
The Theory of the Firm: Coasean Misconceptions and Austrian Solutions

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Introduction

Why are there firms? The question is both deceptively simple and provokingly fundamental. But as so many groundbreaking thoughts and innovations, it was showed that it was evidently, in retrospect, too obvious to be asked. In fact, very few scholars had thought of pondering on the phenomenon of the firm, and even fewer of its *raison d'être*, from an economic point of view until Ronald Coase did so in 1937 (Coase 1937).

Despite Coase's lucid questioning of why there are firms, the study of economics continued to develop along the lines of abstract, rigorous (mathematical) analysis of heavily simplified economic models such as perfect competition. As this development before Coase had led to "an increasingly passive role for the firm" (McNulty 1984, p. 240), Coase's work remained "much cited and little used" (Coase 1972, p. 63) for decades while the development of economics continued along its chosen path. It was not until the 1970s that the modern study of the firm, with scholars like Oliver Williamson (1967; 1973; 1979), Armen Alchian (Alchian and Demsetz 1972; Klein, Crawford et al. 1978) and others (e.g. Jensen and Meckling 1976) was established.

Just like most of this founding literature on the firm is based in Coase's question and insights, later research tends to rather uncritically accept Coase as a starting point. The influence of the Coasean assumptions is further strengthened through Williamsonian transaction cost economics. The latter draws significantly from Coase's view of the firm as "the direction of resources ... dependent on an entrepreneur" (Coase 1937, p. 393) and aims to provide a cost rationale for choice of "governance structures." Even though there is an alternative view of the firm as a "nexus of contracts" (Jensen and Meckling 1976; Klein, Crawford et al. 1978; Fama 1980; Cheung 1983), the Coasean view of the firm is rampant within the theory of the firm literature.

In the remainder of this paper, I will briefly address the Coasean view of the firm and Coase's all-too-casual dismissal of an at the time influential (however unsophisticated) alternative explanation. I will then discuss possible origins of Coase's view, especially the ones that relate to political ideology and the political debate at the time Coase developed his thoughts, and furthermore analyze how these factors may have influenced Coase's interpretations of what constitutes a firm. In the subsequent section I will point to a much older but at least as plausible answer to the Coasean question and how Austrian economics greatly advances our understanding of organization in the market place and, in particular, the firm.

The Coasean View of the Firm

Coase's point of departure is neoclassical economic theory and the view that the market is efficient in terms of allocating resources to satisfy consumer wants. According to this view the price mechanism is the primary facilitator of organizing production and keeps the market in non-waste, no-excess equilibrium. But with this view of the market there should

be no place for firms, since all transactions utilized by the price mechanism are by definition efficient and therefore superior to all possible alternatives. It is by identifying this apparent inconsistency between economic theory and economic reality that Coase's question obtains significant importance. Coase asks, "in view of the fact that it is usually argued that co-ordination will be done by the price mechanism, why is such organisation [the firm] necessary?" (1937, p. 388)

The real market, Coase ascertains, is a "specialised exchange economy" in which the price mechanism is indeed efficient for resource allocation. However, its effectiveness is compromised by there being "cost[s] of 'organising' production through the price mechanism" (Coase 1937, p. 390) because of the difficulty in "discovering what the relevant prices are" (cf. Hayek 1937; Hayek 1945; Hayek 1978). This cost of utilizing the price mechanism creates a barrier for the extent of efficient resource allocation in the market and hence opportunities for the entrepreneur-co-ordinator, who may avoid those costs and supersede the market through *directing* resources.

This should not be understood as a claim that the entrepreneur is superior to the price mechanism, but that the costs of organizing set limits to how much the price mechanism can be utilized by economic actors. The "object of organization," i.e. the reason for establishing a firm, is to benefit from not incurring these costs and this is done through superseding the price mechanism by directing resources in a way that "reproduce[s] distribution of factors under atomistic competition within the business unit" (Coase 1988, p. 4). The firm is, in other words, a replica of market organized production that economizes on transaction costs through relying on an entrepreneur's ability to imitate the market and direct resources accordingly:

Outside the firm, price movements direct production, which is co-ordinated through a series of exchange transactions on the market. Within a firm, these market transactions are eliminated and in place of the complicated market structure with exchange transactions is substituted the entrepreneur-co-ordinator, who directs production. (Coase 1937, p. 388)

Contrasted by the unplanned spontaneity of the market, firms are characterized as "islands of conscious power" (Robertson 1923, p. 85; quoted in Coase 1937, p. 388) with "the supersession of the price mechanism" (1937, p. 389) as their distinguishing mark. The gist of the argument is that the firm, through the central planning of an entrepreneur, is able to replace the market in transactions with high costs of organizing through doing basically the same thing at lower cost due to entrepreneurial supervision.

But what is the basis for authority within the firm? As we have seen, Coase and Coaseans claim the entrepreneur has the power to direct factors and it follows that he must be able to rely on having control over physical factors as well as expect obedience from

labor factors. If this were not so, the entrepreneur should not manage to successfully imitate the price mechanism over time.

To Coase, this authority relation (cf. Simon 1957) between entrepreneur and employee(s) is established through the special characteristic of the employment contract, which specifies that factors must “obey the directions of an entrepreneur *within certain limits*”¹ (Coase 1937, p. 391; emphasis in original). As Coase puts it, “[i]f a workman moves from department *Y* to department *X*, he does not go because of a change in relative prices, but because he is ordered to do so” (1937, p. 387). In fact, Coase goes as far as to say that the employment relation is comparable to that of “master and servant” (Coase 1937, pp. 403-404).

In more recent literature focus is still on the authority relation as identified by Coase, and it has become even more important in the study of the firm due to the concept of opportunism as a common hazard within principal-agent relationships such as that between manager and worker. However, rather than focusing on obedience and servitude, later studies generally maintain that employment contracts attempt to establish the residual rights of control (Grossman and Hart 1986), whereas market contracts tend to specify a list of specific obligations. The main difference between the two kinds is therefore that a market contract attempts to regulate in detail how to resolve specific problems *ex ante*², while the primary function of the employment contract is to in advance establish what party has the right to decide on what to do *ex post*. In this sense, the employment contract establishes who has *ownership*³ of the assets used in the production process (cf. Hart and Moore 1990) and these contracts are therefore enforceable, economically speaking, despite comparatively significant levels of incompleteness or open-endedness (cf. Williamson 1975).

Coase cannot, of course, be blamed for not anticipating scientific successes many decades into the future. But his view of the firm as well as the employment contract suggests a particular perspective that seems to have persisted in the theory of the firm literature. Coase does not offer an explanation or argument for his characterization of the firm by non-market planning carried out by an authority, and the same is true for denoting the employment contract a “master and servant” relationship. As a matter of fact, the

¹ It is perceivable, Coase mentions, to have such a contract *without* limits, but that would be voluntary slavery and unenforceable (1937, p. 391 fn. 2)

² Regulating potentially problematic situations in the future is difficult and costly due to the impossibility to perfectly predict the future, i.e. uncertainty, but also due to the inherent risk of parties acting to take advantage of unforeseen situations to enrich themselves, so-called opportunism (cf. Klein, Crawford et al. 1978; Williamson 1979).

³ Ownership is here defined as control rights over the use of assets. Grossman and Hart “do not distinguish between ownership and control and virtually define ownership as the power to exercise control” (1986, p. 693-694) and Hart and Moore state that they “take the position that ownership confers residual rights of control over the firm’s assets: the right to decide how these assets are to be used except to the extent that particular usages have been specified in an initial contract” (1990, p. 1120).

authority relation is discussed by Coase before mentioning the firm, and proponents of the price mechanism as organizer, in accordance with economic theory, are informed that there is, in fact, economic planning at work in “a large sphere” of the present day economy:

in the real world, we find that there are many areas where [the price mechanism] does not apply. If a workman moves from department *Y* to department *X*, he does not go because of a change in relative prices, but because he is ordered to do so. Those who object to economic planning on the grounds that the problem is solved by price movements can be answered by pointing out that there is planning within our economic system which is quite different from the individual planning [under the price mechanism] mentioned above and which is akin to what is normally called economic planning. The example given above is typical of a large sphere in our modern economic system. [...] As D. H. Robertson points out, we find “islands of conscious power in this ocean of unconscious co-operation like lumps of butter coagulating in a pail of buttermilk.”

Putterman and Kroszner interpret the Coasean view of the firm along political lines using a language rarely used in theory of the firm literature, but that may still to some degree be enlightening. They claim that

Coase identified the planned coordination within firms with the intended planning under socialism, suggesting that the main difference between the two was that the scope of the one was determined by competition, that of the other by political authority (Putterman and Kroszner 1996, pp. 16-17)

Putterman and Kroszner, through this statement, do not only hint at an interesting analogy that may shed light on the nature of the Coasean firm, but offer leads that point to a possible political bias that may explain the basis for Coase’s particular interpretation and groundbreaking analysis of the firm.

Origins of the Coasean Theory of the Firm

In a special issue of the *Journal of Law, Economics, & Organization* to celebrate the 50th anniversary of Coase’s “The Nature of the Firm,” Coase tells the story of how he came up with the idea and how it evolved (Coase 1988), what the true meaning of the theory is (Coase 1988), and what influence the 1937 article has had so far (Coase 1988). It is primarily the first of these articles, which depicts a personal take on the events that led to the 1937 article – including quotes from personal correspondence that is of interest to us here and that may provide clues as to what were the determinants or building blocks of Coase’s perspective.

Coase states that the ideas that were later to become his famous article “must have crystallized in [his] mind” in the summer 1932. At that time, Coase had recently earned his bachelor’s degree in commerce at the London School of Economics (1929-1932) and was on his way to become assistant lecturer at the Dundee School of Economics and Commerce. This was also at the height of the socialist calculation debate (see e.g. Mises 1920; Mises 1922; Lerner 1934; Hayek 1935; Lange 1936; Lerner 1936; Hayek 1937; Lange 1937; Lerner 1937; Lange and Taylor 1938; Lerner 1938; Mises 1938; Hayek 1940; Lange 1942; Lange 1942; Hayek 1944; Lerner 1944; Mises 1944; Hayek 1945) and a general and quite large interest in the great economic experiment in Soviet Russia. Coase mentions in his article an interest in how the Soviets’ economic planning presented “essentially the same puzzle” (Coase 1988, p. 8) as that which he had already identified in the internal organization of the firm: how planning could work just as well as – or even better than – the market despite what we know from economic theory.

But not only did the socialist calculation debate still rage, which should have been a subject for discussion that permeated most departments of economics and related disciplines – Coase had a personal connection to one of the leading advocates of market socialism: Abba Lerner. Coase states (1988, p. 7) how he benefited in his intellectual development and in the development of his theory of the firm from discussions with other students, particularly his close friend Ronald Fowler and students specializing in economics –Lerner mentioned by name.

It is obvious that Coase was not only aware of the debate, but had great insight into the arguments for market socialism. Indeed, Coase mentions repeatedly that he held socialist beliefs at the time (Coase 1988, pp. 5, 7, and 8) even though he also became influenced by the Austrian “capital structure of production” (Coase 1988, p. 7) through Hayek’s public lectures.

The main non-socialist influence, however, was the lectures of Arnold Plant, professor of commerce at the London School of Economics from 1930, who maintained that the market is quite able to work itself. Coase notes how he never felt the need to reconcile the views of Plant, who would hardly qualify as a socialist, with his own socialist conviction. Instead, in the following passage, Coase declares how his socialist views, in contrast to those of Lerner, quickly wore off:

I would only recall that a fellow student, Abba Lerner, who, in the preface to his *Economics of Control* [(1944)], acknowledges Plant’s influence in the development of his views, went to Mexico to see Trotsky to persuade him that all would be well in a communist state *if only it reproduced the results of a competitive system* and prices were set equal to marginal cost. In my case my socialist views fell away fairly rapidly without any obvious stage of rejection. (Coase 1988, p. 7; emphasis added)

As this quote points out, Lerner obviously agrees with Coase that there was no need to reconcile the Plantian view of the market with his socialist ideal – presumably because they were not considered incompatible. All would, after all, be well in a communist state if it only would successfully reproduce market allocation of resources. In addition, Coase's choice of wording when describing the Lerner-Trotskyite take on successful communism is revealing. His aim is undoubtedly to show that he quickly turned his back on socialism (as Lerner did not), but there is reason to believe this was not necessarily the case in all respects. In a letter to Fowler dated October 10 1932, quoted in its entirety in (Coase 1988, p. 5), Coase uses the same words to describe the object and effect of firms in the free market place as he uses to describe Trotskyite communism as it was presented to Lerner (as quoted and emphasized above):

Since under market conditions, the greatest use is made of the factors of production, [the] object of the organization [is] *to reproduce market conditions*, but production would be greater because of lowered costs. (Coase 1988, p. 4; emphasis added)

No doubt, Coase truly believed the puzzle of the firm and the puzzle of a perceivably successful communist regime in Soviet Russia were “essentially the same.” And as is shown by this quote, it is assumed that directed production, carried out the same way as if guided by the price mechanism, is equally efficient in terms of resource allocation and use – but produces at lower cost and is therefore able to generate greater volumes of output.

The view of intra-firm activity being more cost efficient than market contracting due to its basis in *direction*, rather than the utilization of market prices, is still an important element in the study of the firm. Whereas it should be granted that what constitutes a firm includes a certain degree of authority, mainly through the exercise of control over assets (a right enjoyed due to ownership) and through contracting, there is no reason to assume direction is necessarily less costly than organization emerging spontaneously in the market between “atomistic” actors.

The Coasean Legacy

An important contribution by Coase is nevertheless the concept of transaction costs, even though the causal relationship between economic planning and lowered transaction costs is far from obvious. Every transaction is necessarily carried out at cost, which is a fact that can directly be derived from the nature of existence: the scarcity of resources that can be used to satisfy endless consumer wants as well as the limits to human knowledge. Were it not for scarcity there would be no market, since nobody would have to economize on transactions or prioritize which wants to satisfy.

But scarcity does not only pertain to physical goods and natural resources, but also to commonly neglected variables such as time, space, and knowledge. Transaction costs, the costs of utilizing the price mechanism (what Alchian and Demsetz (1972) term “information costs” and Stigler refers to as “costs of achieving agreements” (Stigler 1989, p. 631)), arise due to the fact that human beings are neither omniscient nor omnipotent. In a world where there is no scarcity of information (i.e., under “perfect knowledge” or “perfect information”) there could be no learning of the unknown and we would hence be in a static society always at full efficiency. It is in fact the case that “[w]ith perfect and costless information there would be myriad ways of achieving perfect economic efficiency” (Stiglitz 1994, p. 174). The implications of zero transaction costs, which is what perfect information implies, is what Coase discusses in (Coase 1960) and that has been termed the Coase Theorem (Stigler 1966).

The impact of transaction costs in the economy is the core of theories of the firm based on the original Coasean insights. But whereas in the most influential of these theories (and purportedly a “success story” (Williamson 1996, p. 55)), Williamson’s transaction cost economics, the transaction and, especially, the cost of carrying out the transaction is what is studied, the theory relies on the original Coasean identification of firms as “islands of conscious power” in a market characterized by “unconscious co-operation.” Transaction costs are by definition costs of and by the market that can be avoided only through avoiding market organizing. Vertical integration and the consequent reliance on direction, therefore, is deemed a more efficient means of organizing for the same reason that market socialism supposedly is superior to the market.

Both Coase and Williamson share this view on the costs of utilizing the price mechanism even though they also maintain that there are costs of internalizing transactions that can, in certain cases, be greater than market transaction costs. These costs mainly pertain to the “diminishing returns to management” and how “likely the entrepreneur is to make mistakes” due to actors being boundedly rational (Coase 1937, p. 396), as well as caused by the [risk of] opportunistic behavior of self-interested agents (Williamson 1973, p. 317; Williamson 1993).

What Causes Integration

But to analyze the firm and reasons for vertically integrating market transactions it is not sufficient to claim that there are “costs of organizing” in the market. It is necessary to show what drives these costs and, therefore, under what conditions and for what the reasons the market is not sufficiently cost efficient. Both Coase and Williamson identify three factors that drive vertical integration of market transactions, Coase in the form of costs of integration that, when low, provide incentives to integrate, and Williamson in the form of dimensions to transactions that, when significant, incur costs in the market that can be overcome through integrating.

To Coase, the factors that primarily increase costs of integration are distance, variation, and [price-based] uncertainty. Distance is the “spatial distribution” within and of the transactions; variation relates to the level of dissimilarity of the transactions organized in the firm; and uncertainty refers to “the probability of changes in the relevant prices” for both inputs and outputs (Coase 1937, p. 397). Any change that causes these costs to go down would lead to increased levels of integration and hence more or larger firms.

In Williamson’s transaction cost economics (TCE) three “critical dimensions” of transactions are identified as determinants of organization. In TCE it is predicted that high levels of any (or a combination of) uncertainty, frequency, and asset specificity (Williamson 1979) should lead to the vertical integration of the transaction in a firm (cf. Chiles and McMackin 1996). Of these dimensions, asset specificity, defined as “durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated” (Williamson 1985, p. 55), plays a central role and has received the most attention in empirical studies.

Coase’s distance factor and Williamson’s asset specificity dimension stand out. Variation and uncertainty, the other two factors from Coase, and frequency and uncertainty, the remaining two of Williamson’s dimensions, have in common that they refer to properties of the context in which a transaction is carried out and specify general criteria, independent of the nature of the transaction itself, for whether integration is feasible. Distance and asset specificity, however, are specific to the particular transaction and, more importantly, specify properties of factors used when carrying out the transaction that should have effect on the outcome of governance choice.

Moreover, the importance and effect of these two factors seem to depend on the adoption of technology in the market. Coase specifically states that inventions that “bring factors of production nearer together ... tend to increase [integration]” and specifies that

[c]hanges like the telephone and the telegraph which tend to reduce the cost of organising spatially will tend to increase the size of the firm. All changes which improve managerial technique will tend to increase the size of the firm. (Coase 1937, p. 397)

The exact same inventions are discussed in Durkheim (1933) as determining the high level of specialization or division of labor in “organic social organization.” Durkheim analyzes Smith’s (1776) notion of division of labor as the determining factor and basis for advanced society. He furthermore elaborates on and adds to our understanding of this concept through finding that not only is the level of specialization (and therefore gains of trade) limited by the extent of the market in the sense population size (as is the common interpretation of Smith), but also – and more importantly – on its *dynamic and material*

density. Dynamic density is defined as the degree to which “individuals [are] sufficiently in contact to be able to act and react upon one another ... and the active commerce resulting from it” (Durkheim 1933, p. 257) and 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). In other words, the technologies Coase refers to in the quote above as examples of inventions that lower organizing costs through “lessening spatial distribution” are to Durkheim important determinants of an overall division of labor and hence market structure (cf. Coase 1937, p. 397 fn. 3).

This specialization of factors for specific uses in production (i.e., in the carrying out a transaction) under the division of labor is furthermore quite similar to the essence of Williamson’s asset specificity, be it in terms of location, technology, knowledge, time, etc.⁴ But even though increasing division of labor entails that markets get more specialized and production processes more roundabout (Böhm-Bawerk 1890; Young 1928), which means the number of intermediate products increase and factors specialize,⁵ the division of labor is only present in Williamson’s theory in its purely transaction-specific manifestation: asset specificity. The division of labor, despite being a cornerstone in Adam Smith’s analysis of the structure and motive powers of the market economy (cf. Stigler 1951), is apparently not a factor in the analysis of market organization of production.

In fact, despite quoting Dobb’s (1925) “vivid description” of resource allocation on the market as compared to that within the firm, where “the undertaker [capitalist-entrepreneur] busies himself with the division of labour inside each firm and he plans and organises consciously” (Dobb 1925, p. 20), Coase quickly dismisses the division of labor argument for not having any possible explanatory power for different forms of organizing in the market place (1937, p. 398). Coaseans have not considered the division of labor a factor ever since, despite both Coase and Williamson, indirectly and, most likely, unaware of the fact, practically arguing along those very lines: Coase maintaining, along with Durkheim, that inventions advancing communication and transportation technology call for larger firms, and Williamson asserting that high levels of asset specificity lead to integration. Both points are essentially the same: Coase’s point is that increased density (to borrow a term from Durkheim) enables greater specialization and therefore should lead to more integration; Williamson’s analysis of asset specificity basically suggests, since comparatively high levels of specificity predicts integration, that the level of specialization within the firm is greater than the division of labor in the market. Is the level of division of labor then not a contributing factor, if not a cause, to integration of transactions in firms?

⁴ Williamson (1991) distinguishes between six types of asset specificity: site (location) specificity, physical asset specificity, human asset (knowledge) specificity, brand-name capital (experiential knowledge), dedicated assets (general-purpose investments specific for a particular transaction), and temporal (sequential) specificity (cf. Klein 2000).

⁵ It is also claimed that that this increased specialization depends on overall improved transaction conditions in the market (Sun and Lio 2003)

Even though this has not been analyzed in the modern literature, a possibly affirmative answer would not be a new discovery. In fact, Adam Smith seems to imply a difference between specialization within the firm and that outside the firm in his use of a pin factory as a significant example of the increased output due to division of labor. Smith emphasizes that “the advantage which is gained by saving the time commonly lost in passing from one sort of work to another, is much greater than we should at first view be apt to imagine it” (Smith 1976, p. 12), clearly with the example of a “manufactory” (as compared to market) in mind (cf. Rothbard 1991, p. 17).

The Division of Labor and the Firm

To several writers not in the Coasean tradition, and especially Austrians, the division of labor has great explanatory power to market phenomena. Mises, for example, has the view that division of labor is the reason for market efficiency and continued progress (Salerno 1990). He claims that

[h]uman society is an intellectual and spiritual phenomenon. It is the outcome of a purposeful utilization of a universal law determining cosmic becoming, viz., the higher productivity of the division of labor. (Mises 1998, p. 145)

Modern, advanced society was brought about through the division of labor, without which society could not have progressed to such a degree. The “higher productivity” of the advanced market society is brought about through the specialization in and mechanization of production processes:

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. (Mises 1998, p. 164)

We need not analyze the meaning and impact of division of labor in detail to draw conclusions from the statements above. The specialization that for Coase and Williamson is a driver for transaction costs and therefore an important reason *not* to utilize the price mechanism, at least at very high levels of specialization/specificity, is to Mises a result of the division of labor, which is what drives the market and thus what makes the market

process ever more efficient in satisfying consumer wants. This, at least at first glance, seems to suggest that these views are rather incompatible if not antithetical: while Mises claims specialization is what essentially makes the market progress and become more efficient, Coaseans would claim that increased specialization calls for alternatives to the market since the market is unable to provide sufficiently efficient solutions.

But this need not be the case. In fact, there is reason to believe that the Coasean and Misesian views are compatible – and that they both provide important perspectives needed to determine the boundaries of the firm and distinguish between what constitutes a firm and what is the market.

Coase's and Williamson's view of transaction costs as “costs of organizing” or “information costs” closely parallels the Hayekian view of knowledge in the market (Hayek 1945). As we have seen, transaction costs are basically the unavailability of knowledge and therefore the uncertainty (probability of mistakes) arising due to the lack of perfect information, i.e. information asymmetries, in utilizing the price mechanism. Seen in this light, transaction costs are likely to increase as a market progresses toward greater degrees of specialization simply because the specialized market brings innumerable intermediate products, longer structures of production, and more narrowly specialized (more heterogeneous) factors of production.

But it is also the case that, as is emphasized by Durkheim (1933), the development of a more technologically advanced market – through communications and information services as well as transportation – provides a means to facilitate the collection and analysis of knowledge at low cost. The greater specialization potentially increases information asymmetries and therefore transaction costs, but the very same specialization also has the effect that the extent of the market (to borrow a term from Adam Smith) increases and information becomes more readily available over greater distances (be they geographical, technological, etc.). Transaction costs may here provide a reason for establishing firms, but do so without taking into consideration the other side of the specialization coin: that the market itself, not only within the specific transaction, evolves towards greater degrees of specialization and that this general trend also provides means to overcome problems of information asymmetries.

In a dynamic market of the sort Mises assumes, the division of labor, and consequently also specialization, is ever increasing and therefore tends to facilitate ever increased levels of efficiency in production of goods and services that satisfy consumer wants. In such a market transaction costs exist for all transactions and fluctuate in magnitude and importance as the context within which the transaction is carried out changes, develops, and evolves. In other words, transaction costs would tend to be *relatively high* for transactions carried out in such a way that requires technological, organizational, or some other type of specialization to a degree greater than is commonly and readily available in the market. Accordingly, transaction costs would tend to be

relatively low for transactions carried out at what is essentially a lower degree of specialization than is common practice in the market.

The above should indeed imply a correlation between transaction costs of greater magnitude and transactions vertically integrated in a firm, but there is an obvious lack of causality: a transaction is not integrated within a firm because it has high transaction costs, but is integrated because it is carried out in a manner that involves procedures and technologies that are specialized to a degree that is significantly greater than what is the case for common market solutions, which in turn increases transaction costs. Consequently, what drives integration is the adoption of a level of specialization that is superior to (“higher” than) that in the market – and is therefore more efficient in terms of resource allocation and use as well as division of tasks along the lines described by Mises (and Smith). The firm, therefore, is more *refined* (to use Mises’s word) than the market in terms of the utilization of division of labor and needs, in order to maintain its *raison d’être*, to stay “ahead” of the market.

The Entrepreneur and the Firm

It is in this context that the entrepreneur, who is somewhat neglected within the Coasean framework,⁶ plays a vital role. It is through the entrepreneur *imagining* (cf. Klein 2008) more efficient approaches to producing – or new products – that the firm acquires its superiority to alternative ways of organizing. The entrepreneur acts to gather factors that can be used more efficiently *through higher levels of specialization* within the organization and relies on his ability to perform calculations that are and will remain profitable in the evolving market. The entrepreneur himself provides a highly specialized function in the market.

Granted, in the Coasean firm the entrepreneur also plays a highly specialized role. In fact, Coase accepts in his definition of the firm that the *specialization of the entrepreneur* is both a necessary and sufficient condition for the existence of firms. But he also maintains that the entrepreneur supposedly “reproduce[s] distribution of factors under atomistic competition within the business unit” (Coase 1988, p. 4), which – as we have seen – makes it very difficult, if not impossible, for him to economize on transaction costs, since transaction costs depend on the level of specialization and in the Coasean system the level of specialization may very well be the same within the firm and in the market.

It is furthermore the case that an entrepreneur must be unable to simply reproduce the distribution of factors, and there are primarily two reasons for this. One reason is that this would imply that the factors within the firm should “play market” (cf. Rothbard 1991), which is obviously neither the common case nor a theoretical possibility.

⁶ What Coase refers to by “entrepreneur-co-operator” is generally interpreted as what today is called a *manager*.

Another reason is that under “atomistic competition” each individual actor necessarily engages in administrative and support services such as financing, marketing, sales, customer service and supervision of contractual terms being followed – and this is not the case within the firm. A self-employed carpenter needs to find and maintain profitable relations with customers, financiers, suppliers etc. (or, at a minimum, a relation with someone who in turn supplies the service of maintaining these relations for him), but a carpenter employed within a firm certainly does not normally waste his time with such tasks. Within a firm, these services are supplied to the firm as a whole through either employing labor that is specialized in carrying out these tasks or purchasing these services in the market. The former should tend to be chosen if the level of specialization in administrative support preferred by the entrepreneur in organizing the firm does not already exist in the market and the latter if it does exist.

We can hence see that the entrepreneur, through establishing an organization with highly specialized factors, can manage to produce goods and services at greater efficiency than the overall market through providing focused and deliberate organizational structure that reproduces the market as imagined by the entrepreneur at a higher level of division of labor. The entrepreneur imagines an efficient structure of production where factors are further specialized than is presently available in the market and acts to profit from that perceived opportunity. He realizes this imagined structure of production through providing an artificial setting with a higher level of material density, i.e. where the factors are aligned both in focus and structure through reliance on entrepreneurial organization and vision.

The advantage of organization within a firm should therefore primarily consist of the superior utilization of division of labor enabled by entrepreneurial leadership. Our theory is therefore in agreement with the Coasean identification of the entrepreneur as a necessary condition for firm existence. But we disagree with the Coasean perception of the firm as primarily a means to economize on transaction costs through reliance on direction or authority rather than the price mechanism.

The characterization of the firm as an “island” of economic planning is particularly troublesome when trying to understand the economic drivers for organizing, since there seems to be no real basis for authority within a contractually established organization in addition to that which exists to an equal degree in market contracting between “atomistic” actors. The identification of an authority relation within the firm over and above what are the parties’ contractually established duties is in point of fact a product of the observer’s imagination or clouded judgment due to personal biases. As we have seen above, there is reason to believe the Coasean study of the firm is potentially burdened with such biases and that the inaccurate assumptions effectuated by them have not been properly scrutinized by subsequent literature.

Implications for Future Research

The theory introduced in this paper has obvious implications for research on the theory of the firm for essentially two reasons. Firstly, it points to severe problems with the existing theoretical framework in which the firm is analyzed; and secondly, it provides an alternative perspective and consequently new ways to answer the three questions typically studied in this field: Why are there firms? What are the firm's boundaries? and How is the firm's organizational structure determined? (Foss 1997, p. 175; Foss and Klein 2008, p. 426; cf. Garrouste and Saussier 2008, p. 23)

In the first case, the problems raise serious doubts about the basic assumptions for what is the definition of the firm. Not only do these assumptions seem to possibly originate from personal and political biases, but they necessarily imply the acceptance of quite problematic standpoints as pertaining to market contracting. With regard to the latter, the presently accepted conceptual basis for economic analysis of the firm requires the construction of a substantive difference between the employment contract and other types of contracts, without which the view of the firm as "direction" falls. But there is no obvious reason why we should grant that an employment contract *qua* employment contract is fundamentally different from market contracts in terms of authority. This is especially the case when considering modern examples of contracting that mimic the effects of employment contracts and, in some cases, act to replace them. Business consulting and outplacement of labor factors are noteworthy examples.

In the second case, the implication of the brief exploration in this paper is that there may be reason why these fundamental questions, decades after having been originally posed (or implied) in Coase (1937), remain without satisfying answers and that this reason is primarily due to the serious doubts about the Coasean framework's basic assumptions as mentioned above. Whereas the Coasean theory of the firm offers a perhaps deceptively simple explanation to the existence of firms as nearly antithetical to the market, the real reason for establishing firms may be found in the market's mechanisms. The dichotomy may prove to be both unnecessary and mistaken.

Moreover, the view portrayed in broad terms in this paper indicates that the firm boundaries may not be easily defined or identified but also that there is no need to clearly distinguish between the firm and market. The firm, in the sense of a contractual structure that profits from a greater degree of division of labor through the utilization of entrepreneurial leadership, is indeed a "nexus of contracts" that simply provides a function in the market place: it increases productivity through pushing the market, through the means of competitive discovery (Hayek 1978), toward increased specialization and hence greater overall efficiency in satisfying consumer wants. The firm, it may very well be shown, could play the role of a vehicle that explores and exploits compositions based on greater degrees of division of labor and, as such, both leads and forces the market as a whole to progress and adopt further specialized means of organizing and producing.

It should also be noted that the examination in this paper points toward answers to the question about the determinants and nature of the firm's internal organization. To the extent that market incentives are allowed to guide actors' behavior, any firm characterized by a guided structure utilizing greater specialization as imagined by an entrepreneur should aim for constantly providing further specialized services to keep ahead of the market.

This theory may provide a framework to explain an overall tendency in the market towards greater specialization (and efficiency) as well as the basis for firm-level decisions on internal organization. If the firm is a high-density contractual cluster – a nexus of contracts – under entrepreneurial leadership, the entrepreneur should find it beneficial to outsource non-core functions to external market actors as soon as the market is able to supply services at the level of specialization preferred by the entrepreneur. In this sense, the theory outlined above may explain the rationale for choices to provide in-house versus relying on outsourced services, which may in turn provide clues for an overall market process towards specialization in particular, specific areas.

Bibliography

Alchian, A. A. and H. Demsetz (1972). "Production, Information Costs and Economic Organization." American Economic Review **62**(5): 777-795.

Böhm-Bawerk, E. v. (1890). Capital and interest: A critical history of economical theory, Macmillan and Co.

Cheung, S. (1983). "The Contractual Nature of the Firm." Journal of Law and Economics **26**(1): 1-21.

Chiles, T. H. and J. F. McMackin (1996). "Integrating Variable Risk Preferences, Trust, and Transaction Cost Economics." The Academy of Management Review **21**(1): 73-99.

Coase, R. H. (1937). "The Nature of the Firm." Economica **4**(16): 386-405.

Coase, R. H. (1960). "The Problem of Social Cost." Journal of Law and Economics **3**(1): 1-44.

Coase, R. H. (1972). Industrial Organization: A Proposal for Research. Policy issues and research opportunities in industrial organization. V. R. Fuchs. New York, National Bureau of Economic Research: 59-73.

Coase, R. H. (1988). "The Nature of the Firm: Influence." Journal of Law, Economics & Organization 4(1): 33-47.

Coase, R. H. (1988). "The Nature of the Firm: Meaning." Journal of Law, Economics & Organization 4(1): 19-32.

Coase, R. H. (1988). "The Nature of the Firm: Origin." Journal of Law, Economics & Organization 4(1): 3-17.

Dobb, M. H. (1925). Capitalist enterprise and social progress, Routledge.

Durkheim, E. (1933). The Division of Labor in Society. New York, The Free Press.

Fama, E. (1980). "Agency Problems and the Theory of the Firm." The Journal of Political Economy 88(2): 288.

Foss, N. J. (1997). Austrian Insights and the Theory of the Firm. Advances in Austrian Economics. P. J. Boettke and S. Horwitz, JAI Press: 175-198.

Foss, N. J. and P. G. Klein (2008). The Theory of the Firm and Its Critics: A Stocktaking and Assessment. New Institutional Economics: A Guidebook. É. Brousseau and J.-M. Glachant. Cambridge, Cambridge University Press: 425-442.

Garrouste, P. and S. Saussier (2008). The Theories of the Firm. New Institutional Economics: A Guidebook. É. Brousseau and J.-M. Glachant. Cambridge, Cambridge University Press: 23-36.

Grossman, S. J. and O. D. Hart (1986). "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." The Journal of Political Economy 94(4): 691-719.

Hart, O. and J. Moore (1990). "Property Rights and the Nature of the Firm." Journal of political economy 98(6): 1119-1158.

Hayek, F. A. (1935). Collectivist Economic Planning. London, Routledge & Sons.

Hayek, F. A. (1937). "Economics and Knowledge." Economica 4(13): 33-54.

Hayek, F. A. (1940). "Socialist Calculation: The Competitive Solution." Economica: 125-149.

Hayek, F. A. (1944). The Road to Serfdom. London, Routledge & Kegan Paul.

Hayek, F. A. (1945). "The Use of Knowledge in Society." American Economic Review **35**(4): 519-530.

Hayek, F. A. (1978). "Competition as a Discovery Process." New Studies in Philosophy, Politics, Economics, and the History of Ideas: 179-190.

Jensen, M. C. and W. H. Meckling (1976). "Theory of the Firm: Managerial Behavior, Agency Costs, and Capital Structure." Journal of Financial Economics **3**(4): 305-360.

Klein, B., R. A. Crawford, et al. (1978). "Vertical Integration, Appropriable Rents, and the Competitive Contracting Process." Journal of Law and Economics **21**(2): 297-326.

Klein, P. G. (2000). New Institutional Economics. Encyclopedia of Law and Economics. B. Bouckaert and G. De Geest. Cheltenham, U.K., Edward Elgar: 456-489.

Klein, P. G. (2008). "Opportunity discovery, entrepreneurial action, and economic organization." Strategic Entrepreneurship Journal **2**(3): 175-190.

Land, K. C. (1970). "Mathematical formalization of Durkheim's theory of division of labor." Sociological Methodology **2**: 257-282.

Lange, O. (1936). "On the Economic Theory of Socialism: Part One." The Review of Economic Studies **4**(1): 53-71.

Lange, O. (1937). "On the Economic Theory of Socialism: Part Two." The Review of Economic Studies: 123-142.

Lange, O. (1942). "The Economic Operation of a Socialist Society I." Contributions to Political Economy **6**: 3-12.

Lange, O. (1942). "The Economic Operation of a Socialist Society II." Contributions to Political Economy **6**: 13-24.

Lange, O. and F. Taylor (1938). On the Economic Theory of Socialism. Minneapolis, University of Minnesota Press.

Lerner, A. (1934). "Economic theory and socialist economy." The Review of Economic Studies: 51-61.

Lerner, A. (1936). "A note on socialist economics." The Review of Economic Studies: 72-76.

Lerner, A. (1937). "Statics and dynamics in socialist economics." The Economic Journal: 253-270.

Lerner, A. (1938). "Theory and practice in socialist economics." The Review of Economic Studies: 71-75.

Lerner, A. (1944). The Economics of Control. London, Macmillan.

McNulty, P. (1984). "On the Nature and Theory of Economic Organization: The Role of the Firm Reconsidered." History of Political Economy **16**: 223-253.

Mises, L. v. (1920). "Die Wirtschaftsrechnung im sozialistischen Gemeinwesen." Archiv für Sozialwissenschaften **47**.

Mises, L. v. (1922). Die Gemeinwirtschaft: Untersuchungen über den Sozialismus. Jena, Gustav Fischer Verlag.

Mises, L. v. (1938). "The Equations of Mathematical Economics and the Problem of Economic Calculation in a Socialist State." Revue Economie D'politique **97**(6): 899-906.

Mises, L. v. (1944). Bureaucracy. New Haven, Yale University Press.

Mises, L. v. (1998). Human Action: A Treatise on Economics. The Scholar's Edition. Auburn, Ludwig von Mises Institute.

Putterman, L. G. and R. S. Kroszner (1996). The Economic Nature of the Firm: a Reader. Cambridge, Cambridge University Press.

Robertson, D. H. (1923). Control of Industry. London, Nisbet & Co.

Rothbard, M. N. (1991). "The End of Socialism and the Calculation Debate Revisited." Review of Austrian Economics **5**(2): 51-76.

Rothbard, M. N. (1991). Freedom, Inequality, Primitivism, and the Division of Labor. Auburn, Ludwig von Mises Institute.

Salerno, J. T. (1990). "Ludwig von Mises as social rationalist." The Review of Austrian Economics 4(1): 26-54.

Simon, H. A. (1957). Administrative Behavior: a Study of Decision-Making Processes in Administrative Organization. New York, MacMillan Company.

Smith, A. (1976). An Inquiry into the Nature and Causes of the Wealth of Nations. Chicago, University of Chicago Press.

Stigler, G. (1951). "The Division of Labor is Limited by the Extent of the Market." The Journal of Political Economy: 185-193.

Stigler, G. J. (1966). The theory of price 3rd edition. New York, Macmillan.

Stigler, G. J. (1989). "Two Notes on the Coase Theorem." The Yale Law Journal 99(3): 631-633.

Stiglitz, J. E. (1994). Whither Socialism?, Massachusetts Institute of Technology.

Sun, G.-Z. and M. Lio (2003). "The Division of Labor and Roundabout Production: Allyn Young Revisited." Pacific Economic Review 8(3): 219-238.

Williamson, O. E. (1967). "Hierarchical Control and Optimum Firm Size." The Journal of Political Economy 75(2): 123-138.

Williamson, O. E. (1973). "Markets and Hierarchies: Some Elementary Considerations." American Economic Review 63(2): 316-325.

Williamson, O. E. (1975). Markets and Hierarchies, Analysis and Antitrust Implications: A Study in the Economics of Internal Organization, Free Press.

Williamson, O. E. (1979). "Transaction-cost economics: the governance of contractual relations." The journal of Law and Economics 22(2): 3-61.

Williamson, O. E. (1985). The Economic Institutions of Capitalism. New York, Free Press.

Williamson, O. E. (1993). "Opportunism and Its Critics." Managerial and Decision Economics **14**(2): 97-107.

Williamson, O. E. (1996). "Economic Organization: The Case for Candor." The Academy of Management Review **21**(1): 48-57.

Young, A. A. (1928). "Increasing returns and economic progress." The Economic Journal: 527-542.