Union Rent Appropriation
and Ex Post Analysis*

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A data set of 106 Fortune 500 firms is used to investigate the extent of union rent appropriation in 1977. The analysis identifies the existence of an appropriable asset with greater value in use than exchange as a necessary condition for union rent appropriation. The empirical analysis utilizes a new source of unionization data and explicitly addresses the problems associated with ex post analysis. The results suggest capital- and firm-specific efficiency are major sources for union rent appropriation.

I. Introduction

This analysis examines the extent to which unions appropriate economic rents and focuses specifically on markets in which both union and nonunion firms coexist. Standard analysis suggests that in such markets higher costs eventually drive out union firms. The persistence of union and nonunion firms over time indicates the existence of appropriable rents resulting from either specific cost advantages or barriers to entry, or both. The analysis identifies the sources of rents appropriated by unions in these markets.

Tests of this hypothesis are developed by synthesizing insights from the labor economics literature and industrial organization studies which indicate that capital and firm efficiency are the two most likely sources of union wage gains. Market power of firms has not been found to provide a major source of appropriable rents. Our analysis differs from previous studies in three areas: (1) formal development of a model of rent appropriation by unions; (2) use of empirical models that reflect the inability to observe directly the time path of rent distribution between firms and unions; and (3) estimation using a data set that contains both a firm-level measure of union status and other firm-level variables.

II. Previous Studies

The initial investigations of the impact of union status on firm performance follow the traditional pattern of profit studies. Freeman (1983), Karier (1985), and Voos and Mishel (1986) focus on the union's share of market power profits and consistently
find a larger union share of profits in highly concentrated industries. These studies use cross-sectional industry data to analyze unions' share of profits. Domowitz, Hubbard, and Petersen (1986) find the highest union share of profits is not limited to highly concentrated industries. Their study uses a longitudinal data set with union status as a fixed effect. Chappell, Mayer, and Shughart (1991) find the effect of union status on profits is independent of concentration ratios.

Two early profit studies at the firm level are Clark (1984) and Salinger (1984). The measures of union status used in these two studies differ, thereby complicating a comparison of the conclusions regarding union effects. Salinger focuses on the unions' share of monopoly profits, proxied by concentration ratios. Clark's analysis of profitability uses line-of-business data and includes the market share, number of competitors, and market share of the three largest competitors to proxy the competitive environment. Salinger finds that unions capture monopoly profits whereas Clark finds the greatest effect of unions is on firms with low market shares. Hirsch and Connolly (1987) reestimate previous profit studies using firm-level data and reject the hypothesis that unions share in profits generated by monopoly power.

Connolly, Hirsch, and Hirschey (1986) investigate firm and industry characteristics which may generate appropriable rents including nonmarketable research and development innovations, stocks of consumer goodwill, and firm-specific efficiencies. The effect of industry characteristics are also examined, in particular the level of import competition and concentration. Other researchers, including Becker and Olson (1992), Abowd (1989), and Hirsch (1991a, 1991b), extend the range of analysis by using firm-level measures of unionization. Hirsch (1990) investigates the appropriation of rents generated by market structure using weighted concentration and market share data and a measure of firm unionization generated by direct survey. The firm-level studies have consistently rejected monopoly profit as a source of rents but find mixed evidence for firm-specific efficiency, nonmarketable research and development innovations, and low import competition. Abowd finds that unions share in unanticipated changes in rents.

III. Theoretical Issues

Our analysis of union rent appropriation is based on two empirical observations. First, union wages are higher than nonunion wages even after controlling for worker characteristics, labor market conditions, and output market conditions. Second, most output markets are not fully unionized as indicated by various data documenting the percentage of workers unionized across industries. The implication of these observations is the potential coexistence of union and nonunion firms with union firms facing higher labor costs. The coexistence of union and nonunion firms can be explained by appropriable rents.

Another explanation for the coexistence of union and nonunion firms is that the unionization of a firm may result in a positive productivity shock. If the shock is of