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INTERNATIONAL POLITICAL ECONOMY:
An Emerging Field

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I. The Need for an International Political Economy

There can be little dispute that international interdependence has strongly increased over the last decades, and that international economic relations have been strongly influenced by politics, and have in turn had a major impact on international politics. This fact is succinctly stated by Bergsten, Keohane and Nye (1975, p. 6) when they write:

"An international economic system is affected by the international systems existing at the time, and vice versa. The behavior of governments on economic issues will be affected by their political calculations, which will in turn be determined in part by the structure of world politics. At the same time, political steps by governments must often rest on economic capabilities and ... are increasingly taking economic form."

Many similar observations can be found in the literature, e.g. when Cooper (1968) speaks of "increased economic interdependence" or calls an article "Trade Policy is Foreign Policy" (1972/73), or when Lindbeck (1973) points to the "internationalization of markets and of institutions".

**International Political Economy** combining three different words points to a multitude of interrelationships to be studied. Table 1 provides a simple overview of the interaction of economy and polity both at the international level (square 4), and between the internal and the international levels (squares 2 and 3). The interactions taking place between the national economy and the national polity (square 1) are studied within (National) Political Economy.

It should be noted in Table 1 that the connections between the economy and polity always run in both directions, e.g. in square 3.
the state of the international economy may influence internal political affairs, and internal politics may influence international economic affairs.

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Table 1: Aspects of interaction within International Political Economy

Though the need for an International Political Economy is generally acknowledged, it is a grossly neglected field. Spero (1977, p.1-2) writes e.g.

"... in the twentieth century the study of international political economy has been neglected. Politics and economics have been divorced from each other and isolated in the analysis and theory ... Consequently, international political economy has been fragmented into international politics and international economics."

Similar statements have been made by many other authors.¹ An often quoted article (among international relations scholars) bears the title "International Economics and International Relations: A Case of Mutual Neglect" (Strange 1970). The gap still exists today, and the need for an International Political Economy remains as urgent as

ever. Tooze (1981) argues e.g.

"Neither international politics nor orthodox economics are able to provide any adequate basis for the explanation of contemporary international relations and its change" (p.120).

The general purpose of this paper is to show

(1) that "orthodox" economics, and in particular Public Choice, is well able to cope with many relevant problems in International Political Economy;

(2) that some useful - but little known - applications exist;

(3) that it is worthwhile and fruitful to develop the field further.
II. **Existing Scientific Approaches**

1. **Forerunners**

Two well-known economists have made important early contributions to International Political Economy. In his book "National Power and the Structure of World Trade", which appeared just after World War II, Albert O. Hirschman (1945) addressed the question of the political nature of international trade. Trade is an instrument of national (monopoly) power. It has two effects on the state's power:

- the "supply effect" relates to the country's position with respect to imported goods and services;
- the "influence effect" relates to the ability of a state to interrupt its own exports and imports.

Hirschman stresses the inextricable link between the dependence on trade and the gains from trade: The more a country benefits from trade, the more dependent it is on trade.

Charles P. Kindleberger (1951) studies the influence of economic groups on tariffs in the late 19th century in such countries as Germany or the United Kingdom: The state often pursues the interests of powerful groups, and is therefore not neutral. He stresses that interest groups not always have their way; there are periods (1850-1875, 1945-1975) with a rise in free trade. His later book "Power and Money" (1970a) describes in the subtitle exactly the content of the field: "The Economics of International Politics and the Politics of International Economics". Kindleberger's analysis is very broad; his chapters treat e.g. imperialism, war and peace-keeping as part of the "Economics of International Politics", and trade, aid, migration, capital, corporations and money as part of the "Politics of International Economics". While his approach is clearly economic, he
supports his arguments mainly with the help of historical and actual
economic and political facts.

Besides Hirschman and Kindleberger, a number of other economists
have written early in the field, such as Peter Bernholz (1965),
Kenneth E. Boulding (1962, 1968), Richard N. Cooper (1968), Harry
G. Johnson (1965), Klaus Knorr (1973), Thomas Schelling (1960, 1966)
and Charles Wolf (1960). On the whole, however, there have been
few contributions explicitly using modern economic theory\textsuperscript{1} to
analyze International Political Economy.

2. Elements in the traditional theory of international trade

International economics (as economic theory in general) may be
considered "political" in the following two respects:

(a) The analysis is not value free, as evidenced e.g. in the
economists' predilection for questions of efficiency as com-
pared to income distribution;

(b) Implicit assumptions about politics are underlying in particular
the normative analysis, e.g. that the governments represent
the interests of the population by maximizing social welfare.

In international trade theory there are some isolated areas,
however, in which there is a more explicit political content. This
applies above all to the following areas:

(1) Multinational Corporations.

\textsuperscript{1} There is, of course, an old tradition of radical and Marxists
writers looking at the problems from their own perspective, e.g. Baran
and Sweezy (1966) or Mandel (1972). Special emphasis is given to
imperialism (see e.g. the collection of articles by Boulding and
Mukerjee (1972) with texts by both Marxist and other writers, such as
Hobson and Schumpeter). The "dependencia" theories studying American
imperialism in Latin America are treated e.g. by Magdoff (1969),
Galtung (1971) and Gunder-Frank (1972).
The importance of the political relationships of Multinational firms with the political set-up in the host countries is so obvious that even "economistic" analyses have been compelled to at least mention, if not to analyze, them. Among the huge literature on the topic it must suffice here to mention the collection of articles by Kindleberger (1970b) and Dunning (1974), and the recent books by Hood and Young (1979) and Galdwin and Walter (1980).

(2) Illegal transactions in international trade.
As a reaction to severe government intervention into the flow of international trade and finance, the individuals and firms make efforts to get around these politically imposed constraints. The literature on the subject (see in particular Bhagwati 1974)\(^1\) stresses the welfare consequences and proffers policy recommendations but undertakes only marginally a positive study of government behaviour.

(3) The theory of non-economic (i.e. political) objectives in international trade.
The changes in the marginal conditions of optimal resource allocation brought about by a further constraint, a so-called non-economic objective, are changed compared to a situation in which resource scarcity is the only constraint. An actor imposes an extraneous constraint on economic policy based on some political objective which is thought of superseding all

\(^1\) On smuggling see e.g. Bhagwati and Hansen (1973), Bhagwati and Srinivasan (1974), Kemp (1976), Pitt (1981), Bhagwati (1981); on black market exchange rates e.g. Gupta (1980).
questions of purely economic allocation. The constraint specifies a maximum or minimum level of a particular economic variable (e.g. domestic consumption or production, imports of a commodity, sectoral employment of a factor of production), which lead to a second best problem. (See Bhagwati and Srinivasan 1961, Vandendoorpe 1974).

The discussion shows that while there are some political elements in the theory of international trade, and sometimes even explicit ones, they are found in very specific and isolated areas only, they can at best serve as a point of departure for a more comprehensive International Political Economy.

3. Political Scientists' International Political Economy

Within International Relations, there is today a quite well established field called "International Political Economy". This particular political scientists' approach need not be discussed here extensively because it was recently surveyed (Barry Jones 1981, 1982) and there exist useful collections of articles (Bergsten and Krause 1975, Bauer 1975, Kegley and McGowen 1981). The most often cited contribution in this field is Robert Keohane and Joseph Nye's book "Power and Interdependence" (1977); other basic contributions are by Susan Strange (1971) and Fred Bergsten (1975) on the politics and economics of international currencies, and Stephen Krasner's "Defending the National Interest" (1978). A series of books in the "Political Economy of International Relations" has been edited by Benjamin J. Cohen, e.g. by Knorr (1973) on "International Power", Wall (1973) on "Foreign Aid", Gilpin (1975) on "Foreign Direct Investment" and Cohen (1977) on "International Monetary Relations".
The political scientist's approach distinguishes four major perspectives\(^1\) from which International Political Economy may be looked at:

1. The mercantilist or neo-mercantilist view stressing the central role of the nation state as the sole basic actor, and which is the only source of security for its citizens;

2. The liberal view which is associated with neo-classical economics. Economists will be interested to know how a political scientist characterizes it:

   "[It is] an optimistic vision of a benign system in which unimpeded free trade will secure production efficiency and the global maximization of human satisfaction" (Barry Jones 1981, p.247).

3. The Radical or Marxist view which takes the structural inequalities of the international system to be the inevitable product of capitalism. It is taken as a matter of course that the developing countries are exploited by the developed (capitalist) ones.

4. The structuralist perspective (associated with the name of Raúl Prebisch) recognizes the fundamental structural disadvantage of the developing countries in relation to the industrialized countries but remains reformist by seeking corrective arrangements through negotiations.

Political scientists do not hesitate to claim International Political Economy as their proper and exclusive domain.\(^2\) "Power"

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1) Tooze (1981) in addition mentions "systems theory" but is rather critical about its usefulness.

2) "... the foundations of a realistic study of the international political economy are not dissimilar to those of conventional political analysis" (Barry Jones, 1982, p.50.)
and "authority" are taken to be the central concept with which to study the problems, and in addition the analysis has to be "dynamic" and has to take into account historical processes (see e.g. Barry Jones 1981, 1982; Tooze 1981). Accordingly, there is a marked tendency to reject economic theory:

"The bases of an effective analysis of the international political economy must ... be rooted in a number of assumptions ... that are incompatible with neo-classical economic theory" (Barry Jones 1982, p.47); and

"The 'textbook orthodoxy' of neo-classical [economic] theory is successfully challenged by the contrast with and the formulation of an alternative perspective" (p.128).

This rejection of economics does not, however, seem to be based on an extensive knowledge of the literature. Hirschman's (1945) contribution is e.g. completely overlooked and the Economic Theory of Politics or Public Choice approach seems to be totally disregarded1 as evidenced e.g. by a political science survey writer of 1981 proclaiming

"Neo-classical theory ... treats political and social processes perfunctorily, as extraneous and, at best, exogenous factors" (Tooze 1981, p.130).

Indeed, the "classical" writers in Public Choice (Arrow, Downs, Buchanan, Tullock, Niskanen) are never quoted, not to speak of the specific contributions of this approach to International Political Economy as surveyed in this approach.

1) The only exception is Olson's (1965) analysis of the conditions for interest representation in the face of public goods and Olson and Zeckhauser's (1966) application to cost sharing in alliances.
The political scientists' International Political Economy can be criticized in various respects. The most important shortcoming is its non-analytical structure, it lacks a well spelled out theory from which to derive (non-obvious) testable hypotheses. Rather, the approach is descriptive, historical and (sometimes) anecdotal. No effort is made to put up clear propositions and to subject them to empirical (econometric) testing. The political scientists' approach is, however, useful to point out problems, to give general insights and to suggest areas for research.

4. The Public Choice Approach to International Political Economy

Public Choice, also known as Economic Theory of Politics or (New) Political Economy, seeks to integrate the economy and the polity by using the tools of modern economics.\(^1\) It provides an explicit study of the working of political institutions, in particular of the behaviour of government, voters, parties, interest groups and public bureaucracy. The individual is the basic unit of analysis, assuming that it responds in a systematic way to incentives. (See e.g. Becker 1976, McKenzie and Tullock 1975, Blaug 1980). Its preferences are clearly distinguished from its constraints, and the analysis stresses alternatives, substitution and marginal adjustment. The analysis is rigorous (sometimes formal) and results in testable propositions which are subject to econometric testing.

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\(^1\) The approach is not only used by economists but increasingly by political scientists (see e.g. Riker and Ordeshook 1973), in sociology (Coleman 1964, Opp 1972, 1979, and social psychology (see Stroebe and Frey 1980).
There is no need to go into general Public Choice theory here; see the books by Frey (1978a), Mueller (1979), van den Doel (1979), or Bernholz (1972-79). None of these surveys mentions, however, any international aspects; they are concerned solely with the domestic political economy. Russet's reader "Economic Theories of International Politics" (1968) is, despite his title, more a collection of general articles on Public Choice than an application to international problems.

This paper wants to provide a survey of applications of Public Choice to International Political Economy mainly stressing international trade (only selected aspects of finance are treated).\(^1\) In conformity with the Public Choice approach only explicit analyses of political institutions and processes are considered.

Section III of the paper shows how Public Choice has been applied in selected problem areas. Section IV shifts the viewpoint and considers how particular theoretical concepts have been used in the field. In Section V the Public Choice approach to International Political Economy is evaluated, and an outlook is given.

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1) Also, aspects of international stabilization policy are not treated in this paper.
III. Problem Areas

This section intends to show what contributions have been made by Public Choice to the theoretical and empirical analysis of the Political Economy of (1) the formation of tariffs and trade restrictions, (2) the foreign trade flows, (3) foreign direct investment, (4) international aid, (5) economic nationalism and warfare, and (6) international organizations and bargaining.

1. Tariffs and trade restrictions

1.1 Why not free trade?

The pure theory of international trade clearly states that a unilateral shift to free trade is desirable (leads to a higher real income) except if this leads to such a deterioration in the country's terms of trade that its real income falls. The theory therefrom concludes that when the advantages of trade liberalization are explained, the government will (eventually) do away with tariffs. However,

"The traditional approach assumes away the question [of how that optimum can be attained, the authors] by postulating the existence of a benign, omniscient government that can use non-distortionary taxes and subsidies to place society at a point on the utility-possibility frontier" (Findlay and Wellisz 1982a, p.15)

The politico-economic problem thus is to explain why tariffs do exist and why the government does not undertake the Pareto-optimal step of abolishing tariffs. It could be argued that the

1) It can be taken for granted that in the vast majority of cases the possible terms of trade effect does not countervail the welfare increasing effect of free trade.
government would win votes because either a majority of the electorate benefits, or if it is only a minority, it can be bribed so that it is better off than in a situation with tariffs. If the citizens determined the tariffs by a direct single majority vote in an assembly, the median voter would cast his vote in favour of free trade.

The ideal conditions of the median voter model are, however, modified in important respects in reality, providing an explanation for the continuous existence and possibly even growth of tariffs. The following five modifications have to be taken into account (see also Baldwin 1976):

(i) The losers of a tariff reduction are not compensated (e.g. because of the high transactions costs involved), and if they form a majority, they obstruct the reduction and elimination of tariffs;

(ii) The prospective (majority of) gainers have less incentive to participate in the vote, to inform themselves, and to organize and to support a pressure group than do the losers. Tariff reductions are usually\(^1\) a public good whose benefits are received by everybody, including those not taking the trouble and incurring the cost to participate actively in the political process. The prospective cost of tariff reduction is, on the other hand, much more direct and concentrated, so that it is worthwhile and possible to politically fight against a tariff reduction (see Downs 1957, Olson 1965). In addition, well defined short term losses (of those voters foregoing tariff protection) are much more visible and therefore better perceived than the uncertain gains in the (far) future.

\(^1\) Tariff reduction may be a private good for dominant export interests.
(iii) The prospective losers of a regime of free trade may be better represented in parliament and in the government, depending on the system of voting.  

(iv) Logrolling or vote trading can make it possible that two issues, each of which increases the country's welfare, are both defeated by a majority (see e.g. Brams 1975, Bernholz 1974). Vote trading is possible if groups of voters have unequal intensities of preferences for the two issues. This is very likely to be the case where tariffs are concerned. Consider e.g. group I of voters engaged in domestic, import competing activities. Their main preference is against the reduction of tariffs for its own products (issue A) and weakly for a reduction of tariffs for some other products (issue B). Assume a group of voters II, whose main interest lies in maintaining the tariff for the products stipulated in issue B, and who have a weak preference for issue A. If neither of the two groups has a majority, and the other voters perceive the benefits of free trade, both issues A and B would be accepted and free trade established. If groups I and II combined have a vote majority, they can, however, agree on trading votes: Group I votes against the tariff reduction which group II strongly opposes (i.e. votes against B), provided group II votes in compensation against the tariff reduction which group I strongly opposes (i.e. votes against A).

1) Assume e.g. a parliamentary election in three precincts of equal size and the same number of seats. A group (say the opponents of free trade) can win a majority in parliament, if in a majority of precincts (in our case in two precincts with 33% of the electorate each) it gets at least 51% of the vote. With an advantageous regional distribution it is thus possible to have a parliamentary majority with (roughly) 33% of the total vote. With 25 precincts of equal size, only 26% of the total vote is required.
The vote trade then leads to a vote majority against tariff reductions, i.e. issues A and B are both defeated. Logrolling may be explicit or implicit, i.e. it may come about by constructing a suitably combined issue.

A particular vote trade to maintain a tariff is beneficial for the participating groups (because otherwise they would not engage in it) but a sequence of various vote trades may lead to unfortunate consequences for all the groups involved ("Logrolling paradox"): 

(a) There is a tendency to have a higher overall tariff level (and more trade restrictions) than would be optimal for the society as a whole;

(b) The groups of voters not involved in vote trading - in our particular case the unorganized consumers - are "exploited" by the active logrollers.

The introduction of a "market for votes" may thus not lead to the Pareto-superior outcome of free trade.

(v) Another reason why tariffs may be maintained is that they are a source of revenue for governments, which in their absence would find it (even) more difficult to finance public expenditures.

This is especially so in developing countries where due to the tax system's inefficiency there is little tax revenue. A government having room for discretion will therefore tend to secure this income source, and will oppose free trade.¹

¹ Whether tax revenue falls, stays constant, or rises when the tariff rate is marginally reduced depends, of course, on the price elasticity of the demand for imports (and exports, in the rarer case of an export tariff). It is quite likely that the government expects a fall in revenue, at least in the short run.
The five modifications of the ideal simple majority voting model are well able to explain why free trade optimal from the point of view of the country as a whole is not a pervasive feature of reality. The arguments suggest that there is, on the contrary, a political market for protection. The demand for protection is exerted from particular groups of voters, firms and associated interest groups and parties, the supply of protection is brought forward by politicians and public bureaucrats. It is important, however, to carefully specify the objective functions and constraints of the actors in the market for trade protection. It should e.g. be observed that the voters are not only interested in their short-term and narrow economic interests but also in national foreign policy and military power. This may lead to a marked difference in behaviour between members of parliament and the government, especially in the case of the United States (Baldwin 1981a). Congressmen depend on the vote received in their district for reelection. As argued above, the protectionist groups with well defined and organized interests are likely to prevail. In general, there will be only a modest demand for tariff reductions by exporters, import agents, large users of dutiable imports, and multinational enterprises. The president finds himself in quite a different position as his constituency is the whole nation. His chances of reelection may seriously be threatened if the international image of the country worsens. He has therefore an interest in using international trade policy as an instrument of general foreign policy. Trade liberalizations provide a means for a successful foreign policy because it tends to reduce international economic conflicts. The president needs, however, the acceptance of his liberalization moves by the Congress, i.e. he has to take into
account the strong protectionist interest. The trade bills introduced by American presidents into Congress are therefore typically a mixture between general tariff reductions combined with specific protectionist features.

1.2 The role of interest groups

According to one of the centerpieces of international trade theory, the Stolper-Samuelson (1941) theorem, capital favours free trade, and labour is protectionist if the country is capital abundant compared to other nations. The reverse is taken to hold for a country which is labour abundant: Capital is expected to be for protection, labour for free trade. The analysis thus suggests that lobbying on trade issues occurs along factor lines. It is excluded that both capital and labour in any given industry favour the same position in the issue of protection.

An alternative model (Cairnes 1874) assumes that factors are industry specific and that both capital and labour have the same position vis à vis tariffs. In an empirical analysis of the hearings before the American Ways and Means Committee in 1973 (Magee 1980), it is shown that this model is more compatible with reality: In 19 out of 21 industries labour and management held the same position; 14 were protectionist, 5 for free trade. Only in 2 industries (petroleum and tobacco) did labour and management's positions as to protection differ. This suggests that lobbying is best analyzed by looking at the import-competing and export dimension. ¹ This is

¹ The empirical evidence, while certainly conforming to casual observation, should be taken with a grain of salt. For instance, the managers are simply assumed to represent the capital owners' interests (which is quite debatable), and the analysis is based on one year and one country, and captures the actors' positions at one particular point of the political process only.
indeed the procedure used in the theoretical and empirical analyses subsequently presented.

Interest groups interact with parties in order to influence tariff formation (Brock and Magee 1978, 1980, Magee and Brock 1980). They "invest" votes and money (economic resources). The more concentrated and better organized gainers from a tariff can compensate their lower vote number by offering financial support to a party taking account of their wishes. The losers from a tariff usually have a larger voting strength but can muster fewer resources for their benefit. The interest groups find themselves in a prisoner's dilemma situation: No one group can unilaterally stop lobbying because its interests would be disregarded in the political process. This is an instance of the cost of "rent seeking" (see below, Section IV).

The parties' goal in this model is to maximize the probability of getting into power by using the financial resources at their disposition and by choosing an appropriate position on the free trade/protection issue. The more protectionist a party's position is, the more resources it will receive from the pro-tariff pressure groups. It thereby alienates, however, the consumer/voters (and loses some resources from the pro-free trade group). Its optimal position on the tariff issue is reached when the positive marginal effect of increased resources on the reelection probability equals the negative marginal effect of lost votes (and resource flows) from the other group. The model endogenously determines the tariff level, the amount and distribution of resources used to finance parties and the distribution of the vote between the parties. Tariffs may in this framework be considered a "price" which equilibrates political markets.
The model sketched is so far quite abstract, is restricted to the competition between two parties, and does not (yet) yield practically applicable and empirically testable results. The assumption about the parties' (and government's) behaviour is not convincing because they are taken to be solely interested in winning elections. A more realistic assumption would be that they want to pursue ideological goals (e.g. a liberal party may favour free trade for that reason, while a nationalistic party may favour high tariffs to further autarchy), but that they are subject to an election constraint. Despite these criticisms, the model provides a very useful starting point for the explanation of tariff formation.

Another approach seeking to endogenously determine tariff levels in the political context uses the general equilibrium setting of traditional international trade theory (small country case) (Findlay and Wellisz 1982a, 1982b). There are two goods, agricultural products with the specific factor land, and manufacturing products with the specific factor capital. Labour is used in both sectors and is taken from a common pool (L). Competition is perfect. It is assumed that the country considered has a relative advantage in agricultural goods which it exports; manufactured goods are imported. The political system is assumed to be democratic and pluralistic. The landed interests use labour $L_T$ in order to further free trade, while manufacturing capital also uses labour $L_K$ to seek to increase tariffs $t$. The "tariff formation function" thus is

$$ t = F(L_K, L_T), \quad F_1 < 0, F_2 > 0. \quad (1) $$

The political struggle can be described by a Cournot-Nash process in
which each group takes the resources used to influence the tariff to be constant, and calculates its optimal input in the light of the tariff formation function and the structure of the economy. Assuming that the process is stable, an equilibrium level and distribution of lobbying expenditures is reached at point E (see Fig. 1), the intersection of the reaction functions of the landed interest (anti-tariff) TT' and of the capitalist (pro-tariff) group KK'.

Fig. 1: Determination of lobbying expenditures and of the tariff level.

This equilibrium determines not only the total level \((L_T^* + L_K^*)\) and distribution \((L_T^*/L_K^*)\) of lobbying expenditures, but also the level of the tariff \(t^*\) (according to eq. 1). An equilibrium above and to the left would mean that a lower tariff is arrived at (because, given \(L_K^*\), the anti-tariff groups uses more resources to influence the tariff). The
labour force in productive (economic) use is \( L^* = L - (L_T^* + L_K^*), \) and
the welfare loss due to political strife (or rent seeking) equals
\( w \cdot (L_T^* + L_K^*) \) \( \) (where \( w \) is the shadow wage of labour).

This model elegantly analyses the endogenous determination of
tariffs from a theoretical, and highly aggregated point of view. One
of its main weaknesses (the authors are well aware of) is that the
public goods character of tariffs and free trade, and the concomitant
free rider effect, are not taken into account.

The factors influencing tariff policy discussed in the previous
pages have also been the subject of econometric analysis. Baldwin
(1976, pp.29-37) seeks to explain the probability of whether a Con-
gressman votes for \( (= 0) \) or against \( (= 1) \) the trade liberalizing bill
introduced by a Republican president to the Congress in 1973. The
explanatory variables are the party affiliation (Republican party \( = 1, \)
Democratic party \( = 0, \) with a negative sign expected\(^1\) because the bill
is introduced by a Republican president); the proportion of import-
sensitive industries in the Congressman's district (with an expected
positive sign); the proportion of export-oriented industries (with an
expected negative sign); and the campaign contribution to the Congress-
man by three major unions opposing the bill (expected positive sign);
and the campaign contribution to the Congressman by three major unions
opposing the bill (expected positive sign). The probit estimate is

\(^1\) The higher the number representing the political party, the lower
the number representing a Congressman's expected position on the
bill.
Probability of supporting the 1973 trade bill

\[ \text{Probability} = -0.40 \quad \text{(constant)} \\
- 1.20^{**} \quad \text{(party affiliation)} \quad (6.79) \\
+ 3.49^{**} \quad \text{(import sensitive industries)} \quad (2.62) \\
+ 1.16 \quad \text{(export oriented industries)} \quad (1.28) \\
+ 0.0004^{**} \quad \text{(union campaign contribution)} \quad (3.22) \]

(In parentheses: approximate t value, i.e. the ratio of the maximum likelihood estimate of the coefficient divided by the standard error; one (two) asterisk(s) indicate statistical significance at the 95% (99%)-level.)

According to the \( \chi^2 \)-test, the equation is significant at the 99% level. The variables relating to party affiliation, import sensitivity, and union contributions, all have the expected sign and are statistically significant. The proportion of export oriented industries in a Congressman's district has no statistically significant influence on his voting behaviour (and moreover the wrong sign). This suggests - as hypothesized in some of the earlier approaches - that the export interests are less intensive and less organized than the import-competing interests which are well aware of the impending loss from a lower tariff barrier.

Magee (1982) analyzes the development of the protectionist pressure by interest groups in the United States from 1933 to 1979. This pressure is (indirectly) measured by the number of dumping cases filed with the U.S. Bureau of Customs: The (prospective or actual) losses incurred by import competing firms cause them to file dumping charges against foreign exporters. It is hypothesized that rising
unemployment going with a decline in business activity and profits raises the expected rate of return for political activity (i.e. the managers and capital owners are expected to switch from the area of low returns, economics, to one of relatively higher returns, politics). As a consequence, the protectionist pressure is expected to rise with unemployment. Rising inflation is hypothesized to lead to pressures from housewives and consumer groups to liberalize imports. The protectionist pressure is thus expected to increase with inflation.

Econometric estimates with annual data yield the following result:

\[
\log(\text{protection}) = -0.15 \quad (\text{constant}) \\
- 1.38^{**} \quad (\text{dummy variable}) \\
\quad \quad (7.54) \\
+ 0.92^{**} \quad \log(\text{unemployment, percent}) \\
\quad \quad (6.77) \\
- 5.67^{**} \quad (\text{inflation, percent}) \\
\quad \quad (3.88) \\
\]

\[R^2 = 0.72\] (the figures in parentheses show the t-ratio).

The dummy variable takes the value 1 for 1933-52, and zero for 1953-77, to account for an (unexplained) structural shift.

The coefficients for unemployment and inflation have the expected signs and are statistically significant. A ten percent increase in the rate of unemployment (e.g. from 5% to 5.5%) is associated with a 9 percent increase in protectionist pressure; each percentage point rise in the rate of inflation (of the wholesale price index) (e.g. from 7% to 8%) lowers the protectionist pressure by 5.7 percent.

Fig. 2 shows the locus of constant protectionist pressure; it has a positive slope.
Fig. 2: Protectionist pressure as the result of unemployment and inflation.

The figure shows three lines of constant protectionist pressure; the lower and the more to the right such a line is located, the higher is the pressure for protectionism.

The econometric estimate may be criticized on various grounds. The underlying politico-economic model is implicit only, the behavioural assumptions are not made explicit. The relationship between the pressure for protection as measured by the dumping cases filed and other types of protectionist pressure (e.g. on members of the Congress or on public administrators) remains unexplained. The specification of the estimation equation is unsatisfactory because there is an (unexplained) mixture of the logarithm of the rate of unemployment and of the unlogged rate of inflation.

Despite the criticism which may be raised against these (first) econometric estimates in International Political Economy, this research demonstrates that the hypotheses derived from the theoretical models can at least in principle be empirically tested. From Section II it has become clear that this is a major achievement compared to the
now existing approaches to the subject.

1.3 The role of public bureaucracy

The public administration has considerable influence on the "supply side" of tariff setting as it prepares and formulates the trade bills, and puts them into effect, once government and parliament have decided. It has even more influence on trade policy when "high politics" is not involved, as it then has a particularly large discretionary room available.

Public bureaucrats' activity with respect to tariffs may be analyzed with the help of the traditional economic model of behaviour, i.e. utility maximization subject to constraints. The main elements in the bureaucrats' utility function may be assumed to be the prestige, power and influence which they enjoy relative to the group of people they are officially designed to "serve", their clientele. In most cases it will be a specific economic sector, e.g. in the case of public officials in the ministry of agriculture the exponents of the agricultural interests. They are moreover proud of being able to show that they competently fill their job ("performance excellence"). Public bureaucrats will therefore tend to fight for the interests of "their" economic sector, and will work for tariffs and other import restrictions in order to protect it against outside competition. They will have a preference to use instruments under their own control, i.e. they will rather use specific interventions at their discretion

1) In some countries where public bureaucrats may sit in parliament, its influence is particularly pronounced. This is e.g. the case in the Federal Republic of Germany where in the federal parliament (Bundestag) of 1976-1980 not less than 46% of the seats were held by public employees.
than have to follow general rules imposed by formal laws. They thus prefer various kinds of non-tariff protection and support (subsidies) to general tariffs.

The constraints faced by public bureaucracy are imposed by parliament and government. Both of these actors have, however, but little incentive to tightly control public administration, in particular because they are dependent on it in order to reach their own goals. The political actors have moreover much less information available than the public bureaucracy, in particular with respect to the sometimes very complex protection issues. The limited incentive and possibility by politicians to control the public administration gives bureaucrats considerable discretionary power which it uses to its own advantage.

So far such a model of bureaucratic behaviour (see Downs 1967, Tullock 1965, and for surveys Blankart 1973, Orzechowski 1977) has not been applied to the area of tariffs and trade restrictions.¹ An empirical test of some of the propositions hinted at above seems quite possible, e.g. that an economic sector which is associated with a particular public bureaucracy cet. par. enjoys a higher degree of protection than other sectors, and that where bureaucratic influence is particularly strong, protection is biased towards the use of non-tariff instruments.

¹) An exception is Messerlein (1981) using Niskanen's (1971) model of budget maximizing bureaucrats. His analysis is, however, unsatisfactory because the economic meaning of the benefit (demand) and cost (supply) functions is not identified and the model is applied to tariffs in a mechanistic way.
1.4 Analysis of the structure of tariffs between industries

Attention has been paid to explaining differences in international protection by the unequal possibilities of economic sectors to lobby for tariffs. It is hypothesized that more concentrated industries find it easier to organize and to muster political pressure because the small number of enterprises are more willing to bear the transaction, organization and lobbying costs for getting tariff protection, overcoming the free rider problem caused by the public good of protection. This hypothesis has been empirically analyzed by Pincus (1975, 1977) for the U.S. tariff act of 1824. He does not use a formal model of politico-economic behaviour but rather discusses intuitively which variables may enter the estimation function explaining the level of nominal duties on manufacturing products. Pincus finds that a higher industrial concentration of output is indeed associated with a higher tariff level, cet. par., but it remains open whether the thesis also holds for other periods.

A particularly interesting contribution to explaining the tariff structure is by Caves (1976) because he confronts three competing models;

(i) the government maximizes the probability of winning the election (following Downs 1957) given a geographically represented electorate;

(ii) interest groups determine the structure of tariffs, the various industries having different benefits and costs of lobbying for protection;

(iii) the government sets tariffs to effect a collective nationalistic feeling about the industrial composition of the economy ("national policy model").
Though the three models are not mutually exclusive, they emphasize different politico-economic processes for tariff setting. An econometric test for Canada's tariff rate structure in 1963 broadly supports the interest groups model as against models (i) and (iii).

An alternative interest group explanation of Canada's tariff structure stresses international political influences (Helleiner 1977a, 1977b). A time series analysis for the period 1961-70 suggests that labour and multinational firms have the largest influence on tariffs: Labour seeks increased protection because of the rising supply of industrial products from low-wage countries while multinationals are interested in free trade. A similar study was undertaken for Germany (Glismann 1980, Glismann and Weiss 1980; see also Tharakan's 1980 study for Belgium). On the basis of time series (1880-1978) and cross-section estimates it is only able to show that unemployment and bad investment conditions led to a protectionary influence on tariff policy between the wars. Glismann further concludes that all three models used by Caves may explain certain aspects of reality.

The studies on the determinants of the tariff structure lack a well spelled out behavioural theory of the government and interest groups. Institutional aspects, e.g. the major differences in political institutions between the imperial, Weimar, and post-WW II Germany are disregarded in Glismann's work. The estimation equations are not stringently derived from theoretically derived propositions but come dangerously near to "fishing for significant variables". Nevertheless, the analyses present an important advance over attempts to use a purely economic approach to explaining tariff protection (standing for a host of such studies see e.g. Riedel 1977).
1.5 Non-tariff protection

Compared to the politico-economic determination of tariffs, but little work has been done on endogenously analyzing the various means of non-tariff protection. Some remarks have, however, been made in the sections above. One of the few examples is a study on administrative protection (Finger, Hall and Nelson 1982). It finds that trade restrictions of this nature are rarely voted on directly by the Congress but that they are used as an instrument for the administrative regulation of imports. The behaviour of public administrations (the Treasury Department employing pricing tests with respect to anti-dumping and countervailing duty cases, and the International Trade Commission with respect to injury determinations) is empirically analyzed for the period 1975-79. The most important result, which accords well with the findings of other studies on protection, is that international political influences have no effect. The authors are able to trace a somewhat stronger impact of domestic political influences, in particular if caused by unemployment.

1.6 Evaluation of the political economy of protection

The discussion of the various contributions shows that the politico-economic analysis based on Public Choice is well under way and that useful theoretical and empirical results have been achieved, especially in comparison with the other approaches in International Political Economy existing so far. The research is, however, only at its beginning and there are various aspects of the analysis which have to be improved upon. Those are, in particular:

(1) The behaviour of the actors (government, interest groups
and public bureaucracy) must be modelled more carefully, taking into account the characteristic preferences and constraints each one is faced with;

(2) The equations used for econometric estimation must be more closely and consistently linked with the theoretical models;

(3) The framework of the analysis should be extented, so that all the relevant causal relationships can be imbedded within the analysis. Thus it is necessary not only to consider the effect of politico-economic conditions on tariffs, but also the effect of tariffs on the state of the economy and polity. This suggests a model composed of a set of equations, and simultaneous estimation techniques.

2. Foreign trade

There is surprisingly little research in the Public Choice tradition on the determinants of international trade flows. Two causal relationships may be of importance: Political factors influence the direction of foreign trade, and the structure of foreign trade may influence the polity. The two aspects will be considered in turn.

2.1 Political influences on international trade

Boycotts, embargos (i.e. a country's refusal to export or import from another country or countries), trade wars and the political control of trade have been with us for centuries. The instrument is today used extensively e.g. by the United States \(^1\) as a weapon

\(^1\) See the Trading with the Enemy Act of 1917, or the Export Control Act of 1949.
mainly against Communist countries, but following a United Nations resolution a limited embargo was also imposed on South Africa and a full embargo on Rhodesia. These and other political decisions must be expected to have at least some effect on trade flows; one would accordingly expect that political factors play a role in the analysis of trade determinants.

In traditional international trade economics two approaches are used to explain the flow of trade:

(1) Separate import and export demand functions depending conventionally on income and relative prices, and possibly on (expected) variations in exchange rates, are estimated (see e.g. the recent study by Warner and Kreinin 1980 for 21 developed and 15 developing countries). No political influences are included or even discussed.

(2) The total trade flow is analyzed in a global context (see Pollins 1980). In the so-called "gravity model" (e.g. Pöyhönen 1963, Tinbergen 1962, Linnemann 1966) total trade volume between two particular countries is specified as a function of the size of the two countries (measured by population and/or GNP) and the trade resistance, given by geographical distance, transportation costs, tariff barriers, and the historical and institutional relationships (i.e. whether there was colonial dependence or whether the countries are linked by an economic union). The gravity models thus take into account some "political" factors, but in an extremely restricted way and without any analytical foundation.
Public Choice analysis has not yet engaged in explaining trade in the politico-economic context (except for the explanations of trade barriers as discussed in the previous section). One obvious approach would be to construct an integrated model in which governments use both military means and foreign trade as instruments, and in which these instruments are influenced by both internal and international politico-economic conditions. Such an approach will be discussed in Section 5, part IV of this paper.

2.2 The influence of trade on the polity

Public choice scholars have so far done little research on this topic. One approach (which is partly in the international relations tradition) advances the idea that foreign policy behaviour of dependent countries can be analyzed as a (partial) payment in exchange for the benefits received from the economic ties to the dominant country (Richardson 1976, 1978). It is specifically hypothesized that nations that engage in substantial trade with a dominant partner should display compliant political behaviour towards it. "Trade dependence" is operationalized by measuring export dependence, commodity concentration, and recipient concentration and economic development; "political compliance" is measured by an index of agreement in the U.N. General Assembly plenary session roll calls, counting the cases in which the small country voted the same as the large one. The proposition is empirically tested for a cross section of the relationship of United States voting in the U.N. and its trade dependent countries. It is shown that the dependencies are in fact distinctly compliant on Cold War voting issues, but not on other issues. A
time series analysis (1950-1973) for the United States confirms this result: In general, trade dependence has no significant political repercussions.

The empirical results should not be trusted too much because the statistical procedures used are rather unsatisfactory. There is a tendency to use simple correlations instead of checking for other influences, as it is quite unlikely that it is trade dependence only which influences voting in the U.N. However, no theory is offered of what other factors determine this voting. Again, the mutual interdependence between trade and political conditions is neglected: Foreign trade does not only (partially) influence voting (politics), but politics also influences foreign trade.

3. Foreign direct investment

There is a huge literature on the topic of foreign direct investment. It is well surveyed by Dunning (1973), Stevens (1974), Hufbauer (1975) and most recently by Agarwal (1980). Four approaches to analyzing the determinants of foreign direct investment may be distinguished.

(1) Perfect market: The differential rates of return on capital investment, the risk involved in selecting a particular portfolio (estimated by the variance in the rate of return), and the output and market size of the recipient country are taken as the factors explaining the size and direction of foreign direct investment flows. (In empirical studies they are, however, not always taken into account simultaneously.)

(2) Imperfect market: The flow of foreign direct investment is explained by looking at the advantage and disadvantage
of foreign relative to local firms. (Among the advantages of foreign firms are the brand name, patented technology or marketing skills; among the disadvantages are the less intimate knowledge of the legal system and institutional framework, the business and social customs, and the possible hostility of the public sector.)

(3) Propensity to invest: The higher internal liquidity and investment outlays, the greater is the probability of a firm to undertake direct investments in a foreign country. There is a typical sequence to be observed: A firm supplies the foreign market first with exports, and only when it reaches a critical size or when tariffs and non-tariff barriers get too high, the firm may find it necessary to invest abroad. Direct foreign investment is thus not independent of export flows.

(4) Inflow of foreign direct investment: A country is the more likely to receive foreign direct investments, the more favourable the investment incentives (e.g. the tax exemptions) are and the cheaper labour is available. Another important determinant is considered to be political instability.

This overview shows that only the last approach takes any political determinants of foreign direct investment into account. It is hypothesized that political instability discourages foreign direct investment. The empirical evidence is rather mixed. The studies based on survey research (e.g. Basi 1963, Ahorani 1966, Swansbrough

1) While approach (3) would also lend itself to study the influence of political factors, this has been neglected in the empirical analyses based on it.
1972, Root 1978) in general stress the negative effect of political instability, but some other scholars (e.g. Reuber et al. 1973) conclude that political conditions are of minimal concern to investors. This type of research is rather impressionistic, unsystematic and tends to be superficial, not allowing to draw any general conclusions.

There are several studies based on statistical analyses. Much has been written on "Political Risk" and on the "Investment Climate" (surveys are given by Kobrin 1979, 1981, Juhl 1982a). A great number of different measures have been developed by political scientists (see e.g. Rummel and Heenan 1978, Bunn and Mustafaoglu 1978). The best known is the BERI (Business Environment Risk Index)-Index (see Haendel, West and Meadow 1975) which has been computed quarterly since 1972 for 45 countries. It is based on surveys among one hundred experts and is composed of various sub-indices. The politically relevant ones are political stability (weight 12%), attitude to foreign investors and profits (6%), threat of nationalization (6%) and bureaucracy (4%). The BERI-index is relatively systematic but extremely subjective and is based on a restrictive set of experts.

International cross-section studies have partly found no significant effect (e.g. Green 1972, Green and Cunningham 1975, Kobrin 1976, Juhl 1977), or a significant, but small effect (Levis 1979, Root and Ahmad 1979, Juhl 1982a). Time series studies have in general found that political instability negatively affects foreign direct investment (e.g. Juhl 1982b). According to the extensive analysis by Thunell (1977) political instability does not affect the level but the major changes in the trend of foreign direct investment. The relationship is asymmetrical: A high level of mass
violence precedes negative trend changes, whereas it takes both a low level of violence and a change in government (i.e. a new policy) to generate a positive change.

The studies inquiring into the effect of politics on foreign direct investment must be criticized on various grounds:

(i) What matters is the expected cost from particular political conditions, not the political instability as such. If a country moves e.g. from the extreme left to a more moderate position, one would expect a rise in foreign direct investment. Even with a sharp change in the nature of a politico-economic system, the foreign investments will not necessarily be nationalized. Often, the owners are (more or less) fully compensated when their foreign property is forcefully divested, so that no loss occurs. This means that "political risk" has to be carefully defined.

(ii) There is only a small number of major political discontinuities and forced divestments in the last 20 years, so that there are but few observations available for the statistical analysis. A study of expropriations in 76 less developed countries in the period 1960-76 finds that ideologically motivated mass expropriations took place in less than 10 countries (otherwise being a selective instrument of economic policy). The sectors in which expropriations are most likely to take place are also to a certain extent predictable by foreign direct investors. The most vulnerable are infrastructure and sectors directly affecting economic control, in particular banks. Extractive industries are also more prone to be expropriated than firms in manufacturing or industry (Kobrin 1981, see also Williams 1975). Aggregate risk indicators may not capture this differential effect of investment risk.
(iii) The studies do not take into account that the foreign investors may have the possibility to insure against losses, or that they may get investment guarantees, in their home country. An exception to this neglect is Rock (1973) who distinguishes two periods for analyzing the effect of political instability on foreign direct investment by American manufacturing industries. In the period in which no investment guarantee existed, political instability in the recipient country negatively affects United States foreign direct investment, while in the period in which the guarantee was available, there is no correlation, but the investment guarantee variable is significant.

(iv) Most studies have to be severely criticized because of methodological weaknesses. No effort is made to check for economic influences when studying the political determinants. Such a procedure is necessary because it would be unwise to assume that political factors are the only, or even the main, determinants of the flows of foreign direct investment. A correct analysis simultaneously considers the impact of political and of economic variables, e.g. by running a multiple regression. An example of this procedure is given by Dunning (1979, 1981) who simultaneously takes into account a multitude of factors by using correspondence analysis which is analogous to the principle component method of factoring but which allows the comparison of variables and objects in the same factorial space. Unfortunately, the results are difficult to interpret, and the author does not come forward with any intuitively comprehensible results. In particular, he does not draw any conclusions as to the importance of political influences on foreign direct investment.
The study of foreign direct investment lacks a well developed theoretical framework based on an explicit model of the behavior of investors (usually multinational firms), governments and public bureaucracy (in both donor and recipient countries), and of international institutions. Such a full-scale model is very difficult to develop, but at least some aspects should be introduced into the study of foreign direct investment. Such a procedure would help to overcome the overly empiricist bias of current studies.

4. International aid

Public Choice scholars have by and large disregarded this area though an application of the self-interest model determining behaviour seems to be well applicable. Voters are but little interested in international aid going to foreign countries because they derive at best an indirect and non-monetary benefit. Accordingly they do not make an effort to become well informed on this issue. There are few interest groups pushing for more aid, and compared to pressure groups fighting for direct monetary gains (e.g. the trade unions or producers' organizations) they are much less tightly organized and have much smaller financial means available. The governments are therefore not strongly controlled by the voters and interest groups with respect to international aid. They use this discretionary room to further their own goals, in particular to lead a successful foreign policy. A country's "international standing" may become an important election issue especially in countries which are currently or were formerly key actors in the international setting. Those countries and international organizations may help to further a government's foreign economic and diplomatic policy. In an international or general setting
a government will tend to speak out for international aid ("rhetoric of aid", see Wall 1973), but it will be careful not to make any strict commitments. However, when financial decisions have to be made, international aid receives little support compared to the demands for their own benefit raised by well organized internal interest groups.

There are two early notable studies of particular aspects of aid as an instrument of foreign policy. Friedman (1958) strongly doubts the effectiveness of aid from the point of view of the interests of the American government. It is argued that official aid increases the role and importance of the government in the recipient country. The size of the public sector is increased; centralized and comprehensive planning gains ground which negatively affects economic efficiency, growth and democratic freedom. What remains unexplained is why the American government undertakes (some) foreign aid if the effects are indeed so negative. One explanation could be that the American presidents do not believe in the negative results. The question then is how such a mistaken view can be maintained over such a long period within a competitive political system. Another explanation could be that the effects of foreign aid are beneficial to the aid-giving country's interests. This can be analyzed within the framework of a simplified politico-economic model:

The aid-giving government's utility $U$ is the larger, the more friendly is the recipient country's behaviour in international politics $F$

$$U = U (F); \quad U' > 0.$$ (1)

The friendliness is the smaller, the greater the share of the vote going to the Communist and left wing parties $C$

$$F = F (C); \quad F' < 0.$$ (2)
The better are economic conditions in the particular country, the smaller is the left-wing vote

\[ C = C(E); C' < 0. \]  

(3)

The larger the aid given by the donor country A, the better are economic conditions

\[ E = E(A); E' > 0. \]  

(4)

(Note that this assumes the exactly opposite effect from Friedman to hold.) The model can be closed by assuming that the government gives so much aid as to maximize its utility (taking into account its budget constraint, i.e. the alternative use of the resources). The complete model is graphically depicted in Figure 3.

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1) The empirical evidence is mixed; the great number of studies has been surveyed by Bornschier, Chase-Dunn and Rubinson (1978).
The figure suggests that aid giving should be looked upon as a part of a system of politico-economic interdependence, as the amount of aid giving influences the state of the economy and polity in the recipient country which in turn influences the amount of aid giving.

A somewhat similar model to the one just sketched has been partly empirically tested for India (Wolf 1960). The study seeks to answer the normative question of how (a given amount of) aid should be distributed over the various Indian regions so that Communist influence is minimized. Wolfe is able to show that the share of the vote going to the Communists is the smaller, the better economic conditions are in a particular region.

The recipient countries may actively influence the amount of aid given to them by the donor countries seeking their support in the international sphere. A country is likely to receive little aid if it either politically supports the donor country anyway, or if it does not support the donor country under any circumstance. It can expect to get the greatest amount of aid if it makes clear that the political position it takes depends on the amount of aid received. A country maximizing the amount of foreign aid should thus not be a fixed part of any international bloc but should rather signal that it can be "bribed"1 (see Hirschman 1964).

5. Economic nationalism and warfare

Individuals attaching value to having property owned by members of their

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1) The same basic idea has been applied and econometrically tested for the case of New deal spending by the Democratic president among American States in the 1930s (Wright 1974).
national group may be defined as being (economically) nationalistic. The so defined nationalism has the property of a public consumption good as every member of the population benefits (or possibly is burdened) by the corresponding economic policies it evokes. Economic nationalism may be expected to lead to three consequences (Breton 1964, Johnson 1965):

(i) Material production in the nationalist country is below the economy's potential because economic efficiency is reduced due to regulations favouring nationals and thereby making the best use of resources (including those of foreign labour and capital) impossible. Foreign (direct) investment into the country is restricted which also negatively affects the inflow of new technology and management techniques. The drive towards autarchy prohibits taking advantage of the benefits of an international division of labour.

(ii) Economic policy is directed towards the production of psychic income in the form of nationalistic satisfaction.

(iii) Material income is redistributed from the lower to the middle class.

These propositions have so far not been subject to rigorous empirical tests. The statistical studies on forced divestments (see Kobrin 1979), which seem to be unaware of the literature on the economics of nationalism, suggest that the nationalizations have in most cases not been undertaken as a simple reflection of national pride or of an anti-foreign bias but are on the contrary used as a policy instrument to achieve national politico-economic objectives by increasing control over the foreign actors. These empirical results are well compatible with the rational, utility maximizing approach
used by Public Choice economists, and speak against taking nationalism as a special type of irrational behaviour.

Much has been written on economic warfare, especially on the effects of economic sanctions (see Kindleberger 1970, Knorr 1973). Some aspects have already been discussed in connection with the political economy of international trade (Section III.2). There is almost unanimous agreement that economic sanctions are an ineffective instrument of foreign economic policy (see e.g. Galtung 1967, Hasse 1977): If undertaken by a collective of countries, it has the nature of a public good. Every nation has an incentive to opt out. Even if the sanctions are imposed by one country only, there are groups in it (in particular exporters in the case of an export sanction, importers in the case of an import sanction) for which it is advantageous to find way and means to get around them. Suppliers outside the sanctioning national(s) have a strong incentive to provide the sanctioned goods in black markets because the profit opportunities rise. The country whose imports are boycotted has many substitution possibilities available, and it is unlikely that the economic losses are very high. It can even be argued that it gives the home producers of the product(s) a chance to build up a competitive position. Finally, the costs of the sanctions fall on the general population of the country boycotted (and not on its political leaders). Often the blame is not put on one's own government, but rather on the foreign country or countries, possibly leading even to a rising support for the government.

The studies on economic warfare while producing important insights, do not have a particularly strong public choice content. In most cases, the analysis is restricted to the purely economic aspects,
disregarding the politico-economic interdependence which is of particular importance in this context. As in all the approaches discussed so far, the behavioural foundations are rather weak; it is e.g. insufficiently studied how voters and interest groups react when they have to carry the cost of sanctions, and what factions may arise within governments and public bureaucracy. In all cases it would be necessary to study the behaviour of the actors in both the country or countries imposing sanctions and that having them imposed on.

6. International organizations and bargaining

Public Choice analysts have made notable contributions to studying (1) the benefits and costs, (2) the decision rules, (3) the bureaucracy within international organizations, as well as (4) the bargaining problems in the international setting.

6.1 Benefits and costs of international organizations

There are various services which an international organization may perform: It may provide public goods and services, coordinate the activities between actors in the international system (also by supplying information and collecting data which are subject to economies of scale in production), and form the institutional bodies for alliances and strategies. International organizations may also be used to further private (i.e. national) aims, so that it would be mistaken to assume that they maximize the collective economic welfare of the individuals of a particular country or of the world as a whole.¹

¹) The GATT provides e.g. more to the interests of the politically effective producers than to the consumers (Baldwin 1978).
An organization problem arises because a large share of the output of international institutions is a public good leading to an incentive to behave as a free rider. Under this circumstance interests will not be able to organize internationally unless

(i) a small group size permits direct interaction, imposing high costs on free riders;

(ii) private goods are offered selectively to the members of the organization, making it individually worthwhile for a country to join and to participate in the financing of the organization;

(iii) participation is achieved by coercion.

The general model (Olson 1965, 1980) is well applicable to the international sphere. It has been empirically shown that small, especially regional, international organizations are more successful than large ones: The performance of twenty multilateral international organizations correlates negatively with the number of states being members (Russet and Sullivan 1971, p. 859). Creating selective incentives for members is very common in international organizations. The existence of such private goods is indeed a very important prerequisite in order to make it possible for governments to have their parliaments agree to joining. Considerable effort is therefore devoted to transforming the public into a private good of the organization (see Frei 1982, with empirical tests for the case of Switzerland). The third possibility for forming and maintaining an organization, coercion, is often difficult to undertake in the international context. The member countries are unwilling to give up their authority. Hence assuming that coercion is possible solves the problem of international organization by definition as long as the international system is composed of sovereign states.
Besides the possibilities mentioned, an organization may also be formed if the perception of the self-interest in joining and the social pressure of belonging may be increased by education and propaganda. As in the case of coercion, this approach has very little chance in the international system.

A more formal model of the formation of international organizations takes the total benefits $b_T$ and the total costs $c_T$ as a function of the amount of its cooperative activity or output $Q$ (Fratianni and Pattison 1982). The nation is assumed to be one actor $i$ which maximizes its own net gain $g_i$, the difference between individual benefits $b_i$ and individual cost $c_i$. Taking $B$ as country $i$'s share in total benefits ($B = b_i/b_T$) and $C$ as its share in total cost ($C = c_i/c_T$), the optimal amount of international activity is determined by

$$\left(\frac{B}{C}\right) \cdot \frac{db_T}{dQ} = \frac{dc_T}{dQ}.$$  

The left-hand side shows the marginal policy contribution depending on the relative shares in total benefit and cost ($B/C$), the right-hand side the marginal cost of the organization's output. The equilibrium is shown in Figure 4.

![Figure 4: Organizational equilibrium](image)

1) Note that this model deviates from the "Theory of Clubs" (Buchanan 1965) because the exclusion of non-members from the benefits of the organization is not (generally) possible. It also stresses strategic behaviour less than Olson (1965).
The model has been empirically applied in a suggestive, and not strict way. The marginal cost curve is found to rise steeply because it becomes increasingly difficult to agree, and to take the interests of the others into account, when the international organization's activity expands. The curve of marginal policy contribution is found to fall steeply. Moving e.g. from the "Group of Five" countries (US, UK, F.R. of Germany, France, Japan) to the "Big Seven" (including also Canada and Italy), to the "Group of Ten" (including also Belgium, The Netherlands and Sweden), to the OECD (including in addition thirteen countries) adds increasingly little to benefits per country (assumed to be positively related to the share in world GNP or in world trade). The authors conclude e.g. on the basis of their model that because the ratio B/C has strongly fallen for the United States, this country has a smaller interest in the public goods produced by international organizations (i.e. its equilibrium has moved to the left because of a downward shift in the MPC-curve in Figure 4). On the other hand, the B/C ratio has increased for such units as Japan, Germany, BENELUX or the European Community, leading to a demand for a larger output of international organizations.

Another implication of the model is that large international organizations have become less effective because the benefit share of the dominant country (formerly the United Kingdom, now the United States) has decreased, leading to less cooperation. Instead of a "leader" partly providing international public goods in its own interest, there is now a larger number of relatively small countries dominating each of which is unwilling to provide the public goods. (The same point is made by Kindleberger 1981).

The model sketched provides an interesting formalization but it
can only be considered a first step to an economic theory of international organizations. The operationalization of the theoretical concepts is particularly weak and has to be undertaken more rigorously. This applies particularly to the measurement of the benefits which is, however, extremely difficult. The problem can be eased by neglecting the benefit side and concentrating on the more easily measurable monetary cost side, seeking to explain the financing of international organizations.

The pathbreaking contribution by Olson and Zeckhauser (1966)\(^1\) takes defence to be a typical international public good provided by NATO. The benefits go to all democracies, and especially to the European members which are nearer to the (likely) front line than the United States. Due to the free riding incentive, the small nations contribute a disproportionately low share of the cost, while the large nations, especially the United States, bear a disproportionately large share (even when allowing for the higher level of per capita GNP). The same principle holds for the UN, where the large countries did a better job in meeting and overfulfilling their quota assessments.

6.2 **Decision rules in international organizations**

The formal rules of how decisions are to be taken within an (international) organization has important effects on the (expected) costs of providing a public good from the point of view of an individual country. Consider Figure 5 which is an extension of Figure 4.

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1) See also the earlier work by Schelling (1966), Pincus (1962), Kravis and Davenport (1963). The large literature on the subject following Olson and Zeckhauser is quoted e.g. in Kennedy (1979).
Figure 5: The effect of alternative decision rules

Given the marginal benefit or marginal policy contribution curve, the quantity of the organization's output $Q$ optimal from the point of view of a particular country declines from $Q_1$ when decisions are taken by simple majority, to $Q_2$ when a qualified majority is required, and to $Q_3$ when the decision has to be unanimous. The reason is that the marginal cost curve shifts upwards and to the left due to the increasing decision making costs: it becomes more and more difficult to find an agreement (with the unanimity rule everyone can block a decision), and the interests of the other members have to be increasingly taken into account. (See also Buchanan and Tullock 1962).

The number of voters of a particular country\(^1\) (or group of countries), given the formal decision rule, determines the "power" within an international organization. "Power" - which is generally a quite elusive concept - may be defined in an operational way to be the

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\(^1\) For a survey of the laws applicable in the various organizations see Zamora (1980).
chance of affecting the outcome of a decision. A decision is influenced if the "pivotal" vote is given, i.e. when one is able to transform a non-winning coalition (e.g. a minority in the case of simple majority voting) into a winning coalition (a majority). Based on this concept, a number of different power indices have been developed in game theory. Using the Banzhaf index, it is possible to show that the recent change in voting rules in the International Monetary Fund, which became effective in 1978, resulted in a surprising, counterintuitive change in power: Four major countries (Federal Republic of Germany, Japan, The Netherlands and Belgium) whose vote share is increased to keep pace with their increased weight in the world economy, suffer a decline in the share of power while 38 countries whose vote share is reduced experience an increase in power.

(Other aspects of voting will be discussed in Section IV.4.)

6.3 The bureaucracy of international organizations

According to common opinion, international organizations seem to have particularly strong "bureaucratic" tendencies. It can indeed be argued that the typical characteristics of bureaucracies in the international setting are more pronounced than in national ones. The main reason is that they have a larger room for discretionary action because there is neither an effective possibility nor incentive to control them. Control is difficult because the "output" produced by an international organization is unclearly defined and cannot usually be measured. There exist no political institutions which would gain by

1) Similar results have been reached for the Shapley-Shubik and the Coleman index, see Fischer and Schotter 1978.
tightly controlling an international organization. This also applies to national governments which would only run into trouble with other national governments if they tried to interfere with the workings of such institutions. They therefore prefer to let things go and only intervene if they feel that their own nationals employed in the international organization are treated unfairly or their national interests are threatened by the organization's activity. The missing incentives are another instance of the free riding problem.

Due to the lack of control, the internal behaviour of international bureaucrats is characterized by two features:

(i) A (low level) member of the organization has no special interest in performing the official tasks the organization has been created for because his career, prestige and income are largely independent of the output he produces. What is important to him is to please his superiors in the hierarchy.

(ii) A top bureaucrat is also little interested in his official task as such; he gains more by presenting his activity in a favourable light to the outside world. He will therefore devote a considerable amount of time and money to "selling" efforts. He must make sure not to commit any obvious and grave mistakes, which makes him risk averse. Tricky decisions are pushed up the hierarchy or are simply evaded.

In an international organization all layers of the hierarchy have but little incentive to effectively provide the "official product" because their utility scarcely depends on contributing to it. The country quotas applicable for a great number of positions typical for international organizations drives a further wedge between the individuals' utility and the organization's official task. This particular incentive structure of the members of an international bureaucracy leads to
(i) growth quite independent of the tasks to be performed, because all bureaucrats benefit from larger budgets and a greater number of employees (see Niskanen 1971);

(ii) inefficiency and red tape, because the internal workings of the organization which are guided by formal rules become dominant. A considerable share of the budget will be used up for internal purposes, and to provide side benefits to the bureaucrats themselves.

The theory of international bureaucracy just spelled out has so far not been tested empirically.

6.4 International bargaining

In economics as well as in public choice, it has been extremely difficult to model negotiations; on the whole relatively little is known and few testable propositions have been derived. The task of modelling international bargaining is even more formidable due to the fact that the process is less structured and involves more variables to be taken into account. Accordingly there have been few public choice studies only analyzing particular aspects.

In international negotiations, linkages between various issues are quite a common feature. It has been shown (Tollison and Willett 1979) that linkages will be more important when the distribution of benefits from agreements is highly biased towards one (or several) countries. A linkage of issues with offsetting distributional consequences can help promote agreements which would otherwise not come about because of the distributional effects. On the other hand linkages will play a small role when the distribution of benefits from the agreement is considered to be "fairly" distributed across countries.
In that case a consensus can be reached without introducing an additional dimension in the form of a linked issue. These results are plausible but have not yet been empirically tested.

A more orthodox approach is used by Baldwin (1981a) who looks at GATT bargaining negotiations as a two-person, non-zero sum, cooperative game (i.e. with preplay communication and the possibility for joint binding agreements), with the United States and the European Community as actors. The U.S. is mainly interested in a large reduction in tariffs, the E.C. mainly in the reduction of the dispersion of tariff rates. Two games may be distinguished: An "internationalist" one in which each country desires a reduction of its own and foreign tariffs, and a "nationalistic" one in which each country wants to have only foreign tariffs reduced. The Nash cooperative bargaining solution can be derived, but the analysis has little explicit political content and is far from rigorous empirical testing.
IV  The Application of Public Choice Concepts

This survey has so far considered various problem areas in International Political Economy which have been analyzed by using Public Choice. The perspective will now be shifted and it will be discussed how various theoretical concepts used in Public Choice have been applied. Some of the concepts are, of course, familiar from the preceding section; the discussion will therefore be short. The purpose is to make clear what common elements from public choice theory have been used to study widely different problem areas, and thereby suggesting further applications. This point of view is of particular interest because the theory used constitutes the main relative advantage of the economic compared to the political science approach to International Political Economy.

The following most prominent theoretical concepts will be discussed:
(1) public goods, (2) rules and constitutions, (3) federalism, (4) voting rules, (5) rent seeking and (6) politico-economic models.

1. Public goods

This concept is certainly the most often used one within economists' International Political Economy. The usefulness of this approach is particularly well illustrated in a contribution by Kindleberger (1978) in which he looks at various aspects of the international economy from the point of view of public goods. Thus, law and order can be considered a public good forming an important complement to foreign

1) See e.g. the collection of articles in Loehr and Sandler (1978) and in Sandler (1980). As has already been noted, public goods have also been integrated into political scientists' International Political Economy; see e.g. Ruggie (1972), Snidal (1979) and Oppenheimer (1979).
trade. Its absence may lead to a serious disruption in international exchange. The fight against piracy is e.g. in almost everyone's interest, but it is nobody's specific business. The result is that too little is done to fight piracy. The institution of the state may also be looked upon as a public good. The high costs arising when it does not exist may be illustrated with the example of Germany in 1790. At this time there were 1,700 tariff boundaries with 300 rulers levying tolls as they pleased. No wonder that the advantages of trade exchange could not be exploited to any degree. The existence of national monetary institutions may also be looked upon as a public good.

There are a great many other applications of the public good concept and the concomitant free rider problem which come to mind. This paper has already discussed trade liberalization, nationalism, and alliances and burden sharing. Another application is to the preservation of nature extending beyond national frontiers, such as e.g. whales or the atmosphere.

The use of the public goods concept is extremely useful and intuitively plausible. The ease of application may, however, sometimes hide underlying problems. The exact conditions under which free riding occurs are rarely rigorously studied; often it is too readily assumed that actors do not contribute to the common cause. Laboratory experiments of public goods situations suggest that free riding does not at all occur as often as pure economic theory makes us expect (see e.g. Schneider and Pommerehne 1981, Marwell and Ames 1981). Moreover, the institutional conditions are often such that free riding is discouraged (see Johansen 1977). This leads to another Public Choice concept often used in International Political Economy, rules and constitutions.
2. **Rules and constitutions**

Even when the national actors fully perceive that it is advantageous for them to cooperate for the provision of a public good, it is difficult and sometimes even impossible to coordinate action and to ensure that the cost of such activity is covered by the participants each of whom has an individual incentive to opt out. In view of the general impossibility of forcing the independent national actors to cooperate, the free rider problem can be overcome by finding rules or constitutional agreements which lay down the conditions for cooperation. There is an obvious analogy to the "social consensus" or "constitutional contract" among individuals and groups within a country.⁴ In order to find an agreement which sets down the "rules of the game" which the participants are willing to engage in, in the state of (partial) uncertainty about the future (i.e. behind the veil of ignorance), the actors have to expect that following the rules is advantageous to them. The agreement must lead to a Pareto-superior move according to the expectations of all the actors. Only under these conditions is there voluntary cooperation, i.e. unanimity among the participants. These conditions do not easily obtain and remain in force in the international system. Once a rule or constitution has been agreed upon, the problem consists in making the rules observed and to overcome the incentives of the individual nations to corrupt the agreement.

The "constitutional" approach has been applied to various problem areas in International Political Economy, e.g. on environmental and

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1) See Buchanan and Tullock (1962), Buchanan (1977), Frey (1983); and from the point of view of game theory Schotter (1981).

2) In classical International Relations it has only recently been applied (see Cohen 1981). It plays, however, a considerable role in political scientists' International Political Economy; see Keohane and Nye (1977) on rules concerning the oceans and money, and the survey by Barry Jones (1981).
fisheries pacts, on international public health accords, on cooperation about forecasting (and in the future possibly influencing) the weather, on the use of outer space and on the international judicial system (see the collection of articles in Sandler 1980). There are two areas in which the establishment and workings of rules have occupied a central position:

(a) **International monetary arrangements.**

These rules, if well designed, are advantageous to all, but the incentives to deviate from them are also marked. It is therefore necessary not to consider only the Pareto-superiority of an international monetary scheme, but to explicitly consider the benefits and costs to the individual participating nations (Cohen 1977, Hamada 1977). This aspect has been overlooked by the many proposals made in this area; they usually (implicitly) assume that there is an "international benevolent dictator" who will put them into effect.

An important related question is why certain rules have not influenced behaviour as much as one would have expected. An example is provided by the Bretton Woods system in which exchange rate changes have been used so little, and if so, usually too late (Willett 1980). The reason is that there are forces both against devaluation and revaluation. Devaluation is believed to be interpreted by the voters as admitting financial failure, with negative consequences for the government in power.¹ A revaluation

¹) Except when it can put the blame on the previous government. Devaluations tend therefore to be undertaken soon after the winning party takes over power. (In the case of Sweden, the winning Social Democrats devalued the crown by 16% the very first day of coming into office in October, 1982.)
benefits the voters (consumers) but hurts strongly the well-organized group of exporters and import competitors, so that the government may again run into trouble. In view of this resistance to adjust exchange rates, an agreement about freely flexible exchange rates may be preferable because the issue is then taken out of the hands of government (and central bank) politics.

(b) International common property resources.

In this area the need for international conventions and rules is obvious in view of the overuse of the atmosphere and the overfishing and overexploitation of the oceans. The difficulties in finding agreement are equally well known. It is hard to find consensus among the participants on such questions as ocean mining or whale fishing in view of the fact that no country involved can be forced. It is only possible to design rules which produce such high aggregate (net) benefits that they can be distributed in such a way among the participating countries that everyone finds it advantageous to agree and to stick to the rules.¹ Such a rule does not always exist; it is quite possible that an agreement on many current proposals about international common property resources is worse than no agreement (on this point see Tollison and Willett 1976).

¹) The political economy of the Law of the Seas is discussed in Amacher and Sweeney's (1976) collection of articles (in particular in Tollison and Willett 1976), and in Amacher and Tollison (1978).
3. Federalism

The geographical decentralization of governmental units has been the object of a large literature in the political economy. The basic ideas concerning this particular type of institutional arrangement also apply to the International Political Economy.

Given the size of the federal units, it has been shown that the free movements of individuals ("voting on foot", Tiebout 1956) into that government unit which provides them with the most favourable benefit-cost ratio, brings about a Pareto-optimal supply of public goods. The possibility of "exit" (Hirschman 1970) thus may be a substitute both for the market and for political decisions by the central government. This model depends, however, on several quite restrictive conditions (see e.g. Oates 1977). In the international system, one crucial assumption does not hold: Even where the free movement of labour is possible (as, in principle at least, within the European Community and Scandinavia), the workers have only voting rights in the country whose citizens they are. The governments therefore have little incentive to provide an efficient combination of public goods and taxes for the population as a whole. Nevertheless, the model is useful because it suggests international migration to be an indicator of whether individuals consider the public goods/tax combination in a country to be satisfactory (keeping, of course, other influences on migration constant).

The economic theory of federalism also helps to find the rules adequate for the size of international governmental units and for the coverage of international agreements. According to the principle of "fiscal equivalence" (Olson 1969, 1980), the decision-making unit
should have such a size that it covers all benefits and costs of the public good provided; only in that case will an unbiased decision be possible. As the effects of public goods extend over different areas, this principle suggests the need for multiple jurisdictions and multiple agreements made among different sets of nations. "Fiscal equivalence" is directed to only one aspect of federalism, the benefits and cost of the public good supply. The choice of the optimal degree of international cooperation should, however, consider other aspects as well (see Tullock 1969). The general cost of centralized decision-making (e.g. the small amount and quality of information, the reduced incentive of citizens to politically participate, the smaller power for innovation) must be compared to the general cost of decentralization (e.g. more difficult and slower coordination and decision-making, larger spill-ins and spill-outs). It follows that it is not necessarily worthwhile to remove all spatial externalities (spillovers); sometimes it is cheaper to let them exist.

The theory of federalism has so far not been sufficiently applied to problems of international economics. This is a pity; the brief description of the main ideas contained in this approach should make clear that federalism is one of the most powerful problem-solving institutions which can be applied to a wide area of issues in international political economy.

4. Voting rules

In Public Choice theory, the properties of both classical (in particular majority rule) and new voting rules have been extensively discussed (the best known treatments being Arrow 1963, Sen 1970; see also Mueller 1979, Frey 1983). Among the newly developed decision-making mechanisms
three are of particular interest for International Political Economy:

(i) Voting rights in proportion to the financial contribution a country makes to an organization. Such a rule exists e.g. for the Board of Governors of the International Monetary Fund, where each country has 250 votes plus one additional vote for each part of its quota that is equivalent to one hundred thousand Special Drawing Rights. The properties of such a voting system have been studied using the example of water purification associations where a member's voting strength is proportional to its financial contribution to the association (Klevorick and Kramer 1973).

This voting rule allows the use of weighted voting according to a country's stake in a particular issue, i.e. with a vote weight which varies across issues.¹ Such a flexible rule may increase the acceptability of the decisions taken. When the traditional one nation one vote rule is used it may happen that the large and strongly affected countries simply disregard the collective decision taken.

(ii) According to the voting by veto rule (Mueller 1978) each nation may put in its own proposition to the set of alternatives. The decision is brought about by the opportunity of each nation to delete that alternative from the set which it dislikes most. The sequence of this action is determined randomly. The alternative which is not deleted but remains is the collective choice. Obviously, each nation has an incentive not to bring in an alternative strongly disliked by one or several other nations(s),

¹) The exact rule governing the weights attributed must be determined by a social consensus; it is, of course, impossible to determine it once a particular problem is to be decided upon.
rather there is an incentive to take into account the interests of the other nations.

This voting rule has several good features: It allows the expression of preference intensities; it brings about Pareto-optimal outcomes, nobody can be exploited because of the veto right, and there is an unbiased revelation of preferences (i.e. there is no incentive for strategic voting). Voting by veto is, on the other hand, rather clumsy to administer and is open to undue influence by coalitions.

(iii) The preference revealing mechanism (see Tideman and Tullock 1976, Vickrey 1978) is based on the observation that a nation casting a vote and thereby negatively affecting the utility of the other nations (because without that country's vote the decision would have been different) must pay a tax equal to the negative externality imposed on the other nations.

This voting rule has also various advantages over simple majority rule: It allows the expression of preference intensity; it is nearly Pareto-efficient;¹ it is not subject to the voting paradox; and it gives an incentive to reveal one's true preferences. The disadvantages are similar to those of voting by veto: It is subject to coalition influence; it is complicated to administer and rather difficult to understand (at least for non-economists).

¹) It is only "nearly" Pareto-efficient because the tax receipts must be wasted in order not to bias the vote. It has been proved that this problem is of little practical importance.
These (and other) newly devised voting rules may be of great use in those cases in which nations are unwilling to be subjected to traditional simple majority rule in international institutions, or where it has not worked well. They are certainly not thought of for established and reasonably well functioning bodies. They may, however, be able to overcome deadlocks in other circumstances. New voting rules are just one instance in which social science innovations may help to solve problems in the international sphere.

5. Rent seeking

In the traditional economic theory of trade, the welfare cost of (exogenously given) tariffs or quotas is calculated by assessing the areas of the triangles of consumers' and producers' surplus (see e.g. Johnson 1960, Corden 1974). Empirical estimates of the size of the welfare loss lead to very small magnitudes, typically less than one percent of national output (for a survey see Easton and Grubel 1981). The economic theory of rent seeking takes into account that scarce resources are used by fighting over trade restrictions which have to be added to the deadweight loss to calculate total welfare loss.¹

It is useful to differentiate between two such activities which from the total society's point of view waste resources (Bhagwati and Srinivasan 1980): "Rent seeking" is the activity by which trade restrictions (tariffs, quotas) generate rents to one's advantage; "revenue seeking" is the fight over the distribution of revenues and thus is a general distributional phenomenon. It can be shown that

¹) The theory is due to Tullock (1967) and Krueger (1974); see also the collection of articles in Buchanan, Tollison and Tullock (1980).
rent and revenue seeking does not necessarily reduce welfare because of the second-best nature of the problem. However, the welfare cost of an endogenous tariff is higher than that of an exogenously given tariff, because resources are used for lobbying which reduces the outputs of all economic goals. The welfare loss due to such an endogenous tariff does not necessarily rise with the tariff level. A low tariff resulting from a struggle absorbing a high quantity of resources can be worse than a high tariff which is not subject to an intensive struggle (Findlay and Wellisz 1982a).

Rent and revenue seeking is of obvious importance for an International Political Economy. So far, there exist only very preliminary estimates of the likely welfare loss caused by the struggle over tariffs and other trade restrictions. When this concept is applied, care should be taken not to fall prey to the "nirvana approach", i.e. to compare the situation with a competitive struggle over trade restrictions with an ideal situation of free trade. The relevant comparison is between different institutional conditions existing in the real world, e.g. between a country (or period) in which the interest groups fighting for (and against) tariffs are organized on the level of the nation as a whole compared to a situation in which the interest groups are organized at the industry level.

6. Politico-economic models

Politico-economic models study the interdependence between the economy and the polity by explicitly analyzing the behaviour of actors, the most prominent of which are taken to be the voters and the government, and to test the propositions derived by using econometric (or rather
politometric) techniques. The simplest such model is graphically depicted in Figure 6.

![Diagram](image)

**Fig. 6**: A simple model of politico-economic interaction (closed country)

The figure shows a circle of interdependence: The state of the economy influences the voters' evaluation of the government's performance, which is captured by a vote or government popularity function. The upper link shows how the government reacts if it considers its re-election chances to be unfavourable by using the economic policy instruments to influence the state of the economy and therewith the voters' decisions. It should be noted that the government's actions depend on its ideology, provided it considers its re-election chances to be good. The model is, of course, a great simplification of reality, but it has already been shown, and further work is under way, that the framework can be extended to take into account further actors.

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1) See the collection of articles in Whiteley (1980) and Hibbs and Fassbender (1981), or the survey by Frey (1978b).
and relationships (e.g. the central bank, see Frey and Schneider 1981).

The politico-economic model sketched for a closed country can be extended to include international politico-economic relationships. Two approaches are possible: (a) One may concentrate on the internal connections between the economy and polity but introduces international influences; (b) The international interaction between the economies and polities of various countries is studied. These approaches will be discussed in turn.

(a) International influences

This approach may start directly from a politico-economic model such as shown in Figure 6 and inquires what international influences have to be introduced. There are two important international impacts on votes or government popularity (see Figure 7):

(i) The state of the balance of payments may influence the voters' evaluation of the government's performance. Considering over one hundred empirical studies of vote and popularity functions only six of them are found to include the balance of payments among the indicators of economic conditions (Paldam 1981). Only in the case of the United Kingdom (Pissarides 1980) does it influence voter's decisions in a statistically significant way. In the other cases (for Denmark, Australia) the coefficients are small and insignificant. It has to be concluded that even in countries with seemingly permanent and serious balance of payments troubles the voters either do not perceive it, or do not (directly) punish the government for it to any large extent.  

1) This does not, of course, exclude an effect of the balance of payments on the polity through other macroeconomic variables, such as the rate of inflation or the rate of unemployment.
(ii) International political events may affect votes and government popularity. It has been empirically shown in various studies for the United States (first by Mueller 1970) that when the country is subjected to an international political crisis, the population tends to "rally around the flag". A similar effect may hold for other countries. (See arrow (ii) in Figure 7).

(v) international economy

government

use of economic policy instruments

re-election chance

internal economy

evaluation of government performance

voters

(i) balance of payments

economic conditions

(internal polity)

government ideology

(iv) international policy preferences

(iii) foreign intervention

Fig. 7: Politico-economic interdependence with foreign influences.

(iii) There may be an intervention by a foreign country into the country's internal polity when there are vote outcomes considered undesirable by the foreign nation. (This may happen e.g. when the United States intervenes because the Communist vote has (or may in the future) increase in a country belonging to the U.S. hemisphere, or when the Soviet Union interferes when
the population of one of the satellite countries wants to pursue a non-Soviet course).

(iv) the government politicians may have specific international political preferences and influence the internal economy accordingly, provided the re-election chances are not seriously diminished. (For this case there are again many examples available, e.g. the use of export boycotts against a country whose politics is resented, a policy which has an impact on internal production).

(v) Finally, the use of the economic policy instruments is influenced by international economic conditions. This relationship is, of course, the subject of traditional trade theory. The possibility to create a "political business cycle" with the view of improving re-election chances also depends on the institutional conditions of the international economy. It has been argued (Willett 1980) that with a system of adjustable pegs an expansionary economic policy yields more favourable short-run inflation-unemployment (or real income) trade-offs than with a depreciating exchange rate. A system of adjustable pegs may thus be expected to raise the incentive to attempt to gain votes by undertaking an expansionary policy before elections, and devaluing thereafter.

(b) **International politico-economic interaction**

The second approach goes one step further by considering the mutual interdependence of the domestic and foreign economies and polities. An example of such a model has been provided in Section III.4 (Figure 3) for the case of international aid. This research strategy has been quite far developed in the area of arms race models. Such models have originally analyzed the mutual responses
of two nations to each other's defense outlays in a rather mechanistic way (Richardson 1960). In the last few years the decision making structure has been greatly improved by introducing Public Choice elements. In particular, it has been taken into account that a nation's response to the armament of another nation depends on the government's utility, and is subject to the constraints imposed by the desire to be re-elected as well as by economic resources. The models have been econometrically estimated and their behaviour has been analyzed with the help of extensive simulations.¹

Both approaches (a) and (b) are useful; the second approach is, of course, much more far-reaching and it may therefore be difficult to apply to politico-economic interaction as a whole. It may therefore be advisable to restrict it to particular issue areas at a time.

¹) See e.g. Lambelet (1973), Luterbacher and Allan (1978), Luterbacher and Imhoff (1980).
V Evaluation and Outlook

The economists' International Political Economy is only gradually emerging; its specific traits are, however, already visible such that it is possible to discuss the achievements and shortcomings of this approach. The achievements, and the advantages over the other approaches, should have become apparent from our survey: The hypotheses are clearly spelled out and derived from a well developed theory, and the propositions are (in principle) testable and have indeed been subject to econometric analyses. Though only isolated aspects of the whole area have been analyzed so far, the various studies belong to a homogeneous set because they apply a generally accepted theoretical framework.

It is important to also see the shortcomings because only then will there be a chance to overcome them. International Political Economy of the Public Choice variant is deficient in at least four respects:

(a) There is too little interaction with the main body of Public Choice theory which is due to the fact that the researchers in the area have usually been trained mainly in international trade theory. While the "classics" of the field such as Downs, Olson or Niskanen are frequently quoted, the more modern developments are not sufficiently integrated. The models of government behaviour are e.g. still predominantly using the Downsian vote maximization assumption, though a superior model (utility maximization subject to the re-election and economic constraints) exists and has been successfully tested with econometric methods. There is also too little interaction with political scientists' International Political Economy. Economists would certainly benefit from their
problem orientation and from their knowledge of institutions and political processes. Finally, there is too little interaction among the researchers in the field who seem to be little aware of each other's work. (Hopefully, this survey will help to mitigate this shortcoming.)

(b) There is a tendency to sacrifice relevance for rigour, a danger existing in all parts of modern economics. There are already some parts of International Political Economy where the small gain in knowledge is not in proportion to the heavy formalistic apparatus used. The field can only remain fruitful if the theories developed are indeed applied and empirically tested. The econometric (or politometric) studies in International Political Economy, though preliminary and tentative, have already proved able to yield interesting insights.

(c) There is a tendency that the theoretical concepts and powerful econometric methods are applied too quickly, without paying sufficient attention to the particular historical and institutional conditions existing in the field of study. A quick application is tempting because it is seemingly easy to undertake, and the shortcomings of the analysis may be difficult to show. Care should, however, be taken to inquire whether a particular theoretical conception (such as public goods and free riding) is really capturing the essential features of reality. A related shortcoming is that the operationalization of a particular theory is often done in a rather cavalier way. (In that respect economists would certainly learn from psychologists and, at least some, quantitative political scientists.)
(d) Empirical research has so far been predominantly undertaken for the United States. This may make it more difficult to develop a generally applicable theory of international political economy because it is difficult to know what result is due to the Public Choice view, and what is due to the particular conditions obtaining in the United States. It is therefore important that empirical tests of the theories be also undertaken for other nations.

The Public Choice approach, despite its shortcomings and possible dangers, provides a fresh view of International Political Economy and can build upon powerful methods of theoretical and empirical analysis which have proved to be successful in other areas of politico-economic interaction. The field is only at its beginning. There are a great many areas to be studied, and a great many concepts to be applied (several suggestions have been made in this paper). The field promises to be fruitful because it combines important problems of our time with an effective scientific method to approach them.

There can be little doubt that the International Political Economy based on Public Choice will receive increasing attention by the traditional theory of international economics, that it will form an integral part of it, and that it will be included in the respective textbooks.
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