

E C O N O M I C S B U L L E T I N

Exports Under an Import Substitution Trade Regime: An Alternative View

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Abstract

Along with export promotion (EP), import substitution (IS) is one of the two main trade strategies for developing countries. We show that an IS industry may remain an infant and still be able to export. Therefore, the ability to export is not necessarily evidence of import substitution being effective in the sense of helping a protected domestic industry achieve international competitiveness over time.

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1 Introduction

Broadly speaking, there are two main approaches to trade policy among developing countries – export promotion (EP) versus import substitution (IS). Although the distinction between the two strategies is often blurred and many developing countries have pursued both, there is nevertheless an unmistakable philosophical difference between EP and IS. Advocates of EP emphasize the benefits of free trade and competition, and substituting global markets for limited domestic ones. Advocates of IS, on the other hand, emphasize the desirability of achieving a higher level of self-reliance by substituting imported goods with domestic goods behind protectionist barriers. This philosophical difference has led to an extensive debate among both academics and policymakers about the relative merits of each approach.

In this note, we question the validity of the infant industry argument, which is widely evoked in support of import substitution.¹ To put it briefly, according to this argument, temporary protectionism provides an infant domestic industry with breathing space to grow up over time and become internationally competitive. The specific mechanisms for growing up over time include achieving greater economies of scale and learning-by-doing.² As such, central to the infant industry argument is a trade-off between the short-term cost of substituting lower-cost imports with higher-cost domestic goods and the long-term benefit of productive efficiency gains. IS advocates carry their argument to its logical conclusion by noting that an IS domestic industry may eventually become competitive enough to export.

Here we use simple graphical analysis to illustrate the possibility of an IS industry being able to export without becoming internationally competitive. That is, it is

¹ See Bruton (1998) for a comprehensive review of import substitution trade regime.

² Levinsohn (1994) points out that a country pursuing IS must coordinate its trade policy with its competition policy. The intuition is that an infant industry's achieving economies of scale requires a combination of domestic market power (i.e. no stringent limits on market share) and protectionism.

theoretically possible for an IS industry to export even without its price becoming competitive with world prices. Our basic idea is that exporting may increase the domestic profits of a firm with market power in a protected market by allowing for greater sales and hence greater exploitation of economies of scale.³ There are two channels through which import barriers raise the domestic firms' profits – not only do they protect domestic firms from foreign competition in the domestic market but they also make exporting profitable. This is true even for a domestic firm for which exporting is inherently unprofitable in the sense that its average cost always exceeds the world price. The reason is that the increase in domestic profits due to economies of scale may more than offset losses incurred abroad.

2 The Model

The developing-country monopolist of a single homogeneous tradable good faces two markets – domestic and world. The world market is perfectly competitive. The monopolist thus faces a given world price and marginal revenue, P_w , in the world market. The monopolist's domestic market is closed to imports due to protectionist barriers erected under an IS trade policy regime, but the foreign market is open to the monopolist's exports. As can be seen in Figure 1 below, if the monopolist does not export, the monopolist would produce and sell Q_a and charge P_a . Average cost is still declining at Q_a . If the monopolist does export, it produces \bar{Q} , of which Q_d is sold in the home market at a price of P_d and the rest is sold abroad at P_w . Exporting thus reduces the IS monopolist's domestic sales and raises its domestic price.

[Insert Figure 1]

I assume the monopolist's average cost to exceed the world price everywhere,

³ Krugman (1984) offers an alternative explanation for how import protectionism can serve to promote exports under economies of scale. Zhang and Zhang (1998) further elaborate upon Krugman's insight.

including at \underline{Q} , its minimum efficient size. The monopolist thus suffers losses on all the units it exports. Despite such inherently unprofitable nature of exporting, the monopolist still exports since doing so as well as selling at home is more profitable than selling at home alone under our assumptions. *IS and protectionism play a central role in our analysis because the monopolist would go out of business if the domestic market were opened up to imports.* Without protectionist barriers, the IS monopolist will not be able to survive in its domestic market, let alone export.

[Insert Figure 2]

The two light rectangles in Figure 2 above represent the gains to the IS monopolist from exporting. The upper light rectangle represents the additional profits due to the reduction in domestic sales and hence higher price received for each unit sold at home. The lower light rectangle represents the additional profits due to realization of greater economies of scale. Intuitively, since average costs are declining when the monopolist does not export and exporting results in a larger output ($\bar{Q} > Q_a$), exporting reduces the average cost of producing all units. Exporting thus boosts profits in the domestic market for two reasons - higher price and lower average cost.

The two dark rectangles in Figure 2 represent the losses to the IS monopolist from exporting. The upper dark rectangle represents the reduction in profits due to the reduction in the amount sold domestically. The lower dark rectangle reflects our assumption that the monopolist's average cost always exceeds the world price. It is possible that the sum of the light rectangles exceeds the sum of the dark rectangles. In this case, it would pay the monopolist to export even though it incurs a loss on all the units it exports. The underlying reason is that the increase in domestic profits due to exporting more than compensates the losses incurred due to exporting.

3 Concluding Remarks

In this note, we use simple graphical analysis to examine whether exports per se are evidence of the success of an IS trade policy regime. Our analysis indicates that it is possible for an IS industry to export even without the dynamic effects associated with the infant industry argument, according to which a domestic industry protected under IS eventually grows up to become internationally competitive.

In our analysis, the IS monopolist becomes more efficient only in the very limited sense that it moves down a given average cost curve, which remains above the world price everywhere. However, there is no growing up in a more fundamental sense of the infant industry argument – i.e. the IS industry's price becoming competitive with world price. Indeed, in our analysis, the IS industry faces little incentive to grow up.

Therefore, exports per se do not necessarily tell us about whether IS enabled an industry to achieve significant efficiency gains over time. In fact, we showed that protectionism and economies of scale can combine to render exporting profitable for an IS monopolist that inherently cannot compete in world markets. Our analysis provides some grounds for caution in viewing exports as evidence of successful IS.

References

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Figure 1
Monopolist's Optimum
With and Without Exporting

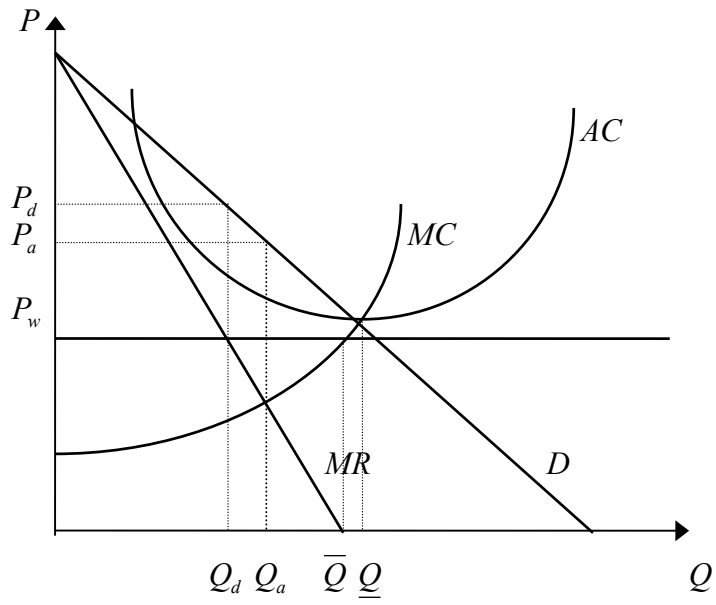


Figure 2
Monopolist's Gains and Losses
From Exporting

