

subsidies is not an argument for the general subsidization of exports. It would not work for most industries and would significantly increase the fiscal burden. The policy would have to be one of targeting particular industries, of "picking winners", which is not easy.¹⁰

- **Strategic Trade Policy and Economies of Scale**

Consider a situation where a firm has some form of advantage of size. The cost of producing an extra unit of output falls as a firm's production rises. The firm may also experience falling incremental cost as it moves down its "learning curve" or due to competition in R&D. Suppose that the Japanese government excludes the U.S. firm completely from the Japanese market by using either a quota or a tariff or procurement by government-owned firms.

To facilitate the illustration, consider Figures 1 and 2 in which the free trade situation in each case is shown by the solid line (or reaction curves). In Figure 1, the Japanese domestic market is initially supplied by a Japanese firm and a foreign U.S. firm. Each firm's reaction curve shows the amount of sales that would maximize its own profit, given the sales of its rival. As we move northwest along the Japanese firm's reaction curve, we observe the response to a larger and larger volume of imports from the U.S.. Japanese sales fall, but by less than the increase in imports. The price falls, as do the profits of the Japanese producer. Equilibrium, given by point E, is at the intersection of the two reaction curves, because only at that point is each firm doing as well as it can, given the strategic behaviour of its rival. Figure 2 shows the export market in the U.S. for the Japanese firm.

Now let the Japanese government impose an import tariff, the simplest and most traditional trade policy tool.¹¹ This raises the delivered cost in the Japanese market for the U.S. firm, and shifts its reaction curve downward as shown by the dotted line in Figure 1. The intersection point shifts to E_1 . But that is not the final equilibrium. Since the Japanese firm's output rises, its incremental cost falls. Similarly, the U.S. firm's marginal cost rises. This has further repercussions on their reaction curves in both markets. The Japanese firm's reaction curve shifts to the right, and that of the U.S. firm downward. These shifts in turn increase the Japanese firm's sales and decrease the U.S. firm's sales in both markets. This further lowers the Japanese firm's incremental cost and raises that of the U.S. firm, causing further output changes, and so on. Since all these changes work in the same direction, the qualitative prediction for the final outcome is unambiguous. The reaction curves after all these changes have worked out are shown by dashed line, and the resulting equilibrium is marked E^* . The Japanese firm has not only reinforced its advantage in the home market, but has also gained in

¹⁰ James A. Brander, "Rationales for Strategic Trade and Industrial Policy", in Paul R. Krugman, ed., *Strategic Trade Policy and the New International Economics*, MA: MIT Press, 1986: 23-46.

¹¹ Paul R. Krugman, "Import Protection as Export Promotion: International Competition in the Presence of Oligopoly and Economies of Scale", in H. Kierzkowski, ed., *Monopolistic Competition and International Trade*, New York: Oxford University Press, 1984.