The Firm and Strategic Factor Markets

Analyzing the Role of the Firm in the Creation of and Pricing in Factor Markets

Per L. Bylund
Per.Bylund@mizzou.edu

McQuinn Center for Entrepreneurial Leadership
&
Division of Applied Social Sciences
University of Missouri

University of Missouri
323 Mumford Hall
Columbia, Mo. 65211

Phone: 573 882-4627
Fax: 573 882-1958

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Introduction
In the Socialist Calculation Debate, Mises (1920; 1922) attempted to convince the world that socialism would always fail in its central planning of society and production due to the lack of real prices in the factor markets. Without private property, he argued, there are no functioning markets and therefore there will be no basis for economic calculation (i.e., prices) and hence no means to make rational decisions. While markets for consumer goods could possibly be “simulated” by the central planners, the socialist system would necessarily fail in the extension of the division of labor through roundabout production processes. In other words, socialism fails because there are no real prices for factors that entrepreneurs can rely on when making decisions on what to produce and how to produce it.

A complex capitalist economy is based on entrepreneurs bidding for factors of production – labor, land, and capital goods – to be used in production processes they judge as potentially profitable. In fact, entrepreneurs can only seize a profit opportunity “by acquiring factors of production at a market price or monetary cost which they expect to be lower than the selling price they will obtain for the consumer good once it has been produced” (Huerta de Soto 2010, p. 114-115). This is the core of the matter in the argument against socialism.

The problem that socialists are unable to overcome is the lack of functioning price mechanisms for these factors, which effectively deprives entrepreneurs of the means to make profits and therefore there will be no division of labor, no innovation, and no market process. The economic machinery will essentially be stopped and, due to the problem of foreseeing consumer wants, put in reverse. Mises writes ([1949] 1998, p. 330-331):

The prices of the goods of higher orders are ultimately determined by the prices of the goods of the first or lowest order, that is, the consumers’ goods. As a consequence of this dependence they are ultimately determined by the subjective valuations of all members of the market society. [...] The prices of the complementary factors of production are conditioned by the prices of the consumers’ goods. The factors of production are appraised with regard to the prices of the products, and from this appraisement their prices emerge.

Since factors of production only indirectly can satisfy consumer wants, it is necessary that the prices for factors be “imputed” from the values of consumers through the prices they are [expected to be] willing to pay for goods of the lowest order. But socialism essentially lacks economic actors, and especially entrepreneurs, and therefore imputation is impossible.

Mises ([1949] 1998, p. 332) further shows that factors markets, and especially the pricing of factors, function “the same way” as how the market process determines prices in consumer markets. Entrepreneurs, “eager to profit” from price discrepancies, attempt to foresee what prices consumers are willing to pay, and they act as “bidders at an auction” where current owners “put up for sale land, capital goods, and labor.” The difference, of course, is that the market for the
factors of production relies on expected profits of the products produced through using the factors rather than sales of the factors themselves.

The fact of the matter, as Mises ([1949] 1998, p. 332) shows, is that “[o]ne cannot deal with the market of the goods of higher orders while disregarding the actions of the entrepreneurs and the fact that the use of money is essential in their transactions.” This is clearly so, but whereas the analysis serves its purpose of explaining how true factor appraisals through the establishment of market prices emerge from the entrepreneurs’ bidding to satisfy consumer wants, Mises does not discuss how such markets emerge. He explains how the market is “actuated and kept in motion,” but only in terms of how the market functions and not how that market is created.

Factors are heterogeneous and therefore have multiple specificities and different complementarities; these specificities and complementarities of capital combinations are “ever changing, will be dissolved and reformed” (Lachmann [1956] 1978, p. 16) as time passes. But where there is continuous change there is also frequent and continuous novelty: previously unseen as well as unforeseen types of factor services or capital goods are created. Undoubtedly, such factors will be the result of entrepreneurship, and the creation of them is what extends the division of labor, makes production processes more roundabout, and allows the market to satisfy more consumer wants. But this is where the theory of imputation seems to leave out at least one step between the creation of a new and unique capital good and the pricing of the same: factor pricing through market bidding does not automatically follow creation.

Imagine the first of a kind of factor service or capital good is created and assume it is created in order to produce a previously unseen good of the lowest order, which means there are no real prices to rely on but only entrepreneurial expectations of consumers’ willingness to pay. In either case, Rothbard ([1962] 2004, p. 613), tells us:

> There would be no way for [the producer] to estimate any implicit price or opportunity cost for the capital good at that particular stage. Any estimate would be completely arbitrary and have no meaningful relation to economic conditions.

The result of entrepreneurial creation (cf. Schumpeter [1911] 1934) is therefore that the factor would seem to exist in a non-market state under which pricing and profit calculation are impossible (at least according to Mises’s calculation argument). It is furthermore difficult to imagine under what assumptions an entrepreneur would choose to willingly incur the costs of such extreme uncertainty. And even if the entrepreneur chooses to do so, the theoretical step from creation of previously unknown factors or factor services, and capital goods to the entrepreneurial “bidding” for these factors in a market has yet to be taken. The object to be traded may have been created, but the market for it has not: there are neither buyers nor sellers – there is only a single potential seller: the creator-owner.

This paper aims to draft a possible solution to the problem posed above through attempting to explain the creation of factor markets. I identify that the firm, seen as the entrepreneur’s vehicle to establish specialized structures of production (see Bylund 2010; 2011), plays a central role and
that the establishment of firms is essential for the increased division of labor and, consequently, the formation of factor markets.

In next section, I briefly summarize the view of the firm as an island of artificially increased dynamic and material density (Durkheim [1892] 1933), thereby supporting enhanced division of labor, that is established by the entrepreneur to implement an imagined superior structure of production. I then elaborate on the creation of the firm by the entrepreneur and what the effects of competition in the market are on the firm, as well as the particular factors supported by it. This analysis emanates into a discussion on how the market structure changes through adoption and competition, and how entrepreneurs unknowingly collaborate in the creation of factor markets that mitigate the cost of bearing uncertainty.

The Firm as Specialization
The idea of explaining the existence and structure of firms in terms of the division of labor goes back at least to Adam Smith’s discussion on the division of labor. He makes it clear that “work may really be divided into a much greater number of parts” ([1776] 1976, p. 8) in the big manufactures as compared to the smaller manufactures and, especially, the market. Whereas the classical economists agreed that the firm embodies a greater division of labor, their analyses fell short of elaborating on why firms are distinct from markets and what causes them to exist. One of the main shortcomings is that the cause of firm emergence in the specialized market is overlooked: the role of the entrepreneur as organizer and initiator of firm structures is left out. The entrepreneur can be seen as the cause of more roundabout structures of production in their quest for profits through tapping into and making full use of factors through division of labor. While Smith’s discussion establishes that there are gains from specialization through dividing work, he does not formalize the statement or clearly specify the mechanisms. But he establishes that the potential for (and possibility of utilizing) the division of labor is limited by the extent of the market (Smith [1776] 1976; cf. Stigler 1951). This is an important clue to understanding the effects of division of labor, and how it relates to market structure. Durkheim ([1892] 1933) shows that the “extent” of the market is the potential impact by actors in the market, i.e. how far-reaching their actions are. This, in turn, is determined by the density of the market that is available to the individual actor. The extent of possible division of labor is therefore dependent on and limited by the existing market structure – it is not feasible to engage in specialization to a degree that is significantly different from that of the market within

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1 For a more elaborated discussion on this view of the firm, as well as a formalization, see Bylund (2010).

2 It should be noted that Smith has been criticized for placing too much value on the division of labor within firms as compared to the division of labor in the market (see e.g. Rothbard 1991, p. 17).

3 Durkheim defines “dynamic density” as a situation where “individuals [are] sufficiently in contact to be able to act and react upon one another … and the active commerce resulting from it” ([1892] 1933, p. 257), which is in turn dependent on a comparative level of “material density,” i.e. degree of concentration of population and the development of means of communication and transportation (Land 1970).
which the actor operates due to inefficiencies and/or incompatibilities.\textsuperscript{4} We should therefore generally predict to see a greater potential division of labor in cities than in rural areas as well as within firms as compared to markets.

The value of the division of labor, in terms of productivity, is brought about through the transformation of complex processes into chains of simpler tasks. The simpler tasks can potentially be carried out more effectively by labor factors focusing their effort while the learning curve is also lowered, thereby increasing the potential supply of available labor factors through allowing less qualified workers to access the market, which consequently lowers costs. This is due to resources’ “multiple specificities” (Lachmann [1956] 1978), i.e. the fact that factors of production usually have several alternative uses. Engaging in specialization efforts can thereby be seen as the purposive “lengthening” of the structure of production through dividing a common task into (and therefore replacing it with) a set of highly standardized tasks (or components) with restricted individual scopes (cf. Böhm-Bawerk 1890).

Mises ([1949] 1998, p. 164) nicely summarizes the value and effect of increased division of labor in the market:

\begin{quote}
The division of labor splits the various processes of production into minute tasks, many of which can be performed by mechanical devices. It is this fact that made the use of machinery possible and brought about the amazing improvements in technical methods of production. Mechanization is the fruit of the division of labor, its most beneficial achievement, not its motive and fountain spring. Power-driven specialized machinery could be employed only in a social environment under the division of labor. Every step forward on the road toward the use of more specialized, more refined, and more productive machines requires a further specialization of tasks.
\end{quote}

An obvious effect of the specialization through increased division of labor is the need for capital goods to perform or support the mechanizable tasks. Whereas Mises correctly states that mechanization is an effect of division of labor, there should also be created a certain degree of interdependence between the production process and the “mechanical device” that is invented to take over the “minute tasks.”

In other words, the creation of capital goods should be a result of increased division of labor, but the initial specificity of such capital to the production process for which it was created should more often than not be extremely high. The increased specialization effectuates an initial limitation of task output specificity (i.e., compatibility with components traded on the market) due to a radical decrease in the extent of the market available for the individual factor (market structure is assumed constant).

\textsuperscript{4} Not engaging in specialization to a sufficient degree, i.e. specializing to a lesser extent than the market, implies inefficiency, whereas too great specialization leads to disconnectedness from the market through fundamental output incompatibility and, hence, effective elimination of market demand.
However, the utilization of specialization in the market, to the extent it is productivity enhancing and therefore implies increasing returns (Young 1928), is dependent for its implementation on existing levels of division of labor (or, in the Durkheimian taxonomy, market density) – and vice versa (Stigler 1951; cf. Levy 1984). The continuous and gradual increase in the overall division of labor as apparent in the market is limited through being tightly coupled with the market structure. This interdependence thwarts possibilities of gaining significant comparative advantages using specialization; hence, there are only very limited benefits to gain through unilaterally engaging in increased division of labor.5

A possible means to circumvent this interdependence limitation is to trade through market-compatible interfaces while engaging in extensive (i.e., greater than generally available in or even supportive by the market) division of labor only within encapsulated6 (and therefore “hidden”) production processes such as firms, thereby utilizing greater specialization than the market while trading according to the same standards as other market actors. Encapsulation of highly specialized production processes suggests both local, within-firm nullification7 of the market limitation and exploitation of internal comparative advantages through specialization. This advantage however is indirectly limited by the extent of the market through its supply of e.g. machinery, materials, and standardized input components that are compatible with the encapsulated structure of production. In other words, there may be an upper limit to the exploitation of super-market division of labor.

The productivity advantages enjoyed through establishing encapsulated processes utilizing immoderately (or over-) specialized factors is dependent on someone to bring about and coordinate the structure as well as having the financial ability to attract labor factors from their current profitable engagements. Therefore, the establishment of such encapsulated production processes is dependent on entrepreneurs8 who imagine new and more roundabout structures of production (cf. Klein 2008), their ability to guide factor specialization and co-specialization to bring it about, their resourcefulness, and their willingness and financial capability to provide sufficient compensation to attract factors to their imagined extra-market endeavor. Labor factors must not only be enticed to give up their current positions in the market, but to co-invest in specialization with other factors of a kind and depth not generally saleable in the market. Other factors must be purchase in the market and put to use in a particular manner, perhaps as machinery.

5 Note that in a competitive market place even limited gains may be necessary for survival, which implies that the market would enjoy a steady (but slow) increase in productivity through specialization and the division of labor.

6 Encapsulated is here used to express the “hiddenedess” of inputs and outputs used within a firm from trade involving market actors. The high degree of interdependence between inputs and outputs of labor factor within the firm has primarily two effects: it excludes market traders through creating insurmountable incompatibility (thereby “hiding” the input and output components) while greatly restricting the market for labor factor outputs.

7 Throughout this article, the boundaries of firms are assumed to be easily recognized. The issue of boundaries of the firm requires separate treatment and is outside the scope of this paper.

8 Entrepreneurship is here seen as the function provided to the market place through the recognition of and acting on perceived opportunity, risk-bearing, and creation of new structures of production (see e.g. Cantillon [1755] 1931; Knight [1921] 1985; Mises [1949] 1998) by imaginative individuals, rather than as occupational choice or structural condition (cf. Klein 2008).
The Meaning of Firms in the Market for Factors

It follows from the reasoning above that the firm as an island of super-market division of labor provides entrepreneurs with a means to overcome the interdependencies in the market and thereby establish more roundabout production structures that cannot be created through market contracting. The firm creation process therefore necessarily implies the creation of factors that did not previously exist in the market (since they support the specific tasks in the newly created production process) and therefore cannot have a price. At a minimum, the factors used within the firm should differ from their use in the existing market in the service for which they are used in the firm. Presumably more commonly, however, the factors within the firm will have a particular degree of specialization achieved through new and previously unknown combinations of specificities and utilizations of complementarities, i.e. they are either innovated or given new shapes and forms.

In the former situation, where existing factors are purchased in the market for the purpose of being used in new ways, only the service of the factors may be new and there may already exist market prices for this particular factor. However, in order to remain profitable the entrepreneur needs to estimate the potential change to this market price that the newly discovered use of the factor may lead to; he needs also estimate the factors’ worth to him in the imagined production process. This is especially the case where previously existing factors are traded and priced in the market but purchased by an entrepreneur to produce previously non-existent goods of the lowest order, since the imputed factor price necessarily must change with this additional use to reflect the value consumers place on the new goods to be offered in the market.

Were this not the case, i.e. when the factor is used in a previously undiscovered fashion to produce already existing goods of the lowest order, we would expect the imputed price to already reflect the value consumers place on the goods for consumption. The only change we should expect in this latter case is a change due to the increased supply due to this new, and presumably more efficient, use of the factor(s), which implies potentially increased supply in the market and hence lower prices. The value of the factors to the firm-creating entrepreneur should be, ceteris paribus, higher when used within the firm than were he to use them to produce the already existing products using known production processes, since he would expect greater productivity from the new structure of production (and therefore more efficient use of the factors), suggesting greater output at lower monetary cost.

The market prices of factors used by the entrepreneur will allow for limited cost accounting (see e.g. Mises [1949] 1998, pp. 336-347), especially in cases where market prices for sold goods of the lowest order already exist. Where such do not exist, the entrepreneur will, in his capacity of capitalist, provide the function of exchanging present goods for future goods while not being

Note that the number of factors used here need to be >1, since the firm needs to trade in the market with compatible inputs and outputs. The process within the firm is necessarily more roundabout than in the market and needs to span multiple steps, stages, or tasks as the entrepreneur cannot supply a service to the market that is incompatible. (Dividing a market supplied task into more specialized tasks while dependent on market trade interfaces implies that the firm needs to consist of at least two tasks.)
able to calculate the magnitude of the prices to be received in the future. This makes cost accounting quite impossible and the entrepreneur therefore needs to rely solely on his non-quantifiable judgment.

We have a different situation in the latter of the possibilities mentioned above, where the entrepreneur creates new factors of production, for instance when creating a new “mechanical device.” Here the entrepreneur is certainly guided by the monetary market prices for those factors already traded in the market, e.g. raw materials and labor factors to build the machine to use in the production process. Prices for the factors used in building the machine should facilitate a basis for making calculations of the outlay (monetary value forgone upon purchase, an essential part of the entrepreneur’s cost accounting) for the machine’s parts and construction process, but do not help the entrepreneur in estimating the economic (opportunity) cost of having and using it. The mentioned market prices will support calculation of the market value of the already existing factors that the entrepreneur wishes (chooses) to use, but will not help establish whether there is real value in the planned structure of production and therefore cannot estimate whether their uses will be efficient. As Rothbard ([1962] 2004, p. 613) states:

A firm can estimate an implicit price when an external market exists; but when a market is absent, the good can have no price, whether implicit or explicit. Any figure could be only an arbitrary symbol. Not being able to calculate a price, the firm could not rationally allocate factors and resources from one stage to another.

In our case, the structure of production, as well as the factors used to establish or run it, is not traded in the market. We also know that a firm, using our definition from above, necessarily consists of at least two stages (see footnote 9 above), and therefore there can be no rational basis for calculating the value of the project or its parts. This point is further stressed by Machlup (1976; quoted in Huerta de Soto 2010, p. 131 fn 49):

Whenever a firm (or concern) supplies the output of one of its departments as an input to another of its departments instead of selling it in a competitive market at a price established by supply and demand, the problem of artificial transfer prices or of jumbled cost-and-reserve figures arises. There may still be calculations, but not according to the economic principle of what Mises termed “economic calculations”

Consequently, the machine created by the entrepreneur cannot be separately appraised since it cannot be (is not) traded in the market – the entrepreneur can only roughly estimate the value of the whole process from market-traded inputs to market-traded outputs. This suggests that the entrepreneur cannot rationally choose between alternative means in the established production process, and therefore the firm is (i) necessarily integrated and (ii) subject primarily to the entrepreneur’s judgment for its internal organization. There can be no internal cost accounting to
help the entrepreneur make rational decisions regarding the individual stages in the integrated process, which confirms Rothbard’s view of the firm, as well as the view of most of the theory of the firm literature from Coase (1937) onward.

In the case where this entrepreneur imagines a new structure of production to facilitate more efficient production of a product already existing in the market, his judgment is only required for the internal organization of the firm, since he can rely on market prices for the factors used (the market traded inputs) and the products produced (the market traded outputs). Real market prices therefore exist in “both ends” of the imagined production process, which partly relieves the entrepreneur from uncertainty through offering immediately calculable profits and losses due to monetary outlays and income. Efficiency is here the main problem, since there are no market prices and therefore no rational appraisement of the individual tasks performed within the firm, which implies that the entrepreneur cannot be guided in his attempts to effectively and efficiently organize internally the tasks he has imagined (and/or choose between alternative ways of performing these tasks).

The successfulness of the entrepreneur’s enterprise is here subject to how successfully he manages to organize the performers of the tasks within the firm and, perhaps more importantly, how these performers work together. The issue of co-specialization of factors, especially in the form of decentralized decision-making or derived judgment (Foss, Foss and Klein 2007), and continuous improvement of the roles and interfaces between internally performed tasks is vital for the entrepreneur’s success in establishing and running a continuously profitable structure of production. This ties into the firm’s human resource policy and the importance of finding the “right” labor factors, but also suggests that the entrepreneur is dependent on the competence, skill, and judgment of factors initially helping him to create the capital goods to be used in the process as well as those hired for the maintenance of these goods.

The creation of the firm must therefore be seen as a process rather than non-time consuming decision-making. The entrepreneur’s judgment must be “superior” (cf. Knight [1921] 1985) in terms of both the arrangement of factors in the overall imagined structure as well as in the choosing of labor factors. The latter need to be chosen based on their relevant qualities, competencies, skills, and personalities for establishing the details in the structure through exercised (and continuous) proxy entrepreneurship.

The importance of exercising judgment for the creation, initiation, and maintenance of the firm, as well as derived judgment within its established internal organization, is even more pervasive when the entrepreneur sets out to produce previously unknown and unforeseen goods of the lowest order. Here there are no means whatsoever to engage in cost accounting to rationally estimate profitability, since market prices for the products have yet to be discovered. In other words, imputation of the value of the firm as a whole, as well as its parts (in terms of vertically integrated stages of production), is unattainable; not only does the entrepreneur lack the means to estimate the value, but such valuation is in itself necessarily both practically and theoretically impossible. As imputation cannot exist, there is no basis for imputing prices and therefore there cannot be entrepreneurial bidding for, and therefore no market for, such factors.
What we see here, however, is not necessarily that the lack of imputed value, through the non-existent market for goods of the lowest order, makes both trade and rational cost accounting impossible – and therefore that the entrepreneur needs to establish a firm due to these increased “transaction” costs (cf. Williamson 1979). Rather, we see that the entrepreneur establishes a firm in order to realize his imagined structure of production, presently unsupported by the prevailing market structure, thereby making possible a more roundabout production structure despite the lack of imputed value. In the next section, we will look at how competition for profits relieves the entrepreneur from the cost of uncertainty within the firm.

**Competition as an Imitation Procedure**

We have already seen how imputation is impossible within a newly created firm due to the increased specialization of factor use within it, and that this is due to the purpose of the firm rather than its supposedly Coasean nature. The entrepreneur must rely on his superior judgment for the market value of the goods of the lowest order he is to produce as well as for the internal organization of the firm and the use-value of factors in each stage without possibility of rationally calculating the value of each. Whereas the entrepreneur’s judgment may truly be superior and not cause problems, the impossibility of cost accounting implies uncertainty that is itself costly for the entrepreneur and, therefore, also for the firm.

This cost of uncertainty may be similar in some regards to the “cost of organizing” in the Coasean framework. To Coase (1937), the rationale for the firm lies in the comparison (or rather the minimizing choice) of the costs of transacting in the market and the costs of organizing in a firm, respectively. There is therefore only a practical limit to the size of firms. Indeed, Coase asserts that changes that decrease the spatial distribution of production factors, thereby increasing the reach of managerial direction, lead to larger firms. In fact, “[a]ll changes which improve managerial technique will tend to increase the size of the firm” (1937, p. 397).

Rothbard goes further in his analysis through, along the lines of Mises, pointing to the importance of capital goods markets and how the market effectively sets a limit to the size of firms. States Rothbard ([1962] 2004, p. 613; emphasis in original):

*For every capital good, there must be a definite market in which firms buy and sell that good. It is obvious that this economic law sets a definite maximum to the relative size of any particular firm on the market.*

While Rothbard’s imputation approach offers a theoretically based rationale for the upper limit of the size of firms (rather than a practical limit), we can establish, keeping the discussion in the previous section in mind, that this not only undermines the rationale for firms but also disallows the creation of new capital goods. With respect to the former consequence, we have that firms can only establish competitive advantages towards the market through imaginative, non-existing combinations of already existing and traded capital goods (cf. Foss et al. 2002). While new combinations of existing and traded capital goods require entrepreneurship, it does
not clearly follow why this cannot be done in the market place through contracting. Assuming it cannot, and therefore that firms are necessary to bring about these combinations, the rather simple combining of traded capital goods means firms should be easily emulated by other entrepreneurs and, where this is the case, it ultimately means the *raison d’être* for the firm no longer exists. While this may provide an incentive for the entrepreneur to continuously seek “better” combinations, it seems emulation – which must be possible if all components are readily traded in the market – would imply that the firm is not different from the market. If it were, then it would not be easily emulated. At a minimum, we should expect firms, using this definition, to be only temporary phenomena quite unable to exist over longer periods of time.

The latter point is even more problematic, as the “combinations” view of the firm seems to imply that creation of new capital goods takes place primarily outside of firms. If we accept Rothbard’s argument, the firm simply cannot create capital goods that are not already traded in the market (or, at least, easily created through combining traded components), which seems to make innovation and specialization impossible. After all, if the firm is not necessarily different from the market other than in the “unique” combination of already traded resources, then its internal organization is a simple exercise of combining resources and the production processes cannot be much different from those that can be established in the market. This begs the question: from where do new capital goods emerge, and – more importantly – how do they become traded in the market place?

A plausible answer, as we have seen in the sections above, is that the firm is a means for the entrepreneur to create an “island” of sufficient density to support the imagined structure of production. When this is the case, the creation of capital goods as well as the continuous specializing and co-specializing of factors is not only supported – it is necessary for firm survival. As an entrepreneur establishes a firm, other entrepreneurs – perhaps with lesser original judgment, but sufficiently “alert” (cf. Kirzner 1973) to realize opportunities that have been unveiled by the original entrepreneur – will follow. As they do, they are not able to simply emulate the firm since [all of] the factors used are not traded in the market and also because the specialized process may not be fully understandable from outside the firm (Sautet (2000) discusses this "knowledge" perspective of the firm). Furthermore, these entrepreneurs are likely to have skills and judgment that differs from the original entrepreneur, which allows (or limits) them to create similar structures – but presumably not exact copies. In other words, in attempting to reproduce the superior structure of production within a firm, competing entrepreneurs create a multitude of similar structures that in different ways may outperform the original firm.

Even though the emulation attempts may not be perfectly successful (in the sense of making perfect reproductions), the new firms are likely to largely adopt production stages that are similar to those in the original firm. As such, the new firms generate markets through creating factors that are tradable on the market through effectively being substitutes for each other as well as the specialized factors used in the original firm. In other words, the competitive process of imitating the original firm ultimately relieves the original entrepreneur of “excess” uncertainty through creating markets for factors and capital goods used in the production structure.
This development serves primarily two ends in the market. First, it allows the entrepreneurs to focus on the core values in the established structure of production through relieving them of uncertainty and thereby freeing up time and resources for continued development of whatever primary value is achieved through the specialized process. It functions as a means to identify inefficiencies and poor execution of tasks. In other words, competition allows the entrepreneur (and, presumably, proxy entrepreneurs) to focus on developing the firms’ competitive advantages through continuous improvements and further development. Second, it provides the entrepreneur with opportunities to outsource non-core functions on the market as other entrepreneurs see opportunities in achieving increased productivity in the individual stages of the originally integrated structure of production. The original entrepreneur(s) should thereby be able to continuously procure functions and services in the market in order to focus on his own core competencies. We should therefore expect to see production process within the firm, in terms of the roundaboutness of the integrated process, become “shorter” as time goes by and the entrepreneur shifts to use market supply of non-core functions.

The competitive market process therefore ultimately relieves the creating entrepreneurs of uncertainty through establishing new markets of higher order goods in the entrepreneurial pursuit of profit. This, in turn, allows for and supports increased specialization in core competencies within firms and provides other entrepreneurs with opportunities for profit through supplying specialized services of previously integrated functions that now become traded in the market. We see that the creation of firms, as entrepreneurs’ means to establish specialized production structures through increased density, is an important driving force for the overall adoption of increasing degrees of division of labor in the market.

**Conclusions and Further Research**

This paper identifies the role of the firm in the creation of factor markets and suggests that entrepreneurial creation of firms, in the sense of integrated, highly specialized production processes, may be necessary for the ongoing specialization process in the market. Indeed, it is suggested that firms may be the reason for functioning factor markets and therefore that firms, as an important entrepreneurial means for achieving imagined ends, play an essential role in economic calculation through allowing entrepreneurs to participate fully in the competitive market process.

While the findings in this paper seem to suggest a number of important insights as to how markets work and – more importantly – how they are created, they need further study. The view of the firm as extra-market specialization requires deeper theoretical analysis to be a fully operationalized theory of market organizing and a more specific definition. Furthermore, whereas the boundaries of the firm are implied by the nature of firm organizing and outsourcing as a result of competition, it offers no details for investigating its internal organizing: we should be interested in how entrepreneurs organize firms, not simply the fact that they do.

The important contribution of this paper, even though the findings are still rather underdeveloped, is the connection between entrepreneurship, firm emergence, and the creation of
factor markets on the one hand – and how this explains overall market structure and how the continuous development towards more roundabout structures of production may be brought about. The nature and necessity of these drafted connections, while plausible and interesting, are however in need of much further study. This paper but introduces the concepts, plausible connections and causal relationships, and provides a basis for further research.

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