Luciano Boggio

A model of take-off and fast growth in open economies.

This paper - by developing an approach to cumulative causation and growth in open economies due in particular to Kaldor, but to some extent anticipated by Beckerman proposes a stylised (hence partial) explanation of the experience of those economies, which, like the Asian Nics, managed to create an economic take-off, characterised by a rapid expansion of manufactured exports, and to maintain for many years a high and relatively stable rate of growth of the economy. The model is based on three main hypotheses. Firstly, growth rate differences across open economies depend on the different success of each country's firms in competing for (internal and) international market shares. Hence, in Section 2, I build a model, where many firms compete in a large market and each firm plans a growth of capacity equal to the expected growth of demand. The latter depends on its rate of profit, the former on the expected rate of growth of the market and on that of the firm's share of it, as determined by price competition (non-price competition is excluded for the sake of simplicity). Following some earlier contributions of mine, I shall show that differences in growth depend on differences in costs of production. Secondly, cross-country differences in costs of production are amplified over time by a process of cumulative causation. Its formalisation, in Section 3, is a modified version of Beckerman model, which, in particular, incorporates the firm's model of Section 2. As in the original model, the unique equilibrium solution is unstable and the relative price of a competitive country tends to zero, while the growth rate of the economy continues to increase. Thirdly, to avoid the unrealistic feature just described, in Section 4 I introduce what may be called "dynamic decreasing returns": beyond a certain point increasing the rate of growth of the economy gets more and more difficult. These difficulty concerns both the internal organisation of firms and their intersectoral co-ordination (the latter leading to rationing). Moreover, the possibility of making good for bottlenecks and factor shortages is inversely related to the growth rate. The introduction into the model of these "dynamic decreasing returns" generates a second equilibrium point, characterised by a positive relative price, high growth and stability.