

# Repeated bargaining and the role of impatience and incomplete contracting<sup>☆</sup>

Curtis J. Eberwein\*

*Center for Human Resource Research, Ohio State University, 921 Chatham Lane, Suite 100,  
Columbus, OH 43221-2418, USA*

Received 27 July 1999; received in revised form 13 January 2001; accepted 23 April 2001

---

## Abstract

This paper develops a model of firm/union bargaining in which bargaining is repeated. If contracts specify the values of all variables of interest, a player's share of the surplus will decrease as that player becomes more impatient, but impatience has a much weaker effect than in static games. When the contracts do not specify the values of all relevant variables, this result can be reversed and the firm's bargaining power could become *greater* as it becomes more *impatient*. © 2001 Elsevier Science B.V. All rights reserved.

*JEL classification:* J50; C78

*Keywords:* Trade Unions; Bargaining

---

## 1. Introduction

In analyzing bargaining situations, economists have typically employed models that are variants or extensions of those presented in the seminal works of Nash (1950) and Rubinstein (1982). Bargaining in a unionized firm differs from these

---

<sup>☆</sup> The author would like to thank Ted To, Ngo Van Long, John Galbraith, Jan Svejnar, Al Roth, seminar participants at McGill University and the Massachusetts Institute of Technology, and anonymous referees for useful comments on earlier versions of this paper.

\* Tel.: +1-614-442-7300; fax: +1-614-442-7329.

*E-mail address:* ceberw@hotmail.com (C.J. Eberwein).

models in two very important ways. First, contracts typically are valid for only one to three years, so bargaining is repeated. Second, while firms and unions care about both wage rates and employment, contracts frequently specify only wages, with employment left to the discretion of the firm.

Espinosa and Rhee (1989) and Eberwein and Kollintzas (1995) both model unionized firms as engaged in repeated bargaining with incomplete contracts, but neither paper models the bargaining environment. Muthoo (1995,1999) extends Rubinstein's model to a repeated bargaining environment, thus explicitly modeling the bargaining process. In Muthoo's model the players have repeated opportunities to divide a fixed amount of transferable utility. This needs to be modified in two ways to apply it to trade unions. First, the Pareto frontier will typically be non-linear in firm–union bargaining. Second, one needs to take into account the possibility that contracts are incomplete.

This paper makes both these adjustments. Standard assumptions are made about the firm's profits and the union's utility as functions of wages and employment. The only additional assumption is that the set of possible utility pairs is convex.

For complete contracts (ones that specify both wages and employment), it is shown that the stationary subgame perfect equilibrium (SSPE) exists and is unique. The relative bargaining power that results in the limit as the delay between offers tends to zero is characterized and is shown to be independent of the shape of the Pareto frontier. The union's relative bargaining power is shown to be increasing in the firm's discount rate and decreasing in its own discount rate. That is, it pays to be patient. This agrees with Rubinstein's static model, but it is shown that the effect is much weaker for repeated bargains. It is also shown that increasing the contract length benefits the more patient of the two players.

When contracts specify only the wage rate, SSPE would result in outcomes that are inefficient from the point of view of the firm and union. Subgame perfect equilibria (SPE) in which efficient outcomes are supported by trigger strategies are investigated. Conditions similar to Properties 3.1 and 3.2 in Muthoo (1999) are imposed, with suitable modification to allow for a punishment phase. These same conditions would result in the SSPE for the complete-contract case, allowing the two cases to be comparable. It is shown that, provided efficient outcomes can be supported as an equilibrium, the equilibrium will either be the same as the SSPE for the complete-contract case or an equilibrium with lower wages. In this second case, the limiting (as the delay between offers tends to zero) equilibrium will have the firm just indifferent between choosing the Pareto efficient level of employment and cheating by maximizing current profits (which would trigger the punishment). In this second case, it is shown that it is possible that the firm's share of the gains from trade is increasing in its own discount rate. That is, it pays to be *impatient*. The reason is that, as the firm becomes more impatient, it cares more about the current gains from cheating relative to the costs of accepting punishment in the future. As a result, the firm must be treated more favorably in order for its incentive-compatibility constraint to hold. It is argued that this property may hold

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات