Economic Policy in the Presence of Coordination Problems by R.W. Cooper

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The main objective of this paper is to discuss the conduct of economic policy when the choices of individuals are subject to strategic complementarities. The presence of such effects can indeed lead to inefficiencies and in some circumstances to coordination failures. In such a framework, government interventions may be justified.

In most cases, inefficiencies and coordination failures are consequences of the existence of externalities and multiple equilibria. A number of problems then arise:

- The concept of rational expectations is questioned,
- Comparative static exercises are no longer possible.

While policy interventions are supposed to internalize the externalities and to be used as an equilibrium selection device, it becomes difficult to evaluate how they will influence the economic activity.

From a theoretical point of view, models with multiple equilibria are difficult to be confronted to data. As shown in Cooper [5], they may not have testable implications and thus could not be falsified/rejected since they are in most cases based on non observable features. Moreover, economies that generate multiple equilibria are inherently non linear and characterized by a large number of parameters that describe preferences and technologies or that govern the equilibrium beliefs of agents. It follows that a severe problem of identification may appear.

In this paper, the author mostly focusses on static coordination games and illustrates how the design of policy interventions is made more difficult by the presence of strategic complementarities and multiple equilibria. While all the problems previously raised are discussed, he suggests that some kind of policies may however help to select some equilibrium and to increase welfare. In a dynamic setting, the problems appear much more difficult to overcome¹. Consider for instance dynamic models with local indeterminacy of equilibria generated by technological complementarities, i.e. learning-by-doing externalities². The existence of multiple equilibria is based on mechanisms that are not easily observable or estimated. Capital externalities or the influence of education external effects on growth are difficult to evaluate. A huge problem to define precisely an economic policy then arises mainly because of the difficulty to identify the corresponding parameters of fundamentals.

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1. Benhabib and Farmer [3].
2. See for instance Benhabib and Farmer [2], Lucas [7].
In a static framework, the author mentions the possibility of policies based on cheap talk. The government promises to do particular actions but stays inactive at equilibrium though its policy announcement may have real effects by influencing payoffs out of equilibrium. In a dynamic setting, this kind of policy raises the important problems of credibility and time consistency. In presence of multiple equilibria, a government intervention which would not take into account these dimensions could lead to a wrong selection of equilibrium in terms of welfare and economic outcomes.

Finally, it is well-known that local indeterminacy of equilibria is a leading mechanism in generating sunspot equilibria and thus macroeconomic fluctuations based on self-fulfilling expectations. But as shown by Kamihigashi [6], real business cycles and sunspot fluctuations are observationally equivalent so that another identification problem is raised. The author then suggests that this difficulty could be solved by examining the response of the economy to certain forms of government interventions. But again, the existence of multiple equilibria implies that there is no easy procedure to establish a clear correspondence between the policy instruments and the economic variables which are influenced. As pointed out by the author at the end of the paper, in presence of strategic complementarities, the government’s interventions may create multiple equilibria or destroy some of the equilibria so that the stabilizing effects of economic policies are not obvious.

References


3. See for instance Azariadis [1], Cass and Shell [4].