

The Making of Policy: Institutionalized or Not?

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We received valuable comments and suggestions from Jon Eguia, David Epstein, Macartan Humphreys, Graciela Kaminsky, Humberto Llavador, Cesar Martinelli, Massimo Morelli, Vicky Murillo, Pablo Pinto, Adam Przeworski, Susan Rose-Ackerman, Frances Rosenbluth, Ken Scheve, Ernesto Stein, David Stasavage, Susan Stokes and seminar participants at Columbia, George Washington, NYU, Universidad de San Andrés, Yale, and the Latin American and Caribbean Economic Association Meeting in Rio de Janeiro. We are indebted to Fabiana Machado for allowing us to draw freely from our joint ongoing empirical work on protests in Latin America, as well as for valuable suggestions and insights. We are particularly indebted to Laura Trucco for extraordinary research assistance.

Abstract.

This paper departs from well known models of policymaking undertaken in the context of formal political institutions, and examines the implications of enlarging the action set of political players. The action set of players is enlarged to explore the implications of a number of political actions (such as road blockades or bribes) which are pervasive in many countries. The paper explores the implications of such an extension for the degree of institutionalization of policymaking (and relatedly, the strength and quality of policymaking institutions such as Congress), for the nature of resulting policies, and for the intensity of use of these alternative political technologies.

One of the main arguments of the paper is that different polities will be characterized by different levels of institutionalization of their policymaking processes, which is consistent with casual observation around the world. Furthermore, as emphasized in the abstract literature on institutions, these differences could be reinforcing.

When Congress and the political party system are the effective conduits of preference aggregation and political bargaining, various relevant actors will place their bets (that is, their investments) in those institutions, most citizens will believe that those are the spaces where relevant decisions are made, and this whole logic would reinforce and become self-fulfilling. On the contrary, if such institutional arenas are not taken too seriously, and everybody knows that the way of getting something out of the political system is to blockade a road or to bribe the president, those investments in the institutionalization of Congress or parties will not be undertaken, and the lack of institutionalization will be reinforced

A related implication of our analysis, which fits naturally with the logic of institutions above, is that there is multiplicity of equilibria. Polities might be stuck with higher or lower levels of institutionalization. Polities in more institutionalized equilibria will behave as predicted in the “tidy” literature on political institutions and policies. Polities in less institutionalized equilibria might behave differently. This could have important implications for cross national empirical analysis on the effects of formal political rules on public policy.

Among the comparative statics results, we find that lower institutionalization (and greater use of alternative political technologies) are more likely the lower the cost of using these technologies, the higher the potential damage they can cause, the lower the wealth of the economy, and the more asymmetric the distribution of *de jure* political power. Relatedly, we find a strategic complementarity in the use of various alternative political technologies; for instance “bribes by the rich” and “protests by the poor” are likely to be countervailing forces that will tend to happen together in polities with weaker political institutions.

We present three levels of empirical evidence supporting our argument: international cross-country correlations, individual level survey responses for 18 Latin American countries, and a narrative of the case of Bolivia over the last 25 years, which is suggestive of a switch from a more to a less institutionalized equilibrium.

I. INTRODUCTION

Formal analysis of policymaking within the realm of political institutions has deepened our understanding of how political institutions shape economic policies. There is by now a rich and growing literature on the impact of various legislative and electoral institutions on a number of relevant policy outcomes, such as the size of general public goods, targeted transfers, local public goods, and rent extraction by politicians. As of today, the standard textbook treatment of this literature is Persson and Tabellini (2000), even though a number of important contributions have been produced since that book was published.¹

In almost all of this literature, most or all of the relevant action takes place within the context of these formal institutional rules and relatively formalized institutional arenas (the voting booth, the building of Congress, etc.). That is certainly a very good approximation for policymaking in various countries at some moments in time (mostly developed countries in the last several decades), but it is much rougher approximation to understand policymaking in other countries today or even in most countries at some other points in history.

Other than voting, forming political parties, bargaining in the legislature, and the like, there are a number of *alternative political technologies* (such as threats of violence and of disruption of economic activity) that individuals or groups could utilize in order to influence collective decisions. In the very words of Persson and Tabellini in the introduction to their well known textbook: “Citizens interact with politicians in two ways: through voting at the elections, and through lobbying by organized interest groups. We neglect other forms of political participation, such as protests. Protests are certainly important in the real world, and we wish we had more to say about them. But they have rarely been studied formally by economists, or political scientists (an exception is the interesting work by Lohmann (1994, 1998)).” (Persson and Tabellini, 2000: 10). In this paper we take a step towards incorporating alternative political technologies (such as protesting) in models of institutions and policies.²

This paper is an exploration on the implications of an enlarged political action set for the study of institutions and policymaking.³ We investigate the way in which the

¹ Another contemporaneous textbook treatment of the field of Political Economy in economics is provided by Drazen (2000), which is more explicit in the treatment of various substantive areas of (macro)economic policy, and less explicit in institutional comparative statics of the type emphasized in Persson and Tabellini (2000). Dewan and Shepsle (2008a, 2008b) and Besley (2005) provide interesting, albeit idiosyncratic, updated surveys. Alesina, Persson and Tabellini (2006) is a highly readable recent statement by some of the founding fathers of the field.

² Even though our main concern in this paper is not with protests per se, given that the actual alternative political technology we model looks very much like a protest, in the second half of the paper we make more explicit connections to the literature on protests.

³ We are not the first authors to consider the impact of alternative political technologies on some aspects of the workings of formal political institutions. Notable recent contributions in that spirit include Ellman and Wachtekon (2000) who study electoral competition under the threat of political unrest, and Dal Bó and Di Tella (2003) and Dal Bó, Dal Bó and Di Tella (2006) who study political agency in models in which interest groups can cause politicians harm. This is also related to earlier insights in Grossman (1991), Hirshleifer (1995, 2001), Skaperdas (2006) and references there. (See also Humphreys, 2001). Some of the intuitions of this paper are reminiscent of results in the international relations literature, for instance “bargaining in the shadow of power” (Powell, 1999). Przeworski (2008) is a very insightful

presence of these alternative political technologies, in interaction with formal political institutions and underlying socioeconomic structures, influences the workings of institutions, policy outcomes, and the use of such technologies in equilibrium.

One of the most important implications of our analysis is the fact that different countries will have different degrees of *institutionalization* in the way in which collective decisions are made. This is closely related to our original motivation to work in this topic, from the applied study of contemporary policymaking in Latin America (see for instance Stein et al, 2008).⁴ Such comparisons reveal an important variation across countries and over time in the degree to which formal institutions such as Congress and political parties are the central locus of programmatic demands by socioeconomic actors, and (conversely) the degree to which socioeconomic interests use, instead, alternative political technologies to influence policymaking.

As emphasized in the more abstract literature on institutions, institutions are equilibrium phenomena. As such, they reflect past investments, they summarize information, beliefs and expectations, and they incorporate self-reinforcement effects.⁵ It is very natural to use that general logic to think about the determinants of the relevance of specific institutional arenas for policymaking. When Congress and the political party system are the effective conduits of preference aggregation and political bargaining, various relevant actors will place their bets (that is, their investments) in those institutions, most citizens will believe that those are the spaces where relevant decisions are made, and this whole logic would reinforce and become self-fulfilling. On the contrary, if such institutional arenas are not taken too seriously, and everybody knows that the way of getting something out of the political system is to blockade a road or to bribe the president, those investments in the institutionalization of Congress or parties will not be undertaken, and the lack of institutionalization will be reinforced.⁶

A related implication of our analysis, which fits naturally with the logic of institutions above, is that there is multiplicity of equilibria. Polities might be stuck with higher or lower levels of institutionalization. Polities in more institutionalized equilibria will behave as predicted in the “tidy” literature on political institutions and policies. Polities in less institutionalized equilibria might behave differently. This could have important

effort motivated by the same facts as this paper (road blockades by farmers in Argentina). We are indebted to Adam Przeworski for generously sharing his ideas on these issues.

⁴ Our applied focus on countries with an intermediate level of both economic and institutional development is also a motivation for attempting to develop models that combine the analysis of behavior within the rules of formal institutions with behavior outside those channels. Studies of policymaking in developed countries tend to place great emphasis on formal political institutions and arenas, while studies in the political economy of development, until recently, paid scant attention to those details (compare textbook treatments of US politics such as Schmidt et al 1991 with textbook treatments of African politics such as Chazan et al, 1999). Geddes (2002) provides an insightful overview of the recent move in the political economy of development to incorporate the study of the details of operation of democratic institutions. See also Bates (1990).

⁵ See for instance Aoki (2001), Pierson (2004), Greif and Laitin (2004), and Greif (2006).

⁶ As mentioned in section IV, two countries of similar levels of development (Argentina and Chile) present a very stark contrast in the dynamics of institutionalization of Congress, the political party system, the Judiciary and the Bureaucracy after the democratization process of the 1980s. All these institutions are much weaker in Argentina than in Chile (contrast Spiller and Tommasi 2007 with Aninat et al 2008), and this correlates with higher levels of corruption and higher levels on non-institutionalized mechanisms of political pressure such as road blockades and the like.

implications for cross national empirical analysis on the effects of formal political rules on public policy.

Section II introduces the general logic of studying institutions and policymaking in the presence of alternative political technologies. Section III develops a specific model within that general logic, featuring a formal legislative bargaining arena and a specific alternative technology (“road blockades”). Section IV describes the general implications of the model and presents various comparative statics results. One of the most interesting (albeit not surprising) results is that the more uneven the distribution of political power within formal institutions (*ceteris paribus*) the more likely to observe extensive use of alternative political technologies and low degrees of institutionalization. Section V presents three levels of empirical evidence (preliminarily consistent with the logic of the paper): international cross-country correlations, individual level survey responses for 18 Latin American countries, and a narrative of the case of Bolivia over the last 25 years, which is suggestive of a switch from a more to a less institutionalized equilibrium. Section VI briefly discusses one extension introducing more than one alternative political technology. It suggests an equilibrium complementarity across the use of various such technologies (the rich bribing their way into policy favoritism is likely to coexist with the poor protesting in the streets). Section VII concludes the paper by reviewing our objectives and results and by plotting the next steps in this agenda.

II. THE GENERAL LOGIC: INSTITUTIONAL BEHAVIOR AND ALTERNATIVE POLITICAL TECHNOLOGIES

Take any model that treats political institutions as the rules of a game in which policies are decided. Call r those rules that regulate elections, government formation, legislative procedures, judicial review, and the like, and let them belong to a set of possible rules R . Panel (a) of figure 1 represents that type of game, as in any of the various models summarized in the textbook of Persson and Tabellini (2000).⁷ (In the specific example we will develop below, that model will be one of legislative bargaining, developed originally in Baron and Ferejohn, 1989). Let $G(r)$ be the game played under those rules.

<Fig. 1: Policymaking Games>

Most of those models presuppose that “that’s it”; that is, that actors only play within those rules within those institutions. As stated in the introduction, that is not a bad approximation to study broad issues of policymaking in a number of polities today, but it seems to miss a very important part of the action in other cases.

Our modeling strategy consists of calling that game G the *institutionalized* part of the game—i.e., the part of a broader game (with multiple arenas) that takes place *inside* those institutionalized arenas. To that game, we add a prior stage in which actors choose between participating in that institutionalized game and participating in

⁷The description of those games involves also a description of the underlying economic structure and policy problem. In our example below, as in Baron and Ferejohn (1989), that structure will consist of splitting a pie of fixed size.

alternative arenas.⁸ Also, we will need to specify the feasible actions in these alternative arenas, the protocols of interaction within those arenas, and the protocols of interaction among formal and informal arenas.

Panel (b) of Figure 1 presents a scheme of this broader game. Borrowing the language used by Acemoglu and Robinson (2006a and 2006b), we call *de jure political power* the one assigned by formal political institutions, and *de facto political power* the one assigned by the technologies of alternative political action. (For instance, if the alternative to institutionalized decision making was the threat of violence, such power would be conferred by the capacity to exercise violence.) More generally, what alternative political technologies are we referring to? Classifying a set of various possible political actions (actions to influence collective decision making) into “institutionalized” versus “alternative” is to some extent an arbitrary choice. Which way one wants to classify things in practice would depend on the exact question at hand.

Figure 2 presents some examples of political actions. Some of them, towards the left of the diagram in white, are closer to the more institutionalized end of the spectrum (forming a political party, writing to your congressman); while others, towards the right of the diagram in dark grey, are clearly within the realm of the alternative (road blockades, physical threats). A number of other political actions are harder to classify, including various forms of lobbying,⁹ as well as public demonstrations to inspire sympathy in public opinion (Alston, Libecap and Mueller, 2008). Some actions such as capital flight to avoid excessive taxation are in principle part of the economic side of the model and not part of the political action space (as in “the structural dependence of the State on capital”, Przeworski and Wallerstein, 1988), unless they take some explicit political coordination.¹⁰ Strategies employed by trade unions vary from the extremely institutionalized (“playing golf with Republican legislators”), to the constitutionally sanctioned right to strike exercised impeccably, to the borderline-criminal physical intimidation utilized in some countries at some points in time.¹¹ Going into the darker side of Figure 2 and of reality, some strategies we would have no doubt in classifying as

⁸ The actors we have in mind are underlying socioeconomic groups. At the level of abstraction we will be working in the simple model of section III, these actors will choose between (“direct democracy”) participation in a legislative assembly, and exercising alternative action elsewhere. Clearly, enriching the details of political agency by modeling representative democracy explicitly is a next step in the agenda.

⁹ Lobbying by interest groups is an activity that has been well studied in political economy and in political science. The best known treatment by economists is that of Grossman and Helpman (1994, 2001). We believe that some forms of lobbying, within certain rules, would fit more naturally in the “institutionalized” part of the game – as when Grossman and Helpman say, referring to the US, “according to the survey findings, the activities undertaken by the greatest numbers of organized interest groups are those intended to educate and persuade lawmakers of the wisdom of the groups’ position.” (Grossman and Helpman, 2001: 4). Other forms of business influence (quite prevalent in several Latin American countries and various other places) are much closer to the darker part of Figure 2. Understanding why some forms of business participation in policymaking are more prevalent than others across different polities is an important pending research question; see Schneider (2009) and Spiller and Liao (2008) for some relevant insights. We believe that some of the logic of this paper, properly adjusted, could be helpful in thinking about those issues.

¹⁰ Such explicit coordination by business actors is pervasive in the (earlier) accounts of politics and economic policymaking in developing countries. See for instance Dornbusch and Edwards (1991), Bruno (1993), and Fanelli and McMahon (2006).

¹¹ See for instance Murillo and Schrank (2009), Farber (1986), Przeworski (1985) and Austin-Smith et al (2008).

“alternative”, as the ones exercised by Colombian drug lords (Dal Bó, Dal Bó and Di Tella, 2006).

<Fig. 2: Alternative Political Technologies>

In the rest of the paper we will work at some level of abstraction, focusing on a “black or white” classification in which some actions will take place clearly within the “institutional” realm and others clearly outside formal institutional channels.¹²

For concreteness, we will speak as if the alternative political technology (APT) in question are road blockades or street protests; but in principle, the abstract formulation we utilize could also represent technologies which (even though formally homeomorphic to some extent) are quite different in substantive terms, such as collective action by some economic sectors who could damage the economy. The choice of road blockades as our illustration is not accidental, since at the time of this writing road blockades are a common form of political action influencing decisions taken in more formal arenas in various Latin American countries, such as Argentina and Bolivia (see section V).¹³

In the model, we will be assuming that the decisions to take the institutional road or the “street” road are indeed alternatives. That is a simplified manner to capture an important point of our argument, which emphasizes the investment component of institutions.¹⁴ One can think of examples in which certain political actors will take different roads depending on what the environment has to offer them. For instance, there will be circumstances in which business interests will invest more resources in strengthening right-wing political parties and think-tanks that defend their general interests (as they do in Chile) than in bribing politicians, judges, or bureaucrats to get special privileges for their firm or sector (as they do in Argentina). As extensively recognized in a literature on democratization, current political losers might accept their short-term destiny gracefully and invest in doing better in the electoral and coalitional arena next time, or they can use violence in an attempt to change things.¹⁵ These

¹² Our use of the terms institutions and institutionalization shifts back and forth between more formal theoretical notions and more commonplace usage. One can (as we do in our model) put a lot of structure to the actions “in the street” and in a strict sense call actions out there very “institutionalized”. Having said that, most people who are not specialists in institutional theory would agree to call bargaining in Congress more institutional behavior than burning tires in the street (no matter how structured the latter activity might be).

¹³ For instance, in the months we were writing this paper, the Bolivian Roads Administration used to post frequent updates of road blockages throughout the country; see *Bolivia Road Blockades Update* in <http://www.boliviahostels.com/blockades.php>.

¹⁴ Political actions such as voting, campaigning for your favorite candidate, writing letters to your Congressperson, participating in peaceful protests, participating in violent protests, threatening to kill your opponents, or killing Supreme Court Judges need not be substitutes. Under some conditions they are used jointly and under some conditions they are used separately in different political equilibria by different actors. A more general understanding of the conditions under which various political actions are complements or substitutes is an important question that we do not answer in this paper. What we do is to emphasize one set of mechanisms, particularly investment under some constraints, which makes some actions alternative to others. It turns out that the particular actions we model in this paper, even though potentially complements in some environments, are in practice substitutes within our empirical sample. Machado, Scartascini and Tommasi (2009) provide evidence indicating that protesting in the streets and more institutionalized forms of political participation (such as voting or contacting your Congressman) are substitutes in most of Latin America. (See also Section V.B below).

¹⁵ See for instance Przeworski (2005), Benhabib and Przeworski (2006), and Wantchekon (2000).

different types of decisions have an important investment component and are likely to reinforce the degree of institutionalization or lack thereof over time.¹⁶ An important aspect of this logic is what Aoki (2001, chapter 5) calls the co-evolution and complementarity of institutions and human asset types. Particular institutions (and institutional equilibria) will lead people to invest in assets more productive in those environments, reinforcing the form of institutionalization (or lack thereof) prevalent. In the example of this paper, for instance, the type of leadership more functional for getting your way in Congressional bargaining might be very different from the type of leader that specializes in violence (or in corrupting politicians).

The actors in our game, then, will have to make prior decision of whether to enter the more formal or the less formal arenas of political action.¹⁷ These decisions at the level of individual actor, are then aggregated in order to find an equilibrium to this broader game. Both the individual choices and the polity-level equilibrium will be highlighted in the empirics of section V.

At this point, before continuing with a broad (yet vague) characterization of our modeling approach, it will be useful to illustrate the general argument by presenting and solving a specific example, what we do in section III. After doing that, in section IV we return to some general considerations, using the model as explicit illustration of some of those considerations.

III. ONE SPECIFIC MODEL

Any model within the framework we are suggesting will need to specify three components that will constitute sets of exogenous parameters for comparative statics purposes. These components are: (1) economic structure / mapping from feasible policy vectors to utilities of the players; (2) political institutions; and (3) alternative political technologies.

In the example we present here, these components are specified as follows.

(1) *Policy problem*

The policy problem consists of splitting a pie of size X among N risk-neutral players. This is a standard allocation problem which has been extensively studied in conjunction with the set of political rules we assume in (2), and it is a good general approximation for a number of situations where distributional issues are central.

(2) *Political institutions*

Political institutions consist of one variant of a well known legislative bargaining model due to Baron and Ferejohn (1989). Each of the N players has an ex ante probability P_i of being recognized as agenda setter, with i 's ordered in such a way that P_i increases in

¹⁶ See for instance Pierson (2004). Recent works emphasizing the dynamics of investment in institutions include Besley and Persson (2007), especially section 4, and Lagunoff (2001).

¹⁷ Within the specific model of the next section, we have also worked out the case in which actors could participate in both arenas, and many of the results are the same. Still, for substantive reasons related to the logic of institutions and investment explained in the text, we want to emphasize the case in which these are alternative arenas.

$i ; P_{i+1} \geq P_i$. It is more straightforward to think about this simple example being a case of direct democracy, in which the N players who could go to Congress are the citizens themselves. Alternatively, we can think of the N players as the underlying socioeconomic constituencies, each of which could be represented in Congress by a perfect agent. (We refer to agency problems in section VII).

After the agenda setter proposes an allocation, a vote is taken among all the members of Congress. If a majority accepts the proposal of the agenda setter, then that proposal constitutes the outcome of the collective legislative decision. If the proposal is not accepted by a majority, then the collective legislative decision is a status quo allocation which, for simplicity, we normalize to 0 for every player.

We use this very simple “closed rule” formulation of the legislative bargaining problem for brevity. The main logic we are trying to pursue in this paper does not depend on any specific extensive form game,¹⁸ and the crucial individual decisions and equilibrium features just depend on comparing the expected values of participating in the institutionalized decision making process with that of using alternatives.¹⁹

(3) *Alternative political technologies*

Any assumption one can make regarding alternative political technologies will embed two types of considerations, some more “physical” and some more “institutional”: on the one hand, about the effects of those “alternative” actions on the utilities of players (the ones undertaking the action and the rest of the polity); and on the other hand about collective action technologies, commitment technologies, and allocation protocols in informal arenas. As already stated, the main purpose of this paper is to promote the extension of analysis of policymaking under formal political institutions to include the explicit modeling of these outside options, rather than peddling any particular assumption about (or example of) APTs. For concreteness, in the rest of the paper we focus on a specific (“road blockades”) example. Clearly, modifying any of the assumptions below constitutes an interesting exercise of comparative statics on these alternative political technologies.

Going to protest has an individual cost c . If at least T players decide to protest they can threaten to inflict a damage of size K to the economy, with $2 < T$ and $0 < K < X$. If less than T people protest, they cannot cause any damage. This very simplified damage technology is represented in figure 3, where m stands for the number of people who choose to use this alternative. This very simple formulation captures in a stark manner some properties of our framework, which we discuss in more detail in the next section.²⁰ Furthermore, we assume that protesters are endowed with a commitment technology, so that they can ex ante commit to cause or not to cause damage, in response to specified actions by other players (in the institutionalized part of the game).

<Fig. 3: Damage Technology>

The timing of the game, represented in Figure 4, is as follows:

¹⁸ We are indebted to Massimo Morelli for highlighting this point.

¹⁹ Furthermore, the expected values of the particular formulation we use are analogous to the actual allocation that would be obtained under an open rule protocol with no discounting between rounds.

²⁰ In particular it embeds a scale economy / strategic complementarity which will be the seed of multiplicity of equilibria.

<Fig. 4: Timing of the game>

1. At the beginning of the game, each actor (simultaneously) decides whether to go to Congress or to “go to the street” to protest. Let m be the number of players that go to the street and $N-m$ the number of players that go to Congress. We denote by M the set of players in the street and by $N \setminus M$ the set of players in Congress.
2. Nature chooses an agenda setter among those players that went to Congress. Each player in Congress has probability $\frac{P_i}{\sum_{i \in N \setminus M} P_i}$ of being recognized as the agenda setter.
3. The m actors in the street decide how much to request from Congress. Let Z denote the total amount they request. Given the commitment assumption, they will be making a threat of causing damage K unless a total amount greater or equal to Z is granted to them.
4. The agenda setter in Congress proposes an allocation, a vector $S^a = \{s_1^a, s_2^a, \dots, s_N^a\}$ of shares, with $1 \geq \sum_{i=1}^N s_i^a$.
5. The $N-m$ players in Congress take a vote over the agenda setter’s proposal. If more than half of the members of the legislature accept the proposal, it constitutes the collective legislative decision. If S^a is not accepted by a majority, then the legislative decision allocates 0 to all players.²¹ Let $S = \{s_1, s_2, \dots, s_i, \dots, s_N\}$ denote the final outcome of the legislative process.
6. Those in the street, if T or more, decide whether to cause damage or not. (This is an irrelevant decision point under the assumption of commitment in 3, but we keep it here for future extensions).
7. The allocation is implemented. If no damage was caused, each player receives $x_i = s_i X$. If damage was caused, each player receives $x_i = s_i (X - K)$.

Solving the model

We proceed by backward induction from the last stages of the game in figure 4. Given the assumption of commitment by protesters, stages 6 and 7 are mechanically implemented after the decision 4-5 is made. The decision 4-5 is just a standard Baron – Ferejohn game, with a small twist. It is easy to show that the agenda setter will give 0 to all other players in Congress and allocate the whole pie (except anything given to the protesters) to himself or herself.²² The novel question is how much to give to the

²¹ Again, this very stark formulation is chosen for expositional simplicity.

²² More generally, the allocation could be defined as $s_i = 0$ for any i not part of the winning coalition in Congress, $s_i = \varepsilon$ for those i ’s in the winning coalition other than the agenda setter, and $s_i = 1 - \left[\left(\frac{N-m}{2} \right) - 1 \right] \varepsilon$ for the agenda setter. We follow the standard convention of letting ε go to zero, and of assuming that players who are indifferent between two actions at zero, will chose the one they would have chosen for $\varepsilon > 0$. As already stated, the fact that the other members of Congress get zero is just for computational simplicity. What actually matters for the relevant decisions is their expected utility

protesters. Clearly, if $m < T$, the agenda setter will give nothing to protesters. If $m \geq T$, then the amount he or she will allocate to the protesters will depend on the amount Z that they request. If they request $Z > K$, the agenda setter will give them nothing, since it is better to keep $(X-K)$ than $(X-Z)$. If they request $Z \leq K$, then the agenda setter will grant them Z . This response will lead the protesters (in stage 3) to request exactly $Z=K$, since they will get nothing if they go above K , and K is preferred to anything below it.

For computational simplicity we will assume that whatever is given to protesters, is shared equally among them, so that each protester will get K/m . This could be due to the structure of programs or policies that they receive (rural protesters in Argentina fight for lower taxes on agricultural exports, urban protesters fight for receiving social programs). But as already stated, given risk neutrality in the formal model it does not matter much how it is distributed. More generally, altering the protocol of distribution in the street is an interesting comparative exercise that could be easily made. (In Scartascini, Tommasi, and Trucco (2009) we work out the case with asymmetric *de facto* power, and what matters for the relevant results of the model is the distribution of the ratio of *de jure* to *de facto* power across actors).

Given that stage 2 is a move by nature, this brings us to the key choice of arenas in stage 1. Given each player's expectation of what he will receive if he goes to Congress, and his expectation of what he will receive if he goes to the street, each player has to decide between these two arenas, taking as given the choices of all the other $(N-1)$ players. Finding equilibria to this game consists on finding the Nash equilibrium to these N individual decisions. We present the results in the following proposition, which is proven in the Appendix.

PROPOSITION 1:

- (a) *It always exists a **Full Institutionalization Equilibrium** in which everybody is in Congress and no alternative arenas are used.*
- (b) *For some parameter values, there is a **Low Institutionalization Equilibrium** in which m^* actors go to the street.*

Proof: see Appendix.

The existence of the Full Institutionalization Equilibrium (FIE) is guaranteed by the fact that if only one player chooses to be in the street, he or she will be unable to credibly threaten to cause any damage, and hence no one would want to deviate unilaterally from a full institutionalization equilibrium.

Figure 5 provides an intuitive representation of the Low Institutionalization Equilibrium (LIE). The horizontal axis represents (in a heuristic manner) both the ordering of players from 1 to N , as well as the value of being in Congress (the upward sloping curve) and the value of being in the street (the downward sloping curve) from the point of view of an individual player, as a function of his/her type. We call m^* the highest integer to the left of the point where these two curves intersect, so that players 1 to m^* (those with lowest ex ante probabilities of being selected agenda setter in Congress) will go to the street, and players m^*+1 to N will go to Congress.

in Congress before the agenda setter was selected by nature. This is a reduction of a richer intertemporal structure (where those "included" will eventually get their share) into a one-period model.

<Fig. 5: Low Institutionalization Equilibrium>

The Full Institutionalization Equilibrium takes us back to “the world of Persson and Tabellini” in which the institutionalized part of the game is the only relevant one. The Low Institutionalization equilibrium, on the other hand, will be characterized by the use of alternative political technologies and by weakness of formal institutional arenas.

In the next section we interpret these results and provide some comparative statics and empirical predictions, as well as a slightly broader discussion.

IV. RESULTS

The simple model we have presented in Section III already contains the flavor of the more general points we want to raise in this paper. One first result we want to highlight is the following:

Result 1: There are different degrees of institutionalization in equilibrium.

The model captures in a blunt manner a very important aspect of the variation of institutions across countries. In their choice of arena, the actors of the model are deciding whether to take the institutionalized route or not. The aggregation of this behavior (that is, the number of people operating through formal institutions) is what we will call the degree of institutionalization in equilibrium.

This captures in a simple way a point which could be made more explicit by adding a technically trivial but substantively important extension to the model, letting players invest in technologies that increase their strength and capabilities in the institutionalized game (such as getting a PhD in Public Policy) or in technologies that increase their strength and capabilities in the street (such as buying weapons). Clearly this would have an impact on the productivity and strength of formal institutions, as well as on the quality of the output they generate. There are other reasons not captured by our simple static model why more institutionalized collective decision making arenas will lead to better policies and better outcomes, such as providing a better structure for exchange of information and for the agreement and enforcement of intertemporal cooperation. According to Pierson (2004: 107) “political institutions can serve to coordinate the behavior and expectations of decentralized actors (Carey 2000) and to facilitate bargaining by creating monitoring bodies, issue linkages, and mechanisms for making credible commitments (Kehoane 1984; Weingast 2002).” Scartascini, Stein and Tommasi (2009) shows that more institutionalized policymaking environments lead to policies that are more stable, (yet) more adaptable to changing circumstances, more coordinated and coherent, and better implemented.

This variation of institutional strength across polities was precisely the original motivation for this research agenda. Take the literal example of the institution we model here: Congress. Legislatures are critical institutions in the effective functioning of a democratic system and in the policymaking process. Yet, the extent and nature of the role played by legislatures in the policymaking process vary greatly from country to country.

The sheer magnitude of academic studies of the US Congress proves the importance of that institution in American politics and policymaking. The gargantuan literature on the US Congress provides a detailed and relatively comprehensive understanding of this institution, as well as a number of widely accepted truisms: members of the US Congress exhibit remarkable longevity, and they tend to specialize in committees; the US Congress plays an active role in policymaking, it engages in considerable oversight of the public bureaucracy, and it is the focus and main entry point of political action by any interest group attempting to influence American policymaking.²³ It turns out that none of these features is true for the Argentine Congress, in spite the fact that Argentina is a country whose constitutional structure has strong similarities with that of the US (Jones et al, 2002).

The comparison can also be taken among countries of similar levels of development: the Chilean legislature plays a much more important role in the policymaking process of that country than its Argentine counterpart. These different roles in policymaking are associated with various measures of legislators' and legislatures' capabilities, which have a clear investment component: legislators' duration, legislators' education, degree of specialization in policymaking committees, resources available for policy analysis, esteem in the eyes of the public, and appreciation of the legislature as an important place from the point of view of politicians' careers.²⁴ Saiegh (2009) and Stein and Tommasi (2007) provide wider comparisons, showing a strong correlation of such objective indicators of Congress capabilities with assessments about the importance of Congress in policymaking across 18 Latin American countries.²⁵

Result 1 also relates to another important general point, central to theoretical discussions about the notion of institutions in institutional economics and institutional politics. Academic and common usage of the term institutions refers to two related but distinct concepts: "institutions as *rules*" and "institutions as *equilibria*". The most common cited definition of institutions in modern social science is probably that of Douglass North: institutions "are the rules of the game in a society, or more formally, are the humanly devised constraints that shape human interaction" (North 1990, p.3). A number of scholars have recently turned to a conception of institutions which identifies the essence of institutions as being equilibrium phenomena, rather than rules. Exact definitions vary among these authors, but the core idea is that it is ultimately the behavior of others, rather than the rules themselves, that induces each person to behave (or not to behave) in the way prescribed by the rules.²⁶

Our model captures that distinction nicely in a very simple framework. We have political institutions as rules r , but we also have different degrees of institutionalization in equilibrium, as captured by $N-m^*$ (and the associated investments). The notion of institutions as equilibria, very naturally takes us to the second point we want to highlight:

²³ See for instance Weingast and Marshall (1988), Shepsle and Weingast (1995), Diermeier, Keane and Merlo (2005), and Grossman and Helpman (2001) and references there.

²⁴ See, for instance Spiller and Tommasi (2008), Aninat et al (2008), Tommasi (2008), and Saiegh (2009).

²⁵ In the empirical section below we provide some evidence using indicators of the strength/quality of various political institutions along the lines just suggested for the case of Congresses.

²⁶ See for instance Aoki (2001), Calvert (1995a, 1995b), Carey (2000), Dixit (2009), Fearon (2006), Greif (2006), and Greif and Kingston (2008).

Result 2: (If) there are strategic complementarities, this will lead to multiplicity of equilibria.

The stark assumptions of the model in section III are just one example of possible forces leading to multiplicity of equilibria through strategic complementarities. In the literal formulation we use, the strategic complementarity appears through the shape of the function representing the damage technology in Figure 3: if only a very small number of actors participate in a street blockade, they will not be able to make any credible threat of further damage.²⁷ That being the case, the incentive of an additional actor to participate in APTs is very low, so that (up to a point), the decision to go to the street is a strategic complement across players.²⁸

More generally and especially if one moves from our static setting to a dynamic setting, there are a number of forces that make various actions strategic complements, which reinforces the tendency of this type of models to generate multiple equilibria. In section VI we briefly discuss a simple extension with two types of alternative political actions, and we notice that there are reasons why a more extensive use of one APT is likely to induce a more extensive use of the other APT. This again seems to be an example of a more general point: there are various reasons to believe that non-institutionalized or de-institutionalized activities of one type are likely to induce de-institutionalized activities of other types. There are, then, complementarities among various non-institutionalized actions, as well as complementarities among various institutionalized actions. This is consistent with findings in Stein and Tommasi (2007) within Latin America, and Scartascini et al (2009) for a larger sample of countries, reporting a positive correlation across a number of measures of institutional strength in various domains (Congress policymaking capabilities, party system institutionalization, Judicial independence, strength and independence of the bureaucracy, etc.)

The fact that there is multiplicity of equilibria has potentially important implications in terms of theory, in terms of interpreting and analyzing empirical evidence, and also in terms of thinking about possible practical recommendations.

Even just using the toy model we have presented, one can say the following. In the model we have two equilibria. If the politics we observe “in reality” are all in that equilibrium, then the standard type of political economy model which presupposes that what we call the institutionalized part of the game is all that there is, will be the right model to describe what we observe and to generate empirical implications. In that case, after this detour, we would be back “in the world of Persson and Tabellini”. But if, on the contrary, several or all politics are in the other equilibrium, we will observe plentiful use of alternative political technologies and politics with weaker institutions. The possibility of having different politics at different equilibria might also have important

²⁷ Parameters such as c or T in our model will depend on various issues, including the “repression technologies” in place. One can also think that, in the more dynamic version of this story, institutionalized actors might invest resources in improving repression, what would be another detraction of resources from more “productive” institutional investments. (We thank Susan Rose-Ackerman for highlighting this point).

²⁸ One could make somewhat equivalent assumptions in the functioning of the formal institutional arena, and that might give rise to a third type of equilibrium, a Non-Institutionalized Equilibrium. Coming from that corner could be an interesting extension if one wants to link the logic of this paper with discussion about moving from anarchy to some forms of institutionalization (Hirschleifer 1995, Barzel 2002, Dixit 2003 and 2009, Skaperdas 2006, and references there).

implications for cross national empirical analysis on the effects of formal political rules on public policy. We elaborate on this point in the concluding section.

Multiplicity of equilibria also implies that two countries with similar fundamentals (in terms of socioeconomic structure and political institutions as rules) might end up “stuck” in different equilibria. And as stated above, these things could create strong path dependence, with these different equilibria being self-reinforced by investments over time (Pierson, 2004). On the other hand, this multiplicity also gives rise to the possibility of observing equilibrium switches, a point that we develop more fully in section V with the illustration of the Bolivian example, a country which seems to have gone from a cycle of institutionalization in the 1980s and 1990s to a cycle of de-institutionalization after that, with the latter cycle associated with a great increase in the use of alternative political technologies.

Set of Results 3: Comparative Statics

One important question is what are the implications of equilibrium multiplicity for attempting to map the predictions of the model into empirical evidence. Fortunately, the particularly simple structure of the model of section III enables us to make some comparative static predictions in spite of the fact that we have multiple equilibria. Under the maintained assumptions of the model, the FIE always exists, while the LIE exists for some parameter values and not for others. This means that for some parameter values we will have only the FIE (call that set of parameters F), while for other parameter values we can have both types of equilibrium (call that set of parameters B). If the real world was fully described by this model, then we would expect that in politics characterized by a vector of parameters belonging to F we should observe the characteristics associated with the FIE, while in politics characterized by a vector of parameters belonging to B we could observe either of the equilibria. Assigning in that latter case a non-zero probability to each of the equilibria will be enough to generate empirical predictions. If conducting comparative statics on one given parameter (say α) increases the set of other parameters for which LIE is an equilibrium, then we will say that increasing parameter α increases the possibility of observing the Low Institutionalization Equilibrium (and its associated properties).

It turns out that in the simple structure of our model, any comparative statics exercise that (using the language of the previous paragraph) increases the possibility of LIE, also increases the number m^* of people going to the streets within the LIE. So that the derivative of m^* with respect to any parameter is a sufficient statistic for the way in which that parameter affects the degree of institutionalization in either interpretation (within LIE, or in terms of probability of being in LIE as opposed to FIE). Using that logic, it is easy to show the comparative static results summarized in Table 1.

<Table 1: Comparative Statics>

Not surprisingly the probability of being in the LIE increases as the use of APTs becomes less costly, as the potential damage APTs can cause increases, and as the wealth of the economy decreases. More interestingly and a bit more involved to demonstrate (see Appendix), the probability of being in a Low Institutionalization Equilibrium increases as the distribution of *de jure* political power becomes more

asymmetric. As the vector of Pi 's becomes more asymmetric, more actors at the lower end of that distribution will find participation in formal political institutions less appealing, inducing more street action and lower institutionalization. This result has a clear flavor of "exclusion of the poor", and we believe that to be an important case in reality. Yet, the result is more general than that, and it applies to any case in which the *de jure* power of a relevant set of political actors tends to under-represent them in comparison to their ability to put collective action together and threaten economic disruption. The very visible 2008-2009 demonstrations of rural producers in Argentina against large increases in export taxes by the Cristina Fernandez de Kirchner administration are a case in point. Those demonstrators were not the dispossessed, but a segment of the Argentina middle and upper class underrepresented in the Argentine political system.

V. SOME EMPIRICAL EVIDENCE

This section suggests that the implications that can be derived from a simple model as the one above and from the more general logic presented in the paper are not inconsistent with some preliminary evidence. We do not take this evidence as conclusive, but we see it as encouraging further theoretical and empirical work along these lines. We provide evidence at three levels. Section V.A shows some cross-national correlations consistent with the predictions of the model. Section V.B summarizes individual level evidence from Machado et al (2009), which is also consistent with some predictions of the model. Section V.C presents a narrative of events in Bolivia in the last couple of decades which seems consistent with a switch from a more institutionalized to a less institutionalized equilibrium, along the lines suggested in the paper.

A. Cross-Country Correlations

The model and logic presented above imply a number of correlations. One such implication would be:

Implication 1: A negative correlation between the strength (quality) of political institutions and the use of alternative political technologies.

In previous work we have attempted to develop (drawing from in depth analyses of several Latin American countries, as well as available broader international data sources) a number of indicators of the workings of political institutions that seem good proxies for the strength of policymaking institutions as understood in this paper (see Stein and Tommasi 2007 for Latin America, and Scartascini et al 2009 for a broader cross-section of countries). Those measures (Judicial independence, Legislative efficiency, Party system institutionalization, Bureaucratic quality) are constructed from a number of international data sources, mainly CGR, Bertelmann's Transformation Index, and related sources.

On the other hand, the Database of Political Institutions (Banks, 1996) provides information on a number of political activities that can naturally proxy for some of the

APTs that we emphasized in the paper. In particular, there are measures of Protests, Demonstrations, Strikes, and Political Assassinations. One index commonly utilized puts together the first three types of political activity under the heading of “Internal Conflict”.

The measures of institutional quality tend to be negatively correlated with the various measures of conflict, with the coefficients being statistically significant in various cases. (We have performed different exercises such as regressing univariate OLS of each conflict variable on each institutional variable, and the same thing using the residuals for each conflict and institutional variable after controlling for GDP per capita and region). To save on space we just report here one such correlation, in figure 6, which shows the correlation between the measure of civil conflict and one measure of institutional strength, *legislative efficiency*, which measures the effectiveness of law making bodies as reported by the GCR (average for years 2003-2005).

<Fig. 6: Correlation (Institutional Strength; Use of Alternative Political Technologies)>

Our model also has implications for correlations among institutional and conflict variables with some characteristics of policy outcomes. For instance, the following:

Implication 2: A positive correlation between weaker institutions, more use of alternative political technologies, and favoritism in public policies (see Appendix)

De jure political institutions that, for whatever reason, generate more biased policy outcomes, are likely to lead to increased use of alternative political technologies by the losers, and this would induce weaker total investments in the institutionalization of the system. In the figure, we show the correlation between the APTs, and a measure of biases in government policy called *favoritism*, compiled by GCR (average of responses to years 2002, 2005, and 2006).²⁹

<Fig.7: Correlation (Use of APTs, Favoritism in Public Policies)>

Certainly, we are not the first authors to report correlations as those in figures 6 and 7, and those correlation do not say anything about causality. Further work with a more fully specified theoretical and empirical model will be necessary to address issues of causality.

As a (small) step in the direction of addressing issues of causality, we have started to investigate individual level data for 18 Latin American countries, which lead to some interesting findings on its own right, reported in Machado, Scartascini and Tommasi (2009), a part of which we summarize in the next section.

B. Individual-Level Regressions

In this section we explore the effect of the degree of institutionalization on individuals' propensity to participate in protest in Latin American countries. Our analysis is based

²⁹ This particular variable measures whether when deciding upon policies and contracts, government officials usually favor well-connected firms and individuals or are neutral among firms and individuals. We have used other measures of “public-regardedness”, as reported in Scartascini et al (2009).

on data for 17 countries gathered by the Latin American Public Opinion Project (LAPOP) in 2008. These surveys were designed to be representative of the voting-age population in each of the countries³⁰, with subnational units chosen randomly with probabilities calculated based on the most recent census data. The survey covers a broad spectrum of topics ranging from assessments of the economic situation to respondents' engagement in different forms of political participation.

Among those questions there are two which are of particular interest as dependent variables in our analysis: *Which way do you believe is most influential in changing things? Voting to elect those who defend your interests, participating in protests and demonstrations, some other way, it is not possible to change things*, and *Have you participated in a protest or demonstration in the past twelve months? Sometimes, almost never, never*.

One interesting finding shows up already in summarizing some of these dependent variables at the country level. As Figure 8 suggests, Latin American citizens view contacting their Congress representatives and protesting in the streets as alternative political options. (In Machado, Scartascini, and Tommasi, 2009, we explore this issue in more detail, and provide a contrast with the literature on post-materialist protests in OECD countries where the individuals more likely to protest are also more likely to use more institutionalized channels of political participation).

<Fig. 8: Congress or the Street?>

The independent variables are the expected determinants of individual participation in protests. Some of those individual-level explanatory variables were chosen based on the literature on protest participation (surveyed in Machado et al 2009). Additionally we included the country-level institutional variables explained in section V.A above.

We estimated a logit model on pooled data under the random effects assumption; Table 2 summarizes the analysis for the dependent variable *reported participation in protest*. (The details of the estimation are provided in Machado et al, 2009). The explanatory variables below the red line are the individual level variables, most of which take the expected signs and significance.³¹ Of more direct interest for this paper are the country-level variables above the line. The results indicate that stronger institutions and less biased policies are associated with a lower tendency to use the alternative political technology of protests. Furthermore the highly significant coefficient on the average number of demonstrations (after controlling for a number of other determinants) is evidence suggestive of the strategic complementarities we referred to in section IV.

<Table 2: Who Protests? Individual-level Data>

³⁰ The countries and respective number of observations are: Mexico (1560), Guatemala (1538), El Salvador (1549), Honduras (1522), Nicaragua (1540), Costa Rica (1500), Panama (1536), Colombia (1503), Ecuador (3000), Bolivia (3003), Peru (1500), Paraguay (1166), Uruguay (1500), Brazil (1497), Venezuela (1500), Argentina (1486), and the Dominican Republic (1507). Chile was also surveyed but no question on protest participation was asked.

³¹ The cases where the results of the pooled data are a bit more surprising can be better understood by running the model for each individual country. Sometimes an insignificant coefficient in the pooled data masks a mix of positive-and-significant and negative-and-significant coefficients at the country level. An interpretation of this country-level variation is provided in Machado et al (2009) and it is broadly consistent with the general logic of this paper. Countries with better institutions present patterns of protest participation somewhat different from countries with very poor institutions.

*C. Narrative of an Equilibrium Switch: Bolivia (1982-2009)*³²

Bolivia, as most of Latin America, returned to democratic rule in the 1980s, following a history of short-lived democratic experiences interrupted by military dictatorships. In the words of Fabrice Lehoucq “although the history of Bolivia is filled with extra-constitutional seizures of power and military governments, by the mid 1980s it had become a stable country. Political succession had become orderly with the 1985 election of the MNR’s leader Victor Paz Estenssoro.” “Paz’s final presidency marked the beginning of fifteen years of stable democracy.” (Lehoucq 2008: 112).

Not only the general notion of democracy as acceptance of electoral results started to take hold, but also there was an increased and strengthened role for some specific institutional arenas such as political parties and Congress. “Both left and right in the country’s multiparty system agreed to abide by election results, no matter how unpalatable these might be.” (Lehoucq 2008: 113). “During the 1980s and 1990s traditional political parties played the most important role in the policymaking process.” “After the recovery of democracy in 1982, the Legislative branch played a paramount role in Bolivia.” (Jemio et al, 2009: 19).

Anyone who follows international news would immediately recognize that somewhere along the line over the last decade this process of institutionalization came to a halt and, furthermore, it has reversed dramatically. More directly to the point of this paper, the Bolivian political and policymaking process has moved “from Congress to the streets.” According to Jemio et al, “it is evident from the discussion above that the policymaking process in Bolivia has experienced dramatic shifts over time. Traditional political parties have lost legitimacy and representation, and social movements have become paramount players in the policymaking process. Regional organizations and regional governments have also acquired a significant leverage in the policymaking process. Congress has also experienced a significant loss of legitimacy as a key arena in the policymaking process. The streets on the other hand seem to have an upper hand in influencing the policymaking process.” “Finally, the representative democracy system has lost ground to a more participative and direct type of democracy, where currencies such as the “cabildo”, the referendum and the assembly are dominant in the policymaking process.” (Jemio et al, 2009: 29).

The above description of the changes in the Bolivian policymaking process seems quite consistent with a switch from a more institutionalized to a less institutionalized equilibrium according to the logic of this paper. Furthermore, various details of this process seem also consistent with the details of our model.

³² This section draws extensively from Jemio, Candia and Evio (2009), Lehoucq (2008), and Evia, Laserna, and Skaperdas (2008). Actually, the connection between this paper and the Bolivian evidence runs both ways: it was our reading of the Bolivian experience what gave us the final push to write the paper. We are indebted to Luis Carlos Jemio (former Finance Minister of Bolivia) and to Fabrice Lehoucq (one of the foremost experts on Bolivian politics in US academia) for valuable discussions of the Bolivian case. They are not responsible for our (possibly faulty) interpretation of the case.

According to the model, one of the factors likely to lead to people taking the streets as opposed to investing in playing within institutions is the perception that the institutionalized system generates results biased against their interests. According to Jemio et al, “exclusion was a norm to organize ruling coalitions that, in not seldom occasions, were fraught of corruption.”³³ (Jemio et al, 2009: 56). “As Congress and political parties lost their representativeness of the population, citizen’s organizations were active and vocal in channeling their demands. These organizations were not part of the national policymaking process.” “Therefore their voice was only heard when they exerted some sort of pressure.” “Road blockades, strikes, marches, hunger strikes, were the means by which these organizations fought and attained their objectives. These mechanisms have proven to be increasingly effective to the point of almost replacing the formal policymaking process.” (Jemio et al, 2009: 70).

The latter statements reflect the increased collective action of alternative political organizations, the lowering of participation costs in the street, and the increased used of these alternative venues to pressure for policy benefits.

All this complex process which we have very sketchily and selectively described (we refer the reader to Jemio et al 2009, Lehoucq 2008, and Evia et al 2008 for much richer treatments and further references), is not without costs. Among the various costs and threats that the Bolivian polity faces in its current state, we highlight one of particular relevance for the general point of this paper: these new arenas are far worst for internalizing long-term agreements and objectives. In the words of Jemio et al: “Policy objectives have become essentially short sighted and productivity goals have been largely neglected.” (Jemio et al, 2009: 48).

VI. ONE EXTENSION: MORE THAN ONE ALTERNATIVE POLITICAL TECHNOLOGY

The alternative political technology we have explicitly emphasized in the paper is a labor intensive one, which seems to “favor” the poor and politically excluded. That is not necessarily the only possible interpretation even within the narrow confines of our model, since what the model really says is that those who are underrepresented in formal political institutions *vis a vis* their capacity for alternative political action, are likely to undertake such actions. As the example of Argentina mentioned above suggests, those actors are not necessarily the economically excluded. In the case of Argentina one of the most vocal actors “in the street” have been middle class and upper middle class agricultural producers that tend to be underrepresented in the Argentine political system due to some peculiarities of its federalism (Tommasi 2008 and references there), and that have “somehow” recently found their way into collective action on the roads.³⁴ This suggests that the bare formulation of the APT in our model is indeed more general than it seems.

³³ See the extension in the next section to the alternative political technology of bribes, where we predict that more extensive use of this technology (more bribes, i.e., more corruption) is likely to lead to more protests and to lower institutionalization.

³⁴ Similar cases are those of truck drivers in France, or trade unions more generally. Trade unions in Latin America tend to represent not the lowest quintiles of the income distribution but the mid and in some cases even upper quintiles (Schneider and Karchner, 2007, Saavedra and Tommasi, 2007), and they

Nonetheless, an interesting extension would be to have a richer set of APTs with different types of socioeconomic actors having differential access to each of the technologies. One technology used extensively throughout the world and in Latin America is the one that gives some particularly well located or well endowed actors a privileged access to the policymaking process. Such technology, call it “bribes”, (unlike the one modeled so far) seems to be the realm of the rich.

In a companion paper (Scartascini, Tommasi and Trucco, 2009) we are working on an extension in which there are two APTs: bribes and road blockades. One of the main intuitions that is emerging from that ongoing exercise is the presence of a strategic complementarity between the use of bribes and the use of road blockades. In one simple formulation we have already worked out, bribes operate as wedge that lowers the value of what is obtained through institutional channels, inducing substitution towards the street (as it will be induced by any cost, say agency cost, of using formal institutions). Another route that we are still exploring emphasizes the asymmetry of access to this bribe technologies; in reduced form this seems to have the same effects than a more uneven distribution of *de jure* political power, which we have already shown to increase action in the streets. In that way, we can see “bribes by the rich” and “protests by the poor” as countervailing forces that tend to happen together in polities with weaker political institutions.

Such an extension generates empirical correlations similar in spirit to the ones presented in section V. We expect bribes to be positively correlated with the use of other alternative political technologies such as protests, and negatively correlated to the strength of institutions. Figures 9 and 10 show some correlations generated with similar data and procedures as those described in section V. The proxies for bribes we are using are various measures of (high level) corruption as reported by Transparency International, ICRG, the Global Corruption Barometer, and the World Economic Forum. The same remark about the fact that we are not the first to identify these correlations and about the insufficient evidence on causality applies, but it is still encouraging that our model is consistent with these factual correlations. Similar patterns are found with the individual level data; for instance Table 2 shows that a higher perception of corruption increases the likelihood of protest.

<Fig. 9: Correlation (Corruption, Protests)>

<Fig. 10: Correlation (Corruption, Institutional Strength)>

VII. CONCLUSION

The objective of this paper was to suggest a framework (a modeling strategy) to articulate insights from the rich literature on the effects of political institutions on policy into a broader view of policymaking, by endowing political actors with a larger action set. Such an effort could prove particularly useful for the study of policymaking in

are certainly political actors with privileged access to some traditional but also to some alternative political technologies. (As mentioned in section VII, their access to *de jure* political power might well be a historical response to their *de facto* political power, along the lines of Acemoglu and Robinson 2005, as described by Collier and Collier 1979).

developing democracies, as well as for integrating such analyses across countries of different levels of economic and institutional development.

The framework we suggest allows generating comparative statics predictions from economic structure, formal political rules, and alternative political technologies, to the workings of institutions, the use of alternative political technologies, and policy outcomes.

The model presented in this paper has the following implications.

1. Different countries have different degrees of institutionalization in their policymaking process.
2. There is multiplicity of equilibria. This allows: similar countries to be stuck at different levels of institutionalization, self-reinforcing dynamics, as well as the possibility of equilibrium switches (as the one documented for the Bolivian case).
3. The possibility of institutionalized policymaking increases as the cost of alternative political actions increases, as the damage these alternatives can cause decreases, and as the economy becomes wealthier.
4. In cases in which the distribution of *de jure* political power is very asymmetric, it is more likely to observe much use of alternative political technologies as well as low degrees of institutionalization.
5. High costs or inefficiencies (for instance due to agency problems) in the use of formal political institutions, can lead to the use of alternative political technologies as well as to low degrees of institutionalization.
6. There are some strategic complementarities across the use of different alternative political technologies. For instance, the use of bribes by the rich is likely to come together with the use of street demonstrations by the poor.

There are various pending tasks in the agenda described in the paper. Many of them consist of enriching various aspects of the model to permit comparative static exercises on economic structure, alternative political technologies, and formal political institutions.

One can give more detailed structure to the economy and/or more specific characteristics to the actors of this game. One set of actors of special relevance might be, for instance, trade unions, which would be associated with a particular set of institutionalized and non-institutionalized technologies. The choice of a more or less institutionalized strategy might depend of the advantages offered by each road, as a function of formal political institutions and of the space of feasible mappings from policy to utilities of their members. (Schrank and Murillo, 2009)

In our description of alternative political technologies so far, we have presented a fairly “flat” topography. In reality, the costs and potential effects of various forms of collective action are distributed in much more specific manners. For instance, the various $c(i)$'s of different actors could be a function of who else is participating in that activity, facilitating collective action across particular sets of agents, such as urban consumers, workers in sectors with high “damage capacity”, etc. More generally there

are various structural, historical, and perceptual factors that affect specific forms of collective action such as protests.³⁵

Perhaps the most natural set of extensions would come from fishing in the abundant pond of formal models of political institutions for various aspects which might allow for richer institutional comparative statics. For instance, what would be the effect of alternative electoral rules (proportional versus majoritarian) on the degree of institutionalization of policymaking?³⁶ What would be the effect of alternative regime types (parliamentary or presidential) on the degree of institutionalization of policymaking?

In order to answer such questions one will need to move in the direction of representative democracy, with models that permit exploring the electoral connection and agency issues. Citizen-candidate models *a la* Besley and Coate (1997) or Osborne and Slivinski (1996) might constitute a natural step in that direction.

An exercise which could be attempted and that is close in spirit to the main points of this paper would be to study “hyperpresidentialism as an equilibrium”. Hyperpresidentialism is an important concern of political scientists about the tendency of presidents in Latin America, Russia, and other developing presidential democracies to over-stretch their formal powers and to govern with little consideration for the legislative (and often judicial) power. Some of the logic developed here (and in line with well known work by Barry Weingast 1997) might be used to study such tendency as something happening in weakly-institutionalized equilibria, in such a way that an identical set of formal rules might lead to different forms of equilibrium behavior.³⁷

From our logic of equilibria with different degrees of institutionalization, there might be important considerations for the econometric analysis of the effects of constitutional rules on policymaking and performance. Even beyond the very relevant issues of measurement and methodology raised in Persson and Tabellini (2003), Acemoglu (2005), and elsewhere, the logic of this paper sheds some new light (and possible shadows) on such exercises. It might be the case that the effects of constitutional rules on policymaking and performance will be conditional on the type of equilibrium each polity is at. The standard literature gives a number of predictions that are conditional on the fact of being at a full institutionalization equilibrium. Each such prediction needs to be explored under the assumption of being in a low institutionalization equilibrium. Then, one needs to consider the possibility that the parametric changes implicit in the comparative statics might lead to equilibrium switches. How to take such more involved predictions to econometric analysis is an issue that exceeds what we can say

³⁵ $c(i)$'s as well as potential rewards from such activities will be a function not only of who else protests, but also of the history of organization of such movements (as seen in the Bolivian case), and of the beliefs about the legitimacy of the protest by other actors who might matter for the degree of repression. That is, for instance, why some forms of protest in France are very common, while others are quickly repressed.

³⁶ One might hypothesize that proportional representation systems, by allowing a better representation of minorities might lead to more symmetric distributions of *de jure* political power and hence to more institutionalized behavior. For instance, unions are known to make less frequent use of strikes in such systems. On related issues, see Cusack, Iversen and Soskice (2007).

³⁷ Saiegh (2009) shows varying degrees of importance of Congress in policymaking in different Latin American countries. As suggested in IADB (2005), the tendency of the executive to attempt to govern without Congress is not monotonically related to legislative powers of the president or other constitutional features.

now, but that is worth exploring in future work. “Institutionalization” variables like the ones described in section V (and more fully in Scartascini et al 2009) might become handy in such efforts.

The model and logic we have presented here has treated constitutional rules (r) as exogenous, a natural first modeling step (Diermeier and Krehbiel, 2003). This can be embedded in a richer game in which such rules are chosen at an earlier stage, having our model here as a continuation subgame. Such modeling strategy would be quite complementary to the Acemoglu-Robinson (2005) logic, providing a bit more structure to their (unmodeled) threat of collective action due to temporary *de facto* power.³⁸

Appendix

To be completed

³⁸ As highlighted earlier in the paper such logic could be applied to study the distribution of *de jure* political power of fairly specific socioeconomic actors or organized groups such as trade unions. See also Boix (1999) and Cusack et al (2007).

REFERENCES

- Acemoglu, Daron (2005) "Constitutions, Politics and Economics: A Review Essay on Persson and Tabellini's "The Economic Effects of Constitutions"" Journal of Economic Literature, 43(4). pp. 1025-1048. December
- Acemoglu, Daron, and James Robinson (2005) Economic Origins of Dictatorship and Democracy. Cambridge University Press.
- Acemoglu, Daron, Johnson and James Robinson (2006a) "De Facto Political Power and Institutional Persistence" American Economic Review, (Papers and Proceedings) May, 96(2): 325-330.
- Acemoglu, Daron and James Robinson (2006b) "Paths of Economic and Political Development", Chapter 37 in Weingast, Barry and Donald Wittman The Oxford Handbook of Political Economy, Oxford, NY: Oxford University Press.
- Alesina, Alberto , Torsten Persson and Guido Tabellini (2006) "Reply to Blankart and Koester's Political Economics versus Public Choice: Two Views of Political Economy in Competition" KYKLOS 59(2): 201-208.
- Alston, Lee, Gary Libecap and Bernardo Mueller (2008) "Interest Groups, Information Manipulation in the Media, and Public Policy: The Case of the Landless Peasants Movement in Brazil" Mimeo.
- Aninat, Cristobal, John Londregan, Patricio Navia, and Joaquín Vial (2008) "Political Institutions, Policymaking Processes, and Policy Outcomes" in Stein et al Policymaking in Latin America. How Politics Shapes Policies. David Rockefeller Center for Latin American Studies, Harvard University.
- Aoki, Masahiko (2001) Toward a Comparative Institutional Analysis. MIT Press
- Austin-Smith, David, Jeffry Frieden, Miriam Golden, Karl Ove Moene, and Adam Przeworski (2008) Selected Works of Michael Wallerstein: The Political Economy of Inequality, Unions, and Social Democracy. Cambridge University Press.
- Banks, Arthur S. CROSS-NATIONAL TIME SERIES, ICPSR ed. Ann Arbor, MI: Inter-University Consortium for Political and Social Research
- Baron, David and John Ferejohn (1989) "Bargaining in Legislatures", American Political Science Review, Vol. 83, No. 4, December, 1181-1206.
- Barzel, Yoram (2002) A Theory of the State: Economic Rights, Legal Rights, and the Scope of the State, Cambridge University Press.
- Bates, Robert (1990) "Macropolitical Economy in the Field of Development" in Alt , James and Kenneth Shepsle (eds.) Perspectives on Positive Political Economy, Cambridge University Press.
- Benhabib, Jess and Adam Przeworski (2006) "The Political Economy of Redistribution under Democracy", Economic Theory, 29: 271-290.
- Besley, Timothy (2005) "The New Political Economy" Keynes Lecture, Proceedings of the British Academy.

- Besley, Timothy and Stephen Coate (1997) "An Economic Model of Representative Democracy," Quarterly Journal of Economics, 85-114.
- Besley, Timothy and Torsten Persson (2007). "The Origins of State Capacity: Property Rights, Taxation and Politics" Mimeo. Forthcoming, American Economic Review.
- Boix, Carles (1999) "Setting the Rules of the Game: The Choice of Electoral Systems in Advanced Democracies." American Political Science Review 93 (September): 609–24.
- Bruno Michael (1993) Crisis, Stabilization, and Economic Reform: Therapy by Consensus, Oxford University Press.
- Calvert, R. (1995a) "Rational Actors, Equilibrium and Social Institutions" in Knight and Sened Explaining Social Institutions. University of Michigan Press.
- Calvert, Randall (1995b) "The Rational Choice Theory of Institutions: Cooperation, Coordination, and Communication" in Banks and Hanushek (eds.) Modern Political Economy. Cambridge University Press.
- Carey John M. (2000) "Parchment, Equilibria, and Institutions", Comparative Political Studies, 33 (6-7): 735-761.
- Chazan, Naomi, Peter Lewis, Robert A. Mortimer, Donald Rothchild, and Stephen John Stedman (1999) Politics and Society in Contemporary Africa, 3rd Edition, Lynne Rienner Publishers.
- Collier, David and Ruth Berins Collier (1979) "Inducements versus Constraints: Disaggregating 'Corporatism'". American Political Science Review 73, No. 4 (December): 967-86.
- Cusack, T., T. Iversen and D. Soskice (2007) "Economic Interests and the Origins of Electoral Systems" American Political Science Review, 101(3), August: 373-391.
- Dal Bó, Ernesto and Rafael Di Tella (2003) "Capture by Threat", Journal of Political Economy, 111(5): 1123-54.
- Dal Bó, Ernesto, Pedro Dal Bó and Rafael Di Tella (2006) "Plata o Plomo?: Bribe and Punishment in a Theory of Political Influence", American Political Science Review, 100(1): 41-53.
- Dewan, Torun and Kenneth Shepsle (2008a) "Review Article: Recent Economic Perspectives on Political Economy, Part I", British Journal of Political Science, 38(2), April: 363-382.
- Dewan, Torun and Kenneth Shepsle (2008b) "Review Article: Recent Economic Perspectives on Political Economy, Part II", British Journal of Political Science, 38(3), July: 543-564.
- Diermeier, Daniel and Keith Krehbiel (2003) "Institutionalism as a Methodology", Journal of Politics, 15(2): 123-144.
- Diermeier, Daniel; M. Keane and Antonio Merlo (2005) "A Political Economy Model of Congressional Careers", American Economic Review, Vol. 95, No. 1, March, 347-373.
- Dixit, Avinash (1996) The Making of Economic Policy: A Transaction-Cost Politics Perspective. MIT Press.
- Dixit, Avinash (2003) "On Modes of Economic Governance." Econometrica 71: 449-81.

- Dixit, Avinash (2009) "Governance, Institutions and Economic Activity". Delivered as the Presidential Address to the American Economic Association on January 4, San Francisco.
- Dornbusch, Rüdiger and Sebastian Edwards (1992) The Macroeconomics of Populism in Latin America, University of Chicago Press.
- Drazen, Allan (2000) Political Economy in Macroeconomics Princeton University Press.
- Ellman, Matthew and Leonard Wantchekon (2000) "Electoral Competition Under the Threat of Political Unrest", The Quarterly Journal of Economics, May, 499-531
- Evia, José Luis, Roberto Laserna, and Stergios Skaperdas (2008) "Socio-Political Conflict and Economic Performance in Bolivia", Mimeo, February.
<http://www.socsci.uci.edu/~sskaperd/ESL0208.pdf>
- Fanelli, Jose Maria and Gary McMahon (2006) Understanding Market Reforms, Volume 2: Motivation, Implementation and Sustainability, Palgrave MacMillan.
- Farber, Henry (1986) "The Analysis of Union Behavior," In Orley Ashenfelter and Richard Layard (eds), The Handbook of Labor Economics, Volume II.
- Fearon James (2006) "Self Enforcing Democracy", Working Paper 2006-16. Berkeley, United States: University of California, Institute of Governmental Studies.
<http://repositories.cdlib.org/igs/WP2006-16/>.
- Geddes, Barbara (2002) "The Great Transformation in the Study of Politics in Developing Countries" in I. Katznelson and H. Milner (eds.) Political Science: The State of the Discipline. Norton & Company: New York and London.
- Greif, Avner (2006) "Endogenous Institutions and Game-Theoretic Analysis" chapter 5 in his Institutions and the Path to the Modern Economy. Cambridge University Press.
- Greif, Avner and Chris Kingston (2008) "Institutional and Organizational Design" Mimeo. June. Forthcoming in Handbook of Rational Choice Research.
- Greif, Avner and David Laitin (2004) "A Theory of Endogenous Institutional Change", American Political Science Review, Vol.98, No. 4, November, 633-652.
- Grossman, Herschel (1991) "A General Equilibrium Model of Insurrections" American Economic Review 81: 912-921.
- Grossman, Gene and Elhanan Helpman (1994) "Protection for Sale" American Economic Review 84(4): 833-50.
- Grossman, Gene and Elhanan Helpman (2001) Special Interest Politics, MIT Press.
- Hirshleifer, Jack (1995) "Anarchy and its Breakdown", The Journal of Political Economy, 103 (1): 26-52.
- Hirshleifer, Jack (2001) The Dark Side of the Force: Economic Foundations of Conflict Theory, Cambridge University Press.
- Humphreys, Macartan (2001) "To Bargain or to Brawl" Columbia University, Department of Political Science. Mimeo. April. <http://www.columbia.edu/~mh2245/papers1/bargain.pdf>

- Inter-American Development Bank (2005) The Politics of Policies. Economic and Social Progress in Latin America and the Caribbean 2006 Report. Washington, DC. Available online at: <http://www.iadb.org/res/ipes/2006/index.cfm?language=english>
- Jemio, Luis Carlos, Fernando Candia and José Luis Evio (2009) “Reforms and Counterreforms in Bolivia” paper written for the IDB Research Network Project “The Political Economy of Productivity”. Inter-American Development Bank, Washington DC. January.
- Jones, Mark; Sebastián Saiegh; Pablo T. Spiller and Mariano Tommasi (2002) “Amateur Legislators, Professional Politicians: The Consequences of Party-Centered Electoral Rules in Federal Systems” American Journal of Political Science. July, 656-669.
- Kehoane, Robert (1984) After Hegemony: Cooperation and Discord in the World Political Economy. Princeton: Princeton University Press.
- Lagunoff, Roger (2001), “A Theory of Constitutional Standards and Civil Liberty,” Review of Economic Studies 68, 109-32.
- Lehoucq, Fabrice (2008) “Bolivia’s Constitutional Breakdown” Journal of Democracy, Vol. 19, N° 4, October: 110-124.
- Lohmann, Susanne (1994) “The Dynamic of Informational Cascades: The Monday Demonstration in Leipzig, East Germany 1989-91”, World Politics, 47(1), October: 42-101.
- Lohmann, Susanne (1998) “An Information Rationale for the Power of Special Interests”, American Political Science Review, 92(4), December: 809-827.
- Machado, Fabiana., Carlos Scartascini and Mariano Tommasi (2009) “Who Protests in Latin America?” Washington, DC, United States: Inter-American Development Bank. Mimeographed document.
- Murillo, María Victoria and Andrew Schrank (2009) “Labor Unions in the Policymaking Process in Latin America” in Scartascini, Stein, and Tommasi (eds.) Institutions, Actors and Arenas in Latin American Policymaking. Palgrave. (Forthcoming)
- North, Douglass C. (1990) Institutions, Institutional Change, and Economic Performance. Cambridge University Press.
- Osborne, Martin. and Al. Slivinski (1996) “A Model of Political Competition with Citizen-Candidates”, Quarterly Journal of Economics, 11(1).
- Persson, Torsten and Guido Tabellini (2000) Political Economics: Explaining Economic Policy. MIT Press.
- Persson, Torsten and Guido Tabellini (2003). The Economic Effects of Constitutions. Cambridge, MA, MIT Press.
- Pierson, Paul (2004) Politics in Time: History, Institutions, and Social Analysis. Princeton University Press.

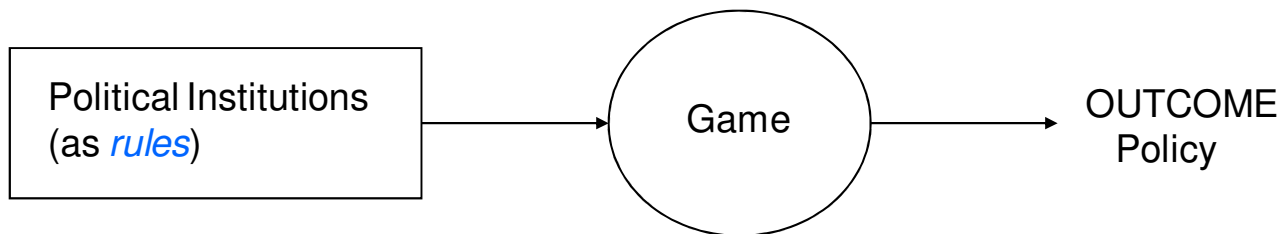
- Powell, Robert (1999) In the Shadow of Power. States and Strategies in International Politics. Princeton, NJ: Princeton University Press.
- Przeworski, Adam (1985) Capitalism and Social Democracy, Cambridge: Cambridge University Press.
- Przeworski, Adam (2005) “Democracy as an Equilibrium”, Public Choice 123: 253-273.
- Przeworski, Adam and Michael Wallerstein (1988) “Structural Dependence of the State on Capital”, American Political Science Review, 82(1), March: 11-29.
- Saavedra, Jaime and Mariano Tommasi (2007) “Informality, the State and the Social Contract in Latin America: A preliminary exploration”, International Labour Review, 146 (3-4): 279-309.
- Saiegh, Sebastián (2009) “Active Players or Rubber-Stamps? An Evaluation of the Policy-Making Role of Latin American Legislatures” in Scartascini, Stein, and Tommasi (eds.) Institutions, Actors and Arenas in Latin American Policymaking. Palgrave. (Forthcoming)
- Scartascini, Carlos, Ernesto Stein and Mariano Tommasi (2009) “Political Institutions, Intertemporal Cooperation, and the Quality of Policies” Working Paper 676, Research Department, Inter-American Development Bank.
- Scartascini, Carlos, Mariano Tommasi, and Laura Trucco (2009) “Alternative Political Technologies and the Workings of Institutions” Mimeo, Universidad de San Andres.
- Schmidt, Steffen, Mack Shelley and Barbara Bardes (1991) American Government and Politics Today, 1991-1992 edition. West Publishing Company.
- Schneider, Ben Ross (2009) “Business Politics and Policy Making in Contemporary Latin America” in Scartascini, Stein, and Tommasi (eds.) Institutions, Actors and Arenas in Latin American Policymaking. Palgrave. (Forthcoming)
- Schneider, Ben Ross and Sebastian Karchner (2007) “Inflexibility, Informality, and Other Complementarities: The Political Economy of Labor Markets in Latin America” Mimeo, July.
- Shepsle, Kenneth, and Barry Weingast (1995) Positive Theories of Congressional Institutions. Ann Arbor: The University of Michigan Press.
- Skaperdas, Stergios (2006) “Anarchy” Chapter 49 in Barry Weingast and Donald Wittman (eds.) The Oxford Handbook of Political Economy, Oxford, NY: Oxford University Press.
- Spiller, Pablo T. and Sanny Liao (2008) “Buy, Lobby or Sue: Interest Groups’ Participation in Policy Making: A Selective Survey” in E. Brousseau and M. Glachant (eds) New Institutional Economics: A Guidebook. Cambridge University Press.
- Spiller, Pablo T. and Mariano Tommasi (2007) The Institutional Foundations of Public Policy in Argentina. Cambridge, MA: Cambridge University Press.
- Spiller and Tommasi (2008) “Political Institutions, Policymaking Processes, and Policy Outcomes in Argentina” in Stein et al Policymaking in Latin America. How Politics Shapes Policies. David Rockefeller Center for Latin American Studies, Harvard University.
- Stein, Ernesto and Mariano Tommasi (2007) “The Institutional Determinants of State Capabilities in Latin America.” In: Bourguignon, F. and B. Pleskovic (eds.), Annual World Bank Conference

- on Development Economics Regional: Beyond Transition. Washington, DC, United States: World Bank.
- Stein, Ernesto, Mariano Tommasi, Pablo T. Spiller and Carlos Scartascini. 2008. Policymaking in Latin America: How Politics Shapes Policies, Washington, DC: InterAmerican Development Bank.
- Tommasi, Mariano (2008) "Un país sin rumbo. Política, Políticas Públicas y Desarrollo en Argentina (con una leve comparación al caso chileno)" Mimeo, Universidad de San Andrés.
- Wantchekon, Leonard (2000) "Credible Power-Sharing Agreements", Constitutional Political Economy, Vol. 11 No 4, pp. 329-352.
- Weingast, Barry R. (1997). "The Political Foundations of Democracy and the Rule of Law." American Political Science Review **91**: 245-63.
- Weingast, Barry R.(2002) "Rational Choice Institutionalism." In: Katznelson, I. and H. Milner (eds.), Political Science: The State of the Discipline. New York, United States: W.W. Norton.
- Weingast, Barry R. and W. Marshall (1988) "The Industrial Organization of Congress : or Why Legislatures, Like Firms, Are Not Organized as Markets" Journal of Political Economy 96 : 132-63.

Figure 1

Policymaking games

Panel a: the basic “Persson-Tabellini” model



Panel b: A broader game with two arenas

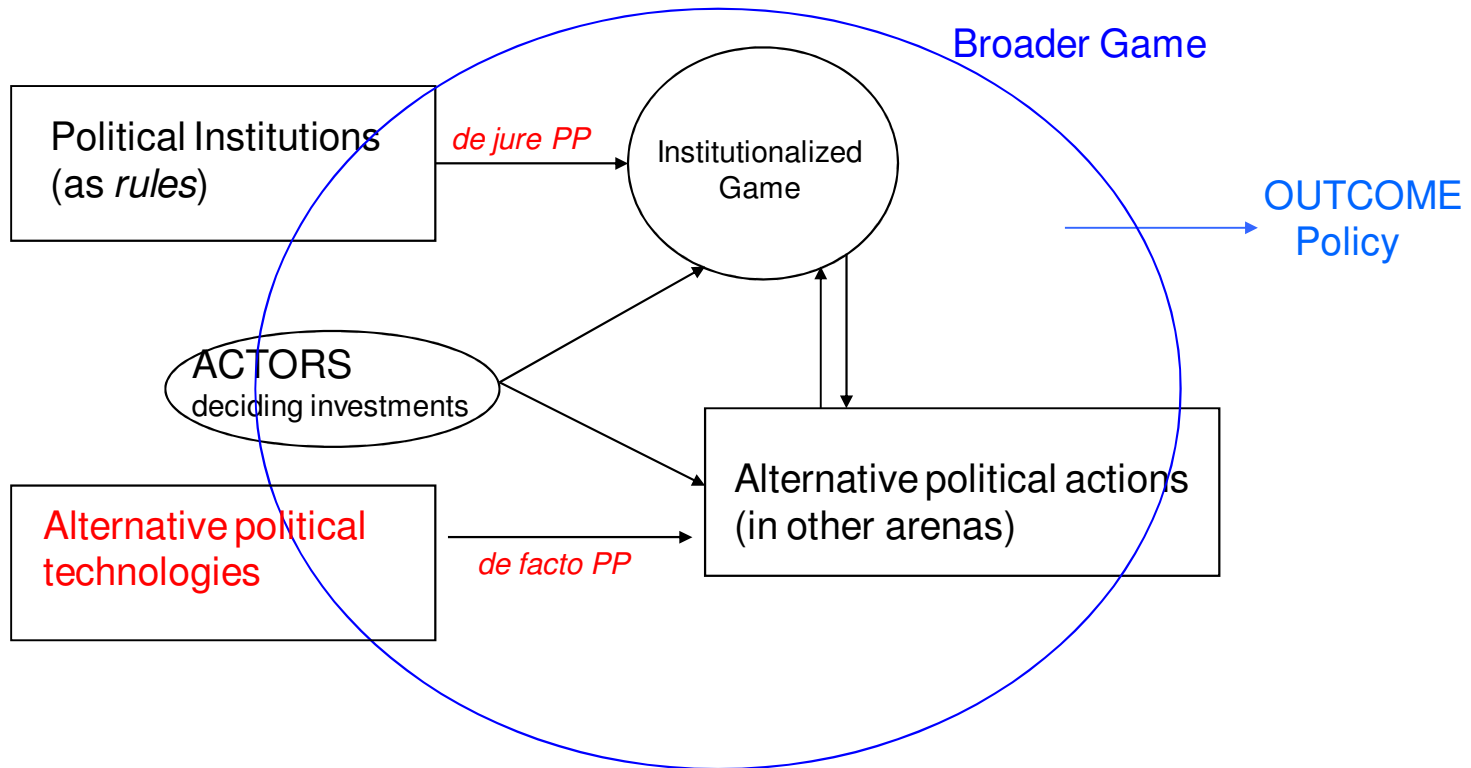


Figure 2

Alternative Political Technologies

More Institutionalized		Less Institutionalized
forming a political party	demonstrations to inspire sympathy	
writing to you congressman	legal strikes	road blockades
campaign contributions	subtle coordination of capital flight	coordinated economic disruption
clean lobbying		bribes <i>"plata"</i>
		violent threats <i>"plomo"</i>

Figure 3
Damage Technology

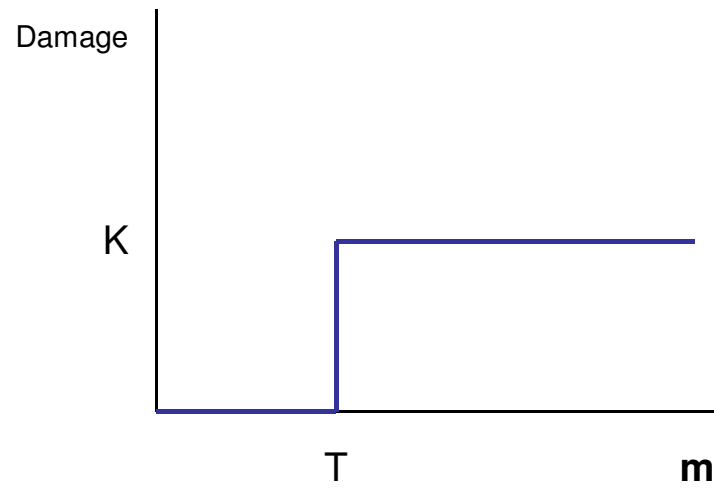


Figure 4

Timing of the Game

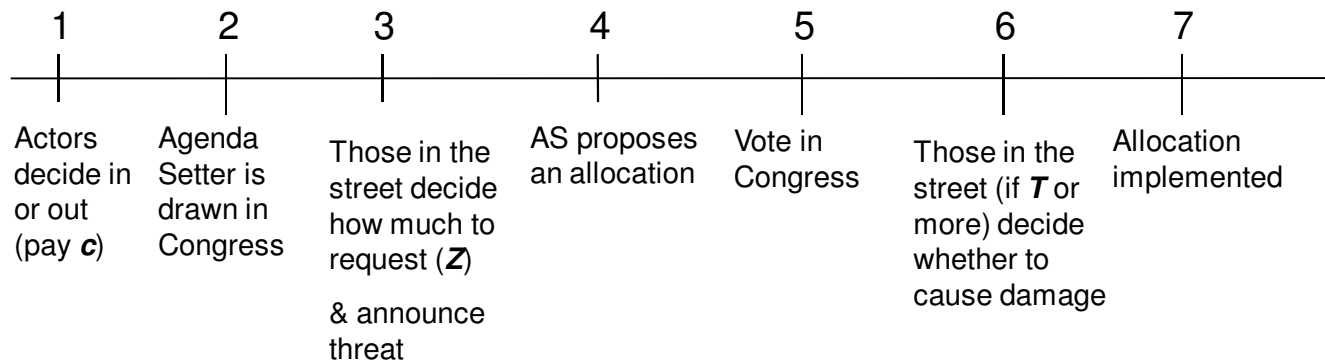


Figure 5

Low Institutionalization Equilibrium

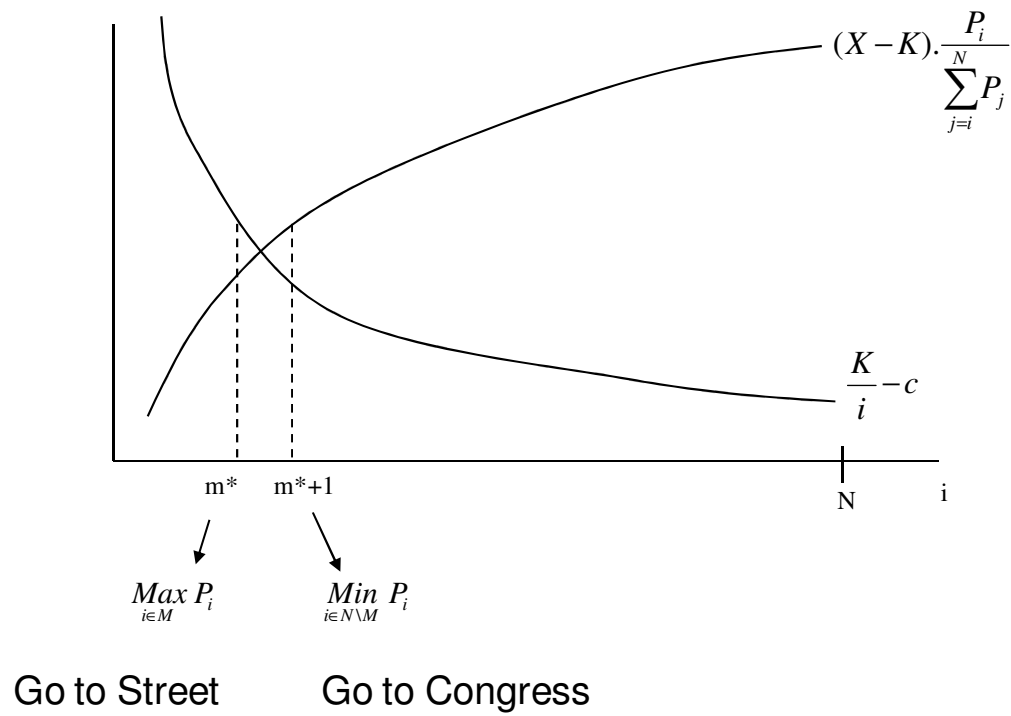


Table 1
Comparative Statics

PARAMETER	Probability of being in the non-institutionalized equilibrium (or inverse of the degree of institutionalization in equilibrium)
↑ Cost of using APT (c)	(-)
↑ Damage potential (K)	(+)
↑ Wealth (X)	(-)
↑ Asymmetry distribution of <i>de jure political power</i> (asymmetry in the distribution of P_i 's)	(+)

Figure 6
Correlation (Institutional Strength, Use of Alternative
Political Technologies)

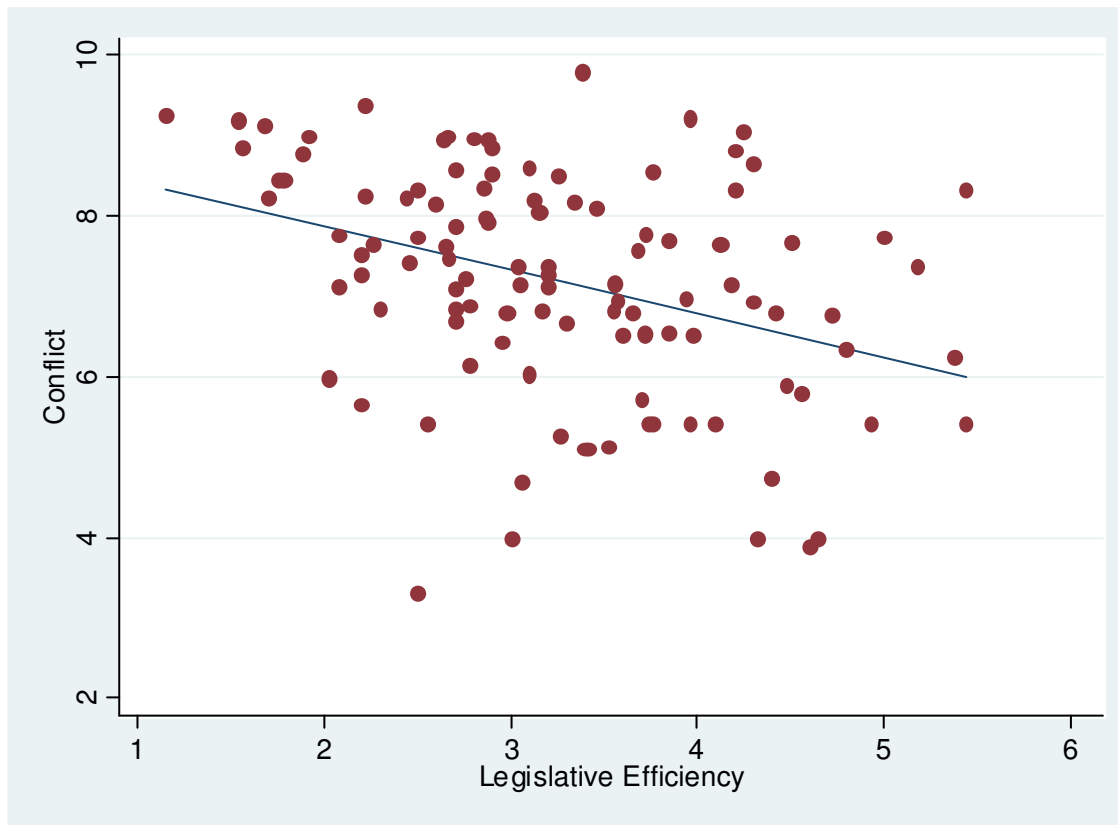


Figure 7
Correlation (Use of APTs, Favoritism in Public Policies)

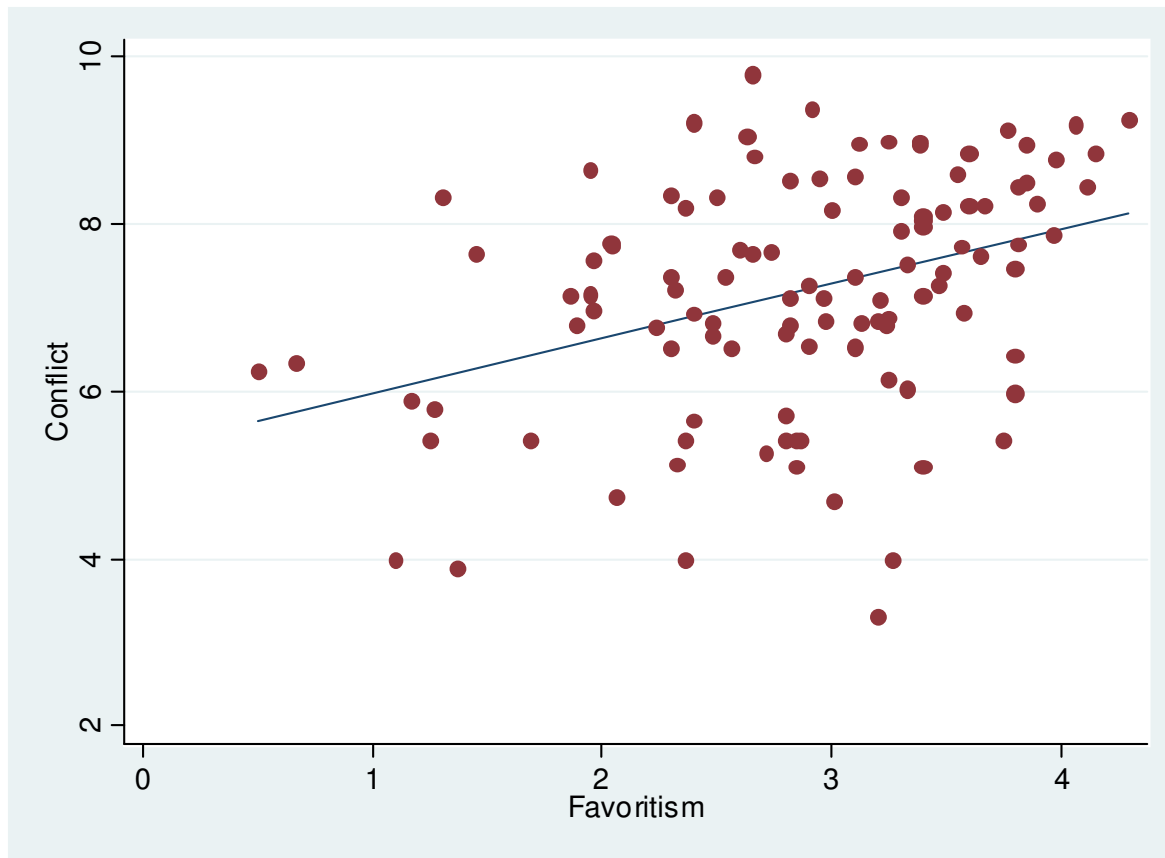


Figure 8
Congress or the Street?
 (18 Latin American countries, 2008)

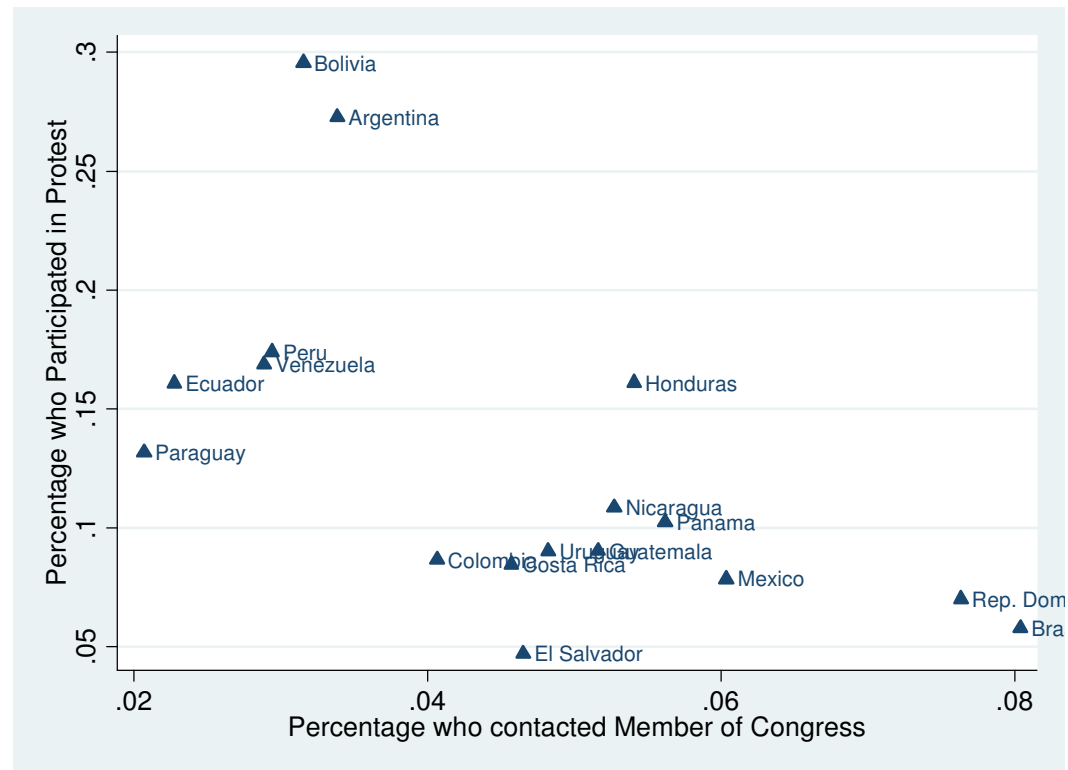


Table 2

Who Protests?
Individual level data

Dependent variable Independent variables	Participation in Protest				
	1	2	3	4	5
Legislative Efficiency	-0.735*** (0.258)				
Judicial Independency		-0.342** (0.163)			
Institutional Index			-0.621** (0.279)		
Public Regardness				-0.461* (0.245)	
Demonstrations					0.190** (0.086)
Protest changes things•	0.612*** (0.066)	0.608*** (0.066)	0.610*** (0.066)	0.609*** (0.066)	0.610*** (0.066)
Experience with corruption	0.246*** (0.038)	0.246*** (0.038)	0.246*** (0.038)	0.247*** (0.038)	0.247*** (0.038)
Political Interest	-0.436*** (0.027)	-0.436*** (0.027)	-0.436*** (0.027)	-0.436*** (0.027)	-0.435*** (0.027)
Interpersonal Trust	-0.150*** (0.031)	-0.150*** (0.031)	-0.150*** (0.031)	-0.150*** (0.031)	-0.150*** (0.031)
Vote for Opponent	0.212*** (0.061)	0.212*** (0.061)	0.213*** (0.061)	0.213*** (0.061)	0.213*** (0.061)
Party Representativeness	0.042** (0.017)	0.042** (0.017)	0.042** (0.017)	0.042** (0.017)	0.042** (0.017)
Congress Efficiency	-0.014 (0.031)	-0.012 (0.031)	-0.012 (0.031)	-0.012 (0.031)	-0.012 (0.031)
Democratic satisfaction	0.103*** (0.038)	0.102*** (0.038)	0.102*** (0.038)	0.102*** (0.038)	0.104*** (0.038)
Trust in Congress	-0.015 (0.019)	-0.015 (0.019)	-0.015 (0.019)	-0.015 (0.019)	-0.015 (0.019)
<i>Observations</i>	16089	16089	16089	16089	16089
<i>Number of countries</i>	17	17	17	17	17

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

•Baseline category: vote changes things.

Each cell indicates the coefficient of interest from a logistic regression that includes the following controls: age, gender, education, and income.

Figure 9
Correlation (Corruption,Protests)

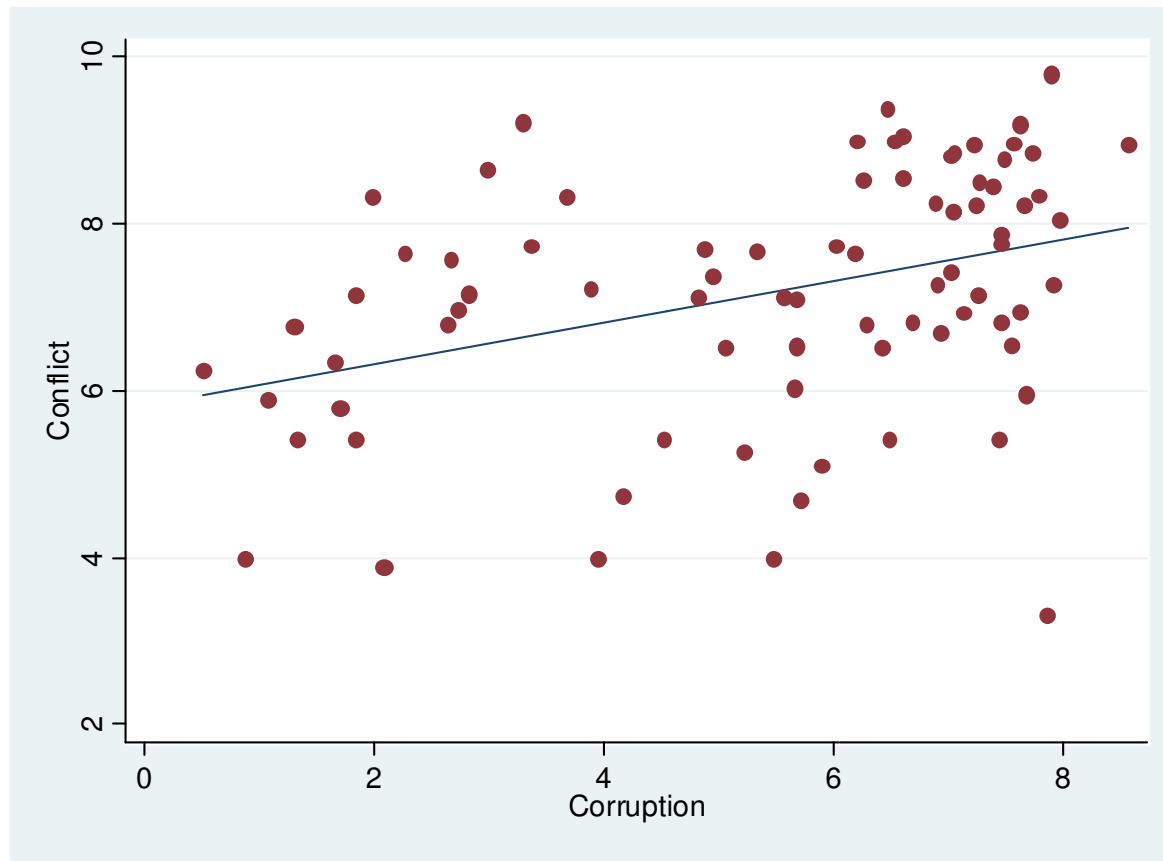


Figure 10
Correlation (Corruption, Institutional Strength)

