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THE POLITICAL ECONOMY OF AMERICAN PROTECTION IN THEORY AND IN PRACTICE

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ABSTRACT

The results of recent empirical research show that the actual determinants of the form and substance of protection have little to do with the implicit classroom model of benevolent social guardians intent upon maximizing a Benthamite social utility function. This has led to efforts to understand the political bureaucratic process through which commercial policy is determined, and to the beginnings of a positive theory of protection, sometimes referred to as the "political economy of protection". In this paper the theoretical cases in which protection might be warranted are contrasted to the actual pattern of protection and mechanisms by which protection is decided upon in one open economy--the United States, and the various models attempting to explain the observed pattern of protection and the mechanisms that generate it are surveyed.

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The proposition that free trade generates a higher level of potential welfare than protection has been a central part of economists' toolkits since Adam Smith first enunciated the proposition that "If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage."[1] Although the proposition has been refined, it remains central to analyses of commercial policy and its effects on resource allocation and potential welfare.

As refinements have been made, they have generally constituted increasingly careful specifications of the conditions under which free trade would be an optimal policy. Necessarily, these specifications required considerations of the conditions under which Pareto-optimality, an idea under which all would be no worse off, might hold. This tradition continued into the 1950s and 1960s, when Meade's Theory of International Economic Policy was the standard reference.

As economists began to point to imperfections in other markets as a rationale for intervention in trade, theory was further refined, as cases for second-best intervention could be made when "domestic distortions" prevented the attainment of a Pareto-optimal outcome. This development was solidly in the tradition of theoretical international economics, in which Murray Kemp has played such an

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[1]Smith (1937), P. 424.

important role.

In recent years, however, economists have become increasingly uncomfortable. In part, this discomfort was the consequence of the results of empirical research which seemed to show that the actual determinants of the form and substance of protection seemed to have little to do with the implicit classroom model of benevolent social guardians who were intent upon maximizing a Benthamite social utility function. In part, however, there was also an uncomfortable asymmetry between the parallel assumptions that enable policy conclusions to be derived from theory. These are that: 1) individuals, acting on their own, maximize their own utility subject to their budget constraint as determined by their factor endowment; and 2) that those who operate within the governmental sector are seeking to maximize a social welfare function irrespective of their self-interest in alternative policy choices. This has led to efforts to understand the political-bureaucratic process through which commercial policy is determined, and to the beginnings of a positive theory of protection, sometimes referred to as the "political economy of protection".

In this paper, an attempt is made to further the analysis by confronting the theoretical cases in which protection might be warranted in contrast to the actual pattern of protection and mechanisms by which protection is decided upon in one open economy - the United States. Thereafter, the various models attempting to explain the observed pattern of protection and the mechanisms that generate it are surveyed.

Section I contains a review of the theory of commercial policy, and the "valid" reasons for departures from free trade. Section II contains a description of the structure of protection in the United States in the late 1980s. Since the United States is often said to be one of the more open

economies in the world, since the political discussions of protection usually accept the general case for free trade, and since the United States is in any event a large trading nation, an analysis of the prevailing pattern of protection is of interest in itself. However, examination of the patterns of protection leads to a number of questions. One of the important ones is the mechanisms that determine commercial policy in practice, as distinct from in theory. Section III therefore reviews some of the theories and models that have been developed in an effort better to understand the phenomenon. A concluding section suggests further issues for research.

1. Theoretical Grounds for Protection

As is well known, Pareto optimality occurs in conditions under which there is equality of the domestic marginal rate of transformation in production with the international marginal rate of transformation and with the domestic marginal rate of substitution in consumption between all pairs of commodities. When those conditions are satisfied, it is difficult to make a case for tariffs or tariff equivalents in trade.[2]

Theorists, including Murray Kemp, have naturally focussed on conditions under which these equalities will be broken. For a variety of reasons, there is little a priori basis for believing that inequalities might exist between prices and consumers' marginal rates of substitution.[3] Focus therefore has tended to be upon conditions in domestic production and in the international market: when

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[2]There may nonetheless in theory be a case for intervention on income distribution grounds, but trade interventions would clearly be welfare-inferior to other measures that change the income distribution.

[3]One can think of empirical examples where there might be externalities in consumption, such as in the area of public health. Most examples that immediately come to mind, however, seem to be in the domain of home, rather than traded, goods. See Bhagwati (1971) for a discussion.

international prices do not reflect the international marginal rate of transformation (presumably due to monopoly or monopsony power in trade); or when domestic prices do not reflect the domestic marginal rate of transformation (due to increasing or variable returns to scale, the absence of competitive markets, factor market imperfections, externalities, dynamic factors, or some combination thereof).

A breaking of the link between the international marginal rate of transformation between commodities and the prices confronting a country could occur if that country held monopoly power in trade. In those circumstances, an optimum tariff could improve the country's welfare as contrasted with a policy of laissez-faire in trade.[4] Even then, of course, a tariff sufficiently above the optimum would be welfare-inferior to laissez-faire. The possibility of retaliation further qualifies the argument. Nonetheless, at a theoretical level, it surely could be the case that a country with some degree of monopoly power in trade might improve its welfare by imposition of a tariff: raising the tariff to the optimum could further improve welfare in the absence of retaliation. In the case of an optimum tariff, of course, any particular country's welfare might be improved, but world welfare would necessarily decline.

The infant industry argument, by contrast, has been set forth as the single case in which protection might improve not only a country's welfare, but world welfare in the long run. This well-known argument posits externalities that are external to the firm and that can only be realized over time, such as "learning by doing".[5] It is, of course, recognized that a production subsidy to a potential infant would be welfare-superior to a tariff, in that the present

[4]See Bhagwati (1965) and Kemp (1967).

[5]See Arrow (1962) and Kemp (1960) and (1964).

consumption costs of intervention could be avoided with the same long-run dynamic gains. However, many analysts have defended tariff protection in the belief that developing countries' public finances would not permit development of infant industries through a production subsidy.

The infant industry argument can provide a case for, at most, temporary protection, in circumstances where the long-run costs of the industry will be sufficiently low so that the initial losses (incurred through the short-run deviation from equality of domestic and international marginal rates of transformation) will be more than offset. Perhaps even more important, infant industry protection would in theory be warranted only when dynamic externalities were generated in particular ways; some of the bases which have been set forth for intervention turn out, on close inspection, to be phenomena where it is doubtful, at best, whether infant industry protection would improve welfare and where alternative interventions would clearly be welfare superior to protection, through a production subsidy or a tariff.[6] Just as is the case with the optimum tariff argument, however, it cannot be denied that circumstances could exist under which the imposition of a tariff on infant industry grounds could improve welfare, in the sense of Pareto optimality, in the long run.

Recently, theorists have developed models of imperfectly competitive markets under which a country might gain by protecting a new industry so that it gained monopoly profits that would otherwise accrue to foreigners.[7] To date, the policy implications of these models have been highly sensitive to initial specifications, and there is little basis for believing that the instances in

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[6]See Baldwin (1969) for an exposition.

[7]See Helpman and Krugman (1989) for an exposition.

which protection might be warranted would be frequent.[8] Nonetheless, a case can be made in theory that under conditions of imperfect competition, protection for a new industry might be warranted.

One of the more difficult cases to handle in theory pertains to the possibility of foreign "dumping". If "dumping" were permanent, and the international prices resulting from it thus represented a long-run opportunity cost for obtaining the good, there is no case in theory for protection or other intervention. If, however, "dumping" were undertaken by foreigners to bankrupt domestic competitors and thus gain a monopoly in the domestic market, a case can be made for intervention, assuming significant transaction costs in restarting domestic production following the rise in the foreigner's price.

The final argument for protection which passes theoretical scrutiny in effect asserts noneconomic objectives or considerations which might override Pareto-optimality considerations. National defense considerations might constitute such an objective, if it were deemed desirable to have domestic production capabilities in the event of hostilities that cut off foreign sources of supply. Even in these circumstances, critical questions may be raised: might storage be an alternative possibility?; would not subsidization of a target level of production be superior to generalized protection?; and in what sort of hostile situations might foreign sources -- especially neighboring countries -- indeed prove unable or unwilling to supply the essential items?[9]

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[8]There are other difficulties with the application of the models of imperfectly competitive markets to concrete situations. These include possibilities of retaliation, and the inability of the profession to date to indicate what empirical parameters might be measured to provide an indication as to when intervention was warranted. See Krueger (1990c) for further discussion.

[9]In practice, the national defense argument has been used to bolster advocacy of protection. For example, in the 1950s, on national defense grounds the United States had import quotas on oil originating from noncontinental

Aside from the cases indicated above, all other suggested reasons for protection are, on inspection, second- or third-best arguments. These include considerations pertaining to specific, or relatively immobile, factors of production[10], where there would clearly be Pareto-superior mechanisms for insulating those negatively affected by trade, and cases where the objective clearly pertains to domestically-produced, as well as foreign-origin, goods (such as the curtailment of luxury consumption).

2. Protection in Practice in the United States

As mentioned in the introduction, the United States Government has consistently stated its adherence to free trade and the principles of the GATT. Appeals for protection usually do not challenge those principles, but instead focus upon some aspect of "unfair" trade, short-term problems of a particular industry, or other factors. Thus, the American body politic would appear to have accepted the broad case for free trade, and most observers believe that the American economy is one of the most open in the world.[11]

It is therefore instructive to examine American patterns of protection. There are several components: the levels of tariffs affecting manufactures; protection of agricultural commodities; nontariff barriers to nonagricultural

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sources. One would have thought, a priori, that keeping American oil in the ground (or in strategic reserves, as is the current practice) rather than inducing a more rapid rate of extraction would better have served national defense interests. See Dam (1970) for a full discussion. Proponents of protection for watches, buttons, scissors, clothing (because an army must have uniforms) and a host of other items have also resorted to the national defense argument.

[10]See Mussa (1974) for an analysis of the possible effects of protection (or removal of protection) on factors of production which are immobile in the short-run.

[11]In its official submission to GATT in the first round of GATT surveillance, the stated American position was that: "... a principal objective of U.S. trade policy is to foster a free and open multilateral trading system:. GATT (1990), P. 21.

imports; procedures and mechanisms that constitute deterrents to imports; and domestic practices that have the effect of deterring imports. Each of these is briefly surveyed in turn.

2.1 The U.S. Tariff Structure for Manufactured Imports

Like most industrial countries, the United States has successively lowered its tariffs in the reciprocal tariff negotiations conducted under GATT auspices. Table 1 gives the value of imports, and tariff rates, by major categories of manufactured imports for 1988. As can be seen, average tariff rates by major commodity categories are generally not high; textiles and clothing are the only product category with a weighted average tariff rate above 10 percent. Textiles and clothing are, of course, also subject to the Multifibre Arrangement and are discussed further, in that connection, in Section 2.2.

In addition to the direct application of nominal tariffs, a feature of the U.S. tariff code that has strong resource allocation implications is the exception, under the tariff code, for goods partly assembled abroad with inputs provided from U.S. sources. This has at least enhanced the growth of the Mexican "maquiladora" industries' exports to the United States and encouraged the importation of partially assembled commodities.[12]

When one further disaggregates commodity categories, the range and variance of tariffs increase. Nonetheless, a striking characteristic of protection in most developed countries, including the United States, is that tariffs are not the major, or even one of the major, protective instruments. In Section 3, it will be argued that there are some good reasons in the political economy of protection why tariffs may be a secondary instrument. For present purposes, however, it suffices to note that tariffs apply to almost all imports, and at varying rates.

[12]See Zermano (1987) for an analysis.

It does not at first sight appear possible to reconcile either the presence of tariffs, or the variation in their levels across commodity categories, with any of the rationales provided by theory indicated in Section 1.

2.2. Protection to U.S. Agriculture

Measures affecting imports of agricultural commodities are complex, covering tariffs, a variety of quotas, and domestic programs which subsidize domestic production, and occasionally, exports. Import duties on agricultural commodities by commodity category range from 1.4 percent for seeds to 158.1 percent on certain dairy products.[13]

As with manufactures, however, tariffs are a relatively small component of the entirety of measures affecting traded agricultural commodities. There are domestic price support programs (for commodities such as honey, peanuts, sugar, tobacco, soybeans, some dairy products, and other items); there are import quotas on some dairy product imports, sugar, peanuts, chocolate; there are export subsidies (through an Export Enhancement Program) for some cereal grains, some live animals, and meats; and there are a variety of other measures including voluntary export restraints (e.g. Australia and New Zealand during 1987 and 1988 for meat), countervailing duties (Thai rice), mandated sales from the Commodity Credit Corporation storage, and supply management programs.

Fortunately, the OECD has estimated the producer subsidy equivalents of these many programs for the 1984 to 1988 period. The results are presented in Table 2. As can be seen, the average protection for all agricultural commodities was equivalent to a subsidy to producers of 34 percent of the world price in 1988. That average, of course, concealed a great deal of variation: sugar

[13]See GATT (1990), Pp. 226-227 for an enumeration of the import duties protecting various categories of agricultural commodities.

received protection equivalent to an import duty of more than 60 percent[14]; the estimated producer subsidy equivalent for milk over the 1984-88 period ranged from 59 to 81 percent; and wheat was the beneficiary of producer subsidy equivalents of 32 to 63 percent over that period.[15]

Further delving into the pattern of agricultural protection would enhance the appearance of highly variable protection without any evident rationale consistent with the theoretical criteria spelled out in Section 1. Indeed, the pattern does not even well fit any of the models of the political economy of protection discussed below: sugar protection benefits a few large sugar producers in a few states and corn producers in several more; protection to milk protects a large number of small producers in a large number of states; rice producers are heavily concentrated in two or three states; and so on.

More detailed examination of the effects of protection in agriculture are also not reassuring. Sugar protection, for example, has resulted in the reduction in the consumption of sugar and its replacement by corn sweeteners, to an extent that has corn producers the main supporters of continuing the U.S. sugar program.[16] Not only is sugar protected by tariffs but there are country-specific import quotas, so that much of the disparity between the domestic U. S. price and

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[14]The nominal tariff rate on sugar itself was substantially lower. Most protection to sugar resulted from the price support program embedded in the Agricultural Adjustment Act of 1985 (and earlier such measures) and the country-specific import quotas, discussed below, that were imposed to prevent losses of the Commodity Credit Corporation under its purchase program. See Krueger (1990b) for a discussion.

[15]GATT (1990), Pp. 229-237.

[16]See Krueger (1990b) for a full analysis.

the world price goes to countries exporting to the U.S. under quota.[17] From the viewpoint of economic efficiency and American welfare, it makes little sense to protect sugar at all; certainly, it makes no sense at all to adopt country-specific quotas!

2.3. Nontariff Barriers to Nonagricultural Imports

As tariff rates have fallen following the various rounds of trade negotiations, quantitative restrictions on imports and other nontariff barriers assumed increasing importance. In part because tariffs have been bound, and in part for reasons that are the subject of Section 3, protectionist measures have taken the form of imposition of quantitative restrictions. Of these, perhaps the predominant type has been the "Voluntary Export Restraint" (VER), under which governments negotiate bilaterally as to the quantities of permissible imports: the agreed-upon restriction is then supposed to be enforced by the government in the exporting country.

The best known, and quantitatively most important, VER is the set of restrictions on textile and clothing imports into a number of industrialized countries that have been effected under the aegis of the MultiFibre Arrangement (MFA). The MFA is unusual among VERs, in that it is sanctioned by GATT despite its inconsistency with other aspects of the GATT charter.

The MFA is only the latest in a succession of VERs governing textiles and clothing. In the post-war period, the first such measure was negotiated between

[17] The substitution of corn sweetener for sugar in liquid uses, combined with expanded domestic production of sugar in response to higher prices, resulted in a sharp drop in American sugar imports. Consequently, the value of quotas to exporting countries fell sharply. One irony of this was that the Dominican Republic and other Caribbean countries, which American trade policy was supposed to favor under the Caribbean Basin Initiative (CBI) discussed below, are estimated to have lost at least as much through quota reductions under the Sugar Program as they gained under the CBI.

Japan and the United States in 1956 as a "temporary" measure to assist the adjustment process in the U.S. textile industry.

By the early 1980s, the United States had negotiated separate bilateral agreements with 34 different countries under the MFA umbrella. Although it is difficult to "count" the number of commodities covered, an indication of the complexity of the arrangement is provided by the data for the latest reported renewal for Hong Kong. Under that arrangement, there were agreed-upon maxima for the quantities of 27 categories of textiles and clothing.[18]

The stated rationales for protection of textiles and clothing has to do with protecting the jobs of low-wage workers in those industries. Examination of the American data, however, suggest that the profits of both the textile and the apparel industry have been well above the American manufacturing average[19] while the industry has relocated from New England to the South: jobs were therefore created in the latter region, while workers in the former lost their jobs even in the presence of protection.[20]

Because the MFA operates <u>in addition</u> to the tariffs reported in Table 1, estimates must be made of the restrictive effects of bilateral arrangements in order to arrive at estimates of the total protective effect. One such estimate has been made by Hufbauer et al, who estimated that as of 1984, the MFA resulted in import prices of textiles and clothing to the United States 30 percent above what they would have been in its absence.[21] Despite this very high level of

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[18] rmspc See Pelzman (1984), P. 138. Pelzman also provides an account of the structure of the MFA. Cline (1990) also provides an analysis.

[19] Pelzman, P. 134

[20] See Krueger, (1980) for an analysis.

[21] rmspc Hufbauer et al (1986), P. 146.

protection, the textile and clothing industry have persisted in seeking additional protection both through legislation and through legal means as discussed in Section 2.3 below. To a degree, they have been successful in using legal redress, and thus protection levels are probably higher than estimates based on nominal tariffs and the MFA would imply. At the time of writing, negotiations were under way for the next MFA; there is every reason to believe that it will be renegotiated with no liberalization, and possibly some tightening, of the existing structure.

The steel industry is another sector in which VERs have been employed, in addition to tariffs (and anti-dumping and countervailing duty actions - see Section 2.3). There have been three sets of actions taken[22], with periods without nontariff protection in between. For present purposes it will suffice to consider the most recent case, during which the United States has had VERs with 19 countries and the EEC for iron and steel, and VERs as well for some metal products and for machine tools. Hufbauer and his co-authors referred, not inaccurately, to the recent steel VER as a Nascent Multi-Steel Arrangement. They further estimated that in 1984, one of the first years of the current arrangement, the induced increase in the price of imported steel was about 30 percent - in addition to tariff protection.[23]

A large number of other industrial activities which have from time to time been protected by some form of quantitative restriction upon imports. Table 3 gives a list of some of those industries, and an indication of the estimated effects of those actions on the domestic price. However, although Table 3 lists the more widely known and probably quantitatively important QRs, it is not

[22] rmspc See Hufbauer et al (1986), Pp. 154 ff. for a description.

[23]Hufbauer et al, P. 178.

complete. In reporting to the GATT in 1989, the United States listed a total of 64 VERs negotiated to restrain exports of other countries excluding those under the MFA.[24] Of those arrangements, eleven had started prior to 1985, twenty-one had been instituted in 1985 and 1986, twenty-seven had been effected in 1987, and four had been effected in 1988 and 1989. There is thus some evidence that the frequency of resort to VERs is increasing, although some earlier VERs had expired prior to 1983 and were reinstituted subsequent to that date.

2.4 Procedures and Mechanisms.

Under the GATT charter, all countries are entitled to impose countervailing duties against dumping, and to take action when it is determined that imports are seriously injuring domestic industry (the escape clause). To a greater degree than other countries, however, the United States uses the legal provisions of anti-dumping and injury as a basis for protection. Some of the VERs listed in Table 3 were imposed in response to findings of injury.

Over the nine years from mid-1980 to mid-1989, there were altogether 381 anti-dumping investigations initiated in the United States. By mid-1989, 153 had resulted in findings for the plaintiffs and the imposition of duties; six had been suspended when exporters had agreed to a VER or to take other measures. Of the 153 cases in which definitive duties were imposed, six concerned agricultural products, three were in textiles, eighty-five were in metals and basic metal products, thirty-four were against imports of chemical products, and the remaining twenty-one were scattered across a broad array of activities.

During the same nine-year period, 282 countervailing duty actions were undertaken, of which 121 had resulted in definitive duties by 1989. Illustrative of the extremes to which legal measures can go is a recent finding against

[24]GATT (1990), P. 195.

exporters of sweaters: a complaint of dumping was brought by the National Knitwear and Sportswear Association. Interestingly, sweaters imported into the United States from Korea, Taiwan, and Hong Kong are all subject to the MFA. Nonetheless, it was alleged, and the Commerce Department ruled, that there had been dumping.[25] Given that voluntary export restraints were already in force, interesting questions arise as to the motive for dumping in these cases. Nonetheless, pending a final ruling, all sweater exporters from the countries concerned were required to post bond against a definitive finding that they were selling below a "fair price".

It is difficult to estimate the protective value of the threats of legal action. The fact that individual companies, and producers' associations, can bring such actions implies that both the American government and private producers can initiate actions against foreign exporters. How important this is as a deterrent is difficult to evaluate. Most analysts believe that the administration of anti-dumping and countervailing duty regulations has in fact had a significant protective effect.[26] Some analysts have concluded that legal and administrative mechanisms serve as a greater barrier to the entry of imports than do tariffs and quotas.[27] Recent analyses have also suggested that countervailing duty and antidumping suits have frequently been strategically motivated as they affected domestic behavior toward protection and acted as a

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[25]New York Times, April 24, 1990, Pp. C1 and C5.

[26]See Bhagwati (1988) for an analysis. See also Kalt (1984) for an interesting analysis of the use of these mechanisms in one particular instance.

[27]See Rugman and Anderson (1987) for one such analysis.

deterrent to foreign firms.[28]

2.5 Domestic Practices

In addition to tariffs, VERs, and legislation, the United States has a number of domestic practices which are protectionist in effect. These include such phenomena as state (as well as federal) jurisdiction over banking and insurance, health and safety regulations which require on-site plant inspections,[29] procurement policies that are biassed toward domestic suppliers, and so on.

In some of these instances, protection is the unintended side effect of legislation intended for domestic purposes. In other instances, the intent is blatantly protectionist. Perhaps the best example was the "manufacturing clause" that denied copyright protection under U.S. law to English language books not printed in the United States![30]

2.6 Geographic Discrimination

In addition to measures which are protectionist toward specific economic activities within the economy, U.S. trade law contains a number of measures which discriminate among commodities according to their geographic origin.[31] Voluntary Export Restraints have already been mentioned. In most instances, they restrict imports from some sources, but not others.

Perhaps the best known instances of geographic discrimination are the recent

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[28]See Prusa (1990). There are other trade regulations which are not analyzed here. These include rules of origin labelling (permitted under GATT) which have on occasion been used in ways that suggest protectionist intent.

[29]It is questionable whether prohibitions against imports of fresh meat from areas that are not declared free of Foot and Mouth disease is a health and safety regulation. The recent Food and Drug Administration finding that Chilean grapes contained cyanide is another questionable example.

[30]See Boyd (1986) for an analysis.

[31]See GATT (1990), P. 179 for a discussion.

U.S.-Canada Free Trade Agreement and the U.S.-Israel Free Trade Agreement. Both of these measures are GATT-compatible, but nonetheless represent a departure from multilateral trading.[32]

Other geographic discrimination takes place with respect to the Caribbean Basin Initiative, under which a large number of commodities enter from Caribbean countries duty-free, and the Generalized System of Preferences, under which some items enter from developing countries with zero or preferential duties. Country-specific import quotas for sugar have already been mentioned as yet another instance of geographic discrimination.[33]

3. The Political Economy of American Protection.

The United States is widely regarded as one of the least protectionist of the developed countries, and its official policy embraces a liberal trading system. Nonetheless, the brief description of trade policies already provided suggests both that the United States is a significant distance from free trade. Even more important for present purposes, departures from the free trade principles cannot possibly be rationalized by the various precepts derived from theory that were discussed in Section 1.

Analysis of the incidence of gains and losses from protection reinforces this conclusion.[34] Application of the precepts that can be derived from Pareto-optimality cannot be an explanation of the pattern of protection, nor can it be concluded that American protection is a low-cost transfer of income among

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[32]The U.S.-Canada Free Trade Agreement was preceded by a pact which governed trade in automobile parts.

[33]See GATT (1990) for an enumeration of the geographic and product coverage of the Generalized System of Preferences and the Caribbean Basin Initiative.

[34]See Hufbauer et.al. for estimates of the costs of protection by industry. In most instances, even a generous interpretation of the "number of jobs saved" indicates a cost per job well in excess of the prevailing wage.

different groups in society.

Economists' motivation for analyzing the political economy of protection has in large part originated from frustration with the large gap between the sorts of considerations that would be valid if the "public welfare" were the criterion for protection and the actual determinants of protection. The result has been a plethora of models, each analyzing one or more aspects of the political process. Many of them represent building blocks toward a theory of the political economy of protection. There remains, however, considerable research to be done before it can be claimed that these pieces represent more than working hypotheses whose applicability has been demonstrated for at least a few activities.

There are two strands to analysis of the political economy of protection. On one hand, there are efforts to explain changes in the level of protection over time. On the other hand, analysts have endeavored to explain the structure of protection. These two strands are clearly related, although there are essential differences between them. In particular, there appears to be a basis for firmer conclusions as to reasons for changes in the overall pressure for protection than there is as to the structure of protection. For that reason, changes over time are considered first.

3.1. Changes in Aggregate Protectionist Pressures over Time.

Given a structure of protection in effect at a particular time, what is likely to alter its overall level? In principle, one can conceive of a structure of tariffs and tariff-equivalents, with displacements of that structure by a scalar, itself a function of other economic variables.

Two of those variables have been identified, and demonstrated to be of considerable importance. They are the level of the real exchange rate and the

overall level of economic activity.[35] Appeals for protection have been couched in terms of "U.S. competitiveness" and other catch-phrases which have, to a large degree, reflected discontent with the current account position of the United States. Indeed, in the popular press, appeals for protection have been based upon the size of the current account deficit[36] - presumably a manifestation of the level of the real exchange rate.

That protectionist pressures also intensify in periods when unemployment is high may reflect the increased economic discomfort associated with unemployment in periods when finding alternative jobs is more difficult. It might also reflect greater economic pain arising from imports in periods when domestic demand is relatively flat contrasted to periods in which domestic incomes and demand are rising more rapidly.

In both of these instances, of course, economists would point to alternative policy measures as appropriate if the cause for concern is one about which policy action is warranted. In the case of the level of the real dollar exchange rate, those economists who regarded it as inappropriate sought alterations in other economic policies - especially the U.S. fiscal deficit.[37] When unemployment is the issue, those economists advocating macroeconomic remedies would clearly point to measures other than border protection as a superior policy instrument.

For present purposes, these considerations raise an important issue that applies equally (but less obviously) to analysis of the political economy of the structure of protection. Pressures (or support) for protection emanating from

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[35]See, for example, Kenen (1989), Ch. 11 on unemployment, and Branson and Love (1988) on the exchange rate.

[36]See Destler (1986).

[37]See Hufbauer (1989), Chapter 2.

concerns over the current account deficit or over the level of unemployment are clearly misguided from the viewpoint of efficient resource allocation: alternative economic policy instruments can achieve at least as favorable results with smaller costs. Protectionist pressures motivated by a desire to reduce the overall level of unemployment or the current account deficit are clearly misguided, and it is surely part of the role of economists to point to superior policy instruments.

An issue therefore arises when considering the political-economic phenomena that give rise to pressures influencing the structure of protection. To the extent that pressures for protection arise from well-informed sources who correctly perceive alternative policy instruments and their outcomes, it would be difficult for economists as economists to quarrel with a protectionist outcome.[38] For, by hypothesis, those seeking and receiving protection would have been well informed as to the benefits to them. However, in instances where there are clearly superior instruments available, as in the case of unemployment and a current account deficit, economists can and do pronounce upon alternatives. An important, and little addressed, question, therefore is whether those who advocate protection do in fact benefit and more or less correctly anticipate the magnitude of those benefits.[39] Certainly, the continued discomfort of those in the textile and apparel industry after thirty-five years of "temporary" protection, the continuing difficulties of the automobile industry despite VERs,

[38]I ignore here the possibility of multiple equilibria in which a free trade equilibrium was preferable for all to protection-ridden equilibrium, but in which it was not in the self-interest of any protected group to switch support to free trade.

[39]An interesting exception is Lenway and Schuler (1990), who assessed the profits to firms in the steel industry relative to the amounts that had been contributed to the campaign for protection. Lenway and Schuler found little relation.

and the continued existence of economic discomfort and problems in other industries which have been accorded protection do not suggest that protection is a panacea: there is little empirical evidence with which to ask how much better off, if at all, protected firms in fact are.

These considerations raise important questions as to the role of ideas in the protectionist struggle. Insofar as pressures for protection arise from mistaken notions of its efficacy (as is surely the case with the current account deficit), increased public understanding should improve decision making processes. A question may be raised as to whether improved understanding might not also better inform the process of deciding upon the structure of protection, to which attention now turns.[40]

3.2. The Structure of Protection across Activities.

A number of models have been suggested as explanations of the structure of protection. Some assume a process of representative government in which there is some reason why the preponderance of voters do not reflect their interest; others assume that there are barriers between voter preferences and political decision making.[41]

Alternative models of the political economy of protection are by no means mutually exclusive. Moreover, it is quite possible that one model might capture aspects of reality applicable to one situation, and another model might be relevant for another. At the present stage of empirical work, the best that can

[40]As will be seen, models of the determinants of the structure of protection can be divided into two groups: in one group it is assumed that voters are represented but there is some imperfection in the representation process. In the other, voters are presumed to be opposed to protection, but ill-informed as to its extent. Certainly, in the latter case, improved information would potentially improve welfare.

[41]See Baldwin (1984) and (1985) for a survey of some of the main models.

be done is to inquire into which models may be relevant for explaining a particular protectionist measure.[42] A difficulty with such a one-by-one analysis is that it leaves open the question as to whether there are any systematic determinants of patterns of protection. If one were to find, for example, that an "imperfect voter representation" model explained protection to automobiles, while a pressure group model explained textile protection, the results would be of limited usefulness unless there were also hypotheses as to the circumstances under which each type of model would prevail - something which thus far has not been attempted.

Turning first to models in which there are imperfections in the process by which voter preferences are reflected to politicians, Mancur Olson's (1965) seminal work lies at the core of many theories of the manner in which politicians decide to adopt protection. In effect, Olson posited that the public interest was a public good, and that the free rider problem resulted in a lack of incentives (or equivalently, high costs) for large numbers of individuals to organize in support of the common interest (presumably a Pareto-optimal outcome). Thus, pressure groups and lobbyists are seen to be representing the special interests that may gain from protection, whereas the larger body of potential (small) losers do not exert equal pressure upon political decision makers.

In some analyses of the political economy of protection, the core of the analysis rests upon the proposition that there are many losers from protection, each of whom is small, while the gainers are more concentrated. Olson hypothesized that the more concentrated were the potential gainers (the smaller

[42]See Dinopoulos and Kreinin (1990) for an example of this sort of analysis. Those authors examine VERs for machine tools, and scrutinize the properties of the industry to explain why it received protection. They reject most of the explanations discussed here.

is the free rider problem) the more likely would there be political action in their favor. However attempts at empirical verification of the concentration hypothesis have not, in general, been highly successful.[43]

One possible reason for this may be "identity bias". I have elsewhere argued that there are a number of asymmetries in the political process regarding the treatment of exportables and import-competing goods, which may account for some part of protectionist patterns.[44] One of these is that those with no personal interest in a particular issue will tend to sympathize with those they know more about (whom they like) than with individuals who are entirely unknown to them. In this light, a "textile worker" or "steel worker" is more familiar to voters than is the unemployed person who would be hired were an exportable industry to be expanded. Much of the effort of protectionist groups is to portray individual workers (usually with two children and a mortgage) in affected industries.[45]

A number of alternative models focus on some aspect of the body politic's sympathy for the plight of low-income workers who might become unemployed. One such model is the "adding-machine" model, first proposed by Caves.[46] In this model, when there are larger numbers of individuals affected by pressures on particular industries, there is greater likelihood of protection, as producer

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[43]See, for example, Dinopoulos and Kreinin (1990), and the survey of results in Baldwin (1984), Pp. 574 ff.

[44]Krueger, (1990a).

[45]This view challenges the notion that the essential reason for protectionism is that the gainers are concentrated while the losers are diffuse. Those in exportable industries that would otherwise expand are clearly losers, and the potential gains in exportable industries may be as concentrated as are potential losses in import-competing industries. It may be the knowledge of the identity of potential losers, rather than the size of the loss, which is at issue.

[46]Caves (1976). See also the summary in Baldwin (1984).

interests are assumed to be more influential in the political decision-making process than are consumer interests.

Clearly, there is some support for this view in the pressures and support for protection of such industries as textiles, clothing and footwear, although elements of identity bias may also be a factor. However, it fails to explain pressures for protection of high-technology industries (such as the U.S.-Japan semi-conductor arrangement), machine tools[47], sugar[48], steel, and automobiles.

The second group of models focuses much more on processes and mechanisms by which special interests prevail over the public good. Two classes of these models deserve special note. On one hand, there are models in which politicians are "bought" by special interests; the politicians in turn "buy" votes with which to stay in office. On the other hand, there are models in which elements of the bureaucratic process conceal the extent of protection and its costs.

Brock and Magee (1978) provide perhaps the best-known of these models. In their model, politicians seek to obtain votes. Two inputs are helpful in providing votes: the positions they take, and money. Lobbyists then "pay" politicians to take actions (impose tariffs). From the politicians' viewpoints, there is a tradeoff between the loss of votes entailed by acting in favor of special interests, and the gain in votes resulting from their ability to spend more money in seeking election or reelection. Clearly, then, tariffs are the outcome of the politicians' need for resources. The loss of votes will be

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[47]See Dinopoulos and Kreinin (1990), who reject almost all models of the political economy of protection for U.S. machine tools. The only argument in which they can find explanatory power is that the industry (which is small, consists of a large number of very small firms and very few large ones, and is not geographically concentrated) appealed to national defense considerations.

[48]The average payment per sugar farm in the mid-1980s was estimated to be around $136,000. See Krueger (1990b).

smaller, the less obvious it is to voters that special interests have indeed been favored. Hence, politicians and lobbyists seek to cloak protectionist measures in forms that will render them opaque to the voters.

Another model generating special interest outcomes derives from the political science literature, and is known as the "Iron Triangle". It is similar to the Brock-Magee model in that politicians seek votes. It differs, however, in that bureaucracy plays a central role. In this literature, politicians create bureaus and agencies which are empowered to issue certain types of privileges or rights. Voters then need their politicians when they are attempting to gain privileges or rights from the bureaucracy. Bureaucrats, meanwhile, are maximizing their own power, seeking more resources from the politicians in return for assistance to the voters in their district. Voters then base their voting decisions on the extent to which they perceive politicians to have assisted them in coping with the bureaucracy.[49] Bureaucrats and politicians may therefore have a preference for quotas and other administered forms of protection, under which bureaucrats can be perceived as providing "favors" in response to politicians' requests.

In yet another part of the political science literature, Milner (1988) focuses on the interaction between the cohesion of those seeking protection and the likelihood of success from lobbying for it. Milner analyzed the lobbying efforts for protection of firms in a number of industries, and their consequences. One of her conclusions is that protectionist outcomes are unlikely unless there is a reasonable degree of unanimity of the representatives of the industry on the desirability of protection. On the basis of her reasoning, protection is most likely to be effected and maintained when the members of an industry seeking protection are unanimous in their desire for protection. If some

[49]See Fiorina (1977) for an exposition.

firms are opposed to protection, either because they are exporting abroad and recognize that retaliation might hurt their exports, or because they have invested overseas and would therefore lose directly from protection, it is much less likely to be granted.

4. Conclusions

Examination of the prevailing pattern of protection in the United States yields the easy conclusion that, whatever is used as a basis for deciding upon the pattern and structure of protection, it is certainly not the criterion of Pareto optimality.

An important question, then, is what the determinants of protectionist policies are. To date, each model of the political economy of protection has focussed upon a particular behavioral model of a political decision-making process. Such an approach has a number of defects, especially when the various models are not mutually exclusive. First and foremost, examination of the explanatory power of a model for one economic activity at a time implies that different models might be accepted for different industries. Even if those models proved to be correct in their specific contexts, the broader question would remain as to the circumstances in which each model would carry explanatory power.

Although contributions to the political economy of protection have significantly furthered our understanding of the issues, a great deal of work remains to be done. There is, first and foremost, a difficult but pressing question as to beneficiaries of protection and the quantity of their benefits. Further work in that regard could shed considerable light on whether those lobbying for protection themselves are appropriately calculating the benefits and costs. Related to this is research as to the identity of losers from protection,

the magnitude of their losses, and the extent to which they are correctly informed ex ante as to those phenomena. There are also important questions as to the role of ideas, and information, in bringing about political outcomes that appear contrary to the public good. Finally, one can only hope that at some future date it will be possible to understand the determinants of the structure of protection, as well as of shifts in that structure over time.

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Table 1. American Tariff Rates and Value of Imports, 1988

	Value of Imports	Average Tariffs	
	millions of U.S. dollars	Simple	Weighted
		(percent)	
Animal and Vegetable Products	26776	8.0	3.3
Textile Fibres and Products	25269	9.9	17.2
Wood and paper, Printed Matter	18325	2.7	2.0
Metals and Metal Products	229148	4.3	3.8
Non-Metallic Minerals And Products	11565	5.1	4.8
Chemicals and Related Products	60545	5.6	2.8
Miscellaneous Products	54689	7.5	6.3
Total of above	399541		
TOTAL IMPORTS	426316	6.6	4.9

Source: GATT, Trade Policy Review, United States, March 1990. P. 224

Table 2.Producer Subsidy Equivalents
American Agriculture, 1984 to 1988

	1984	1985	1986	1987	1988
	per cent protection equivalent				
Crops (gross)	21	26	45	42	34
Livestock products (net)	34	36	41	40	33
All products (net)	28	32	43	41	34

Source: GATT 1990, P. 228. Data derived from OECD estimates.

Table 3. Sectors subject to VERs and Estimated Tariff Equivalents

Industry	Nature of VER	Estimated Tariff Equivalent of VER per cent	Comments
Automobiles	Agreement with Japan	15.3	U. S. lifted VERs but Japan continued
Nonrubber footwear	Series of VERs and other arrangements	9.7	1977-81 agreement Estimate is in addition to 8.8% tariff
Heavyweight Motorcycles	Tariff-quota	25	Tariff-quota imposed in 1983 after Escape Clause Finding
Some food products made of sugar	Series of restrictions	na	Done to protect food processors using high-cost sugar
Color television sets	VER with Japan, Korea and Taiwan	15	VER in effect from 1979 to 1982
Semiconductors	Voluntary Import Expansion with Japan	NA	Japan agreed to get 20% market share for American exports
Machine tools	VERs with Japan, Taiwan	17	Imposed for 5 years starting 1987
Specialty steel	Series of VERs	15	Estimated effect of VER in addition to 10% tariff 1983-1985
Coastal Shipping	U.S. carriers only	60	Foreign carriers not permitted
Ocean Shipping	Subsidies and requirements to ship portion in American carriers	NA	Domestic costs are subsidized

Source: Hufbauer et al (1986), Gatt (1990), Dinopoulos and Kreinin (1990)(for machine tools).