THE THEORY OF THE FIRM: MICROECONOMICS WITH ENDOGENOUS ENTREPRENEURS, FIRMS, MARKETS, AND ORGANIZATIONS

The Theory of the Firm presents a path-breaking general framework for understanding the economics of the firm. The book addresses why firms exist, how firms are established, and what contributions firms make to the economy. The book presents a new theoretical analysis of the foundations of microeconomics that makes institutions endogenous. Entrepreneurs play a central economic role by establishing firms. In turn, firms create and operate markets and organizations. The book provides innovative models of economic equilibrium that endogenously determine the structure and function of economic institutions. The book proposes an "intermediation hypothesis" – the establishment of firms depends on the effects of transaction costs and on the extent of the market.

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Microeconomics with Endogenous Entrepreneurs, Firms, Markets, and Organizations

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Preface and Acknowledgments

This book presents a general theory of the firm. *The Theory of the Firm* seeks to explain (1) why firms exist, (2) how firms are established, and (3) what firms contribute to the economy. The book addresses the foundations of microeconomics by making institutions endogenous. In the models presented in the book, the following are endogenous: entrepreneurs, firms, markets, and organizations.

The general theory of the firm begins with the individual consumer. The characteristics of consumers are the theory's exogenous data. Consumers can do practically anything without firms. Consumers can produce goods and services by operating technology. Consumers can transact directly with each other through bilateral exchange. Finally, consumers can form organizations such as clubs, buyers' cooperatives, workers' cooperatives, and basic partnerships.

The firm is an economic institution that differs fundamentally from a consumer organization. This book introduces a new definition of the firm that is highly useful in developing the theory: The firm is a transaction institution whose objectives are separate from those of its owners. Consumer organizations such as clubs and basic partnerships are not firms. The objectives of consumer organizations cannot be separated from those of their owners.

Why do firms exist? *The Theory of the Firm* shows that firms exist only when they improve the efficiency of economic transactions. The efficiency of firms is compared to the alternative of direct exchange between consumers. Direct exchange between consumers involves search, bargaining, barter, and contracts. Direct exchange between consumers also can involve forming consumer organizations. To be economically viable, firms must improve on the efficiency of what consumers can achieve without firms.

How are firms established? Individual consumers can choose to become entrepreneurs and establish firms. *The Theory of the Firm* thus makes the entrepreneur endogenous in microeconomics. Because entrepreneurs establish firms, the firm also is endogenous in microeconomics. Entrepreneurs and firms arise based on the underlying characteristics of consumers who possess the judgment, knowledge, skills, and technology that are needed to set up a firm. Individuals provide the effort, investment, and planning that are needed to start up a business. If firms will enhance economic efficiency, entrepreneurs can earn a return from establishing a firm.

What do firms contribute to the economy? Firms are institutions that coordinate transactions by acting as intermediaries. Among the many instruments that firms use to coordinate transactions are two major ones. First, firms intermediate exchange by creating and operating markets. This makes markets endogenous in the theory of the firm. Firms create markets by marketing and selling goods and services, by setting up facilities such as stores and Web sites, and by arranging exchanges for commodities and financial assets. Firms adjust prices to balance their purchases and sales and thereby clear markets. Second, firms create and manage organizations that employ personnel and financial capital; intermediate transactions; internally allocate capital, labor, and resources, and carry out production. This makes organizations endogenous in the theory of the firm.

The theory of the firm constitutes a unified field with its own set of questions. The analysis departs from the neoclassical general equilibrium framework that takes both firms and markets as given exogenously and that does not consider either entrepreneurs or organizations. The theory of the firm incorporates advances in the study of firms from industrial organization, contract theory, game theory, law and economics, institutional economics, the economics of organizations, and finance.

The general theory of the firm is not based on a specific "silver bullet" theory of why firms exist. The general theory of the firm includes the full range of transaction costs, including the absence of a double coincidence of wants, communication costs, search costs, bargaining costs, moral hazard, adverse selection, contracting costs, and free riding.

Microeconomics seeks to address the purpose and functions of firms, markets, and organizations. Understanding why firms exist, how firms are established, and what firms contribute to the economy is essential to this task. The framework develops some critical empirical implications that require further investigation. In addition, the general theory of the firm helps to understand management decision making. The field of management strategy seeks to develop policies for managers, which require a framework that can evaluate the effectiveness of alternative strategies.

A general theory of the firm also is useful for teaching economics. Economics courses, including principles of economics, intermediate microeconomics, and graduate microeconomics, rarely mention entrepreneurship. In the neoclassical economics course, firms and markets are given exogenously. Firms lack an explicit organizational structure and are fully described by their production technology. Markets are operated by an invisible hand. Students are often perplexed, because firms are said to be price-takers and yet, at the same time, firms often are said to adjust prices in response to surpluses or shortages, an obvious contradiction to price-taking behavior. The theory of the firm contributes to teaching economics by introducing a more complete picture of the economy. The contributions of entrepreneurs often provide appealing narratives. Discussion of eBay's Internet auctions or the now publicly traded New York Stock Exchange yields insights into the market-making activities of firms.

The book is organized as follows. Part I of the book provides the foundation for the endogeneity of the firm. Chapter 1 provides the exogenous preconditions for the theory of the firm by defining the consumer. The characteristics, endowments, and transaction costs encountered by the consumer form the basis for the endogenous decisions of consumers to become entrepreneurs and establish firms. The chapter defines direct exchange between consumers and also explains why consumer organizations are not firms. Chapter 2 explores the formal definition of the firm, examines the separation criterion, and introduces the intermediation hypothesis. Chapter 3 introduces the separation theorems, which explain the separation of consumer decisions from those of the firm. The chapter extends the neoclassical and Fisher separation theorems to a model with oligopoly competition between price-setting firms.

Part II of the book introduces the entrepreneur as the central figure in microeconomics. Chapter 4 presents a formal definition of the entrepreneur and reviews the literature and historical context of entrepreneurship. The discussion highlights the critical importance of the entrepreneur in the economy and emphasizes the role of the entrepreneur in establishing firms. The chapter identifies three types of competition faced by the entrepreneur: competition among entrepreneurs, competition between the entrepreneur and direct exchange between consumers, and competition between the entrepreneur and established firms. Chapter 5 presents a set of models in which entrepreneurs establish firms in economic equilibrium. Entrepreneurs compete to establish firms, with various factors determining the number of entrepreneurs, including such factors as set-up costs, rates of time preference, risk aversion, and wealth.

Part III of the book considers the role of the firm in obtaining human capital and finance capital. Chapter 6 contrasts management of the firm with worker cooperatives and examines the implications of human capital for size and structure of organizations. Chapter 7 considers how financing the firm's capital investment affects the organization of the firm and compares sole proprietorships, partnerships, and corporations.

Part IV of the book develops the economic role of the firm as an intermediary. In Chapter 8, the firm alleviates the absence of a double coincidence of wants and provides a substitute for money. The absence of a double coincidence of wants is examined in the context of transportation and travel costs, allocation over time, and uncertainty. In Chapter 9, the firm addresses the free rider problem when joint production involves economies of scale, public goods, or common property resources.

Part V of the book considers the economic contribution of the firm as a market maker. In Chapter 10, the firm acts as a market maker and a matchmaker in markets