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THE MICROFOUNDATIONS OF POLITICAL ECONOMY

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Both economists and political scientists are engaged in developing the theoretical structure of political economy, especially as it applies to international relations.[1] A growing number of political scientists believe that a better integration of political science and economics is needed because of the importance of economic factors in shaping domestic and international political relationships in today's interdependent world. When focussing on the goals of the political and economic actors, they define political economy as the dynamic interactions in international relations arising from the pursuit of power and wealth (Knorr 1973, Gilpin 1975, Keohane, 1984). Alternatively, when focussing on the organizational structure in which the political and economic actors operate, they define the subject as the study of the interaction of the state and the market (Gilpin, 1988).

Many economists are also dissatisfied with the traditional confines of their discipline. As economic analysis demonstrated the need for government intervention to overcome the failure of the market mechanism to achieve welfare-maximizing allocations of economic resources in some circumstances, economists began to inquire whether the political process would function in a manner to bring about the adoption of the required policies. This, in turn, stimulated interest in applying economic tools and methods

in analyzing the political processes by which public policy choices are determined, and political economy is defined by some economists in these terms. Other economists view political economy simply as the study of the manner in which economic and political factors interact in the determination of public policies.

I. Contrasts in the Approaches of the Two Disciplines

A. The Economist's Approach to Political Economy

In analyzing the public choice process in political markets, most economists use the same neoclassical framework that they employ in investigating the decisionmaking process in economic markets. Households are assumed to be rational in the sense of being able to order the set of economic and social choices available to them in a consistent manner, and their preferences for these goods and services are assumed to depend only on their own consumption of these items. Each household maximizes its welfare subject to such constraints as the size of its budget and its voting power. Firms are assumed to maximize profits subject to the same types of constraints.

On the basis of this self-interest framework, economists view the public choice process as one in which households and firms are the demanders of particular public policies, while public officials are the suppliers of public policies. The nature of the policies sought by households and firms depends on the effect of the policies on their economic welfare. For example, in the simple two-good, two-factor (capital and labor)

Heckscher-Ohlin model of international trade, workers in a capital-abundant country that is exporting the capital-intensive good will favor protectionist policies, since these policies will raise the price of the labor-intensive import good and thereby increase labor's real income. Capitalists will favor free trade for the opposite reason. In contrast, with a specific-factors model where capital is immobile between the two sectors and labor possesses industry-specific skills, both workers and capitalists in the import-competing industry will benefit from protection. Public officials, who also act out of economic self interest, seek to be reelected and, therefore, respond to the policy demands of those who provide the votes and campaign funds needed for reelection.

A variety of formal models have been developed to explain the determination of public policies within this self-interest framework.[2] For example, Mayer (1984), using a framework in which citizens vote directly on trade policy, shows that a country's trade policy depends on the relationship between the country's aggregate endowment ratio and the median voter's factor endowments. Stigler (1971), Peltzman (1976), and Hillman (1982) view the government as maximizing a political-support function by balancing the marginal gain in political support from those who benefit from domestic or international regulatory measures against the marginal loss in support from those who lose. Brock and Magee (1978), Findlay and Wellisz (1982) and others analyze the protection-setting process in game theoretic terms where

private groups with opposing economic interests lobby public officials for government assistance. Feenstra and Bhagwati (1982) make the government itself a part of the domestic bargaining process. Hillman and Ursprung (1988) and Das (1986) are among those who include foreign private interests and governments as participants in the political process by which a country's trade policy is determined.

In such economic self-interest models, the free-rider problem is used to explain why consumers do not organize and lobby against protection, although their losses from protection often exceed the gains of producers. Trade policy has the characteristic of a public good in the sense that a beneficiary from a policy such as free trade cannot be excluded from its benefits, even if the person does not contribute to the costs of obtaining the policy. Consequently, the individual consumer, whose economic stake in whether a particular industry is protected is usually quite small, has the incentive not to reveal his or her true preferences in the hope that others will contribute to the costs of lobbying for free trade. In contrast, those import-competing producers who have a significant economic interest in the protection versus free trade decision because of their high market shares in an industry are likely to lobby actively for protection. Consequently, the protectionist option may be selected in the political market. As Olson (1965) argues, the free-rider problem may also prevent import-competing industries in which there are a large number of small firms or

the concentration ratio is low from organizing into effective pro-protection lobbying groups.

Although political economy models involving a balancing of political pressures are the most popular in economics, some economists have pursued alternative approaches. One (Staiger and Tabellini, forthcoming) emphasizes the time-inconsistency problem associated with discretionary policies such as tariffs. Suppose a government is prepared to use protection to carry out its income distribution goals after the country is subject to a random terms-of-trade shock that lowers the world price of importable goods. If this response is known to productive factors who must incur costs to move from one sector to another, more productive factors will move into import-competing sectors than would be the case had the government been able to make a credible commitment to the policy of free trade. This, in turn, leads to more protection than would otherwise be the case.

Explaining protection as a form of social insurance for risk-averse individuals in an uncertain trading environment is another approach, as such authors as Eaton and Grossman (1985), Dixit (1986, 1987a, 1987b) and Hillman (1989, ch. 9) point out. If market failure prevents private insurance markets from functioning, risk-averse individuals may increase their expected utilities by achieving reductions in price variability through protectionist policies. However, there is some controversy over just what causes of market failure justify a protectionist social-insurance response. Feenstra (1987) extends the

uncertainty framework across countries to show that tariffs and export subsidies can be welfare increasing if markets for claims to future output are imperfect or missing.

The above approaches all utilize the usual self-interest assumption of economic models. However, another approach emphasizes the social concerns of voters and public officials in the policy formation process. A good example is Corden's (1974, p. 107) concept of the conservative social welfare function. This concept assumes that governments have an income distribution target such that "any significant absolute reductions in real incomes of any significant section of the community should be avoided." As Corden states, this means that increases in income are given relatively low welfare weights by governments and decreases very high welfare weights. He maintains that this particular set of social values is important in explaining the income maintenance purpose of the temporary protection often granted industries seriously injured by rapid increases in imports. In a simple model with uncertainty, Deardorff (1987) also shows that the conservative social welfare function can be used to explain the preference of governments for quotas instead of tariffs.

All of the models described above are concerned with domestic political economy, that is, they aim at explaining how domestic and, in some cases, international pressures influence governments' international economic policies. They do not deal with international political economy, namely, the interactions

among governments on economic policy issues. There is, however, a rapidly growing body of economic literature that does concern itself with this issue. It takes governments or government agencies as the basic decisionmaking unit and utilizes game theory to analyze the interactions among states on such matters as monetary, fiscal, exchange-rate and trade policies. Hamada (1976) is generally given credit for being the pioneer in this field. The models developed thus far for analyzing the problems of international economic coordination have not, however, been linked to the models of domestic political economy described above.

B. The Political Scientist's Approach to Political Economy

As in their study of international relations in general, political scientists make the state the central actor in their models of international political economy. In carrying out its role, the state both influences and is influenced by other states and its own citizens. Gilpin (1988, Ch.2), in his survey of the development of the field, points to three basic schools of thought as shaping the way political scientists think about a state's behavior: nationalism, Marxism, and liberalism.

The nationalist perspective views the state as an autonomous, rational actor primarily concerned with increasing its political and economic power relative to other nations. It is an application of the Realist approach to international politics. On economic issues, just as on political matters, the

state pursues policies designed to increase its power to overcome any threats to its security or the wealth-creating activities of the nation.

An offshoot of the Realist approach is the theory of hegemonic stability, which focuses on the distribution of international economic power. This theory holds that strong liberal international economic regimes are most likely when a hegemonic state dominates the international economy. Furthermore, it predicts the disintegration of such regimes as the power of the hegemon declines through the normal process of uneven economic growth in the world economy.

The continued openness of the international economy in the 1970s and 1980s despite the decline in the power of the United States, the hegemon in the early post-World War II period, has led to the development of several variations on the hegemonic model. Keohane (1984) maintains, for example, that a demand for international regimes, which promote cooperation, still exists even in the absence of a single dominant economic power.[3] Some scholars, for example, Lipson (1982), argue that institutions established during a hegemonic interval, such as the GATT, continue to exist after the decline of the dominant power and act as a brake on the disintegration of the liberal trading order. Still others, for example, Pastor (1980), point to the durability of the changes in the nature of domestic policymaking that occurred during the hegemonic period. According to Milner (1988), the existence of a greater degree of openness than

expected under the hegemonic stability theory is attributable to changes in firms' attitudes toward an open trading system that are related to increased international economic interdependence.

Marxists believe that the actions of individual economic agents, as well as the state itself, are conditioned by the nature of the capitalist system. In assuming that technological progress is so labor saving that workers are displaced at a faster rate than they can be employed as capital accumulates, that capital becomes concentrated in the hands of fewer and fewer capitalists, and that the rate of profit declines as capital accumulates, they are able to build an unstable, self-destructing model of capitalism in which rational individuals are powerless to overcome the laws of the system. The state itself, which is controlled by the capitalists, uses its power to engage in colonial and imperialistic exploitation in an unsuccessful effort to put off the final overthrow of the system and establishment of socialism.

The liberal perspective on political economy is derived from classical and neoclassical economics. Self-oriented individuals interact to create a reasonably stable and efficient system of economic markets for goods and services in which most households gain through specialization and trade. The view that economic activity is not a zero-sum game also applies to trading relations among countries. The early economists who developed the liberal perspective tended to assume that national political leaders would pursue policies that would maximize both their own

country's national income and the incomes of other states.

C. Critique of the Two Approaches

As the preceding outline of political economy models indicates, economists and political scientists come to the study of the subject with very different perspectives. Economists adopt a microeconomic viewpoint with households, managers of profit-maximizing firms, and public officials as the basic building blocks for their models. In contrast, political scientists usually view the subject in macropolitical terms with the state as the basic decisionmaking unit.

One of the merits of economists' political economy models is that they rest on a well-defined behavior theory. This economic self-interest framework has significantly improved our understanding of why actual policy outcomes diverge from those that would maximize national economic welfare. In the trade-policy field, for example, one can better appreciate why an industry such as textiles and apparel with its large number of workers located in many states is able to secure high rates of protection or why such industries as steel and oil, which are able to raise large sums for lobbying purposes, are also very successful in gaining protection. In contrast, such sectors as footwear and ceramics, which are smaller and less wealthy, are much less successful in their efforts to restrict imports.

There are, however, some features of trade policy that are not easily explainable by these models. It is difficult, for example, to explain on lobbying grounds alone the price

preference given to small and minority businesses over both foreign and domestic suppliers under the federal government's procurement procedures. Such groups are not very effective in organizing and bringing political pressure on public officials. The tendency for tariffs to be high and duty cuts low in industries where wages are low is also difficult to explain with economic self-interest models (Baldwin, 1985). Furthermore, one of the key variables that supposedly influences an industry's lobbying ability, namely, the concentration ratio in the industry, turns out to be statistically insignificant in most empirical studies and often has the wrong sign (Anderson and Baldwin, 1987). There is also considerable experimental evidence and an abundance of directly observed behavior indicating that free-riding, the phenomenon on which the conclusion that the concentration ratio will be significant rests, is much less extensive than political economists have assumed (Johansen, 1977 and Andreoni, forthcoming.)

Public policies in certain other economic areas are even more difficult to explain on the basis of these models. One is a government's aid to developing countries, which is often not tied to specific industries or even countries. The numerous domestic programs that exist to aid groups whose lobbying power is weak fall into the same category. In contrast, in some instances we observe highly successful lobbies being formed by groups not only composed of large numbers of small decisionmakers but by individuals who are not directly affected economically by the

policy outcome. On environmental issues, for example, some of these groups have been highly successful in opposing business groups whose economic stakes in the outcome are high. Lobbying and political-support models also seem inadequate for explaining the decisionmaking process on issues relating to the international monetary system and exchange rates.

Models emphasizing such concepts as uncertainty, imperfect information, and the inability to commit to credible policies are leading to new insights into policymaking, but they are still in an early stage of development. They also seem more promising in explaining general policies such as overall levels of tariff protection rather than accounting for protection differentials among industries. Similarly, broadening the self-interest model to include government behavior based on altruistic motives, as the social concerns model does, makes some observed policy behavior more understandable. However, the microfoundations of this model have not been spelled out in sufficient detail.

None of the economic models focussing on domestic political economy is linked very well with models of international political economy. For example, models analyzing negotiations among countries with different trade-policy objectives, e.g., Baldwin and Clarke, 1987, are not integrated with models explaining how these different policy objectives are influenced by domestic economic and political factors. Similarly, existing models of international macroeconomic cooperation do not attempt to explain the domestic foundations of the divergent policy goals

of the countries involved.

Still another drawback of the political economy models developed by economists is their failure to analyze the interaction between international economic and political policies. But, as we have seen in the post-World War II period, international security objectives can have a major impact on international economic policies (and vice versa). Consider the liberal trade and generous foreign aid policies pursued by the United States in the late 1940s and the 1950s. A major reason why they were introduced was the hope on the part of U.S. political leaders that they would help strengthen the so-called free world's resistance to communist expansion. Yet the typical economist's model of political economy does not include such political factors. Thus, as the Cold War eased, the lessening of pressure for trade liberalization by public officials charged with maintaining international security may be a more important factor in accounting for the increase in U.S. protectionism than lobbying pressures from industries injured by increased imports.

As noted before, most political economy models developed by political scientists make the state the key decisionmaking unit. The state is viewed as seeking to maximize its influence or power in order to carry out its well-defined political and economic goals, which usually are related to national security. However, it is also recognized that elected or appointed individuals are the ones who actually make the decisions being analyzed. If these individuals and those they represent have identical

preference patterns for the choices they face, it is perfectly legitimate to treat the state as the decisionnmaking unit. But if those making political decisions have different preferences among themselves or are responsive to political pressures from common-interest groups with differing preferences, it is technically incorrect to treat the state as a rational decisionmaker.

Suppose an investigator observes many instances in which the state always chooses alternative A (some international economic or political option) to alternative B and also many cases in which the state always chooses alternative B over alternative C. Say a new situation develops in which the choice faced by the government is between C and A. If the observer assumes that the the state acts rationally, he or she will predict that the state prefers A over C, since rationality requires the ranking of pairs of alternatives to be consistent with each other, that is, if A is preferred to B and B is preferred to C, then A is preferred to C. However, if decisions by the state are the result of political actions by citizens, for example, through a majority voting process, then the state's preferences need not be consistent with each other.[4]

This is simply one of the consequences of the impossibility theorem proved by Kenneth Arrow (1963). Arrow showed that it is impossible to derive a social welfare function, that is, society's ordering of all social states based an its members' individual ordering of all social states, that satisfies certain

apparently reasonable conditions. These include a positive association of social and individual values, the independence of irrelevant alternatives, ruling out the imposition of social preference for some alternative regardless of the preferences of individuals, and the exclusion of a dictatorial social welfare function, that is, one that is based solely on the preference of one person.

While many government policy decisions (even in the executive branch) are based on voting by divergent interest groups, many decisions are also made by an individual, e.g., the president, who is behaving in an optimizing manner. The objective of a political leader charged with formulating national and international policies seems best described as attempting to maximize national welfare rather than as maximizing power or influence and wealth. These latter goals seem unduly limiting in describing the behavior of modern national leaders. However, a national political leader, like other actors in the political and economic system, faces a constrained maximization problem. In attempting to maximize national welfare as he or she sees it, the president, for example, is constrained by such factors as the desire to get reelected (or to elect a new president of the same party), and the need to follow constitutional procedures, abide by various treaties, and accept certain traditions.

What might seem to be inconsistent behavior on the surface, because, for example, the president at one time grants a country's request for military assistance or an industry's

petition for protection but at another time rejects requests that seem identical, may be easily explainable by changed domestic political or economic conditions coupled with the president's desire to be reelected. The requests for military assistance may not differ in security terms, but in one case there may be a significant group of U.S. citizens who have relatives in one of the countries, while the requests for protection may differ in that one comes during a recession and the other during a period of high inflation. Paying attention to such microfoundations of policy determination is essential, if political economy is to develop as a field in which general behavior principles can be established that are useful in predicting policy action under specified conditions.

III. Elements in a Micro-Political Economy Model

A. The Basic Framework

In beginning at the micro-level to develop a political economy model that is useful for analyzing the issues of interest to political scientists as well as economists, it is necessary to adopt a broader view of an individual's preferences than economists' usually do. The social states that individuals are assumed to be able to rank in a rational manner must describe all the conditions that are relevant for an individuals' economic and political behavior. A particular social state should describe such economic features as the amounts of each private and public good in the hands of each individual and country and such

political characteristics as citizens' voting and property rights, the degree of freedom of speech and religion in one's own country and in other countries, the institutional structure of governments and the nature of the political relationships among countries. The preferences of an individual involve economic trade-offs such as less of one good for more of another, or a lower income for the individual in return for higher income levels for others, political trade-offs such as restrictions on the right to own firearms for greater public safety, and economic/political trade-offs such as a lower personal income for greater political freedom or a different form of government within one's own country or in another nation. Individuals register their preferences for private economic goods by purchasing the utility-maximizing combination in economic markets with the incomes they earn. However, they register their preferences for economic goods and political conditions that are determined through collective action by voting and by supplying funds or labor aimed at influencing the preference patterns of others.

A second feature of the basic model is that individuals do not possess complete knowledge about all social states. Acquiring knowledge is costly in terms of the direct outlay of resources required and the alternative activities foregone because of the time needed to absorb knowledge. Individuals practice a form of "rational ignorance" in spending time and funds in gaining knowledge only about economic and political

matters that they believe have a significant impact on their social welfare. However, this still leaves individuals facing many choice situations in which they do not know where their economic or political self-interests lie. Individuals also acquire a considerable amount of their knowledge as a by-product of the activity of implementing their preferences. For example, they acquire new information about a product or a political candidate from advertisements seen in driving to work or in watching a favorite television program.

It also seems reasonable to put certain restrictions on the nature of a typical individual's preferences. For example, the prospect theory of Kahneman and Tversky (1979) relating to the manner in which individuals view gains versus loses is accepted. There is empirical support, these psychologists find, for the view that individuals place a greater welfare weight on the loss of a given amount of income than on an income gain of the same amount. It will be assumed that individuals view changes in the income levels of others in this manner too. This relationship is important for explaining why government assistance is usually provided only for industries that are declining in relative terms. Consider an import-competing industry in which profit and wage levels, as well as its growth rate, are comparable with most other sectors of the economy. The marginal cost of gaining a higher level of protection through lobbying efforts will generally be higher than the marginal benefits from protection because the public and the government view an improvement in the

industry's relative economic position as being undeserved. Due to the relatively low weights attached by the industry's employees to income increases, the free-rider problem may also make it difficult to raise funds voluntarily for lobbying purposes. In contrast, if output, profit and employment levels decline in this industry as a consequence of increased import competition, the marginal cost of increasing protection through lobbying will decline as the public views an expansion of domestic production in more favorable terms and the free-rider problem is easier to overcome, since employees place a higher valuation on an income loss than an income gain. However, the influence of public attitudes toward increased protection will usually be such that the any increase in protection still leaves output and employment in the industry at lower levels than initially.

It is further assumed individuals value certain economic and political conditions so highly that they are unwillingness to forego these in return for greater amounts of most other economic goods or political conditions. For example, while most individuals are willing to accept a small temporary decrease in real income to help workers in another industry adjust to significantly greater import competition or to help citizens of another country accelerate their development rate in the hope they will thereby resist communist expansion more vigorously, they are not prepared do so when their own jobs are threatened for some reason and they are seeking government assistance

themselves. Similarly, they are unwilling to accept limits on such political conditions as the freedom of speech and religion in return for a higher economic income. An important implication of these relationships is that individuals do not attempt to free-ride on the activities of others when facing choices involving these strong preferences. For many people, this is the situation when the choices involve taking political action on such matters as environmental issues that significantly affect their quality of life or voting in a presidential election. In these cases, individuals believe the personal stakes for them are so high that they cannot risk free-riding, even though they are only one of many individuals involved in the decisionmaking process.

Imperfect competition in political markets is another basic assumption. In particular, the view is rejected that elected officials have no independent control over public policies because, if they do act independently, they will be displaced by other officials who maximize voting support by following the preferences of voters and pressure groups. Instead, in keeping with what seems to be the actual situation, it is assumed that incumbents have considerable latitude in supporting particular policies on which their constituents are indifferent or may not share the views of the elected officials. Elected officials are also assumed to be active players in the efforts to alter voter preferences by providing information favorable to their positions.

B. A Trade-Policy Application

The manner in which public policies are shaped by various economic and political factors can be illustrated by considering the case of an initially unprotected industry seeking import relief through the political route on the grounds of import injury. There are essentially three ways by which the industry can bring political pressure on those who can supply protection: by using their voting power, by providing government officials and opinion-makers in the private sector with information favorable to their position, and by contributing to the campaign funds of key elected officials in the hope that this will make them more sympathetic to the industry's position. In Figure 1 let the curve, OB, indicate the revenues in excess of variable production costs received by firms in the industry at different specific duty levels.[5] Furthermore, let the curve, OC, depict the costs of lobbying (using the optimum combinations of the three methods mentioned above) at the different tariff levels.[6] It is assumed that the marginal cost of increasing the level of protection a certain amount increases as the tariff level rises. The profit-maximizing tariff level, Ot, is where the slopes of the two curves are equal and the expenditures on lobbying needed to obtain this tariff level are OL.

Consider the kinds of factors that influence the shape of the lobbying-cost curve. If the president regards the openness of U.S. markets as an important element in some foreign policy initiative he or she is pursuing or believes anti-inflationary

policies are an important part of his or her current policy agenda, the curve is likely to be so steep that lobbying will not be profitable for the industry. The president's ability to command wide media coverage when lobbying for his or her own position can be very effective in raising the lobbying costs for private industries. In contrast, if the industry's efforts to gain increased protection happens to coincide with a tight presidential election, a period of high unemployment or a large balance-of-trade deficit, the costs of lobbying will tend to be lower for the industry.

In many instances, whether protection is granted may not be a matter of importance to the president. In this situation, the president may grant protection only after being convinced that doing so would not be regarded by the general public as providing special favors to the industry or by foreign governments as unduly protectionist. Consequently, it is up to the industry to convince the public and members of Congress through lobbying efforts that the industry deserves protection. Industries that are small in employment and financial terms have little chance of gaining protection through the political route under these conditions. The public's willingness to accept protection for the industry is influenced by such factors as the income levels of the workers in the industry and the degree of injury suffered by the industry, the reason for the increase in imports (was it due to unfair foreign trade practices?, for example), the extent to which the public understands the welfare effects of

protection, and the national security, environmental, and health implications of increased production in the industry.

The industry's lobbying costs are also affected by the anti-protectionist lobbying efforts of other domestic industries using the product as an intermediate input into their production process, multinational firms with foreign operations who fear retaliatory action, importers of the good, and foreign governments and foreign firms. Obviously, the more economically important the product is for these groups and the larger they are in voting and in financial terms, the more extensive will be their counter-lobbying activities.

In addition, the form of protection being sought by an industry has an important bearing on the costs of lobbying. For example, country-selective voluntary export agreements (VEAs), in which only the countries responsible for most of the increase in imports limit their exports, are favored by governments because they minimize the objections of foreign governments to restrictions on their exports. Not having to compensate other countries by reducing protection levels on other products also prevents domestic opposition from other import-competing industries who fear their products will be selected in the compensation process. Even the countries whose exports are limited often will not complain too strongly, since they capture the windfall gains associated with the quantitative restriction of imports.[7]

In stating that the equilibrium level of protection in the

situation portrayed in Figure 1 will be Ot, it is assumed that the firms in the industry are organized so as to maximize their profit prospects at the industry level. However, suppose that, instead of acting in a cooperative manner, each firm views the situation in terms of the profits it will receive under the alternative scenarios of being the only one to spend on lobbying or being the only one not to incur lobbying expenditures. If each firm is one of many small production units, it is unlikely to contribute to lobbying activities under either scenario, and the free-rider problem may prevent the industry from receiving any protection. As mentioned earlier, however, when the livelihood of most individuals in an industry is endangered, the free-rider problem is likely to be overcome, at least in part.

C. The Role of Institutions, Economic Structures, and Ideas

At a more fundamental level, the prospects for liberal versus protective trade policies are influenced by such considerations as the institutional structure of the government, the nature of the international trading regime, the distribution of economic resources among countries, the dominant ideology regarding the effects of protection, and the traditions of the government in dealing with requests for protection. For example, the willingness of the Congress since 1934 to allow the executive branch to handle most modifications of individual tariffs has played an important role in reducing protection over the years, since the president tends to be more liberal on trade-policy matters than the Congress. At the same time, the fact that the

U.S. Constitution gives Congress the right to regulate foreign trade helps to explain why Congress plays a more important role in determining trade policy than, for example, in setting exchange-rate policy. Whether a protectionist petition follows an administrative route, such as the International Trade Commission (ITC) provides in import-injury cases, or goes directly to the Office of the U.S. Trade Representative (USTR), as in Section 301 cases, has an important bearing on the likelihood that an industry will gain protection. Industries that are small in terms of voting and financial power will favor the ITC route, while large, politically powerful industries will prefer the direct route through USTR. Similarly, whether there is an international organization, such as the GATT, with a set of international trading rules and a well-established dispute-settlement process is important for shaping the extent of protectionism in the world. Again, small countries will prefer strong international organizations, while large countries will try to prevent such organizations from gaining too much power and thereby constraining the actions of the large countries.

The influence of the international distribution of factor endowments and technological knowledge on trade policy is illustrated by the change in U.S. trade policy since the late 1960s. As other nations have caught up with the United States technologically and in labor skills and capital stock, cases of injury due to increased imports have increased significantly and raised the pressures for protection. The importance of ideas can

be illustrated by the increased influence of the "new" international trade theory, in which increasing returns and imperfect competition are emphasized. The case for free trade is not as strong when viewed within this framework.

The relative importance of the above factors in shaping government economic policies varies greatly with the policy issues under consideration. For example, political pressures from private interest groups influence government decisions on trade policy much more than on exchange-rate policy. While trade policy can be targeted to particular industries, changes in exchange rates affect all industries. Consequently, the free-rider problem is more serious for such issues as exchange-rate policy, and it is not surprising that the private political pressures for policy change that do develop in this field usually come from broad coalitions of businesses such as the National Association of Manufacturers rather than from individual industries. There is also less expertise in the private business sector on the effects of exchange-rate changes than in the case of import protection, partly because of the collective nature of these changes and because of the greater complexity of the economic impact of exchange-rate changes. A need for secrecy to minimize speculation also reduces the role for the private sector. As Destler and Henning (forthcoming) point out, U.S. exchange-rate policy is determined mainly by Treasury and Federal Reserve officials. However, political pressures from foreign countries also play a significant role in shaping exchange-rate

decisions, since an exchange-rate changes are equivalent to general taxes and subsidies on exports and imports.

Relatively small groups of government officials in the executive and legislative branches also make most decisions on national security matters. Again, the collective impact of national security decisions, the need to prevent knowledge about certain decisions from getting into the hands of potential adversaries, and the highly technical nature of the issues involved tend to limit public debates on national security matters to the broad outlines of these policies. However, as the Vietnam War demonstrated, political pressures from private citizen groups can sometimes play a crucial role in this field too.

IV. Strategic International Political Economy: A Lobbying Example

The political economy framework outlined above emphasizes the importance of lobbying in shaping public policies on such economic matters as the regulation of foreign commerce. Common-interest groups for or against a particular policy attempt to influence the attitudes of government officials and the general public by presenting them with information favorable to their positions. In the trade field, analysts have usually viewed policy as being determined by the political interaction between domestic industries who are lobbying for protection and governments who wish to remain in power and, in deciding whether

to supply this protection, take into account the reaction of voters toward their actions. Anti-protection lobbying groups are generally not discussed in much detail because of the perception that such groups as consumers are unable to organize effectively for lobbying purposes. However, in a recent study, Destler and Odell (1987) point out that there has been a significant increase in lobbying by groups opposed to protection (and also by groups favoring this policy) in recent years. This includes not only importers, industrial users of imports, and exporters who fear retaliation but also foreign exporters and their governments.

As previously noted, Das (1986) and Hillman and Ursprung (1988) have both introduced foreign lobbying into trade policy models. In Das's model the lobbying competition between domestic and foreign interests determines whether a particular quota will be imposed, while in Hillman and Ursprung the choice is between voluntary export restraints and tariffs. In the model presented here, the political decision is the level of tariff protection that a domestic industry receives. Two profit-maximizing firms, one foreign and the other domestic, compete in the market of the home firm. They each make two economic decisions: what output to produce and how much to spend on lobbying for or against higher tariffs. With a prohibitive tariff, the home firm would enjoy a monopoly position in the market. However, even if the foreign firm does not lobby against protection, the home firm must spend successively higher sums to induce its government to supply additional increases in protection. Thus, the increase in

profits from eliminating foreign competition may be less than the additional lobbying costs involved in gaining this degree of protection. Furthermore, when the foreign firm lobbies against protection in the home firm's political market, the marginal cost of additional protection gained by lobbying increases. In making their output and lobbying decisions, it will be assumed that each firm behaves in a Nash manner, that is, each selects its profit-maximizing output and level of lobbying expenditures on the assumption that the other firm's output and level of lobbying remain fixed.

The profit functions of the domestic firm can be expressed as follows:

$$(1) \quad P(q,q^*,t) = pq - C(q) - L,$$

where q and q^* are the outputs of the domestic and foreign firms, respectively, t is the specific duty level, p is the price of the homogeneous product, C(q) is the home firm's cost function for producing the good, and L is its level of lobbying expenditures. The firm's cost function for producing and selling the product is:

$$(2) \quad C(q) = F + cq,$$

where F is the level of fixed costs and c is the marginal cost of production, assumed to be constant. Using asterisks to denote foreign variables and also assuming constant marginal production costs for the foreign firm, the profit and cost functions of the foreign firm are:

$$(3) \quad P^*(q,q^*,t) = pq^* - C^*(q^*,t) - L^*, \text{ and}$$

$$(4) \quad C^*(q^*,t) = F^* + c^*q^* + tq^*.$$

The specific tariff level enters the foreign firm's cost function because the cost of selling an additional unit in the home firm's domestic market is the marginal cost of production, c^*, plus the specific duty, t, that must be paid to the home firm's government.

The duty level is a function of lobbying expenditures by the two firms and their relative marginal production costs. It can be expressed as follows:

$$(5) \quad t = t(L,L^*,c/c^*),$$

where, denoting partial derivatives by subscripts, $t_L > 0$, $t_{LL} < 0$, $t_{L^*} < 0$, $t_{L^*L^*} > 0$, and $t_{c/c^*} > 0$.

Thus, increased lobbying by the home firm increases the tariff but at a decreasing rate, while increased lobbying by the foreign firm reduces the tariff but at a decreasing rate. If foreign marginal costs fall relative to the domestic firm's marginal costs, it is assumed that the tariff increases, at least temporarily, because the government is more receptive to protection when the home firm is injured by increased import competition.

The demand curve for the homogeneous product is assumed to be linear and can be expressed as:

$$(6) \quad p = A - b(q + q^*),$$

where A is the intercept on the price axis and it is assumed that b, a constant, is less than unity but greater than zero.

Suppose t=0 and there is no lobbying. The model reduces to

a simple Cournot non-cooperative duopoly situation. The equilibrium output levels at which both firms are profit-maximizing, given the other's output, can be determined by substituting the demand function (equation 6) and respective cost functions [equations (2) and (4)] into the profit equations (1) and (2), partially differentiating each firm's profit equation with respect to its output, and setting the resulting equations equal to zero. Solving these two first order, profit-maximizing conditions, which are the firm's reaction equations, for q and q^* yields the equilibrium output levels for each firm. The reaction curves are shown in figure 2 with the equilibrium output levels being at their intersection point.

If a tariff is introduced, the foreign firm's marginal cost of selling in the home market increases and its reaction curve shifts downward, since its most profitable output level for each output level of the home firm declines. As shown in Figure 2, this leads to a lower equilibrium output level for the foreign firm and a higher output level for the home firm. Since the slope of the home firm's reaction curve is -2 and that of the foreign firm's reaction curve is -1/2, the output decline of the foreign firm will be greater than the increase in home output and the price of the product will, therefore, rise.

The increase in both output and price for the home firm will increase the firm's total revenue and also its profits, excluding lobbying expenditures, since price exceeds its marginal production costs. Moreover, with the assumed slopes of the

demand curve and cost function, profits less lobbying expenditures increase at a constant rate as the tariff rises, until it no longer pays the foreign firm to supply the market. The manner in which revenues less production costs change as the tariff level increases is depicted in Figure 3 by the curve, MPP. The curve indicating the marginal costs of increasing the tariff by lobbying, assuming no counter-lobbying by the foreign firm, is MCL, $L^*=0$. The profit maximizing lobbying outlays are given by the area under the MCL, $L^*=0$ curve between the origin and t', the tariff at which the marginal costs of protection-seeking equal the marginal profits from protection-seeking. Profits are equal to the difference between the areas under the production-profit curve, MPP, and the lobbying-cost curve, MCL, $L^*=0$, between the origin and t'. With higher levels of foreign lobbying, the marginal lobbying cost curve shifts to the left, such as the curve, MCL, $L^* >0$, and the equilibrium tariff level decreases. Profits also decline for the home firm.

Similar types of relationships exist for the foreign firm, as shown in Figure 4. Under the assumed demand and cost conditions, profits of the foreign firm excluding lobbying costs decline at a constant rate as the tariff increases. The curve, MP^*P, shows this relationship, whereas the curve, MCL^*, L>0, indicates the marginal costs of lowering the tariff through lobbying activity, given a certain level of lobbying expenditures by the home firm. Suppose that if the foreign firm does not lobby at all, the tariff will be t'. The area under the curve

between t′ and various lower tariff levels indicates the lobbying costs of reducing the tariff to these levels. The optimum lobbying expenditures and tariff level are determined by where the two marginal curves cross. Successively lower levels of home lobbying shift the curve indicating the marginal cost of lobbying for the foreign firm to the left and yield a lower tariff level. Below some level of home lobbying expenditures it pays the foreign firm to lobby at a sufficient high level to push the tariff rate to zero.

The optimum level of lobbying outlays for the home firm for various lobbying expenditure levels by the foreign firm can be obtained from Figure 3, whereas the optimum levels of foreign spending on lobbying for different levels of home spending on lobbying activity can be derived from Figure 4. The two lobbying reaction curves based on these relationships are depicted in Figure 5 with the intersection of the two curves indicating the Nash lobbying equilibrium for each firm. The equilibrium tariff level will be the tariff level associated with these expenditures, while the equilibrium output levels will be those that are associated with this tariff level, as depicted in Figure 2.

Consider the effects of a decrease in the foreign firm's marginal costs of producing the product. This will shift the foreign firm's marginal production-profit curve shown in Figure 4 upwards and lower the domestic firm's marginal production-profit curve, depicted in Figure 3.[8] If the lobbying-cost curves of the

two firms were unaffected by the changed relationship between the marginal production costs of the firms, these shifts will cause the foreign firm's optimum lobbying expenditures for a given level of domestic lobbying to increase and the domestic firm's optimum spending on lobbying for a given spending level by the foreign firm to decrease. By shifting the foreign firm's lobbying reaction curve upward and the domestic firm's lobbying reaction curve to the left, these changes will, in turn, raise the Nash equilibrium level of lobbying for the foreign firm, lower it for the domestic firm, and reduce the equilibrium tariff.

If, however, the decline in home firm profits resulting from the drop in foreign costs makes the government more receptive to granting protection, the costs of lobbying will decline and the marginal costs of lobbying by the domestic firm (the MCL curves in Figure 3) will decline. Similarly, the marginal costs of lobbying by the foreign firm (the MCL^* curves in Figure 4) will rise. Since both of these shifts tend to reduce the equilibrium tariff, the net result of the fall in foreign production costs could be a decrease or increase in protection.

That the foreign government can intervene to raise welfare in the foreign country can be seen by introducing isoprofit curves into Figure 5, which shows the lobbying reaction curves of the two firms. At E, the Nash non-cooperative equilibrium, neither firm can raise its profits by varying its lobbying outlays, given the lobbying expenditures of the other firm.

Thus, the foreign firm's lobbying curve passing through E, that is P^*, is vertical, while the domestic firm's isoprofit curve through E, that is, P, is horizontal. However, there is another, higher isoprofit curve, $P^{*\prime}$, for the foreign firm that is tangent to the domestic firm's reaction curve at E'. This is the Stackelberg equilibrium point for the foreign firm. If its government precommits to match private lobbying expenditures in some proportion, marginal lobbying costs for the firm will decline and the combined spending on lobbying by the firm and the foreign government will increase for any level of spending by the home firm for which the optimum tariff is greater than zero. This shifts the foreign reaction function upward, as shown by the dashed line in Figure 5. At the new Nash equilibrium, E', the tariff will be lower, foreign welfare (foreign firm profits less government lobbying expenditures) will be higher, and the domestic firm's profits lower.

Economists, e.g., Brander and Spencer, 1985, usually introduce export subsidies by the government in showing that government intervention can raise a country's welfare under imperfectly competitive market conditions, assuming no foreign retaliation. But export subsidies are illegal under the GATT, and one can be sure of countervailing duty action by foreign governments. However, lobbying activities by foreign governments are not illegal. Thus, government lobbying can serve as a welfare-increasing activity that does not violate GATT rules.

ENDNOTES

1. Discussions of recent approaches to international political economy by political scientists are included in Gilpin (1988) and Keohane (1984), while summaries of recent contributions in this field by economists are presented in Frey (1984) and Hillman (1988).

2. These models represent examples of positive political economy. However, another important part of the field is concerned with the welfare implications of particular policy outcomes, taking into account the resources used in achieving the policy and in competing for the rents created by the policy. The papers by Krueger (1974) and Bhagwati (1980) illustrate this branch of the subject.

3. The following discussion of these variations relies heavily on Milner's (pp. 12-14, 1988) analysis of this matter.

4. Assume that there are three individuals, each with consistent but different preferences, and that decisions are reached by the majority voting rule. Suppose individual 1 prefers A to B and B to C and, therefore, A to C; that individual 2 prefers B to C and C to A and, therefore, B to A: and that individual 3 prefers C to A and A to B and, therefore, C to B. In a choice between A and B, A will be selected, since two individuals prefer this order, while only one prefers B to A. For the same reason, in a choice between B and C, alternative B will be selected. Moreover, in a choice between C and A, C will be selected rather than A, since both individuals 2 and 3 prefer this order.

5. The net revenue curve levels off when the prohibitive tariff level is reached.

6. There has not been much consideration given to the optimum combination of lobbying methods for a particular industry. However, industries consisting of large numbers of employees and many small firms located in many states, such as the textiles and apparel industries, appear to find that using their voting strength to influence legislators directly is the most efficient method of lobbying. In contrast, industries that have a comparatively small number of employees and are not widely dispersed across states but who are organized in a oligopolistic manner, such as the oil industry, seem to rely more extensively on providing campaign funds to elected officials as well as disseminating favorable information to the public and elected officials.

7. Providing import protection to the injured industry is generally preferred by the public to providing domestic subsidies, since consumers who benefit from the lower price of imports bear the costs of assisting the industry. Providing a subsidy financed by domestic taxes is likely to alter the domestic distribution of income more significantly.

8. The two curves will also end at higher tariff levels.

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FIGURE 1

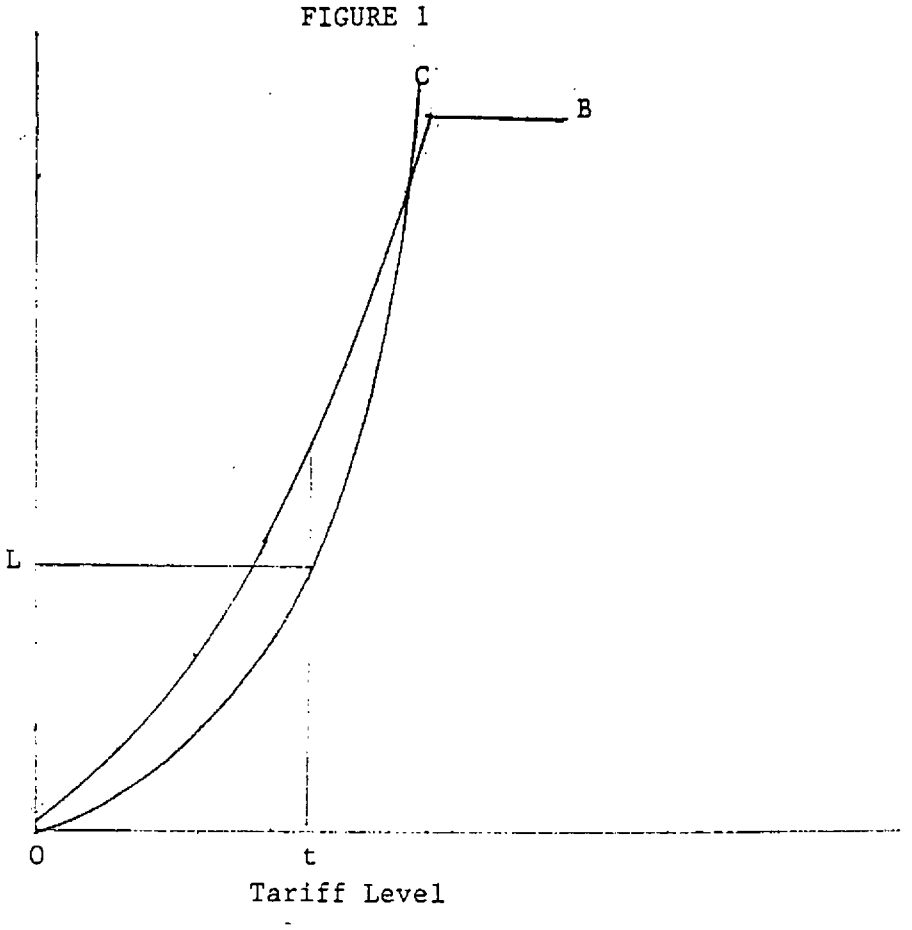


FIGURE 2

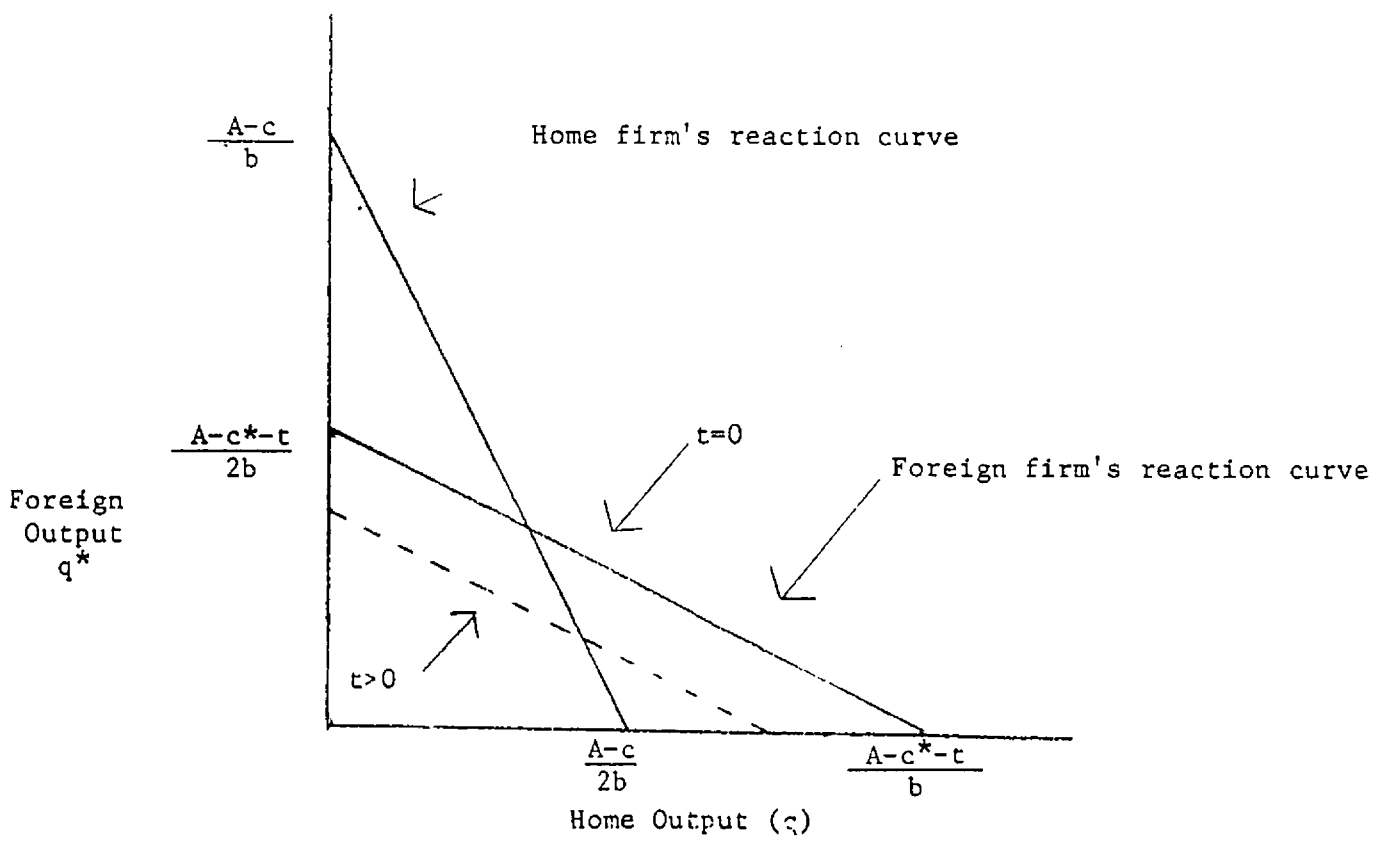
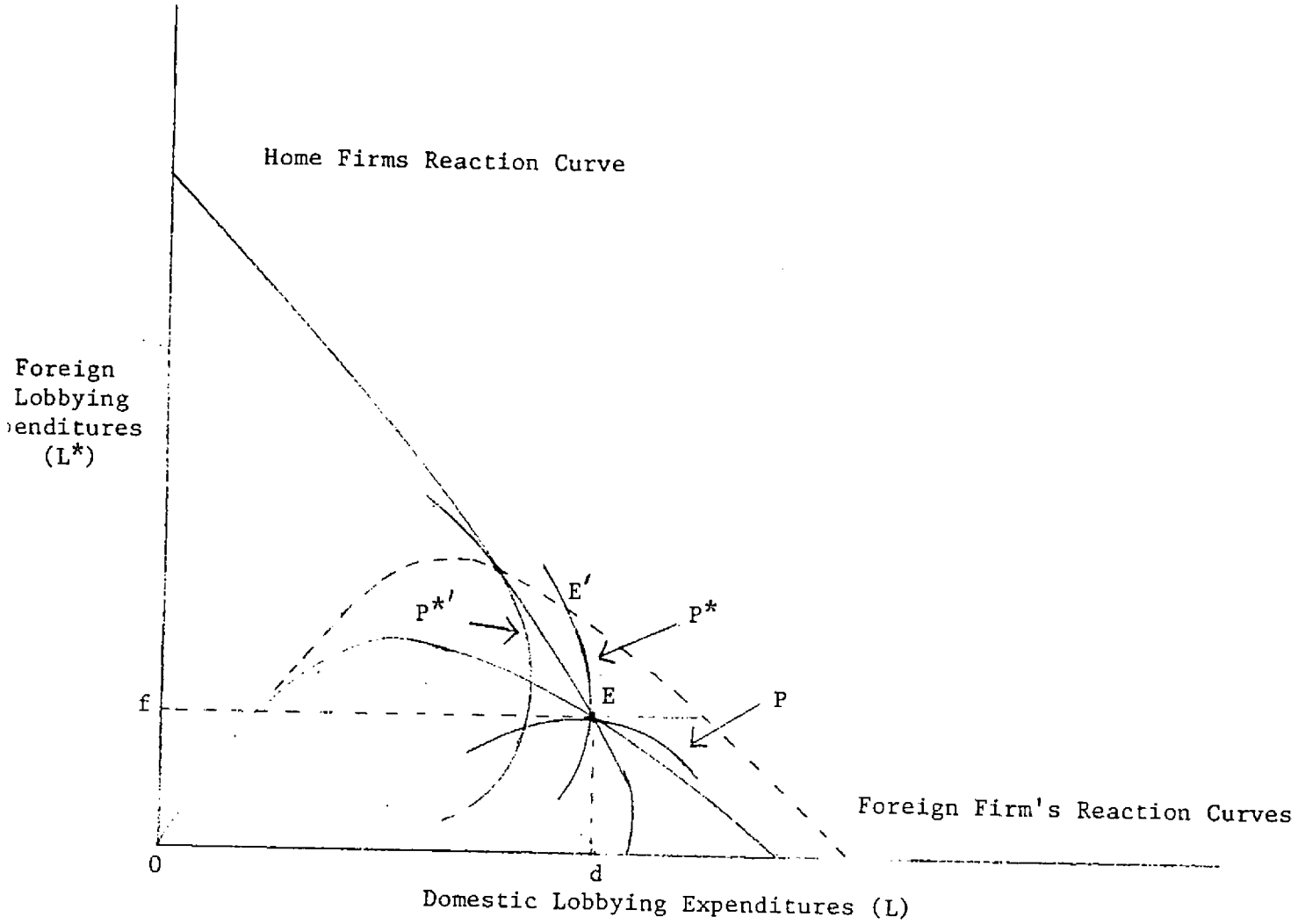


FIGURE 5


Home Firms Reaction Curve
Foreign Lobbying Expenditures (L*)
E'
P*'
P*
E
P
f
0
d
Foreign Firm's Reaction Curves
Domestic Lobbying Expenditures (L)