Central Planning in the Free Market:

The Use of Economic Calculation and the Entrepreneur

By Stephen D. Albert

Grove City College

Prepared for and Presented on November 3, 2007 at the Grove City College

Austrian Student Scholars Conference
Introduction

Seventy years ago, Ronald H. Coase, a Nobel-laureate subjectivist, published an article titled, “The Nature of the Firm.” In this article, Coase correctly identified the “price mechanism” as the tool which most efficiently coordinates and allocates factors of production toward their most productive end (1937, p. 387). However, today it seems that companies such as Starbucks and Toyota are suppressing the price mechanism through the creation of business firms. But why, if production is regulated by price movements, do firms form, and equally as important, what dictates their size?

Coase suggests multiple answers to these two questions. To the first question, why, Coase provides an array of answers before settling on the suggestion that firms are able to make contracts for factors of production at a rate lower than the transaction costs incurred by individuals producing on the market (1937, p. 392). To the second question, size, Coase suggests that firms will grow to the exact point at which any additional transaction made within a firm will be equal to the cost that would be incurred on the free market (1937, p. 395). This limit on the size of the firm, though valid, is criticized due to the inherent difficulty of identifying where and when the effective limit of the firm is reached.

This paper aims to critique the firm presented by Coase, beginning with an examination of the nature of man, the beginning of production, the emergence of a barter system of exchange, the formation of money, spontaneous order, the division of labor, and the emergence of entrepreneurs. From there, Coase’s firm will be identified, explained, and critiqued with special emphasis paid to the roles of economic calculation and the entrepreneur.
**Production, Division of Labor, and Exchange in a Barter Economy**

Every individual is formed in the image of God, the creator of the heavens and the earth (Genesis 1:27). Before formation in the womb, He knew the traits and characteristics of each person who would one day walk His creation (Psalm 139:13). And to every person, specific abilities were given, some with gifts of the body, others with gifts of the mind, all to be used for His glory. It was through the use of these God-given talents that production became possible.

In the beginning, Adam and Eve lived in the Garden of Eden, surrounded by a world of opportunity. Bound with only physical (cannot be two places simultaneously) and temporal (can not do more than one activity at a time) limitations, there were no material constraints. When Adam and Eve partook of the forbidden fruit, they were cast from the Garden forever, destined to live by the painful toil of their labor and the sweat of their brows (Genesis 3:6; 24; 17-19). However, man was not released from the mandate to be fruitful and multiply (Genesis 1:28). As such, Adam and Eve brought forth two sons, Cain, a farmer, and Abel, a shepherd (Genesis 4:2).

From these passages, it is evident that the first individuals on earth were given special occupational skills of labor, and through the application of this labor, that which God provided in nature was transformed into a good to be utilized by man. However, in the above case of the small, familial unit, each individual was given the task of providing for his own survival as well as the survival of his family. And with a mere subsistence economy, there was no need for an increased division of labor or transactions based on voluntary exchange.
As time passed and families began to expand, an increased division of labor became a necessity. Rather than each individual growing his own food, building his own hut, hunting his own game, or sometimes all three, those who specialized in the necessary skills worked the fields and built structures. Still others, skilled in the hunt, provided meat and so on, until each individual was working to his greatest capacity. This divided system of labor created private goods that were bartered between individuals.

For example, if thirsty Farmer Bob is looking to acquire a gallon of milk, he must undertake a bartered exchange with Chuck, the dairy cattle rancher. Because Farmer Bob is unable to coercively force Chuck to exchange, the two parties must come to a voluntary barter rate for the price for milk. This relies on a mutual subjective valuation of the goods between each party. If Farmer Bob offers Chuck two pounds of corn for one gallon of milk, there must be a double coincidence of wants. Plainly speaking, not only must Farmer Bob value the gallon of milk more than the two pounds of corn, but Chuck must also value the two pounds of corn more than the gallon of milk he will be parting with. If there is a coincidence of wants, both Farmer Bob and Chuck will feel a mutual benefit and the exchange will occur; if not, there will be no exchange.

For the sake of argument assume no exchange occurs, yet Farmer Bob, still thirsty for milk, hears that Chuck really wants a new pair of argyle socks. As soon as Farmer Bob discovers this new information, he sprints to the town clothier and offers the same exchange rate; two pounds of corn for a pair of argyle socks. The clothier, who despises milk, but loves to make cornbread, readily accepts the exchange. Farmer Bob, smiling to himself, then strolls over to Chuck’s ranch and exchanges the new socks for a gallon of milk.
While the ultimate goal of exchange was eventually actualized, it was not without much effort on behalf of Farmer Bob. Specialization or division of labor, while increasing productivity and quality of life, is often hampered through the sole use of a barter economy. When there is a lack of double coincidence of wants (as witnessed above), it is often because a good is too expensive, or in the case of a dairy cow, the whole is worth more than the sum of its parts and the indivisibility of the good prohibits an exchange from occurring. This leads to the emergence of a medium of exchange.

**Formation of Money**

Any good, due to the array of subjective values present in any population, has the ability to be utilized as a medium of exchange. However, the transaction costs incurred in such a search often seem insurmountable. Diamonds, for example, would not suffice as a convenient medium of exchange for purchasing one single hamburger or a cup of coffee. Said diamonds would need to be exchanged for multiple goods of a lesser value, with each good being more salable than the previous. Therefore, it is the salability of goods which more readily satisfies the double coincidence of wants and continues before it is finally the most salable good of all that triumphs as the medium of exchange.

However, the most salable good is not arbitrarily chosen by any government or central planning board, for no consumers would adhere to it as the medium of exchange. The medium of exchange must retain certain physical characteristics, allowing for retention of value across time and ease of transportation. For this reason, cattle or works of art would never suffice as media of exchange, for they are subject to deterioration of value and are too difficult to transport. The answer, as history has shown through its
successful societal acceptance, lies in the use of a precious commodity, such as gold, for exchange.

Gold, as a commodity and as a medium of exchange, has its value determined through supply and demand. When used as a medium of exchange for the acquisition of goods, gold has an objective exchange value. It trades for a certain number of goods on the market. From this usage as a medium, gold develops an objective use value. This objective use value leads to the formulation of a subjective use value, known as the usefulness of the gold. Using this value, gold is compared against other goods, such as DVD’s or groceries, to determine the subjective exchange value. Subjective exchange values in turn determine the supply and demand schedules of goods from producers and consumers, respectively. Through supply and demand, the objective exchange value of gold is then reaffirmed.

In the case of convenience, if an individual is traveling or simply does not wish to carry gold with him, he can exchange gold at a bank for money substitutes. These money substitutes, typically in the form of bank notes, hold the value of gold and can be used as money in voluntary exchanges. It is the use of money and prices which allows for the discovery of profit and loss as well as entrepreneurial economic calculation.

**Spontaneous Order**

Earlier in this paper, mention was made of the division of labor. When population size has outgrown the subsistence, family structure and societal bonds have been formed; those who have been blessed by God with special gifts and talents will follow their natural ability on a much grander scale. The low cost producers of goods will use the
medium of exchange which has developed to acquire necessary goods, which they can not themselves produce.

This occurs because of a phenomenon known as Adam Smith’s “invisible hand” or F.A. Hayek’s “spontaneous order.” Under this doctrine, each individual is self-interested. Let’s return to the example of Farmer Bob. Farmer Bob is the low-cost producer of crops, but he wants to buy new clothes, which he can not produce. Self-interested and wishing to earn money, he grows corn, tomatoes, carrots, and other items of produce which he will then sell on the market for a profit. The clothier, who is extremely hungry and also self-interested, will purchase this produce from Farmer Bob for the price asked. There is no coercion or corruption here, simply two self-interested parties providing for the benefit of themselves and each other.

Likewise, the profit earned by Farmer Bob can either be spent on the consumption of other goods, or saved and invested. By investing into a tractor or some other capital good (a produced means of production), Farmer Bob’s productivity will increase, allowing him to earn additional profits while also satisfying the needs of a larger public. In this sense, profit is accounted for by the production of a socially beneficial good, not through greed.

When individuals have the freedom and opportunity to use their labor and property as they wish, there is a self-interested incentive to provide goods and services for the benefit of others. As Adam Smith so eloquently stated:

It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest (1991, p. 13).
Planning Within a Free Market

Spontaneous order, while serving as a beautiful and fluid mechanism for ordering the production process, is not responsible for all production. For example, the campus of Grove City College is renowned for its beauty, yet it is the product of a centrally planned design created by the architect of Central Park in New York City. Additionally, the College has generated a systematic five year plan for its development and advancement. Does this type of “central planning” violate the idea of a free market?

In fact, it does not. There is nothing wrong with planning. Individuals plan whenever a rational action is performed. Savings is a planned action; money is saved with the intent of investing or consuming at a later date. However, relying on spontaneous order with regard to the design or administration of an entire College would be disastrous. For example, one building may be designed in Gothic style architecture, while another is built in the shape of a pyramid. And as far as administration is concerned, one administrator may feel the school needs to decrease in size, while another may wish to increase. The result would be a lack of harmony and satisfaction of desires.

The creation of Grove City College required the use of planning by entrepreneurs within a market. Because the entire economic system was not planned, the market remained free. All contracts and the rule of law were upheld, while individuals took part in voluntary exchanges.

Entrepreneurs in the Division of Labor

Action in the self-interest of individuals is not limited to farmers and clothiers; the self-interested entrepreneur is an imperative aspect as well. In a fallen world, the future
is based in uncertainty. There is no way to know for certain what will happen today, tomorrow, or even the next day. Because of this, there is a possibility that expectations \textit{ex ante} will not align with reality.

An entrepreneur is an individual who identifies a future consumer demand, which is not currently being met, and exploits that opportunity. For example, Steve Jobs of Apple forecasted the future consumer demand for an mp3 player with video capability, thus creating the \textit{iPod Video}. As a result of correctly predicting future demand, Apple reaped massive profits, which served as the socially beneficial reward from the market for fulfilling the wants of consumers.

However, not all entrepreneurs have the same ability to predict future wants and provide goods which will be demanded. For example, \textit{As Seen on TV} created \textit{TaterMitts}. \textit{TaterMitts} are gripped, rubber gloves, which allow for the rapid pealing of a potato by hand in a matter of eight seconds. While this may be a safe and efficient method for pealing potatoes, assuming the product actually works, there is almost no consumer demand for this product. As a result, this entrepreneur will earn a loss. On the other hand, those entrepreneurs who correctly identify and satisfy consumer demand earn profits and accumulate resources for use in future endeavors, as they have proven their abilities in forecasting demands.

\textbf{“The Nature of the Firm”}

In “The Nature of the Firm,” Coase states and agrees that the economic system is coordinated through individual planning and the use of the “price mechanism,” which results from transactions that cause immediate changes in supply and demand (1937, p.
However, within a free market, individual firms under the direction of “entrepreneur-co-ordinators” have begun to emerge, superseding the price mechanism. This leads Coase to ask two questions:

1. Why is the price mechanism superseded?
2. Why isn’t all production carried out by one large firm?

Coase approaches the first question with three trivial claims as to why the price mechanism may be voluntarily superseded: (1) the desire of one individual to work under another; (2) the desire one may have to direct another; or (3) the desire of consumers to purchase commodities from a firm (1937, p. 390).

In a much more serious and practical observation, Coase identifies the costs associated with the use of the price mechanism, such as discovering prices and negotiating contracts, with the creation of the firm (1937, p. 391). For example, if Nike maintains 100 shoe factories across the globe, it would consume far too much time for each factory manager to search for the lowest price of materials and individually create a contract with that supplier. To avoid these costs, Nike will create contracts for all of their materials, providing them to each factory at a lower actual and opportunity cost than would be possible on the market. Simply put, by forming organizations under an authority, such as the entrepreneur, certain costs could be saved allowing for production at a price lower than that available through market transactions.

Finally, Coase acknowledges the potential for increased taxation, such as a sales tax or a tax on the market, on the creation of a firm. However, Coase states that such a tax would be more likely to increase the size of existing firms than to bring additional firms into existence (1937, p. 393). Existing firms, who currently carry out transactions within the boundaries of the firm, would benefit and increase in size because they do not
pay the taxes incurred by others operating through market transactions. Additionally, these taxes may increase the size of other firms as they begin to vertically integrate their factors of production within the firm, exempting them from the extra tax costs.

Coase believed that the distinguishing mark of the existence of the firm was the supersession of the price mechanism (1937, p. 389). However, his was not the only answer to the question, why do firms exist? Another answer, offered by Professor Usher, author of *Introduction to the Industrial History of England*, justifies the use of a firm due to an increase in the division of labor. In his words:

The growth of this economic differentiation creates the need for some integrating force without which differentiation would collapse into chaos (Coase 1937, p. 398).

However, as the writings of Adam Smith, and later F.A. Hayek point out, the integrating force which holds the market together is in fact the price mechanism, not the firm as Usher would suggest.

The second answer, offered by Professor Knight, author of *Risk, Uncertainty and Profit*, identifies uncertainty and “mode of payment” as the primary reason for the creation of the firm:

In the first place...The producer takes the responsibility of forecasting the consumers’ wants. In the second place, the work of forecasting and at the same time a large part of the technological direction and control of production are still further concentrated upon a narrow class of the producers...the entrepreneur (Coase 1937, p. 399-400).

According to Knight, the entrepreneur assumes the responsibility of directing resources and guaranteeing wages to those working for him under the expectation of production and profit, thus leading to the firm. To this, Coase criticizes Knight (whether rightfully or not is to be decided later) for failing to give a reason why
the price mechanism should be superseded. Additionally, Coase criticizes Knight for his insinuation that income potential is limited only to those who actively participate in production, not including individuals who sell advice or knowledge in a world filled with uncertainty.

Continuing through Coase’s article, he approaches the second question. If the firm can avoid certain costs associated with using the market and conduct transactions at a rate below that of the market, why isn’t all production carried out by one large firm? To this, Coase offers three answers. Firstly, the size of the firm can be explained by the law of decreasing returns (Coase 1937, p. 394). This law consists of the understanding that there is a natural point where the cost of organizing one additional transaction within the firm will be equal to the cost of carrying out the transaction on the open market or to the costs of organizing by another firm (Coase 1937, p. 394).

Secondly, the size of the firm is limited by entrepreneurial error (Coase 1937, p. 395). The entrepreneur is responsible for allocating resources to their use in the most productive ends. As a firm grows, the costs and overhead associated with organizing production also increase. Additionally, the division of production between different physical locations and the production of different types of goods, typically associated with large firms, will lead to an increased number of mistakes in allocation and an increased loss of profits. This indicates that extremely profitable, large firms have integrated operations through effective communication and technology under a highly successful entrepreneur with a low probability of error.

Finally, supply prices of factors of production could rise due to the creation of additional, smaller firms who negotiate and create different contracts (Coase 1937, p.
These new firms are smaller and have the ability to produce at a lower price than larger firms with increasingly large overhead costs. Overall, Coase claims that a firm will tend to be larger due to a slow increase in the costs associated with organizing a firm, a lower probability of entrepreneurial error, and a lowering or small increase in supply prices of factors of production.

Finally, Coase discusses the “cost-curve of the firm,” which comes from the theoretical assumption that the firm is limited in size and will not produce more than the point where marginal cost is equal to marginal revenue (1937, p. 401-02). However, this limit does not identify circumstances in which more than one good is produced. For example, there will come a point where Nike, due to competition in the shoe industry, will realize a marginal cost that is equal to or greater than their marginal revenue. Previously, this was identified as the limit to the size of the firm. Coase argues that this is not the case at all. A second good, shorts for example, may be produced by Nike allowing the firm to continue to grow in size. While the cost-curve may turn upward for the production of a good, Coase recognizes that it does not necessarily correlate with the cost and size of the firm itself.

**Critique of “The Nature of the Firm”**

This segment seeks to confirm, critique, and add to the rationality of the firm put forth by Coase in, “The Nature of the Firm.” The trivial first and second justifications offered by Coase for the creation of the firm, relying on the relationship of an individual subjectively valuing the preference to work under or over someone, do not add any value
to the theory of creation of the firm. However, the third justification for the creation of a firm, suggesting that individuals have a subjective value preference to purchase products from a firm, results in the development of firms. While the value of knowing that a firm produced a good may not encourage the production of a firm, there is validity to be derived from this observation; firms rely on name recognition.

When Joe Smith goes to Wal-Mart looking to purchase body soap, he enters an aisle filled with any number of goods. Brands such as Dial, Lever 2000, Dove, Old Spice, and any number of substitutes line the shelves. What type of soap should Joe choose? In a world filled with uncertainty, there is no guarantee that he will choose the soap which maximizes his utility. However, rather than choosing the least expensive brand, he chooses a brand name soap, like Old Spice. Why did Joe choose Old Spice?

Joe could have based his decision on previous experiences; he bought the soap last week and was pleased with it. Or, he could wear Old Spice deodorant and perceive that their soap would be equally as pleasing. Finally, he may have seen an Old Spice soap commercial during half-time of the Super Bowl and recognized the name on the shelf. All three of these decisions have one similar rationale: the firm, Old Spice. One of the most valuable aspects of a firm, which is to a large extent impossible for individual production (except for famous artists, etc.), is name recognition and reputation.

The first serious justification for the formation of a firm, reducing the cost of using the price mechanism, such as discovering prices and negotiating contracts is a crucial aspect which must be understood when investigating the firm. As mentioned in an earlier example, contracts undertaken by Nike will create conditions that allow for the production of goods below what is possible through market transactions.
Additionally, there is an incentive for production within a firm, rather than purchasing goods on the competitive market. Goods sold on the market are done so at a retail price intended to earn profit, not to provide other producers with the lowest possible price. Therefore, if the market were the cheapest mechanism for the production of goods, firms would never be created.

Finally, the idea that firms may come into existence or increase in an attempt to negate the effects of taxation is also applicable. When an individual purchases supplies from a producer, he must pay taxes on them, increasing the price of goods purchased on the market. In an attempt to avoid this taxation, an entrepreneur may vertically integrate the factors or production; making rather than buying. Through this integration, the good could be moved about within the firm, tax-free.

Two other explanations for the creation of the firm were offered, one by Professor Usher, the other by Professor Knight. The idea that firms are necessary to hold together the market is not applicable and is not a sufficient hypothesis for the creation of the firm. However, the theory of the firm offered by Professor Knight, where the mode of payment and uncertainty lead to the formation of a firm, is acceptable.

The theory of the firm proposed by Professor Knight comes close to the role of the entrepreneur; one who orchestrates labor, guarantees wages, and bears uncertainty. The entrepreneur serves a special purpose in the division of labor and that is for forecasting future demands of the market. However, this does not mean that the entrepreneur will have the skills necessary to produce the envisioned product or service. For this, the entrepreneur must find and pay laborers. These laborers (willing to take orders in return for money) must be paid for their services, by the entrepreneur, before
any income is earned. As such, the entrepreneur bears the uncertainty of the revenue potential. The entrepreneur bears this uncertainty in the form of a trade-off, because he could not undertake the production process by himself; the purchase of labor was needed. It was through the price mechanism that the labor was coordinated by the entrepreneur into the production process for an unknown future market.

This leads to Coase’s second question: Why isn’t all production carried out by one large firm? For one, no single entrepreneur has the ability to forecast every market. This is similar to the division of labor. One entrepreneur may have expertise, vision, and ideas for a market dealing with toiletries, while another is more aptly suited for the automobile industry. In this case, a toiletry manufacturer who attempts to produce automobiles will not be a competitive producer and will either make a rational choice to never venture into the automobile production arena or will earn heavy losses and pull out from the market.

Secondly, entrepreneurs are self-interested. If one entrepreneur is earning profit in an industry, others will see the opportunity and take advantage of what is to be earned. Also, why would one entrepreneur want to work for another, when he also has the ability to forecast certain demands better than his employer? When a firm like Old Spice decides to expand into the soap market, they are not necessarily the low-cost producer. A smaller firm may have a few advantages, such as lower overhead costs, less entrepreneurial error, and the ability to negotiate contracts that enable them to produce at a lower cost.
Finally, and this will be taken up in more detail later, the creation of one large firm is impractical because it leads to the same economic calculation problem evident in a socialist state. In his work, *Man, Economy, and State*, Murray Rothbard claims:

A firm can estimate an implicit price when an external market exists; but when a market is absent, the good can have no price (1962, p. 547). When any of these external markets disappears, because all are absorbed within the province of a single firm, calculability disappears, and there is no way for the firm rationally to allocate factors to that specific area. The more these limits are encroached upon, the greater and greater will be the sphere of irrationality, and the more difficult it will be to avoid losses (1962, p 585).

And according to the great Ludwig von Mises:

Without calculation, economic activity is impossible” (1972, p. 119).

At the end of his article, Coase presented the “cost-curve of the firm.” This identifies the fact that the cost-curve of producing a good slopes upwards. For example, Old Spice is a firm which produces deodorant. Once they have reached a market-clearing equilibrium point, the firm can no longer expand without experiencing a cost greater than that on the open-market, resulting in a loss of revenue. This cost-curve seems to serve as a natural limit on the size of the firm. However, the role of the entrepreneur must not be forgotten.

The self-interested entrepreneur, eager to identify new avenues to earn revenue, will look to expand the firm. However, the size of the firm for deodorant has been exhausted due to increased competition. Thus, the firm must be expanded horizontally with the production of another good. It is up to the entrepreneur to choose a product, based on the forecast of uncertain future demands. In the case of Old Spice, this expansion was made into the realm of soap. It seems as though the “cost-curve of the firm” may not actually serve as a limit on the size of the firm.
**Economic Calculation**

The production process, or creation of a good, relies on inputs and outputs. Until recently, the firm was thought of as a mysterious black box, where inputs were thrown together and spit out in the form of outputs, yet this is not the case. Inputs consist of materials, as well as factors of production, such as land, labor, and capital goods, while outputs consist of a finished product, ready to be sold to a waiting customer. All of the inputs necessary to create outputs are scarce: there is only so much land on the earth, the workforce is limited in size, materials are wanted as means to an unlimited number of ends, and capital goods must be created through savings or delayed consumption. Because of this scarcity, we are forced to economize and ordinally rank our unlimited ends according to their highest subjective value. The ends valued highest in relation to money (which came into existence as the most salable medium of exchange) and other ends, will be satisfied first.

This action of economizing is undertaken by consumers and entrepreneurs alike. However, the difference between the two is that entrepreneurs are in a unique position to make decisions regarding the allocation of resources toward production, based on future expectations and predictions of market demand, using money prices. To do this, they need the ability of market foresight as well as knowledge of the prices of the factors of production, materials, and consumer goods.

Factors of production include land, labor, and capital goods. In order to produce goods, a factory or other area of land suitable for production is necessary. This is due to physical constraints, based on the impossibility of producing a good without an area of earth. An entrepreneur, looking to purchase land, must know the price of an existing
building, a piece of land, or how much it would cost to tear down a building and rebuild on a piece of land before undertaking production.

Next, labor is necessary for the production of a good. Some industries, such as construction, rely on large amounts of human labor. These industries can not run without hiring individuals to give up their time and energy toward the production of a good. Therefore, it is necessary for an entrepreneur to know the prevailing wage rate amongst workers. With this information, it is possible to predict the necessary cost which must be paid to staff a work crew throughout the production process.

Finally, capital goods are necessary for mass production. For example, *The New York Times* can not be produced without a printing press or *Ford* cannot produce an automobile without metal welding tools. The printing press must be produced, not for direct consumption by individuals, but for its use in the mass creation of newspapers for distribution. Likewise, the welding machine is not wanted for direct consumption, but is valued for its use in the production of a good which can be sold for profit. An entrepreneur must know the price of the capital goods he requires before undertaking the production process. Without knowledge of these prices, it is impossible for an entrepreneur to begin the economic calculations necessary for discovering the profitability of a good.

The price mechanism is what helps the entrepreneur coordinate production. Knowing prices and expected revenues will lead the entrepreneur to make adjustments in production to maximize revenue. When prices change, the entrepreneur does not ask why. It does not matter. All he knows is the change in the cost of producing a good and how that impacts profits or losses.
The price mechanism allows for a “survival of the fittest” among resources. For example, corn is used in the production of cereal and ethanol. If the cost of corn increases, the cost of production increases for both cereal and ethanol. This leads to a reallocation of resources in the market. If corn is more valuable to the production of ethanol than of cereal, the entrepreneur producing ethanol will pay the increased price to retain the ability to produce. This ensures that resources are allocated to their most productive end rather than squandered on unproductive activities.

However, there are two such markets where these factor prices do not exist; subsistence economies and socialist economies. In the first case, among subsistence economies, notably the primitive family structure (Adam and Eve), isolated individuals, or factions lacking an extensive division of labor, there are no prices. Goods are distributed amongst individuals through any manner, such as age, status, barter, or other system decided upon by the group. Without an exchange economy based on the use of money, there are no prices or economic calculation.

In the case of socialist economies, the factors of production are owned and operated by the state. The state, in the form of a central planning board, coordinates all resource allocations and decisions relating to the production and distribution of goods. In this system, there is no such thing as private property, because all goods belong to the state. Therefore, there is no such thing as voluntary exchange between producers and consumers. All factors of production, including factories and land are not available for competitive bidding and thus have no real price, merely their arbitrarily assigned use value. The state then dictates terms for labor and for the hiring of individuals, removing any competitive bidding for laborers or wages. Finally, capital goods are all produced by
the state whenever necessary and used to fulfill the ends ordered by the state. In this economy, there is no competition for resources, no prices, and no economic calculation carried out by the entrepreneur.

In “The Nature of the Firm,” Coase raised the question: Why isn’t all production carried out by one large firm? Though the answers provided by Coase will suffice, decreasing returns, entrepreneurial error, and an increase in supply prices, another answer, offered earlier, is much simpler. This firm would falter due to the same reasons as a socialist state. There would be no competition between firms for the factors of production, therefore, no subjectively valued prices would emerge, and economic calculation would become impossible. Without this economic calculation, the central planning board would merely be replaced by the entrepreneur in name alone. Allocation errors would result in the same lack in fulfillment of all individual desires that are inherent in the socialist state. This is evident from the astute writings of F.A. Hayek in his work, “The Use of Knowledge in Society”:

It is evident, however, that the values of the factors of production do not depend solely on the valuation of the consumers’ goods but also on the conditions of supply of the various factors of production. Only to a mind to which all these facts were simultaneously known would the answer necessarily follow from the facts given to it. The practical problem, however, arises precisely because these facts are never so given to a single mind, and because in consequence it is necessary that in the solution of the problem knowledge should be used that is dispersed among many people (1945).

And also as stated by Ludwig von Mises in his work, Socialism:

But no single man, be he the greatest genius ever born, has an intellect capable of deciding the relative importance of each one of an infinite number of goods of higher orders. No individual could so discriminate between the infinite number of alternative methods of production that he could make direct judgments of their relative value without auxiliary calculations (1972, p. 117).
The Role of the Entrepreneur

The firm may also be created by the entrepreneur as a source of protection of his personal assets against seizure by an individual. An entrepreneur, directly providing a service to consumers, may come under scrutiny if his good or service does not satisfy or goes so far as to cause harm to an individual. The lack of satisfaction provided by a good is not always the fault of the entrepreneur. Due to uncertainty, consumers have the ability to make choices which appear to satisfy subjective values \textit{ex ante}, which in reality do nothing of the sort. When preferences are not satisfied, the consumer learns and will most likely never purchase from that entrepreneur again. This is merely the earning of profit and loss, no different from the price mechanism and the entrepreneur in the free market.

However, suppose a consumer is injured due to an unsafe product. China has been in a multitude of recent headlines because of its toys which have included lead-based paint. Without a firm, if the entrepreneur sold toys that were decorated with lead-based paint, he would be held to account for his actions. If the toys were sold out of the entrepreneur’s home, without a label identifying the toys as using lead-based paint, the customer could sue him for the tort of negligence. Likewise, if the toy was sold in a store and neither the store owner nor the label indicated that the paint was lead-based, the consumer could file a lawsuit against the store, who would in turn file against the entrepreneur, taking his personal assets.

This presents a case which can not be handled through the price system. The entrepreneur would create either a corporation or a limited liability corporation to protect his personal assets from being seized as compensation in a lawsuit. Under the law, a
corporation is its own legal identity, separate from its members. In the case of a limited liability corporation, the individuals can not lose more than they have invested into the company in the form of shares, which prevents their personal assets from being liquidated to finance debts.

The entrepreneur clearly has a right to do what he wishes with his property, both material and intellectual, and as such has the right to take part in the formation of a corporation. Through the formation of said corporation, or firm, the entrepreneur has limited the amount of personal assets which can be acquired by harmed customers. Some may cry, “Not fair!”

By entering into a corporation and producing a product, the product carries with it a contract of quality from the firm. If this contract is violated, the consumer still retains the legal right to sue for recourse. However, rather than the entrepreneur bearing the full burden of the lawsuit, the corporation bear the brunt. Yet the choice was still made by the consumer. If the consumer purchased a product, assuming the risk that it may be faulty and wished to seek recourse from an individual in the event that it was in fact faulty, the consumer could have purchased from an entrepreneur not protected by a corporation. Due to the nature of the contract, the consumer was in no way harmed nor had their liberties infringed upon by the individual.

This opens the door for the demented entrepreneur who merely wishes to harm individuals without bearing any responsibility. However, this entrepreneur will earn no profit from such endeavors. It would be extremely difficult for an entrepreneur to finance an operation after severely harming consumers. Clearly, the accusation of cognizant
harm to consumers is ludicrous. The firm can be seen as a legal entity created to protect
the personal assets of the entrepreneur in the rare case of negligent harm.

**Conclusion**

In “The Nature of the Firm,” Coase identified the “price mechanism” as the most
efficient tool for coordinating and allocation factors of production toward their most
productive end (1937, p. 387). As such, he posed two questions: Why, if production is
efficiently regulated by price movements, do firms form, and what dictates their size?
Coase answered the first question by identifying the creation of the firm as a method of
overcoming the transaction costs incurred through the use of the market, allowing for
production at a lower price than that available on the market. To the second question,
Coase identified decreasing returns as well as increased supply prices as the main reasons
that a firm will reach a point where the costs of production carried out within the firm are
equivalent to those carried out on the market.

However, Coase overlooked two potential rationalities behind the creation of the
firm. One, mentioned in his article, was advocated to Professor Knight; the mode of
payment. While Coase criticized Knight for not providing the rationality of why the firm
overcomes the price mechanism, this reason is not necessary. That was a characteristic
invented by Coase to which he felt all theories of the firm should not be held to account.
The other rationality for the creation of the firm is in the protection of personal assets.
An entrepreneur, wishing to protect himself from the tort of negligence and the risk of
losing personal wealth, will value this protection.
Finally, in his discussion on the size of the firm Coase overlooked the glaring reason behind the failure of a market dominated by a single firm: economic calculation. A market controlled by one firm is exactly the same as a socialist state, with the exception of the single entrepreneur replacing the central planning board. There are no true prices which reflect the subjective valuations of individuals and there is no competition over the factors of production. As such, there is no use of money or prices to carry out the economic calculation necessary to allocate resources toward their most valued and productive ends.

While Coase’s inquiry has provided great insight into the emergence of the firm, or central planning within a free market, it is not complete. The addition of the theory of the firm produced by Professor Knight, as well as the idea of personal asset protection, when incorporated with the Austrian view of the entrepreneur, create a more complete view of Coase’s firm.
Works Cited


