each August for the following crop year and is calculated using the cost of production for the greatest deficit region in the EEC. The intervention price is the price at which either the commodity must be bought by the EEC agency or private storage must be paid for. This price is set at a certain percentage below the target price. The commodity sold at this price



results from the surplus production which occurs because of a target price set above the world equilibrium price.

Since the target price is set above the world equilibrium price, world producers want to export commodities into the EEC. To combat these increased exports, the EEC uses an import quota or duty in the form of a variable levy and threshold price.

The threshold price is the import price at Rotterdam and is equal to the target price minus the cost of transport to the final destination. A variable levy is paid to make up the difference between the threshold price and import price. It is variable, because it is calculated and reset daily. If the world price ever exceeds the target price, there is, of course, no levy for that period. The EEC can also impose an export tax to prevent the domestic price from exceeding the target price. With this system, the domestic markets are protected from the daily fluctuations in the world market and are more stable.

Because of the secure domestic market and an absence of programs for supply management, the EEC has accumulated surpluses in various commodities. Some of the surplus has been moved onto the world market through the use of export subsidies. The export subsidy is the difference between the intervention price and the world price. The EEC also intervenes in the market by purchasing and storing various commodities. Table 5.6 presents data on EEC grain trade.

The significance of the major grain-trading countries' protectionist policies and relatively closed markets which result lies in the effect they have on the international grain markets. This is true for both exporters

and importers. These major grain-trading countries use these protectionist policies to capitalize on the actions taken by countries operating under a relatively free market system such as the United States does. Big Grain, motivated by profit, is also free to do the same. This will be demonstrated in the following chapters.

Table 5.1. United States<sup>a</sup>

	1970	1971	1972	1973	1974
Production (1000 MT)					
corn	105,463	143,290	141,053	143,435	118,461
soybeans	30,675	32,006	34,916	42,108	33,062
wheat	36,784	44,030	42,043	46,408	48,885
Imports: (MT)					
corn	83,669	49,952	31,151	31,791	30,085
soybeans	28	25	61	310	34
wheat	43,141	9,596	2,845	3,932	82,846
Exports: (MT)					
corn	14,401,580	12,884,201	22,386,479	33,196,095	29,867,590
soybeans	11,839,087	11,521,008	11,992,812	13,222,176	13,940,037
wheat	19,084,701	17,535,941	22,611,919	38,444,883	26,046,085

<sup>a</sup>FAO Trade and Production Yearbooks .

1975	1976	1977	1978	1979	1980
148,487	159,172	163,213	179,886	201,655	168,855
41,406	35,042	47,948	50,149	61,723	49,454
58,074	58,307	55,420	48,954	58,080	64,492
44,558	46,328	66,546	50,961	34,468	23,311
42	3,508	76	69	269	6,000
17,145	22,613	35,201	612	5,063	5,774
33,502,718	44,295,829	40,481,219	50,142,307	59,242,457	63,152,310
12,496,454	15,332,382	16,196,069	20,709,887	20,904,582	21,786,457
38,293,725	27,551,614	25,224,486	35,502,918	34,703,311	36,861,680

Table 5.2. Canada<sup>a</sup>

	1970	1971	1972	1973	1974
Production (1000 MT)					
corn	2,564	2,946	2,657	2,803	2,577
soybeans	283	280	320	397	280
wheat	9,023	14,412	14,514	16,159	13,295
Imports: (MT)					
corn	463,338	199,426	416,760	793,185	1,289,944
soybeans	442,404	424,652	308,481	231,787	390,781
wheat	-	-	-	344	-
Exports: (MT)					
corn	2,947	33,963	22,891	11,902	6,241
soybeans	28,576	34,034	41,546	27,051	13,067
wheat	11,493,715	13,635,289	14,633,091	12,906,112	10,627,577

<sup>a</sup>FAO Trade and Production Yearbooks.

1975	1976	1977	1978	1979	1980
3,623	3,771	4,196	4,215	4,983	5,462
367	250	527	475	672	713
17,078	23,587	19,862	21,146	17,185	19,131
773,116	791,436	556,798	425,514	814,216	1,204,650
385,097	397,463	317,970	324,445	351,092	477,071
-	-	-	-	-	-
4,288	330,109	98,717	407,713	171,181	748,889
8,710	24,646	38,109	83,307	46,919	95,754
11,647,722	11,221,535	15,511,313	15,337,790	12,470,682	17,359,729

Table 5.3. Australia<sup>a</sup>

	1970	1971	1972	1973	1974
Production (1000 MT)					
corn	192	212	214	139	106
soybeans	6	9	26	38	63
wheat	7,890	8,510	6,613	11,902	10,833
Imports: (MT)					
corn	513	434	566	605	800
soybeans	703	10,755	264	7	42,000
wheat	29	28	19	32	14
Exports: (MT)					
corn	632	22,374	38,467	9,191	2,800
soybeans	4	43	129	1,209	1,200
wheat	7,309,961	9,483,685	8,712,256	5,627,346	5,329,286

<sup>a</sup>FAO Trade and Production Yearbooks.



1975	1976	1977	1978	1979	1980
139	131	144	130	169	127
64	45	55	77	99	89
11,732	11,667	9,370	18,300	15,697	10,800
1,189	600	2,100	2,700	3,040	4,010
16,032	7,300	21,176	14,502	2	13,003
21	21	133	32	57	32
1,272	10,820	3,300	11,100	16,866	7,702
3,723	32,000	100	8	473	141
8,200,507	7,882,421	8,181,195	11,134,031	6,931,140	14,955,305

Table 5.4. Argentina

	1970	1971	1972	1973	1974
Production (1000 MT)					
corn	9,360	9,930	5,860	9,700	9,900
soybeans	27	59	78	272	496
wheat	4,920	5,680	8,100	9,967	10,647
Imports: (MT)					
corn	182	601	51	31	31
soybeans	3	34	585	198	-
wheat	2	27	25	422,066	-
Exports: (MT)					
corn	5,232,847	6,128,393	3,005,182	4,032,708	5,600,000
soybeans	-	-	-	-	-
wheat	2,415,066	987,218	1,783,783	3,108,618	1,962,430

<sup>a</sup>FAO Trade and Production Yearbooks.

1975	1976	1977	1978	1979	1980
7,700	5,855	8,300	9,700	8,700	6,410
485	695	1,400	2,500	3,700	3,500
11,913	11,000	5,300	8,100	8,100	7,830
7	-	23	12	-	-
2	-	120	2,640	4,183	-
-	-	-	-	-	-
3,886,982	3,080,350	5,430,728	5,895,312	5,959,011	3,524,660
17	62,600	612,833	1,982,862	2,809,787	2,709,420
1,920,003	3,264,373	5,969,171	1,776,188	4,390,390	4,620,180

Table 5.5. Brazil<sup>a</sup>

	1970	1971	1972	1973	1974
Production (1000 MT)					
corn	14,216	14,307	14,500	14,109	17,284
soybeans	1,509	1,977	3,500	5,012	7,876
wheat	1,844	2,132	800	2,031	2,859
Imports: (MT)					
corn	2,110	1,180	2,141	4,251	-
soybeans	3	1,274	5,203	4,813	20,000
wheat	1,993,556	1,739,164	1,811,458	2,960,026	2,406,142
Exports: (MT)					
corn	1,470,620	1,279,696	122,074	41,013	1,102,885
soybeans	289,623	213,426	1,037,273	1,786,138	2,724,068
wheat	-	-	-	-	33

<sup>a</sup>FAO Trade and Production Yearbooks.

1975	1976	1977	1978	1979	1980
16,491	17,845	19,246	13,533	16,309	20,377
10,200	11,227	12,513	9,800	10,235	15,133
1,500	3,215	2,066	2,677	2,927	2,614
2,073	2,100	579	1,262,132	1,525,930	1,594,080
194	200	-	89,369	213,474	460,595
2,106,490	3,435,049	2,625,992	4,335,381	3,658,337	4,758,501
1,147,941	1,371,733	1,420,037	14,632	9,917	6,042
3,333,334	3,639,497	2,586,866	658,500	638,466	1,548,883
99	-	-	-	842	-

Table 5.6. EEC<sup>a</sup>

	1970	1971	1972	1973	1974
Production (1000 MT)					
corn	12,867	14,122	14,008	16,392	14,483
soybeans	5	4	5	26	53
wheat	34,807	40,058	31,992	41,452	49,815
Imports: (MT)					
corn	14,621,384	15,804,374	16,061,674	15,635,632	18,105,798
soybeans	5,248,192	5,776,203	6,531,122	7,118,783	9,115,063
wheat	11,785,560	11,094,997	11,606,954	8,595,829	10,095,467
Exports: (MT)					
corn	3,578,053	5,233,968	4,570,180	5,333,543	5,683,292
soybeans	18,414	16,580	268,592	112,634	15,700
wheat	9,091,514	6,763,215	9,489,004	11,959,810	11,225,304

<sup>a</sup>FAO Trade and Production Yearbooks.

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1975	1976	1977	1978	1979	1980
13,950	11,463	15,577	16,172	17,266	16,425
30	56	78	86	107	111
38,116	39,526	38,499	47,134	46,464	51,904
18,203,917	20,927,737	19,905,270	17,115,143	12,823,119	14,636,704
8,233,451	9,212,565	9,137,123	10,394,678	12,015,397	12,029,202
10,953,920	11,261,511	10,732,091	10,134,529	10,513,225	10,827,968
5,603,976	5,413,784	4,122,335	4,689,249	5,023,641	5,198,253
110,458	193,866	120,223	237,059	352,365	326,379
13,381,847	12,998,919	14,849,042	14,592,907	15,136,832	13,348,906

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## CHAPTER VI. THE GRAIN EMBARGOES

An embargo is defined as "an order of a government prohibiting the departure of commercial ships from its ports." This general definition recognizes that all embargoes are not alike. The circumstances and events that lead to a particular embargo may be unique. This leads one to make specific distinctions between different types of embargoes. Josling has made the following five distinctions:

"1) a general export embargo on trade with all countries for a particular commodity or a specific export embargo on sales to one country; 2) a unilateral embargo, by one exporter or a cooperative embargo, by a group of exporters; 3) an embargo in a surplus situation - for presumably political reasons or an embargo in a shortage situation - usually for economic reasons; 4) an embargo on a developed country trade flow or an embargo on a developing country trade flow; 5) an embargo on a small country (in terms of imports) or an embargo on a large country" (Josling 1981, p. 1).

Various facets of these individual distinctions can be merged to create more elaborate or complex pictures of embargoes. An example would be a unilateral embargo on a large developed country resulting from a shortage of a specific commodity. This is just one of many possible combinations which could occur. These combinations lead to numerous effects and reactions in both the domestic and international arenas, the significance of which will be demonstrated in the following chapter when the conditions for increasing the probability of success or failure of an embargo are studied.

The utilization of embargoes as political-economic tools is not a recent happening but has occurred throughout history. Several examples which have occurred in this century are the League of Nations' 1935 call

for an embargo against Italy after that country invaded Ethiopia, the United States' use of embargoes against communist countries at various times since 1949 to mitigate communist military capability, and the 1973 Arabian oil and petroleum exporting countries (OPEC) embargo on oil exports to the United States and The Netherlands to demonstrate Arabian animosity towards those countries for their pro-Israeli stance.

As stated previously in Chapter IV, the Soviets had entered the United States grain markets quite dramatically during the early 1970s. These large purchases eventually caused the United States government to take two actions; the first was an embargo on soybean exports in June of 1973 to prevent further large purchases during a short supply, and the second was negotiation of a grain trade agreement with the Soviets. However, the seeming dependence of the Soviets on United States grain appeared to create a new avenue of management for the United States when dealing with the Soviets in the international arena. This was, of course, to use grain as a political-economic bargaining tool during times of crises or confrontation. How the United States attempted to do this will be demonstrated during the examination of the embargoes. Those embargoes occurred during August of 1975 against the Soviet Union and Poland, during January of 1980 again against the Soviets, and as just mentioned during June of 1973 on all soybean exports.

#### The June 1973 Soybean Embargo

The Soviet grain sales of 1972 had depleted the United States reserves to such an extent that the Nixon Administration in 1973 implemented an

agricultural policy which called for full plantings. This was a reversal of the past policy which called for holding land out of production. During 1973 both foreign and domestic demand for grains and oilseeds had been increasing, while the supply of soybeans and related food and feedstuffs such as fish meal and peanut meal had been decreasing (Table 6.1). The demand came primarily from the Communist Bloc countries, China, Japan, and Western Europe (Table 6.2). These countries relied quite heavily on the United States for soybeans; Japan, in particular, received almost all of its soybeans from the United States. Demand, at this particular time, was unusually high because of a decline in the exports of Peruvian fish meal and Indian and Senegalese peanut meal. This, coupled with the fact that the Brazilian soybean crop was below average, forced the importing countries to look towards the United States to make up the difference.

This increase in demand resulted in record soybean exports, which drew down stocks in September 1972 to just 72 million bushels (Destler 1980, p. 51). Soybean and soybean-meal prices began to rise, which increased the cost of meat production and consequently an increase in retail meat prices. This induced consumers to form meat boycotts which were a political embarrassment for the Nixon Administration, since it had just lifted many of the price controls which had previously been installed.

The Administration attempted to control the resulting inflation on June 13 by instituting a sixty-day price freeze on all goods except raw agricultural commodities. So that the increasing export demand for these raw agricultural products did not create a domestic shortage and increase prices, which would hurt United States livestock producers even more, the

Administration decided to implement a soybean embargo. This embargo was declared on June 27 by Secretary of Commerce Frederick Dent. The decision was made despite protests from the USDA, particularly from Secretary Earl Butz, and from farm groups who feared that the United States would lose established markets as importers found alternative suppliers. The primary concern was loss of the Japanese market, since Japan was a leading importer of United States soybeans. Secretary Butz believed that the action was taken, despite the protests, because of the domestic pressure which was mounting concerning the dramatic rise in food and feed costs. Food prices as measured by the Consumer Price Index increased from 126.0 in December 1972 to 149.4 in August 1973 (Destler 1980, p. 50). The Administration wanted to take measures before the domestic pressure forced Congress into initiating mandatory export controls.

The embargo not only upset United States soybean farmers, but the governments of Europe and Japan as well. It forced these governments to question not only the dependability of the United States as a supplier, but also to what extent the United States would consider the fate of its allies when making political-economic decisions.

The embargo was eventually lifted in late summer after it was evident that the 1973 soybean crop was going to be a record. Within six weeks after the June high of \$12.90/bushel, soybean prices dropped to \$6.40, and exports increased to record levels.

## Model Determination

It is evident that the Nixon Administration implemented the soybean embargo for domestic political reasons. Even though he had just been re-elected by one of the largest margins ever, President Nixon was facing strong political pressure to keep inflation in check. Not only were livestock producers concerned with rising feed costs, soybean prices increased from \$3.95/bushel in December 1972 to \$12.90 in June and soybean meal went from \$8.67 per 100 pounds to \$18.75, but housewives were concerned with high food costs (Destler, 1980. p. 51). Both the House and Senate were calling for a price freeze. Labor Secretary John Dunlop was also pressuring the President for action, because he was fearful that increasing food costs would result in labor unions demanding pay raises which would worsen the existing inflation. At the same time, these problems were being magnified by the Watergate episode, which was beginning to unfold.

Consequently, President Nixon and his advisors decided to impose a price freeze on goods, which eventually led to the soybean embargo. Such a dramatic policy decision, they hoped, would return some of the President's credibility and appearance of authority which may have been lost.

Although the soybean embargo did not coincide with an election, it was implemented primarily because of political considerations. The Nixon Administration saw the inflationary pressures and the Watergate scandal as events which were undermining the authority and credibility of the President in the eyes of Congress and the electorate. In order to reinstate his position, the President decided on this dramatic move. This

attempted reinstatement can best be classified under the Electoral Politics Model.

#### The August 1975 Grain Embargo

During the summer of 1975, the Soviets again were in the United States markets procuring large amounts of grain. Both President Ford and the USDA reassured the public that these purchases would not significantly affect domestic prices because of the record crop expected that year. However, there were others who disagreed with the Administration. Certain members of the Senate were concerned that the sales would recreate the inflation which occurred after the 1972 sales. The dairy industry, which had just been subjected to environmental restrictions and a lifting of import restrictions on milk and cheese, objected because they were fearful of a feed price increase. Also, as described in Chapter IV, the International Longshoremen's Association decided to boycott the loading of vessels bound for the Soviet Union until they were certain that the interests of the public and the Association were protected. Under the pressure of these groups, the Administration asked the Soviets and the multinational grain companies to reduce the magnitude of the deals. The President and members of the USDA and Economic Planning Board, after receiving reports of dry weather in the grain belt, decided to suspend any further sales to the Soviets. Secretary Butz announced this decision on August 11.

Although this announcement appeased those who were against the sales, it caused an uproar from some farm groups and Congressmen who represented

rural America. These groups argued that the sales helped the balance of trade, raised farm income, and provided jobs. They objected not only to the interference of the Administration, but also to that of the Longshoremen, whom they felt were using political blackmail.

The Soviets quickly granted concessions on the shipping situation but were slow to negotiate a long-term grain agreements for which the Ford Administration was asking. The Soviets were critical of an American demand for oil price concessions in exchange for grain. President Ford and Secretary of State Henry Kissinger attempted to use the oil demand as a warning to OPEC that the United States could elicit other sources of oil. The Administration had the backing of the Senate on this move. The Soviets, however, would not grant oil-price concessions. As a counter move, President Ford had the State Department announce an embargo in late September on Poland requesting that a long-term grain agreement also be signed by that nation. This was done to prevent grain sales to that country, which could then be transshipped to the Soviets, from increasing. This action was taken without prior consultation with the USDA.

The Polish embargo lasted less than one month. USDA officials convinced President Ford to remove the embargo once information suggested that there was going to be a record crop in the United States. The Soviet embargo, however, was maintained.

The embargo was finally terminated after the long-term grain agreements were signed in October. Although the Soviets did not concede to the United States demand on oil concessions, they did agree to look into the matter.



Even though the agreements were signed, there were still criticisms from the agricultural sector and from members of both Houses concerning the length and effects of the embargo. Farm groups were critical because of the effect that record production and the embargo had on prices. They accused the State Department of manipulating both them and the export market, which cost farmers money. Members of both Houses claimed that the embargo hurt the credibility of American agriculture.

The Ford Administration counteracted by saying that Congress would have imposed export controls if an embargo was not instituted. The Administration then created the Agricultural Policy Committee, chaired by Secretary Butz, with the intent of looking after the interests of American agriculture (Weber 1977, p. 272). This was done to help appease the farm groups.

#### Model Determination

If one is to attempt to determine why President Ford ordered the Soviet embargo in 1975, one must think about the pressure placed on Ford by the electorate. Consumer groups were concerned about the inflationary aspects of the sales in terms of food price increases. The Longshoremen were concerned about this also, as well as the fact that too little grain was being transported on U.S. vessels. President Ford manipulated and formulated policy with these pressures in mind. This appeasement of the electorate can best be explained by the Electoral Politics Model.

Also instrumental in the decision-making process, but to a lesser degree, would be the Personal Values Model. By placing the embargo, Ford

wanted to prove to the Soviets, and possibly the American people, that he could act quickly and decisively when faced with important international issues. Instituting the embargo also fell in line with Ford's personal view that the Soviets should be negotiated with only from a position of strength.

This personal view of negotiating from a position of strength was also instrumental in Ford's decision to embargo Poland when attempting to gain oil concessions. However, after only a short time, electoral considerations intervened, forcing Ford to lift the embargo once a record crop was predicted.

#### The January 1980 Grain Embargo

During late 1979 and early January of 1980, the Soviet Red Army invaded Afghanistan, which lies on the Soviet southern border. The Soviets claimed that this action came as a response to a request by the Afghan government to help quell disturbances by Afghan rebels.

However, President James Carter and his advisors viewed the Soviet intervention as an act of aggression and responded by initiating a grain embargo on January 4, 1980, which involved a total of 13 million tons of United States corn, 4 million tons of wheat, 1 million tons of soybeans, and various other agricultural goods (USDA, Update: Impact of Agricultural Trade Restrictions, July 1980). This grain was over and above the minimum of 8 million tons the Soviets were required to purchase under the grain agreements. Of the 8 million tons the United States was required to ship under the agreements, 5.5 million tons were already in Soviet ports.

President Carter attempted to use the embargoes to impress upon the Soviets the United States' dissatisfaction with the aggression which was taking place. The embargo was directed towards the Soviet livestock sector, which the Soviets had been trying to improve since approximately 1965. The President's authority to embargo the grain stemmed from the Export Administration Act of 1979. This Act allows the President to embargo goods during times of short domestic supply, for reasons of national security, and for foreign policy reasons. Since the President cited the latter two reasons for the embargo, he was required by the Act to consult with Congress. The Administration complied with this requirement, and Congress endorsed the embargo. Then, on January 5, Secretary of Agriculture Bob Bergland announced a program which called for the Commodity Credit Corporation to purchase the embargoed grain. Actual purchases by the CCC began in early March. The CCC was also going to assume the contracts for undelivered grain held by the grain companies for Soviet delivery, which amounted to 21.8 million metric tons of grain.

Although the Carter Administration was willing to allow shipment of the remainder of grain sold to the Soviets under the grain agreements, the United States International Longshoremen's Association refused to load it. They finally relented to do so after a District Court upheld an order by Federal arbitrators to load the vessels bound for the Soviet Union.

President Carter not only placed an embargo on the Soviets, but requested the other major grain exporting countries not to increase their shipments to fill the void left by the United States. Australia, Canada,

and the European Community agreed not to increase their shipments beyond the present amounts already contracted for, but they did continue to make arrangements for new contracts. Argentina, however, refused to accept the United States request but did agree to monitor trade flow. The Administration also asked the multinational grain companies not to sell non-United States grain, through their foreign affiliates, to the Soviets. Later in June, the Administration rescinded the request. This move was criticized by some members of Congress who felt that it was unfair to domestic farmers.

By early summer, when it was becoming evident that the Soviets were not prepared to withdraw from Afghanistan, some members of both Houses called for an end to the sales suspension. They attempted to end the embargo by introducing an amendment to the appropriations bill which would limit the funds necessary to enforce the embargo. This amendment passed in the House but was defeated by the Senate.

By late summer, with the 1980 Presidential election approaching, President Carter was faced with strong political opposition to the embargo. As stated previously, opposition was beginning to mount in both Houses as well as with farm groups and Republican Presidential candidate Ronald Reagan. The President, however, maintained his position refusing to lift the embargo until the Soviets made a move to withdraw its forces.

The unpopularity of this position was one of several factors which caused the defeat of President Carter during that year's elections.

The embargo was finally lifted by President Reagan after it was clearly evident that it was not accomplishing the desired objective of pressuring the Soviets out of Afghanistan.

#### Model Determination

In order to categorize the particular embargo, one must not only consider the initial causes of the embargo but also the reasons for its duration.

One of the primary tenets of the Carter Administration's foreign policy was that of upholding basic human rights to ensure that a government or nation did not force its will upon its population or that of another country without the other's consent. The advocacy of this principle involved an ongoing process of evaluation of a country's performance concerning the preservation of these rights. If it was deemed that those being scrutinized were not adhering to the standards set by the Carter Administration, then that party could be subjected to several possible forms of coercion in the attempt to make their actions conform to the preconceived standards. This coercion could be in the form of reduced financial and/or military aid, a reduction of trade, a strain in diplomatic relations, or any combination of the three.

Consequently, when the Soviets invaded Afghanistan, the Carter Administration viewed it as a violation of the Afghans' human rights and employed trade sanctions. Also, as in the 1975 grain embargo by the Ford Administration, President Carter felt that some type of retaliation had to occur to show the Soviets and, to a lesser degree, the United States

electorate, that he could act quickly and decisively when faced with important international issues. Thus, the Personal Values Model would best categorize the actions taken by President Carter.

As the duration of the embargo began to lengthen, electoral considerations became influential. By late summer and early fall, when it was apparent that the embargo was not achieving the desired objectives, eleven of thirteen Presidential advisors suggested to the President that the embargo be lifted. However, President Carter refused to lift the embargo in an attempt to show toughness and resolve to the United States electorate (Under Secretary of Agriculture Dale Hathaway - 1981, personal interview). This decision would best be categorized under the Electoral Politics Model.

It must be remembered that one model cannot completely explain a particular political decision-making process. Because of the enormous size and complexity of the United States political system, it is virtually impossible for all of the paradigms to be excluded. A certain number of elements of each will be included.

It seems that the decisions of whether or not to sell grain to the Soviets is most influenced by the Electoral Politics Model, with the Personal Values Model playing a supportive role (the elements which comprise the Electoral Politics Model and their relevance will be discussed in further detail in the concluding chapter).

Schattschneider explains the usefulness of the Electoral Politics Model in two ways.



"First, the political regime of the United States is a functioning representative democracy. Secondly, agricultural export decisions affect a significant, though numerically dwindling, portion of the electorate" (Schattschneider 1960, p. 2).

Since so many of the electorate are affected by export policy decision-making, it is difficult to make policy without being influenced by those voters. Also, the magnitude of the resulting ramifications makes it difficult for the Executive branch to manage a decision alone. Hence, Congress, with its legal authority, political capability, and vested interests, becomes involved to help manage export policy. Farm, export, and consumer groups become involved because they are affected by export decisions. With the variety and number of actors involved, it becomes necessary to incorporate specific elements of the Electoral Politics Model into the decision-making process in order to implement a policy which would appease what, at that specific time, appears to be the most important group of actors involved. These specific elements would be problem solving, command, persuasion, compromising, and bargaining. Examples of these elements would be: 1) problem solving - when President Nixon imposed a price freeze on goods and eventually a grain embargo to reduce the rate of inflation and consequently appease the electorate; 2) command - when President Carter ordered the 1980 grain embargo against the Soviets; 3) persuasion - when President Ford attempted to reassure the American public that Soviet grain purchases would not recreate the inflation which occurred during the last sales; 4) compromising - when President Ford agreed to ask the Soviets to grant shipping concessions in exchange for the International Longshoremen's end to their boycott of the loading of vessels



bound for the Soviet Union; 5) bargaining - when President Ford attempted to demand oil-price concessions in exchange for grain.

Using the Electoral Politics Model to help explain, the agricultural foreign policy decision-making process of the United States should continue. As the world economy becomes more complex, decisions made concerning either the domestic or foreign arena will have consequences in the other arena. As these arenas grow to become larger and more complex, so, too, will the number and complexity of the groups of actors involved grow.

It would be impossible to divorce the Personal Values Model from the decision-making process. As long as there are actors and groups involved, their reasoning ability will be influenced by the elements which comprise this paradigm. These elements are personal beliefs and values, career development, psychological make-up, and the influence of dramatic events. The components of these various elements, naturally, may not be directly related to the problem at hand but could have been developed by past dramatic events (e.g., the conception of how agricultural trade is handled could be influenced by a past dramatic occurrence such as the Arab oil embargo).

Since the background material has been discussed, it is now necessary to address the previously stated objectives. From Chapter I, those objectives are: 1) by using the three embargoes, find the conditions for success and failure so that a generalized list may be made to compare and contrast with future embargoes when they occur. Conditions may be eclectically chosen from the generalized list, which would result in the highest probability of success when applied to a future embargo after the situation

surrounding the pending embargo has been studied; and 2) to determine the strengths and weaknesses of the chosen model, and, if possible, to suggest what the model fails to explain in terms of the decision-making process. This finalization will constitute the remainder of this work.

Table 6.1. United States Soybean Production (1,000 bu.)<sup>a</sup>

	1970	1971	1972	1973	1974
Soybeans					
(1,000 bu.)	1,125,772	1,174,620	1,281,417	1,545,364	1,213,375

<sup>a</sup>FAO Trade and Production Yearbooks.

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1975	1976	1977	1978	1979	1980
1,519,600	1,286,041	1,759,691	1,840,468	2,265,234	1,816,356

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Table 6.2. United States Exports of Soybeans by Country (1,000 bu.)<sup>a</sup>

	1970	1971	1972	1973	1974
Japan	102,791	107,379	120,983	98,754	96,895
Western Europe	239,021	232,102	254,550	312,489	241,399
China	-	-	1,210	25,269	1,378
Eastern Europe (excl. USSR)	6,059	2,424	6,046	4,300	5,488
USSR	-	-	31,465	654	-
World	433,801	416,829	479,443	539,129	420,703

<sup>a</sup> Statistical Annuals of the CBT.

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1975	1976	1977	1978	1979	1980
118,091	118,262	125,310	153,466	136,202	148,183
329,421	310,039	841,733	401,367	392,141	438,688
-	-	1,739	50,452	15,146	22,255
10,340	6,000	4,100	1,287	26,157	24,743
11,408	30,328	20,745	43,621	66,760	6,350
555,094	564,069	1,068,505	755,971	767,425	800,199

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## CHAPTER VII. CONCLUSION

Josling, in his study of recent United States embargoes, has summarized lessons which have resulted from these past policies. They are: 1) embargoes disrupt normal trade patterns and inhibit the growth of trade, especially if contracts are broken; 2) embargoes support the argument of domestic self-sufficiency and hurt those in the importing country who favor fewer protectionist policies; this may include either consumer groups and/or the food industry; 3) embargoes may encourage importers to increase their stocks which would in turn increase their costs; 4) embargoes may lead importers to seek alternative supplies and possibly negotiate bilateral and/or multilateral agreements; 5) importers realize that exporters need markets and that domestic pressure will usually force exporters to lift the embargo after a short duration; 6) importers know that after a time embargoes tend to be ineffective because of market adjustments; 7) past situations and conditions have shown that embargoes are unlikely against Less Developed Countries but are likely during times of armed conflict; and 8) both importers and exporters realize that alternatives to an embargo would be costly. An export tax would increase prices to importers, and bilateral agreements would force importers to pay a premium for a relatively secure supply (Josling 1981, p. 2).

These lessons can lead one to make generalizations concerning the possible effects of and reactions to embargoes. A multilateral embargo would be more cause for alarm to a target country than a unilateral



embargo. A multilateral effort would be similar to a cartel. A political embargo used "in extremis" would find more widespread acceptance in the international community than one used after a minor confrontation. A situation such as this may occur after an embargoed country has taken an action that strongly violates values held in common by several exporting countries. Economic embargoes have a more disruptive influence on trade relationships than on political relations. In the short run, competitive exporters have the opportunity to gain from a unilateral embargo. However, in the long run they can be hurt if the embargoed nation implements some type of anti-trade policy. Embargoing a large importing country increases the probability of affecting other countries and is more likely to be effective in reducing imports by that country. This is in contrast to a country with small importing needs that could fulfill them easily elsewhere. If a large exporting country embargoes a country with large importing needs, the event may actually increase domestic producers' income in the country placing the embargo. Assuming that the importing country can find alternative sources and that world supply of that good is highly inelastic, the resulting price increase will be substantial. The embargoing nation will then receive higher prices for that good it sends to other countries. Whether or not producer income increases will depend on whether marginal revenue exceeds the marginal cost of increased domestic stocks (Johnson 1960, pp. 343-345). Any type of embargo will disrupt international trade patterns. However, domestic considerations may have been more influential in the decision-making process than the cost of trade disruptions (Josling 1981, p. 2).

These lessons and generalizations of the effects of and reactions to embargoes can be used to formulate a list of conditions which, if present, will increase the probability of implementing a successful embargo.

However, because the circumstances and conditions surrounding an embargo will be different each time, the influence of the individual conditions will be different depending on the situation. It must be remembered that these are not absolute conditions or circumstances. Their absence will not guarantee failure; however, their presence in most situations should create an atmosphere whereby the embargo has the highest probability of achieving the desired goals and objectives of those decision makers implementing the embargo. Conversely, if the presence of each of the individual conditions increases the probability of success, their absence should increase the probability of failure. As stated before, there is no absolute guarantee either way.

Paarlberg feels that conditions must be favorable in three separate arenas for a successful embargo to occur. Those arenas are: 1) "within the political system of the nation seeking to exercise food power; 2) within the bounds of the international food trading system; and 3) within the political and economic system system of the target nation" (Paarlberg 1980, p. 145). The Administration must be successful in preventing the good not only from moving out of its own country but from other countries as well. This reduction of exports to the target must also be large enough to produce the desired results (Paarlberg 1980, p. 145).

Paarlberg's conditions can be broken down into a more detailed list. This list includes: 1) multilateral cooperation; 2) domestic political support; 3) vulnerability of the target country; 4) goals and duration; and 5) moral implications.

#### Multilateral Cooperation

If an embargoing country does not have a monopoly on the product being embargoed, it must naturally enlist the cooperation of other producing nations that may export that product so that the trade void will not be filled. If these other nations are to cooperate, their heads-of-state must be notified and convinced that an embargo is necessary and will be carried out (Roney 1982, p. 202). This will allow other exporters ample time to evaluate the situation and decide whether or not the embargo is justifiable and if their country should either join in or increase their exports of that good. One could argue that by informing another country of a pending embargo, that country could better prepare itself to fill the void, especially if it felt that an embargo was not necessary. This may be true; however, it seems that it would be easier to enlist a country's cooperation by consulting with it before rather than after the fact.

However, if another supplier did not cooperate, it may be possible for the embargoing country to coerce them into cooperation by reducing economic and/or military aid or by undercutting its other markets in not only the embargoed good but in other goods as well. This could be done by subsidizing exports of similar goods thereby taking away the uncooperative

country's markets creating a surplus in that country. This would be costly to the embargoing nation. The question must then be asked -- how much of a cost is the embargoing country willing to pay in order to undercut the uncooperative nation? A determination of this is affected by decision makers' perceptions of their own country's national character as well as that of the uncooperative country, and by the social and political-economic relationships that exist between the two nations.

Arranging this cooperation obviously could not come from a drawn-out international debate. It must be enlisted as quickly and secretly as possible to prevent the embargoed nation from preparing for the sanctions, thus lessening the effects. This would also help to minimize the resulting market fluctuations which would occur since trading of the embargoed good would be restricted.

This consultation with other exporters would only be necessary if a good was being embargoed from a country to protest an action taken by that country. If a good was being embargoed because of a domestic shortage, then it would be necessary to inform the major importers of that good. If this was not done and the importers could not adequately adjust to the sudden loss of that good, then the exporter could be accused of not being a reliable supplier and could consequently lose a market when adequate exporting supplies were available. The exporter could possibly help the embargoed nation find alternative sources of supply. This would, however, upset domestic producers. This could also have both short- and long-term consequences on the success or failure of future trade or embargoes since

actions taken today may affect the outcome of future actions (i.e., shared and personal values may be influenced).

These two tenets were violated during the grain embargo of 1980 and the soybean embargo of 1973. One of the primary reasons that Argentina, and later the other major exporters, did not adhere to the 1980 embargo was because of this lack of prior consultation (Roney 1982, p. 202). This naturally limited the effectiveness of the embargo. Likewise, before the 1973 embargo, Japan, one of the largest importers of United States soybeans, was not informed, which caused consternation in that country. Although Japan was not lost as a market, it did force the Japanese to look elsewhere for other large suppliers, most notably Brazil, and resulted in the Japanese making investments in the Brazilian soybean industry in the interest of import security (Hopkins and Puchala 1980, p. 59). It also alarmed other importing nations such as the European Economic Community, causing them to consider increasing their self-sufficiency in oilseed production (Josling 1981, p. 3).

#### Domestic Political Support

Because of the complex nature of the political-economic structure of the United States, it is literally impossible to initiate a policy or program that would be beneficial to all United States citizens. Knowing this, the decision maker, when initiating policy, will attempt to garner the marginal support necessary to prevent that policy from being undermined and thereby lessening its effectiveness.

In order to achieve the necessary support, three things must be accomplished. First, the public must be aware of and agree with the objectives and be convinced of their likely effectiveness. Without this awareness, the public will be uncertain as to whether or not the embargo is meeting its expectations.

Secondly, an Administration must convince the groups who perceive themselves as being hurt the most by the embargo that they are not carrying a disproportionate burden as everyone else. This can be done by compensating these groups for the losses which they may incur or by convincing them that other segments of the domestic sector are also equally sharing the burden.

Lastly, the Administration must convince others of the seriousness of its intentions. If the Administration institutes an embargo, it must do everything within its rightful power to see that the embargo is carried out to its fullest. This would mean negating all contracts and agreements made by both the private and public sectors to prevent as much of the embargoed good from reaching the country as possible, or to keep as much of the embargoed good as possible from leaving the country if it is in short supply. However, given the discussion in Chapter V on the structure of the international grain marketing system, it is difficult to restrict the destination of grain after it leaves an exporting country's port. Consequently, it may be easier to enforce a general embargo aimed at completely stopping exports than an embargo aimed at one country.

During 1980 the United States domestic sector was uncertain as to the exact objectives and effectiveness of the embargo. Many felt that the



desired goal was to force the Soviets out of Afghanistan. When this did not occur, the domestic sector quickly became disillusioned as to its effectiveness (Under Secretary of Agriculture Dale Hathaway - 1981, personal interview).

The Carter Administration also failed in its attempt to convince the agricultural sector that they were not carrying a disproportionate share of the burden the embargo was creating. This occurred even though the CCC purchased the embargoed grain.

The Carter Administration also violated the third item because it allowed the multinational grain companies to sell non-United States grain through their foreign affiliates to the Soviets, which many felt was unfair to the domestic farm sector.

#### Vulnerability of Target Country

According to Hathaway, a country would be considered vulnerable to an embargo if it had one or more of the following characteristics: 1) it has a weak government; 2) it has a high import level of the embargoed good; 3) the total import volume of the good is high in relation to world trade; and 4) the embargo disrupts the goals and objectives of the embargoed country (Under Secretary of Agriculture Dale Hathaway - 1981, personal interview).

If the embargoed good is vital to the national security of a country, it would make it easier for the embargoing country to negotiate from a position of strength if it was trying to gain concessions or if it was retaliating against actions taken by the embargoed nation. A nation,



having a weak government, placed under the stress of the embargoing of an essential good, would be especially vulnerable since it would be exposed to the threat of a coup or overthrow. If that country's import level is high, especially in relation to total world trade in that good, it would be difficult to procure the good immediately from other sources. Other, perhaps smaller, sources would have to be found, negotiations carried out, shipping arranged, and finally delivery made. This would take time, and money and may be difficult to achieve on short notice for a country operating under a centralized system. During this time, a nation may have to draw down its reserve stocks. The fact that a nation is a large user of a good would have a direct bearing on whether or not it could be effectively embargoed. The primary reason the United States did not embargo Iran during the hostage crisis was because Iran's import requirements were so small -- not only from the United States but in relation to total world trade -- that it would not have been difficult for the Iranians to fulfill their needs elsewhere.

Disrupting a country's goals and objectives would not be difficult if that country depended to a large degree on the embargoed good to carry out its plans. However, it would be difficult to quantify exactly to what extent the plans were disrupted, especially if a country operated under a closed system.

The vulnerability of a target country will also depend on the willingness of its people to endure the hardships of the embargo. This willingness would be a reflection of the national character of a country, which as stated in Chapter III is a frequently ignored element of

political-economic decision making. Naturally, this element is impossible to quantify, and how it is integrated into policy will depend on how it is perceived by the decision makers.

The vulnerability of the Soviet Union was misinterpreted by both President Ford and Carter when they imposed their respective embargoes.

During the 1975 embargo, President Ford attempted to disrupt the Soviet's grain import goals by demanding oil price concessions in exchange for the grain the Soviets were purchasing. However, the Soviets did not concede to these demands even after the United States embargoed Poland. The Ford Administration had overestimated the Soviet's need for grain when trying to barter for the price concessions.

During the 1980 embargo, President Carter attempted to disrupt production in the Soviet's livestock sector by denying them feed grain. However, the pressure imposed upon the Soviets was not great enough to force any type of withdrawal from Afghanistan.

It may be argued that the decision makers of both the United States and the Soviet Union perceived the ability and willingness of the Soviet people to withstand the embargoes in different ways. The United States' decision-makers hoped that the disruption in import levels and livestock output would translate into the unrest of the Soviet citizen, which would put pressure on the Soviet government. This did not occur. The Soviet government's ability to correctly interpret their national character allowed them to initiate policy in spite of actions taken against them directed toward their consumer groups. This is not to say that the embargoes did not produce some effects. However, they were not as

significant as hoped. This suggests that decision makers of western nations have a much less understanding of the national character of eastern nations than they do of western nations. Presidents Ford and Carter's misjudgment of the Soviet Union's vulnerability is a manifestation of this.

#### Goal and Duration

Because of the characteristics and structure of the world political-economic system, no embargo or sanction can last permanently. Since no one country has a monopoly on any one good and because of the relative free market economy of the world, other producers will be tempted to earn a profit by supplying the good. If for some reason the sanctioned country cannot obtain an adequate supply, the possibility exists that substitutes could be found, the country over time could rebuild its supply from within, or it could simply go without. Consequently, once the objectives of the embargo have been set, some type of goal or duration should be set in terms of volume and/or time. This could be done privately or made public (Roney 1982, p. 204). This condition would be beneficial to the implementing Administration no matter if the embargo was a success or failure in terms of the predetermined goals and objectives. If the embargo was successful, it could always be extended; and if it was a failure, the Administration would have a face-saving reason to terminate it.

The 1973 soybean embargo was successful in this respect since the length of the embargo was contingent upon the next soybean crop. If the

crop was sufficient enough to replenish stocks, then the embargo could be lifted; if not, it could be extended.

As stated in the Domestic Political Support section of this chapter, the American public was uncertain as to the goals and duration of the 1980 embargo. As a result, President Carter faced pressure from both Houses, farm groups, and the electorate. This was especially crucial since it was during the presidential primaries. The disillusionment of these groups intensified as time went on, which put further pressure on the President. Since no specific goals or duration were announced, President Carter had no face-saving reason to terminate the embargo once it was evident that it was failing.

#### Moral Implications

It is possible that a country, or group of countries, that chooses to embargo goods such as food and/or feed grains could come under severe domestic and international criticism if it appeared that the embargo was part of a starvation policy. Denying a country the required food necessary to keep a part of its population alive would not be condoned within the international community. This is because an embargo of this type would punish the poorest of that nation, those who usually have no real power within their country's political system. A starvation policy could only be justified during a condition of war. This could only come about if the target country initiated an act so dramatic that the international community would ban together and rally against that nation (Roney 1982, p. 205). This, of course, still would not guarantee a



completely successful embargo as the target country would still have its allies to draw supplies from if, indeed, the supplies were available. However, international approval of such a policy would increase the probability of a successful embargo as supporting nations withdrew supplies (Under Secretary of Agriculture Dale Hathaway - 1981, personal interview).

Of the five conditions listed, the moral implications element has probably been the most ignored when analyzing past agricultural policy decisions. This is because in none of the examples being studied were any of the decision-makers ever accused by the international community of implementing a starvation policy. The embargoes affected primarily the livestock sectors of those countries who lost their grain supply, which would decrease long-term meat output but not necessarily food output.

An accusation of this type by the international community was never levied because it was realized that the embargoes did affect the livestock sector more than the populace and, secondly, because it was also realized that none of the embargoes was so devastatingly effective as to reach the populace to any significant degree. Even if they had been completely effective, they would not have brought on starvation or near starvation, or probably even hunger.

To achieve the second objective of this work, that of determining the strengths and weaknesses of the Electoral Politics Model (EPM), and attempting to suggest what this model fails to explain in terms of the decision-making process, one must know that fundamental assumptions were

used to develop the model. This is essential because the assumptions determine how effective a particular model will be. Naturally, the more accurate the assumptions, the easier it will be to determine whether a particular model is appropriate in describing a decision-making process.

It must be remembered that the EPM was not created exclusively for the examination of agricultural policy decision-making. It was created to examine broader, less-defined areas of the decision-making process. Consequently, the points mentioned next might not be appropriate or qualify when discussing areas outside of agriculture. However, if it was created for that purpose alone or was being applied for that purpose, the EPM might take the following points into consideration.

As stated previously, the EPM evolved from two earlier theories on political behavior by Anthony Downs and David Mayhew. They both agreed that the goal of the political actors is to become elected or re-elected in order to achieve other goals and objectives when finally in office. Some of the major assumptions of how this was to occur, however, were slightly different. Downs felt that political actors operated with their own self-interest in mind but within the confines of the law and without harming others of the same political party. Mayhew felt that politics was "a struggle among men to gain and maintain power" (Mayhew 1975, p. 6).

The EPM has deviated from the original concept of attempting to become either elected or re-elected in order to achieve goals and now assumes that actors formulate policy in order to become elected. However, it still maintains that the actors operate for their own self-interest and to gain power.

The primary assumptions of the EPM as described in Chapter II are as follows:

- 1) Political groups and actors desire either the office or to influence those in office to reap the benefits which accrue.
- 2) The groups or actors will formulate policies to achieve these goals instead of becoming elected to formulate policy; in other words, they try to formulate policies to win elections, not win elections to formulate policies.
- 3) Policy action is a result of electoral demands and supports.
- 4) The economic rationality of the policy as it relates to the problem at hand may be ignored in order to win the voter.
- 5) The groups or actors only try to garner enough support to win the election or to influence the elected.

The strengths in the assumptions of the EPM are manifold and are in evidence numerous times in the embargoes being studied. Of the major assumptions mentioned, all except the second can be used to construct a sound model. Examples will illustrate how these assumptions help shape the EPM.

The first assumption, that of political groups or actors desiring either the office or to influence those in office, was evident during the 1975 embargo as the International Longshoreman's Association attempted to pressure President Ford by refusing to load grain onto vessels. Succeeding at this would have enhanced their political clout. Examples of attempts by actors desiring the office of President, or in these situations to become re-elected, are numerous. These actors naturally are

after the benefits of power, prestige, income, and to fulfill the desire for conflict.

The third assumption, that of policy action being a result of electoral demands and supports, again is evidenced frequently. At times, the policy maker will attempt to determine what type of political and/or economic environment the electorate desires and then will formulate policy to achieve such an environment. This was just such the case in 1973 when President Nixon ordered the soybean embargo. At that time the electorate had been pressuring the President to keep inflation in check. To alleviate this pressure, the President first ordered a sixty-day price freeze and then the soybean embargo in order to keep prices down.

The fourth assumption, ignoring the economic rationality of the policy to win the voter, was in effect during the 1980 embargo. After it had become apparent that the embargo was ineffective, President Carter, against the advice of the majority of his advisors, refused to lift the sanction. The President may have understood that the embargo was not producing the desired effect but kept it on in order to appear strong and decisive to the electorate.

The final assumption, garnering enough support to win or to influence the elected, is in effect whenever action is taken. Decision makers understand that it would be irrational in terms of time, money, and effort to attempt to gain more than the margin necessary for approval of a policy or action. They do not try to create a mandate, if possible, but to garner only enough support to move forward in the policy and decision-making process.



The second assumption states that groups or actors will formulate policies to achieve goals, instead of becoming elected to formulate policy. This is the weakest of the assumptions. Perhaps it is not so much a weakness as being incomplete because it is not elaborate enough. Not only do political actors formulate policy to become elected, they must do other things as well. They also formulate policy to maintain electoral support once they are in office. The EPM assumes, to an extent, that once the election is over, the electoral process is also over. This is not true. Once elected, the actor must curry public opinion to maintain enough support to implement policy as well as maintain the appearance of power. It becomes a political necessity to manipulate policy in order to increase electorate satisfaction. Maintaining this electorate satisfaction will help when the actor is implementing policy which he believes will not only make him better than his predecessors but will aid his constituents and those in the international arena. The actor then is running a continuous election in order to maintain a momentum of support which will help during times when an unpopular decision must be made and then carried out. This concept relates back to the original thesis of Mayhew and Downs -- that actors win elections in order to implement policy.

To accomplish his goals, the actor must have, or appear to have, the characteristics of credibility, authority, toughness, and resolve. These traits will help the actor to negotiate from a position of strength. (What he is trying to project as an image, at times, could perhaps also be categorized under the Personal Values Model.)

These points were evident during the 1973 and 1980 embargoes. President Nixon was setting a policy to maintain his credibility and appearance of power, while President Carter was trying to increase electoral support to become re-elected as well as maintain his human rights posture by helping those in the international arena.

Consequently, the EPM fails to do what Mayhew and Downs originally intended it to do. It fails to explain why political actors continue the electoral process even after they are elected. Thus, in order to adopt and apply the EPM to agricultural policy decision making, one must also incorporate Mayhew's and Downs's concept that actors attempt to become elected to formulate policy and not just to gain power but to maintain it as well.

### Summary

Elements that must be considered in judging the likely success of an embargo are: 1) multilateral cooperation; 2) domestic political support; 3) vulnerability of the target country; 4) goals and duration; 5) moral implications. Decision-makers must determine how much significance each element or condition must be given after examining the situation at hand.

First, they must ask themselves if they can indeed gain the necessary support in both the international and domestic arenas to carry out policy actions. As demonstrated, this can be difficult. The fairness of the policy must be considered. Adequate justification must be given, and possible compensation must be doled out in order to gain the necessary support, or the opposite may be necessary. Those who do not cooperate may

have to be punished to demonstrate the seriousness of the intentions of the embargoing nation. Secondly, the decision-makers must determine the vulnerability of the target country. The import needs of that country must be examined to see if trade in the embargoed good will be disrupted to any significant degree. This may affect the goals and objectives of the target nation. The stability of the government and the national character (their willingness to tolerate an embargo) must also be taken into consideration. Consequently, good information on the political-economic condition of the embargoed country as well as their national character is necessary to predict their likely response to an embargo. If there is a low tolerance by either the government or the people to withstand trade sanctions, this may increase the probability of achieving a successful embargo.

Thirdly, the decision-makers must have pre-determined goals and objectives in which to measure the relative success of the embargo once initiated. This will allow them the opportunity to either maintain the sanction or withdraw it without losing credibility. Lastly, the moral implications must be considered. If the sanction is deemed too severe or dramatic by either the domestic or international arenas in relation to the reason it was ordered, then adequate support may not be provided to carry out the action.

How much consideration the decision-maker gives to any one individual condition may be determined by current electoral considerations. The resulting decision may then become a function of electoral factors. Policy makers are constantly trying to maintain credibility, authority,

and popularity in order to more easily carry out policy. Consequently, decision-makers continue the electoral process even after being elected in order to maintain the electoral satisfaction necessary to carry out policy. This reverts back to the original intention of Mayhew and Downs of why decision-makers continue the electoral process and is the underlying weakness of the EPM.

Through the analysis of policy and the examination of the decision-making process, it is apparent that politics and economics are indeed linked in the reality of domestic and international relations. A condition has evolved whereby there is not just a consonance between politics and economics but an almost inseparability when dealing in domestic and international relations. A political-economic event in one arena, either domestic or international, will have a highly visible effect on the other. So as long as there is contact between two nations, a significant event in one will have an impact on the other. This, of course, can be good or bad depending on the event. Naturally, some events cannot be controlled, and an unexpected nation may have to suffer the consequences.

Because of the various links, actors must understand the relationships which exist so that not only can they be prepared for uncontrollable or unexpected events, but so they can manipulate policy to better serve those for whom they are responsible.

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## APPENDIX. HOLDINGS OF MULTINATIONAL GRAIN FIRMS

Cargill, Incorporated:

Oilseed Processing Plants: 14 in U.S., 3 in Europe

Memphis, Tennessee - soybeans

Gainesville, Georgia

Norfolk, Virginia

San Francisco, California

Sioux City, Iowa

Cedar Rapids, Iowa - soy flour plant, also corn refining plant

and Textratein producer

Fayetteville, North Carolina - 12,000,000 bushels annually;

33,000 bushels, 1,000 tons per day capacity

Feed Manufacturing Plants: (35 in the U.S., more than 20 in Europe)

(1) Rowan, Iowa - purchased in 1968 from Farmers Grain and Feed  
Coop.

(2) Omaha, Nebraska and (3) Havana, Illinois - combined annual  
capacity more than 100,000 tons

(4) Kansas City

(5) Centreville, Iowa

(6) Jacksonville, Florida - Painter Poultry Co., Inc.

(subsidiary) feed mill

(7) Vincennes, Indiana - joint operation as Nutrena by Cargill  
and Bilskie Farm Supply Co.

(8) Minneapolis, Minnesota

Feed Manufacturing Plants: (continued)

- (9) Greenfield, Indiana
- (10) Houston, Texas - liquid protein supplement
- (11) Memphis, Tennessee and (12) Port Cargill, Minnesota - liquid protein supplement.
- (13) Sioux City, Iowa
- (14) Alix, Arkansas - primarily turkey feed - 240,000 tons per year - cost \$500,000.
- (15) Westville, Oklahoma - operated by Lincoln Liquid Feed Plant; Davenport, Iowa - located on Mississippi River.

Grain Elevators:

Alabama: Guntersville

California: Sacramento

Colorado: Denver

Delaware: Seaford

Florida: Tampa

Illinois: Centerville; Chicago; Gibson City - 4,000,000 bushels, also corn drying capacity of 10,000 bushels per hour

Indiana: Princeton; Vincennes - 400,000 bushels - "Ingleheart" operated as joint venture by Cargill and Bilskie Farm Supply Co.; Linden - inland grain (Indiana corn, soybeans and wheat) handling terminal - capacity 1.9 million bushels - located on two major rail lines.

Grain Elevators: (continued)

Iowa: Algona; Cedar Rapids (2); Council Bluffs; Des Moines;  
 Redfield; Rowan - 300,000 bushels storage with feed mill;  
 Sexton; Sioux City; Washington; Alta - 330,000 bushel  
 storage; Beaver - 486,000 bushel storage

Kansas: Kansas City - 10,000,000 bushels

Kentucky: Madisonville

Louisiana: Port Allen - "Port of Baton Rouge;" Shreveport

Minnesota: Breckenridge - stores sunflower seeds; Columbia  
 Heights - flax plant; Crookston; Duluth - 10,000,000  
 bushels - "Occident" purchased from Peavey

Mississippi: Natchez

Missouri: Forest City; Kansas City - 3,300,000 bushel -  
 "Milwaukee"

New York: Albany; Buffalo - 7,600,000 bushels

North Carolina: Fayetteville - 3,500,000-bushel storage capacity  
 at soybean processing plant; Washington; Wilson.

North Dakota: Wyndmere - 300,000-bushel storage. 750-ton  
 fertilizer blending. Small seed cleansing plant. Operated  
 by Richland Grain Co.; Anamoose - 150,000 bushel storage

Ohio: Lima; Maumee - "Toledo"; Toledo - "East Side"

Oregon: Portland

South Dakota: Aberdeen; Milbank; Trent

Tennessee: Chattanooga; Memphis - "Port of Memphis;" Memphis -  
 "President Island Oil Plant"

Grain Elevators: (continued)

Texas: Channelview, Jacintoport (near Houston); Port Arthur -  
 "Port Arthur Canal & Dock Company" - 3,500,000 bushels -  
 elevator, storage tanks, railroad track and acreage leased  
 from Kansas City Southern Industries, Inc.

Washington: Rosalia - 300,000 bushels; Seattle - 4,200,000  
 bushels "Pier 86" leased (from Burlington) fully automated;  
 ship-loading rate: 3000 tons per hour.

Wisconsin: La Crosse - "La Crosse"

Flour Milling: Burrus Mills, Inc. (Dallas, Texas) - formerly a  
 subsidiary of Eltra Corp. (N.Y.) Market area - Texas

Facilities - Flour Mill (Ft. Worth, Texas)

Terminal Grain Elevator (Amarilla, Texas)

Erwin Bag Co. (Houston, Texas)

Grain Elevator and Wheat Processing Plant (Dallas,  
 Texas)

Resin Plants: Produces oil from polyesters, silicones and amino  
 resins, unsaturated polyesters, water soluble systems and an  
 aliphatic type of pre-polymer urethanes.

Philadelphia, Penn.: \$3,000,000 plant under construction.

Carpentersville, Ill.

## CARGILL SHIPPING FACILITIES

Cargill Peruana SA, Lima, Peru. (Fishmeal fleet)

	<u>Type</u>	<u>Gross Tonnage</u>	<u>Built</u>
Don Gamboa	fishing	105	1966
Calepa III	fishing	105	1966
Calepa IV	fishing	105	1967
Calepa V	fishing	105	1969
Calepa VI	fishing	105	1969

Victoria Marine Company - Amsterdam, Holland

Captain W.D.			
Cargill	merchant	35,303	1967
Carchester	merchant	9,074	1967
Carlantic	merchant	38,000	1970

Cargill, Inc. DE, Franklin, Louisiana

	<u>Type</u>	<u>Gross Tonnage</u>	<u>Built</u>
Car Isle	pasenger	28	
Car Mine	passenger	41 (U.S. registered)	

Cargill Carriers, Inc., Wilmington, Delaware

	<u>Type</u>	<u>Gross Tonnage</u>	<u>Built</u>
Austen S.			
Cargill	towing	1,008	1960
Carweld	miscellaneous	20	1957
Carweld II	towing	21	1958
John H.			
MacMillan, Jr.	freight	1,065	1964

44 barges with total tonnage of 38,391 gross tons:

10 barges	840	1960
8 barges	860	1963
6 barges	886	1960
15 barges	887	1960
5 barges	898	1958

## CONTINENTAL

## ELEVATORS

California

Continental Elevator - French Camp  
Continental Elevator - Lemoore  
Continental Elevator - Saco Siding (P.O. Bakersfield)

Illinois

Continental Elevator "C" - Chicago  
Continental Elevators - Chicago  
Continental Elevator - East St. Louis  
Continental Elevator - Gilman

Iowa

Continental Elevator - Cushing  
Continental Elevator - Walnut

Kansas

Continental Elevator - Hutchison  
Continental Elevator - Morrowville

Louisiana

Continental Grain Elevator - Westwego (P.O. New Orleans)

Minnesota

The Continental Elevator - Minneapolis  
Port Continental Elevator - Savage

Nebraska

Continental Elevator - Brownville  
Continental Elevator - Cornlea  
Continental Elevator - Shelton

New York

Continental Concrete Central Elevator - Buffalo 4,500,000 bu.

Ohio

Continental Elevator - Columbus

Oklahoma

Continental Elevator - Enid

Pennsylvania

Continental Erie Elevator - Erie

Tennessee

Continental Memphis Elevator - Memphis

Texas

Continental Elevator - Capps Switch (P.O. Sunray)  
 Continental Elevator - Etter (P.O. Dumas)  
 Continental Elevator - Gruver  
 Continental Elevator - Saginaw  
 Continental Elevator - Sunray

Virginia

N & W Grain Elevator - Norfolk

Wisconsin

Continental Elevator - Superior

## FACILITIES

Feed plants: Lancaster, Pennsylvania - 80,000 tons annually; Sherman, Texas; Franklinton, Louisiana; Elwood, Kansas.

Poultry products plant and feed mill: Danville, Arkansas, 100,000 tons per year.

Flour mill, feed plant: Curacao, Netherland Antilles-part owned.

Wayne Feed plants: Guntersville, Alabama; Troy, Alabama; Gainesville, Georgia; Iowa City and Mason City, Iowa; East St. Louis, Illinois; Fort Wayne, Indiana; Omaha, Nebraska; Buffalo, New York; Everson, Pennsylvania; Memphis, Tennessee; Fort Worth, Texas; Portsmouth, Virginia; Gainesville, Wisconsin.

Wayne alfalfa dehydration plants: Cozad, Nebraska; Darra and Elm Creek, Nebraska



Wayne poultry products plants: Union Springs and Albertville, Alabama; Pendergrass and Clermont, Georgia; Fort Recovery and Postville, Iowa (turkey processing); Archibold, Ohio; Laurel, Mississippi.

Wayne Feed Division

4000 dealerships in 37 states

23 feed manufacturing plants include:

Selma, N.C.	Worthington, Minn.
Mendota, Illinois	Mason City, Iowa
Bushnell, Illinois	Omaha, Nebraska
Castleton, Indiana	Ft. Worth, Texas
Lancaster, Penn.	Alexander, New York
Iowa City, Iowa	Sangerfield, New York
Elwood, Kansas	Cordele, Georgia

4 pet-food manufacturing plants:

Peoria, Illinois  
 Everson, Penn.  
 North Platte, Nebraska (Central Nebraska Packing Co.)  
 Sebring, Ohio

DIVISIONS, AFFILIATES, SUBSIDIARIES

Allied Mills - 75% owned by Continental Grain. Allied Mills is engaged in integrated poultry operations, soybean and alfalfa processing, and the manufacture of livestock and poultry feed and pet food. Its subsidiaries and divisions include:

Poultry Products Division  
 Wayne Animal Health Aids  
 Soybean and Alfalfa Division  
 A gilt (hog) leasing program  
 Baronet Corporation - a wholly owned leather-goods subsidiary  
 Polo Food Products - a quick-foods business

ContiCommodity Services - A futures brokerage division formed in April, 1970.

Oroweat - A California baking andd milling concern.

Stellar Chartering & Brokerage, Inc. - A wholly owned subsidiary formed in 1968 with the acquisition of Mack Klosty and Company.

Continental Grain Sales Corp.

U.S. Grains Division - Handling grain activities in the United States and Canada.

Commodities Division - Headquarterred in New York.

Far Eastern Division

Overseas Shipholding Group - The Fribourg family owns 14.3 percent interest, valued at about \$17.5 million.

Cie. Continental d'Importation - Operating in Belgium and Paris.

Continental Limited (London) - Affiliate that began in 1947 and includes William H. Pim Junr & Co., and acquisition.

ContiConsult (New York) - Provides consulting services for Continental Grain affiliates and divisions as well as outside organizations.

International Merchandising Center - Operating in Western Europe.

Continental Grain of Canada

Agricom - An Argentine food distributorship.

Continental Milling Corporation - Operates flour and feed mills in developing countries.

- National Milling Company of Guyana - 100 percent owned.

- Guayaquil, Ecuador - Continental, in a joint venture with Seaboard Allied Milling Corporation, operates a flour mill, a textile bag manufacturing plant, and shipping facilities.

- Trujillo, Peru - Continental operates flour mill with total capacity of 4,600 cwt daily, including a durum milling unit with capacity of 2,000 cwt daily.

- And flour milling facilities in Curacao, Netherland Antilles and Guadeloupe, West Indies.

# BUNGE CORPORATION

## DIVISIONS, AFFILIATES, SUBSIDIARIES

Bunge & Born - Buenos Aires, Argentina

Koninklijke Bunge (NV) - Operates Europort, an area grain terminal in Rotterdam, Netherlands harbor.

First American Farms - Producing soybeans in Walton County, Florida.

Bunge of Canada Limited

Gano Grain Division

Galveston Elevator Company, Inc.

Mikco Grain Company

Hallet & Carey Division

P. R. Markley Division

River Grain Division

## FACILITIES

Port terminals - Four, including Destvehan, Louisiana, Galveston, Texas, and Philadelphia, Pennsylvania.

River and rail terminals - 27 including Bunge Corporation, Albany Grain Terminal, Albany, Illinois; Mikco Grain Company Elevator, Cairo, Illinois; Bunge Corporation East Hannibal Grain Terminal, East Hannibal,

Illinois; Bunge Corporation Shawneetown Grain Terminal, Old Shawneetown, Illinois; Kansas City, Kansas; Livermore Grain Terminal, Livermore, Kentucky; Port Bunge, Savage, Minnesota; Katy Elevator, Fort Worth, Texas; Galveston "B" Elevator, Galveston, Texas.

Soybean processing plant - Destrehan, Louisiana with processing capacity of 1,000 tons per day. Site included an export elevator with 8,000,000 bushel capacity, which was destroyed by an explosion in 1971.

Farmland - First American Farms, Walton County, Florida.

Elevators - Bunge of Canada Ltd. in 1967 leased an 8 million bushel grain elevator terminal at Quebec City, Quebec.

#### LOUIS DREYFUS CORPORATION

##### ELEVATORS

Port Cartier Elevator (Quebec) - Unloading speed of 70,000 - 80,000 bushels an hour; loading speed of 100,000 bushels an hour; storage capacity of 10,460,000 bushels.

Pascagoula, Mississippi; Portland, Oregon; Baltimore, Maryland; Minneapolis, Minnesota; and Windust, Washington.

## SHIPPING INTERESTS

Buries Marks LTD - City Gate House, Finsburg Square, London, England.

	<u>Type</u>	<u>Tons</u>	<u>Built</u>
La Chacra	merchant	16,599	1963
La Colina	merchant	7,216	1958
La Estancia	merchant	28,007	1965
La Hacienda	merchant	800	
La Loma	merchant	10,251	1959
La Sierra	merchant	28,004	1966
	(Flower Line Ltd.)		
La Primavera	merchant	6,935	1960
	(Louis Dreyfus & Co. Ltd.)		
La Marea	merchant	10,112	1958

Louis-Dreyfus & Cie - Paris, France; City Gate House, Finsburg Square, London, England.

	<u>Type</u>	<u>Tons</u>	<u>Built</u>
Alain LD	merchant	12,705	1969
Charles LD	merchant	21,560	1962
Francois LD	merchant	16,516	1962
Gerard LD	merchant	21,536	1963
Jean LD	merchant	7,106	1957
Leopold LD	merchant	63,818	1970
Louis LD	merchant	7,109	1957
Pierre LD	merchant	21,536	1962
Robert LD	merchant	12,705	1969
Phillippe LD	merchant	6,733	1958

Source for the Appendix. Hamilton 1972.

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