Journal of Economic Behavior & Organization 117 (2015) 356–368

Contents lists available at ScienceDirect

Journal of Economic Behavior & Organization

journal homepage: www.elsevier.com/locate/jebo

Bargaining in the shadow of arbitration

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ARTICLE INFO

Article history:
Received 5 December 2014
Received in revised form 10 May 2015
Accepted 21 June 2015
Available online 6 July 2015

JEL classification:
K41, C78

Keywords:
Arbitration
Bargaining
Contract dispute
Conventional arbitration
Italy
Settlement

ABSTRACT

Arbitration, as an alternative to litigation for contract disputes, reduces costs and time. While it has frequently been thought of as a substitute to pretrial bargaining and litigation, in fact, parties may be able to reach a settlement privately while engaged in the arbitration process. Consequently, the institutional design may influence the bargaining. We develop a theoretical model of pre-arbitration bargaining that is able to identify the impact of the institutional features on its success. A detailed data set from arbitration proceedings in Italy is analyzed. The exogenous heterogeneity in the composition of the panel of arbitrators allows us to illustrate its effect on bargaining. We show that the number of arbitrators used interacts with their experience and independence to reduce uncertainty and facilitate settlement.

1. Introduction

When a contract dispute arises publicly provided systems for litigation are available. Litigation, though, utilizes substantial amounts of public resources, suffers from high opportunity costs for the time of the disputants, judge, court personnel and jurors, and drains private resources. Due to these costs, parties to a dispute have the incentive to privately resolve the conflict through pre-trial bargaining. Settlement via pre-trial negotiations is imperfect though. This "bargaining in the shadow of the law" (Cooter et al., 1982) has encouraged a rich literature, focusing on optimism bias and asymmetric information, to explain the bargaining failures. Given these failures, there has been much interest in alternative dispute resolution (ADR) as a substitute to the bargaining-litigation framework. One common form of ADR is binding arbitration where the parties to a contract agree ex ante to resolve any potential dispute with a third-party arbitrator or panel of arbitrators who, after reviewing the evidence and arguments, select an outcome.

The dichotomy between ADR and pre-litigation bargaining has been set out by Dari-Mattiacci (2007). He explores the factors that encourage parties to ex ante commit to arbitration rather than leave the contract 'more-incomplete' relying on

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[1] We greatly acknowledge the *Camera Arbitrale Milano* and its Deputy-Secretary General Rinaldo Sali and his staff for providing the data. We also thank Alessio Scano for discussions of arbitration and civil law in general of Italy. Finally, we thank participants of the Conference on Empirical Legal Studies, Guiseppe Dari-Mattiacci, Geoff Miller, Paul Pecorino, and Don Swanz for helpful discussions and suggestions.

http://dx.doi.org/10.1016/j.jebo.2015.06.016
0167-2681/

pre-trial bargaining. While an important question worthy of additional investigation, one must recognize that private resolutions are not separate from the arbitration process, but nested within. Bargaining may occur in the shadow of arbitration as well.[2]

Our objective is to explore the issue of bargaining over contract disputes when failure results in an arbitration decision. The institutional features of arbitration vary. Who acts as an arbitrator? Should a panel be employed rather than a single decisionmaker? Failures of private resolutions are typically argued to be due to uncertainty. Consequently, how the institutional design affects the uncertainty and, as a result, facilitates private resolutions is an important public policy question.

We develop a straightforward theoretical model of bargaining in the shadow of arbitration that combines the intuition of the Condorcet Jury Theorem (Mueller, 2003) regarding the optimality of group decisionmaking with the economics of uncertainty in bargaining. This allows us to identify which factors influence private resolution. We then analyze a data set of arbitration cases of the Chamber of Commerce in Milan, Italy (*Camera di Commercio*). It is common practice to include a clause in contracts in Italy to utilize the chamber's arbitration service (known as the *Clausola Compromissoria*) The parties agree upfront on features of the arbitration process and, hence, the institutional design is exogenous to the dispute. After filing, the composition/identity of the arbitrators is determined. Many, but not all, of the disputes are then resolved. Thus, characteristics of the disputes, the actors, and (importantly) the institutional features can be used to explain whether or not bargaining is successful.

The theoretical model predicts that the uncertainty associated with the unknown quality of the decisionmaking of an arbitrator is muted when a panel of arbitrators is used. The mitigated uncertainty facilitates private resolutions. Empirical evidence is presented confirming this hypothesis. The likelihood of a case continuing all the way until a decision is handed down by the arbitrators is significantly less likely when a panel of three arbitrators is employed rather than only one. Additionally, a result of the theoretical model is that amongst three arbitrator panels, if there are divergent beliefs regarding the decisionmaking of two arbitrators, uncertainty and bargaining failures are more likely than if there is only heterogeneity in assessments over one arbitrator. In Italy, arbitrators tend to be either privately practicing attorneys or university law professors. The latter have more education, publicly available scholarship, and in general have a better reputation for quality decisionmaking. The empirical results show that if the majority of the panel of arbitrators are professors, then the likelihood of the dispute persisting until the completion of the arbitration process is significantly reduced. Hence, the empirical results conform to the theoretical predictions that the number of arbitrators and the confidence in the decisionmaking ability of those selected reduces uncertainty and facilitates private bargaining.

Ours, though, is not the first paper to consider bargaining within an arbitration framework. Early work by Crawford (1979, 1982) addresses settlement with an arbitrator resolving any dispute that persists. He compares conventional arbitration, where the arbitrator selects her most preferred outcome, to final-offer arbitration, with the arbitrator restricted to selecting amongst the final offers made by the disputants. In his framework bargaining always succeeds, as the outcome under arbitration is known when bargaining. Exploring bargaining failure, Farmer and Pecorino (1998) consider final-offer arbitration where the parties to the dispute have asymmetric information regarding the expected decision of the arbitrator. They illustrate that offers can provide information to the other party.[3] Allowing for bargaining after the offers are made facilitates settlement.[4] Extending the analysis to include the voluntary revelation of private information, Farmer and Pecorino (2003) illustrate that the transmission of information can be used by the uninformed party to make a better final offer. Therefore, the informed party has the incentive to withhold private information, which could have promoted settlement. Again, if bargaining is allowed after final offers are submitted, but before the arbitrator makes her decision, then all disputes settle. Experimental evidence supports these findings (Van Boening and Pecorino, 2001). Deck and Farmer (2009) consider the complementary issue of investments in arbitration cases.

Our work should be seen as a complement to the valuable contributions of asymmetric information models of bargaining and arbitration. We consider (symmetric) uncertainty of the disputants.[5] The emphasis here is on differing institutional arrangements and how the arbitration setup exacerbates or mitigates the uncertainty, affecting the private resolution of conflicts. Furthermore, the strategic informational issues arise primarily in final-offer arbitration where the arbitrator is bound to one of the two proposals. We consider conventional arbitration institutions here, which are common in contract disputes such as those utilized in international trade agreements in Europe.

Furthermore, the theoretical model considers group decisionmaking and, therefore, as stated, builds off of the insights of the Condorcet Jury Theorem (CJT) (see Young, 1988; Mueller, 2003; McCannon, 2015 for detailed discussion). The CJT considers the accuracy of a group's decision when the size of the group expands. Stated broadly, the CJT illustrates that the decision reached by a group becomes more accurate as the size of the group increases.[6] The tradeoff between accuracy and

[2] A complementary analysis is done by Spurr (2000) considering nonbinding mediation, but with litigation as the default outcome.

[3] Farmer Curry and Pecorino (1993) similarly consider asymmetric information regarding risk preferences of the disputants.

[4] In their framework, settlement does not arise in 100% of the cases in the separating equilibrium. Since the rate of settlement increases in these outcomes with renegotiation, but the set of pooling equilibrium (where settlement always occurs) reduces, the net effect on settlement rates is ambiguous.

[5] Deck and Farmer (2007) consider symmetric uncertainty and bargaining as well. Their framework generates nonempty bargaining zones and, therefore, is unable to explain bargaining failure. Their experimental research addresses whether settlement rates are correlated with the *size* of the bargaining zone.

[6] There is an expansive literature investigating both asymptotic and non-asymptotic versions of the CJT and with various relaxations of the assumptions (e.g. majority voting, independent assessments, etc.).