Competition and Cost Accounting

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Competition and Cost Accounting

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Abstract

Two of the most pervasive cost accounting systems for coordinating activities and facilitating decisions within firms are transfer pricing and product costing. These systems allow decentralized decision making that can take advantage of the local knowledge of managers. The choice of transfer prices and product costs also affects, and is affected by, the choice of similar systems by competing firms. In this monograph, we show that transfer prices, organizational structure, and firms' cost allocation system choices have a strategic impact on the product market in both Bertrand and Cournot settings. We show that the observability of and commitment to transfer prices are important factors that affect transfer prices and the strategic effect of transfer prices on the rival firm. But even in the absence of observability and commitment, we show that transfer prices have strategic effects, albeit more muted than in a setting that affords observability and commitment. Similarly, we show that firms' cost system choices have a strategic impact on rival firms. Surprisingly, these strategic effects sometimes have the result of an inferior cost system being chosen in equilibrium. Lastly, we consider a situation in which firms choose to specialize in a product market in order to obtain superior cost information. We show that

sometimes firms may choose this strategy in equilibrium as an alternative to traditional costs systems that average costs across products without regard to their true consumption of resources. At other times, firms may choose a more refined cost system that yields better cost information in lieu of traditional cost systems. We thus show that a focused strategy of specializing in a product and a superior cost system may act as substitutes.

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1

Introduction

Two of the most pervasive cost accounting systems for coordinating activities and facilitating decisions within firms are transfer pricing and product costing. These systems allow decentralized decision making that can take advantage of the local knowledge of managers. The choice of transfer prices and product costs also affects, and is affected by, the choice of similar systems by competing firms. In this monograph, we show that transfer prices, organizational structure, and firms' cost allocation system choices have a strategic impact on the product market in both Bertrand and Cournot settings. We show the observability of and commitment to transfer prices to be important factors that affect transfer prices and the strategic effect of transfer prices on the rival firm. But even in the absence of observability and commitment, we show that transfer prices have strategic effects, albeit more muted than in a setting that affords observability and commitment. Similarly, we show that firms' cost system choices have a strategic impact on rival firms. Surprisingly, these strategic effects sometimes have the result of an inferior cost system being chosen in equilibrium. Lastly, we consider a situation in which firms choose to specialize in a product market in order to obtain superior cost information. We show that sometimes firms may choose this strategy in equilibrium as an alternative to traditional costs systems that average costs across products without regard to their true consumption of resources. At other times, firms may choose a more refined cost system that yields better cost information in lieu of traditional cost systems. We thus show that a focused strategy of specializing in a product and a superior cost system may act as substitutes.

The underlying theme that runs throughout this monograph is that strategic considerations may make it desirable for a firm to have divisions and product managers to internalize something other than their true costs. In the case of transfer prices, a high transfer price serves as a means of promoting tacit collusion. When transfer prices are not observable to the rival firm, decentralization motivated by the superior knowledge of divisions about their own costs can promote tacit collusion. In the case of product cost measurement, an inferior cost allocation system that just spreads costs evenly may promote tacit collusion. We show that it may not be an equilibrium for firms to adopt a more accurate cost system or compete in multiple markets. The strategic nature of their interaction with their rivals may influence their cost and cost accounting choices in surprising ways.

Section 2 analyzes the strategic value of transfer prices in both Bertrand and Cournot settings. It demonstrates the importance of observability and commitment and shows that even in the absence of observability and commitment, decentralization to exploit the private information of upstream managers can have strategic consequences through double marginalization. With observability and commitment, these strategic effects become stronger. Section 3 analyzes the strategic value of cost allocation systems in both Bertrand and Cournot settings. Section 4 concludes.

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