

# Understanding the Market Process: The Limits of the Austrian Theory of Knowledge and the Role of Economic Power

Giulio Palermo<sup>#</sup>

**Abstract** In this paper I criticize the positive and normative contents of the theory of convergence of the market process of Hayek and Kirzner. To overcome the limits of this theory, I present a scheme of the process of formation of individual plans that generalizes the implicit scheme of the Austrian authors and that allows to explicitly contemplate economic power. On the basis of such a scheme, I develop an alternative view of the process of convergence (inspired to aspects of institutionalism and Marxism) based on the role of economic power in the market process. My thesis is twofold: (1) if, under general conditions, the market process converges, it is because of the role of economic power, an element absent in the Austrian theory; (2) convergence has nothing to do with the efficiency of *laissez faire* capitalism as claimed the Austrians.

**Key words:** market process, knowledge, economic power, Austrian economics, Marxism, institutionalism.

## INTRODUCTION

In this paper I consider the theory of the market process developed by F.A. Hayek and I.M. Kirzner, two leading figures of the Austrian school. My purpose is (1) to critically discuss its positive contents, (2) to prove its inadequacy to support the Austrian *laissez faire* conclusions and (3) to contribute to define an alternative view of the market process capable to overcome the limits of the Austrian one.

The Austrian normative engagement in favor of free market policies is largely based on the thesis that the market process is *convergent*. Such a thesis plays a twofold role in the Austrian framework, a positive one and a normative one: (1) the specification of the conditions that guarantee the convergence of the market process constitutes the Austrian solution of the problem of making the mechanisms of the market system intelligible; (2) at the same time it constitutes an argument in favor of the desirability of free market.

My analysis of the market process begins in section 1 with a discussion of the positive and normative aspects of the theories of Hayek and Kirzner. In section 2, I point out a number of theoretical drawbacks in these theories, which cast serious doubt on the possibility to derive the thesis of convergence within the Austrian theoretical framework and weaken the internal consistency of the overall framework itself. In order to overcome these problems, in section 3 I introduce a formal scheme of the process of individual plan formation intended to shed light on the mechanisms through which the market process may converge or diverge; the scheme is first used to understand the specific assumptions that lead the Austrians to focus only on the forces of convergence and then to outline an alternative view of the market process capable to overcome the theoretical limits of the Austrian one. The details of the new conception that I propose are presented in section 4, in which I explicitly introduce economic power and discuss its relation with the competitive process. Finally, in

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<sup>#</sup> Researcher, University of Brescia, Italy.

section 5 I analyze the effects of economic power on the forces of convergence and divergence that interact in the market, and, by reconsidering some seminal contributions of Marxist economics and institutional economics, I point out some mechanisms that corroborate the general thesis of convergence.

To put it roughly, I criticize the Austrian analysis of the market process but I basically agree with its general conclusions concerning the thesis of convergence. The different analytical framework that I use to support such a thesis, however, breaks the Austrian link between positive and normative questions: in the framework I propose, the convergence of the market process has no normative implication since it is simply one of the outcomes of the exercise of economic power in the market system.

My conclusion is twofold: (1) if convergence can be derived under general conditions it is indeed because of the role of economic power, an analytical element whose relevance is denied by the Austrian theory; (2) the convergence of the market process has nothing to do with the efficiency-desirability of *laissez faire* capitalism.

## I. THE AUSTRIAN THEORY OF CONVERGENCE OF THE MARKET PROCESS

The problem of convergence of the market process concerns the effects of market interactions on the compatibility of individual plans: the market process is said to be convergent if it generates processes of revision of individual plans that lead to eliminate all the (eventual) incompatibilities among them.<sup>1</sup> At the limit, if the process of convergence is completed, a situation of full compatibility is reached and, unless unexpected changes, the system reaches its final state of equilibrium. According to the Austrian theory, however, the possibility to reach the equilibrium position is only theoretical: in general, before the process of convergence is completed, the data that define the equilibrium position change, moving the gravitation point towards which the system is converging.

### 1.1. Positive aspects of the theory of convergence

In the Austrian framework, the explanation of the convergence of the market process is an attempt to make the market mechanisms intelligible, giving reason of the fact that, notwithstanding the autonomous decentralized decision-making processes that take place in the market system, the latter gives rise to economic processes that relatively ordered and that allow the institutional setting to remain in place.

The thesis of convergence is based on the assumption that individuals, by interacting in the market, modify their plans according to the signals provided by the market in such a way that the existing inconsistencies are progressively eliminated. The theories of Hayek and Kirzner focus on the effects of market interactions on individual knowledge. Their idea is that market interactions by spreading knowledge among individuals allow the latter to formulate plans that are more and more compatible.

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<sup>1</sup> In the Austrian terminology, expressions such as “convergence of knowledge”, “convergence of expectations”, etc. are used to mean that in the market process knowledge, expectation, etc. are modified in such a way to eliminate plans incompatibilities.

Hayek's theory of the market process is developed in his essays on knowledge and competition (Hayek 1937; 1945; 1946; 1978). According to him, knowledge is time and place specific and the potentiality of the market lies in the possibility to exploit such a specificity instead of eliminating it. The convergence of the market process does not imply at all that individuals end up with a common knowledge; on the contrary, it is their different knowledge that allows them to formulate plans that, in the course of the market process, adjust so to eliminate the existing inconsistencies.

Since 1937, Hayek rejects the reference to equilibrium as a benchmark to economic analysis. He sees no use in focusing "on a long-term equilibrium which in an ever changing world can never be reached" (Hayek 1946:101). In Hayek's conception, competition is not a state of affairs, but a knowledge discovery procedure. The fact that the set of knowledge to be discovered through competition is not immutable implies that plans have to continually adapt to this circumstance and must themselves continually change. The engine of this process is the price system, which provides the agents with the signals to adjust their plans. In a way, thus, (disequilibrium) market prices, through the revisions of plans that induce on market participants, are the ultimate reason that keep the market process in motion (Hayek 1978).

In Hayek's conception of the market process, the discovery and diffusion of knowledge plays a coordinating function. The author justifies the existence of a tendency toward equilibrium on the basis of empirical evidence:

It is only with this assertion [the supposed existence of a tendency towards equilibrium] that economics ceases to be an exercise of pure logic and becomes an empirical science; ... In the light of our analysis of the meaning of a state of equilibrium it should be easy to say what is the real content of the assertion that a tendency towards equilibrium exists. It can hardly mean anything but that under certain conditions the knowledge and intentions of the different members of society are supposed to come more and more into agreement .... In this form the assertion of the existence of a tendency towards equilibrium is clearly an empirical proposition, that is, an assertion about what happens in the real world which ought, at least in principle, to be capable of verification.  
(Hayek 1937:44).

The process of convergence is specified in more details in Kirzner's work. Kirzner's objective is to counterbalance the excessive focus of Neoclassical economics on equilibrium by developing an analysis of the process *towards* equilibrium. In this perspective, he develops his theory of *entrepreneurship* and explicitly proposes it as complementary to the general equilibrium theory (Kirzner 1973:1; 1992a:ix).

Entrepreneurship expresses itself through the subjective quality of *alertness*. An alert individual is one that is able to find out unexploited profit opportunities. Profit opportunities consist in price discrepancies in the market and reflect the imperfection of the economic configuration: in a perfectly coordinated world, there is no room for entrepreneurship, since all profit opportunities are, by assumption, already exploited; in a disequilibrium world, on the contrary, dis-coordination is the rule and is a consequence of imperfect knowledge.

Entrepreneurial action, in Kirzner's conception, has a necessarily equilibrating effect because it reduces the initial ignorance of the economy through the discovery and diffusion of new knowledge. Alert entrepreneurs perceive the existing profit opportunities and, by exploiting them, contribute to diffuse the knowledge just discovered to the rest of the system. In this way, the agents can revise their plans on the basis of this new knowledge, moving the system towards equilibrium.

## 1.2. Normative implications of the theory of convergence

The theory of convergence of the market process has direct implications on the normative ground. In normative analysis, the Austrian school rejects firmly the introduction of value judgements. The attempt to avoid value judgements is carried out through the enhancement of the notion of *coordination* to an absolute normative principle.<sup>2</sup> A situation of coordination is a situation in which individuals accomplish their plans. The reason why the coordination of plans constitutes a value-free normative criterion according to the Austrians is that it does not require any interpersonal comparison, but rather respects individual objectives and preferences, whatever they be (Kirzner 1973:212-42; 1976:84-6). Of course, this is not sufficient to value-freedom in a full sense, since the restriction to individual preferences (even without interpersonal comparisons) as a social criterion is itself a value judgement. However, at least within the domain of individual sovereignty normative analysis, the coordination principle can be considered as a value-free criterion.

Through the coordination principle, the positive analysis of the market process has straightforward normative implications, as soon as one notices that the convergence of plans implies the accomplishment of individual preferences, i.e. the social desirability according to the Austrian normative criterion of coordination. In this way, the Austrian conception of the market process as a process in which individual plans converge to their full compatibility, on the one hand is an attempt to make the mechanisms of market system intelligible, and, on the other hand, provides an evaluation of the desirability-efficiency of market system in its different forms.

## II. SOME DRAWBACKS OF THE AUSTRIAN THEORY OF CONVERGENCE

Although the theories of Hayek and Kirzner are clearly intended to support the thesis of convergence, it seems to me that they fall short in different respects.

A first problem was originally raised by G.B. Richardson in the context of the general equilibrium (GE) framework and concerns the necessity of ex ante cooperation mechanisms in order for the model to work. Although the position of Hayek with respect to the GE framework is not unambiguous, the fact that a critique of GE applies also to Kirzner's theory must not surprise at all, since Kirzner himself considers his theory compatible and complementary to the theory of GE.

A second critique that can be raised still concerns the relation between the Austrian theory and the GE framework. In particular, Kirzner's attempt to integrate the GE model with a theory of convergence towards equilibrium seems to ignore the neoclassical results concerning the stability of GE. Moreover, as I will argue, such a problem applies to Hayek as well.

Finally, a third problem has emerged in the internal debate of the Austrian school from the contribution of L.M. Lachmann, the leader of a competing stream within the Austrian school to that of Hayek and Kirzner and considered by some commentators as the most coherent follower of the Austrian tradition (Gloria-Palermo 1999). The problem addressed by Lachmann concerns the role of expectations in the process of convergence of the market process.

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<sup>2</sup> "Modern Austrians have converged on the notion of *coordination* as the key to normative discussion" (Kirzner 1987:11, emphasis in original).

## 2.1. The problem of ex ante cooperation

According to Richardson the market process does not provide individuals with sufficient elements to let them develop decision-making processes compatible with the convergence to equilibrium (nor with its maintenance in case it be, in some way, reached). The problem is particularly relevant for entrepreneurs: Richardson shows that in the GE model there is no condition that guarantee that entrepreneurs have the necessary information to undertake the investments activities:

A profit opportunity which is known by and available to everybody is available to nobody in particular. A situation of general profit potential can be trapped by one entrepreneur only if similar action is not intended by too many others; otherwise excess supply and general losses would result.

(Richardson 1959:233).

The existence of a profit opportunity which is clearly perceived by all the (alert) entrepreneurs is indeed what prevents such an opportunity from being exploited. It is thus precisely the condition of Kirznerian alertness that, in a situation of perfect information, impedes the coordination of entrepreneurial plans. In order for competition to work, it is necessary, Richardson concludes, the existence of *ex ante* cooperation devices able to guarantee the investment activities. The problem raised by Richardson is presented to Kirzner by S. Boehm. This is Kirzner's reaction:

Now, I think this is an interesting special case.... The special case of perfect symmetry certainly creates problems. But ... it is like a friction between one's shoes and the road which makes walking possible. A perfectly smooth road, perfectly smooth shoes would frustrate ambulation entirely. I think something similar is going on here.

(Boehm 1992:102).

Kirzner's answer does not seem to me satisfying. In the case of walking, small imperfections (on the road and the shoes) are sufficient to permit ambulation (to make the *theory of ambulation* correct). On the contrary, in order for the Kirznerian theory of to be correct, small imperfections to the Richardson's case are not sufficient. Imperfections simply make the *Richardson's effect* less overwhelming: instead of a *total dis-coordination* of entrepreneurial decisions, there will be a *partial dis-coordination*, in the sense that entrepreneurs will still make mistakes but probably (and this should be proved) less. Richardson's case, thus, is not restricted to the assumption of perfect symmetry; such a case is simply the one in which the complete absence of ex ante cooperation devices paralyzes economic activities. But the point is that without any form of ex ante cooperation, even with asymmetric information, competition cannot work in the efficient sense assumed by Kirzner. It is for this reason that Richardson considers the two mechanisms of *competition* and *cooperation* both necessary to the working of the market process. Kirzner's theory, on the contrary, considers exclusively the mechanism of competition, and, in this sense, it is Kirzner's theory that is a limit case of Richardson's one, not the other way around. Not only is the model of pure competition a limit case of the model of cooperation and competition, but also such a limit case is inconsistent precisely because of the complete absence of any mechanism of cooperation.<sup>3</sup>

The mechanisms of ex ante cooperation if interpreted from the viewpoint of the pure competitive model appear as imperfections (collusions, forms of monopoly, etc.); without them, however, the competitive mechanism of the market process cannot work. The implications on the

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<sup>3</sup> Only by assuming a situation which is, from the beginning, of full coordination it is possible to define a model of pure competition.

desirability of a pure market system are straightforward: if the price system is the result of the interaction between the mechanisms of cooperation and competition, it loses its property of being an efficient signaling device (Richardson 1990:37). Richardson's critique, thus, although not explicitly addressed to the Austrian theory, knock down the Austrian thesis of the desirability of the market system, which is precisely based on the signaling role of the price system.

## 2.2. The stability of the general equilibrium

A second critique to the theory of convergence of the market process concerns a technical argument related to the question of the stability of the GE. According to Kirzner, the theory of the entrepreneur-arbitrageur is sufficient to guarantee the convergence to the GE:

Consider the simple theorem that predicts a market tendency towards achieving a single price for a given good in a given market.... This tendency obviously rests upon the economist's confidence in the speed and success with which entrepreneurs will pounce upon the pure profit opportunity created by any price discrepancies .... A little reflection must surely convince us that economist's confidence in this powerful tendency supports not only their understanding of this tendency itself, but also ... their confidence in equilibrating tendencies in general, both in the context of the Marshallian single market and in that of the Walrasian system of inter-linked markets.

(Kirzner 1992b:56).

The passage from the Marshallian scheme to the Walrasian one is not obvious at all. The problem of the stability of equilibrium exists in both cases, but it is in the latter that the Neoclassical theory has reached the less encouraging results. This chapter of the research in the GE paradigm is one in which the theoretical debate has come to a dead alley, since, in the words of M. Blaug, the "stability problem has never been solved either rigorously or sloppily" (Blaug 2001:160).<sup>4</sup>

In the passage from a verbal exposition to a formal analysis of the market process, the efficiency of the price system cannot be maintained. The stability problem in the GE model depends precisely on the informational content of the disequilibrium prices. In the case of interdependent markets, besides the problem of elasticities of demand and supply, stability problems arise because the interdependence of markets can produce perverse reactions to the price signals. The only way out is to eliminate perverse cases by mean of ad hoc hypotheses, but this does not solve the problem of plans compatibility, it cancels it.<sup>5</sup>

Starting from such a negative result, the question is: in what way can the Kirznerian theory remedy? Let me consider two possibilities.

- (1) Interacting in the market individuals develop a systemic awareness of the system, understand their unanimous convenience to realize the GE (which they know to be Pareto efficient) and learn how to move the system toward such a situation. To put it differently, each individual learn to solve the GE model and acts in the belief that the others do the same. In this case however the price system has no synthetic signaling property and is thus not efficient in the Austrian sense.
- (2) Market interactions do not lead individuals to any systemic awareness: in this case it is exactly the entrepreneurial attempt to exploit the existing profit opportunities (signaled by disequilibrium prices) that can have disequilibrating effects. The stability problem remains thus open.

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<sup>4</sup> Cf. also Blaug (1997).

<sup>5</sup> For a discussion of the problems of the stability of the GE model, cf. F. Fisher (1976).

In both cases the Kirznerian theory does not solve the problem of the GE stability; on the contrary, it is valid only if the problem of stability is eliminated by assumption.

Let me now show how the (implicit) assumption of the stability of the GE is essential also to Hayek's argumentation. In "The Use of Knowledge in Society" Hayek develops the famous example of the tin:

Assume that somewhere in the world a new opportunity for the use of some raw material, say, tin, has arisen, or that one of the sources of supply of tin has been eliminated.... All that users of tin need to know is that some of the tin they used to consume is now more profitably employed elsewhere and that, in consequence, they must economize tin. There is no need for the great majority of them even to know where the more urgent need has arisen, or in favor of what other needs they ought to husband the supply.... The whole acts as one market, not because any of its members survey the whole field, but because their limited individual fields of vision sufficiently overlap so that through many intermediaries the relevant information is communicated to all.  
(Hayek 1949:85-6).

What matters, according to Hayek is "the knowledge of the particular circumstances of time and place" (Hayek 1949:80) of each agent: it is thanks to it that the system automatically adjusts towards the new equilibrium. What makes possible to carry out such a "marvel" (Hayek 1949:87) is the price system, which communicates the relevant information to all agents and make them "move in the right direction" (Hayek 1949:87).

Differently from the case of Kirzner, Hayek's position in his essays on competition cannot be unambiguously interpreted as complementary to the GE framework. My interpretation is that Hayek's argument has the GE framework on the background, but clearly a number of commentators would disagree with it, considering rather Hayek's approach as competing with the Neoclassical one. But the point is that if this latter interpretation is correct, then Hayek's theory is inadequate because it provides no proof that the adjustments go in the "right direction", nor even it clarifies what should be meant by "right direction", if not "the direction towards equilibrium".

If, on the contrary, Hayek's example is interpreted in the Kirznerian style, it clearly corresponds to the second case I have considered in relation to Kirzner's theory (nobody has a systemic awareness and everybody uses only his own limited knowledge) and it is clearly subject to the same drawbacks of the theory of Kirzner. This interpretation equals to affirm that Hayek implicitly assumes that disequilibrium prices convey the right signals in the process of coordination of individual plans, but this is true only if (1) the economic system originated by the new discovery has an equilibrium solution and (2) if such a solution is stable.<sup>6</sup>

My conclusion is that Hayek's and Kirzner's analyses of the problem of markets interdependence is superficial and this leads them to attribute the price system properties that cannot be claimed by the light of rigorous analytical developments.<sup>7</sup>

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<sup>6</sup> Notice that it is exactly when such conditions are not satisfied that the problem of compatibility of individual plans assumes complex forms such to require an *overall vision* of the economic system. In this case, *the knowledge of the particular circumstances of time and space* not only does not solve the problem of compatibility of plans, but it worsen it.

<sup>7</sup> The unjustified assumption of a tendency towards equilibrium is a problem which concerns also (although for slightly different reasons) the Austrian stream of L. Mises and Rothbard (Cowen and Fink 1985).

### 2.3. The problem of expectations

Lachmann accepts Hayek's idea that theoretical progress in economics is in relation with the extension of subjectivism. However, according to Lachmann, the Austrian school has deepened the subjective analysis of preferences (and knowledge) but has not developed the problem of subjective expectations. It is G.L.S. Shackle who has developed such an issue. Lachmann's project is thus to integrate the Austrian tradition with the Shackle's subjective analysis of expectations (Lachmann 1976a, 1978).

The development of subjectivism is linked to the time dimension: in Lachmann's model, knowledge, expectations and preferences change continually; the dynamics of their change however cannot be predicted precisely because of the radical subjectivist approach:

As soon as we permit time to elapse, we must permit knowledge to change, and knowledge cannot be regarded as a function of anything else.... Expectations must be regarded as autonomous, as autonomous as human preferences are. To be sure, they are modified by experience, but we are unable to postulate any particular mode of change.  
(Lachmann 1976b:127-9).

According to Hayek's and Kirzner's theories, the market process assembles the dispersed knowledge and, at the same time, provides each agent with the relevant knowledge for the formation of his/her plan. However, if the problem of expectations is introduced beside that of knowledge, it becomes clear that Hayek's and Kirzner's theories are not really *theories of convergence of the market process*, but rather *theories of convergence of knowledge*.<sup>8</sup> The point is that with the extension of subjectivism to expectations the convergence of the market process becomes problematic, since it would require also the convergence of expectations.<sup>9</sup>

According to Lachmann the insufficient attention paid by Austrian economists to the subjective analysis of expectations has led them without any reason to neglect the possibility of divergence.<sup>10</sup> Although accepting the analysis of the problem of knowledge developed by Hayek and Kirzner, Lachmann questions in this way the entire convergence of the market process by claiming that it is not possible to assume that market disseminates expectations in the same way that it does with knowledge.

Leaving aside the question whether the radical subjectivist approach to expectations developed by Lachmann is really the most appropriate for the analysis of convergence of the market process, the point here is that the explicit introduction of expectations in the Austrian framework points out that the claim of Hayek and Kirzner of the convergence of the market process is based on the implicit assumption that expectations are convergent.

The conclusion of this section is that in the theoretical framework of Hayek and Kirzner there are not sufficient elements to guarantee the convergence of the market process. Then, the question is: how to

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<sup>8</sup> In the next section I will question also the possibility to interpret such theories in the minimal sense of theories of convergence of knowledge.

<sup>9</sup> I remember the reader that by "convergence of knowledge" and "convergence of expectations", the Austrians mean that in the course of the market process knowledge and expectation are modified in such a way to eliminate plans incompatibilities.

<sup>10</sup> "Professor Hayek dealt with expectations, ... but not with the causes and consequences of their divergence. In fact, expectations were ... regarded as being of analytical interest only to the extent to which they converge" (Lachmann 1976a:59).

make intelligible the working of the market system which, notwithstanding the possibility of divergence, doesn't seem to be close to its final collapse?

### III. THE PROCESS OF FORMATION OF INDIVIDUAL PLANS

In order to determine the conditions for the market process to converge, consider the following scheme of the process of formation of individual plans.

- Figure 1 (See at the end of the manuscript).

- Individual *knowledge* is determined by the information available to each individual and the way it is processed (i.e. by the interpretative models); such a definition implies that the same objective information may generate different individual knowledge according to the circumstances and the subjective interpretative models.<sup>11</sup> To be clear, information is here defined as the actual course of events and states of affairs, which is as it is independently from it being perceived by some human agents. These events and states of affairs may or may not be known by different agents (symmetric / asymmetric information), but the fact that they exist determines a number of material constraints to the decision-making set of each agent independently from the fact that agents know about them. But, even more importantly, events and states of affairs may be differently interpreted by different agents producing different subjective knowledge.
- *Expectations*, as stressed by Lachmann, besides information and interpretative models depend on imagination.
- Individual *objectives*, besides the three elements considered, depends on individual preferences.

On the basis of their knowledge, expectations and objectives, individuals formulate their plans and, on the basis of such plans, they interact in the market. Market interaction, in turn, induces revisions of plans by modifying (some of) the elements from which individuals derive their knowledge, expectations and objectives.

#### 3.1. The nature of the drawbacks of the Austrian theory of convergence

The scheme proposed can be used to decompose the problem of convergence of the market process into three sub-problems concerning respectively the convergence of knowledge, expectations and objectives. This decomposition of the problem of convergence allows us to grasp the specificity of the Hayekian and Kirznerian theories and to make explicit their implicit assumptions.

- (1) The theory of convergence of the market process of Hayek and Kirzner does not take into account the problem of convergence of expectation and objectives; at best it can thus be a theory of convergence of knowledge.

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<sup>11</sup> According to Hayek and Kirzner, the problem of knowledge concerns also individual preferences: preferences are *given*, but not (completely) *known*, and it is market interaction that leads individuals to discover them. Individual preferences thus interact with information and interpretative models in the process of knowledge (1) by guiding the whole process and (2) by being themselves the object of knowledge discovery.

- (2) However, the theory of convergence of knowledge does not take into account the problem of convergence of interpretative models (and values); at best it can thus be a theory of convergence of information.
- (3) Finally, the theory of convergence of information does not take into account the distinction between evolution of material constraints and evolution of asymmetric information, a distinction that, as I will show in a while, is crucial for the analysis of convergence of the market process; at best it can thus be a theory of evolution of asymmetric information.

It is only with these qualifications that Hayek's and Kirzner's theories can contribute to the shed light on the mechanisms of the market process. So, let me consider the three problems in more details.

- (1) The difference between Hayek and Kirzner on the one hand and Lachmann on the other is manifested at the level *B*: Lachmann discusses explicitly the problem of expectations which Hayek and Kirzner (implicitly) consider as solved. The problem, however, is at the level *A*: Lachmann's analysis shows indeed that the impossibility to assert, under general conditions, the convergence of expectations derives from the role of imagination as an autonomous element of subjective change.
- (2) The investigation of the level *A* allows us also to better specify the assumptions that are necessary to affirm the convergence of knowledge. In particular the Kirznerian theory of convergence of knowledge is ultimately a theory of convergence of information, since the convergence of interpretative models is, in fact, assumed, not derived by the analysis of the properties of the market process. Hayek's position is more articulated: on the one hand he writes that the explanation of conscious action is a task for psychology but not for economics (or any other social science), what seems to deny the relevance of the problem of convergence of interpretative models in the discussion of the convergence of the market process (Hayek 1949:67); on the other hand, however, he provides important contributions to the analysis of interpretative models by developing precisely research lines closer to psychology than to economics (Hayek 1952). The problem, as noted by G.M. Hodgson, is that Hayek refuses to provide a link between the two lines of investigation and this prevents him from integrating his analysis of interpretative models into the theory of the market process (Hodgson 1988:60-1).<sup>12</sup> The consequences of the lack of an economic theory of the relations between the evolution of interpretative models and the convergence of information are clearly visible in Lachmann: the author indeed maintains a radical subjectivist position not only as concerns imagination but also as concerns interpretative models and this position leads him to consider also expectations (besides preferences and knowledge) as exogenous. This means that even accepting the Hayekian theory of information, there are not sufficient elements to derive the convergence of knowledge unless an appropriate theory of interpretative models is developed.
- (3) But even the Austrian discussion of the problem of information is ambiguous, since the question of asymmetric information is dealt with together with the question of the evolution of material constraints. So let me go back to the definition of information and the concept of decision-making set. The decision-making set of each market participants defines the objective constraints that he faces in his decision-making process. These constraints can be of two different type: on

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<sup>12</sup> The establishment of a relation between market interactions and the evolution of interpretative models would have heavily weakened the Hayekian defense of the market: if interpretative models are at least partly a product of the market process, then the sovereign appraisals of the effects of the market process (individuals) are themselves products of the market process, which casts doubts on their effective sovereignty.

the one hand, the decision-making set of an agent is restricted to the set of possible action that he knows about (constraints deriving by imperfect and/or asymmetric information); on the other hand the decision making set of an agent is restricted by what I have previously called material constraints. The constraints of the first group restrict the agent's possible actions to the sub-set that he is effectively aware of (or, better, to the sub-set that he perceive as possible), those of the second group, on the contrary, operate also in case of perfect and symmetric information and depend mainly on the institutional system (in the strict field of economics the budget constraints is surely the constraint *par excellence* and depends primarily on the existing system of property rights).

The point is that in the theories of Hayek and Kirzner there is no specific discussion of the mechanisms through which the market process determines the evolution of the material constraints of the different agents. In this way, by discussing the problem of knowledge without any distinction between the problem of evolution of asymmetric information and the problem of evolution of material constraints they give the false impression that if plans become compatible in the course of the market process it is just because agents discover the relevant knowledge, whereas, at least in principle, plans may become compatible also because in the course of the market process (some) agents must cope with more and more binding material constraints.

This means that Hayek's and Kirzner's theories can at best contribute to explain the process of discovery of information, *given* the material constraints, but cannot explain the evolution of individuals' material constraints in the course of the market process.

Besides the problems of knowledge and expectations, the scheme of the process of formation of individual plans shows that a third problem takes place at the level *B*: the problem of definition of individual objectives. In the Austrian theory such a problem is supposed to be solved by the definition of given preferences: it is not denied that individuals' objectives may be influenced by factors such as institutions and culture; however, the basic attempt consists of explaining even institutions and culture as products of purposeful individuals. Such an attempt is at the center of controversies, since it has been noted that if it is recognized the existence of a mutual causation between individuals and institutional context, neither individual, nor social factors should be given absolute explanatory primacy.<sup>13</sup> Independently from such controversies, the explicit specification of the process of definition of objectives clarifies the implicit assumptions of the theory of Hayek and Kirzner: in order to establish a stable relation between preferences and objectives Hayek and Kirzner implicitly assume that information, interpretative models and imagination are stable and non-problematic elements of the process of definition of individual objectives.

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<sup>13</sup> One of the central elements that has given rise to such a controversy is the theory of group selection through which Hayek (1967) discusses institutional and cultural evolution. Such a theory, in fact, breaks the strict methodological individualism of Hayek's theory of the market process. Within the Austrian framework, attempts to build a theory of cultural evolution entirely compatible with the assumptions of methodological individualism are developed by V. Vanberg (1986) and U. Witt (1993; 1994) who explicitly take the distance from Hayek's theory of group selection. According to Hodgson (1991; 1993) however the problem is a deeper one, since the tension between methodological individualism and the theory of cultural evolution arises from the impossibility itself to develop an evolutionary theory on the basis of a strict methodological individualism.

### 3.2. An alternative view of the market process

In the view of the market process that I propose all the basic elements of the process of formation of individual plans are endogenous. Evidently, the idea of endogenizing interpretative models and individual preferences (or, more generally, social values) is incompatible with the rules of methodological individualism. This is not a problem, since I am now explicitly out of the Austrian framework: since here onwards, I do not develop any other internal criticism of the theories of Hayek and Kirzner and I develop the scheme of the process of formation of individual plans in such a way to overcome the limits just outlined. In this sense the critiques that I will address in this second part of the paper are necessarily external.

The causal relation between individual action and social interaction that I propose is a mutual and cumulative one: (1) individuals define their actions on the basis of the four elements of the process of formation of individual plans and (2) such elements are, in turn, (possibly) modified by the social interaction.

The definition of a mutual and cumulative relation between individual action and social interaction leads to modify the whole logic of the problem of convergence of the market process: the logic underlying the problem of convergence is that keeping some initial conditions (individual preferences, imagination and perhaps interpretative models) unchanged, it is possible to analyze the eventual convergence of the market process to a final state of affair (in which, according to the Austrian theory, plans are compatible). The focus is thus on the point of arrival of the process.<sup>14</sup> On the contrary, the endogenization of all the elements of the process of formation of individual plans leads to focus on the features of the process itself, not on its hypothetical point of arrival. It is thus in terms of the regularities of the economic processes that take place in the market system that the problem of explaining the relative order of capitalism is defined.

By taking the process as the object of the inquiry, instead of on its final point of convergence, my objective is to provide an interpretation of the market process which can give account in a unitary way (1) of the potentiality of the market system to reproduce itself and (2) of the continuous qualitative changes that take place in it. The details of this alternative interpretation cannot be discussed here because I must first explicitly introduce economic power in the theoretical framework. Here however I want to clarify the consequences of this change of perspective.

The Austrian problem of *convergence* (to a final point) is redefined as a problem of *regular dynamics* of the market process. In this new definition of the problem, the relative order observed in reality is interpreted in terms of the regular dynamics emerging by market interactions and has nothing to do with the assumption of increasing compatibility of individual plans.

In this way the Austrian ambiguity about the positive and normative contents of the theory of convergence can be eliminated. The conditions that guarantee a regular working of the market process have indeed no direct normative implications. If the problem is a positive one, the regular dynamics of the market system have to be analyzed by discussing the ability of the capitalist institutions to reproduce themselves and evolve through market interactions, changing their quantitative and qualitative relations but maintaining unchanged the foundations of the capitalist mode of production.<sup>15</sup> If, on the contrary, the problem is a normative one, the analysis of the mechanisms

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<sup>14</sup> The assumption that data (in particular information and imagination) can change during the process does not modify the substance of the problem (the final point of the process), since it is denied the possibility to investigate the economic causes of these changes.

<sup>15</sup> This leads to redefine the problem of preferences with respect to the Austrian approach. From the positive viewpoint, the *problem of preferences* is not to determine whether individuals have access in the course of the market process to higher and higher utility levels as it is assumed by the Austrian theory, but rather to

of the market system that produce regular or irregular dynamics must be completed by an appraisal analysis in which the subject appraiser and the value judgement used must be made explicit.

#### IV. THE FRAMEWORK OF COMPETITION, COOPERATION AND ECONOMIC POWER

The new conception of the market process that I am elaborating is based on the introduction of economic power in the theoretical framework. As well known, the concept of economic power is totally absent in the theories of Hayek and Kirzner, who identify the market process with a competitive process and assume that competition has nothing to do with economic power. As Hayek put it: “It is, as Adam Smith already understood, as if we had agreed to play a game, partly of skill and partly of chance” (Hayek 1978:186).

A second radical deviation from the Austrian framework regards the explicit introduction of the mechanism of *ex ante* cooperation beside that of competition. As we have seen, indeed, a model of the market process based uniquely on the mechanism of competition cannot work without the existence of some form of *ex ante* cooperation.

In order to provide precise definitions of the mechanisms of cooperation and competition, let me reconsider the Austrian conception of competition. Hayek and Kirzner consider the mechanism of competition as universal and unique. Such a mechanism, in the Austrian framework, works *ex post* in the sense that it is the real manifestation of its (partial) failure that generates processes of revisions of individual plans that (eventually) tend to eliminate the existing incompatibilities. I thus define the mechanism of *ex post competition* as a mechanism through which plans incompatibilities are eliminated (to the extent that the mechanism is effective) through the real manifestation of individual rivalries, without any individual intentionally working for such a purpose.

As we have seen, such a mechanism is not in general sufficient to explain the working of the market system without the introduction of the mechanism of *ex ante* cooperation. The mechanism of *ex ante cooperation* can be defined as the mechanism through which a number of agents (at the limit a single coordinator) intentionally intervenes on the process of formation of individual plans in order to manage (or to eliminate) the incompatibility of individual plans before such an incompatibility manifests itself in the process of social interaction.

With these definitions, the problem of the intelligibility of the market process can be studied by analyzing the interaction of the two mechanisms of *ex ante* cooperation and *ex post* competition. In this sense, the existence in real economic systems of a number of institutions that have precisely the task of *ex ante* cooperation is already a first explanation of the relatively ordered functioning of the market.

The point I wish to stress now is that the working of the mechanisms of cooperation and competition cannot be understood without specifying the economic power structure of the system. I define *economic power* as the ability of one person (or group of persons) to use economic instruments to deliberately generate results even (but not necessarily) against the willingness of others.<sup>16</sup> Let us see why the specification of the existing economic power relations is necessary to determine the working of the mechanisms of cooperation and competition.

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determine how preferences (and needs) evolve as the *effect* of the market process, producing regular or irregular dynamics in the working of the market process itself.

<sup>16</sup> Such a definition takes inspiration from K.W. Rothschild (1994).

#### 4.1. Cooperation and economic power

Cooperation works *ex ante*, as an attempt to reconcile the conflicting objectives before the interaction takes place. The cooperative mechanism does not reconcile at all the incompatible plans, it leads the agent to modify their plans until an eventual cooperative solution is reached. The extent to which one particular agent or the other modifies his original plan and the particular modifications introduced in the plans depend on the power structure within which agents decide and interact.

Coordination through *ex ante* cooperation can happen because one agent is in position to *suggest* to the others how to formulate their plans, or because he has some control of the *constraints* within which the other agents formulate their plans (or, more precisely, he can influence what the other agents *perceive* as constraints), or, as a limit case, because he is able to restrict to just one option the decision-making set of the other agents (which means that in fact he can *order* other agents what to do).<sup>17</sup> This is to say that the working of the mechanism of *ex ante* cooperation can be analyzed only by specifying the power relations in the economy.

#### 4.2. Competition and economic power

Competition works *ex post*, reconciling the conflicting objectives through the process social interaction. As for the cooperative mechanism, competitive interaction does not reconcile at all the incompatible plans, but produces a configuration in which one or more agents do not realize their objectives. The extent to which one particular agent or the other reaches his original objectives depends again on the power structure within which agents interact.

Coordination through *ex post* competition can only happen because in the process of social interaction some agents may be put out of the process of social interaction (they die, or they go out from the social system). However, it is obvious that if plans were not compatible from the outset, they will not be reconciled as a simple effect of competition: what competition can do is to induce plans revisions that (may) eliminate some of the existing incompatibilities, but this can happen only because the competitive mechanism *prevents* people from fully realizing their plans.

When people are prevented from realizing their plans, the social outcome is not chaos, as the Austrians implicitly assume. The degree of order of the social outcome depends on two factors: (1) the power relations among the agents involved (the more economic power is concentrated, the more the social outcome reflects the plans of a small number of agents), and (2) the degree of compatibility of their plans (the more the plans of agents are compatible, the more the social outcome is ordered).<sup>18</sup> To put it another way, the problem of the mutual compatibility of individual plans can be defined only once the agents that matter (and the extent to which they matter) has been defined. Without discussing the existing economic power relations, the effects of the working of the

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<sup>17</sup> Orders can be seen as a limit case of a particular power structure in the economy, such that one agent has such a control of the material constraints of another agent that the latter remain with just one feasible option.

<sup>18</sup> The observation that competitive economic systems (sometimes) produce ordered outcomes does not imply that the plans of the agents are, in fact, compatible, but can be explained as a consequence of the concentration of economic power in society. At the limit, if all the economic power is in the hands of one person, the plans of the other agents become irrelevant, and to say that the social outcome is an ordered one is simply to say that the plan of the powerful man is internally consistent. Dictatorships are famous for their order, but this does not mean that agents of such regimes realize their objectives.

mechanism of competition are completely unpredictable; on the contrary, the results of competitive interactions can be explained and interpreted if the existing power structure is appropriately understood.<sup>19</sup> Also in this case, then, the working of the mechanism of competition can be analyzed only by specifying the power relations in the system.

#### 4.3. Competition, cooperation and economic power

The working of the mechanisms of cooperation and competition within a given structure of economic power and the evolution of the structure of economic power during the market process define what I will call the framework of competition, cooperation and economic power. This framework is defined on two important assumptions.

First, the existing structure of economic power relations influences all the basic elements of the process of formation of individual plans. This implies that the conception of economic power is a broad one, in the sense that the exercise of power must not necessarily pass through the imposition of orders or the threat of retaliations (as is assumed in what Lukes calls the one-dimensional view of power), but can also pass through the influence exercised on the subjective systems of values and the interpretative models with which individuals interpret the world and take their decisions (Lukes's three-dimensional view of power) (Lukes 1974).

Second, the power structure of the economy is itself the product of social interaction. Not only does economic power influence the results of social interaction (by influencing the objective and subjective elements of the individual decision-making process), but also it is influenced by it: the initial structure of economic power influences the interaction among individuals, which, in turn, modifies the structure of economic power. There is thus a cumulative process between economic power and social interactions: economic power → social interaction → economic power.

At a given point in time, however, the structure of economic power is considered as given, and it is within this structure that the mechanisms of competition and cooperation operate. In the case of *ex ante* cooperation, economic power defines the relative strength of the parties in the coordination process that takes place before the social interaction; in the case of *ex post* competition, economic power establishes (*ex post*) who is the winner in the interaction of agents with incompatible plans. In any case, however, there is no reason to assume that these mechanisms should be effective from the viewpoint of the process of coordination of individual plans. As we have seen indeed, in this new perspective, the solution of the positive problem does not presuppose the convergence of the market process in the Austrian sense, but the determination of the mechanisms that allow the system to reproduce its economic structure and to continually regenerate the market processes.

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<sup>19</sup> When, in 1992, the financier George Soros and I had incompatible plans about the role of the Italian lira and the British pound in the E.M.S. (he thinking that this role had come to an end, and I thinking that this role would have last forever), the social outcome has been the exit of the two currencies from the E.M.S. The reason why Soros realized his plan and I did not realize mine was not that he was a better forecaster than me, but that his economic power was incomparably greater than mine.

## V. THE ROLE OF ECONOMIC POWER IN THE PROCESS OF CONVERGENCE

The framework of competition, cooperation and economic power can be used to shed light on the problem of convergence of the market process. The general thesis of Hayek and Kirzner is that unhampered competition is sufficient to diffuse and assemble the dispersed knowledge of decentralized individuals in such a way to guarantee the convergence of plans. Such a thesis, interpreted in the framework of competition, cooperation and economic power, presents three major problems: (1) it does not contemplate the mechanism of cooperation; (2) the analysis of the mechanism of competition is mis-specified (for it does not specify the existing power relations); (3) information is the only element which is considered endogenous (with the further limit that informational constraints and material constraints are not separately discussed).

In order to overcome these problems, my proposal is to develop a systematic analysis of the effects of economic power on all<sup>20</sup> the basic elements of the process of formation of individual plans. Of course, this is not the place to develop such an ambitious research project. However, it should also be noted that if we look out of the Austrian theory, we find a large number of contributions that go precisely in this direction. In what follows, thus, I will not try to provide any original contribution to the analysis of the ways in which economic power affects the working of the market process; instead I will sketchily present the theoretical contributions that, in my view, are better equipped to fill the gaps of the framework of competition, cooperation and economic power, pointing out their implications as far as the problem of convergence is concerned.

### 5.1. Information

Considering the two kinds of *informational constraints* deriving by imperfect information and material conditions, there are two channels through which the evolution of the structure of economic power influences the information set: (1) through the creation (and the elimination) of informational asymmetries and (2) through the evolution of the material conditions that define the individual decision-making sets. The first channel is largely studied by the institutionalist school and, partly, by the neoclassical one. Interesting contributions to the analysis of the second channel can be found in the Marxist tradition.

In the neoclassical approach the analysis of economic power is developed with reference to its manifestations on the equilibrium positions. Economic power is thus meant in a narrow sense making it coincide with *market power*. Within this conception, the exercise of power is conceived as a discrepancy between the actual market price and the theoretical perfectly competitive one. Moreover, as in general market power is on the side of the seller, market power tends to be identified with the ability of some producers to fix a price higher than the marginal cost (cf. Stevenson 1994). In the symmetrical case, buyer's power is the ability to fix a price lower than the marginal benefit. An explicit analysis of the (market) power relations within the Walrasian framework is developed by S. Bowles and H. Gintis (1988; 1993a; 1993b; 1993c; 1994). Their analysis points out that the Walrasian microeconomics of information, the transaction costs theory and the principal-agent theory present a market system based on power relations. This result is the consequence of the fact that, out of the perfect world of Arrow-Debreu, Walrasian competitive equilibria do not generally imply market clearing conditions, putting power in the hands of the short side of the

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<sup>20</sup> The only element that perhaps might be left aside is imagination, for, as far as I know, there is no systematic economic analysis about its relations with the market process.

transaction.<sup>21</sup> In the context of the market process, however, the analysis of the manifestation of economic power on equilibrium positions is useful only as a theoretical benchmark, since the market process is essentially a disequilibrium process.

In the institutionalist approach economic power is discussed dynamically out of the equilibrium context. Economic power is seen as a self-reinforcing phenomenon: it originates in the institutional context and the interdependence between the economic system and the institutional one is the basis of the cumulative nature of its dynamics. The failure of the conditions for perfect competition is only a manifestation of the cumulative evolution of economic power. The access to privileged informational channels is not an exogenous datum of the problem, but the result of a process that involves different spheres beside the strictly economic one, and that can be grasped only by historical investigation. Moreover, the effects of economic power positions stemming from informational advantages do not exhaust, like in the neoclassical theory, in the ability to impose a price different from the perfectly competitive one as a solution to a static optimization problem. On the contrary the issue at stake concerns the possibility to determine the evolution itself of the information set (for instance through the choice of particular technological trajectories, the influence on the relations between industry and research institutions, etc.) and to reinforce in this way one's own power position.

The role of material conditions as source and effects of the distribution of economic power is well studied by Marx (1976; 1978; 1981). Although Marx's theory is not based on the concept of power, in my opinion economic power (if conceptualized in the broad sense that I am proposing) constitutes a fundamental aspect of his theory.<sup>22</sup> Let us see why. Material factors define the systems of objective constraints that individuals face. The qualitative and quantitative features of these constraints are one essential element of the definition of social classes. Of course, the historical determination of a class structure in the economy is a complex issue that goes well beyond the simple definition of its materialistic component. In Marx's work, although the "history of mankind is a history of class struggle" (Marx and Engels 1987), one cannot surely find the blueprints for the definition of classes in Marx's work, the problem being necessarily one of concrete historical determination. In any case, however, property (and, in particular, property of the means of production) is, according to Marx, the essential material factor in the definition of classes. Property defines the form of participation of the individual to the process of social interaction; it is a form of economic power since it allows its holders to obtain determinate results (profit being a fundamental one) in the interaction with other individuals (or classes). Economic power is, in this sense, a pervasive element of capitalist relations since capitalism is, by definition, based on private property of the means of production. Economic power relations acts at a deep level of social relations: the problem is not the lack of competition on one of the side of market transactions; economic power relations exist also where the assumptions of perfect competition hold.<sup>23</sup> Marx shows indeed that the exploitative *essence* of capitalist social relations (determined by the economic power structure of the capitalist mode of production) is compatible with the *appearance* of perfect competition in the sphere of exchange. The ability to form coalitions and/or to oppose resistance in the confrontation between the

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<sup>21</sup> Bowles's and Gintis's definition of power is the ability to influence the behavior of individuals through the threat of economic sanctions. Such a definition is clearly narrower than mine, since (1) it is confined to equilibria position and (2) it is based on the rational agent assumption (which cancels out the process of formation of individual preferences and interpretative models).

<sup>22</sup> I have defended this position in Palermo (2000).

<sup>23</sup> At a general level, although with the due remarks, this conception is largely shared by J.R. Commons who stresses that even in transactions between legal equals (bargaining transactions) there is room for the exercise of economic power (Commons 1934).

parties can influence the social structure of economic power relations but cannot change the basic asymmetry of capitalism as far as the distribution of economic power between social classes is concerned.

The (necessary) asymmetrical distribution of economic power produces cumulative effects. Such effects change both the power relations between classes and the distribution of power within each class. The fact that factors of different nature (economic, social, juridical and political) interact in the evolution of the power structure surely makes the matter complex, but does not prevent Marx from discussing the general phenomena that such an evolution produces (capital concentration, monopoly, pauperization, alienation, exploitation, etc.).

What does all this mean for the problem of convergence of the market process? The (perhaps obvious) point is that individual plans are formulated under material constraints and the definition itself of individual objectives depends on such constraints: at the limit, to say that in equilibrium plans are fully compatible may simply mean that the material constraints become so binding in the course of the market process that individuals do not even try to pursue some objectives.<sup>24</sup> But then, the compatibility of plans is simply a wrong question with respect to both positive and normative problems: (1) on the positive ground, there is no reason to exclude that the market system can function and reproduce itself notwithstanding plans incompatibilities; (2) on the normative ground, there is no reason to assume the equation *plans compatibility* « *social desirability*, if the question of constraints is left in the shadow.

Furthermore, if the cumulative nature of economic power is accepted, then the problem of constraints should be posed dynamically, considering the forces that, *through* the market process, modify the social structure of individual decision-making sets. In such a view, the reinforcing feature of economic power relations might play a decisive role in the positive analysis of the problem of convergence of the market process: the analysis of the objective forces that influence the evolution of material and informational constraints of different individuals and classes is necessary (although not sufficient) to explain both the general stability of capitalist social relations and the continuous quantitative and qualitative changes of such relations in the evolution of the market system.

## 5.2. Interpretative models and systems of values

In the Austrian theory individual choice is considered as a purely subjective phenomenon. The assumption that preferences are given and that their (exogenous) change is a process entirely internal to the individual, not a social one, impedes any economic analysis of the process of definition of individual objectives.<sup>25</sup> The economic schools that most have discussed the relations between social interaction and individual choice are again the institutionalist and the Marxist ones.<sup>26</sup>

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<sup>24</sup> Notice, on the other hand, that if the problem of plans compatibility is defined abstracting from the existing constraints, the thesis of convergence is at best *naïve*: if both G. Soros and I want to use his luxury cars, yachts and apartments as a result of our identical preferences, our plans will never become compatible; if they are compatible in reality, it is only because in the definition of my plan I take account of the social protection of Soros's properties.

<sup>25</sup> Such a radical assumption about the impossibility to investigate one of the basic elements of the process of formation of individual plans (preferences) would lead Hayek and Kirzner to nihilist conclusions if referred to any of the other three basic elements (Lachmann's problem of nihilism may indeed be interpreted as a consequence of his explicit discussion of imagination as an exogenous element). On the contrary thanks to the particular definition of the problem of the market process (in terms of convergence towards the full accomplishment of individual *preferences*) Hayek and Kirzner can avoid nihilism. In this way, however, they

According to institutionalists, individual cognitive processes are influenced, though not completely determined, by the institutional context, culture, conventions and, in general, the social environment defining the framework within which individuals choose. These environmental factors act both on the values that individuals perceive as their own and on the interpretative models through which they form their knowledge of the external world. Knowledge does not emerge automatically from the information set; it depends also on the particular interpretative models through which data are conceptualized, ordered and elaborated. The existing interpretative models, in turn, enter in touch with each other in the social environment, competing with each other on the basis of their explanatory capacity, their attractive force, habit factors, routines, inertia, etc. Interpretative models and culturally affirmed values are thus, on the one hand, the product of human action and, on the other, the social reference within which individual cognitive processes are shaped (Hodgson 1994). In this way, institutionalists establish a cumulative relation between internal and external elements of the individual decision-making process, leaving room for the analysis of free subjective choice and specifying, at the same time, the social (objective) factors that influence the subjective elements of decision-making.

A classic reference is T.B. Veblen's analysis of the social motivation of consumption (Veblen 1899). According to Veblen consumption is not a purely individual phenomenon determined by given preferences, but a social phenomenon through which individuals show their richness, reveal their status and emulate the patterns of consumption of other people. As concerns the specific problem of convergence of the market process, W.M. Dugger's analysis of the evolution of the relations among the institutions of capitalism seems also particularly relevant (Dugger 1989). He identifies two historical evolution patterns, one towards a model of pluralistic relations, the other towards a model characterized by the hegemony of one institution: in a pluralist system no institution culturally dominates the others; in a hegemonic system instead one particular institution imposes its culture and values on the others. In hegemonic systems individuals rarely face deep conflicts that lead to question their own values and interpretation of reality and this constitutes a stability element on the dynamics of the market process.

Let me now briefly discuss the Marxian approach to the analysis of interpretative models and values. The well-known contribution of Marx to the analysis of interpretative models and systems of value as endogenous variables is the theory of historical materialism (Marx 1970:preface). According to Marx, the structure of material relations of production --which defines the decision-making sets of individuals and is thus part of what I have called the information set-- is the most important (but not the only) determinant of the political, cultural and ideological superstructures which determine individual values and interpretative models. It is useless to remind that such a theory has been at the center of many controversies (arisen more as a result of particular interpretations of his work than as a result of his own contribution). Leaving apart some mechanistic interpretations, the point that seems to me promising is that Marx's theory does not deny at all the free will of individual, but, at the same time, raises the scientific problem of the social factors that contribute to shape it. Individual goals are

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also renounce to economically explain the dynamics of capitalism, since at best they can reduce all economic processes to the process of change of preferences, the latter being unexplainable.

<sup>26</sup> Although the question of the compatibility between Marxism and institutionalism is articulated, I think that, as concerns the problem of the relations between objective and subjective factors of individual choice, the contributions of the two schools are basically consistent: by stressing different aspects of the relation between individual choice and its social determinants they both establish a link between individual cognitive processes and institutional environment. Of course the specific contents of the theories developed by the two schools of thought differ in many respects. However, for the purpose of my proposal I do not need to push further the integration of the two approaches.

defined autonomously and deliberately according to individual consciousness. Human consciousness however is necessarily also a social product, for it is formed under the influence of the existing institutions, the education system, the specific culture and the socially dominant values, all factors that, in turn, depend to different extents on the relations of production.<sup>27</sup>

The relation between the relations of production and the superstructures that influence human consciousness is not unidirectional but dialectical: the structure of production relations determine the ideological and political superstructures, but the latter influence the former through political initiative and social interaction.

The implication for the intelligibility of the market process are straightforward. First, the evolution of interpretative models and systems of values is an essential element of the evolution of the market system and, second, it interacts dialectically with the other elements of the process of formation of individual plans, in particular with the dynamics of information. The decomposition itself of the process of formation of plans into three separate sub-problems --(1) process of determination of knowledge, (2) process of formation of expectations and (3) process of definition of objectives-- is then acceptable only as preliminary investigation; in order to explain the regularities of the dynamics of the market system, the analysis of the relations among the three processes is also necessary. In such a view of the market process, it is the investigation of the cumulative relations that take place within the process of formation of individual plans and between such a process and the process of social interaction that can render the mechanisms of the market system intelligible.

## CONCLUDING REMARKS

The discussion of the market process within the Austrian framework leads to question the Hayekian and Kirznerian thesis of its general convergence. Three orders of critiques (concerning respectively the problem of ex ante cooperation, the implicit assumption of GE's stability and the problem of expectations) have been considered to demonstrate the inconsistency of the Austrian thesis of convergence.

The theories of Hayek and Kirzner are subject to ambiguous interpretations since they involve at the same time positive and normative instances. If the positive and normative aspects are separated, the positive problem can be specified as consisting of making the mechanisms of the market system intelligible. Such a problem is stated by Kirzner in the following terms: "Markets do work. They work so obviously well that our scientific curiosity is aroused to seek understanding of the counter-intuitive phenomenon of this success" (Kirzner 1992b:60).

If such propositions are interpreted in pure positive terms,<sup>28</sup> it seems to me that it is precisely the empirical observation that *markets do work* that leads to pose the intelligibility problem looking

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<sup>27</sup> Marx writes: "In the social production of their life, men enter into definite relations that are indispensable and independent of their will .... The mode of production of material life conditions the social, political and intellectual life process in general. It is not the consciousness of men that determines their being, but, on the contrary, their social being that determines their consciousness" Marx (1970:preface).

<sup>28</sup> If, on the contrary, the proposition express an appraisal of the market system according to the Austrian normative principle of coordination, it is simply false and contradictory, since many people considers the market system inadequate to satisfy their needs and preferences, and the fact itself that for someone markets *do* work and for someone else they *do not* work, implies that they *do not* work (according to Austrian coordination principle).

for the forces of convergence. If however we try to specify in more details the empirical observation that arises Kirzner's and our curiosity we find out a more complex reality. The problem is not to understand why markets *do* or *do not* work, but rather to explain the mechanisms through which capitalism reproduces itself, changes its quantitative and qualitative features and overcomes its crisis, maintaining intact the foundations of its social relations, which produce the phenomenon of the market process. Once the empirical observation is stated in this more articulated terms, the intelligibility problem leads to look for both the convergent and divergent forces capable to explain the dynamism of capitalism and its relative stability as a mode of production.

In this sense, the problem of convergence is basically a false one: the observation that markets do work has no implication for the problem of accomplishing individual preferences and needs; it implies instead that plans incompatibilities are such to take the system in continuous motion even though, until now, have not been such to make the system collapse. Thus, the intelligibility problem is better specified in terms of explaining the (relatively) *regular dynamics* of the market system than in terms of *convergence* of the market process.

My attempt to explain these regular dynamics is based on the discussion of the cumulative processes that take place between individual action and social interaction: in such processes all the elements that determine the formation of individual plans are, in principle, dependent on the form of the social interaction. One of the analytical factors that makes individual action and social interaction mutually dependent is economic power: on the one hand economic power (through its relation with ex post competition) *resolves*, in the social interaction, the incompatibilities among individual plans; on the other hand (through ex ante cooperation) it affects the processes themselves of formation of individual plans.

Such a view of the market process is largely consistent with the some aspects of the theories of the institutionalist and the Marxist schools. By interpreting the contributions of such schools in the framework of competition, cooperation and economic power, I have thus tried to provide a consistent explanation of the relatively regular dynamics produced by the market process. The core of such an explanation is constituted of four elements.

- (1) Economic power influences the process of formation of individual plans through its effect on (a) individuals' information sets (on both material and informational constraints), (b) individuals' interpretative models and (c) individuals' values.
- (2) Once individual plans have been formulated, the social interaction that flows from them modifies the social structure of economic power.
- (3) The cumulative processes determined in the sequence *individual plans* → *social interaction* → *individual plans* produce both convergent and divergent forces.
- (4) The combination of convergent and divergent forces is the ultimate cause of the dynamism of capitalist systems and of the relative stability of capitalism as a mode of production.

Although, the focus of my analysis is on *regular dynamics* instead of *convergence*, the framework of competition, cooperation and economic power can be used to discuss also the problem of convergence. In this case, the endogenization of values and interpretative models constitutes, in my view, a fundamental element that the Austrian school has failed to grasp (for obvious methodological reasons) in its attempt to stress the forces of convergence: not only can the market process diffuse information in such a way to let given individual preferences be accomplished, but also preferences may change in such a way to preserve the compatibility of individual plans. The integration of such a

convergent force in the discussion of the market process can be developed by an explicit analysis of economic power and requires a step out of methodological individualism.

Economic power intervenes in the process of formation and revision of individual plans through different channels: (1) it constitutes a coercive factor for the material and informational constraints that it imposes on the decision-making options of different individuals (and social classes) and (2) it influences individual values and the perception itself of the economic system by individuals. In this sense the convergence of the market process may simply be a consequence of the fact that individuals learn not to put in their plans objectives that cannot be accomplished (given the existing constraints and their perception of them) and/or not to desire what they cannot have.

If then we abandon the problem of convergence and we try to explain the regular dynamics produced by the market process, there is no reason to exclude that certain individuals (or classes) may systematically fail to accomplish their objectives: if the role of such individuals in the social interaction and their economic power position are not such to create problems to the reproduction of the system, *markets can work* notwithstanding the impossibility of these people to accomplish their plans.

To conclude, in the interpretative framework I propose, if *markets do work* it is not because they constitutes a context for the expression of unhampered competition. It is because they work through the exercise of economic power.

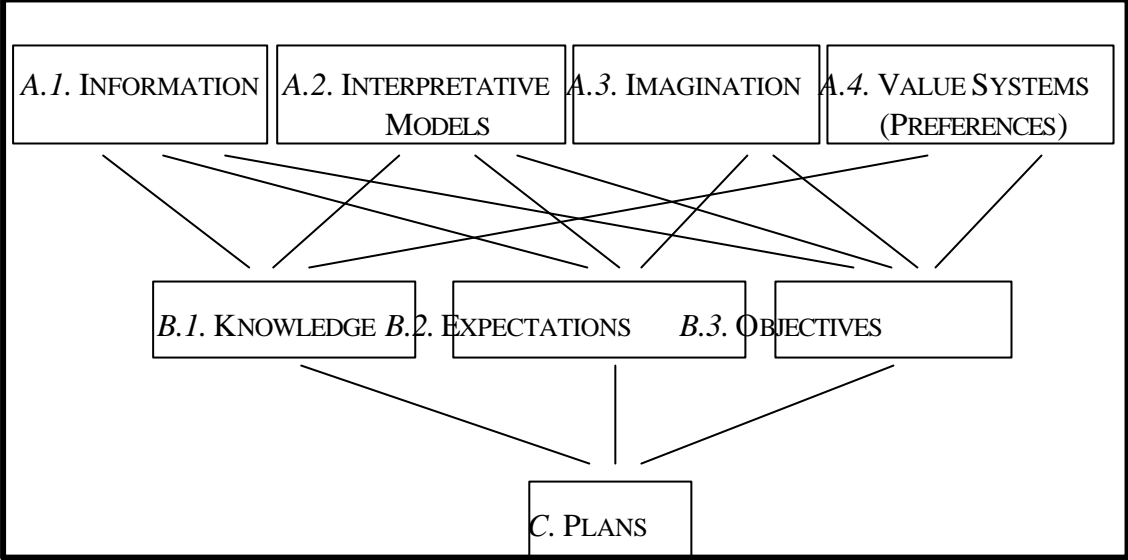
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Figure 1. THE PROCESS OF FORMATION OF INDIVIDUAL PLANS



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