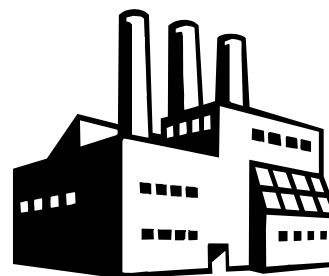


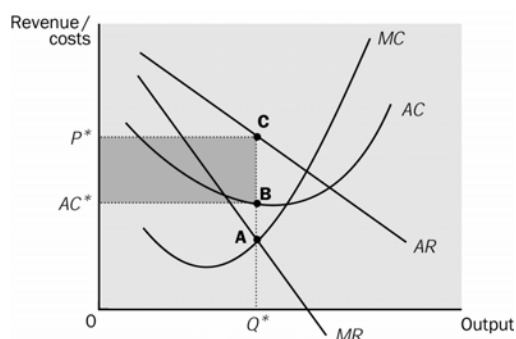
The Theory of the Firm

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Suppose we are considering a firm that produces only one output. In this case we write the net output bundle as $(y, -x)$ where x is a vector of inputs that can produce y units of output. We can then define a special case of a restricted production possibilities set, the **input requirement set**:

$$V(y) = \{x \text{ in } R_+^n : (y, -x) \text{ is in } Y\}$$

The input requirement set is the set of all input bundles that produce *at least* y units of output.

Note that the input requirement set, as defined here, measures inputs as positive numbers rather than negative numbers as used in the production possibilities set.

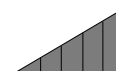
Two aspects of the “theory of the firm”

- Theory of production
 - The structure of production
 - Factor pricing
 - The entrepreneur’s costs
- Theory of the firm proper
 - Existence
 - Boundaries
 - Internal organization

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Production and cost

- The complexity of production
 - Entrepreneurship
 - Economic calculation
- The Austrian theory of imputation
 - Classical view: costs determine prices
 - Austrian view: prices determine costs
 - The marginal productivity theory: factor prices tend to be equal to their discounted marginal revenue products.



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The nature of the firm

- Neoclassical view: firm as production function (a "black box")
- Nexus-of-contracts view: firm as legal fiction
- Knowledge-based ("capabilities") view: firm as stock of knowledge
- Coasian (1937) view: firm as ownership of assets

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The Coasian framework

- Firm and market as alternative resource-allocation mechanisms
- External and internal transaction costs
- The optimal boundary of the firm
- Further developments
 - Asset specificity and the holdup problem
 - Markets, hierarchies, and hybrids
 - Authority and delegation
- Compatible with Austrian economics?

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Kirzner on the Coasian framework

In a free market, any advantages that may be derived from "central planning" . . . are purchased at the price of an enhanced knowledge problem. We may expect firms to spontaneously expand to the point where additional advantages of "central planning" are just offset by the incremental knowledge difficulties that stem from dispersed information.

— Kirzner, *The Meaning of Market Process* (1992), p. 162

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Rothbard on the limits to the firm

- Conventional explanations
- Incremental limits: nature of the decision-making (ownership) factor
- Ultimate limit: ability of entrepreneurs to perform economic calculation
 - The calculation debate: a brief refresher
 - The organization of the large firm
 - The need for market-based transfer prices
 - Implications for firm size

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Rothbard on the Coasian Framework

Coase pointed out that there are diminishing benefits and increasing costs to each of these two alternatives, resulting, as he put it, in an "optimum" amount of "planning" in the free market system. Our thesis adds that the costs of internal corporate planning become prohibitive as soon as markets for capital goods begin to disappear, so that the free-market optimum will always stop well short not only of One Big Firm throughout the world market but also of any disappearance of specific markets and hence of economic calculation in that product or resource.

— Murray N. Rothbard, "Ludwig von Mises and Economic Calculation Under Socialism" (1976), p. 76.

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Austrian objections to Coasian framework

- Ignores entrepreneurship (Boudreaux and Holcombe, 1989)
 - True, but entrepreneurship can easily be incorporated.
- Firms don't "suppress" markets (Matthews, 1998)
 - True but irrelevant: intra- and inter-firm resource allocation differ (cf. Williamson's notion of "forbearance").
 - Related to the "nexus-of-contracts" critique (Alchian and Demsetz, 1972; Fama, 1980)

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Austrian objections to Coasian framework (cont.)

- Insufficiently “dynamic”
 - Preference for knowledge-based or “capabilities” theory of the firm
 - Response: Coasian and knowledge-based approaches are complementary.
- Successful firms are radically decentralized, i.e., organized like markets (Cowen and Parker, 1997).
 - False: ownership = authority, which cannot be fully delegated.

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Ownership, authority, and entrepreneurship

- Asset ownership gives authority (right to determine use of asset in situations not specified by prior agreement).
- Implies limits to delegation
 - Entrepreneurship (exercised through asset ownership) as the “decision making factor” (Rothbard, 1962)
 - Mises (1949) on “playing market”
 - Challenge of credible delegation (Williamson’s “impossibility of selective intervention”)

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Ownership, authority, and entrepreneurship (cont.)

- Authority is valuable (Foss, 2001)
 - Need for urgent coordination
 - Possibility of decisive information
 - Scale economies in decision making
 - Controlling agency problems

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Summary

- Coasian framework: ownership and authority (essence of Misesian entrepreneurship)
- Entrepreneurship and economic calculation
 - Factor pricing
 - Firm boundaries and internal organization
- Policy implications
 - Need for free-market prices
 - “Freedom to fail”

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