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POLITICAL CONSTRAINTS ON THE DEVELOPMENTAL STATE: ALTERNATIVE THEORETICAL EXPLANATIONS

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Abstract

Since the very beginnings of development economics the state has been given a prominent role in development strategies. However, this role had not been defined in the context of a theory of the political economy of state intervention that could satisfactorily endogenize the state behavior and the strategic responses of the private sector. We review recent theoretical contributions made by the "new" political economy of the state, with particular emphasis on the theories of government behavior under lobbying by interest groups and of time consistency and credibility in policy making. These theories offer both positive interpretations of state behavior and a set of normative options to enhance the possibility for the state to assume a leadership position. We conclude by discussing the recent theories of games with imperfect information which only can explain the observed delays, stalemates, active oppositions, and ex-post accommodations that are so frequent along the path of economic policy making.

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Political Constraints on the Developmental State: Alternative Theoretical Explanations[1]

by
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I. Role of the state in development: catching-up and welfare

Since the very beginnings of development economics as both a body of thought and a practice--directed at helping late comers catch up with more advanced nations and/or at modifying the developmental implications of growth--the state has been given a prominent role in development strategies. At the same time, development failures in an excessively large number of countries reveal the rarity of instances where the state has been able to effectively fulfill its developmental functions. Indeed, much of development economics could be summarized as the positive analysis of why governments sometimes do, but generally fail to, satisfactorily assume their developmental functions, and the normative analysis of what could be done for these functions to be more effectively assumed. It is the purpose of this paper to assess the relevance of the recent theoretical contributions to this understanding made by the "new" political economy of the state.

Before emergence of this body of thought, the fundamental role attributed to the state in development economics had not been anchored on a theory of the political economy of state intervention that could satisfactorily endogenize state behavior. As a result, much of these efforts ended up with voluntaristic policy prescriptions as to what the state should do from a normative standpoint, either for catching-up or for welfare, but without providing effective guidelines as to how the state could be made to fulfill these desired functions given the strategic response emanating from civil society. Not that development theories did not suggest strategic behavior as the essence of government intervention (e.g., Hirschman's *Strategy of Economic Development*), but that the proposed interventions did not adequately take into account strategic response by agents in civil society. This view of the state and policy making has been challenged by the "new" political economy from several perspectives. It is useful to separate two distinct elements in the process of policy making: One is the mechanism of policy decision making itself; the other is the impact that a policy decision has on society, which includes, in particular, strategic response by agents in civil society. The actual policy decision will depend on both. For example, the traditional view of policy making à la Tinbergen assumes that the policy decision is taken by a state which is a benevolent social maximizer, that the private sector makes its decisions after the policy decision is made, and that the state can fully anticipate the private sector's actions. This gives an extremely powerful role to the state. While criticisms of the benevolent autonomous state assumption, by Buchanan and public choice theory in particular, were almost contemporaneous to the development of this traditional policy analysis, questioning of the impact of policy on the private sector's actions and its formalization only date from the early 1980s, when tools of game theory developed, and it has become a very active field of research. We review this literature in Section II.

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We select two lines of thought which each pertain to one of the elements above: The theories of government behavior under lobbying by interest groups, and the theories of time consistency and credibility in policy making. We review these two bodies of theory in Sections III and IV, respectively, and extract each time both the positive explanations as to why the developmental state may fail in its functions and the normative implications as to what can be done, either by the state itself or by civil society, to enhance the possibility that the state will effectively perform as a developmental state. We conclude, in Section V, that while these theories certainly improve our understanding of the policy process, they do not yet sufficiently incorporate the policy bargaining process itself that only can explain the common observation of opposition to policy reforms and eventual policy reversals.

II. Decomposing the process of policy making

Why does the state so frequently fail in its developmental functions and what influence does its own organization and the private sector have in inflecting the state's performance away from the social optimum? We consider successively the policy decision making mechanism, and the relationship between the policy decision and the private sector's economic decisions.

2.1 The policy decision making mechanism

The main issue is to establish who has the power to decide the policy and, if several actors within and outside the state participate in this decision making process, how their individual objectives aggregate. The policy decision making mechanism is characterized by the actors (politicians, bureaucrats, and civil society), the instruments of influence they each control (vote, lobbying, and power to make or block the decision), and the actual process that leads to the decision (information available to each agent, procedure, and sequence of actions).

Who are the public and private actors, and what do they control? Economists commonly think of the state as a single actor, representing an aggregate of the politicians and bureaucrats involved. As such, it has a well defined objective function, and it is usually considered as the agent which actually makes the decision, whether this be with full autonomy, under the influence of other agents, or after agreement with other bargaining parties. Alternatively, political scientists and public administration specialists tend to conceptualize the state as a complex organization of numerous bureaucrats and politicians, with each their own objective, information, and instruments which they control. As for civil society, it is seen under the two aspects of individual voters or organized groups. The power of civil society as voters resides in its capacity to choose or to revoke a policymaker on a policy proposal, and, as organized groups, it can put pressure on the state by lobbying activities or directly participate to the decision making process through bargaining.

How do these agents interact to obtain the policy decision? There is evidently no single answer to this question, as different policy measures are taken under different institutional rules. Theories that ascribe the decision making power to the bureaucracy, acknowledge that bureaucrats have their own agendas and that their objectives include power, income, promotion of careers, and loyalty (Downs; Tullock, 1965; Jackson). All of these have sometimes been summarized in the size of the budget that they control (Niskanen), which brings us back to a single objective. Alternatively, understanding the decision making process and its performance when the multiplicity of agents is maintained calls upon the theory of organization, best

developed by economists in relation with the firm rather than the state (Williamson). In the game-theoretic framework, such analysis would rest on strategic behavior by the different agents of the state.

Another type of decision making proceeds through a bargaining process, where no agreement may be imposed on any agent without his approval. This characterizes some decisions taken by a small number of governmental agencies (e.g., trade policies decided jointly by the ministries of finance, foreign trade, and industry), or between one agency and a few representatives of the private sector (e.g., fixation of the minimum wage by the ministry of labor and representatives of the employers and the labor unions). Even when there is no explicit negotiation, this model applies whenever the partners have the possibility of blocking the actual decision, e.g. when unions can go on strike to block implementation of a unilateral decision on wages. While an axiomatic theory of bargaining was developed early by Nash, recent developments take a different approach, the strategic approach, in which the outcome is an equilibrium of an explicit model of the bargaining process. Since any bargaining procedure encompasses a bewildering number of characteristics, models become very quickly intractable. Simple models with only two actors, however, show that important issues that drastically condition the outcome of the bargaining are the exact procedure which defines the sequence and frequency of offers, the costs incurred by the different parties until an agreement is reached, and the existence of private information (Osborne and Rubinstein; Kennan and Wilson). In the area of policy, a similar theory has been applied to explain delays in adjustment as a consequence of a war of attrition among two interest groups (Alesina and Drazen). As for multilateral bargaining, which is really what most policy is about, the theory is still in its infancy.

Finally, a very large literature considers the interaction between a one-actor state and the private sector which has the power to vote and/or to lobby. We classify these models in Table 1. They cover the whole spectrum of possibilities, ranging from complete state autonomy to complete subordination of the state to civil society.

At one extreme, the state is seen as autonomous, and the eventual perversion of policies into neglecting developmental functions originates from within the state itself. Politicians or bureaucrats balance their "social" and "predatory" behaviors to maximize their own objective which can be, for example, the surplus that they can extract from civil society or their budgetary resources (Bates; Findlay). Clearly, these states can be devoid of developmental functions by the very nature of their own behavior, in spite of being leaders in policy making.

At the other extreme, the state is conceptualized as having no autonomous view on desirable societal welfare (state's own utility for policy in Table 1) and only making policy choices in an attempt to remain in power. This approach includes all the pure voting models. If civil society is atomistic and democratic, policy is determined by voting rules and the participation of eligible voters where the median voter is the leader. It is conceivable that, even with majority rule, a small minority with a very high mobilization rate can succeed in gaining control over policy despite the costs that it implies for the less mobilized majority (Mayer). In other models, the election process is influenced by the level of campaign contributions that the competing parties can raise. Purely "office motivated" candidates thus grant favors to interest groups in return for their contributions. The policy outcome which maximizes the probability of being elected calls for the candidates to balance satisfying their constituencies and satisfying the general public (Baron, 1989; Magee, Brock, and Young). The state thus becomes leader, but with no developmental vision of its own.

Between these two extreme conceptualizations of autonomous and submissive states are models in which the state has a developmental objective of its own but is influenced by interest groups which can assume leadership in policy making. The theory of rent-seeking originated in the early work of Tullock (1967) who first noted that governments generally have to be lobbied or pressured into imposing protecting tariffs, and that producers thus invest resources into lobbying. A vast literature has since developed, which, however, mostly focused on the activities of the lobbies themselves, decisions by their members on resource allocation between productive and lobbying activities, and the determinants of their effectiveness, rather than on the attitude of the government vis-à-vis these pressures. The classical arguments on lobbying effectiveness focused on free riding and group size (Olson, 1965), selective incentives created by differential gains from successful lobbying within the group thus inducing leadership (Olson, 1965), difficulty of exit as opposed to voice (Hirschman, 1970), and other determinants of perceived costs and benefits of collective action both by the members of the group and by the rest of society.

For our purpose, the distinction between what Bhagwati has called rent-seeking and rent-creating activities is crucial. Analysis of the former, made notorious by Krueger, takes the distortions created by government as given and typically concentrates on measurement of the deadweight costs due to rent-seeking. By contrast, underlying the rent-creating activities, i.e., when private groups can influence the creation of rents, is a model of policy formation that is based on a theory of the state, even if often only implicit. In the approach taken by Becker, for example, the state is only a black box, and policy decisions are directly formalized as function of the lobbying activities. Other studies explicitly consider the state as an agent and formalize its interactions with the interest groups. We will illustrate the rent-creating approach and attempt to summarize its main conclusions in Section III. The main critique that can be addressed to much of this literature is its poor representation of the actual political institutions, and its focus on the equilibrium solutions, at the neglect of the actual policy making process which may involve a succession of steps in a protracted negotiation process.

2.2 Impact of the policy on the private sector's economic decisions

Given the mechanism of policy decision, and assuming that the decision makers have the power to actually introduce the policy, how will the private sector react or adapt to the policy, and, in turn, how will this indirectly affect the actual policy choice. To simplify matter, consider that we are dealing with only one policymaker and many private agents. This can be conceptualized in a game theoretic framework. The traditional policy analysis assumes that this is a game of perfect information, with only two moves, the state first and the private agents second. This assigns the position of Stackelberg leader to the state who takes into account, in its policy decision, the reaction functions of the private agents. This representation can be challenged from two sides: first, the assumption that the game is over after only two moves, which says that the government cannot revise its policy; and, second, that there is perfect information. Were the first assumption not correct, the policy introduced may lack credibility in the eyes of private economic agents, and lack of credibility may be damaging for the policy (Rodrik, 1989). Furthermore, the presence of imperfect information on either side, the policymaker or the private agents, and the impossibility to credibly communicate this information without taking costly action, modify the agents' decisions.

Lack of credibility influences the private sector in the sense that it will make its own economic decisions in function of both the chosen policy and its expectations over the future. If a policy attempt is perceived as temporary, rational private agents will not undertake any adjustment to the new conditions that either entails costs or will put them in a weaker position after the expected policy reversal. At best, thus, a

non-credible policy has no real effect on the economic structure. At worst, the private agents may speculate on the temporariness of the conditions. Policy attempts lacking credibility therefore end up being more damaging than no reform. Reasons for lack of credibility fall under two broad categories: faulty decisions and genuine dynamic phenomena. In the first category, politically infeasible policies clearly suffer from lack of credibility. It may take time before the negatively affected groups realize the impact of the policy and mobilize to oppose it, but perspicacious agents can anticipate the opposition and the induced reversal. Inconsistent policies, which, as we have seen above, may result from the complex decentralized process of policy decision making are also bound to reveal their nature in time and to induce revisions. Anticipated reversal and lack of credibility emerging in these two cases are linked to a problem in the decision making process. The reaction constraint due to lack of credibility thus acts as a useful check on government's error, and it should be appreciated as such.

Lack of credibility can also be related to the genuine dynamic nature of economic phenomena but, in this case, as we will see later, it detrimentally constrains the government. A broad category of such credibility problems has been studied under the label of dynamic inconsistency in policy. The essence of the issue is that the optimum policy for government may be different before and after the private sector has responded. This suggests that, whatever its genuine commitment to a policy is, the government will have an incentive to revert its policy after the private sector has acted. Anticipating this to happen, the private sector right away acts accordingly, i.e., disregarding the policy announced by the government and solely considering what will be its ex-post optimum policy. For our purpose, the crucial point is that this forces a government with rational anticipation to only announce time consistent policies, which are usually suboptimal compared to what could be achieved if the government could commit itself to not respond to its own changing incentive.

When there is imperfect information, the opponents' decisions cannot be fully anticipated. And, in fact, part of the policy strategy includes signalling this information by the informed agent and screening by the uninformed agent to try to uncover it. If, for example, there is imperfect information on the side of the private sector as to the government's real motive, this pushes government to deviate from its otherwise optimum policy in order to transmit information to the private sector. Such circumstances typically exhibit overshooting in early phases of policy cycles and readjustment to the optimum policy afterwards. Note, however, that this readjustment is not induced by any reaction of the private sector. It is fully predictable and part of a multi-period optimization process. This theory is reviewed in the context of macroeconomic policy by Driffill and of regulatory policy by Baron (1990).

Credibility problems due to dynamic phenomena and imperfect information thus induce a deviation from what would otherwise be the optimum policy. We review the theory underlying these two cases and the normative implications that it suggests in Section IV.

III. State leadership and rent-seeking

In illustration of the rent-seeking approach, we will briefly present the models used by Zusman, by Fafchamps, Sadoulet, and de Janvry, and by Appelbaum and Katz before attempting to draw some general conclusions. These three models differ in their assumptions about the objective of the state (in Appelbaum and Katz, the state is partly "office motivated" and maximizes its expected income, while it has a well-defined preference over the state of the economy in the other two papers), in the formulation of the game (Zusman characterized the resolution of conflicts with a cooperative equilibrium, we use a non-cooperative framework,

and Appelbaum and Katz use both concepts), and in the completeness of the economic system that is considered (we place our analysis in a general equilibrium framework while the other two consider partial equilibrium models).

3.1 Three examples

The organizational structure used in Zusman is a simple wheel network with a center (the state) linked to peripheral agents (the interest groups). The center and each of the interest groups have objectives u_i (with i = 0 for the center and i = 1,..., n for the interest groups), function of the policy x_0 set by the center. The interest groups can engage in actions that either reward or penalize the center. Denote these rewards or penalties, evaluated in terms of the numéraire used for x_0, by $s_i(c_i, \delta_i)$, where c_i is the cost incurred by the interest group and δ_i is an indicator of whether it is a reward or a penalty strategy that is pursued. Assuming an additive structure leads to definition of extended utility functions $U_0 = u_0 + \sum_i s_i(c_i,\delta_i)$ for the state, and $U_i = u_i - c_i$ for the interest groups. The solution to the bargaining process entails the double resolution of the non-cooperative equilibrium that will set the threat point and of the cooperative equilibrium that will be adopted. Zusman then shows that the cooperative solution has a very interesting property: The policy x_0 is also the solution of the optimization of $W = u_0(x_0) + \sum_i \lambda_i u_i(x_0)$, where λ_i is the marginal efficiency of the reward action at the equilibrium level c_i. This means that the state behaves as if it were maximizing a welfare function. In this "governance" function, the weights λ_i, and the derived $1/(1+\sum_i \lambda_i)$ which characterizes the degree of state autonomy, are endogenous variables and not parameters. They ultimately depend on the political power of the interest groups embedded in the parameters of the functions s_i. Policy is thus a compromise between the state's own developmental goals and the demands from interest groups. The main contribution of Zusman is the rigorous establishment of this governance function which takes the same analytical form that had been used, without explicit theoretical justification, in many empirical analyses directed at estimating the weights attributed to private interests in a government's policy preference function (Rausser and Freebairn, and recently Oehmke and Yao). Empirical analyses, directly applying the Zusman framework, have been performed by Zusman and Amiad for the dairy Israeli market and by Beghin and Karp for the agricultural sector of Senegal, allowing to estimate, from observed policies, parameters defining the power of the different interest groups.

In Fafchamps, Sadoulet, and de Janvry, we cast the problem of tariff settings in a general equilibrium context. There are three sectors--two tradables and one non-tradable--and two factors of production--fixed capital in each sector and mobile labor with a market clearing wage. There are also three interest groups with specialized capital portfolios, i.e., with profit income from one sector only, and labor income earned on the labor market. This income structure implies that their interests essentially correspond to the sectors' interests. The government's policy instrument is the relative tariff on the tradables. To isolate the central issue of the policy process that generates trade taxes from the related but independent issue of how government uses its revenues, we impose a balanced budget constraint on government and use lump-sum transfers to dissipate all net revenues from the trade tax policy. The equilibria of the balance of trade, the market for nontradables, and the labor market determine the real exchange rate and the real wage. We assume that the state's objective function is a weighted average of the utility of the different interest groups, $W = \sum_i \lambda_i(c_i)\, u_i(x_0, c_i)$, where the weights λ_i are function of the lobbying efforts c_i exerted by the different groups. The state's own objective, $u_0(x_0) = \sum_i \lambda_i(0)\, u_i(x_0, 0)$, is obtained by setting lobbying to zero. Lobbying appears as a waste, since there is no direct utility for the policymakers generated by the expenses c_i. The interest groups choose the level of lobbying that maximizes their utility. They act rationally, with the full understanding of how their lobbying activities influence the government's decision. Therefore, they are

Stackelberg leaders vis-à-vis the state, but engage in a non-cooperative Nash game among themselves. This framework sheds light on a certain number of well-known characteristics of the behavior of interest groups, the response of government, and the resulting structure of protection. In particular we show that: i) When allowed to do so, lobbies will always engage into lobbying activities, even when, under conditions of perfect symmetry between the two sectors, neither one of them will end up obtaining any real protection. Lobbying activities are thus unavoidable. ii) While the nontradable sector chooses not to engage in lobbying, it often benefits from the activities of the other two lobbies, particularly when they use its products and services for lobbying. This can explain the silent support of a large share of the population toward lobbying activities, despite the global waste which they impose on civil society. iii) Several results show the role of government as the guardian of overall welfare, however biased by lobbying pressures its definition of overall welfare may be. When lobbying is done through the waste of commodities produced by one of the tradables, the government then becomes reluctant to grant an increase in price of these commodities, as this would increase the wastage cost. Similarly, in trying to minimize the welfare cost of the distortions, the government will more easily grant protection to sectors with lower shares in the consumption budget. Finally, as the loss incurred by a sector due to an unfavorable change in its relative terms of trade increases with its rigidity in production, the government will tend to protect the more rigid sector, and the more so the more averse to inequity the government is. This bias which the government thus has in favor of commodities that are not wasted in lobbying, luxury goods, and produced by rigid sectors, in turn makes lobbying by the corresponding sectors easier and more profitable. Thus, there exists a self-reenforcing mechanism whereby any initial sectoral bias originating in the government's preoccupation with minimizing the welfare costs and inequities of lobbying induces an even greater level of lobbying from these sectors, and greater protection than the autonomous developmental state would have granted them.

Appelbaum and Katz present a model which is at the juncture of the previous two models and the voting models. They consider a game between the state, the firms, and consumers. The policy defined by the state consists in a transfer x_0 from consumers to firms. The consumers' participation is captured by their probability of support to government, i.e., their voting behavior. This probability $p(x_0)$ is function of their perception of policy x_0. The firms actively engage into rent-seeking to capture the rent derived from policy x_0, and determine levels of rent-seeking c_i which maximize their utility $u_i(x_0, c_i)$. Waste of resources occurs in the rent-seeking process as the benefits $s_i(c_i)$ received by government are inferior to their cost c_i to the firms. The state has no developmental objective of its own: It only derives utility from policy x_0 in as much as that policy increases its probability of being voted in office. Its own self-interested objective function is thus $p(x_0)(\bar{u}_0) + [1 - p(x_0)]\,\bar{\bar{u}}_0$ and the governance function, under lobbying, is $U_0 = p(x_0)[\bar{u}_0 + \Sigma_i s_i(c_i)] + [1 - p(x_0)]\,\bar{\bar{u}}_0$ where $\bar{u}_0$ represents the policymaker's revenue in office and $\bar{\bar{u}}_0$ his opportunity cost in an alternative occupation. The focus of the Appelbaum and Katz analysis is to show how the equilibrium total level of rent-seeking Σc_i and transfer x_0 depend on the competitive structure of industry and the strength of firms vis-à-vis the state. Their results show, in particular, that: i) When the state acts as a leader and industry is composed of a fixed number of firms competing for the rent (a characterization of short-term equilibrium), the rent decreases with higher independent income of the policymaker and with higher consumer awareness and sensitivity to its cost on them. ii) With free entry and exit for firms (long-term equilibrium), their net benefit is driven to zero by competitiveness, and government's action can be interpreted as using the firms to extract rents from consumers. iii) By contrast, when firms get organized, they can enter in a bargaining game with the policymaker, and the two parties share the proceeds of the transfer extracted from the consumers. Lobbying and transfer always occur, but the level of transfer depends on the relative power of the two parties. iv) Disagreement between government and firms is the best outcome for consumers.

3.2 Positive analysis and normative lessons

In trying to characterize the relative autonomy of the state and the power structure underlying these different theories, three crucial elements are the definition of the policymaker's objective function, the timing of the decisions, and the solution concept used in the game. The state's developmental concern is represented by its own utility $u_0(x_0)$ for the policy choice x_0 with the distortions and inefficiency costs that it implies. As seen in Table 1, an interesting contrast appears between the first two categories of models (autonomous state and lobbying models) where the policy enters directly in the state's own objective, as opposed to the voting and lobbying-voting models where the welfare impact of policy acts as a constraint on government through its influence on the support it receives from voters. A difference also appears in the role of the organized interest groups, which either directly modify the policymaker's utility or contribute to his probability of being elected, although this formal distinction is conceptually less significant. More important is the power relationship between interest groups and the state. There is a fundamental difference between cases where the state has the leadership, and uses the existence of interest groups to support its own objective, and cases where the state has to accommodate the interest groups' demands, either in a bargained solution or in the even weaker position of follower. These last cases best characterize diversion of the government from its developmental objective by the organized private sector. For comparative purpose, we note in Table 1 the objective function used in voting models where the state's decision is solely based on the median voter's preference (Mayer).

Most of this literature has had a positive purpose and, despite the diversity of frameworks and assumptions, several common points emerge from these analyses. First, lobbying is shown to be unavoidable as it is incentive compatible for both lobbies and government. The government consents to rent-seeking activities because it receives transfers, avoids penalties, or is directly influenced in its social objective.

A second issue concerns the deviation that the interest groups' activities bring to the state's original objective. In all the analyses reported above, the government is pulled down from its own developmental objective u_0, with the direction in which the government is deviated strongly depending on the economic structure and the power structure in civil society. A few interesting models of lobbying under asymmetric information arrive, however, at the opposite result (Ball; Lohmann). In that case, the government is uncertain about the true effect that its policy has on the interest groups' welfare which enters into u_0. In absence of better information, it can only maximize an expected outcome, based on the probable distribution of gains. Pressure groups, which are better informed on how they will be affected by the policy, lobby to signal this information to the government, and the costs that the lobbies incur are viewed as necessary to make this information credible. In this context, the information conveyed by lobbying has a social value and it increases the government's own objective.

A different issue, is the question of the social cost (in terms of resource wastage as opposed to policy distortion) of lobbying activities. These costs vary with the particular form that lobbying takes and with the general economic context. In one extreme case, considered by Krueger, the total value of the rent is dissipated in resource waste. The other polar case is where rent-seeking is done by transfer, with only redistributive effects but no waste. However, most models consider that some resource wastage occurs in the process of transfers. Varian's theoretical model and our empirical simulations show that, in a general equilibrium context, the correct calculation of waste has to take into account the spillover effects on the other markets. As we have shown, which resources are wasted in lobbying has its own efficiency and distributional implications additional to the rent-seeking outcome.

Yet another issue in terms of social costs is whether the lobbying activities increase or decrease efficiency in the economy. This question is well discussed in Bhagwati who convincingly argues that, while distortions always bring efficiency losses when one starts from a first best situation, there is no general result when dealing with an economy in a second best position. A particularly interesting case occurs when lobbying is done to induce governments to produce public goods (Roe). Note, importantly, that this efficiency effect is not resisted by the state in spite of the fact that it is led to deviate from its own agenda defined by u_0. This does not say that it is not a legitimate question, but that it can only be seen as an issue for civil society which, as such, may wish to consider institutions that will protect it from its own government and activism by private interest groups.

Normative implications have more often been implicit than explicit. Let us repeat that normative issues are here a question for society at large, not for government. The more pessimistic analysts view the effects of rent-seeking as so pervasive as to push the political system into a vicious circle of ever increasing rents and waste (Krueger; Olson, 1982). Only restrictions on rent-seeking activities, or outright decrease in the size of the state, could limit this pitfall. Optimists, like Zusman and Rausser, see that collective action could gain effectiveness by giving itself an organizational structure of the wheel type, with a coordinating center and peripheral participants, and by achieving a cooperative solution rather than engaging in non-cooperative wars of influence. However, this last result is true only if all members of society are participating and can make binding commitments. Cooperation that excludes a negatively affected group, as is typical for instance in corporatist society, clearly hurts that group's constituency. A society concerned with limiting lobbying activities can also legislate to select policy instruments that are less prone to lobbying than others. Tariffs, as opposed to firm-specific production subsidies, for example, have the character of a public good for individual firms which entails an underprovision of tariff-seeking behavior from the perspective of industry as a whole. When this overcompensates for the larger distortionary effects of tariffs, society would find it beneficial to limit its incentive policies to tariffs (Rodrik, 1986).

3.3 Insufficient institutional representation in rent-seeking theory

A major weakness of the rent-seeking models is their poor representation of political institutions. The transformation of lobbying into influence is generally modeled as a continuous function converting dollars of lobbying into utility for the policy maker (Zusman) or even directly into influence weights in a governance function (Becker). What process of influence can these models typify, except an outright bribery scheme in the former? This formulation cannot, for example, represent the common case of influence implied by the threat of a strike, an event which is both discontinuous and probabilistic. At the second stage of the model, the aggregation of private interests into a governance function equal to a weighted average of groups' utilities is also quite restrictive. It does correspond, as shown by Zusman, to the outcome of one specific institutional context, a cooperative bargaining solution in a wheel-shape negotiating structure. Many alternative institutional frameworks exist that cannot be reduced to this scheme, for example the U.S. congress' decision making process which includes at least two stages with a voting procedure to designate representatives and logrolling in aggregating the representatives' preferences.

A second critique that can be made to these models is their exclusive focus on equilibrium solutions. Observation of the policy making process should convincingly persuade the analysts that, in many developing countries, active policy opposition and policy reversals are the rule rather than the exception. To the extent that opposition to a policy is strong enough to force revision of the policy, it reveals that the choice made

upfront was politically infeasible. Why would a government have chosen a politically infeasible policy? Unpredictable events, errors, and misjudgments cannot be discarded from the real world. The latter two cases take us back to the decision stage, and the damage caused by opposition is the cost of error. More interesting to our purpose is when the original government decision, the opposition, and the future policy revision are completely integrated rational choices of the optimal strategy,i.e., part of strategic behavior. Conceptually, the private sector's influence on government through the observed ex-post adjustments is not different from the ex-ante compromises that we discussed above. The effect of the private sector's action is still to participate into the policy decision making process or to oppose the policy until an acceptable compromise can be found. However, the implied economic and political costs cannot be neglected, and such intermediary phases cannot be ignored as neutral intermediate steps toward an equilibrium as if they were not more than their verbal equivalent around a negotiation table. The fact that negotiation happens by policy being concretely made and opposed to rather than by discussion is due to strategic considerations. The proper modelisation of such decision making should be cast in an explicit negotiating model which should replicate delays, stalemates, and choice of ex-post opposition and accommodation rather than ex-ante resolution. This is the direction taken by a growing literature in game theory, and it usually requires imperfect information, at least on one side, to explain why the equilibrium cannot be reached at the first move (Kennan and Wilson). Unfortunately, game theory with private information becomes quickly very difficult, even with only two actors.

IV. Time consistency and credibility of policy

A policy is said to be time-inconsistent if the policymaker has an incentive to change it in a later period when the policy is no longer optimum for him. Therefore, the time consistency issue originates in the fact that policy and economic processes emerge from decisions that take place sequentially. This is not only an obvious characteristic of dynamic models where decisions are made over several time periods, but also a feature of static models--often used in policy analysis--where the decomposition of time within the period of analysis may reveal some structural characteristics leading to time consistency issues. The thrust of the literature that we now review is that time-inconsistent policies lack credibility. Rational agents anticipate that government will revise its policies and act accordingly. This, in turn, constrains the government to only define policies that are time consistent, which, on average, produce worse outcomes than what could be achieved by a government able to willingly reduce its own flexibility.

The problem has been the subject of a rapidly growing body of literature since the pioneering works of Kydland and Prescott and Calvo on the credibility of macroeconomic policies. Broad reviews are given in Persson; Alesina and Tabellini, 1988; and very thoroughly in Persson and Tabellini, 1990, from which we have taken the examples that follow. This theory of endogenous economic policy has most often been developed with industrialized countries' institutions in mind, in particular with respect to the political context. Analyses cover monetary and fiscal policy, and important issues addressed in this context are business and electoral cycles. We believe, however, that the basic underlying elements of the theory apply as well to problems of the developmental state, and that a promising area of research lies in the adaptation of this theory to the institutional setup of developing economies. Credibility and time consistency problems arise importantly, for instance, in the conduct of stabilization programs, in long term projects that require flows of fund over several years, and in fiscal and trade policy reforms in which many countries are engaged. The consequences of many of these policies go beyond business and electoral cycles as they ultimately affect investment and growth (Rodrik, 1991; Persson and Tabellini, 1992).

The policymaker is considered to have a well defined preference function over the states of the economy. He may also be partly office-motivated, which would give rise to what is called, henceforth, a political constraint (Alesina and Tabellini, 1988). The private sector is composed of unorganized individuals who decide rationally, disregarding the effects that their own actions have on the policymaker. Since the objective functions of either the public sector or the private agents are not the focus of these studies, they are usually chosen to simplify as much as possible the analytical derivations and tend to be similar in all models. In contrast, the different models are rich in their exploration of alternative institutional frameworks by varying the time horizon, the informational set, the decision making procedures, and the political constraints.

In the following sections, we analyze the issues raised when there is full information and dynamic changes arise from predictable phenomena, like economic rigidities or evolution of state variables, and when the games evolve because the information set changes, e.g., when the private sector only discovers over time the true nature of the state.

4.1 Dynamic time inconsistency due to economic rigidities

Credibility issues due to time consistency arise in static models, in repeated games, and in truly dynamic models. While there is no doubt that the real world is dynamic, and that policy questions should be raised in that context, static models and repeated game models are technically much simpler and they can fruitfully be used to introduce some of the important features of the full model.

In traditional policy analysis à la Tinbergen policymakers are modeled as choosing policies with perfect knowledge of the private sector's reaction function, thus making them Stackelberg leaders. Setting the game in extensive form, this implies that policymakers are making or announcing their decisions before the private sector takes action. The "new" political economy approach questions this position, linking credibility issues to the differential flexibility that agents have in revising their decisions. The agent with the highest flexibility is considered to move last. Policymakers thus lose their leadership position whenever they can revise policy decisions more easily than the private sector can adjust its actions. This leads to the paradoxical result that the very power of flexibility in decision making creates a credibility problem for the policymaker and sets him in a weaker position vis-à-vis the private sector. Long-term, enforceable contracts, when they can be designed, would clearly eliminate the problem, but many decisions taken by a sovereign government cannot be submitted to enforceable constraints. For time consistency problems to arise, there must also be an imperfection in the economy, or lack of a sufficient number of instruments for optimum policy making, that make the originally announced policy less than optimal and give incentive to the policymaker to subsequently change it.

Consider the classical monetary policy-inflation-employment problem to illustrate this point (Kydland and Prescott; Barro and Gordon). The policymaker has his own objective function $u_0(L,\pi;\lambda)$ over employment L and inflation π, which would reach a maximum for $L = L^*$ and $\pi = \pi^*$. To simplify the reasoning, u_0 is assumed to be additive in employment and inflation, and λ is an indicator of the weight the policymaker attributes to the employment objective relative to the inflation objective. The policymaker controls monetary policy which indirectly sets the inflation rate. The private sector has an objective function $u_p(w/\pi)$ defined over the real wage, which attains a maximum for $w/\pi = \overline{w}^\circ$, and it controls the nominal wage w. Employment and the real wage are linked through the labor market, $L = L(w/\pi)$. Let $L^\circ = L(\overline{w}^\circ)$, and assume that $L^\circ < L^*$, which says that the government would prefer a higher level of employment than what the protected real wage sought by the private sector entails. The policy process sequence is the following: the

government announces its monetary policy π^a, the private sector forms expectation π^e on the policy that will effectively be implemented based on the announcement and other elements that we will specify later and fixes the nominal wage, and then the monetary policy π^i is implemented. The private sector always sets the wage to meet its objective $\overline{w}^\circ$, i.e., $w = \pi^e \overline{w}^\circ$.

The credibility problem appears as follows: i) If the government has the leadership and can commit to implement the announced policy ($\pi^a = \pi^e = \pi^i$), it cannot influence the employment level, and thus chooses π^e ($= \pi^*$, from the additivity assumption) which maximizes $u_0(L^\circ, \pi; \lambda)$. ii) However, once the wage is set at the value $w = \pi^a \overline{w}^\circ$, sticking to the announced policy is no longer optimum. The policymaker can improve his objective function by increasing inflation, to induce a level of employment closer to its own objective L^*. This optimal discretionary level π^d maximizes $u_0(L(\overline{w}^\circ \pi^a / \pi), \pi; \lambda)$. In that case $\pi^a = \pi^e \neq \pi^i = \pi^d$. iii) The third step in the reasoning is that, anticipating this to happen, the private sector disregards the early announcement, and directly sets the wage on the expected level of the discretionary policy ($\pi^e = \pi^i$). The solution of this game is the Nash non-cooperative solution, such that $\pi^\circ = \pi(w)$ maximizes $u_0(L(w^\circ/\pi), \pi; \lambda)$, $w^\circ = w(\pi^e)$ maximizes the private sector objective, and $\pi^\circ = \pi^e$.

Seen from the policymaker's point of view, the first best situation would be to be able to set both employment and inflation at these optimal values π^* and L^* by fooling the private sector with a pre-announced inflation level which differs from π^*. The second best is the solution with commitment π^* and L°. The third best to which he is forced is the policy under discretion π° and L°. In this particular example, the second best is also socially preferred to the third best, since the private sector is indifferent between π° and π^*, but this is not the case with a more general preference function. The social planner would always benefit from being able to commit himself to a given level of inflation. Direct commitment is, however, institutionally difficult for a sovereign actor like government. The situation is further complicated if we consider that the economy may be subject to supply shocks (Persson and Tabellini, 1990). Say, for example, that employment $L = L(w/\pi) + \varepsilon$, where ε is a stochastic element. The optimal commitment solution for the policymaker is now a contingent rule $\pi(\varepsilon)$ that would leave him the flexibility of adjusting employment to external shocks. Commitment to a contingent rule may however prove to be impossible, as it would require the simultaneous observability of ε by the policymaker and the private sector, and the inferior solution of commitment to a fixed average value may be too costly in foregone flexibility. The policy under discretion may then dominate. Similar analyses have been made in different policy areas such as trade policy (Staiger and Tabellini, 1989).

The credibility problem in dynamic models is fundamentally similar to that in static games. It comes from the possibility for policymakers of redefining policies at every period, while rigidities prevent the private sector from revising its own decisions. Rigidities are the very nature of state variables, like capital or debt, which reflect the consequence of past decisions. The private sector's decision in each period must therefore depend on its expectations over future periods' policies. But rigidities in dynamic models are potentially more symmetric, as the government can also use state variables to affect the incentive structure in future periods.

The credibility issue in dynamic settings can be illustrated with the wealth-taxation problem (Persson and Tabellini, 1990). The idea is quite simple. Suppose that the government has two instruments of taxation: tax on a flow variable, labor, and on a state variable, wealth, both inputs to welfare. Prior to the decision made by the private sector, both have distortionary effects, and the optimal taxation scheme is defined to balance the efficiency cost of the marginal dollar from both sources of revenue. Ex-post, however, when the savings decision has been taken, wealth taxation is no longer distortionary, and the optimal taxation scheme is

to get as much income as possible from this tax. Rational agents, expecting this to happen, reduce their accumulation of wealth. Several equilibria can emerge: The worst equilibrium is when the government fully expropriates wealth and the private sector, expecting this outcome, does not save at all, leaving all tax income to be collected from labor. However, when government budget requirements are low, an equilibrium emerges with partial taxation of wealth and no taxation on labor. In all cases, there is excessive taxation of wealth, under-savings, and losses in welfare.

This scheme is directly applicable to capital taxation (Fisher; Alesina and Tabellini, 1989). A similar reasoning applies to taxation via inflation of nominal wealth held under the form of money (Calvo). In the second period, the government's budget requirement can be met with either labor taxation or the printing of money. Money creation indirectly determines the level of inflation through the money market and therefore acts as a tax on money holdings. Since the private sector anticipates this incentive, it will reduce its money holdings, and the government ends up overinflating, compared to the second best equilibrium, without the benefits of any surprise inflation.

4.2 Normative implications

The normative question raised by the above examples is how to define institutions that could push the discretionary equilibrium closer to the commitment equilibrium. Four approaches can be taken: i) to find a commitment technique, ii) to delegate to a decider with a different objective, iii) in a truly dynamic game, to alter the policymaker's future incentives with state variables, and iv) to use sanctions and/or reputation.

A commitment technique entails observability of the government's action and possible retaliation if the government defaults on its commitment. The observability problem is more stringent with contingent rules, which often rely on information that may be private to the government, or on stochastic events that are difficult to assess exactly. Yet, as we have seen above, simple contingency rules may be very costly as they imply abandoning all flexibility of adjustment to external shocks. Combining a simple rule with a certain level of discretion is achieved by rules with escape clauses (Flood and Isard). Under such regulation, the policy follows a simple rule under normal times, when the supply shock for example is not too large, but is discretionary in abnormal times when the shock is large. Examples of rules with escape clauses are the fixed exchange rates under the Bretton Woods Agreement and the European Monetary System. The observability problem still applies and, therefore, the decision on when to apply the escape clause may have to be left to government. However, the mere fact that the escape rule will not always be advocated decreases the expected distortion. Take, for example, the monetary policy discussed above. If q is the probability of invoking the escape clause, and π^{ec} the optimum value of inflation in that case, then the expected inflation would be $\pi^e = q\ \pi^{ec} + (1-q)\ \pi^*$, which is lower than π^{ec} whenever $q < 1$. With lower expected inflation, and consequently lower nominal wages, the policymaker does not need to inflate as much as he would under complete discretionary policy, and $\pi^{ec} < \pi^\circ$. The second condition is the existence of a retaliation procedure for defaulting on the commitment, i.e., the creation of large costs to breaking the agreement. We will see later that, in repeated games, political constraints can serve that purpose, with the threat of overthrowing the government. Other domestic institutions are legal and administrative rules that make any revision of policy very difficult. Resorting to foreign institutions may also secure this condition on a sovereign government. The enforcement mechanism is provided by the international sanctions that would be imposed on a country breaking the agreement, like the European Monetary System or Bretton Woods agreement for the exchange rate policy, and membership to GATT or participation to a regional integration agreement for trade policy. This framework gives an interesting perspective on these international agreements which are seen as institutions

giving to governments the necessary commitment technique to make it possible for them to pursue the policy that they would choose to follow, and not as a means of imposing policies deemed to be superior by foreign agents on refractory governments.

Alternatively, policy choices closer to the commitment equilibrium can be reached by changing the decision maker's incentive via delegation (Rogoff, 1985). Returning to the monetary example, the optimal policy under commitment π^* is function of the weight λ that the decision maker attributes to the employment objective versus the inflation objective. In that particular case, $\pi^*(\lambda)$ is an increasing function of λ. The credibility constraint, however, pushes equilibrium inflation to a higher level π°. This suggests that delegating the policy decision to another agent, say the chairman of a Central Bank with a lower value of λ, would bring inflation closer to the desired level π^*. Therefore, delegation can correct the bias created by credibility while maintaining discretion. However, it can be shown that delegation never brings back the policy exactly to the commitment equilibrium although it does improve on the discretionary policy. The interesting point here is to note that while the government cannot carry out directly the policy of its own choice, it can better achieve its goal through delegation to a Central Banker with an objective function at odds with its own. Similarly in the capital taxation policy, delegation to a decision maker who cares more about capital income, investment, and growth than the government could correct the bias coming from credibility (Rogers).

A new instrument is brought about in truly dynamic process. In certain circumstances, the government can use state variables to bind itself in a position such that policy changes are no longer desirable. Even if this binding entails some costs, it may still be optimal for the government to do it if it allows it to implement the second best commitment policy. An example for the inflation tax problem is management of the government's debt (Persson, Persson and Svensson). If the government has bought nominal (non-indexed) bonds from the private sector for a value exactly equal to money holdings, it looses all incentive to create inflation. For the same reason, any government debt should be set in real terms, leaving nominal net liabilities be zero. For this to be credible, government may have to secure a system by which debt repudiation is not possible. However, this should be easier to formalize legally than a commitment to monetary policy. The point here is to relax credibility problems by shifting to policies for which it is easier to be committed[2].

Credibility problems are obviously most acute in one-shot decision making in which opportunistic behaviors are very difficult to control. With policy-making an on-going process, sanctions and/or reputation can provide a commitment technique. Let us first consider how repetition can create a commitment technique. The underlying idea comes from the classical theory of repeated games. Both parties can be induced to abide to the cooperative equilibrium --here the low inflation equilibrium-- so long as the cost of breaking the contract is higher than the short term benefit of opportunistic behavior. In our example, the government can be induced to keep low inflation π^*, and forego the short term benefit of surprising the private sector with π°, if this action influences the private sector's expectation formation for the next period. We also know from a classical result in game theory that finite games which possess a single equilibrium in their static stage, no matter how long they last, unfortunately cannot sustain this equilibrium. It takes an infinite horizon, or at least uncertainty about the game's ending time, to trigger the cooperative solution.

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[2] The reverse of the coin of this new capability of modifying future incentives is that government may use it as well to try to influence the policies of future governments that could have a different welfare function.

This suggests that the political process can set such a trigger strategy (Alesina and Tabellini, 1988; Persson and Tabellini, 1990). Suppose now that the probability for the government to be overthrown depends on its past policy. This creates a new cost to the opportunistic behavior of high inflation, and one can imagine that sufficiently high political costs could induce the policymaker to stick to the low inflation strategy. To rigorously establish this result, the previous model needs to be modified in several aspects[3]: i) Policymakers attribute value to being in office, $U_0 = u_0(L,\pi;\lambda) + p\bar{u}_0$, where p is the probability and $\bar{u}_0$ the value to the policymaker of being in office. ii) The timeline of the model is now as follows: monetary policy announced, wage setting, monetary policy implemented, voting, wage setting, and so on. iii) Inflation expectation is updated with observation of the policy: In the first term of any policymaker, and so long as he abides to the announced low level π^v, expectations are made at that level; but, if the policymaker inflates at π^o, the private sector also sets its expectation at π^o, and the process reverses to the discretionary equilibrium. iv) A model establishes the dependence between policy actions and probability of being voted out. Although a simple reduced form approach, like those used in the models described in the previous section, could probably be used, most authors are serious about specifying a rigorously explicit structural voting model, and these are most often based on the median voter approach. The result is a probability $p = p(\pi,\pi^v)$ of being reelected which is function of the policy implemented π, and the trigger level π^v. The complete model solves for the trigger level of inflation, if there is one, that would be such that the government would find it less costly to abide to its announcement. Such a level is more likely to exist the higher the value $\bar{u}_0$ of holding office, and the more sensitive is p to π. This indicates that when the government has a very low probability of being reelected, or in a highly polarized environment where voting outcomes are not sensitive to policies, the enforcement mechanism cannot work.

In summary, we have seen that political constraints may provide an enforcement mechanism by setting a threat on policymakers who do not respect their commitments. Let us repeat that it is in the advantage of the policymaker to be able to commit credibly. The political "constraint" should thus be sought by the policymaker himself. And while the mechanism works better with a strongly office motivated policymaker, it can be reenforced by an information campaign that sensitizes voters to policy making. Let us note, in finishing with this example, that the voting set up should not be seen in a narrow sense. Even without a formal regular vote, the threat of being overthrown by popular discontent may be quite effective as a commitment device.

4.3 Credibility and imperfect information

A second aspect of dynamic games is the additional time inconsistency problem that may stem from evolution of the information set. We assume in this section that the policy process repeats itself over time with no changes in economic variables, i.e., we deal with a repeated game, not a truly dynamic game. Changes, however, occur in the structure of the game when there is imperfect information at the onset of the game and information is gradually revealed over the course of the game. We consider the case of one sided imperfect information only.

Suppose that private agents have incomplete information about some critical characteristics of the policymaker, for example his true objective function or his competence. At the onset of the policy process, expectation formation is based on the a priori distribution of the policymaker's characteristics. But, as policies

[3]Note that all these repeated game have many cooperative equilibria, and all we can do is to describe one such equilibrium involving a particular trigger strategy.

are observed, the private sector updates its information and revises its appreciation of the policymaker. This suggests that the policymaker can influence the private sector's expectations and actions through his policy conduct. Depending on whether he gains or loses from this imperfect information, a government will try to fool the private agents on its true nature or competence, or try to be identified with a position more extreme than his. This leads to the theory of mimicking and signalling (Rogoff, 1990; Driffill; Rodrik, 1989; Engel and Kletzer).

Take, for example, a two period game of monetary policy. Suppose that the private sector does not know how much the government effectively cares about employment. Assume, for simplicity, that the policymaker could be of two kinds: either tough with a low value $\underline{\lambda}$ or weak with a higher value $\overline{\lambda}$, to which correspond low and high values of inflation under discretionary policy, $\underline{\pi}^\circ$ and $\overline{\pi}^\circ$. Recall that the optimal value under commitment is at a yet lower value $\pi^* < \underline{\pi}^\circ < \overline{\pi}^\circ$, and that policymakers would always benefit from having the private sector expect low inflation. Rational private agents form their expectation on the basis of the probability that the policymaker is of either type: $\pi^e = p\,\underline{\pi}^\circ + (1-p)\,\overline{\pi}^\circ$. At the start of the policy process, or with a new government in place, the a priori probability that the government is tough is $p = p_1$. Thus, imperfect information benefits the weak government, while it penalizes the tough government. This suggests that the weak government has an incentive to maintain doubt by mimicking the tough government, while the tough government will try to identify itself with explicit signalling. What is the equilibrium policy outcome under such incentive effects? In the second period, each government will choose its optimal value under discretion. To determine the first period solution, we need to solve the incentive problem for each of the policymakers.

Take the case of the weak government. In the first period, it can either choose its own optimum value $\overline{\pi}$ for inflation, immediately reaping the benefits from surprising the private sector, or mimic a tough government with a lower value π. Knowing this incentive, the private sector will update its probability p as follows: $p_2 = p_1/[p_1 + (1-p_1)q]$, where q is the probability that the weak government has cheated (itself to be determined consistently with resolution of the incentive problem). Mimicking a tough government reduces the expected inflation, which increases the benefit of surprise in the second period. There is, consequently, a trade-off between short-run and long-run benefits and, hence, a minimum value π^s that the weak government can consider for deceiving the private sector. Take now the tough government. It loses whenever the private sector cannot distinguish it from the weak government. Therefore, in order to signal its identity to the private sector, it has to choose a value just below π^s, incurring by this the short-term cost of a recession. Whether it will choose to signal or not depends, in particular, on the parameter values of the problem, the discount rates, and the no-information p_1. We see two alternative equilibrium solutions arising: A separating equilibrium, in which the tough government would choose a value just below π^s, and the weak government, which cannot mimic it and maintain confusion of identity, would then choose its preferred value $\overline{\pi}^\circ$; and a pooling equilibrium when signalling is too costly for the tough government, which then opts for its short-term optimal value $\underline{\pi}^\circ$, the value also chosen by the weak government to hide its identity. This equilibrium, therefore, conveys no information to the private sector, and expected inflation stays constant. Note that, while in this particular model the equilibrium is unique, in more general models, pooling and separating equilibria may coexist and, like in all these cases of multiple equilibria, theory does not help in predicting one over the others.

In presence of asymmetric information, signalling thus emerges as the only credible way for an agent, here the policymaker, to convey trustworthy information to the other agents. The costs incurred in having to exaggerate its restrictive monetary policy is made necessary by the fact that other policymakers would have the

incentive to convey the same information when it is not true, and that this potential falsification is known to the rational private sector. This is the same logic as that which induced signalling by lobbying groups in Ball's model. Compared to our original classification of first, second, and third bests, the tough government is now pushed even further away from its desired policy.

This analysis has several interesting implications. In terms of positive analysis, it may explain why a government which is serious about its adjustment policy, may have to exaggerate its policy to credibly convince the private sector of its commitment. Seen from that perspective, the observed hard line policy should not been mistaken with a new trend to expect from a tough government, but recognized as intended overshooting. This does not decrease for that much the social cost that overshooting imposes on the country, and remedies should be sought to shelter the government from this necessity of posturing.

V. Political constraints on the developmental state

We started by observing the central role attributed to the state in most development theories and played by the state in the successful practice of development, and yet the frequency with which the state fails to assume this role. We also observed that much of development economics did not provide a satisfactory theoretical foundation for the determinants of government behavior, largely assuming that this developmental behavior would come forth if its logic were established. In search of an explanation to this puzzle, we turned to two recent bodies of theory on state behavior: The theories of government behavior under lobbying by interest groups, and the theories of time consistency and credibility in policy making. We saw that these theories differ from earlier theories of the state by incorporating strategic response by agents in civil society, leading to loss of leadership for the state in policy making. They offer both positive interpretations of state behavior and a set of normative options to enhance the possibility for the state to resume its leadership position.

The results are paradoxical in that both civil society and the state should want to limit their political freedoms. In lobbying, the interest groups are the leaders, and the state consents to lobbying since it gains from it. However, since lobbying creates social waste, but the state and individual lobbies all benefit from lobbying, it is civil society at large, or the groups excluded from this game, that should want to limit lobbying. This can be done by choosing policy instruments which are less prone to lobbying even though they may be more distortional, and by imposing institutional limitations to lobbying. There is, however, a serious agency problem in doing this since neither the state nor the lobbies will want to take the initiative, explaining why it is seldom done, with global crises eventually acting as the necessary triggering mechanism to induce the necessary reforms.

With problems of time consistency in policy making, private agents can seize leadership away from the state or at least be equally strong as the state. There however exists, in this case, an incentive for the state to fight back and to attempt to resume some leadership, or compensate for policy distortions, using a wide array of strategies such as delegation, commitment by making difficult the revision of rules, establishing retaliation procedures and legal constraints, signalling and mimicking, overshooting in policy making, and creating irreversibility through affecting state variables. Whether the state will do this or not depends on the time horizon in policy making and on potential agency problems within the state apparatus itself.

These two bodies of thought have developed surprisingly separately, with little cross-referencing. In real life, both problems occur: The private sector organizes to become a "big" player in rent seeking; and asymmetry in the reversibility of decisions and in acquisition of information as the economic and political process unravels over time creates problems of time consistency and thus credibility constraints on the state. When these two approaches are combined, additional difficulties emerge for the sate in fulfilling its developmental roles. For example, credibility through delegation to specialized agencies effectively decreases flexibility for the state, as desired, but increases the temptation for the lobbies to influence these specialized agencies. The outcomes may be scandals such as those that plagued the EPA and HUD in the United States or massive policy disequilibria in farm policy. Another technique for creating credibility consists in reducing state autonomy by instituting credible political threats on its own existence. This also enhances the possibility of lobbying and waste, particularly if society is unevenly organized with little countervailing power to some of the dominant interest groups, as typical in the LDCs. Furthermore, we argued that the theory should explicitly model the actual bargaining processes in order to explain the observed delays, stalemates, oppositions, and ex-post accommodations that are so frequent along the path of economic policy making.

We thus conclude by observing that, in accordance with the long tradition of theory and practice in development economics, an effective developmental state is indeed a key actor for successful development. The new advances in strategic development economics show that this role is difficult to play. The developmental state needs not only define strategic policies to achieve its objectives (à la Hirschman), but also anticipate strategic response from civil society. Policies made in this perspective, not surprisingly, may not resemble much the traditional policy prescriptions of development economics. For development economics, the normative implication is to search for institutions that can both limit the wasteful aspects of lobbying and allow the state to make credible policy commitments, thus restoring the leadership role of the developmental state.

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Table 1 - State's Objective Function in Political Economy Models

Political institutions	Authors	State's own utility for policy	Governance function	Leader
Autonomous state	Findlay	$u_o(x_o)$	$u_o(x_o)$	State
State and lobbies	Zusman	$u_o(x_o)$	$u_o(x_o)+\sum_i s_i(c_i)=$ $u_o(x_o)+\sum_i \lambda_i u_i(x_o)$	Cooperative between state and lobbies
	Ball, Lohman Fafchamps, Sadoulet, & de Janvry	$\sum_i \lambda_i(0)\, u_i(x_o,0)$	$\sum_i \lambda_i(c_i)\, u_i(x_o,c_i)$	Lobbies Lobbies
State, lobbies, and voting	Appelbaum & Katz	None	$p(x_o)\left[\bar{u}_o+\sum_i s_i(c_i)\right]+\left[1-p(x_o)\right]\bar{\bar{u}}_o$	Cooperative or state
Lobbies and voting	Baron	None	$p(\sum_i s_i(c_i))\,(\bar{u}_o-f(x_o))$	State
	Brock & Magee	None	$p(-x_o,+\sum_i s_i(c_i))$	State
Voting	Mayer	None	$u_m(x_o)$	Median voter

Notations:

x_o = optimal policy (tariff, subsidy, transfer)
c_i = interest group i's contributions (lobbying expenditures)
s_i = subsidies (political contributions) by lobbies to government. Benefit of lobbying for government.
u_o, u_i = utility functions of government (o) and interest groups (i)
λ_i = influence weights (marginal efficiency of lobbying on the state)
$p(.)$ = consumers (voters) probability of support to government
$f(x_o)$ = cost to government of policy x_o promised to the private sector
$\bar{u}_o$ = policy maker's revenue in office
$\bar{\bar{u}}_o$ = policy maker's opportunity cost in an alternative occupation.