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Towards an Austrian Perspective on the Firm

STAVROS IOANNIDES

One of the distinguishing characteristics of Austrian economics has always been its concern with the role of institutions in economic activity. To this day, however, Austrian ideas have remained largely marginal relative to the rising school of New Institutional Economics.[1] More specifically, as Loasby (1989), Langlois (1992) and Foss (1994, 1996) have noted, Austrian economists have never attempted to produce an Austrian theory of the firm. The purpose of the paper is to explore what such an Austrian perspective on the firm would have to look like, in order to be acceptable both as "Austrian" and as a "theory of the firm".

First of all, such an Austrian perspective must be capable of describing the firm as an institution that is created through the entrepreneurial action of individuals; an action which is subjectively motivated and carried out in conditions of radical uncertainty and ignorance. Taking Israel Kirzner's theory of entrepreneurship as the starting point of our analysis, we will attempt to develop a theory of the firm on the basis of Kirzner's notion of entrepreneurial behavior. Secondly, to count as a "theory of the firm," the Austrian perspective must be capable of addressing at least the same set of questions that established theories do. According to Holmström and Tirole (1989), there are three such questions: (1) the existence, (2) boundaries and (3) internal organisation of firms. Although our analysis will mainly address the issue of existence, we will show that it can provide interesting insights for tackling the remaining two questions.

The purpose of the paper is at the same time constructive and comparative. It is constructive to the extent that it attempts to develop a perspective on the firm out of the concept of entrepreneurship.[2] But it is also comparative because a novel perspective must be compared with existing theories so that its relative merits can be assessed. In the literature we find a classification of existing theories into two alternative perspectives. The first, which in many respects represents what is today perceived as the mainstream, stems from the work

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[1]However, one should note Langlois (1986b, 1992) as well as Schotter (1981) as attempts to build bridges between the two paradigms.

[2]The importance of the task is noted by Foss (1997), who claims that "The Austrian concept that is most conspicuously neglected in the contemporary theory of the firm is probably that of the entrepreneur". Some very recent work attempts to address the problem directly. Dulbecco and Garrouste (1997) attempt to construct a theory of the firm combining insights from Lachmann and Kirzner, and Sautet (1998) is engaged in constructing a specifically "entrepreneurial" theory of the firm.

of Coase (1937); Alchian and Demsetz (1972) and Williamson (1975, 1985) and is usually described as "contractarian". Apart from differences in emphasis, what unifies this work is its view of the firm as a set of optimal contracts that bind together the assets it employs, primarily by aligning the incentives under which they operate. The second perspective comprises the "competences" or "capabilities" theories of the firm, that stem from the work of Penrose (1959); Richardson (1972) and Nelson and Winter (1982). Very briefly, these theories view the firm as a bundle of capabilities which are largely tacit and shared by the human assets that constitute it. Consequently, they describe the firm as an organisation whose *raison d'étre* is the co-ordination of the knowledge possessed by its members.

Understandably, most theorists who have worked towards an Austrian theory of the firm have tended to focus on the relation between Austrian economics and the capabilities perspective.[3] The latter's view of the firm largely as a cognitive entity and its emphasis on the tacit nature of knowledge and on co-ordination, fully justify this focus. However, as Foss (1997) observes, a problem with the capabilities perspective, is that "it says very little about the key issues in the theory of economic organisation, namely the existence, boundaries and internal organisation". For this reason, our focus in this paper will be on exploring the relation between an Austrian perspective on the firm and contractarian theories. We hope to show that the former has distinct advantages compared to the latter.

Contractarian theories are usually divided into two strands: the transaction costs and the nexus-of-contracts approaches to the firm. The former stems from the works of Coase (1937) and Williamson (1975, 1985) and views the creation of the firm as a supercession of the market mechanism, brought about by the effort of input owners to avoid the costs inherent in market transactions. In this context, agents are assumed to be rational calculators and thus capable of discovering the optimal contractual arrangement that will minimise transaction costs. In the nexus-of-contracts approach—the seminal contribution here being Alchian and Demsetz (1972)—the firm comes into existence in order, on the one hand, to reap the benefits of team production while, on the other, to deal with the problem of moral hazard that this entails. Again, it is assumed that agents are capable of calculating costs *ex ante* and deciding on contractual alternatives that minimise the problem of moral hazard.

From the point of view of Austrian economics, one has every reason to be dissatisfied with the logic of contractarian theories. As Foss (1997, pp. 10–12) maintains, these theories are characterised by three major drawbacks: (a) An implicit assumption that alternatives are given; i.e., agents are supposed to choose among a very clearly defined set of contractual alternatives. (b) A suppression of process, in the sense that the optimal solution to the contract design problem continues to be optimal throughout contract execution. (c) Strong knowledge assumptions; there is no room to conceptualise the discovery of what was hitherto unimagined. It is precisely these drawbacks that makes the exploration of an Austrian alternative promising.

Section 2 of the paper presents the essential aspects of Israel Kirzner's theory of entrepreneurship, with which we will attempt to construct our Austrian perspective on the firm. Section 3 discusses the distinction between the concepts of "order" and "organisation". This

[3] See Langlois (1992) and Foss (1994, 1996, 1997).

is a critical step in our analysis, for it shows that the theory of entrepreneurship, which has been developed by Kirzner to deal with the market "order", can be legitimately extended to account for the development of an "organisation" like the firm. In Sections 4 and 5 we put forth our Austrian perspective on the issue of the existence of the firm. For analytical purposes we have broken down the problem of existence into two distinct sub-problems: that of the "emergence" and that of the "maintenance" of the firm. The former is addressed in Section 4 and the latter in Section 5. Finally, Section 6 summarises our discussion.

Israel Kirzner's theory of entrepreneurship

In general equilibrium theory, every agent is perceived as optimising the use of her assets under conditions of perfect competition. The latter implies that she has full knowledge of all the elements of the ends-means framework within which action is to take place. Kirzner's theory of entrepreneurship is an explicit critique of this view. Instead of treating action as optimising behavior within a given ends-means framework,[4] Kirzner (1973, p. 35) insists that the most important aspect of human existence is entrepreneurial behavior: choosing among alternative, and hitherto unimagined, such frameworks.

The fact that entrepreneurship is conceived as one aspect of the universal category of human action provides the concept with an anthropological character, as it implies that entrepreneurial activity is part of human nature and, as such, independent of the social context in which it occurs. To illustrate this point, Kirzner (1978, p. 164) maintains that even Robinson Crusoe must be thought of as acting entrepreneurially, to the extent that his activity is not exhausted in trying to attain the maximum from the means he already possesses but it also includes a reflection on his situation and an effort to imagine new ways of utilising his resources. This allows Kirzner to introduce the notion of *alertness* as the major precondition for the exercise of entrepreneurship; to act entrepreneurially is to be alert to what was hitherto unimagined. In turn, to be alert must be perceived as an effort to overcome the fundamental *ignorance* within which any individual has to operate. It is futile to ask whether one is aware of possessing alertness, i.e., capable of acting entrepreneurially. As Kirzner (1978, p. 169) maintains, the presence of this subjective quality can only be perceived the moment it is actually revealed.

The Misesian character of Kirzner's concept of entrepreneurship is, of course, evident. The fact that it is conceptualised as a universal aspect of human action and as emerging because of the perennial ignorance of human existence, makes it an analytical a priori. This implies that the discovery of a new ends-means framework—i.e., the essence of entrepreneurial action—cannot be analysed by any appeal to rationality. As Kirzner (1982b, p. 144) concludes on the basis of his Crusoe example, the fact that the alternative ends-means frameworks available to the actor are not known prior to her choice, means that they cannot be ranked according to any rational criterion. Thus, entrepreneurship is an activity which transcends any possibility of rational evaluation.

[4]Kirzner (1980, p. 6) has aptly described the logic of neoclassical theory as follows: "correct decision-making in this non-entrepreneurial sense, means correct calculation; faulty decision-making is equivalent to mistakes in arithmetic".

Of course, the Austrian theory of entrepreneurship acquires its full significance not in the context of the action of one isolated individual but in that of the market process. In the latter, the alternative ends-means frameworks upon which the agent reflects are constantly reshaped by the actions of other agents. In turn, by choosing to operate within a specific ends-means framework, the agent simultaneously reshuffles the environment in which all other agents act. In the context of the market process, therefore, the theory of entrepreneurship is assigned the task of explaining the constant and *endogenous* flux of that process.

This constant reshuffling creates a new and major source of ignorance for the actor. In the case of the isolated individual, one could assume that, ignorant of alternative and potentially more productive ends-means frameworks as she is, she is at least rationally trying to optimise within the given ends-means framework. In the context of the market process, however, the agent's condition of ignorance is greatly extended, as it now also encompasses the ignorance of plans, intentions and actions of all others. The fact that agents cannot know the entire market configuration means that they inevitably commit *errors*, in the sense that they are not making optimal use of initial endowments.[5] But errors can be *perceived*—i.e., *discovered*—by alert market participants who, acting entrepreneurially, will try to take advantage of them.

We have presented all the ingredients of Kirzner's theory of entrepreneurship: alertness, ignorance, error, perception, discovery. We can now proceed to analyse the general character of entrepreneurial action. The first point is that profit constitutes the motive of that action. The fact that agents commit errors in the sense that relative prices tend not to be uniform throughout the market means that these price discrepancies constitute profit opportunities that can be discovered and taken advantage of. Price discrepancies can be of a spatial or of an intertemporal character.[6] In the former case we have different prices for the same good at different locations of the market—excluding transport costs. In the latter case the price discrepancy has the nature of the difference in the current price of a good from that which it could obtain at some future date—again excluding considerations of time-preference and thus interest. The typical example of the latter instance is entrepreneurial activity in the sphere of production, which is, according to Kirzner (1973, p. 18), motivated by a profit opportunity, that is perceived as the possibility of buying means of production and selling the final product at a revenue higher than total cost.

The second characteristic of Kirzner's view of entrepreneurial action is that, since the discovery of error is described as the object of that activity, the actual exercise of entrepreneurship must be understood as eradicating precisely those errors that gave rise to it in the first place. This means that the actions of agents tend to be co-ordinated both in the spatial as well as in the intertemporal context. Therefore, unlike the Schumpeterian (1934) entrepreneur who constantly destabilises the system by introducing new ways of doing things, Kirzner's entrepreneur, by promoting the co-ordination of market data,

[5] See Kirzner (1976, pp. 129–130) for his notion of "error".

[6] See Kirzner (1982b, p. 154) for an explicit reference to the geographical and the intertemporal aspects of market disco-ordination.

simultaneously promotes the compatibility of individual actions.[7] However, there seems to be a contradiction here; Kirzner describes entrepreneurial action as the subjective and irreducible property of individual behavior that keeps the market process in perpetual motion, while, at the same time, he takes it to lead that process towards some sort of a state of rest. This seemingly contradictory view of entrepreneurship has led to a controversy within the Austrian school between those, like Kirzner, who argue for the equilibrating role of the entrepreneur and those who, following Lachmann, argue for the a priori indeterminate character of the balance between the equilibrating and disequilibrating forces of the market process.[8]

This is not the place to analyse or—more importantly—to pass judgement on that controversy. However, it is important for our purpose here to see how Kirzner (1992b) himself has attempted to defend a position which he describes as the "Austrian middle ground". In his view, entrepreneurial alertness, when exercised, *does* lead to a co-ordination of agents' plans and a convergence of market prices. But entrepreneurship may equally well *fail* to be exercised, i.e., profit opportunities may be missed and thus the errors which they reflect may go unperceived. Therefore, according to Kirzner, while entrepreneurial activity is by its very nature promoting market equilibration, the fact that humans tend to act entrepreneurially does not suffice to allow us to claim that their actions will always tend to establish a global optimum. Kirzner (1992b, pp. 29–31) offers an example on this point. Suppose that the demand for shoes rises unexpectedly, thus creating a profit opportunity for alert entrepreneurs. Imagine, however, that entrepreneurs misjudge the needs of consumers and come to believe that what they will really want to buy in the future is bicycles instead of shoes. As a result of this erroneous belief, they construct bicycle factories, which leads to a rise in the demand for steel, thus presenting a new profit opportunity to alert entrepreneurs. According to Kirzner, the act of these latter entrepreneurs to secure and deliver steel to the bicycle factories is equilibrating in the local sense, despite the fact that it follows a serious error in entrepreneurial judgement.

Finally, the third characteristic of Kirzner's notion of entrepreneurship is that it is entirely unrelated to factor ownership. The notions of error, perception and discovery suffice to explain this contention. First of all, the perception of market errors is logically an entirely cognitive phenomenon that does not require the expenditure of any resources.[9] On the other hand, entrepreneurial discovery should not itself be seen as a factor of production, since it is a kind of knowledge of which the individual is not even aware prior to its being revealed to her. Therefore, for Kirzner (1974a, p. 188) entrepreneurship is not a pre-existing knowledge but has, instead, the character of a "revelation".[10]

[7] See Kirzner (1973, pp. 72–74) for a comparison between his own concept of entrepreneurial action to that of Schumpeter.

[8] See Vaughn (1992), Ioannides (1992, chap. 6) and Gloria (1996) for references to this controversy.

[9] It is in this sense that Kirzner (1973, p. 48) introduces the notion of *pure* entrepreneurship; the activity of discovering profit opportunities without having to expend any resources: "The discovery of a profit opportunity *means the discovery of something obtainable for nothing at all*". (emphasis in the original).

[10] For the interesting ethical implications of the notion of pure profit see Kirzner (1990).

We now come to the most subtle aspect of the relation between the function of the entrepreneur and the ownership of resources. According to Kirzner (1974b, p. 97), the fact that a pure entrepreneur need not be a capitalist does not alter the fact that a capitalist cannot but be an entrepreneur.[11] There seems to be a certain degree of ambiguity here, as Kirzner, claims, on the one hand, that the exercise of entrepreneurship is independent of factor ownership while, on the other, he insists that a capitalist must always be an entrepreneur.[12] However, the ambiguity is only apparent, because entrepreneurship is defined by Kirzner as springing from the universal category of human action. As such, it is thought to be independent of any external aspects of human existence—e.g., factor ownership. On the other hand, Kirzner insists that entrepreneurial discovery is inexorably linked with entrepreneurial action which aims at taking advantage of that discovery. Therefore, while the exercise of entrepreneurship requires the expenditure of resources, entrepreneurial vision itself is independent of factor ownership.[13]

Kirzner proposes a model designed to show how this apparent contradiction is overcome in the capitalist system. Suppose an individual discovers a profit opportunity which requires resources she does not initially possess. What she must do is convince a capitalist to lend her the capital required. However, this entails a transaction cost; as Kirzner (1974b, p. 101) observes, that is "the cost of securing recognition for one's entrepreneurial judgement and personal integrity". According to Kirzner, the existence of this cost will lead the potential entrepreneur and the capitalist to jointly assume the entrepreneurship involved in the former's discovery, and to jointly reap the profit of the enterprise. In his view, this is precisely the way in which the partnership between capitalists and prospective entrepreneurs works in the framework of the modern corporation, where the shareholders hire would-be entrepreneurs as corporate executives.

This brief account of Kirzner's theory of entrepreneurship explains, we believe, why the task of extending it to construct an Austrian theory of the firm presents such a challenge. What is important is that this theory allows us to build bridges with both perspectives in the modern theory of the firm. Its emphasis on ignorance as the condition in which agents act and on the co-ordinating role of entrepreneurial action, clearly relates to modern "capabilities" theories of the firm. On the other hand, the view of entrepreneurial behavior as encapsulating the essence of individual action in the market process relates to the literature of "contractarian" theories, which view the existence of this organisation as the result of a contracting process that is essentially identical to the process of ordinary market exchange. However, while the former link has been recognised and pursued by some theorists (Langlois (1992), Foss (1994, 1996, 1997)), the second one has not been explored. We will attempt to do so in the remaining paper.

[11] This idea comes from Mises who claims (1949, p. 254) that "A capitalist is always also virtually an entrepreneur and speculator".

[12] See the exchange between Ricketts (1992) and Kirzner (1992c) on this issue.

[13] Kirzner (1980, p. 30) writes: "The existence of an [profit] opportunity implies access to capital, i.e., the discovery of an opportunity includes the discovery of how to raise the necessary capital . . . The brilliance of an idea must include the brilliant discovery of how to raise the capital".

The firm: Order or organisation?

Before we proceed with the construction of our Austrian perspective on the firm on the basis of Kirzner's theory of entrepreneurship, it is important to clear one obstacle: the distinction introduced by Hayek between the concepts of *order* and *organisation*. According to Hayek (1993, pp. 43–46), an order comes about when a multitude of agents follow abstract and general rules of conduct, which do not impose on them any course of action but only define an acceptable framework within which they can decide how to act. It is precisely through such action that the order is constantly sustained and reproduced. Consequently, an order is the spontaneous result of individual action rather than the intended outcome of a single plan.

By contrast, an organisation is an intentionally created construct, in which all participating individuals pursue a common and explicitly articulated goal. According to Hayek (1993, pp. 48–52), this sharing of goals makes a directing intelligence necessary. Furthermore, whereas the following of rules constitutes the essence of the creation of an order, an organisation comes about through the obedience to direct commands; i.e., an organisation is an hierarchical structure.

However, rules do play a role in the functioning of organisations. According to Hayek (1993, p. 48), it is impossible for an organisation to operate on the basis of commands alone, because that would presuppose the concentration of all knowledge possessed by the members of the organisation in the mind of the commanding authority.[14] Precisely because this is impossible, that authority must also employ rules in order to encourage the members to utilise their own tacit knowledge within the framework of these rules. However, the rules in the context of organisations are characterised by three attributes that distinguish them from the rules that are pertinent in the case of orders: (1) they are not as abstract, since they must still guide the actions of agents in specific directions, (2) they are not tacit but explicit, since the commanding authority needs to ensure that all agents will obey them, and (3) they are specific to the particular position of the organisation that an agent occupies.

This brief overview of the distinction between the concepts of order and organisation suffices to explain the importance of the issue for an Austrian perspective on the firm. Evidently, a firm is an entity that belongs to the latter class of phenomena. According to Langlois (1992, p. 174), this fact may explain why so little work on the theory of organisations, and especially the business firm, has come from the Austrian camp, as the latter has traditionally focused on the analysis of market co-ordination, neglecting the functioning of purposeful constructs. Furthermore, if one takes Hayek's emphasis on the distinction between the two concepts literally, one might come to the conclusion that the construction of an "Austrian" theory of the firm is absolutely untenable, as Hayek seems to argue that the principles through which we can obtain a scientific understanding of the character of the "spontaneous order" are entirely unsuited to the study of organisations.

However, Hayek's admission of the albeit limited role of rules in organisations allows us to proceed with our task. If the participants of an organisation are not guided in their actions

[14] Hayek's argument on this point is a direct offspring of his theory on the uncentralisable character of individually held knowledge, which sprang from his contributions in the "socialist calculation" debate of the inter-war years.

only by explicit commands but also by rules of conduct and if, moreover, as we have seen, this is a sine qua non for the operation of organisations, then part of this operation will, to some extent at least, have the character of an unintended consequence of individual action. The continued operation of the organisation will tend to produce tacit routines, i.e., rules of conduct which, much like the rules in the context of orders, come to acquire a character of abstractness, generality and tacitness. Therefore, as Langlois (1992, p. 176) maintains, "The ... personnel of a firm follow, invent, learn, and imitate routines that persist over time. As in Hayek's theory of culture, the routines are often tacit and skill-like, followed unconsciously because they produced success in the past".[15]

On these grounds, Langlois (1992, p. 169), urges modern Austrians to study what he describes as "organic organisations", i.e., organisations whose character is shaped by rule-following behavior rather than simple obedience to commands.[16] According to Langlois, it is precisely this fact that allows the analysis of organisations like the firm through the same conceptual tools that the Austrian school has developed for the analysis of spontaneous orders.[17] The major such tool is, of course, the concept of "co-ordination". The purpose of the rules of the organisation we call the firm is to mobilise and allow the utilisation of the tacit capabilities and the creativity of its members in a co-ordinated fashion. Therefore, it is easy to understand why it has been pointed out that the concept of co-ordination provides a link between such a programme and the capabilities theories of the firm.

However, it is important also to stress the affinity between the Austrian conception of organisation with that of contractarian theories. We have seen that, were we to interpret Hayek's distinction between orders and organisations too rigidly, we should conclude that economic theory has little to say about these phenomena and that the only legitimate issue of study is the analysis of how organisations interact with spontaneous orders. In fact, this is precisely the view of the firm that was implied by the orthodox neoclassical view of the firm-as-production-function. It is a view that is entirely compatible with the idea that the firm is an organisation that functions on the basis of explicit commands issued by a single center of authority and aiming at maximising an objective function.[18]

[15] Evidently, in this account, the concept of "business culture" must be understood as comprising, at least partly, the abstract rules that have evolved spontaneously—i.e., that were not planned by the commanding authority—in the context of a business firm.

[16] The term "organic" comes from Menger's (1985, p. 158) famous account of the emergence of money: "We might ask now about the general nature of the process to which those social phenomena owe their origin which are not the result of socially teleological factors, but are the unintended result of social movement. This is a process, which in contrast to the genesis of social phenomena by way of positive legislation, can still be designated as 'organic' ".

[17] See Langlois (1992, p. 174): "In many respects, one can think of the theory of the firm ... as an extension of the theory of social institutions ... An organization is also a system of rules of conduct ... the rules of an organization are similar to those of a more abstract institution in the sense that we can view them as evolving in much the same way and as having many of the same informational benefits".

[18] Usually, this maximization is assumed to be of the profits of the enterprise. Arguably, however, "managerial" theories of the firm should not be perceived as radically different from that idea, as they too involve the maximization of an objective function (of the managers instead of the owners). See Baumol (1959), Marris (1963, 1967) and Williamson (1964).

Therefore, to the extent that contractarian theories pose as critiques of the view of the firm as production function, they share a common view-point with the Austrian approach. By describing the existence of the firm not as the outcome of a single will but, instead, as that of a contractual process among a multitude of input owners, they infuse elements of an "order" into an "organisation". For transaction costs economics, this is evident from the fact that no agent can be assumed to have a very clear blueprint of what the firm will look like, as its boundaries are constantly reshaped through transaction costs considerations at the margin. For the nexus-of-contracts view of the firm, on the other hand, it is precisely the existence of costs in obtaining information on the performance of each specific input—i.e., the fact that commands are not enough to guarantee performance—that explains the emergence of the monitoring function. If this contention is indeed true, we have established an important affinity between the Austrian and contractarian theories of the firm, making the further exploration of that relation especially promising.

Austrian theory and the problem of the "emergence" of the firm

We can now begin to explore whether Kirzner's theory of entrepreneurship can be extended to a theory of the existence of the firm. The analysis will proceed in two steps. In this section we will address the question of whether the theory of entrepreneurship can lead to an account of the emergence of the firm, while in the next we will investigate the question of how the firm is maintained as a stable organisation. As it will become evident, this segmentation of the problem is particularly relevant for Austrian economics.

In fact, Kirzner himself provides a conceptual framework for the analysis of the problem of the emergence of the firm, when he addresses the question of how one can tell whether entrepreneurship has been exercised, and by whom, in a particular situation. For if entrepreneurship is independent of any objective feature of an agent's position in the market system—e.g., independent of factor ownership—how can the observer distinguish entrepreneurial behavior from other types of market activity? Kirzner argues that, since profit is the motive of entrepreneurial action, the realisation of profits must be treated as *ex post* proof that entrepreneurship has been exercised.

Kirzner (1973, pp. 57–62) uses an example in order to show how this criterion might be applied.[19] Suppose that an individual perceives a profit opportunity in the market for meat and decides to rent a gun and hire a hunter. Suppose furthermore that all guns and all hunters are exactly alike. We can assume that this agent initially borrowed the capital required, which means that her entrepreneurial perception is independent of the prior ownership of resources. The residual of the entrepreneur's operation, i.e., the revenue that remains after the repayment of the initial loan, is the entrepreneurial profit and constitutes proof that entrepreneurship has actually been exercised. Although this profit opportunity will eventually attract other entrepreneurs into the meat market thus squeezing profits down to zero, for as long as profits *were* realised, they must be perceived as a sign of entrepreneurial action.

Let us now assume that one hunter is superior to all others because of her talent in finding rich hunting grounds. Two further possibilities arise. The first is that this hunter

[19] Our presentation of Kirzner's example here draws from Ioannides (1992, pp. 66–67).

is not consciously aware of her exceptional talent. In this case the hunter will secure for the employer a bigger quantity of meat than other hunters to their employers. Evidently, this profit is a result of the employer's entrepreneurial alertness, as it springs from her superior perception of the hunter's talent. Again, the competition among the employers will raise the hunter's wages and profit will eventually disappear. The fact, however, remains that profit, for as long as it was realised, was again proof of this employer's entrepreneurship.

The second possibility is that the hunter is fully aware of her exceptional talent, in which case two further possibilities arise. The first is that the employer does not realise the superior ability of the hunter and, as a consequence, the latter appropriates the profit. The realization of this profit shows, of course, that entrepreneurship has been exercised by the hunter. The second possibility is that the employer is aware of her employee's superior ability. In this case the profit will be the result of the entrepreneurship exercised jointly by both the employer and the hunter, so that both of them must be viewed as constituting the entrepreneur. According to Kirzner (1974a, p. 104), a specific example of the latter instance—the joint exercise of entrepreneurship—is the modern corporation, in which the entrepreneurial role is shared between the shareholders and the management.

The nature of the criterion proposed by Kirzner is now clear. As he points out (1973, p. 51), "the correct theoretical characterisation of a particular receipt depends on the character of the decision responsible for that receipt". Therefore, in a particular situation, we can always judge who the person, or persons, who acted entrepreneurially is/are by observing who actually obtained a venture's profit. The important thing to notice is that, in Kirzner's account, entrepreneurship may be exercised by anyone participating in a team effort.

Although Kirzner proposes this example in order to establish a criterion for understanding of who acts entrepreneurially in practice, what he also offers is a plausible narrative of the emergence of an elementary firm. However, a *narrative* is not yet a *theory*. What Kirzner's story does not tell us is why the discovery of a profit opportunity results in the emergence of a multi-person organization, which has the character of an employment contract. What if the entrepreneur already owns a gun? In that case the implementation of her entrepreneurial discovery does not need the deployment of any non-human assets which she does not initially possess. What if the entrepreneur is already a competent hunter? Then she does not need to employ any human assets either, apart, of course, from her own human capital.

Of course, in most cases one would expect that the implementation of an entrepreneurial idea will require both human and non-human assets, which the entrepreneur does not initially possess. These assets will have to be obtained through the market in a variety of ways. In fact, we can think of this variety as constituting a continuum according to whether the decision of an asset's owner to assign it to the specific project entails sharing the original entrepreneurial idea. On the one pole of the continuum we find assets whose participation implies that their owners fully share the initial entrepreneurial vision—Kirzner's account of the negotiation between capitalists and entrepreneurs is pertinent here. On the opposite pole we find assets whose participation is independent of any knowledge of the entrepreneurial idea that is to be implemented.

The reality of the modern firm as an employment arrangement clearly points towards the fact that it is the latter pole that constitutes a sine qua non for this form of productive organisation. The question is whether this reality is explainable on the basis of Kirzner's theory of entrepreneurship. We believe that it is. Remember that entrepreneurial vision aims at the realization of a profit opportunity. Remember also that a profit opportunity tends to be diluted the more market participants perceive it as such—as we have seen, this is the essence of Kirzner's insistence on the equilibrating role of entrepreneurial action. On these grounds we can conclude that the locus of entrepreneurship has every incentive to restrict the entrepreneurial role both for reasons of effectiveness of implementation as well as for securing the profit that the entrepreneurial idea entails. Therefore, it is precisely entrepreneurial action that sets up the firm as an employment contract.

Let us now return to Kirzner's example with the hunter. On the basis of the above, this elementary productive organisation must be thought of as an employment arrangement, which is set up in order to take advantage of an entrepreneurial discovery. However, Kirzner's example provides three remarkable insights that distinguish this account of the emergence of the firm from any other.

The first insight is that the firm comes about as the result of an entirely subjectivist entrepreneurial "vision". It is that vision—i.e., the perception of a profit opportunity—that mobilises the effort of the entrepreneur to put together the set of resources that is necessary for its realization. Although these resources are essential for the success of the project, the entrepreneurial action that summons them must be thought of as being independent of the technology. The entrepreneurial vision may actually be a discovery of a new combination of resources, i.e., a new technology for the attainment of the desired result. Therefore, unlike the nexus-of-contracts view of the firm, the technology that characterises "team production" is not the starting point of the theory but rather a corollary of the primacy given to entrepreneurial vision. On the other hand, the fact that the market is perceived as fraught with error, ignorance and uncertainty—i.e., the phenomena that give rise to entrepreneurial action—means that the emergence of the firm through that action is entirely independent of any consideration of transaction costs, since the latter assumes a given ends-means framework within which the agent can calculate exactly the relative costs of every available course of action.

The remarkable character of the first insight must now be obvious. Unlike the contractarian theories of the firm, the perspective we have derived from Kirzner's theory of entrepreneurship does not have to rely on some sort of inefficiency of the market mechanism[20] but stems, instead, from the very principle that keeps this mechanism in constant motion: entrepreneurial behavior. The firm is, therefore, a product of the market process, rather than something distinct and unrelated to it. It is neither a supercession of the market, as Coase (1937) argued, nor a quasi market, as maintained by Alchian and Demsetz (1972). As a product of entrepreneurship, the firm must be thought of as promoting the overall efficiency of the system, in the sense of the intertemporal co-ordination of the plans of producers with those of consumers. However, as any market participant, the firm may commit errors that

[20] As when transaction costs economics specifies this concept as a sort of market failure, or when the nexus-of-contracts approach assumes a priori the difficulty of measuring individual effort in the context of team-production.

tend to upset this co-ordination.[21] Therefore, while the firm is different from the market, it is still a product of the market process and thus analysable with the same conceptual tools as the latter.

The second remarkable insight stems from the fact that Kirzner describes profit as accruing to the party that has actually exercised entrepreneurship. The fact that this party can be identified only *ex post*, means that all members of the firm may act entrepreneurially and may reap the profit of that action.[22] This, of course, is just a corollary of the Austrians' insistence that entrepreneurship is a universal attribute of human action. However, its significance for a theory of the firm is far-reaching. For although we may view all members of the firm as aiming to act entrepreneurially, it does not follow that they will all display the same competence to behave thus or the same success in their actions. Therefore, it must be assumed that entrepreneurship is unevenly distributed among the members and that, consequently, its precise distribution will necessarily have profound implications for the development of the firm.[23]

Again, the important thing to notice is that this second insight is also closely related to the Austrian view of the market process. According to Hayek (1937, p. 53), the course of the market process ultimately depends on the division of knowledge among market participants.[24] We now see that, in our Austrian perspective on the firm, the division of knowledge—in the sense now of entrepreneurial knowledge—determines what party will reap the profit of joint effort and thus the development of the organisation. As the division of knowledge is constantly reshuffled, there is an endogenous tendency in firms to change.

Finally, a third insight stems from Kirzner's dissociation of the concept of entrepreneurship from factor ownership. Although the firm that emerges from entrepreneurial action is indeed a bundle of inputs, the entrepreneurial discovery that actually leads to that emergence is entirely independent of prior ownership of resources. The remarkable point about this view is that, since entrepreneurial behavior is unevenly distributed among the members, and since the potential of such behavior is independent of factor ownership, the internal distribution of the residual arising from the firm's operation is dependent upon the exercise of entrepreneurship by each member, rather than on the resources she has initially contributed. In that context, the internal rules of the organisation and the contracts binding resources to it must be understood as institutional arrangements aiming at curbing the ability of resource owners to act entrepreneurially for personal gain in ways that may jeopardise the viability of the organisation.

[21] See Kirzner's example with the manufacturing of shoes and bicycles, that we presented above. See also O'Driscoll and Rizzo (1985), who introduce the notion of "pattern coordination", in order to capture the idea that the market process at the same time coordinates individuals' actions and disco-ordinates them.

[22] This insight comes into stark contrast with the principal-agent theory, which assumes that the principal knows perfectly the agent's action set.

[23] Making use of Kirzner's distinction between optimising and entrepreneurial action, we may think of members of the firm as comprising a continuum of behaviors between these two polar instances.

[24] Arguably, Hayek considers the position of equilibrium, rather than the market process proper, as being dependent on the division of knowledge. However, this dependence means that the equilibrium position is constantly shifting, if for no other reason because the division of knowledge is itself ceaselessly being reshaped. In actual fact, therefore, Hayek is talking about the flux of the market process as determined by the division of knowledge.

Note that the notion of the residual in this context is radically different from the notion of mainstream economics, where it merely refers to the balance that remains of the firm's revenues, after all contractual obligations have been met. According to the Austrian view, the residual also includes entrepreneurial profit. The latter may have monetary or non-monetary form, and it may or not be included in the accounting residual of the firm. Whatever the case, since some agents are in a position to appropriate this income through their participation in the firm, this residual must be thought of as being a potential part of the firm's income stream.

Again, the full implications of this insight will become evident in the next section. However, what is important to point out here is that, if all constituents of the firm are in a position—albeit in different degrees—to act entrepreneurially and to appropriate the kinds of residual income we have described above, we may have here the fundamentals for a theory than can address both the problem of the internal organisation of the firm as well as that of its boundaries. As we will see in the next section, the major determining factor for both issues is the distribution of the ability to act entrepreneurially among the members of the firm, i.e., how the firm's rules and practices structure the entrepreneurship of the members in a way that promotes or does not promote the viability of the overall organisation.

Unlike in the nexus-of-contracts view of the firm, the problem that we are describing is not solvable merely through effective monitoring. The latter would be sufficient if all agents were rational optimisers, in which case the only obstacle the monitor would encounter would be the costly gathering of the information pertaining to their actual behavior. In the perspective we are sketching here, however, the appropriation of the residual is not a behavior that can be traced—regardless of cost—for the simple reason that it is "entrepreneurial"; it is based on an entirely subjective assessment of the relevant circumstances and of the courses of action available to the agent at each particular moment. Furthermore, the boundaries of the firm as defined by the transaction costs paradigm is, again, incompatible with our perspective. It is not transaction costs at the margin that determine the boundaries of the firm but, rather, the differential ability of the firm's constituents to act entrepreneurially. In this context, internal organisation must be seen as an attempt to structure the entrepreneurial behavior of the members in specific ways.

We have seen in this section that the Austrian account of the emergence of the firm offers us remarkable insights into some aspects of the theory of economic organisation that contractarian theories have neglected. However, a truly and distinctly Austrian perspective on the firm, which may be taken as a serious alternative to mainstream theories, can begin to appear only if we face the problem of the maintenance of the firm.

Austrian theory and the problem of the "maintenance" of the firm

Remarkable as the insights we have derived from Kirzner's account of the emergence of the firm may be, they lose their significance unless we can relate them to an account of the "maintenance" of the firm. The reason is that the entirely subjectivist character of the concept of entrepreneurship seems to preclude any possibility to account for the *stability* of an organisation. For if the firm is the result of an entirely subjective entrepreneurial process, then we have to assume that the question of its stability is entirely indeterminate, because the same entrepreneurial process that led to its emergence may be reversed at any moment, and the bundle of inputs that constitute the firm may be dissolved.

That this is indeed the problem with the subjectivism of the Austrian perspective is evident from the theory of entrepreneurship itself. Let us remember that, according to Kirzner, entrepreneurial action consists in the discovery of error and thus in its eradication. In his example of entrepreneurship in the market for meat, we have seen that, regardless of who actually acts entrepreneurially and reaps the profit, this action leads to the disappearance of the original profit opportunity. The process that brings about this result is competition, which, in the context of Austrian economics, acquires the character of a "discovery procedure".[25] In fact, the result of entrepreneurial discovery is that entrepreneurial vision, which was initially subjectively perceived and held, is now revealed to market participants.[26] That entrepreneurial action does indeed lead to a revelation of entrepreneurial knowledge is evident from the fact that entrepreneurial success attracts imitators. Also, Kirzner's account of the negotiation between a would-be entrepreneur and a capitalist presupposes this revelation, for only in that case is a negotiation possible.[27]

The above points towards an important feature which must characterise a truly Austrian perspective on the existence of the firm. If the organisation which entrepreneurial action tends to set up is indeed volatile and temporary, then an account of the existence of the firm based on the concept of entrepreneurship must be fundamentally *dynamic*, in the sense that it must show how the organisation of the firm is constantly maintained through the exercise of entrepreneurship by its various constituents. Therefore, a static comparison of the costs between market and firm, as the ones proposed by contractarian theories, will simply not do, as it misses precisely the dynamic aspect of entrepreneurial action. We will now try to sketch what such a dynamic perspective would have to look like.

Let us begin by establishing that it is entrepreneurial action that maintains this dynamic process in motion. Suppose that a firm emerges as the result of the perception of a profit opportunity by an alert entrepreneur. Evidently, from the moment that this entrepreneurial vision is actually realised, the character of that firm's behavior ceases to be entrepreneurial and is now transformed into that of a typical optimiser. The realisation of the original entrepreneurial vision means that the firm's continued operation evolves in the context of a given and known ends-means framework and that it ceases to make entrepreneurial profits. A firm operating like a typical optimiser is not unthinkable for Austrian economics. Actually, it may be viewed as a plausible narrative of how firms perish in the real world, since in a system in which most agents behave entrepreneurially such a firm will inevitably see its market share shrink, will lose assets and will ultimately have to be dissolved. Therefore, entrepreneurial action is not only responsible for creating the firm, but also for maintaining the dynamic process that keeps it alive. Although it will not be pursued here, it seems

[25] See Hayek (1968).

[26] Of course, this should not be taken to mean that entrepreneurial knowledge is thus objectified, for there always remains the need for market participants to *interpret* what they perceive as entrepreneurial success. See Ebeling (1986) on this issue.

[27] This realization has been the starting point of a critique of Kirzner's subjectivist concept of entrepreneurship by the present author, which aimed at showing that, contra Kirzner, entrepreneurship is inexorably linked to factor ownership. See Ioannides (1992, chap. 5) and (1993).

interesting to attempt to explain the life-cycle of firms on the basis of the concept of entrepreneurship, in a way complementing and at the same time transcending Marshall's.[28]

But what determines the entrepreneurial dynamics that reproduces the organisation of the firm? We will now attempt to answer this question by developing the second and third insights that we derived in the previous section, that is, the uneven distribution of the capacity to act entrepreneurially among the team's members and the dissociation of their earnings from factor ownership.

The second insight allows us to introduce the distinction between the concepts of "outward" and "inward" entrepreneurship. Outward entrepreneurship is exercised when the firm behaves as an alert individual entrepreneur, aiming at discovering profit opportunities in the markets for outputs and inputs. Inward entrepreneurship, on the other hand, refers to the ability to shape the outcome of the interaction of the entrepreneurial activities of all members of the organisation.[29] The former is entirely tractable on the basis of Kirzner's theory, which, as we have seen, relates entrepreneurship to the behavior of a single individual operating in the market process. In terms of a theory of the firm, outward entrepreneurship must be posed against the orthodox neoclassical view of the firm-as-production-function, thus reproducing the distinction introduced by Kirzner between optimising and entrepreneurial behavior. However, it is the concept of inward entrepreneurship that is the most pertinent to our comparison of the Austrian perspective on the firm with contractarian theories. Although our focus in this paper is on the issue of the existence of the firm, we will hint below that this concept allows the extension of the Austrian theory of entrepreneurship to the analysis of the issues of internal organisation and of the boundaries of firms.

Let us note, first of all, that the concepts of outward and inward entrepreneurship are intimately related. According to Kirzner, securing the necessary resources for the realisation of an entrepreneurial discovery constitutes an integral part of entrepreneurial action.[30] However, one of the major such resources in the context of an organisation is the compliance of all members with the goals of the organisation and their actual behavior in that mode. Therefore, the successful exercise of outward entrepreneurship entails the successful exercise of inward entrepreneurship as well. Let us remember that, according to our second insight, all members of the firm, albeit in different degrees, act entrepreneurially, i.e., behave in ways that aim at securing for themselves the full returns on a profit opportunity which they discover. On these grounds, inward entrepreneurship must be thought of as the

[28]Marshall's (1920, p. 265) explanation, as it is well known, was based on the notion of the "representative firm", a major aspect of which was the abilities of its owners-managers. Writing early in the century, Marshall was, of course, justified in conflating ownership with management. The greatest advantage of applying the concept of entrepreneurship in the explanation of the life-cycle of the firm is that it is applicable to joint-stock corporations, which, after all, as Marshall himself had realized (1920, p. 263), "often stagnate but, do not readily die".

[29]The concept of "inward entrepreneurship" is thus loosely related to that of "intrapreneurship", introduced and extensively explored in management literature. There is, however, an important difference. In the latter literature, "intrapreneurship" is viewed as a process of transferring entrepreneurial responsibility from top management to lower ranks of corporate hierarchy. In the Austrian perspective on the firm we are developing here, the issue is not the transfer of entrepreneurship but, rather, the coordination, by top management of its exercise by all team members, in order to ensure its compatibility with outward entrepreneurship. For references to the "intrapreneurship" literature that come close to the approach here adopted see: Shatzer and Schwartz (1991); Chisolm (1987); Luchsinger and Bagby (1987).

[30]See footnote 13 above.

activity that attempts to structure the exercise of entrepreneurship by the team members in a way that makes it compatible with the exercise of outward entrepreneurship.

Note that the idea that all the constituents of the firm may behave entrepreneurially is not untranslatable into the discourse of contractarian theories, whereas it is entirely incompatible with the view of the firm-as-production-function. The latter assumes a priori that all members of the firm share, and actually operate in order to achieve, the same goal: profit maximisation. However, when transaction costs theorists insist on the concept of "opportunism"[31] as the major behavioral assumption of their paradigm, what they mean is that members can make use of the information they possess for private gain, thus extracting a quasi-rent from their membership. In the context of Kirzner's example that we discussed in the previous section, this is exactly what happens when the hunter, acting entrepreneurially, reaps for herself the entire profit of the enterprise. On the other hand, when nexus-of-contracts theorists talk about "moral hazard", in the form of the possibility of free-riding that arises in the context of team-production, what they really describe is an entrepreneurial discovery by some agents that, given the difficulty in the detection of reduced effort, they can reap a profit in the form of the enjoyment of more leisure. Again, in terms of Kirzner's example, we could think of the hunter working only half-time, since her superior talent makes sure that the quantity of meat obtainable in that time is the same with that obtained by other—less talented—hunters working full time. It is important to note that, for both approaches—hence one more affinity with the Austrian view— this sort of selfish behavior is knowledge-based, for it involves the pursuit of self-interest by using privately-held knowledge.

However, although the idea that all firm members may behave entrepreneurially encompasses the notions of opportunism and moral hazard, it cannot be reduced to them. The reason is that these notions imply that agents exercise choice of contractual alternatives within a given ends-means framework, with contracting parties knowing—or being able to guess with reasonable degree of certainty—the intentions of and available courses of action to each other. Obviously, the idea that all members of the firm behave entrepreneurially entails much more than the behavior described by contractarian theories, for it encompasses, by definition, behavior that has the nature of a "revelation" even for the actor herself. It follows that the remedies proposed by contractarian theories for the efficient solution of the contracting problems that arise as a result of opportunistic behavior or moral hazard—hierarchy and monitoring respectively—are not acceptable solutions to the problem in the context of the Austrian-entrepreneurial perspective.

That there is a problem is beyond doubt. For if all members of the firm may behave entrepreneurially aiming at personal gain, what is it that keeps the firm together as a stable organisation? Clearly, an answer that would require the abolition of the capacity for acting entrepreneurially cannot be accepted, as it would amount to the abolishing of any initiative by the firm's members, and to its transformation into an organisation operating on commands alone-the view implied by the conception of the firm-as-production-function. Thus the firm would lose the returns which could be obtained through the utilisation of the entrepreneurial creativity of all its constituents.

[31] Williamson (1985, p. 175) defines it as "self-interest seeking with guile".

The solution to the problem is achieved through the exercise of “inward” entrepreneurship. The object of inward entrepreneurship cannot be, as we have seen, the abolition of the ability to act entrepreneurially by some members of the firm but, rather, the co-ordination of entrepreneurial behavior so that it is compatible with the general goals of the organisation—outward entrepreneurship. In other words, and in contrast to contractarian theories, the purpose of inward entrepreneurship is not the aligning of incentives but the aligning of the entrepreneurial behavior of all team members. This cannot be achieved by commands alone, nor can it be conceived as a contractual process, for what is at issue—entrepreneurial discovery—is incontractable. So what is the tool through which inward entrepreneurship is realised? The only such tool conceivable, which, as we have seen, is recognised by Hayek in his discussion of organisations, is *rule-setting*. It is such rules—organisational forms, command structures, promotion ladders, recruitment tactics, etc.—that shape the environment within which the members of the firm act, thus directing their entrepreneurial behavior towards the attainment of the firm’s goals.

This raises a new question. If all members of the firm have the capacity to act entrepreneurially—our second insight—and if that capacity is independent of the position of each member in the organisation and of the assets that she controls—our third insight—, what determines the constituents of the firm that will have the capacity to set the rules—to exercise inward entrepreneurship? Moreover, as we have discussed in Section 3 above, the interaction among members of an organisation inevitably produce tacit rules, routines and practices, even beyond the organisation rules set by the commanding authority, thus infusing organisation with elements of spontaneous order. A large part of what is usually described as “business culture” may be seen to comprise precisely those rules which are not intentionally set by the center of command. If this is the case, the question of which party has the greatest ability to frame the rules of the organisation is of vital importance.

Given our second insight, the answer seems to be fundamentally indeterminate. This is an indeterminateness that may have profound implications for the viability of the firm. If rule-setting is effectively exercised by an agency which is different from the agency that exercises outward entrepreneurship, then nothing ensures that these rules will be compatible or co-ordinated with the latter. Thus the exercise of outward entrepreneurship may be significantly hampered, as it may fail to secure a very important resource for the realisation of its “vision”: the co-ordinated operation of all the constituents of the firm.

Therefore, the maintenance of the firm requires that the indeterminateness described above be resolved. In order to understand how it is actually resolved, we need to introduce into the analysis the concept of *power*. The introduction of such an un-economic term may sound strange. However, it is clear that the ability to set the rules, —the ability of one agent to determine the framework within which other agents will act—is a typical instance of a power relation. In the famous schema for the analysis of power, introduced by Steven Lukes (1974, pp. 16–20), rule-setting must be thought of as arising from what he describes as a “two-dimensional” view of power: the capacity of an agent A to set the agenda of another agent B. Warren Samuels (1972) seems to have a similar idea, when he introduces the concept of “volitional” choice, i.e., the case where an agent’s opportunity set is restricted to a particular range of alternatives, by the actions of another agent. Moreover, this is precisely the spirit in which Hayek describes (1993, Vol. I, p. 49) the rules of organisations: “. . . the rules each individual must obey depend on the place which he has been *assigned* and on the particular ends which have been indicated for him by the *commanding authority*" (emphasis added). But if rule-setting entails power, then the question of who has the right to set the rules must be seen as being determined itself through the exercise of power.

Wherein lies the focus of this power? The ultimate source of power is the ability of one party to exclude others from participation in the organisation. In the capitalist firm it is ownership of the firm itself that confers the right to grant membership. At the same time, rule-setting by the owners ensures that the power to set the rules resides with the same agency that exercises outward entrepreneurship. In fact, an identical answer to this question is provided by the "property rights" or "incomplete contracts" approach to the firm, which considers ownership of nonhuman assets as the source of power. According to Oliver Hart (1995, pp. 29–30), ". . . ownership is a source of power when contracts are incomplete . . . That is, the owner of an asset has *residual control rights* over that asset: the right to decide all usages of the asset in any way not inconsistent with a prior contract, custom, or law". For Hart, the ownership of residual control rights to an asset is fundamental for the issue of the boundaries of the firm, because it is precisely this ownership which acts as an incentive to the agent to make the specific investment needed—e.g., to vertically integrate with another firm and thus obtain the residual control rights of its assets. In a nutshell: ownership determines membership.

Does this conclusion violate Kirzner's insistence that entrepreneurship is independent of factor ownership? We believe it does not. Remember that the concept of inward entrepreneurship was derived on the grounds of our second insight: that all constituencies of the firm may and do act entrepreneurially, regardless of their ownership. Remember also that Kirzner insists that a capitalist is always an entrepreneur. What we have arrived at is the conclusion that, in the context of an organisation like the firm, the entrepreneurship of the capitalists—i.e., the owners of the non-human assets—must also entail the power to set the rules within which all other members of the organisation have to operate entrepreneurially.

What we have attempted to show in this section is the mechanism through which the firm is maintained as a stable organisation. We have argued that the maintenance of the firm can only be ensured through the co-ordinated exercise of outward and inward entrepreneurship and we have discussed the institutional arrangements—rule-setting by the owners of the firm—that can achieve this result. We will now end this section with only a few hints as to how this analysis could be extended to address the issues of the internal organisation and boundaries of firms.

Let us begin with internal organisation. The fact that we have described the co-ordinated exercise of outward and inward entrepreneurship as the major factor for the firm's viability means that the degree to which this co-ordination is achieved by different organisational arrangements can be considered as the criterion for the assessment of their relative merits. Consider the example of the move from the U-form to the M-form of internal organisation, discussed by Williamson (1981). In his view, this move can be explained by transaction costs considerations, i.e., by the reduction in the chances for opportunistic behavior by division managers that it achieves. By contrast, in the perspective we have developed, the dominance of the M-form can be explained by the greater co-ordination between outward and inward entrepreneurship that it ensures. In this form of business organisation division managers are encouraged to behave entrepreneurially, while the central office of the corporation assumes the entrepreneurial role of the "capitalist" in Kirzner's schema. Consequently, in our perspective, the M-form must be viewed as a form of business organisation that greatly enhances the exercise of both inward and outward entrepreneurship, while, at the same time, ensuring their effective co-ordination.

Let us now turn to the issue of the boundaries of the firm. In the Austrian-entrepreneurial perspective we have tried to develop, the "make or buy" decision translates into a choice between the exercise of inward (make) and outward (buy) entrepreneurship. A decision to integrate vertically increases the difficulty of the effective exercise of inward entrepreneurship. However, whether the integration will be undertaken or not depends on how it will affect the exercise of outward entrepreneurship. Vertical integration results in an outward shift of the interface between the firm and the market process, i.e., of the realm in which outward entrepreneurship is exercised. Therefore, on the basis of our analysis, we should expect that a firm will keep growing in size as long as the benefits from the resulting increase in scope for outward entrepreneurship outweigh the burdens on the effective exercise of inward entrepreneurship.

Concluding remarks

Let us now sum up our discussion. We have begun by deriving three insights on the emergence of the firm from Israel Kirzner's theory of entrepreneurship. Their significance stems from the fact that they provide the basis for a comparison of the Austrian perspective on the firm with contractarian theories. We then proceeded to discuss the Austrian account on the maintenance of the firm. By introducing the concepts of outward and inward entrepreneurship, we have argued that the latter implies the capacity to set the rules of the organisation, a capacity that entails the exercise of power arising from the ownership of non-human resources. What we have really established is that the organisation of the firm is maintained through the exercise of entrepreneurship: i.e., by the co-ordination between the exercise of outward entrepreneurship with that of inward entrepreneurship. Therefore, it can be held that the Austrian perspective on the firm, which we have developed, is capable of presenting a plausible account of the emergence and of the maintenance of the firm, i.e., of the issue of existence. Finally, we have argued that the concepts of inward and outward entrepreneurship seem to offer a promising basis for developing of an Austrian account on the issues of the boundaries of the firm and of internal organisation as well.

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