EVALUATING THE CASE FOR EXPORT SUBSIDIES

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SUMMARY FINDINGS

With import-substitution policies having failed and now discredited, there has been a shift in favor of interventions on behalf of export interests. In this paper, Panagariya argues that, upon close scrutiny, these arguments for such interventions suffer from many of the same flaws as the old arguments for import substitution. Among the conclusions reached by Panagariya are:

- Under perfect competition, a country attempting to retaliate against export subsidies by its trading partners with export subsidies will only hurt itself.

- The argument that export subsidies may be useful for neutralizing import tariffs is spurious. In most practical situations, this is not possible. Moreover, the removal of tariffs is a far superior policy.

- In principle, a case for protecting infant export industries can be made in the presence of externalities. But the empirical relevance of externalities remains as illusory in the context of export industries as much as for import-substituting industries.

- While adverse selection and moral hazard can lead to the thinning of the market for credit insurance, they do not provide a case for intervention by the government.

- The experience of India shows little impact of export subsidies on exports. The comparative experience of Mexico and Brazil shows that export subsidies are a costly instrument of export diversification.

- Those who subscribe to the view that pro-export interventions were important in East Asia have not provided convincing evidence establishing a causal relationship between them and growth.

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TABLE OF CONTENTS

1. Introduction

During the 1950s through the 1970s, numerous flawed arguments were made and interventions done on behalf of import-substituting industries. But the gradual acceptance of economists' criticisms of the arguments, thanks partially to their effective propagation by the World Bank and International Monetary Fund, has led to a progressive dismantling of these interventions during the last two decades. From the standpoint of efficiency and growth, this is a healthy development.

That said, it may be noted that the demand for intervention is, nevertheless, very much alive. With the political equation having changed, it is now coming from export interests. And, as was the case with import-substitution during 1950s through 1970s, economists and policy analysts have responded to this demand by offering several arguments in support of actively promoting export interests. I will argue in this paper, however, that, upon close scrutiny, these arguments suffer from many of the same flaws that the arguments for intervention to promote import substitution did. In the current pro-trade, pro-export ethos, many readers will find my critique harsh, even unjustified. But recall that in the import-substitution ethos of 1950s and 1960s, interventions on behalf of import-substituting infant-industries had seemed equally plausible to most observers. Skeptics, who questioned such interventions, were a minority and generally ignored. But, as is now agreed, the skeptics were right.

In considering the *analytic* case for intervention, it is most important to specify the objective that a particular export subsidy is designed to achieve. A great deal of confusion can arise if the objective behind the policy is not clearly stated. Thus, in considering the case for intervention on

behalf of exporters, academic economists typically like to begin with social welfare as the objective. Yet, policy analysts often implicitly assume export expansion or export diversification as the target of the policy. While we should generally place a greater faith in the welfare criterion, since export expansion and diversification have figured as criteria, I will consider them as well.

The paper is organized as follows. In Section 2, I examine various arguments given to justify export subsidies from the viewpoint of welfare maximization. These include the use of export subsidies by one's competitors, neutralization of import duties, the infant-industry argument based on capital market imperfections and externalities, and second-best considerations related to moral hazard and adverse selection.[1] In Section 3, I evaluate the case for export subsidies when export expansion or diversification is taken as what Bhagwati and Srinivasan (1969) have called a "non-economic" objective. In Section 4, I draw on the experience of India and East Asia to assess the role played by export subsidies in stimulating growth in practice. Section 5 concludes the paper.

2. The Case for Export Subsidies under Welfare Maximization

Let us begin by setting up the context in which I will evaluate the arguments that have been made in favor of interventions on behalf of exporters. I will cast the problem in a two-country framework, labeling the countries home and foreign. I will assume that the home country, where intervention is to be considered, is small and does not have market power in the world market. This is not only plausible in the case of most developing countries but also a useful analytic device to abstract from the case for intervention that can be made on the basis of market power. The small-country assumption ensures that, in the absence of any other distortions, free trade is optimal. In

[1] For an earlier critique of some of these arguments, see Fitzgerald and Monson (1989).

making the recommendation that developing countries adopt as low tariffs as possible, we rely on precisely this setting.

2.1 *Neutralizing the Export Subsidy by the Trading Partner*

The first argument for export subsidies that we can readily dismiss now is the one based on export subsidization by the partner country. It is tempting to argue that if the trading partner of a country subsidizes its exports, the latter must respond in kind. While such an argument may be defensible under certain conditions for a large country, it cannot be justified in the present small-country case. For the same reason that tariffs by trading partners do not give small countries a reason to impose tariffs of their own, export subsidies by the former do not give the latter a reason to impose export subsidies.

To show this formally, assume for now that there are no tariffs or other distortions in the home country. In Figure 1, let EE represent the country's export-supply of steel and P_S^*/P_W^* the world price of steel in terms of the numeraire good, say, wheat. A per-unit export subsidy of s by the home country shifts the export supply curve down to the right as shown by E'E', expanding exports from Q_1 to Q_2. Thus, while exports expand, welfare declines: of the total subsidy, represented by rectangle ABCG, area ABDG becomes extra surplus for exporters while area BCD turns into a deadweight loss. The social cost of production of quantity Q_1Q_2 exceeds the revenue received from the foreign country by area BCD.

It is easy to see that this loss is independent of the subsidy paid by the foreign country on its exports. An export subsidy (on wheat) by the foreign country leads foreign exporters of wheat to accept a lower price for their wheat from the home country. Equivalently, they are willing to pay a

higher price for steel in terms of wheat. Thus, in Figure 1, the foreign subsidy is represented by an exogenous, upward shift in P_S^*/P_W^*. While this shift is beneficial to the home country, it has no impact whatsoever on the harmful effect of the subsidy by the latter. The analysis in the previous paragraph remains valid at the higher foreign price, adjusted for the foreign subsidy.

Indeed, it is possible for the home country to lose big from the export subsidy if the foreign country is successful in imposing a countervailing duty on the former. In view of the WTO ban on most subsidies, this possibility cannot be ruled out. A countervailing duty has the effect of worsening the home country's terms of trade by the full amount of the countervailing duty. But since the countervailing duty itself equals the subsidy, the home country's terms of trade worsen by the full amount of the subsidy. In terms of Figure 1, the price received by the home country declines to $P_S^*/[P_W^*(1+d^*)]$ and it loses rectangle AFDG to the foreign country.

Observe here the asymmetry between the home and foreign countries due to their relative sizes. The foreign country's export subsidy is automatically transferred to the home country via an improvement in the latter's terms of trade. A countervailing duty by the home county will lead to no further benefits. Instead, the duty will hurt the country itself precisely as does a tariff.

Sometimes, a case for export subsidy is made in a setting in which the home country and its rival compete in a third country. For example, Sri Lanka may be competing against Bangladesh in the U.S. market for garments. It must be remembered, however, that a legitimate case for export subsidies in this setting, made by Brander and Spencer (1985), requires a very specific oligopolistic market structure. For instance, it requires that exports from Bangladesh and Sri Lanka be supplied by a single firm each and that these firms, in turn, behave as Cournot players. If we make the conventional assumption of perfectly competitive behavior, instead, a country is hurt by its own

export subsidies. In the Bangladesh-Sri Lanka example, if Sri Lanka is small, the optimal policy for it remains non-intervention. If it is large, the optimal policy is an export tax both in the presence and the absence of an export subsidy by Bangladesh.

2.2 *Neutralizing the Existing Tariff Distortion*

The analysis so far assumes that the home country does not impose any tariffs. This is unrealistic and we must now face this difficult challenge. If all imports are subject to tariffs at a uniform rate and cannot be removed, via the Lerner Symmetry theorem, they can be fully neutralized by export subsidies to all products at the same, uniform rate. That is to say, an across-the-board tariff and an across-the-board export subsidy at the same rate lead to the achievement of the free-trade equilibrium. This is readily shown in Figure 2 where, as before, P_S^*/P_W^* is the world price and EE the export-supply curve in the absence of all intervention. A tariff raises the price of wheat or, equivalently, lowers the price of steel facing exporters to, say, $P_S^*/[P_W^*(1+t)]$. Exports fall to Q_2 and the country experiences a deadweight loss, represented by the triangular area FDK. An export subsidy shifts the export-supply curve back to E'E', restoring the free-trade equilibrium.[2]

As presented, this case for export subsidy is logically valid. But it has several limitations that make its applicability limited in practice. First, the Lerner symmetry theorem rests on some

[2] This argument appears, for example, in Keesing and Singer (1991, p. 27, Box 1). These authors write, "A different justification for subsidies is that exports (and hence services assisting them) are seriously underrewarded in developing countries that have only partially satisfactory policies toward manufactured exports. In particular, protection, exchange controls, depressed investment, and slow growth keep the exchange rate much less attractive for exports than would otherwise be the case. This justification disappears when policies and exchange rates become fully suitable for rapid expansion of exports, high growth, high investment, currency convertibility, and reduced protection."

crucial assumptions that are likely to be violated in practice. In particular, the following points deserve to be noted. (i) The symmetry theorem assumes that the administration of the tariff and subsidy is costless. If we allow for positive costs of administration, the equivalence breaks down. (ii) The symmetry also assumes that there is no evasion of the tariff by importers. If such evasion is present (as is evidenced by the existence of smuggling in most developing countries) and smuggling entails real resource costs, the export subsidy will fail to reproduce the free-trade outcome. (iii) The result also assumes that exporters do not overstate their exports to the authorities to inflate their claims to subsidies. If they do so and incur real resource costs to substantiate the claims by shipping the same product many times from the port, once again, the symmetry breaks down. (iv) If either or both policies give rise to other rent- and revenue-seeking activities, the symmetry fails to hold. (v) The symmetry also rests on the assumption that all imports are subject to a tariff at the same rate. For example, if there are two importables subject to tariffs at different rates, there is no way to reproduce the free-trade equilibrium via export subsidies. Indeed, in general, there is not even a guarantee that a welfare-increasing export subsidy exists. For instance, even if an export subsidy leads to an expansion of total trade but causes the imports of the high-tariff good to contract, welfare may actually decline. In practice, the assumption of identical tariff rates is highly unlikely to be satisfied. Often services are out of the tax net. Likewise, many agricultural goods are unlikely to be subject to tariffs. And even if all goods and services are included in the tariff net with a uniform tariff applied to them, it is unlikely that the exports of agriculture and services could be subsidized at a uniform rate.

Second, even if the above realities of life are ignored, as already noted, most subsidies are GATT illegal. Therefore, it is erroneous to think that, in practice, tariffs can be neutralized by

export subsidies to reproduce the free-trade equilibrium. Export subsidies, even if capable of neutralizing partially or wholly the negative effects of tariffs, are likely to be countervailed.

Third, even if there was a way to get around countervailing duties, in practice, fiscal constraints will make it impossible to neutralize tariffs by export subsidies. Under balanced trade, full neutralization requires that all tariff revenue be used up to subsidize exports. In the countries in which governments are struggling to contain the fiscal deficit, such neutralization of tariffs by subsidies is out of the question. At most, neutralization can be marginal, leaving a substantial anti-export bias. Thus, it is naive to think that these countries have a choice short of substantial trade liberalization accompanied by a switch to domestic taxes for revenue.

In my judgement, it is a mistake for international institutions such as the World Bank and IMF to be an active party to the view that export-credit subsidies can serve as substitutes for trade liberalization. Such a stance encourages the erroneous view that high tariffs are compatible with an outward-oriented regime. If such a view comes to rule, the momentum for increased outward orientation that has been built in the last decade and a half will be lost, no matter how generous are export-credit subsidies and export-credit insurance. Already, the expectations of forming regional arrangements have led many countries to call a halt to the conventional, unilateral trade liberalization in Latin America. Accepting export subsidies as substitutes for tariffs can further legitimize the case against liberalization.

2.3 *The Infant-industry Argument: Capital-Market Imperfections*

Two entirely distinct arguments have been given in the literature to defend intervention on behalf of "infant industries": the presence of capital-market imperfections and external economies.

According to the first of these arguments, if there are learning-by-doing economies of scale, a firm that is viable in the long run may fail to enter the market due to higher costs in the early years relative to those faced by pre-existing foreign firms. The idea is that once the learning-by-doing economies lower the firm's costs sufficiently, it can more than make up for the losses in the early years. But, in the absence of well-developed capital markets, the firm does not have funds to cover its losses in the early years. Under such circumstances, temporary protection, which raises the price of the product facing the firm, can help it tide over the losses in the early years. After the production costs decline, protection can be withdrawn.

It is now well understood that this argument is justified only if capital markets are imperfect. The imperfections may take the form of unavailability of credit or asymmetric information. But even in the presence of the imperfections, the first-best solution is to correct them directly. For instance, equity injections through venture capital firms may be a superior policy. Only if such solutions are not available, a case for temporary protection can be made on the usual "second-best" grounds.

It is perhaps fair to say that import protection as a development strategy, justified on infant-industry or other grounds, has now been discredited. Countries such as India, which went on to protect the entire manufacturing sector, have performed an order of magnitude below their potential. The experience of the countries, which promoted infants to export and compete in the world markets, is more controversial and I will return to it later. While my own recommendation is to resist the temptation to intervene on behalf of either exporters or import-competing firms, if a country feels compelled to do so, there are at least three reasons why export promotion is to be preferred over import protection. First, the chances of picking industries in which the country has a

potential comparative advantage are better when the criterion for support is ability to export rather than inability to compete against foreign competitors in the domestic market. Second, the costs of subsidies are more transparent than of tariffs. The cost of tariffs falls on consumers in the form of higher prices. Subsidies, by contrast, appear explicitly in the budget and require raising revenue. Hence it is easier to balance the cost Finally, by providing for the possibility of countervailing, the GATT/WTO discipline places a limit on the use of subsidies.

2.4 *The Infant-industry Argument: External Economies*

An alternative formulation of the infant-industry argument relies on the presence of external economies rather than capital-market imperfections. According to this formulation, a firm may be unable to fully internalize the benefits of its actions. This causes the firm's private costs to exceed the social costs. In turn, the firm may choose not to undertake the activity even if it is socially desirable. For example, suppose a good can be produced at an average cost equal to the world price provided certain costs are incurred on training the workers and the firm is able to retain these workers at the going wage for a minimum number of years. But if subsequent entrants, who did not incur any expenses on the training, bid the workers away by offering a slightly higher wage, the first entrant would fail to stay competitive at the world price. Knowing this fact, no firm will want to be the first to enter the industry and production will fail to take place even though it is socially desirable. Protection in the initial stages of the life of the industry that raises the price of the product may then be a way to make entry attractive for the first firm.

Alternatively, in the case of exports, a pioneer firm may generate information, create country-specific reputation in the world markets or help in the development of service activities that

spill over to other exporters. In all these cases, in the absence of intervention, the activity in question will be carried out at a sub-optimal level, allowing an export subsidy to improve upon the market outcome.[3]

Ruling out capital market imperfections, even these plausible-sounding arguments have their limit. For instance, take the argument that reputation may be country specific. A firm with sufficiently deep pockets or free access to the capital market can specialize in exports and take the losses that will accrue in the initial phase. Once the country reputation has been established, however, it will begin to make profits and eventually cover its losses. Thus, it is not inevitable that the existence of country-specific reputation effects calls for intervention.

But even leaving aside this objection, three qualifications considerably limit the scope of interventions that can be justified along these lines. First, in practice, it has been difficult to identify externalities. Those who advocate the subsidies strongly believe that as far as exports to new markets by poor countries are concerned, information and reputation externalities do exist. But persuasive objective evidence is still lacking. Given the past failures of import-substitution policies, often justified on the basis of unsubstantiated claims of external economies, skeptics are entitled to a higher standard of proof of the existence of externalities this time around. In this respect, the recent survey of the literature on the performance of manufacturing firms in developing countries by

[3] Kesesing and Singer (1991, p. 27, Box 1) make this argument forcefully to advocate subsidies to support services for exports. To quote them, "A pioneer service supplier may generate spillover benefits not only by expanding exports, but also by contributing to the emergence of desirable service activities and **know-how** benefiting the economy as a whole. Many Of the eventual returns from the pioneer firm's efforts inevitably spill over to competitors and imitators and to firms in other activities, so its pioneer role may be thoroughly unprofitable without subsidies."

Tybout (1999) does not lend support to the case for export subsidies. He reports that there is no systematic evidence of learning spillovers to be greater among import-competing manufactures than among non-tradable goods or exportables and cites the Green Revolution in India as the best documented case of spillovers in developing countries.[4]

The second qualification to the argument is that, given the limited administrative capacity in the poor countries, export subsidies are more readily abused there. The outbound goods are, in general, less likely to be subject to thorough inspection. Therefore, over-invoicing of exports is harder to check. Furthermore, it is also possible to re-export goods to simply collect the export subsidy. As I will discuss later in the context of Latin American experience with export subsidies, this abuse of subsidies is a real possibility.

A case for matching grants is sometimes made on the ground that the beneficiary will use such a grant as a partial payment for technology imports or export-market research. Once again, the case for such grants rests on the assumption that technology imports and export-market research generate externalities for other firms. Little concrete evidence supporting such externalities has been provided, however. Sometimes, such grants are declared a success if the recipient shows a high rate of profit after the grant is given. But this is a poor criterion on which to judge the success of the grant, since what is required to justify the subsidy is higher profitability of *other* firms which

[4] Tybout (1999) also discusses the evidence on learning effects and concludes that though exporters do exhibit higher productivity relative to non-exporters in the same industry, the causation runs the other way. Most exporters are substantially more efficient than non-exporters *before* they start selling abroad. Moreover, in most industries, the efficiency gap between exporters and non-exporters does not grow over time. In any case, even if researchers had found positive learning effects from exporting, it will be insufficient to justify export subsidies. To justify export subsidies, one must produce evidence of *spillover* effects.

are supposed to benefit from the externality. Otherwise, the grant may simply subsidize an activity that the firm would have undertaken on its own. And the higher profitability may simply reflect the high *private* rate of return on the activity.

2.5 *Capital-Market Imperfections: Export-credit Insurance*

Quite apart from infant-industry considerations, poorly developed capital markets have been cited as reasons for subsidized pre- and post-shipment credit and credit insurance. Once a firm has an export order, it needs credit to finance the production and sale until it receives payment from the buyer. The bank that offers such credit, in turn, may require the firm to obtain insurance cover for the loan in case of non-payment due to default by either the firm or the buyer. Countries have provided subsidies both on the insurance cover and the interest rate applicable to the loan. As far as the provision of the insurance cover is concerned, often governments have stepped in directly to assume this function, though private credit insurance markets also exist. So far, I have not seen a clear articulation of the market failure that these interventions are intended to address. But the case for them must be rooted in some kind of information failure in the case of insurance subsidy and some source of divergence between the social and private rates of interest in the case of credit subsidy.

Consider first the argument for subsidized insurance. The argument may be that the potential insurer is unable to accurately evaluate the risk of default associated with export contracts. This could be because the contract is not accompanied by a letter of credit from a reputable financial institution or the firm's ability to supply the product of specified quality on time is in doubt. Of course, as long as the insurer is able to evaluate these risks correctly, there is no case for the subsidy.

Only if the insurer overestimates the actual risk is there a case for subsidy. For in that case, he may refuse to provide insurance for some of the "good" loans or charge a higher price than is socially desirable. Alternatively, the case for subsidy can be made if the insurer is more risk averse than the society as a whole. But neither of these arguments is compelling. Moreover, it is not clear why these arguments should apply insurance for loans relating to exports only.

But more importantly, we must ask why should the government be the one to provide this insurance? What advantage does it have over the market in this activity? A private provider of insurance can do the same pooling of risk that the government can. The argument in favor of the government must therefore rest on the assumption that it is better able to assess the risk than private insurer. But that is not very likely.

Sometimes, analysts take the absence of an insurance market as evidence of market failure and advocate a role for the government. As the literature on moral hazard tells us, this is an incorrect inference. Thus, suppose insurers make insurance available based on the exporters' expected losses. But if having insurance makes exporters more reckless so that the risk of loss rises, insurers will have to raise premiums over time. But this will reduce the demand for insurance itself and cause the market to thin out. If the process continues, eventually, there will be no insurers left. Put differently, if potential insurers anticipate this moral hazard from the beginning, the market for insurance will never emerge. It is not clear that the government can improve upon this situation. In a paper entitled "Welfare Economics of Moral Hazard," Richard Arnott and Joseph Stiglitz (1986)

conclude, "there is no *a priori* presumption that...non-market institutions deal more adequately with the problems arising from moral hazard than those relying on market-oriented institutions."[5]

Adverse selection is yet another reason why insurance markets may fail to emerge and yet need not provide a case for the government to intervene. For any given exporter, some transactions are riskier than others. If the insurer is unable to observe the risk associated with individual transactions and knows only their distribution, he will charge a single price for all transactions. For transactions with above-average risk, this price will be too low and for those with below-average risk, it will be too high. The result will be that exporters will insure transactions with above-average risk and not those with below-average risk. This will, in turn, raise the average level of risk associated with insured transactions and lead the insurer to raise the premium. Once again, the market will thin out and a continuation of the process can make it disappear entirely. Or, alternatively, if potential insurers anticipate the adverse selection problem at the outset, the market may never emerge.

The problems of moral hazard and adverse selection raise the costs of insurance subsidies as and when they are provided. Exporters have an incentive to buy "cheap" insurance and default on their commitments. Similarly, without the market discipline, the adverse selection problem is likely to afflict a government-run insurance program more than a similar private program. Private agents are more likely to gather and process information that will minimize information asymmetries between themselves and buyers of insurance.

[5] As quoted in Fitzgerald and Monson (1989).

2.6 *Capital-market Imperfections: Export-Credit Subsidies*

As noted above, governments also subsidize pre- and post-shipment credit to exporters at subsidized interest rates. The arguments for this subsidy must be separated from those for credit-insurance subsidy. Thus, suppose the insurance market functions adequately or that the government intervention ensures that the exporter is able to obtain the necessary insurance cover for the loan at the economically efficient price. What is then the argument for additional subsidy on the interest rate to be charged?

The answer to this question is not altogether clear. The discussion of interest-rate subsidies often takes place independently of the insurance and, presumably, on the assumption that such insurance is not available. For example, it is sometimes argued that the interest rates on pre- and post-shipment credit established in the market are higher for exports than those for domestic sales and, therefore, call for subsidization. This argument by itself is indefensible, however, since the high interest rate may simply reflect the higher risk associated with export transactions. To validate the case, one must show that the interest rate charged is higher than the social rate of return on the foreign sale.

An alternative argument is that if government regulations require banks to charge a single interest rate that is too low to clear the market, banks will ration credit and screen out high-risk borrowers. To the extent that high risks are associated with export loans, such a regulation leads to sub-optimal supply of credit to exporters. A gain can be made by requiring banks to give credit to exporters. Once again, this is an incorrect argument for two reasons. First, it is by no means guaranteed that banks screen out high-risk loans. For instance, if banks are risk neutral, they will be equally likely to exclude loans with high and low risk. Thus, suppose a bank must choose between

a loan with certain return of 10% and another one yielding a return of either 21% or 0 with equal probability. Though the latter loan is more risky, since it yields a higher return in expected terms, the bank will choose it over the other one. Second, even if the banks are risk averse so that the policy results in the export loans being rejected systematically, an interest-rate subsidy on export loans is the wrong way to proceed. The more sensible policy is to remove the interest rate regulation rather than counter one distortion by another.

3. Export Subsidies to Achieve Export Expansion and Diversification

Many policy economists implicitly take export expansion and diversification (towards manufactures) itself as the goal while recommending export-promotion policies. This is a questionable objective on which to hang the case for export promotion and not one that I would like to defend. But it is certainly there behind the writings of the authors who begin by asking whether certain interventions are effective instruments of achieving a certain level of export expansion or diversification.

Once export expansion and diversification is taken as the goal, many of the objections raised earlier in this paper become irrelevant. For example, the fact that credit-market imperfection may also lead to an under supply of loans on domestic sales is of no relevance now. Nor are the opportunities forgone to achieve the export expansion of any relevance. We are now in the realm of what Bhagwati and Srinivasan (1969) have called "non-economic" objectives. Taking an exogenously given level of exports or the share of manufactured exports in total exports as the desired goal, are export subsidies the least-cost instrument of policy?

I have not come across any quantitative study which does a proper analysis to show that export subsidies, in general, and export-credit subsidies and export-credit insurance, in particular, are a part of the least-cost package for achieving a certain level of export expansion or diversification. Most authors, who are enthusiastic about these subsidies, go only so far as to argue that when combined with other export-friendly policies, these subsidies can be an effective means of export expansion. This is a rather weak claim since any failures can be blamed on the absence of complementary policies while successes may be the result of other sound policies. Moreover, even when export expansion is helped by the subsidies, as is likely if one believes in supply response, it is necessary to know what their cost is.

I draw on two sources to inject some skepticism regarding the ability of export subsidies in stimulating exports at lower costs than alternatives: my own knowledge of the Indian case and an excellent comparative study of the Latin American experience by Nogues (1989). India has had a long history of direct and indirect export subsidies, including direct cash subsidy to exporters, export finance, export insurance and guarantee, export promotion and marketing assistance, and export-processing zones. Thus, commercial banks in India provide export financing at interest rates below market rates. The annual lending rates for this purpose are fixed by the Reserve Bank of India. The banks are required to extend a minimum of 12% of their net credit as export credit.

The Export Credit Guarantee Corporation of India Limited (ECGC), owned entirely by the government, provides exporters a range of insurance cover against non-realization of export proceeds due to political or commercial reasons. It also provides guarantees to financial institutions to facilitate the granting of credit facilities to exporters on a liberal basis. The ECGC has been in operation since 1957.

The government also places a strong emphasis on facilitating export promotion and marketing assistance. There are 15 broad schemes in operation for this purpose. Indian Trade Promotion Organization (ITPO) promotes exports and imports and helps upgrade technology. It undertakes publicity, assists firms in developing new products and organizes export development programs. The Indian Institute of Packaging assists firms in improving the standards of packaging and undertakes research into the raw materials for the packaging industry. The Indian Institute of Foreign Trade develops human resources and organizes seminars on issues relating to trade.

Finally, the government has also established seven export-processing zones (EPZs) to promote exports. Hundred percent export oriented units (EOUs), meant to complement the EPZs, can be established outside the zones. To promote the development and exports of the software industry, seven Software Technology Parks (STPs) and an Electronic Hardware Technology Park (EHTPs) scheme are also in existence.

Most of these schemes have been in force for more than three decades in one or the other form. Yet, India's exports-to-GDP ratio in 1990 was an embarrassing 5%. It was not until India began to liberalize trade and eliminated the gross exchange-rate overvaluation starting in July 1991 that exports began to show progress. Despite a sharp reduction in export subsidies, principally through import liberalization and an excellent management of the exchange rate, by 1997, India had successfully pushed the exports-to-GDP ratio to 10%.[6] Given this experience, it is difficult to argue that export-subsidy measures were crucial to India's export performance.

[6] As a part of the reforms during the first half of 1990s, the Cash Compensatory Subsidies or CCS, the main direct export subsidy, was eliminated.

Nogues (1989) provides more compelling evidence against export subsidies as a cost-effective instrument of export promotion. After a careful review of a large body of evidence, he arrives at the following conclusion:

> "More than 20 years ago, the economic reasoning on export subsidies suggested that they would result in higher export diversification and performance. In contrast, experience shows that at the macro level, this has generally not occurred. I have argued that the major reason for this has been that, in a majority of cases, export subsidies were not supported by more open import policies. As a result, export subsidies reduced only marginally the anti-export bias of Latin American countries. Additional negative effects on exports have come from very unstable RERs [real exchange rates]."

This diagnosis does not contradict the position of those who see merit in subsidized export-credit insurance but are careful to argue that these measures will not yield the desired results in the absence of supporting policies, which include a generally liberal trade regime and stable real exchange rate. But Nogues (1989) also offers a comparison between the experiences of Brazil during the 1970s and Mexico during the 1980s. He finds that, despite export subsidies in virtually all Latin American countries, only Brazil during the 1970s and 1980s and Mexico during the 1980s achieved significant diversification of exports towards manufactures. The contrast between the two countries, however, is that Brazil made use of export subsidies, many of which were countervailed by the United States, whereas Mexico did not. Nogues therefore concludes that Mexico's strategy was less costly.

As a footnote, I may mention that Nogues also dissects in detail Argentina's experience with export subsidies, offering a fascinating account of how they led to widespread rent-seeking

activities, corruption, and systematic countervailing actions by the United States. He documents a rapid multiplication of subsidy programs during the 1960s through the 1980s. These programs were discriminatory in nature, giving subsidies to some products or regions but not others. The programs, in turn, gave rise to bribery and corruption. Though hard evidence in this area is difficult to provide, Nogues is able to offer one dramatic case related to pre-shipment credit. During the 1980s when this episode took place, pre-shipment credit was offered at an interest rate of 1% per year. The general rules permitted firms to finance up to 70% of the f.o.b. value of exports for a maximum period of 180 days. But in the case of shipping, the proportion of financing could rise to 90% and the period of financing could be extended to three years. A shipbuilding company apparently obtained such a loan, but after all resources had been disbursed, it was discovered that construction of the ship had not even begun. Nogues reports that the size of the fraud in this case was close to $100 million.

The upshot of the evidence from India and Latin America, thus, is that even when export expansion and diversification are taken as objectives, it by no means clear that export subsidies are the right instrument. Even subsidy enthusiasts will probably agree that encouragement to such subsidies is a mistake in cases where the exchange rate is overvalued and macroeconomic fundamentals are out of equilibrium.

4. The East Asian Experience

The evaluation of the possible role of export subsidies will be incomplete without at least a brief discussion of the East Asian experience. Two key issues must be addressed in this context.

First, did export subsidies play a crucial role in stimulating exports and growth in the countries in the region? And second, if yes, should other countries emulate the East Asian experience?

The answer to the first question is controversial. To begin with, the NBER project headed by Bhagwati and Krueger found that once all incentives and disincentives to exports and imports are taken into account, the domestic relative price of tradables closely tracks the world relative price [Bhagwati (1988)]. As such, even though export subsidies were actually present, they did not tilt the relative prices in favor of exportables in aggregate. From the available econometric evidence, the only East Asian country for which subsidies have been shown to have a statistically significant effect on export performance is the Republic of Korea (Westphal and Kim 1982). To my knowledge, the quantitative impact of export subsidies on growth has not been studied.

Though the World Bank's (1993) *East Asian Miracle* essentially accepts the Bhagwati-Krueger view of the neutrality of incentives in what it calls the high-performing Asian economies (HPAEs), it goes farther in acknowledging the role of export-push strategies in these countries. The study identifies three approaches pursued by different HPAEs to implement export-push strategies. First, Hong Kong and Singapore established free trade regimes. Both countries provided export credit but did not subsidize it. In Singapore policies towards direct foreign investment played an important role in export expansion. Second, in Japan, Korea and Taiwan, China, incentives were neutral *on average* but within the traded goods sector, export incentives co-existed with substantial remaining protection of the domestic market. In Korea, until at least 1980, the subsidy on working capital on exports was substantial, broadly offsetting the tariff and non-tariff protection of domestic market sales. Firm-specific export targets were also a part of Korea's export-push strategy but actual exports often exceeded these targets (Rhee, Ross-Larson, and Pursell, 1984). Efforts were

made by Japan, Korea, Singapore and Taiwan, China to promote specific export industries. Finally, the Southeast Asian economies have relied on gradual reduction in protection, institutional support of exporters and duty-free regime for inputs used in exports. Indonesia, Malaysia and Thailand have also applied policies to attract direct foreign investment with the explicit aim of expanding exports.

Though the *East Asian Miracle* study employs the term "export push" uniformly across these approaches, it is fair to say that the first approach is no different than free trade. The trade regime in Hong Kong and Singapore cannot be described as having tilted the balance in favor of exports either on the average or in specific industries. On balance, the third approach is also closer to a movement towards free-trade regime rather than having an outright bias in favor of exports even in selected industries. Free-trade regime for inputs used in exports simply moves towards removing the bias against exports rather than creating a bias in favor of them. Though the institutional support policies have a more direct bias in favor of exports, they do no more than partially offset the import protection that has existed in the Southeast Asian economies. Thus, only in the case of the second approach, pursued principally by South Korea and Taiwan, China, some of the policies can be characterized as positively "export push" policies.

While the existence of export-credit, export-credit-insurance and other export subsidies in many HPAEs can be scarcely ignored, the key question is whether they can be credited with having contributed significantly to the stellar performance of these economies. But those who subscribe to the view that pro-export interventions were important in East Asia have not provided convincing evidence establishing a causal relationship between them and growth. The mere observation that South Korea grew rapidly while intervening on behalf of certain export industries is insufficient to

establish the conclusion that these interventions played a positive role. Instead, we must ask how Korea would have performed in the absence of these interventions (and those on behalf of importers).

This is not an idle question. In a related context, Ian Little has asked this same question to counter the argument that the stellar performance of the Republic of Korea implies that industrial policy there played a positive role. Drawing on a study by Dollar and Sokoloff (1990), Little (1996) notes, "TFP growth in the most capital-intensive sector, (many the object of industrial policy promotion) was less than half that in the most labor-intensive sectors. Electrical goods; rubber, leather and plastic products; furniture; and clothing and footwear all show above average TFP growth." Little goes on to provide the following bottom line:[7]

> "[The revisionists] do not question the proposition that industrial policy was successful [because government leadership fixed some market failure or another]. To quote Wade (1990, pp. 305-6): '...the balance of presumption must be that government industrial policies, including sectoral ones, helped more than hindered. To argue otherwise is to suppose that economic performance would have been still more exceptional with less intervention which is simply less plausible than the converse.' Since the less interventionist Hong Kong, Singapore, and Taiwan grew faster than Korea, it is unclear why Wade thinks it simply less plausible that less intervention would have been better, given also the widespread failure of government industrial policies elsewhere. I find it simply more plausible that Korea grew fast despite its industrial policies, than because of them."

[7] As quoted in Bhagwati (1996).

This same point also applies to export subsidies, and we need to compare the experience of the East Asian countries that used export subsidies with that of the countries that did not. As was noted earlier, at least for two Latin American countries--Brazil and Mexico--evidence points against export subsidization.

Finally, even if we accept the view that export subsidies had a positive effect on East Asia's performance, it does not follow that they will deliver similar results in other countries. Past record shows that interventions in some countries are simply more costly or less beneficial than in others. For instance, having observed India for some decades now, I am convinced that the correction of a distortion by another distortion is not preferred to leaving the original distortion in place. Not only are the two distortions likely to become additive due to rent seeking and corruption, the introduction of the "corrective" distortion will eliminate the pressure to remove the original distortion.

A slightly different but closely related argument, which points in the same direction, is that most countries simply lack the administrative ability and determination of the South Korean leadership to carry out the interventions. Even Westphal (1990), who unambiguously views the role of selective interventions on behalf of exporters in the positive light, is extremely cautious when it comes to replicating them elsewhere. Thus, after gleaning the lessons that can be derived from the Korean experience, he offers the following warning:

> "The relevance of these guidelines for other less developed countries is limited, mainly because following them requires an overriding commitment to meaningful economic development, a commitment that few political leaders of less developed countries appear capable of making."

5. Concluding Remarks

In this paper, I have presented a systematic critique of the arguments for export subsidies. The arguments fall into two categories: those based on welfare maximization as the objective and those that take export expansion or diversification towards manufactures as the target. In the former case, the arguments often suffer from the same flaws as the arguments for protection, advanced during 1950s through 1970s to promote import substitution. In the latter case, based on the Latin American experience, it is far from clear that export subsidies are the least-cost instrument of achieving export expansion or diversification.

Three types of export subsidies seem to be gaining increasing acceptance in recent years: export-credit subsidies, export-credit-insurance subsidies and matching grants to obtain information and technology that may help in generating a faster export growth. To-date, the case for these subsidies has not been articulated. Export-credit subsidies are often defended on the ground that the market fails to support potentially profitable but risky exports. But if lenders are risk neutral, this need not be the case. And even when they are risk averse, it is not clear that subsidies to profitable but risky exports are welfare enhancing. Export-credit-insurance subsidies are advocated on the ground that adverse selection and moral hazard problems cause insurance markets to fail. But it is not clear that the government has a particular advantage over the market in dealing with adverse selection and moral hazard. Finally, the case for matching grants must be supported by the demonstration of externalities in the activity being offered the grant. Again, to-date, the available evidence is unsatisfactory. The "success" stories are often based on cases in which the agents would have carried out the activity purely on the basis of their own profits. To justify the subsidy,

one must show that it led to an increase in productivity of the firms other than the one given the subsidy.

The paper also reviews briefly the experience of Latin America, East Asia and India with respect to export subsidies. Based on an important study by Nogues (1989), I conclude that export subsidies are a more costly instrument of achieving export expansion than other policies. In the case of India, innumerable export-subsidy instruments have been in place for many years. Yet, significant break in exports came only after substantial import liberalization and real exchange-rate depreciation were achieved in the 1990s. The East Asian experience is more controversial. But even if one accepts that export subsidies played a positive role in these economies, in view of the experience in India and Latin America, it is arguable that such experience can be replicated elsewhere with a high probability of success.

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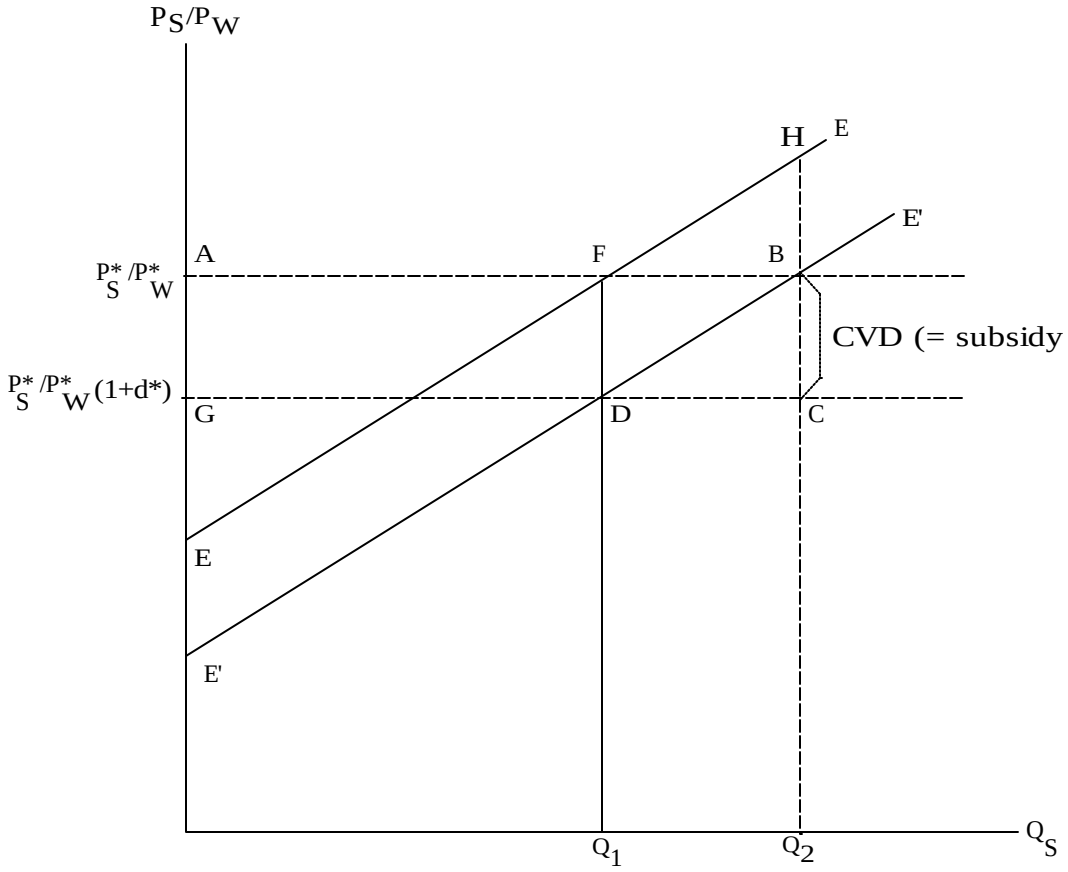

Figure 1

A subsidy by the home country shifts EE to E'E'. Exports expand as shown by the dotted vertical line but the home country loses triangle FBH (= BCD). A countervailing duty (d*) by the foreign country, equivalent to the subsidy, moves home country's terms of trade down to the horizontal dotted line. Exports shrink back to the original level and the home country loses rectangle AFDG.

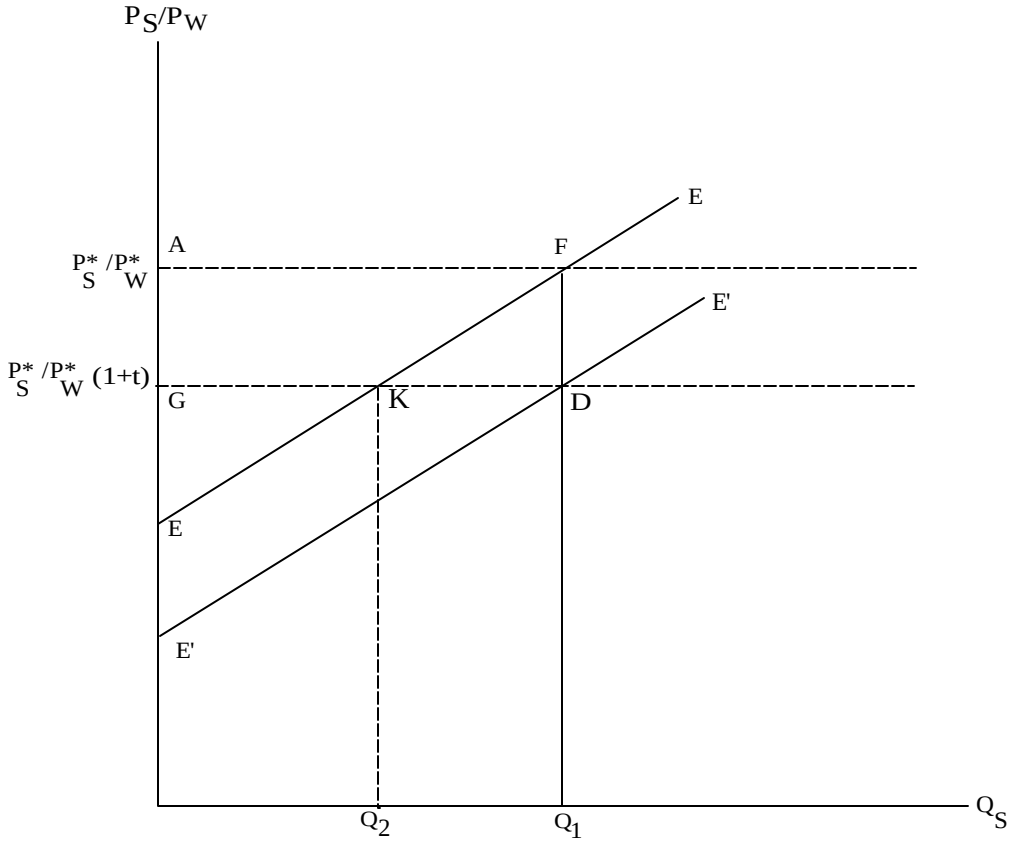

Figure 2

The Lerner Symmetry. Free-trade equilibrium is at F. A tariff at rate t on wheat imports by the home country lowers the relative price of steel down to the dotted line. Exports decline as shown by the vertical dotted line and the country loses triangle FDK. An export subsidy equal to the tariff shifts EE to E'E', restoring the original, free-trade equilibrium.