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Uncertainty and resistance to reform in laboratory participation games

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Abstract

This paper presents a participation game experiment to study the impact of uncertainty and costly political participation on the incidence of reform. We introduce intra-group conflict into the framework of Fernandez and Rodrik (1991) [Fernandez, R., Rodrik, D., 1991. Resistance to reform: status quo bias in the presence of individual-specific uncertainty. American Economic Review 81, 1146–1155] by incorporating costly political participation, which creates a natural incentive for free-riding on fellow group members' efforts to influence policy outcomes. Our experimental findings show that uncertainty reduces the incidence of reform even with costly political participation and that an increase in the cost of participation reduces the participation of all agents, regardless of whether they belong to the majority and minority. This second result cannot be reconciled with the standard mixed strategy Nash equilibrium, but is consistent with the quantal response equilibrium.

JEL classification: C92; D72; D80
Keywords: Reform; Uncertainty; Experiment; Participation game; Bounded rationality; Quantal response equilibrium

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1. Introduction

This paper presents a laboratory participation game experiment to study the impact of individual-specific uncertainty and costly political participation on the incidence of reform. In a pioneering study, Fernandez and Rodrik (1991, hereafter FR) show that uncertainty regarding the distribution of gains and losses from reform can prevent efficiency-enhancing reforms from taking place. They argue that, when making decisions regarding whether to support a reform, citizens may not know whether they will benefit or suffer from the reform. If policy outcomes are determined by majority preferences and the majority estimate ex ante that their expected payoff from the reform is lower than their expected payoff from the status quo, then the reform will not take place. The reform can fail in this way even if everyone knows that it will improve the welfare of the majority of the citizens ex post and will thus generate majority support for its continuation if it is adopted.

This insight has been influential in the recent literature on the political economy of reform as well as in other areas of political economy.[1] To our knowledge, however, there has not been empirical work that provides a direct test of the validity and significance of the mechanism articulated in this influential paper. Furthermore, to focus on how individual-specific uncertainty can lead to the non-adoption of reform, FR do not develop an explicit model of the political process. Instead, they assume that political participation is costless and that policy reform is more likely to be adopted if it is favored by a larger number of individuals. In this paper, drawing on the participation game framework of Palfrey and Rosenthal (1983), we extend the FR model to allow for costly political participation, and study how uncertainty and costly participation affect the incidence of reform, as well as the incidence of political participation by the supporters and opponents of reform.

We were motivated to extend the FR model to allow for costly political participation for two main reasons. First, when political participation is costly–for example, the act of voting by citizens or the effort of lobbying by interest groups in affecting policy outcomes–whether or not a reform will be adopted depends on the actual support expressed by those citizens who incur the costs to participate in the political process, rather than simply the ex ante preferences of the majority of the citizens. We show that costly political participation in the FR model typically leads to multiple equilibria, and it is possible that uncertainty can actually *increase*, instead of *decrease*, the incidence of reform, contrary to the FR model with costless participation. This makes the laboratory

[1] The importance of individual-specific uncertainty has been emphasized in general discussions of the political economy of reforms (see, for examples, surveys such as Rodrik, 1996; Robinson, 1998; Drazen, 2000, chapters 10 and 13, and the references cited there). It also features prominently in the literature on the merit of gradualism vs. big bang in reform (e.g., Sachs, 1995; Aslund et al., 1996; the relevant essays in Sturzenegger and Tommasi, 1998; Laffont and Qian, 1999). Recently, Jain and Mukand (2003) extend the FR model to study whether or not the probability of reform adoption is increasing in the efficiency gain from the reform. Highly selective examples of recent studies in other areas of political economy that have addressed the issue of individual-specific uncertainty include empirical studies of public preferences over tax, deficit and spending (Hansen, 1998), and the political economy of public enterprise reform (Campos and Esfahani, 2000).