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MARKET OR MARKETS?

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Abstract: The purpose of this contribution is related to our own view of the Austrian market approach. We first point out how Menger, Wieser, Hayek (to a more limited extent) and Lachmann successively made various analytical achievements which contributed to the emergence of an Austrian view of markets as institutions. We then characterize the original features of this notion and show why and how it allows a better understanding of the specificities of empirical markets and their dynamics.

Key words : markets, coordination, creation and evolution

Résumé: Cet article est fondé sur une analyse spécifique de l'approche autrichienne du marché. Dans un premier temps nous montrons comment Menger, Wieser, Hayek (dans un moindre mesure) et Lachmann ont successivement contribué à l'émergence d'une conception des marchés comme des institutions. Nous mettons ensuite en évidence les caractéristiques de cette notion et montrons pourquoi et comment elle permet une meilleure compréhension de la spécificité des différents marchés et de leurs dynamiques.

Mots clés : marchés, coordination, création et évolution.

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1. Introduction

The Austrian tradition is often associated with a common view of the market as a discovery process which forms a major component of a more general social order. It is widely thought that this view emerged in Menger's *Principles* and found its finest elaboration and formulation in Hayek's later writings and von Mises's contributions. Our viewpoint contradicts this usual presentation. We believe that there are two distinct approaches to the market notion within the Austrian tradition.

On the one hand, it is possible to develop a view of the market as the unique efficient means of coordinating individuals' plans and actions: this notion can be found in both Mises and Hayek. The market appears to be unspecified insofar as its organization and workings are assumed to be universal and, therefore, are not really dependent on the type of economic goods exchanged or the types of agents who carry out the transactions.

On the other hand, a second market view, originally stemming from Menger and Wieser and continued by Lachmann, can also be developed. Contrary to the first, this second view emphasizes the heterogeneity of markets. Lachmann, for instance, clearly emphasizes the importance of the distinction between 'fixprice' and 'flexprice markets'. In accordance with this view, markets are, above all, institutions. This implies that there is no universal means of economic coordination. Every type of market must be characterized according to its type of organization, kind of good exchanged, weight of intermediaries and so forth. Therefore, markets are not 'eternal'; they emerge, evolve and disappear; they are evolutionary entities. More interestingly, they also interact, an important point we want to emphasize.

The purpose of this contribution is related to our own view of the Austrian market approach.

We will first point out how Menger, Wieser, Hayek (to a more limited extent) and Lachmann successively made various analytical achievements which contributed to the emergence of an Austrian view of markets as institutions (sections 2, 3, 4 and 5).

We will then characterize the original features of this notion and show why and how it allows a better understanding of the specificities of empirical markets and their dynamics. Using these foundations, we dedicate sections 6 and 7 to investigating the market creation and evolution processes. Section 8 recalls the role of institutions and routines within this framework. Finally, sections 9 and 10 draw some main theoretical and empirical consequences before concluding.

2. The Market as an Organic Institution

Menger (1871, 1883) considers that markets belong to the category of organic institutions, as does language or the State. When Menger develops his exchange and price formation theories in *Principles* (1971, chapter 4 and 5), he mainly considers the bargaining scenario, successively distinguishing isolated exchange, monopoly and bilateral competition. In fact, Menger shows no real development when he discusses the notion of market as such. However chapters 4 and 5 of the *Principles* are perfectly in line with Menger's view of economics: knowledge and power are sufficient to explain exchange. Exchange takes place *firstly* because both sellers and buyers *hope* that trade will improve their economic situation. Buyers expect that they will meet their needs by ordering desired goods, while sellers look for the information about causal relations between higher order goods and individual needs and try to foresee future needs. Their remuneration therefore depends on the abilities of uncertainty-bearers. Exchange, however, *also* takes place because both sellers and buyers believe that they have *sufficient* knowledge. Buyers try to be clear about their 'requirements' ('Bedarf' in German) and the quantities of goods at their disposal for the purpose of meeting these requirements, while sellers (i.e. manufacturers as well as intermediaries) must have a professional knowledge of the available stocks, the costs and prices of the goods they supply.

Even though Menger does not present a complete market organization theory (Arena, 2002), his writings include useful indications from this standpoint which are linked: (i) to his view of economic goods and (ii) to his value theory .

Menger's specific view of economic goods is certainly one of the main contributions he made to economics. He was the first who stressed the vertical and horizontal interdependence of goods and noticed that it logically excludes to consider first order goods as the result of the combination of quantities of two 'homogeneous' factors (e.g. labor and capital). In the different steps of the manufacturing process, manufacturers must first learn how to combine the goods needed and then how to order these goods to produce lower order goods. If, at some point, they are unable or decide not to order the goods they require, they have the implicit possibility of acquiring them through exchange.

Menger's theory of value is subjectivist and the result of marginal analysis: according to his views, the value of a good stems from the *expected* satisfaction that consumers hope to receive from the last consumed quantity of this good. This means that the value of a good depends on individual need and the fact that individuals are aware that the value of higher order goods is indirectly determined by the value of the first order goods to whose production they contribute.

These indications - given by Menger - are especially useful if we try to explain the emergence of markets as organic institutions. In fact, if individuals need to order goods they do not possess or if they realize that these goods have a higher subjective value for them than the supply price of the goods they order, they have an incentive to exchange. Exchange can produce value because of the increase in individual and collective wellbeing. Individuals then try to exchange the goods they possess for the goods they need. In the beginning, individuals search in their neighbourhood for individuals they expect to exchange with. Progressively, as they learn that they can find the people they are looking for in this neighbourhood, they get in touch with their neighbours in order to finalize the exchanges they need to make. Market is therefore characterized as the locus in which exchange takes place and allows the implementation of agents' individual learning abilities. It is therefore the result of the interaction of individual actions and cannot be explained by the intervention of any form of authority or collective will. One can thus regard market as an endogenous 'focal point' generated by interacting individual cognitive behaviors. The more people enter a given market, the more it is worthwhile for other people to enter it, because of network effects, for instance. This mechanism generates a positive feedback process which anticipates the strategic complementarities analyzed in modern times by Milgrom and Roberts (1990).

The theory of exchange, related to Menger's view of economic goods and the theory of value based on his subjectivism, appears to form the two pillars of his market emergence approach. However, the 'double coincidence of demand' requirement implies the need to assume that there are as many markets as there are exchanges. This is why Menger's notion of exchange and value is completed by a theory of money. The emergence of money means that another self-organization process starts working on markets, generating a single large market where all goods can be exchanged for all other goods. This money emergence self-organizing process (due to positive feedback mechanisms) also supports the manufacturing structure since it favors the exchange of consumer goods as well as different level capital goods.

This reconstruction of the Mengerian view of market origin is not complete, however. Two other important points also need to be taken into account: (i) the nature of the role played by the manufacturing structure; (ii) the fact that economic exchanges are constantly changing, new goods are continually produced and new transactions are continuously made. The first point refers to the fact that the market makes manufacturers aware that complementary goods exist as a consequence of the horizontal as well as vertical interdependency of goods. The second aspect is linked to the fact that individuals are constantly confronted by new interdependencies between new goods in relation to the different steps of the manufacturing process.

3. The Market as a Social Institution

For Wieser (1927), one of the main institutions of a social economy is the market or, to be more precise**,** markets, since this author refers to "institutions of exchange" (Wieser, 1927, p.150).

Wieser's view of exchange differs significantly from Walras' and extends Menger's. Wieser does not consider that pure bilateral exchange offers a universal foundation for any economic system. Quite the contrary, he stresses that the mutual wills of individual economic agents do not provide the only determinant factors of exchange and that institutions also play a fundamental role. This is why the market itself is considered a 'social institution' (Wieser, 1927, p.172). The existence of markets is implied by the coexistence of private property and (both horizontal and vertical)

division of labor. Production is implemented by "legally independent" individual producers, helped by workers (p.150).

"In a fully developed money economy, in which individual self-sufficiency disappears, all households must finally turn to the market for a satisfaction of their needs" (Wieser, 1927, p.150). In other words, markets are fundamentally monetary. They form what Wieser called "the great circulation of the national economy" (p.151). Again, Wieser's view of the market is entirely different from Walras'. While Walras starts from a basic market economy scheme based on barter between two commodities and then progressively generalizes it to pure exchange, production, capitalization, and in the end, money and credit, Wieser considers that there is no market without money. In Hicks' words, his theory is a 'money theory of markets', since, for Wieser, markets are logically unconceivable if money is not presupposed as an institution.

Walras' and Wieser's views of the market not only differ according to the role they attribute to money within the exchange process. On the one hand, Walras stresses the universal character of pure exchange economies as a general logical device on which it is necessary to build the whole edifice of general economic equilibrium. On the other hand, Wieser does not emphasize the homogeneity of concrete markets, but rather their heterogeneity in accordance with the notion of markets as institutions. In seeing markets as institutions, Wieser notices that it is necessary to distinguish various "institutions of exchange". Markets must therefore be differentiated according to their specific institutional set-up or, to quote Wieser, their proper "organizations of markets". Market organization is indeed central in Wieser's approach, as it was in Menger's. Price formation does not follow the same rules if the market is organized or "disorganized" (Wieser, 1927, p.195). Markets might be characterized by a common feature, but also by their diversity.

The common feature of markets is the predominant role played by suppliers within exchange processes. On the one hand, the freedom of exchange is counterbalanced, at least partially, by the 'forces of compulsion'. Wieser observes that often in the process of exchange, agents do not have "full economic strength "(p.168) and therefore, as in 'labor" or "usurious loan" contracts, asymmetry exists between the parties. Producers may therefore profit from compulsion and can also impose their supply prices as a prerequisite imposed on consumers. Markets, however, are not identical. Each is different: "Theoretically, we have to distinguish in the universal

economic market as many varieties of partial markets as there are varieties of market-indices" (Wieser, 1927, p.175). As we saw earlier, this stress on the diversity of markets was not introduced by Wieser, but by Menger within the Austrian tradition (see also Arena, 1999). This variety first refers to what Wieser calls "the stratification of prices" (Wieser, 1927, p.186). In other words, markets are not all accessible by just any type of agent. Thus, the quantities of "mass-commodities" brought to markets depend on the consumption needs of all social strata expected to consume these goods. Therefore, in mass-commodities markets, prices are determined by the poorest agents and only by their marginal utilities. On luxury goods markets, on the other hand, "prices are offered according to a standard induced by the purchasing ability of members of the higher and highest income strata who are bent on excluding the competition of all other rivals" (p.187). Finally, in intermediate goods markets, prices are determined according to the purchasing power of the middle class. Therefore, markets are *socially stratified* according to the diversity of consumer purchasing powers.

Markets are also differentiated according to their organization. Here the Mengerian influence is direct. Factors include: degree of speculation (p.173), type of competition (pp.173-174), distance from final consumer (p.176), bid mechanisms (pp.174-176) or organization quality (p.195). These causes allow a set of main markets to be distinguished. The *labor market* is the first described by Wieser, who notices that labor is not a product (p.176). *Market products* are differentiated according to their modes of exchange: natural barter (p.174) or monetary exchange (p.175). *Money markets* include *loan* and *stock markets*; they do not allow for product exchanges, but satisfy investment needs (p.176). Finally, price variations on the "agricultural or urban *real estate market*" often follow the price variations of the money market (p.176).

4. The Market as an Evolutionary Result

The idea that market as an institution is a "natural" human evolutionary result is developed by Hayek. From a Hayekian perspective, the market is considered to generate the stable solution of an evolutionary process. Market also characterizes the economic functioning of an 'open society'. In a tribal society, individuals use concrete rules of action and can express a collective will: institutions are consciously constructed by human beings. Exchange is not anonymous in the least and takes place through bargaining. Progressively, with human beings tending to use abstract rules, the open society emerges and individuals cannot continue to exchange as they used to within an archaic society. First, individuals cannot transmit the totality of their knowledge to each other because abstract rules are unconscious and they acquire a specific and tacit form of knowledge through their experiences. Second, they can no longer make face-to-face transactions since there are a great many individuals in the open society. Individuals are often replaced by economic entities as private organizations or regulatory bodies, but these are operated only according to the rules prevailing in the open society. In this context, individuals' plans and actions are coordinated through an evolutionary market process which is assumed to generate a stable solution. Market is therefore able to favor a "mutual adjustment" of the individual plans and actions through a self-organizing process based on a negative feedback mechanism. As in Menger's theory, knowledge plays an essential role in allowing individual interactions. Hayek's "mutual adjustment" presents its own specificities, however. The *price mechanism* is the main tool which permits such an adjustment to occur because it coordinates the individuals' diverse knowledge and the information those individuals gather from their environment. In accordance with Menger's view, market adjustments remain cognitive discovery processes. However, these adjustments do not differ in relation to market variety, as in the Mengerian and Wieserian theories (see also Arena, 2002). Quite the opposite, Hayek assumes that markets are different, but he shares the Walrasian approach in that they all have the same coordination process. According to Hayek, the flexible price mechanism tends to be valid everywhere in a market economy. Specific 'market institutions' (as defined by Langlois and Robertson, 2002) do not matter. Hayek's motivation is simple. Individuals do not know and do not need to know one another. This anonymity is in fact what warrants the autonomy of individuals in the market order. In spite of its richness and originality, at the end of the day, Hayek's view of market economy shares Walras' idea that institutional and organizational market diversity can be

disregarded in favour of the prevailing and universal flexible price mechanism based on the assumed anonymity of individual agents.

5. Lachmann's View of Markets

Lachmann's view does not oppose Hayek's as such, but helps discard from the Hayekian theory what it has in common with the Walrasian theory of General Economic Equilibrium (GEE), e.g., the universal scheme of a competitive price mechanism. This is precisely why Lachmann's critique is directed against Walras' and Pareto's theory of markets, in particular against their GEE analysis. In Lachmann's view, far from providing a universal market representation, the Walrasian view deals with a very special case, derived from its deterministic notion of economics. This view is based on the assumption of a 'centre of gravitation', the GEE position, which appears to be the basin of attraction for all economic motions. This assumption presupposes that there are forces at work pulling the economy towards the GEE position. The implementation of such forces first requires that all individuals possess the same economic rationality; second that all are price takers; and that, finally, in a world of perfect competition, a specific automaton, "the auctioneer", is able to signal to every individual agent all differences – however small – between supply and demand on any given market, so that individuals can instantaneously compensate for those differences. The methodology of GEE theory can be extended to non–Walrasian cases: On a monopoly market the price is set by the manufacturer (under certain adequate constraints) and in a monopsony case, the price is set by the buyer (under certain adequate constraints also). Although bargaining can take place on an oligopolistic market, the resulting price is not "path dependent" since the bargaining process is timeless and therefore virtual. From Lachmann's standpoint, this theoretical framework is fiction rather than an abstraction and, therefore, it can hardly explain the actual means by which prices are set. We could add to Lachmann's argument that, even if the Hayekian market operation theory is based on an 'empirical' discovery process that differs entirely from a virtual 'tâtonnement' mechanism, it is based on the idea that, the competitive price mechanism is necessary in the long run and sufficient to allow the economic system to converge to

a position where, according to the Walrasian GEE theory, all markets are finally cleared.

According to Lachmann, price formation needs to be based on a much more concrete process than the one presented by Walras. For instance, "from what we have just said, it follows that if we wish to understand the significance of fixprice markets in general, and the mode of coexistence between fixprice and flexprice markets characteristics of our world in particular, such understanding will have to be sought within the framework of an 'Austrian type' theory of price formation, but on a level of abstraction sufficiently low to permit us to designate price setters and their ranges of action in various markets" (Lachmann, 1986, p. 131)[3]. In order to clarify his standpoint, he uses the example of the merchant and the salesman. According to Lachmann, a merchant is a firm and a salesman is a part of a firm. Therefore the two types of agents act on different markets (the first corresponds to a flexprice market and the second to a fixprice market). It follows that both agents do not play the same role in the adjustment process (the first adjusts prices while the second adjusts quantities). This example can be extended to various other cases and suggests that institutional variety is a condition of greater market efficiency.

Lachmann's views therefore reinforce Menger's and Wieser's ideas and tend to promote market representation in which the institutional context has value. It is now time to leave the history of economic thought behind to consider the processes of emergence and the workings of actual markets.

6. The Creation of Markets

[3] The idea that it is necessary to consider markets from a "sufficiently low level of abstraction" also helps explain the differences between Lachmann's and Hayek's view of market processes.

If we try to draw some consequences from Menger's, Wieser's and Lachmann's common market vision, we must first consider the market emergence process. In our opinion, a specific market is created when buyers and sellers (including entrepreneurs, speculators and followers) negotiate in order to decide 1) what goods are to be produced and 2) what prices will be paid for these goods. Two consequences arise. First, during this phase of creation the buyer influences the manufacturing process by being able to choose some (but not all) of the product characteristics. And second, in general, both the buyer and the seller are price makers. This starting-point is perfectly in line with Menger's idea that exchange always involves bargaining. It is also in accordance with the Austrian idea that economic reality is subject to continuous change. New goods and technologies are always being produced by new entrepreneurs and therefore new markets are continuously being created. In this context, it is crucial to investigate the respective roles of the various agents. From an Austrian perspective, at least four types of agents must be made distinct.

The first type corresponds to *entrepreneurs* according to Schumpeter. Entrepreneurs, who are risk takers, are key characters in the new market creation process. They are simultaneously confronted by and create uncertainty by making risky decisions when introducing new goods. Various forms of uncertainty have to be taken into account when the market creation process is considered. *Strategic uncertainty*, which economists often view as the only uncertainty, is actually in the middle of an uncertainty spectrum presented by Langlois and Robertson (1995: 136). On either side are what they label (p. 18) *structural uncertainty* (which must be disregarded by decision makers because it pertains to future outcomes which cannot be envisaged in bounded terms along particular dimensions, or where the relevant dimensions along which outcomes may arise cannot even be discerned in advance) and *parametric uncertainty* (about precisely where, within a range on a particular dimension, an outcome might emerge, which may be possible to mitigate through strategic choices). Radical product innovations may involve structural uncertainty and a leap in the dark on the basis of Keynesian 'animal spirits', with little assistance from either rules of thumb or market institutions in terms of delimiting the bounds of possibility. Kirzner's analysis, focused on entrepreneurial alertness, could be said to have introduced a further dimension of uncertainty: that implied by existing, but

unknown economic opportunities. Too often, however, many Austrian economists, such as Schumpeter or to-day, Kirzner or Witt, for instance, overestimate the role played by entrepreneurs as if they act in isolation when they decide to innovate and introduce new goods frequently supported by new technologies.

The problem that arises here is related to the agents Kirzner calls entrepreneurs. It is clear that, for Lachmann for instance, these entrepreneurs should rather be seen as *'speculators'*, i.e., as *intermediaries* according to Menger: "For us, by contrast, the outcome of market processes impelled by interaction between innovations and speculators is a subject we dare not ignore as our field of study is not surrounded by ditches designed to keep out all disequilibrating forces. Even if it could be shown that all speculation is ultimately an equilibrating force, the possibility that speculator successes and failures might affect some of the 'data' on the path towards equilibrium could not be ignored. We have to ask what happens if each innovator finds himself surrounded by a swarm of speculators trying to anticipate the outcome of his action. Will it tend to make this task easier or more difficult, make his days of success longer or shorter?" (Lachmann, 1986: 126). The existence of this second type of agent is virtually present in Schumpeter's theory of innovation. Besides the entrepreneurs he interpreted as economic *leaders* in accordance with the Austrian tradition initiated by Wieser (see Arena and Gloria, 2001; Arena, 2002 and 2003; Arena and Festré, 2002 and 2006), one has to distinguish between active imitator-users or *speculators* from passive imitator-users or *followers*. Speculators are risk-takers. They try to imitate the entrepreneurs who initiate the innovations they find to be the most promising or use them in their production processes and therefore utilize their alertness in the Kiznerian sense. Followers are risk-adverse. They are very similar to the producers of the Schumpeterian circular flow; they only introduce new technologies or goods when they are sure that their risk is minimized. This does not mean that entrepreneurial innovations are always accepted by speculators and followers. The role of the former is precisely to make a selection among the continuous flow of new goods and technologies, while the function of the latter is to reject some innovations, even when they have been adopted by entrepreneurs and speculators. Followers are therefore similar to Wieserian "masses" (Arena, 2003). They have no innovative role, but they can exert a negative one. Entrepreneurs and speculators must therefore convince them to diffuse new technologies or goods in the long run, i.e., and not too quickly in order to gain quasi-rents. Now, depending on the

relative importance of a market's innovative character, i.e., the relative strength and importance of the three types of suppliers on this market (entrepreneurs, speculators and followers), the prevailing type of uncertainty can differ. Structural uncertainty is predominant when the role of entrepreneurs is strong. Strategic or Kirznerian uncertainties correspond to speculator predominance. Finally, parametric uncertainty better suits a less innovative market.

The last type of agent to play a main role in the market creation process includes *buyers* or *consumers*. This type was often neglected by the Austrian tradition, in spite of its stress on consumer sovereignty. To a large extent, buyers also take some risk when they decide to buy an entirely new good or technology. They must *learn* if the new good or technology will satisfy their direct needs and if it will be integrated long enough into an adequate manufacturing process. On the other side, sellers and especially entrepreneurs must convince their potential customers (Langlois, 1992). They also have to convince their employees that it is worthwhile and logical to make some risky decisions (Witt, 1999). Nonetheless, their potential buyers also need to make a risky decision. Without interactions between these two groups of agents (including the three supplier sub-groups), the innovation could fail utterly.

The case of the audio CD is a good example of this kind of interaction. The audio CD was introduced on the market in 1983 by Philips and Sony, although Philips had been working on the Laservision method since 1978. One could assume that Philips was unable to convince consumers to change from the vinyl system to the CD system in 1978. However, this explanation does not take the progressive move from vinyl to CD into account. In fact, if the innovation is only attributed to the entrepreneur's motivation, one disregards the time it takes to switch from an old system to a new, innovative one. A more complete explanation is that some intermediaries took the risk of marketing and some consumers took the risk of buying new audio material without being sure whether it was able to meet buyer needs[4].

Another example is the Wankel rotary engine. "Wankels have several major advantages over traditional designs. Most notable is that they are considerably simpler and contain far fewer moving parts; for instance, they have no valves, valve

[4] A demand for change may also be at the origin of this consumer's motivation.

trains, etc. In addition, the rotor spins the driveshaft directly, so there is no need for connecting rods, a conventional crankshaft, balance assemblies, etc. All of this makes a Wankel engine much lighter, typically half that of a conventional engine with equivalent horsepower, and as a result the performance decrease per 'displacement unit' is more than offset by this light weight. Considerable effort went into designing rotary engines in the 1950s and 1960s. They were particularly interesting because of their smooth, very quiet running, and their reliability resulting from their simplicity. However the seals at the corners of the triangular rotor proved to be the design's Achilles heel, and the engines tended to wear out much faster than originally predicted. Many interesting ideas have come along to attempt to fix these problems, but not enough money has been invested to truly solve them."[5] Despite its superb power-to-weight ratio, the Wankel rotary engine is only used by NSU, Citroên and Mazda (playing the role of spreaders or imitators in a broad sense in this case) for a limited number of models they produce. The difficulty in competing with regular engines seems due not only the above-mentioned technical shortcomings and the difficulty car and engine manufacturers have in convincing consumers. It is also due to the difficulty for consumers or spreaders to take the risk of buying those very specific cars. There are many more examples like this. Thus, most digital products were created because 'infomediaries' (i.e., speculators in the Kirznerian sense) and consumer virtual communities actively participated in their definition and helped adapt their social uses within the production processes of ICTs. What we would like to point out is that a new market (that is, a new product and/or a new technology) can only be created when something new emerges from 'local' interactions between some sellers (entrepreneurs, speculators and, to some degree, followers) and some buyers.

7. The Evolution of Markets

From the Austrian perspective, a market is a process of discovery. Discovery implies novelty. According to the Austrian approach, it is therefore impossible to

[5] http://www.fact-index.com/w/wa/wankel_engine.html

characterize a market by its given set of initial endowments, individual preferences and available technologies, as it is the case in the GEE theory. Markets continually evolve with capital accumulation, growth, technological progress and change in consumer tastes.

An Evolving Market

According to Lachmann, it is easy to imagine how buyers can contribute to the evolution of supply in a flexprice market. In a fixprice market, buyers lose this possibility and are excluded from the sphere of production. However, the number of flexprice markets is continuously dropping in relation to the increase in fixprice exchanges. This evolution stems from some kind of standardization of the goods sold on this market. Evidence shows that the number of different goods sold on a market is steadily decreasing. This reduction in variety is accompanied by a routinization of seller and buyer behavior. In fact, a selective process is set up and three sets are selected: 1) a set of characteristics[6] of a class of goods 2) a set of sellers and consumers, and 3) a set of possible behaviors. For example, the actual behaviors of consumers and sellers on the standardized foodstuff markets belong to a set of possible behaviors. This set is characterized by the fact that consumers do not usually negotiate the prices or quality of goods in a supermarket. As a result of this and the structure of the market supply, these prices are not very flexible. According to Lachmann's terminology, this is the type of fixprice market that corresponds to the final state of markets since it is associated with an institutional device in which individuals' plans of action are coordinated through a price mechanism that individuals ignore in their practical experience.

This evolution of markets from flexprice to fixprice mechanisms can also be characterized as a type of institutional change, i.e., change in the 'market institutions'. This interpretation is fully in line with the Wieserian approach. It should not be understood as a scheme in which institutional change takes place on its own and creates new constraints to economic evolution. This is a view which seems to be favored by Kirzner when he characterizes institutions as a simple framework for entrepreneurial strategies which gives agents some information on market operation rules (Kirzner, 1992, p. 91). In other words, institutions are what they are. Quite the opposite, in Lachmann's view, market institutions are partially endogeneized. The

[6] These characteristics must be considered Lancaster's.

process of endogeneization is related to the structure of supply, especially to its division between entrepreneurs, intermediaries and followers and therefore to the space afforded to the various forms of uncertainty we put forward. This also helps explain Lachmann's distinction between fixprice and flexprice markets: "While the number of pricemakers diminishes, the range of actions open to manufacturers is enhanced: they have taken over the pricefixing function from merchants. In our world, flexible prices have become a characteristic of financial asset markers and large raw materials markets". But "there is ... no doubt that the evolution of fixprices constituted a response to the needs of the modern production economy. In a flexprice market, it is impossible to send out price lists to customers" (Lachmann, 1986, p.125). Even if, in an evolutionary game framework, strategic uncertainty (or imperfect competition in a more standard framework) is a possible explanation of the fixprice generalization process, the Austrian framework leads to the characterization of fixprice mechanisms as organizational arrangements, helping to cope with the information and knowledge needed by a certain type of seller and consumer. From this standpoint, fixprice markets introduce an element of permanence and certainty that allows sellers and buyers to make medium or long-term economic calculations more easily. Fixprice systems therefore perfectly suit the purpose Loasby attributes to institutions, which we may also attribute to organization in this case: "Social life is made possible by the fact that we do not at all continuously use our imagination to devise and try out new plans of actions, but for the most part unquestioningly accept current conventions, all of which are questionable, and some of which are doubtless defensible only on the grounds that any convention is better than none, and that change is difficult. In markets, institutions promote coordination by furnishing a common basis of decision, while discouraging inquiry into the soundness of that basis (Loasby, 1989: 164–5).

Still within speculative activities, we may consider the organization of price regulation. Here, Kirzner's approach is obviously the most popular. In keeping with Hayek's view, Kirzner suggests that markets appear to be a vehicle in which to disseminate broadly dispersed information. The problem is transforming private information into information available to the general public. In the beginning of the market *process*, agents do not know what the equilibrium prices are. They make decisions, but the absence of information leads them to offer what often initially turns out to be disequilibrium prices. Rationing or inventory accumulations then appear, providing

information about where the initial guesses were misplaced. Information is thus acquired by agents thanks to their actions: transmission of information in markets that comprise a collection of entrepreneurs enables them to *discover* opportunities which they had hitherto ignored. As in the case of fixprice mechanisms, economic evolution provides the natural framework of Austrian markets. Here also, market processes help reduce a more Kirznerian uncertainty in providing the framework for experiments between entrepreneurs, speculators and consumers. Interactions between the various types of sellers and consumers imply the development of a kind of network between manufacturers and consumers. Consumers can thus acquire and test knowledge, while manufacturers 'create' their own consumers.

Interacting Markets

A similar process characterizes the evolution of interacting markets. However, due to the considerable interdependency between different activities and agents in the actual economies, the evolution of different markets is constrained by the necessity of maintaining a minimal degree of coherence between them. In fact, the existence of horizontal as well as vertical interdependency systems between the sets of goods, already identified by Menger, excludes the possibility that the evolution of different markets participating in the production of a given final good could be random. However, there is no deterministic co-evolution of those markets. A new market can emerge inside a set of stabilized markets and then provoke a reorganization of this set. For example, the emergence of the cellular phone modified the entire organization of the phone market system. In fact the routinized behaviors of the various sellers acting on those interacting markets (phone manufacturers, operators of those markets, regulators, etc.) were forced to change, because of the success of the cellular phone innovation. This success was due to the existence of a set of behaviors that ruled out the old one. Such a success finds its origin in the constitution of a local[7] interaction system between a set of sellers and buyers (manufacturer-entrepreneurs, operator-intermediaries, consumers, etc).

[7] The word local needs encompasses more than its sole spatial significance.

At the end of the day, an innovation's success does not so much rest on a heroic entrepreneur, but on the existence and interaction of a group of agents behaving according to rules that can lead to consistent actions. This result entails a profound modification of the general set of markets interlinked in the production of a given good, as, in our case, the phone market system.

8. Markets, Routines and Institutions

We already observed that in line with Menger's, Wieser's and Lachmann's views, institutions play a crucial role in market creation and evolution. Among these institutions, we also stressed the specific case of routines. Now, in considering the role of routines among the institutions comprising markets, it is helpful to keep in mind the contention of Langlois and Robertson (1995, p. 1) that "the most elemental form of a business institution ... is a productive *routine*, a habitual pattern of behaviour embodying knowledge that is often tacit and skill-like". Loasby thinks that if productive routines exist, market routines can also exist: "Nelson and Winter's analysis of routines and their evolution appears readily applicable to well-developed markets, in which certain ways of doing business come to be accepted. There are various methods of determining prices — for example, they may be set by buyers, sellers or intermediaries, settled by bargaining, or arrived at by one of several auctioning procedures — but there is rarely more than one method used in one market. In addition, the customs of the trade usually prescribe such matters as credit terms, after-sales service, and conformity to market standards, including compatibility with other suppliers' products. These constitute the policy of the market, and both facilitate and constrain the decisions of those who participate in it" (Loasby, 1991, p. 18). From this standpoint, market routines could include predictive rules of thumb such as the set of forecasting techniques described by Keynes (1937: 214) to characterize the workings of financial markets: choosing adaptive behavior when most of the agents believe that there will be no discontinuity between past and future; selecting a mimetic behavior when one is convinced that other agents will also do it; or trying to guess the average market opinion are regular and stable behaviors based on a single belief or on set of beliefs. Certainly, in a context of self-fulfilling prophecies, these behaviors undoubtedly reduce uncertainty.

Routines should therefore not be opposed to innovations. They are very useful in allowing the succession of the market creation and evolution phases. They help stabilize the environment of a world in which various types of uncertainty mix, forming networks. This is why, in *Equilibrium and Evolution*, Loasby (1991: 41) defines 'a network of information and ideas' as: "Trade relations' strongly reduce the degree of uncertainty with which the firm is confronted when it buys products from another firm and uses them as inputs." But this is also true when we consider the relation of a firm with its rivals. In this case, past experience and the existence of behavior patterns moderate risk and, therefore, confirm how organization limits uncertainty. Finally, the existence of the network also permits the firm to differentiate its products and to create goodwill relations with its customers: it therefore replaces an uncertain demand with more guaranteed prospects of sales." The existence of this type of network confirms Richardson's views that market organization is a combination of competition *and cooperation*. To put it differently and in keeping with Loasby's remark (Loasby, 1991: 84): pure non-cooperative markets only correspond to extreme cases and market normality does not exclude organization 'as an alternative arrangement': (to quote Ménard, 1995: 170). It is not incompatible, therefore, with 'conscious and deliberate coordination of activities' (Ménard, 1995: 172). From this standpoint, external organization is an adequate antidote against strategic uncertainty since it permits agents to have *a priori* knowledge of decisions made by their potential rivals.

9. Some Theoretical Consequences

It could be argued that the preceding notion of market emergence and evolution is not compatible with the prevailing interpretation of the Austrian legacy. As stated earlier, one of the main assumptions of the Austrian tradition is the role of entrepreneurship as individual leadership and we tended to minimize this.

In our opinion, the standard interpretation of Austrianism is neither convincing nor relevant. First, entrepreneurship does not only apply to the individual Schumpeterian entrepreneur, but also to all agents with the ability to invent new behaviors. From this standpoint, a consumer can exhibit entrepreneurial abilities[8]. Second, we noticed that market creation is much more complex and, at the very

[8] This is perfectly in line with Mises' and Kirzner's view of entrepreneurship

least, involves two other types of agents, i.e., speculators and followers. Third and more fundamentally, subjectivism, e.g. the Austrian version of methodological individualism, is not at all incompatible with the view that a new market emerges due to a complex set of new behaviors rather than by isolated heroic behavior. It results from a type of inter-individual cooperation in which every agent has his own purpose. This sometimes generates unexpected social consequences, e.g., innovations.

This new markets emergence approach has some similarities with the game theory approach when it investigates the existence of local conformity inside global diversity (Young, 1996). From that perspective, a local stable set of strategies can coexist with a global stable set of completely different (and not necessarily compatible) strategies. The difference with the preceding approach is that it generates a diffusion process, whereas in a classical game context the two sets of strategies can only coexist when markets are in (long-term) equilibrium. In other words, the local set of strategies implies that the other strategies have to change progressively. A diffusion process changes the "old" behaviors in order to ensure the compatibility of strategies with the new behaviors. This viewpoint relates to the concepts of modularity (Langlois, 2002), percolation and stability as well. Aoki (2001), for instance, does not only investigate the process of convergence towards equilibrium, but also the way institutions are changing (which is too often considered an exogenous process due to mutations). We know that in classical game theory, the set of strategies is fixed *a priori*. In this framework, institutions usually change when given multiple possible Nash equilibria. Individuals switch from one to the other, possibly more efficient equilibrium. However, as we also know, this explanation first assumes that the different possible equilibria exist. Moreover, the theory of rational selection between equilibria by the players themselves is still in its infancy, unless we assume a highly unrealistic learning process. Aoki shows that if the structure of the game is *subjectively* known by the individuals, they are able to induce institutional changes because both exogenous and endogenous changes occur. The idea is that individuals have a set of possible strategies they can use. Because they have shared beliefs about the endogenous rules of the game, they define a consequence function of their strategies on a subjective basis. Their private beliefs make them choose their best response from the set of possible strategies, given the set of shared beliefs, their private beliefs and the environmental impacts (Aoki, 2001). Changes can then

occur exogenously (a change in the environment) as well as endogenously (change in private beliefs, inferences rules and so on). In this model, technological changes are conceived as exogenous variables. However it is possible to interpret the emergence and evolution of new markets as endogenous processes. According to Aoki (2005), new markets emerge when strategic complementarities are present.

What we can draw from Aoki's contribution – even if his approach clearly differs from the Austrian one – is that adequate strategic complementarities favor the emergence of new markets. For instance, market institutions and organizations help create new goods and technologies when they are complementary.

In Austrian terms, we could argue that the existence of sufficiently stable relations between entrepreneurs and intermediaries (inter-firm agreements, explicit or implicit contracts, etc.), entrepreneurs, speculators and followers (local manufacturing systems, subcontracting, R&D agreement, etc.) or sellers and consumers (existence of consumers communities, interaction between suppliers and consumer-testers, etc.) essentially increases the opportunities of *ex ante* production coordination. From this standpoint, as Richardson pointed out, the so-called 'market imperfections' very often help drastically reduce strategic (or parametric) uncertainty. The amount of information on what Richardson calls 'market conditions' available to agents (and in particular, to entrepreneurs) crucially depends on 'the nature of the economic arrangements or systems postulated' (Richardson, 1959, p. 223) and, in particular on market organization. This is why he stresses that it is misleading to too strongly oppose market and organization: "Thus although I shall have occasion to refer to cooperation on market transactions as distinct and alternative models of coordinating economic activity, one must not imagine that reality exhibits a sharp line of distinction: what confronts us is a continuum passing from transactions, such as those on organized commodity markets where the cooperative element is minimal, through intermediate areas in which there are linkages of traditional correction and goodwill and finally to those complex and interlocking clusters, groups and alliances which represent cooperation fully and formally developed" (Richardson, 1972, pp. 886–7). This is nothing more than another way of stressing complementarities between market institutions and productive organization.

10. Some Empirical Consequences

The idea that markets are coevolving towards an institutionalized and organized economic state can be exemplified by some empirical illustrations. The emergence of a market, such as the automotive market, offers an example of the bundling process as described above. In the beginning, this market was a manufacturer/consumer market. Each vehicle was the result of collaboration and negotiation between a manufacturer and buyer who was actively participating in the product's definition. The manufacturer was either making all of the car parts or using the services of a specialist to produce very specific parts of the car. The standardization of the manufacturing process (mechanization and organization) and the product progressively reduced the role of the consumer. At this point, consumers are no longer directly involved in the car's production, they simply choose between a number of given options. This is the example of a market evolving towards an organized and institutionalized market associated with an easily foreseen set of behaviors.

A very different example can be given for the telephone market. This market evolved before the automotive market. A number of important (often public) manufacturers were positioned on a rather well organized market in which innovations were limited. Some newcomers arrived and created niches, such as the possibility of using frequencies to make a call. This possibility led to the emergence of cellular phones, which completely modified the organization of the phone market system, but also the behaviors of the participants in this system. Telephone manufacturers, operators, regulators and public bodies had to change their behaviors on these interacting markets. New problems arose: how should authorities sell frequencies, giving that they are selling packages? What is the optimal auction system? How will people change their behavior when confronted with new rules to the game (e.g. new institutions)? Will private institutions be more efficient than public ones, given that the rules cannot be completely enforced? All of these problems offer an interesting look at how the impact of a local disturbance spread to all parts of a complex sub-system.

11. Conclusive Remarks

Two distinct market approaches have been shown to co-exist in the present paper. The first, popularized by von Mises and Hayek, prevails in Austrian circles today. A second approach, based on the works of Menger, Wieser and Lachmann, has also been introduced. Stressing the importance of uncertainty, institutions and economic change, this approach opens a new route and creates new perspectives for economists who are keen to explain real market characteristics and especially their organizational and institutional changes. In this paper, we only took a few short steps down that new route, investigating the creation and evolution processes of markets in conjunction with these changes. Many other steps are needed if we wish to more precisely explore the new perspectives invoked in our paper and exploit this different side of the Austrian tradition.

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