

# Industrial Policy and Economic Development: Entry restriction as an optimal program for a new industry

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## Abstract

Lucas (1988) recognized that trading new goods is of paramount importance to endogenous growth. At the foundation of the trade pattern in the growing world economy today, there is a basic asymmetry. Developing countries usually find it difficult to start a socially desirable industry, where the entry of one firm may benefit another. The conventional wisdom may regard this as the classical decreasing cost industry of Marshall, where firms interact instantaneously and symmetrically. In those economies that manage to take off, initial restriction on entry often becomes relaxed gradually, inviting the interpretation that in correcting past intervention with current liberalization, it is the vested interest that slows down the progress. The time profile of relaxing restrictions is viewed as a meaningful index of the economic performance, and the optimal program presumably should end in free entry.

We show that all these perceptions *can be* totally wrong. In fact, these are *definitely false*, in the documented recent economic history of Japan, a country that changed its growth prospect by economic policy. The initial difficulty was due to the prospective free riding on the pioneer, and the gradual relaxing of entry constraint is exactly the optimal, feasible policy. For a constructed example, the algorithmic proof of the existence and non-uniqueness of the optimal solution demonstrates that equally optimal paths can coexist, ending with either free entry or perpetual oligopoly.

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