

# Lecture VII: Coase, Transaction Costs, and the Boundaries of the Firm

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## The Firm, the Market, and the Law

The Firm

The Market

## The Nature of the Firm

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Why Not Markets?

# The Firm, the Market, and the Law

- ▶ Coase, R.H. 1988. The Firm, the Market, and the Law, in *The Firm, the Market, and the Law* Chicago University Press.
- ▶ Defining the field of study
  - ▶ "Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." - Robbins, L. *An Essay on the Nature and Significance of Economic Science*, 2nd Edition. Macmillan & Co. 1935.
  - ▶ "My particular interest has been in the part of economic theory which deals with firms, industries, and markets, which used to be called Value and Distribution and is now usually termed price theory or micro-economics."

- ▶ "Economists study how the choice of consumers, in deciding which goods and services to purchase, is determined by their incomes and the prices at which goods and services can be bought."
- ▶ "They also decide what factors of production to use and what products and services to make and sell and in what quantities, given the prices of the factors, the demand for the final product, and the relation between output and the amounts of factors employed."
- ▶ "The decisions of consumers and producers are brought into harmony by the theory of exchange."

- ▶ "Becker points out 'what most distinguishes economics as a discipline from other disciplines in the social sciences is not its subject but its approach.'"
- ▶ "The consumer is not a human being but a consistent set of preferences. The firm to an economist, as Slater has said, '...is effectively defined as a cost curve and a demand curve, and the theory is simply the logic of optimal pricing and input combination.' Exchange takes place without any specification of its institutional setting. We have consumers without humanity, firms without organization, and even exchange without markets."
- ▶ "In mainstream economic theory, the firm and the market are, for the most part, assumed to exist and are not themselves the subject of investigation. **One result has been that the crucial role of the law in determining the activities carried out by the firm and in the market has been largely ignored.**

# The Firm

- ▶ "The firm in modern economic theory is an organization which transforms inputs into outputs."
  - ▶ "Why firms exist, what determines what firms do (the inputs a firm buys and the output it sells) are not questions of interest to most economists."
  - ▶ "This lack of interest is quite extraordinary, given that most people in the United States, the United Kingdom, and other western countries are employed by firms, that most production takes place within firms, and that the efficiency of the whole economic system depends to a very considerable extent on what happens within these economic molecules."
  - ▶ "...I found it necessary to introduce a concept which I termed in that article 'the cost of using the price mechanism,' 'the cost of carrying out a transaction by means of an exchange on the open market,' or simply 'marketing cost.'"

# Market/Transaction Costs

- ▶ Discover people you want to deal with,
- ▶ Conduct negotiations leading up to a bargain,
- ▶ Draw up a contract,
- ▶ Undertake the inspection needed, and
- ▶ To make sure that the terms of the contract are observed.
- ▶ "Dahlman crystallized the concept of transaction costs by describing them as 'search and information costs, bargaining and decision costs, policing and enforcement costs.'"

- ▶ "... I argued that, although production could be carried out in a completely decentralized way by means of contracts between individuals, the fact that it costs something to enter into these transactions means that firms will emerge to organize what would otherwise be market transactions whenever their costs were less than the cost of carrying out the transaction through the market."
- ▶ "The limit to the size of the firm is set to where its costs of organizing a transaction become equal to the cost of carrying it out through the market."

# The Market

- ▶ "Although economists claim to study the working of the market, in modern economic theory the market itself has an even more shadowy role than the firm."
- ▶ "Markets are institutions that exist to facilitate exchange, that is, they exist in order to reduce the cost of carrying out exchange transactions."
- ▶ "... when economists do speak of market structure, it has nothing to do with the market as an institution but refers to such things as the number of firms, product differentiation, and the like, the influence of the social institutions which facilitate exchange being completely ignored."
- ▶ "'I refer to commodity exchanges and stock exchanges.

- ▶ These are normally organized by a group of traders (the members of the exchange) which owns (or rents) the physical facility within which transactions take place.
- ▶ All exchanges regulate in great detail the activities of those who trade in these markets (the times at which transactions can be made, what can be traded, the responsibilities of the parties, the terms of settlement, etc.), and they all provide machinery for the settlement of disputes and impose sanctions against those who infringe the rules of the exchange.”
- ▶ These markets are then used as models for perfect competition.

# The Nature of the Firm

- ▶ Coase, R.H. 1937. The Nature of the Firm. *Economica* 4(16), 386-405.
- ▶ "It is hoped to show in the following paper that a definition of a firm may be obtained which is not only realistic in that it corresponds to what is meant by a firm in the real world, but is tractable by two of most powerful instruments of economic analysis developed by Marshall, the idea of the margin and that of substitution, together giving substitution at the margin."

- ▶ Consider for a university
  - ▶ One organization of the university would be for each professor to be *independent contractors* offering courses.
  - ▶ To offer a degree program (a product for sale) the student could contract with each professor individually.
  - ▶ Alternatively, each professor could offer courses with the students selecting the set of courses that best meet his or her needs.
  - ▶ The last point would lead to difficulties valuing two students with similar, but different programs.
  - ▶ Further complicating the scenario is process of contracting for a classroom – does the professor contract with the physical plant?
  - ▶ Who contracts with housekeeping to clean the rooms.

# Allocation Through the Pricing Mechanism

- ▶ Under standard theory, if the return (revenue net of production costs) for item A is higher than the return for item B, resources shift from the production of B to A.
- ▶ However, within the firm resources are moved from division A to division B by managers. The employee moved from A to B may actually receive a lower wage due to the move.
- ▶ "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 complicated market structure with exchange transactions is substituted the entrepreneur-co-ordinator, who directs production.**"

- ▶ "Yet, having regard to the fact that, if production is regulated by price movements, production could be carried on without any organization at all, well might we ask, Why is there any organization?"
- ▶ ] "In view of the fact that, while economists treat the price mechanism as a co-ordinating instrument, they also admit the co-ordinating function of the 'entrepreneur,' it is surely important to enquire why co-ordination is the work of the price mechanism in one case and of the entrepreneur in another."

# Why Not Markets?

- ▶ Some straw men:
  - ▶ Some individuals are willing to accept less to work under someone else.
  - ▶ Some individuals are willing to accept less to manage other workers.
  - ▶ People are willing to pay more for goods made by firms than by individuals.

- ▶ **"The main reason why it is profitable to establish a firm would seem to be that there is a cost of using the price mechanism."**
- ▶ **"The most obvious cost of 'organizing' production through the price mechanism is that of discovering what the relevant prices are"**
  - ▶ Take Adam Smith's pin makers - One man cuts the wire, a second sharpens the end, and a third puts a head on the blunt end.
  - ▶ The pivotal question is that it is possible to establish the value of the pen – the market price a consumer is willing to pay for that pen.
  - ▶ However, how much value added is contributed by each of the individuals in the chain?
  - ▶ Who totals up that value and decides how many pens to produce?
  - ▶ And later, who buys the wire?

- ▶ **"The costs of negotiating and concluding a separate contract for each exchange transaction which takes place on a market must also be taken into account."**
- ▶ "We may sum up this section of the argument by saying that the operation of a market costs something and that, by forming an organization and allowing some authority (an 'entrepreneur') to direct the resources, certain marketing costs are saved."
- ▶ If the market can do it at a lower price, the entrepreneur can revert to the market – if it is cheaper to hire custodial services, the entrepreneur will purchase them on the market rather than incorporating that expense into the firm.
- ▶ "A firm becomes larger as additional transactions (which could be exchange transactions co-ordinated through the price mechanism) are organized by the entrepreneur, and it becomes smaller as he abandons the organization of such transactions."

- ▶ Why is not all production carried out by one big firm?
  - ▶ "First, as a firm gets larger, there may be decreasing returns to the entrepreneur function, that is, the costs of organizing additional transactions within the firm may arise."
  - ▶ "Second, it may be that, as the transactions which are organized increase, the entrepreneur fails to place the factors of production in the uses where their value is the greatest, that is, fails to make the best use of the factors of production."
  - ▶ "Finally, the supply price of one or more of the factors of production may rise, because of 'other advantages of a small firm are greater than those of a large firm.'"
  - ▶ Essentially Points 1 and 2 involve **diseconomies of scope**.

- ▶ Thus, the take-home-message of Coase's paper – The firm's size is determined by the trade-off between the transactions costs and diseconomies of scope.