

## STRATEGIC TRADE POLICY IS NOT GOOD STRATEGY

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### *Abstract*

The focus of this paper is the process by which strategic trade policy is implemented. Due to an institutional structure under which democratic government is responsive to pressure groups, strategic trade policy may include strong protectionist elements. While the objective of strategic trade policy is to promote new firm-specific advantages for chosen industries, in practice a type of corporate "shelter" results. In terms of the strategic management literature we find that there is a type of "administrative heritage" in government policy making that hinders the implementation of effective strategic trade policy. From the viewpoint of both corporate strategy and public policy, we find that the result is neither efficient nor effective.

### *I. Introduction*

According to traditional economic theory, trade occurs due to differences in the relative factor endowments of nations. In terms of a neoclassical economics model countries trade to benefit from each other's comparative advantages, i.e. they engage in inter-industry trade. Within the stylized nature of neoclassical market-driven models, free trade can lead to efficient outcomes. However, these models become stretched when we observe today that much of the world's trade is of an intra-industry nature and is conducted by multinational enterprises (MNEs). Most trade and direct investment now occurs between countries with more or less similar factor endowments. Consequently the reasons for international trade need to be attributed to other factors and new models are required.

Intra-industry trade, which is defined as two-way trade of similar goods within an industry, is a reflection of the specialization of countries in producing certain products or product-classes. This specialization allows firms, especially MNEs, to take advantage of potential economies of scale, to reduce their production costs by moving down the learning-curve, and to improve technological know how. These are the factors now being modeled in the new international economics theories being put forward to explain international trade and investment.

In addition, the structure of world markets has changed dramatically over the last decade. The exploitation of economies of scale, the possibility of appropriating technological innovations by means of exclusive patent rights, and high barriers to entry (high capital costs; high R & D expenditures) have all contributed to reducing the number of market participants in numerous industries. If markets are becoming more oligopolistic

this could imply the persistence of above-normal profits or rents. The possibility of abnormal economic rents has provided a strong basis upon which new trade theories are built, see Krugman (1986) for an overview.

What are the implications of these new developments for the analysis of trade policies? In particular, is "strategic" trade policy justified? The first justification for the theory of strategic trade policy relies on the existence of above-normal profits in certain industries. If this argument is correct, government trade policies could be developed to shift much of these profits to domestic firms and consequently raise national welfare at the expense of other nations. Strategic trade policy is being based on government measures that take into account international interdependence in an oligopolistic industry structure. We shall discuss the validity of this viewpoint in the next section.

A second alleged justification for an interventionist industrial and trade policy is the existence of external economies. For example, the technological know how gained by supporting a high-tech industry such as the semiconductor industry may have positive effects on related industries. One problem is that if such spill-over effects are spread internationally then the impact of such a policy on national welfare may well be much lower than initially expected.

The first and most obvious tool available to government policy makers who wish to use trade policy as a means of enlarging the market share of domestic firms in world markets is the granting of (export) subsidies to a "strategic" industry, i.e., an industry characterized by high dynamic internal and external economies. One purpose of this article is to identify the fallacy of such strategic trade policy arguments. It is demonstrated that strategic trade policy cannot even be considered to be good strategy. Here, "good strategy" is defined as consistent patterns in decisions and actions which advance national economic welfare in the long run.

In the next two sections, conventional economic trade theory reasons are advanced for the probable failure of strategic trade policy. The remainder of the article then identifies policy implementation elements as causes of strategic trade policy failure. The definition of the "strategic" character of an industry is a very controversial issue. Traditionally the role of international trade policy has focused on the protection of domestic firms against foreign competition. In particular, quotas and import tariffs have been widely used to protect infant industries and old sectors in order to allow them to develop new firm specific advantages. However, the theory of strategic trade policy suggests that these tools can also be used in an "export promoting" manner, much in the same way as with subsidies, see Krugman (1984). We make use of this insight.

## II. *Profit-Shifting Through Strategic Trade Policy*

The profit-shifting case of the use of subsidies has been formalized by Brander and Spencer (1985). Their reasoning is as follows: suppose the structure of an industry is duopolistic; one domestic firm and one foreign firm. The market they are competing for is a third importing country. This situation calls for a "strategic game" since the actions of one firm will be strongly influenced by the other firm's moves.

More precisely, in the Brander and Spencer model, Cournot-like conduct is assumed

in which each firm decides on its optimal profit maximizing output level, given the output level of its rival. If one firm were persuaded to reduce its output, the other's market share would grow and earn even greater profits. What is then needed to induce a contraction is a credible threat, such as a cost reduction. The main point in the Brander and Spencer model is that such a cost reduction can be substituted for by a subsidy. The effect of this is twofold. The first effect is really nothing more than a transfer for the amount of the subsidy from taxpayers to the firm. The second effect—the strategic effect—allows the domestic firm to enlarge its market share at the expense of the foreign firm and hence to shift some profits from the foreign country to the home country.

A hypothetical example may explain the concept more clearly. Utilizing the matrix framework developed in Krugman (1987b), let us consider the market for a new high technology product. Assume that there are two potential entrants to an export market, say a domestic firm and a foreign firm. The export market leaves room for only one competitor, so if neither of them renounces the idea of entering the market it will be detrimental to both. Assume further that both firms are identical and face only the choice to produce (P) or not to produce (N). In each cell of the matrix, the lower left number represents the foreign firm's profit (over and above the normal return on capital), the upper right number represents the domestic firm's profit. The pay-off matrix in Diagram 1 shows the possible outcomes.

The strategic game will have a unique outcome if one firm has a headstart and can commit itself to produce before the other firm's decision. Suppose this is the foreign firm: it will earn large profits, while the domestic firm will refrain from entry (Quadrant 2). However, as suggested by strategic trade policy theory, government could easily alter the possible

DIAGRAM 1. DUOPOLY STRATEGIC GAME WITHOUT GOVERNMENT INTERVENTION

		Domestic	
		Produce	Do Not Produce
Foreign	Produce	-2 -2	0 10
	Do Not Produce	10 0	0 0

DIAGRAM 2. DUOPOLY STRATEGIC GAME WITH GOVERNMENT SUBSIDY

		Domestic	
		Produce	Do Not Produce
Foreign	Produce	-1 -2	0 10
	Do Not Produce	11 0	0 0

outcomes by subsidizing the domestic firm in the early stages of the production process by an amount of, for example, one before the foreign country decides to produce. This is illustrated in Diagram 2.

Then no matter what the opponent decides, the domestic firm will always be better off with a decision to produce. The foreign firm will find itself in a position where it can decide no other than not to produce. A subsidy of only one will have raised the profits for domestic firm from 0 to 11 at the expense of the foreign firm.

Krugman (1984) had developed an earlier argument, but based upon a situation with domestic consumption, whereby import protection is benefitting a domestic firm. In the case of scale advantages and learning curve effects, such a unilateral move will decrease marginal costs for the domestic producer and increase marginal costs for the foreign producer, which is prevented from exporting. As the domestic firm is able to lower its costs by expanding production, consumer welfare is not necessarily negatively affected by import protection. The gain to the country builds upon the domestic firm's increase in profits from exporting.

### III. *The International Economics Critique of Strategic Trade Policy*

Since the Brander and Spencer model (including the above example) relies heavily on a series of restrictive assumptions, its real world value could be questioned. We now turn

to these assumptions and the implications of a relaxation of them. To be of more general value, the model should also incorporate other forms of duopolistic conduct. For example, Eaton and Grossman (1986) argue that in the case of Bertrand competition, rather than Cournot-like conduct (recall that under Bertrand competition, prices are set in response to the competitor's price setting) an export tax would be more appropriate as an optimal policy. In addition, in cases with more than two firms, i.e. an oligopoly, policy conclusions may be altered drastically. With too great a number of home firms, each will compete against all others, resulting in a suboptimal level of joint profits. It should also be stressed that trade or industrial policy itself may alter the total number of competitors. As more and more firms are attracted to the industry, above-normal profits may eventually disappear, making a profit-shifting policy of little use, see Horstman and Markusen (1986). Of course this would only occur in the absence of high barriers to entry.

In the Brander and Spencer model it is assumed that there is no domestic consumption. In that case government trade policy is equivalent to government industrial policy. According to Eaton and Grossman (1986), allowing for home consumption, a subsidy as well as a tax may raise domestic welfare. Also the rent-extraction argument in the Brander and Spencer model does not take into account the scarcity of production factors. The promotion of one sector over another might draw out scarce resources from other industries, compelling these industries to cut back on their production, or to increase their factor remuneration, making them less competitive. Thus the advantage gained in one industry is offset by losses incurred in other industries using the same (scarce) production factors, see Dixit and Grossman (1986). As a consequence of these restrictions, the possibilities of shifting profits from foreign countries to the national economy in real life situations might be much less evident than claimed by the theory.

As could be expected, it is very unlikely that any government would be able to implement a predatory policy without eliciting a response from other nations. These retaliatory measures then lead to trade wars with losses for both parties. National welfare is thus not only dependent on national trade policy but on foreign policies as well. Governments finding themselves in a strategic situation like this—often referred to as the “prisoner's dilemma”—each faces the option to cooperate (i.e. not to engage in a “begger-your-neighbor” policy) or to defect. As illustrated in Diagram 3, in a “prisoner's dilemma,” defection is the dominant strategy because defection will lead to the greatest profits for the nation, regardless of the decision of the opponent. The pay-off matrix shows there are three possible outcomes.

The first one is that one country unilaterally tries to appropriate a gain by adopting a “begger-your-neighbor” policy. This strategy works well as long as the other country does not retaliate, which, as already mentioned is very unlikely. The second outcome is that both countries engage in protection, with the result that no firm is actually able to do well in export markets. The third and most desirable outcome from a collective point of view is that both nations agree to cooperate. In this situation, however, there always remains the temptation to defect, since this would improve profits for the defector. But as soon as the trading partner perceives the cheating, retaliation will follow and the result will be the least successful outcome of quadrant 4. Now what is needed to avoid the trap of the prisoner's dilemma is a set of rules, a set of explicit and binding agreements allowing nations to communicate, to monitor each other and to sanction cheating. Since free trade

DIAGRAM 3. COOPERATION VERSUS DEFECTION IN A PRISONER'S DILRMMMA GAME

		Country E	
		Cooperate	Defect
Country A	Cooperate	10 10	12 2
	Defect	2 12	4 4

is probably the simplest of all such rules, it may turn out to be the best way to avoid retaliation and trade wars.

An alternative solution is to take into account the impact of present behaviour on the value of expected flows of surplus in the future. In the case of an infinitely repeated oligopoly game, implicit international cooperation may be stimulated, so as to avoid reprisal measures of trading partners, see Shapiro (1989) and Jacquemin (1989).

Finally, it should be emphasized that the strategic trade policy literature neglects the impact of foreign ownership in the industries selected for support. Krugman (1987a) suggests that strategic trade policy measures in favour of foreign owned firms could decrease national welfare.

#### IV. *Administrative Heritage and the Structure of Trade Policy*

Apart from the economic arguments against strategic trade policy, two additional elements should be taken into account. First, international trade results fundamentally from strategic decisions made by business firms based on their firm specific advantages, (FSAs). A strong interaction exists between the strategies of business firms and government trade policies. A firm's strategy is defined here simply as all consistent patterns in decisions and actions which significantly affect the firm's survival, profitability and market share. Second, protectionist policies can only be successful (in terms of efficiency), from a national point of view, if they can be considered as "FSA-developing," both in their formulation *and* implementation. The concept of "FSA-developing" policy was introduced by Rugman

and Verbeke (1987) to describe active government policies aimed at *complementing* the FSAs of the firms benefitting from this support. This is in contrast to sheltering policies aimed at protecting domestic firms against market forces in the long run. Here, the main purpose of trade policy measures is to *substitute* for the existence of strong FSAs.

In practice, it is not always easy to distinguish FSA-developing and shelter-based trade and industrial policies. We have argued elsewhere, see Rugman and Verbeke (1990) that the issue of *strategic intent* is of major importance here. Is the intent of the public policy makers and business firm managers to use government support as (a) a *temporary* tool to improve the long run international competitive position of the firm involved (which is an implicit assumption of the strategic trade policy models) or (b) as an instrument to be used indefinitely without the end goal of long run international competitiveness after elimination of all government support? In this second case, firms often engage in rent-seeking behaviour, i.e., they seek rents arising from activities with negative social value, see Tullock (1988).

However, a shelter-based policy may also be introduced when alleged strategic trade policy intentions are "captured" by pressure groups seeking protection.

Two elements are especially important when assessing the transformation of strategic trade policy intentions into shelter based policies. First, is strategic trade policy implemented by an agency (either part of the political or technical track) that is non-responsive to pressure groups, even in a dynamic sense? Second, if some sensitivity is unavoidable, is the institutional structure designed in such a way that shelter-seeking and anti-shelter firms have equal access to the agency involved?

In order to analyze a country's trade policy, two elements should always be studied. First is the nature of the political decision-making processes through which trade policy decisions are formulated and implemented. Particularly relevant is the interaction between trade policy and strategies of business firms. Second is the economic efficiency of a country's trade policy, using a comparative institutional assessment.

In terms of the political decision-making process, it is an empirical question whether public policy makers, both politicians and bureaucrats, should be regarded as individuals maximizing their own utility or as leaders pursuing the public interest. The former approach has been suggested by public choice theory, see e.g., Olson (1965) and Brock and Magee (1978). In this case, government is seen as having little independence vis-a-vis pressure groups. However, an alternative view, emphasizing the autonomy of the state, has been put forward by other authors, see Baldwin (1982).

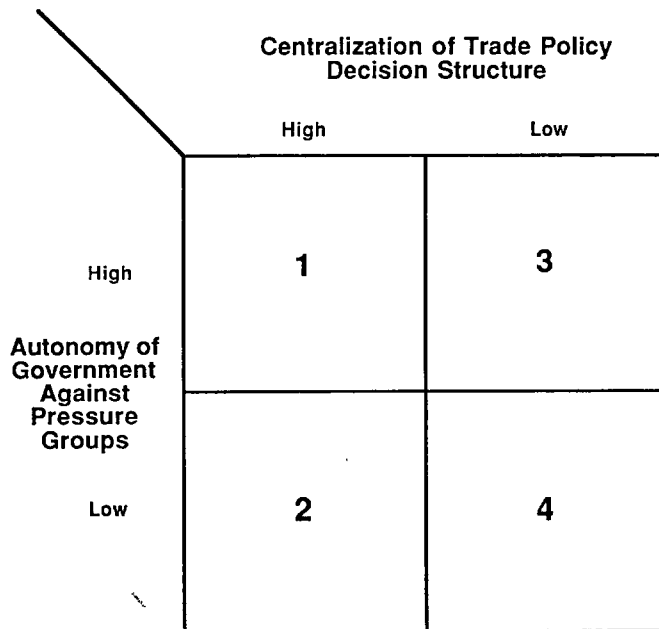
The issue is important because of the free rider problem. Trade policy measures in favour of a particular industry or set of firms can be considered as a collective benefit generated through voluntary collective action by the different firms involved. However, an individual firm has an incentive not to engage in lobbying efforts in order to obtain only the benefits (and not the costs) of trade policy measures lobbied for by the other firms. Hence, according to Olson, higher benefits and fewer firms organizing to secure particular trade policy measures will lead to higher demands for shelter. If the size of the benefits to be gained is interpreted in terms of relative contribution to survival, profitability and growth of a firm, as in the case of companies with weak FSAs in import competing sectors, the probability of rent seeking behaviour will increase, see also McKeown (1984) on this issue.

If the independence of government vis-a-vis pressure groups is low, this implies the possible implementation of trade policy measures in favor of particular industries, at the expense of the domestic economy in general. This could include the creation of shelter against foreign firms, at the expense of society at large. However, when performing a comparative institutional assessment of the relative efficiency of a country's trade policy, the sensitivity of public policy makers to pressure groups should not be criticized. More damaging are the inefficient outcomes resulting from the free rider problem. Hence, public policy decision structures must be designed in such a way that rent seeking activities of specific groups do not have an excessive impact.

Here, the question arises as to the optimal level of centralization of trade policy. If trade policy is decentralized, this has the potential advantage of economizing on bounded rationality, as more informed decisions can be made by experts in specific fields. On the other hand, the risk of fragmentation becomes larger. Trade policy decisions made by different agencies may be inconsistent and even contradictory. Decentralization is defined as an allocation of authority over several public agencies, each with substantial decision making power on specific issues. This implies that the lobbying costs of particular pressure groups, aimed at generating specific trade policy measures, may decline. Then the focus of lobbying becomes more precise and the number of competing pressure groups is reduced.

When studying trade policy decisions, it is useful to know, from a descriptive point of view, which of the four quadrants of Diagram 4 is most characteristic of a particular country. The framework described here cannot be used directly for policy prescription.

DIAGRAM 4. THE ADMINISTRATIVE HERITAGE OF NATIONAL TRADE POLICIES





It only gives an indication of the administrative heritage of a particular country's conduct of trade policy.

Trade policy in any country can be classified in a particular quadrant of Diagram 4. In our view, the main question is whether the existing institutional structure does or does not allow the creation of long run shelter at the expense of society at large.

As trade policy is an extremely complex issue, we feel that it is very difficult to perform efficiency assessments for the whole of a nation's trade policy. Hence, it is of more relevance to study these issues in connection with specific "segments" of trade policy. Examples would be: strategic trade measures such as tariff and non-tariff barrier policies; countervail and anti-dumping actions; export promotion policy; voluntary export restriction policies, etc. Although an overall assessment of a country's trade policy may put it in one specific quadrant of Diagram 4, each separate type of measure may be located in any quadrant of the diagram. Segments of trade policy situated in any of the four quadrants can then be efficient or inefficient.

In order to assess the relative efficiency of a particular trade policy measure, the question should always be answered whether or not increased economic efficiency is actually pursued through the implementation of specific trade policy measures, or whether this goal is subverted as a result of an unadapted trade policy structure? Trade policy structure is defined here as the way in which trade policy actions are performed and coordinated by different agencies. If inefficiency is observed, structural changes may be suggested, given however, that the position of any country's trade policy in Diagram 4 is mostly fixed in the short run.

### V. *Problems in the Implementation of Strategic Trade Policy*

When assessing the economic efficiency of specific trade policy measures, a comparative institutional approach should always be used in order to avoid unrealistic policy alternatives. The framework developed below provides a useful basis for such an approach.

Once it is accepted that firms can influence government trade policy, it becomes necessary to analyze the basic principles which govern these interrelations between government and firms, especially for firms with weak FSAs attempting to gain shelter. The main issue here is that democratic government will only alter its existing trade policies if it faces incentives to do so. This depends on how the incentives are structured for government. Some prior assumptions must be made concerning the goals of democratic government. Two extreme situations can be distinguished.

First, government may aim to sustain international competition based on economic theory such as the principle of comparative advantage. It may favour free trade, but be willing to help domestic firms expand, without sheltering them from foreign competition in the long run. The issue of export subsidies for profit shifting purposes is an example. Government may grant export subsidies to domestic firms to obtain such a shift in profits. As a result, these domestic firms may become subject to the countervailing protection mechanisms of foreign governments. On the other hand, the pursuit of free trade goals may in itself lead to countervailing measures against other countries that grant export subsidies. In any case, an FSA-developing trade policy is pursued.

The second possibility is the pursuit of shelter. Efficient foreign competitors are ex-

cluded from the market, while trade barriers, substituting for strong FSAs, may be created for inefficient local producers.

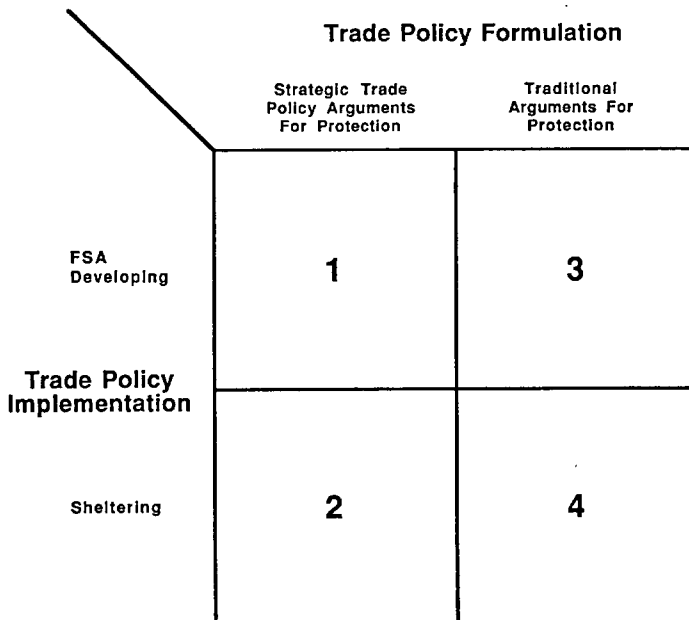
Apart from the “trade policy formulation” goals of government, it is important to recognize the role of “trade policy implementation.” This distinction between formulation and implementation is crucial. In particular, what was decided in terms of trade policy objectives will not necessarily be achieved, as what is implemented may be different from what was originally intended. In other words, it only makes sense to speak of an FSA-developing or sheltering policy in the implementation stage.

Diagram 5 develops a new framework that takes into account the distinction made between FSA-developing versus shelter based trade policies and the formulation versus implementation of trade policies. It also links our framework with the traditional and strategic trade policy arguments for protection.

In the first quadrant of Diagram 5 a strategic trade policy is conducted and its implementation is FSA-developing. In this case, active government trade policy may be efficient vis-a-vis a situation of free trade. In quadrant 2, however, strategic trade policy is being subverted into a tool of shelter aimed at protecting domestic firms against international market forces in the long run. In quadrant 3, the infant industry and old industry arguments for government intervention are used and the implementation of trade policy measures is FSA-developing. Quadrant 4 exemplifies the cases whereby the traditional arguments for protectionism are used to create shelter for domestic firms. This creates economic inefficiency vis-a-vis a situation of free trade.

The main focus of this present article is to investigate the possibility that alleged

DIAGRAM 5. THE FORMULATION AND IMPLEMENTATION OF PROTECTIONISM



strategic trade policy measures would fall in quadrant 1 or in quadrant 2 of Diagram 5. An example of quadrant 1 strategy is the rise of "Airbus Industrie" in Europe. In this case, government support complemented the FSAs of the consortium of four West-European producers, leading to the production of highly differentiated civil aircraft with life cycle costs for the customers lower than those of competing U.S. aircraft, see Majumbar (1987). Today the Japanese automobile and consumer electronics industries have used their FSA developing strategies to take themselves out of Diagram 5, i.e., Japanese protectionism is redundant for these successful industries. However shipbuilding in Japan remains in quadrant 3.

Trade policy measures could be considered as efficient because they aim at developing or refocusing the FSAs of the firms benefitting from government support. It should be recognized that import protection may sometimes be FSA developing (quadrant 1 or quadrant 3). A well known case in quadrant 3 is Harley Davidson, which filed a petition in 1982 to gain escape clause protection in the U.S. As a result, tariffs up to 40 percent were levied on non-European motorcycles in the U.S. market, to decline over 5 years. This allowed the U.S. firm to develop new FSAs; two years before expiration of the tariffs the firm itself was able to ask for their removal, see Yoffie (1989).

## VI. *The Fallacy of Strategic Trade Policy*

Krugman (1986), (1987b) has developed the notion of "strategic" trade policy to include all trade policy activities aimed at stimulating the growth of selected "strategic" industries. Factors of production either benefitting from internal economies (e.g. economies of scale, learning curve effects and innovation) or external economies (especially technological spill-overs) are generated for other sectors in the economy. Although these two arguments in favor of protectionism may seem new, as compared to the old arguments (such as the infant industry and old industry arguments) they raise exactly the same questions from a policy point of view. The two following questions are crucial in this respect:

- 1) Is it possible to identify strategic industries with high dynamic internal and/or external economies?
- 2) Is the existing institutional structure, aimed at conducting a strategic trade policy, conducive to FSA-development in the implementation of strategy?

The first question, relating to identification, is a complex one. First, strategic industries are industries characterized by high dynamic internal or external economies. In terms of efficiency the former should be identified as the result of observing (or predicting) above-normal profits. The problem is that so-called "above-normal" profits often result from investments with highly uncertain outcomes, so that they merely constitute "normal" profits when adjusted for risk. In other words apparently high profits in an industry may result from high economics based entry barriers. The latter are themselves the consequence of high costs incurred during previous periods and effective corporate strategies. This also implies that many "losers" may have exited from the market.

Furthermore, the issue of FSAs and natural country specific advantages is important. It is not because an industry in one country is characterized by high profitability that government support in another country could automatically lead to a "duplication" of this situation.

For example, in high technology industries, FSAs in the form of proprietary know-how and country specific advantages such as an attractive business environment cannot be "bought" through export subsidies. A strategic sector for one country may not be strategic at all for another one, if dynamic internal economies cannot be captured by government trade support. In fact, when identifying strategic industries, it is important to know to what extent government support will lead to shifts of foreign profits to domestic firms, per unit of government support.

Dynamic internal economies could also be given another interpretation, merely by using the concept of value added. A strategic industry is one where high value added is being created rather than one where the existence of high profits is important. Industries characterized by high value added can be more easily identified than industries with above normal profits. Value added is only partly dependent upon international competition, in contrast to the firm's profits. In addition, value added is less sensitive than profits to changes in international market structure. Even if strategic trade policy support does not drive down international prices through increased output, it should be recognized that above-normal profits will only be temporary in global industries moving toward mature product lines.

With respect to the dynamic external economies case, e.g., the diffusion of technological know-how, it should be emphasized that it will seldom be evident which sectors should be chosen. For example, the R and D intensity of a sector can hardly be used as a proxy of potential technology diffusion. If innovations in an industry require high and risky investments and are protected by economics based entry barriers in the form of patents, it is not clear how stimulating this industry will result in a diffusion of know-how. If, on the other hand, innovative know-how in an industry is not protected, no dynamic external economies will be found, for the simple reason that no innovation will occur, with or without government trade support. In terms of value added, however, sectors with high external economies may be easier to use. For example, high R and D efforts imply the development of highly skilled human capital, which will increase the added value created in the economy, irrespective of the protection of R and D results.

Spencer (1986) has analyzed the issue of strategic trade policy, focussing on the conditions that need to be fulfilled when selecting industries to be targeted in order to capture dynamic internal economies. She identified seven basic requirements that should be met by an industry so as to maximize the chances of success of an active national trade policy programme. Unfortunately, in none of these seven requirements is the issue of shelter substituting for strong FSAs dealt with. First, only those sectors should be selected where trade policy can directly (e.g. trade barriers) or indirectly (e.g. export subsidies) lead to the erection of entry barriers for foreign competitors, as this is a necessary condition for domestic producers obtaining rents exceeding the economic costs of protection.

In terms of our framework, an important element neglected here is the fact that every entry barrier is not a "good" entry barrier. If the barriers resulting from strategic trade policy merely aim at sheltering domestic producers without time limits, trade policy measures will stimulate micro-economic inefficiency and may even reduce value added.

Second, strategic trade policy only makes sense in sectors characterized by strong international competition, whereby protectionist trade policy measures will indeed lead to profit shifting on an international scale and entry deterrence. The main element neg-

lected by Spencer is that such a policy can only work in the absence of sheltering policies of foreign governments. However, if sheltering policies are in fact implemented, strategic trade policy measures in one country may merely increase the level of sheltering abroad and hence completely eliminate both potential rents to be captured in the industry and the expected increases in value added.

Third, seller concentration in the domestic industry should be higher than abroad. In this case, negative spill-over effects resulting from excessive capacity increases by the different domestic producers will be more limited, while entry deterrence for foreign competitors will be higher; in the case of declining marginal costs, the cost differential with the domestic firms will be greater. Two important elements are not considered by Spencer. First, the fact that high domestic concentration may generate a lower domestic incentive to engage in innovative behaviour and improve micro-economic efficiency. Second, lower concentration abroad may be an indication of focus strategies, so that alleged attempts to gain global cost leadership through strategic trade policy will not substantially affect the competitive position of foreign rivals.

Fourth, the prices of production inputs should not increase substantially as a result of strategic trade policy measures. This will be the case if bargaining power of labor is low, and labor benefits from profit-sharing reward systems and production inputs are substitutable. A major factor not taken into account by Spencer is the issue of X-inefficiency resulting from government sheltering policy. In this case, government protection may not only stimulate production workers to demand higher rewards; it may also induce management to increase overhead, to attach less importance to improving micro-economic efficiency and to use resources for rent-seeking purposes. In the short run this may not negatively affect the structure of value added created in domestic firms, but in the long run it will if the firms' performance in the market is not based on their FSAs.

Fifth, strategic trade policy has a higher probability of success if the selected domestic industrial sector has a comparative cost advantage vis-a-vis foreign rivals and potential scale economies and learning curve effects are higher. It is clear that in this case the expected return on, e.g., every export subsidy dollar, will be higher. However, we should point out again that a domestic industry's competitive advantage in the international market place may be differentiation based instead of cost based. In this case, international competitiveness is not a question of providing cheaper products, but a problem of creating FSAs with high differentiation enhancing potential (e.g., brand names).

Sixth, targeting an industry through granting R and D subsidies will be more effective if the transfer of domestic technology to foreign rivals is more difficult and/or foreign technology can easily be acquired by domestic firms. While this argument cannot be easily discarded, it should be mentioned that the technology transfer problem is double-edged: if technology transfer by domestic firms is made more difficult, this implies that domestic firms are able to avoid the dissipation of their proprietary know-how. In many industries, this may require that competition on international markets is done through FDI. However, FDI will limit exports and allow other countries to profit from domestic R and D subsidies in terms of value added. Similarly, if foreign technology can be acquired easily this implies that foreign firms do not regard this technological know-how as a key-asset; hence, in many cases the question will arise as to the actual "high-tech" nature of the acquired technology.

Seventh, R and D and investment subsidies will be more effective if R and D and capital costs constitute important cost factors and or substantial entry barriers in an industry (which is more likely to be the case if the industry is in its early development stage). Here too, the distinction between shelter based policies and FSA-developing policies is neglected. The creation of shelter based entry barriers is not beneficial to long run national efficiency.

It will now be clear that even the mere selection of strategic industries is not an easy problem to solve. Even if specific industries are "correctly" selected the important question is whether an FSA-developing strategic trade policy can be implemented. The importance of this issue will be demonstrated in the next section using the example of the United States.

### VII. *The Failure of Strategic Trade Policy in the United States*

The United States has a trade policy heritage positioned in quadrant 4 of Diagram 4 (decentralized, very sensitive to business demands), see Nelson (1989).

Reich (1982a) has advocated the development of a coherent FSA-developing industrial policy in the United States. This is to be an alternative to the existing set of uncoordinated sheltering measures in industrial and trade policy. He demonstrates that most federal expenditures for industrial development programmes in favor of specific industries are the result of political pressures exerted by established industries to get shelter. He has also shown how the U.S. government failed to support growing industries such as semiconductors as compared with major competitors, for example Japan and West Germany.

While his analysis of the existing U.S. sheltering policies is undoubtedly correct, his proposal to develop an extensive set of FSA-developing measures for selected industries seems unrealistic. His proposed measures for those businesses that can achieve competitive leadership in world markets include: helping businesses fund research; underwriting high-risk investments; aiding export sales; sharing the costs of developing foreign markets; and subsidizing education and training.

The main problem with this is the issue of implementation. Reich completely neglects the problem of administrative heritage. He states that industrial policymaking must seek "broad public consensus" on the means by which U.S. industry can improve its competitive advantages. This broad consensus should involve "consumers, small business, emerging industries and non-union workers as well as organized labor and big business" (Reich, 1982a, p. 81).

It is remarkable that Reich sets forward this proposal since his own analysis demonstrates that U.S. industry "tribunals" responsible for the development of single industries and composed of government, business and (occasionally) labor, have consistently failed. They rested on the false assumption that industries are "monolithic blocs of business with identical interests." In reality, these tribunals were dominated primarily by older and well established businesses which resisted any significant economic change. Hence, it is not clear how a much broader inter-industry forum, with an even larger diversity of interests, could produce a broad consensus on FSA-developing trade and industrial policies, creating a shift from the lower side to the upper side of Diagram 5.

Badaracco and Yoffie (1983) have argued that the administrative heritage of the existing U.S. political decision making structure eliminates all chances of successfully imple-

menting FSA-developing trade and industrial policies. They disagree with Vogel's (1979) suggestion that government should foster competitive industries and phase out declining ones, through the establishment of a new cadre of senior-level bureaucrats with wide autonomy to implement strongly interventionist policies. Their main arguments against the successful establishment of a politically independent institution relate to many obstacles. In terms of staff they doubt that a professional government elite could be created because of a lack of financial and other incentives. Moreover the probability of being able to centralize the authority for an effective public policy is very limited. The dozens of agencies responsible for selected issues in these areas and the existing prerogatives of Congress make it extremely unlikely that sufficient power could be given to a single new agency.

The authors also reject Reich's proposal to reshape trade and industrial policies by creating a new forum for formulating policy. Reich (1982b) argues that a "single bargaining arena" would lead to the achievement of a broad-based consensus about adjustment policies whereby management, labor and government would discuss adjustment packages to shape new competitive advantages for declining industries. Although such a bargaining arena may seem attractive at first sight, the authors argue that the incentives for potential losers to seek better results (e.g. protection) in Congress, the executive branch, and the courts, would be very high. Finally, attempting to pick out winners and to eliminate losers could lead to enormous expenses for the federal government.

Badaracco and Yoffie demonstrated that the problem of administrative heritage constitutes an important impediment for the effective implementation of centralized FSA-developing policies. Yet the authors then mistakenly argue that this same administrative heritage would also prevent the creation of sheltering policies. The decentralized nature of government policy making would moderate the possibilities of implementing inefficient sheltering policies as compared with centralized regimes. As we demonstrated earlier, however, decentralization does not guarantee the absence of sheltering policies at all. This was shown in Rugman and Anderson's (1987) account of the recent evolution in U.S. decentralized administered protection.

Moreover, sheltering policies can take many forms and are not restricted to protectionist trade measures. For example, in the U.S. defense industry, perverse incentives exist for contractors to raise costs of defense contracts. Profit rates considered appropriate by the department of defense depend upon the cost of the programme. In addition, overhead costs are expressed as a percentage of direct costs. Hence, producers have an incentive to raise production costs. This system can be maintained because of the absence of strong price competition, see Fox (1984). While this may raise the value added created in the firms benefitting from this support, it is not evident that such policies will be beneficial to their international competitive position in the long run.

The development of a new "focal point" for conducting an interventionist trade and industrial policy in the United States has also been advocated by Scott (1982). He argues that a new department of industry, trade and commerce should be established with broad powers to promote U.S. exports and to establish a dialogue with the business community at large. However, he too neglects the issue of administrative heritage as developed within our framework. As it was noted by Safarian (1989), following Olson (1982) and Katzenstein (1985), some nations possess country specific advantages in terms of responding to important environmental changes which require intense cooperation among such actors as govern-

ment, business, labour unions etc. The United States does not possess the advantages of other countries, such as Japan. For example, the interaction of business and government in Japan, especially with respect to the dynamics of industrial policy, has been described by Horvath and McMillan (1980). They have demonstrated that Japanese policy explicitly accepts the existence of "winning" and "losing" industries, and hence prevents inflexibility, protectionism and organizational inertia.

Hence, it is not surprising that several recent proposals have been formulated by legislation in the United States to introduce structural reforms in the "political architecture," in order to allow more interventionist trade and industry policies. For a partial overview, see Lodge and Crum (1985) and Scott (1989). The danger exists, however, that the "administrative heritage" of U.S. public policy may lead any new public agency to become the captive of powerful special interest groups, especially from non-competitive sectors in the economy.

Such a situation has already been characteristic of the implementation of unfair trade laws dealing with countervail and anti-dumping cases, see Rugman and Anderson (1987). Just as in the case of strategic trade policy, these unfair trade laws aim at improving national economic efficiency (in this case through the development of a level playing field). They are meant to increase the value added created in the domestic economy, as they are imposed on foreign competitors. In practice, they shelter inefficient domestic producers from international market forces.

The negative effects of sheltering policies on firm behavior are often neglected, as exemplified by Culbertson (1986) who advocates permanent protection against imports and the reservation of fixed market shares for producers located in the United States. The author argues that such measures would lead to innovative behavior by U.S. firms and prevent them from moving more production overseas. Borrus, Tyson and Zysman (1986) have also argued that Japanese strategic trade and industrial policy measures, in particular domestic market closure and the financing of generic research projects, have allowed the Japanese semiconductor industry to gain a global competitive advantage vis-a-vis its American counterpart. However, the possibility of implementing a Japanese-like industrial policy structure was not seriously dealt with. In addition, many authors have argued that Japanese FSA-developing policies in particular industrial sectors were not a major factor of success, see e.g., Saxonhouse (1983) and Trezise (1983).

Sharp (1987) has argued that industrial policy in Japan has changed substantially, toward the use of indirect measures, e.g. R and D without direct commercial application. Moreover, it appears that its success lies primarily in its efforts to persuade Japanese firms to invest resources in innovative ideas rather than in its ability to provide generous subsidies, e.g., in the electronics industry. In other words, even in the country which is often considered as the prime example of successful FSA-developing policies, there is considerable discussion as to the actual contribution of trade policy to economic efficiency and effectiveness.

Furthermore, even strategic R and D subsidies to develop high technology sectors may be a second best solution. In the post World War II period, Japan primarily purchased and adapted U.S. technologies instead of developing its own. Such a policy may have the benefits of letting other countries develop new technologies at high costs (and risks) and purchasing the successful results. In other words, R and D subsidies should only be granted for the development of technologies that cannot be easily imitated. This is the case with



only a restricted number of technologies whereby information is not easily diffused through the product itself, see Boltho and Allsopp (1987).

### VIII. *Strategic Trade Policy and the Fair Trade Issue*

In spite of these concerns about the development and implementation of strategic trade policies, Yoffie and Milner (1989a; 1989b) have argued in favor of strategic trade policy in sectors supported by foreign governments. In their view, strategic trade policy measures need to be used as tools to create a level playing field, ignoring both the prisoner's dilemma outcome of such behaviour and the danger of shelter during implementation.

Their work reflects an ethnocentric U.S. attitude, as they argue that internationally oriented, U.S. firms would normally be supporters of unconditional free trade except in those circumstances where foreign governments would be able to "create" competitive advantages in the U.S. In other words, their view is that a foreign firm can only be successful in the United States if helped by its home country government. Hence, this simplistic view of the world assumes that the demand for strategic trade policy in the United States mostly results from unfair trade practices by foreign governments, while the demand for government support by foreign firms would always precede U.S. government support. In reality, of course, this is not the case.

Yoffie and Milner (1989b) extend the definition of strategic trade policy to include not only government imposed programmes aimed at reaping dynamic internal and external economies, but also those measures meant to counteract the effects of such programs abroad. These include countervail and anti-dumping measures. In addition, the authors even argue that a U.S. firm might express demands for strategic trade policy pre-emptively, when it anticipates its competitive position could be endangered. This could occur if a foreign government has a reputation for effective implementation of strategic trade policies. However, if strategic trade policy measures follow from the demands of firms instead of being decided upon by autonomous government agencies, why would U.S. firms always be engaged in this mode of "reacting" to moves or expected moves of foreign firms? Why would efficient foreign firms be more inclined to engage in first mover demands for strategic trade policy measures whereas U.S. firms would only react to such signals?

The answer is that, in reality, demands for strategic trade policy are similar in the United States and abroad. As Milner (1988) herself pointed out in her seminal work on the forces resisting protectionism in France and the United States, domestic firms in import competing sectors will usually favor protection. Firms with either exports or multinational operations will usually favour free trade, unless respectively exports are subject to erosion and specific operations of the multinational enterprise are inefficient. Finally, firms with a high degree of exports and a high degree of multinationality will usually be unconditional supporters of free trade.

If this analysis is correct, there are three possible explanations for the phenomenon observed by Yoffie and Milner (1989a, 1989b). First, U.S. firms have not been successful in their demands for strategic trade policies. Only when foreign firms have improved their competitive position as a result of these policies will the domestic demands be perceived as credible by U.S. government agencies. This in itself demonstrates that no suitable insti-

tutional structure exists in the United States, which would allow the pursuit of an FSA developing strategic trade policy. A clear example of this situation namely in the United States machine tool industry has been described by Collis (1988).

Second, U.S. firms have actually benefited from some type of strategic trade policy measures, but these measures have taken more "subtle" forms than those used abroad, see e.g., Cohper (1988). In addition, McNiven (1989) provides an overview of decentralized export development policies implemented by different U.S. states. When foreign firms appear to be successful internationally, the U.S. firms initiate demands for similar types of programmes or for measures aimed at eliminating the competitive effects of foreign support programmes.

Third, U.S. firms have benefited from similar types of strategic trade policy measures, but the lower effectiveness of implementing these measures in the United States, as contrasted to foreign countries, such as Japan, has reduced the competitiveness of U.S. firms. Hence, these firms wish to create shelter from international competition through the application of so called "fair trade" laws. If these laws are implemented in such a way that only foreign support measures are investigated, this may lead to the creation of a shelter based advantage for U.S. firms in the domestic U.S. market.

Substantial empirical evidence in several industries, see, e.g., Rugman and Anderson (1987), and Anderson and Rugman (1989) suggests that each of the three alternatives may be valid in particular cases and that the latter explanation can certainly not be excluded. The implication of each explanation in terms of our conceptual framework remains the same. U.S. firms are unable to compete against foreign rivals and use government shelter to substitute for strong FSAs.

In the first case, foreign firms have actually become more efficient than U.S. firms. If the dynamic internal economies argument is correct, this implies that in most cases it is too late to start supporting the U.S. firms so as to gain international competitiveness. Hence, government support, if granted will likely take the form of shelter. In the last two cases, firms see their international competitive position being eroded in spite of strategic trade policy measures in the United States. Hence, their demands for measures aimed at curtailing foreign policies are almost certainly shelter based.

Milner and Yoffie (1989b, p. 129; footnote 14) argue, in effect, that they are able to distinguish between strategic trade policy demands in quadrant 1 of Diagram 5 and traditional shelter based protectionism in quadrant 4 by taking into account two elements. First, they regard an industry's demand as strategic only if the industry's demand is conditional, i.e., dependent upon foreign governments' willingness to open their markets. In other words, trade protectionism is only demanded if the foreign market is kept closed. Second, demands are considered as strategic only if the firms involved engage in activities to penetrate foreign markets through, e.g., "high international marketing expenditures, important foreign assembly operations or sales operations."

The first element is a very controversial issue. For example, the problem of market penetration in Japan has been the subject of extensive academic discussion, see, e.g., Balassa and Noland (1988). The evidence appears to be that direct government regulation is responsible for entry barriers in only a limited way. If high entry barriers exist, this results from the nature of the Japanese economic system, including, for example, high distributor switching costs.

The second element does not appear to be very relevant either for discriminating between FSA-developing strategic trade policies and traditional shelter based protectionism. A substantial literature exists on the comparative inefficiency of certain operations of MNEs in particular locations, see Rugman (1990). In other words, the mere fact of being an MNE does not imply that no government shelter will be sought for any of the MNE's operations, especially those in the home market, where a dominant market position used to prevail or is considered as "normal", but where both national comparative advantage of the country and FSAs of the corporation may have been eroded.

The authors also argue that the probability of having strategic trade policy demands, as opposed to demands for outright trade protectionism increase if the domestic industry's international market position is eroding very slowly. While it is indeed true that strategic trade policy has a higher probability of being effective if foreign firms do not dominate world markets (in which case domestic attempts to capture dynamic internal and external economies would fail), it is not clear why this would exclude domestic demands for shelter. Here again, it is not the speed with which the erosion of a market position takes place that is important, but the intent of the firm's management. This intent may very well be to create shelter based entry barriers against foreign rivals.

The three examples given of industries with alleged demands for strategic trade policy, namely semi-conductors, commercial aircraft and telecommunications equipment demonstrate by themselves that the so called strategic trade policy arguments are seriously flawed. In the semi-conductor case, Japanese trade protectionism is seen as the main cause of the low market share of U.S. firms in Japan. Yet, no evidence whatsoever is given of such protectionism. In other words, the inability of U.S. firms to enter the semi-conductor market may be more the result of "natural" entry barriers created by Japanese competitors than the outcome of government protection (i.e., shelter based entry barriers).

The commercial aircraft case, which appears to be the only "real world case" that corresponds somewhat with the hypotheses of the Brander and Spencer (1985) strategic trade policy model, focuses on the demands of Boeing and McDonnell Douglas for "fair" competition from the part of the European firm Airbus. Yet, no analysis whatsoever is performed of the direct and indirect support granted to the U.S. firms by the U.S. government. In addition, it is argued that McDonnell Douglas only took steps against Airbus to create a level playing field, when plans to build aircraft through a joint venture with Airbus failed. This demonstrates that McDonnell Douglas was not really interested in "fair" competition, but in maintaining market share through every means possible, including government shelter.

Finally, the example of the telecommunication equipment industry is characteristic of U.S. ethnocentricity. It is recognized that the U.S. market was kept closed itself until U.S. deregulation, including the break-up of AT&T. Once this occurred and foreign competitors entered the U.S. market, U.S. firms demanded reciprocity. However, this demand was not triggered by unfair trade policies abroad, but was the result of a change in U.S. market conditions. In addition, it is argued that "the U.S. firms pushed Japan, largely because the U.S. ran a telecommunication equipment trade surplus with most other countries than Japan" (Milner and Yoffie, 1989b, p. 123).

This analysis suggests that U.S. firms consider fair trade with competitors of a particular foreign country to be the equivalent of having a trade surplus with that country. This reflects the biased view that foreigners can only be competitive in the United States if they

are doing something wrong, like being subsidized or protected. In reality, foreign corporations are often efficient producers with sustainable competitive advantages, in contrast to many U.S. firms which are comparatively inefficient. This implies, they lack cost or differentiation advantages. As a result U.S. firms pursue shelter-based strategies attempting to generate trade policy measures in quadrant 2 of Diagram 5.

In fact, Yoffie (1989) has demonstrated himself that the United States cannot at present pursue an FSA developing strategic trade policy in quadrant 1. In institutional terms, such a policy far exceeds the present capabilities of both Congress and the Executive. From a political perspective, he has argued that substantial authority on trade policy issues should be transferred from Congress to the Executive. In reality, the 1988 trade bill has accomplished the reverse. Yoffie (1989) then concludes that it would take a force similar in strength as the Great Depression to generate this transfer.

### IX. *Conclusions*

In this article we demonstrated that it is not easy to implement FSA developing strategic trade policies. If the government and its institutional structures are excessively responsive to the demands of specific pressure groups, then there is a high probability of having shelter-based policies. The main problem associated with shelter-seeking behaviour is that government support does not build upon the FSAs of the companies involved.

In theory the existing institutional structure within which trade policy is conducted could be changed, given a particular administrative heritage of (de)centralization and (in) sensitivity to demands of pressure groups. Yet, in reality, this is difficult to implement. For example, the case of administered protection in the United States, especially as regards countervail and anti-dumping actions, demonstrates how the technical track in trade policy administration can subvert fair trade intentions and turn them into tools of shelter. There is no managerial reason to believe that it would be any different with instruments of strategic trade policy.

The efficient implementation of an FSA developing strategic trade policy requires a competent executive bureaucracy with (a) extensive industry-specific knowledge, (b) the capacity to identify "winning" and "losing" industries and firms and (c) institutional characteristics that insulate it against pressure exerted by rent-seeking firms. Only a few countries possess such an executive bureaucracy. For all other countries, strategic trade policy is bad strategy.

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