8 Emergence of institutions

Concerning the two main entities forming an economic system, one may say that "at the beginning are the agents, at the beginning are the goods". These entities can be described in physical terms, respectively as structured collections of individuals and as coherent bundles of material (or immaterial) items. But they are rather defined functionally, as centres of decision in the first case, as objects of exchanges in the second case. Even if they may come in or disappear for economic reasons, they are at first sight considered as primitive entities which exist spontaneously.

A third type of entity is frequently introduced, namely institutions, even this hotchpotch concept gathers indistinctly what is not reducible to agents and goods. They are seldom described by their very nature since they exist in a physical as well as psychical form, or most often in a hybrid one. They are essentially defined by their role of mediation between agents, especially in order to help them to face exogenous or endogenous uncertainty. They may be considered as already there, but their emergence is frequently sketched as the result of a combination of agents' actions.

The present chapter analyzes the functional roles and the evolution modes encountered for economic and non economic institutions. In fact, it emphazises a specific type of institution, called a "convention", which acts as a behavior rule able to coordinate the agents (part 1). It examines how different types of conventions may emerge and evolve in order to resolve some game failures (part 2). It considers more precise models of emergence, by a learning or an evolutionary process, of conventions concerned with money, wages or resources (part 3). It suggests some directions for a further study of more complex institutions (part 4).

8.1 Background and problems

8.1.1 Economic theory and institutions

Economic theory introduces various institutions in order to deal with production, exchange and consumption of goods. The central institution is the "market" which confronts the offers and demands of some good and

renders them compatible through a price. Substitutive institutions follow the same aim of regulating the exchanges, but along more or less different procedures: asymmetric auction mechanisms, planning procedures, bilateral negociations. Complementary institutions act as support of the market by framing the exchanges: exchange rights fix legal conditions for exchange, money fluidifies the implementation of exchanges, trust makes possible the bilateral exchange between goods and money when non synchronized. Further institutions frame the global transaction system: technical conventions codify the goods and technologies, moral norms determine the exchangeable goods, property rights fix the owner of the goods.

Several taxonomies of institutions have been proposed in the literature, however introducing fuzzy categories. Structurally, an "organic institution" appears as a human organization while an "epistemic institution" is a mental representation endorsed by all agents. For instance, the state, a central bank, a firm or a syndicate are of the first kind while money, trust, a shared belief or an allocation norm are of the second kind. A "constitutive institution" makes possible a new social activity while a "regulative institution" acts as a mediator in an already existing activity. For instance, a new type of money, an artificial financial market or an original technical language are of the first kind while patents, business contracts or traffic rules are of the second kind. In the following, only epistemic and regulative institutions, which act directly on agents' beliefs and preferences, will be considered. However, firms are studied in chapter 7 and syndicates are treated through a model in section 3.

In economic theory, different schools of thought stressed the basic role of institutions around and outside the market. The "institutionnalists" (Veblen, 1899; Commons, 1934; Mitchell, 1949) remarked that institutions are habits or customs which influence the agents' behaviors and facilitate their expectation. The "cognitivists" (Hayek, 1973) considered that institutions (like markets) produce signals (like prices) which are a good summary for the information needed by agents. The "transaction costs" theory (Williamson, 1975) explained the choice of various coordination modes – market, hierarchy – by the reduction of the transaction costs involved. The "property rights" theory (Coase, 1937, Alchian-Demsetz, 1973) stressed the importance of well-defined property rights when evaluating the efficiency of an economic system. The "regulationists" (Boyer, 2004) explained the heterogeneity of institutions by their adaptation to different places and periods.