

On Institution Building

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Preliminary and Incomplete.

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Abstract

In this paper, we examine the role of policy intervention in engendering institutional change. We argue that successful intervention is difficult since local political interests often undermine even benevolent policy interventions. In particular, we show that first order changes in the political structure (e.g. introduction of democracy) may be accompanied by institutional persistence and no improvement in the quality of governance. In this scenario, we identify two effects of development policy as a tool for institutional change. One, by increasing political accountability, it may encourage nascent democratic governments to invest in good institutions – the incentive effect. However, we show that it also increases the incentive of the rentier elite to tighten their grip on political institutions – the political control effect. Which of these dominate determine the overall impact on institutional quality. Under some conditions, by getting the elite to align their economic interests with that of the majority, development policy can lead to democratic consolidation and economic improvement. However if elite entrenchment is pervasive, then comprehensive change may require more coercive means. Thus for successful policy intervention, a good knowledge of local conditions and an appropriately tailored policy is needed for bringing about comprehensive change.

1 Introduction

The quality of a country's institutions matter for its growth and development.¹ This is apparent from even a cursory examination of not just the institutional wreckage in post-Taliban Afghanistan or present day Congo, but also the poor economic performance of countries with weak institutions ranging from Argentina and Venezuela to Pakistan and Kenya. A key issue is then how does one build better institutions. Indeed the repeated failed interventions in these and other developing societies suggest that ensuring comprehensive institutional change is difficult. In this paper we develop a simple framework to examine the relationship between the quality of political and economic institutions and consequently the impact of policy intervention on both. We ask whether first order changes in political institutions such as the introduction of democracy, will necessarily improve economic institutions and income? If not, can development policy be a successful catalyst for deliberately engineering institutional change? Finally, we analyze whether success or failure at institutional building is affected by the nature of the policy intervention itself, be it development or something more coercive.

Policy intervention with the aim of successfully transforming institutions has had a mixed record. On the one hand we have a few success stories from the classic instances of postwar Japan and Germany to the more recent ongoing cases of East Timor and Bosnia (Dobbins et. al., 2003). In contrast, instances of failure in institution building seem commonplace, as witnessed in countries as diverse as Haiti, Peru, Somalia and Kosovo. Perhaps more strikingly, even in a country with relatively strong democratic institutions such as India the structure of governance in large parts of the country (such as the states of Bihar and Uttar Pradesh and many of the north-eastern states) remain captured by an elite (Bardhan, 1984). Similarly, according to Fox (1995) despite democratic elections in Mexico, elite capture of the government persists in many regions including the Chiapas, Tabasco and Mihoacan. Thus democratization's failure to catalyze broader institutional change and development is puzzling, and also a source of worry. Much of this concern is because persistent economic stagnation has exacerbated a sense of alienation and disillusionment with the political process in many fragile democracies.² This emphasizes the

¹Recent contributions to this empirical literature include Hall and Jones (1999), Barro (1999), Persson and Tabellini (2004), Acemoglu, Robinson and Johnson (2001, 2002) and Rodrik, Subramaniam and Trebbi (2004).

²According to the 2003 *Latinobarometro* poll, 15 of 18 Latin American countries witnessed a significant erosion of support for democracy with over a third of the population classified as "dissatisfied democrats". This dissatisfaction with democracy was strongly correlated with pessimism about the economy. Furthermore, over 71% of the respondents felt that democracy had been captured by special interests. Similar results are also observed in the Eastern Europe barometer.

importance of developing a framework that accounts for not just the successes but also the failures of institutional building.

In this paper, we develop a simple framework which follows Acemoglu and Robinson (2000, 2001) in describing institutions as the product of the interests of groups which control political power. Consider a country (or a region within a country) which has two groups. One group is in a minority but form an economic “elite” and can be considered to be primarily rentier-landlords; members of the other majority group are primarily wage-earners and are poorer. The quality of the region’s economic institutions is a function of the government’s policy and effort at improving such basic fundamentals as law and order, protection of property rights, etc. The trouble is that the current (backward) institutional structure is conducive to earning rents by the elite in a non-competitive environment; any change/improvement to the existing institutional set-up that may encourage other entrepreneurs to invest is likely to adversely affect the rents earned by the elite.

It is this potential for an adverse distributional outcome that underlies the elite’s desire to control the political levers of government. Whether in fact the elite can do so depends of course on the nature of the country’s political institutions. We show that the mere introduction of democratic elections (thus transferring “power” to the majority) need not improve economic institutions and increase national income. For a region plagued with weak economic fundamentals, elections do not provide enough of a reward for a democratic government to escape the clutches of influence by the elite. Thus despite free and regular elections, democracy remains imperfect as government policy remains “captured” by the economic elite.

For a region stuck with such inefficient institutions, intervention by a policymaker who is external to the region or country provides the prospect of institutional change and economic improvement within a shorter time frame.³ Consider for instance, the effectiveness of a development policy which encourages investment in a region, be it through investment in infrastructure (thereby reducing the cost of doing business there), or by tax-breaks and subsidies for those whose invest in the region. We identify two channels through which such a policy can impact both political and economic institutions in the region. The first channel is what we call the *incentive* effect of development policy. We show that by raising accountability and rewarding good governance, such a policy encourages the government to strengthen economic institutions and improve property rights. Indeed by doing so the government also simultaneously improves the strength of its

³This formulation captures a number of plausible scenarios. For instance, this “external” policymaker may be a country such as the U.S. or an international agency such as the U.N. confronting the task of transforming institutions in Afghanistan or East Timor. Alternatively, this external intervenor may be the central government in India attempting to improve both the quality of democracy and property rights in a backward province.

political institutions.

However, there is a second additional effect at work. In particular, by encouraging investment, development policy gives rise to the spectre of a large loss in economic rents by the elite. This prospect of an erosion in economic rents gives the elite an incentive to tighten its grip and deploy additional resources to control the levers of government. Through this channel of a *political control* effect, development policy may therefore also have the adverse effect of potentially undermining political institutions.⁴ In Mexico, Fox (1994) cites the case of development policy in the Mihoacan province; this increased political participation of the endogenous people in the region. In response, cases of election malpractices and booth capturing by the landed elite dramatically increased. This double-edged aspect of policy intervention is worth emphasizing. In our model, under some conditions, the incentive effect is strong enough to ensure that development policy results in not just better protection of property rights, but also transforms democracy by freeing government from the elite's grip. However, when the political control effect outweighs the incentive effect, a benign development policy can result in an overall deterioration of the country's institutions. We further show that there is a non-monotonic relationship between resources allocated towards development and its effectiveness as a tool to build institutions. When either the resources allocated are too few or too much, development policy is ineffective, the former due to a too weak incentive effect, while the latter case is due to a too overwhelming political control effect. It is an intermediate range of resource allocation that makes development policy effective. This result thus provides an important cautionary note in the use of development policy as a tool to transform institutions.⁵

Of course, successful control of government policy is costly for the elite, either directly in terms of monetary costs or in terms of comprising on other non-economic issues. As development policy raises an incumbent government's rewards from accountability, it also increases the amount of resources the elite need to devote to successfully influence economic policy. We show that development policy may also have the secondary effect of prompting the elite to change their technology closer to the frontier so as to be less dependent on an insular institutional setup for their profits. In doing so, they diminish their own incentives to control government policy on improving institutions in the region, and thereby eliminate their own de facto political control.

⁴One of the main advantages of democracy as a political institution is that it promotes political selection of good quality candidates (for a discussion see Besley, 2005). As will be evident later in the context of our model, greater political control by the elite prevents elections from effectively sorting the good from the bad politicians.

⁵For instance, Sachs (2005) (and Bono) has been arguing that greater resource allocation towards developmental policy "will make poverty history" by transforming (among other things) institutions and governance. This notion has been adopted in the 2005 G8 summit for increasing resource allocations for developmental policy towards the developing world.

Overall this can lead to sharp improvements on both the political and economic fronts. If however the elites are completely entrenched, in that their traditional technology is very far from the technological frontier or the costs of reorganization for them are too large, development policy is unlikely to erode their “political control” of government. This raises the question as to whether the use of coercive instruments (such as forcible seizure and redistribution of the elite’s assets) by the external policymaker may be more effective in such a situation. At a broader level our analysis suggests that even in a democracy with regular elections, sometimes the use of coercive technology may be the only way to improve democratic functioning and have security of property rights. Relatedly, whether the instrument being used is developmental or coercive, our framework suggests that the importance of the policymaker’s ability in recognizing the underlying situation. In particular, leaders with a good knowledge of local conditions and a talent for recognizing the right ‘window’ of opportunity are the most effective at ensuring permanent and dramatic institutional change.

Our paper is clearly related to the emerging work on the spread of the institution of democracy resurrected by Acemoglu and Robinson (2000). Exploring rationales for voluntary extension of the franchise, this work emphasizes the threat of revolution by the disenfranchised majority (Acemoglu and Robinson, 2000), the elites’ aim of improving welfare by reducing the space for narrow redistributive political competition (Lizzeri and Persico, 2004), and the role of economic cleavages and group formation within the elite (Llavador and Oxoby, 2005). This positive analysis of voluntary elite-led democratization is clearly important in enhancing our understanding of the sources of the spread of democracy. However, especially since World War II, there have been many instances where the spur to democracy has been from direct and indirect forms of external influence. Such projects of institutional engineering has had mixed results. On the one end we have successes such as Japan, Germany and East Timor while on other end we have notable failures such as Somalia and Haiti. Attempts at spreading democratization and better institutions in backward regions of countries such as Brazil and Mexico have also had limited success. Similarly, the initiation of five-year plans during the fifties in India was with the explicit objective of politically empowering the effectively disenfranchised in many parts of India along with promoting better economic institutions in some states in India; again the results have been mixed. In this paper we take a first step in exploring the effects of policies aimed at bringing about comprehensive institutional change. Thus at a broader level, our contribution is related to the literature on institutional change initiated by North (1981, 1990). However unlike us, much of this literature focuses on internal mechanisms which engender gradual institutional change, such as shifts in technology and resources (Greif, 2005) or a stochastic shock (Roland, 2001).

On the political economy front, our paper is also related to the literature examining the relationship between institutional structure and political accountability.⁶ This literature explores the effect of different institutional setups (e.g. democracies versus autocracies (Persson and Tabellini, 2000), the basis of political power – broad or narrow (de Mesquita et al., 2003), etc.) on political accountability, corruption and related phenomena. among others. While related to this literature, our contribution also explores the effect of political accountability on the institutional structure itself and how changes in one can (or cannot) bring about changes in the other. In our framework a transition to democracy is not necessarily accompanied by better governance because the increased political accountability is largely superficial. Thus there may exist a high degree of institutional persistence. Further, we emphasize that the elite undermine the quality of democracy by interfering with the process of political selection that is intrinsic to the successful functioning of a democracy. In line with recent work by Jones and Olken (2005) and Besley (2005), our framework emphasizes the importance of political selection and leadership for good governance. We emphasize that in imperfect democracies, political selection is constrained and good leaders may be prevented from emerging, despite free and fair elections.

The rest of the paper is organized as follows. In the next section, we describe the basic model of the political process, and characterize its effect on institutions, and consequently on the economy. Section 3 describes the model in the context of landowning elites, and analyzes their incentives to modernize in response to various interventionist policies. Section 4 explores the consequences of different policies in terms of institutional change, both on the political and economic fronts while Section 5 concludes.

2 Description of the Model

We begin by outlining a simple model of government capture and its effect on underlying institutions.

Investors in a particular region/province P fear that their output or returns from investment may get appropriated or stolen. Thus, the effectiveness of property rights and the law and order situation in the region is crucial to their decision on whether or not to invest in this province. Now, law and order and property rights enforcement depends on action (or inaction) by the regional government in their implementation.

POLICIES: For simplicity we assume that there are two possible levels of protection: 0 or p . This gives the probability that a particular investor can reap the complete returns from his or her

⁶Barro (1973) and Ferejohn (1986) are the seminal works in this area.

investment. Thus, a 0 level of protection represents a regime without any significant law and order, and which is unlikely to attract much investment.

The level of protection in a province is assumed to be a function of the government's ability, resources and experience in such matters of effective governance. Specifically, we assume that the level of protection in a province is

$$p \text{ with probability } t(e + xy), \text{ and is 0 otherwise.}$$

Here, t is the government's ability at enforcing law and order (or property rights) and is assumed to be one of two values: either high ability H , or of low ability $L = 0$. Similarly, e represents the government's efforts on the law and order front, and can either be 0 or 1. Thus, $e = 1$ represents the government's initiative in enforcing a good investment climate in the province, and is a policy choice by the incumbent regional government. However, doing so is costly, and we assume that the cost of implementing $e = 1$ is given by (with an abuse of notation) e .

In the above production structure, x denotes the value of experience at governance matters, and is acquired only by putting in high effort (i.e. $e = 1$) at governance; y denotes the years of experience in office.

Thus in this set-up, only high ability governments can bring about a good investment climate, either by putting in the requisite effort, or by virtue of their experience at good governance. For simplicity, low ability governments ($L = 0$) are always assumed to be ineffective.

INVESTMENT: Investment into this region is dependent on the level of protection that exists for investors. If the level of protection is 0, then returns to all investors get appropriated with probability 1, and thus no investment is attracted. This is a situation where there is no respect for private property. On the other hand, if the level of protection is p , then whether or not investors find investing in this province attractive depends on their investment returns, what other opportunities are available for them, and what are the costs and hassles of investing. We summarize all of this by a parameter θ which gives the probability that investment occurs in this province if the level of protection is p . This parameter maybe influenced by the central government or by external powers either through tax or subsidy schemes for agents choosing to invest in the region or through infrastructure and other development projects that may reduce the cost of investing in this region. While in a latter section, we delineate the affect of these various types of policies on θ , currently we will take it as a parameter of the model, and examine its comparative static effects on political and economic institutions in the region.

While potential investors into the region can observe the level of protection and thus infer the investment climate in the province, ordinary citizens are unable to judge the nitty-gritty details of

the overall level of security. However, by observing whether or not investors have decided to put down their capital in the province, citizens can infer the level of property rights protection, and thereby judge the ability and policies adopted by the incumbent government (note that investment occurs only if the level of protection is p , which itself is possible only when the government is of high ability *and* either puts in resources into law and order or is experienced enough in matters of good governance).

POLITICAL STRUCTURE: Although it may be a region with poorly developed property rights, let us assume that this province is part of a larger nation in which the basic structure of democracy, namely regular elections, gets implemented. As is often observed in developing countries, while the central government may not be able to directly yield influence over the day to day activities of provincial governments, it may at least be forceful enough to uphold the conduct of regular elections. We will thus assume that elections at the regional level get conducted at fixed time intervals. At the end of every period, the incumbent government comes up for re-election at which stage it faces a randomly drawn challenger in an election and the regional electorate may decide to retain it or choose a new government into power. We further assume that each government can remain in power for at most 2 periods.

The political structure here is simple and focuses on the incumbent government's desire to maximize its overall rents. These rents could be those from remaining in office, which are assumed to be R , or from payoffs that interested agents may pay the government in order to influence its policies.

The electorate here consists of identical agents whose objective is to choose the government that is most likely to gain them the maximum welfare. The majority of the electorate are wage-earners who benefit from investment occurring in the region. Since the chances of this happening are higher with a high ability government in power, they would like to choose a government who is more likely to be of ability H . While citizens cannot directly tell the ability of the government, they can infer it from their observations about whether or not investment has occurred in the region.

All incumbents are assumed to be ex-ante identical, and that with probability $1/2$ it is of high ability, and with probability $1/2$ that of low ability. Governance being a complex, multi-faceted task, this is also assumed to be unknown to the government itself. Thus, the structure here is that of a career-concerns framework (e.g. Holmstrom, 1982), in which an increased allocation of resources, by raising the chances of a higher output, can skew the voter's perception of government competence in its favor and thus enhance the government's chances of re-election.

We make the following assumption on the experience factor x . This ensures that proven high

ability incumbents are preferred to unproven challengers, and thus get re-elected into their second term in office, even though it is anticipated that being their last term, they will choose effort $e = 0$.

Assumption 1: $x > 1/2$

TRADITIONAL ELITE: While investment in the province improves employment opportunities, and thus welfare, of the majority of citizens in the province, there are some whose traditional rents may be imperiled. For example, elites who hold monopoly power in some sectors of the provincial economy may see their monopoly rents get eroded in the face of competition. Per se these provincial elite, either by virtue of their information or enforcement advantage, do not require governmental protection to operate, and would thus like to maintain the current status-quo of a low level of property rights which dissuades outside investors from investing in the province.

These traditional elite would thus like to influence the government to not devote resources into property right protection, thereby enabling them to maintain their monopoly hold. We model the influence game in a simple manner. All elite are assumed to be identical and lose rents M if outside investment occurs in the province. Thus they would be interested in paying a bribe b to the government to prevent it from enforcing a regime of good property rights protection. We assume that the elites are organized into a lobby group that takes into account the gains and losses of all the elites in deciding how much bribe to offer to the government. The elites are assumed to be infinitely lived, and discount each electoral period by a factor δ .

2.1 Equilibrium:

In the above political structure, there are two groups of agents who seek to influence policies adopted by the government. One is the citizens, who voice their favor or disfavor of the government at the polls by either re-electing or ousting an incumbent. On the other hand are the traditional elite, whose lobby seeks to directly influence governmental decision through the offer of bribes in exchange for the government implementing their preferred outcome, namely that of a low level of property rights protection. The government, in making its decision of whether or not to put in effort $e = 1$ into law and order and property rights enforcement weighs the potential benefits that the two groups offer.

Consider first the electorate. If it observes investment occurring in the province, it infers that the level of protection must be p , and therefore the government must be one of high ability whose has put in effort $e = 1$. Reelecting such a government means that the probability of a high level of protection in the next period is Hx , while that from electing a random challenger is $H/2$; since

$x > 1/2$, the electorate will thus reelect any government that is able to demonstrate competence by bringing in investment.

From a new government's perspective, if it does in put in effort $e = 1$, then with probability $q_{inv} = \theta H/2$ investment occurs, and then it is re-elected for a second term during which it earns rents R . Thus, its payoff from putting in high effort is $q_{inv}\delta R - e$. We assume that e is small enough so that this value is positive.

On the other hand, if it accepts a bribe b from the traditional elite and puts in no effort into property rights protection, then the level of protection is 0, no investment comes in and it gets ousted from power. Thus, for the government to be influenced into adopting a policy of no protection, it requires a minimum bribe level of $b^{\min} = q_{inv}\delta R - e$.

From the elites' perspective, if they do not offer a bribe to the new government, it will put in resources into property rights protection, and therefore with probability q_{inv} investment will occur and it will lose its monopoly rents M . Thus, the elites' payoff from offering no bribe is given by:

$$W_{no\ bribe} = q_{inv}\{0 + \delta(1 - \theta Hx)M + \delta^2 W_{new}\} + (1 - q_{inv})\{M + \delta W_{new}\}$$

where W_{new} is the value (to the elite) of having a new, untried government in power. In the event that investment does occur, the elite not only lose their rents this period, but also the proven high ability government gets re-elected for a second term, during which it cannot be influenced by the elite. The dynamic structure of the model brings this second effect into consideration, and as we show below, it will be important in determining the overall impact of a better investment climate on incentives for the government in devoting resources into property rights protection.

If the elite offer a bribe which the incumbent accepts and in return spends effort $e = 0$ on law and order, then the overall payoff for the elite, gross of the bribe paid, is given by:

$$W_{bribe} = M + \delta W_{new}$$

Thus, from the elites' perspective, the difference between influencing the government and not is given by:

$$D = W_{bribe} - W_{no\ bribe} = q_{inv}\{M - \delta M(1 - \theta Hx) + \delta(1 - \delta)W_{new}\}. \quad (1)$$

Therefore, the maximum bribe that the elite will be willing to pay is $b^{\max} = D$.

Let us consider a stationary equilibrium of the game in which the elite pay a fixed bribe b to the government every period, and in return the government does not put in effort into property rights enforcement, no investment occurs and therefore every period a new government gets elected to power replacing the current incumbent. We consider conditions under which this

can be an equilibrium of the game. The set-up here is of a short lived agent, namely the incumbent government, playing against a long-lived opponent, the infinitely-lived elite. In this framework, both are in a situation of bilateral monopoly, and clearly the bargaining protocol will determine the split of the surplus between the two. We are however interested in seeing whether the maximum that one player is willing to pay is enough to influence the action of the other i.e. whether the maximum bribe that the elite are willing to pay, b^{\max} , is larger than the minimum that the government is willing to accept, b^{\min} , so that under any reasonable bargaining protocol, the two will agree to this bargain, and thus implement the policy $e = 0$ (thereby resulting in a low level of property rights and thus ensuring the perpetuation of monopoly rents for the elite).

In this stationary equilibrium, $W_{new} = (1-\delta)(M-b)$; inserting this into (1) gives the expression for the maximum level of bribe that the elite would be willing to pay in a stationary equilibrium with persistent bribing:

$$b^{\max} = Mq_{inv} \frac{1 + \delta\theta Hx}{1 + \delta q_{inv}} \quad (2)$$

This stationary equilibrium is therefore sustainable whenever this maximum willingness to pay by the elite exceeds the minimum level of bribe b^{\min} that is required to influence the incumbent government to adopt a policy of $e = 0$. This is summarized in the proposition below.

Proposition 1 *The government is influenceable and thus no protection/enforcement of property rights takes place if the following condition holds:*

$$b^{\min} = q_{inv}\delta R - e \leq Mq_{inv} \frac{1 + \delta\theta Hx}{1 + \delta q_{inv}} = b^{\max} \quad (3)$$

In this case, democracy is effectively captured by the elite.

Consider the effects of an investment-promoting policy for this region, for example by bettering the infrastructure or more directly by reducing the cost of investment through subsidies, tax-breaks or other incentives. In the context of the present model, consider an increase in θ , the probability that investment occurs when there is protection for property rights in the province. Firstly, it has the effect of rewarding good governance. As θ rises, the probability of investment in the presence of effective property rights increases. Since the government gets re-elected when the electorate perceives the benefits of better protection through increased investment, this increases the government's incentive in putting in effort $e = 1$. Thus b^{\min} rises. At the same time however, the elite too fear the increased chance of their monopoly rents getting eroded due to the increased possibility of investment occurring. Thus, the bribe they are willing to pay b^{\max} also rises. The following corollary to proposition 1 determines which of these two effects dominate.

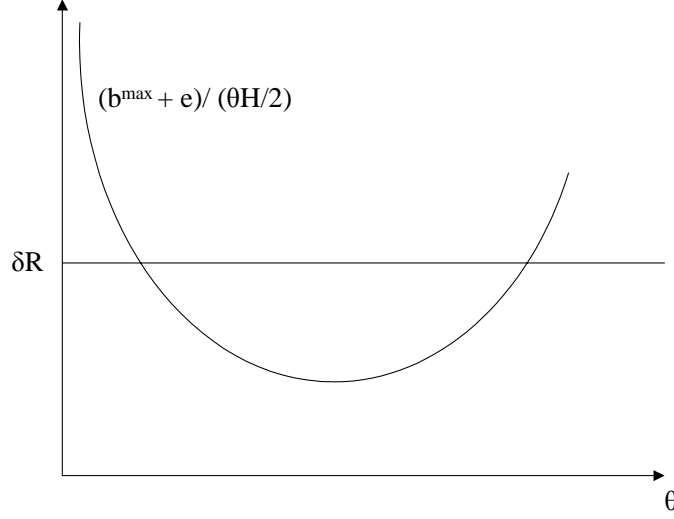


Figure 1: The region where bribing is effective.

Corollary 2 *There exists $\theta_1, \theta_2 \in (0, 1]$, with $\theta_1 < \theta_2$ such that for $\theta < \theta_1$ and for $\theta > \theta_2$, $b^{\min} > b^{\max}$, and therefore the elite effectively bribing the government to implement $e = 0$ is a stationary equilibrium of the game. For $\theta \in [\theta_1, \theta_2]$, democracy works to provide enough incentive to the government to put in effort $e = 1$.*

Proof. Let us rewrite the condition for effective bribing (3) as:

$$\delta R \leq \frac{e}{\theta H/2} + M \frac{1 + \delta \theta H x}{1 + \delta \theta H/2} \quad (4)$$

When $\theta = 0$, the right-hand side of the above inequality is infinite and thus exceeds the left-hand side. By continuity, when θ (which is a measure of the rewards to good governance) is close to 0, the effective cost of effort for the government is very high. In such cases, the elite can offer a large enough bribe to influence the government.

The derivative of the right-hand side of the inequality with respect to θ is given by:

$$-\frac{e}{\theta^2 H/2} + M \delta H \frac{x - 1/2}{[1 + \delta \theta H/2]^2} = \frac{1}{\theta^2} \left\{ -\frac{e}{H/2} + M \delta H \frac{x - 1/2}{[1/\theta + \delta H/2]^2} \right\}$$

This is negative at θ close to 0, and then changes sign and becomes positive beyond a certain level of θ i.e. the right-hand side of (4) is U-shaped in θ , as shown in figure (1). Thus, either for very small or very large values of θ does the right-hand side of (4) exceed δR , and thus only in those regions does the equilibrium involve effective bribing by the elite. ■

A change in the probability θ of attracting investment through improved property rights protection has two effects. One, by making governmental effort more visible, it rewards good governance and thus increases the incumbent government's incentive of putting in effort $e = 1$. This is the *incentive effect*, and serves to reduce the moral hazard problem inherent in the political set-up.

At the same time, by raising the chances of a government of high ability (who has put in effort $e = 1$) being re-elected, an increase in θ serves to also raise the efficacy of the system in re-electing able governments. However, high ability governments, once re-elected, can no longer be influenced by the elite during their second term in office. Due to their experience factor x , (under assumption 1) the probability of implementing a regime with good property rights is higher for such governments than a randomly chosen new government. This could be due to persistence in the type of framework that has already been determined by such a government during its first term in office, which maybe linked to the type of bureaucrats and other administrative setup that it may have chosen to enforce good property rights in the first place. As θ increases, this fear of the increased chances of re-election of a high ability uninfluenceable government causes the elite to raise their bribe beyond the level of their one-period loss in monopoly rents. Thus, the elite seek to prevent the political game from proceeding to the second period, where it would be beyond their sphere of influence. This is the *political control* effect, and serves to raise b^{\max} .

As the above corollary shows, the incentive effect dominates for low values of θ , while the political control effect becomes more prominent for high values of θ . Thus for a province that is initially not an investment-attracting region i.e. one with a low θ , any policy that lowers the cost of investment or increases the gains from investment i.e. by raising θ , can serve to improve matters by changing the equilibrium from one with persistent bribing and no property rights to one where the government is uninfluenced by the traditional elite and makes a concerted effort to improve investor protection. When θ is very small, the visibility of government policies towards protecting the rights of investors is extremely limited and this sharply limits the government's incentive at expending effort towards such policies. By raising incentives, an increase in θ has a positive effect in such situations.

On the other hand, for provinces with a relatively high level of θ , any further rise in θ can sometimes have an adverse effect on a previously well-functioning political system. While increases in θ increases incentives of the government to put in effort $e = 1$ here too, at the same time it also raises the elites' fear that high ability governments beyond their sphere of influence are more likely to get recognized and thus re-elected by the electorate. This causes an increase in the bribe that the elite are willing to pay to prevent the recognition of such governments; at such ranges, the political control effect dominates, and thus beyond θ_2 , any increase in θ can change the equilibrium

from one where governments are uninfluenced and put in effort $e = 1$ to one where the elites are willing to pay a high enough bribe to get the government to put in zero effort into property rights protection.

3 A Model of Landowning Elites

The previous section showed that elites interested in maintaining rents from their traditional monopolized sectors will attempt to influence the government into not creating an atmosphere where competitors are attracted and their rents get eaten away. In this section, we begin by casting the framework into a simple model of elites who own land and use a labor-intensive technology to reap profits. Such elites desire to keep labor-wages low in order to keep their profits high. Entry of investors will raise the demand for labor leading to an increase in wages, thereby eroding profits of the traditional elite.

Consider E traditional elites who each own one plot of land. They use a technology under which each plot requires l_0 units of labor to produce output valued at A . For simplicity we assume that the labor supply function in this economy is represented by the increasing function $H(w)$, where w is the wage of each unit of labor. If the only demand for labor is from the land-owning elite, then the wage is $w_0 = H^{-1}(El_0)$. If there are other investors who also have a demand for labor, then wages rise and the general populace gains from it; thus the electorate would like the government to create an atmosphere where investment occurs in the province. The elites' interests are of course at the other extreme: being dependent on an labor-intensive technology, their profits diminish when investment occurs and they would thus like an atmosphere that is averse to investment.

We assume that there are many potential investment opportunities in the province. To develop them, each requires the investment of k units of capital *and* ϕ units of labor, while the output from each such project is valued at I . Thus if the level of protection in the province is p , the expected return from investing k units of capital there is $pI - \phi w$, where w is the wage level in the province. A potential investor will compare these returns with that from investing elsewhere in making his decision of whether or not to develop an investment opportunity in the province.

Suppose returns to each unit of capital elsewhere is r . Then investment will occur in this province until the returns get equated with those elsewhere:

$$(i) \text{ [capital arbitrage] } pI - \phi w(r) - kr = 0$$

where the wage w is determined from the labor supply function:

$$(ii) \text{ [labor market clearing] } n\phi + El_0 = H(w)$$

with n being the number of investment opportunities developed.

Note that the wage in this province in the absence of any outside investment is w_0 ; this is thus the minimum wage in the province. Any wage above this will indicate to the electorate that the investment climate in the province is good enough to attract investment and so the incumbent must be one of high ability, and therefore be rewarded by reelection. Now, investment in this province will occur only if the returns elsewhere is sufficiently low, specifically if $r \leq r^{\max} = \frac{pI - \phi w_0}{k}$.

Assuming that ex-ante the returns to capital elsewhere is uniformly distributed over the range $[0, U]$, the probability of investment occurring in province P in the presence of protection level p is:

$$\frac{pI - \phi w_0}{Uk}$$

This thus identifies with the θ parameter from the previous section. Consequently, from a new government's perspective, if it does in put in effort $e = 1$, then with probability $q_{inv} = \theta \frac{H}{2} = \frac{H(pI - \phi w_0)}{2Uk}$ investment occurs, and then it is re-elected.

From the elites' perspective, their total loss in profits conditional on investment occurring is:

$$\begin{aligned} & \frac{H}{2Uq_{inv}} El_0 \int_0^{r^{\max}} (w(r) - w_0) dr \\ &= El_0 \frac{H}{2Uq_{inv}} \frac{(pI - \phi w_0)^2}{2\phi k} = El_0 \frac{pI - \phi w_0}{2\phi} \equiv M \end{aligned}$$

Thus, this corresponds exactly to the model of the previous section with $\frac{pI - \phi w_0}{Mk}$ being equivalent to θ in the abstract model, and $El_0 \frac{pI - \phi w_0}{2\phi}$ giving the loss in monopoly rents to the elite in the presence of property rights. Replacing θ and M by these expressions in (3) to see whether b^{\min} is less or greater than b^{\max} thus determines if government policies on property rights are captured or not by the elite.

Changes in the capital requirements for investment, k , affect θ . When infrastructure in the province is better, less capital is required to start an investment project as not all essential services such as electricity etc. need to be privately provided. Analyzing corollary 2 in this context, we see that provinces with very high or very low investment returns I , and/or very high and very low costs of investment k , are more prone to capture by the traditional elite. As discussed in the previous section, in the low I /high k region, this is due to the prevalence of the incentive effect i.e. governments have very low incentives to invest effort in bettering institutions. While in the high

$I/\text{low } K$ region, this is due to the dominance of the political control effect whereby the elites' fear of losing political control translates into a high willingness on their part at successfully controlling the government.

While an increase in θ may or may not result in reducing directly the chance of government capture, it does lead to an increase in b^{\min} , the minimum amount of bribe that is required to influence the incumbent government. Thus, the costs to the elite of controlling the government increase. Recall that it is the elites' dependence on a labor intensive technology that leads to them fearing a rise in wages and therefore results in their desire to prevent investment occurring in the province. Suppose there is an alternative technology available which uses less labor, and thus makes the elite less sensitive to changes in the wage. Of course, changing to such a technology may involve substantial reorganization of the entire production process and is likely to be costly. Thus if the elite were sure that labor wages would remain low, they would be averse to incurring the expenses of such a reorganization. If however the costs of ensuring low wages are high enough, would they be willing to incur the required reorganization cost to modernize their technology? This is the question we explore next.

3.1 Modernization by the Elite?

Consider alternative technologies that require less than l_0 units of labor per plot of land to produce output. Moving to a new technology for any plot requires a fixed cost F , as well as per unit costs depending on how different the new mode of production is from the previous one. We assume that moving from the current technology of l_0 to a labor-saving technology that uses l_1 ($l_1 < l_0$) units of labor involves a total cost of $F + c(l_0 - l_1)^2$. This may include the cost of actual purchase of machinery etc. as well as the cost of reorganization of the entire production process.

Given that the current steady state is l_0 , it must mean that the costs of reorganization are so high that in the absence of any other compulsion the elite have no incentive for change. We accordingly make the following assumption about these costs:

Assumption 2: $4cF(1 - \delta)^2 > w_0$

In the absence of any other motive for change, each elite landowner in deciding whether to choose a different technology with labor requirement l_1 makes the following cost calculation:

$$\max_{l_1 \leq l_0} \frac{(l_0 - l_1)w_0}{1 - \delta} - c(l_0 - l_1)^2 - F \quad (5)$$

The first term is the lifetime savings on labor costs by reducing the labor requirement from l_0 to l_1 , while the latter terms are the costs of reorganization. Under assumption 2, the value from this

maximization is less than 0, which means that it is optimal for the landowner to not modernize.

With the advent of democracy, elites now face the additional burden of costs required to influence government policies in order to keep additional investment out and thereby keep wages at the low level of w_0 .

Case I: Consider first the simplest case where the minimum bribe required to successfully influence the government is beyond what the elite are willing to pay i.e. the case of $b^{\min} > b^{\max}$.

In this case the elite realize that reelection is a powerful enough tool to influence the government into exerting effort into ensuring property rights. Thus there is a high probability that investment will get attracted and consequently wages will rise. In this case, expected wage in the province is given by:

$$\begin{aligned} E(w) &= w_0 + \frac{H}{2M} \int_0^{r^{\max}} (w(r) - w_0) dr \\ &= w_0 + \frac{H}{2M} \frac{(pI - \phi w_0)^2}{2k\phi} = w_0 + \Delta w \end{aligned}$$

where Δw is the expected increase in wages. Facing these wages, the elites' problem of choosing the optimal technology is the same as (5), with $E(w)$ replacing w_0 . Thus the elite will choose to modernize to a labor-saving technology or not according as:

$$w_0 + \frac{H}{2M} \frac{(pI - \phi w_0)^2}{2k\phi} \gtrless 4cF(1 - \delta)^2$$

The left-hand side is a U-shaped function in the initial wage w_0 , while the right-hand side is a constant. It thus implies that it is in regions where the initial wage is an intermediate range that modernization is likely to take place. In terms of the cost k of investment in the region (or inverse of the infrastructure facilities there), the above condition shows that when k is low, the elite are more likely to move to a labor-saving technology as in such regions the probability of investment occurring is higher and thus the chances of wages going up are also greater.

Case II: Consider the alternate case where $b^{\min} < b^{\max}$, and democracy is potentially captured by the elite. In this case, while the elite do ensure a low level of property rights in the province (thereby de facto keeping out investment) by using a bribe b^{\min} to influence all incumbent governments, this is also the cost of continuing with a labor-intensive technology. What if they instead adopted a technology that was less dependent on labor?

Given that the bribe level b^{\min} is independent of the elites' technology level, this implies that if the elite were ever to adopt a new technology, they would like to move to a level l_1 where it does not require a bribe to protect their interests [if at l_1 , b^{\min} is still less than b^{\max} , then they would still use a bribe of b^{\min} to ensure that wages remain at w_0 , and at that level of wages, (by

Assumption 2) it would not be profitable for them to adopt the new technology in the first place.] This means that modernization, if it occurs, is accompanied by institutional improvements; thus structural changes, when they take place, are multidimensional and dramatic, not marginal.

Computing the elites' gain from modernization, it is:

$$\begin{aligned} V_{\text{modern}} - V_{\text{trad.}} &= \max_{l_1} \frac{w_0 l_0 + b^{\min} - E(w) l_1}{1 - \delta} - c(l_0 - l_1)^2 - F \\ &= \frac{b^{\min} - l_0 \Delta w}{1 - \delta} + \frac{(w_0 + \Delta w)^2}{4c(1 - \delta)^2} - F \end{aligned}$$

If this gain is positive, the elite will choose to modernize and thereby implicitly commit to not influencing the government. Resultingly, democracy will be said to thrive, as effort will be put into enforcing property rights, investment will occur, wages rise and thus welfare of the general population will improve. In the absence of this condition being satisfied, the province will be stuck with elites employing a traditional technology and aiming to keep control of the government in order to retain their monopoly level of rents from employing labor at low wages.

4 Success and Failure in Policy Intervention: A Discussion

In the preceding sections we analyzed the decision making calculus of the economic elite under different situations. Before proceeding it is perhaps useful to recall that in the absence of any form of policy intervention economic institutions in the region are weak and political institutions are under the grip of the minority. In our framework, strong economic institutions (good property rights) and consequent investment result in an increase in wages and therefore benefit the (worker) majority. In contrast the minority rentier-elite's economic rents are highest when (under assumption 2) it persists with the traditional technology and retains a grip on the reins of government resulting in poor property rights and low wages.

We now delineate the effects that the introduction of democracy and various forms of policy-making may have on the region (or country) in question under different scenarios. Our focus is on the impact of alternative (and possibly complementary) forms of policy intervention on the region trapped with inefficient institutions rather than on the policymaker. Accordingly, we currently ignore the policy intervenor's costs and benefits from alternative instruments.

(A) Strong Fundamentals and Democratic Success:

Consider the introduction of an electoral process in the region. This introduction of democratic elections can occur either due to the region's integration with a larger nation or due to the intervention and coercive imposition of an electoral process by an external agent, be it a country

or an international agency. This external imposition of elections results in de facto political power moving out of the hands of the elite and to the masses. The question is whether or not such first order political intervention results in an improvement in economic institutions and incomes. As demonstrated earlier, this happens if free and fair elections provides the incumbent government with enough incentives to devote resources into improving institutions. When fundamentals are “strong” in that the underlying infrastructure and economic conditions are relatively good, the mere introduction of democracy is sufficient to provide leaders with the right incentives. The government is unlikely to succumb to the pressures of an organized interest group such as the elite. This is the case where $b^{\min} > b^{\max}$. Accordingly, property rights are protected, the political process remains free of elite capture and incomes go up.

The issue of whether the minority elite modernize their technology depends on whether the condition $w_0 + \Delta w > 2(1 - \delta)\sqrt{cF}$ holds. If it does, then the elite willingly incur the costs of reorganization and move to a labor-saving technology. On the other hand, if these costs are too high, the elite remain traditional, but the introduction of a democratic political process removes both their de facto and de jure political power. These are thus regions where one may say “democracy succeeds” in the sense that ensuring a system of regular mass elections is likely to lead to improved economic outcomes.

The pattern described above, wherein the introduction of democratic elections set in motion a process of institution building and economic progress has often been observed. With the collapse of the Soviet Union, free and fair elections in much of Eastern Europe be it Poland, the Czech republic, Slovenia or Hungary were sufficient to economically transform these regions. However, despite these and other instances of success, such instances of institution building are relatively infrequent.

(B) Democratic Consolidation with Developmental Policy:

More common is the scenario where free and fair elections coexist with elite capture. Here the introduction of elections results in a superficial change in power, but at a more fundamental level institutions persist. Government policy continues to serve minority elite interests and the majority group’s incomes remain low.

This situation arises when $b^{\min} < b^{\max}$. Here the incumbent leader’s incentives arising from the electoral process are too weak (represented by a low b^{\min}) or the interests of the elite are too strong (as indicated by a high b^{\max}) so that the elite still maintain de facto control over the government’s policy process. However, maintaining political control comes at a cost to the elite. Now when this cost of political control is high i.e. when b^{\min} is close to b^{\max} , it may be possible to induce the elite to change their technology and modernize, thereby eliminating their need to spend

resources to maintain political control. As outlined in the previous section, this happens when $w_0 + \Delta w > 2(1 - \delta)c^{1/2}[F - \frac{b^{\min} - l_0 \Delta w}{1 - \delta}]^{1/2}$. When this condition holds, the elite modernize and adapt such that their profits are less a function of low wages. Therefore, they feel less threatened by an improvement in overall property rights and the higher wages that will then result.

When confronted with a country that is close to this threshold, an external policymaker can bring about institutional change at a relatively low cost perhaps by subsidizing the elites' costs of reorganization and giving them easier access to modern technology. While such a policy does not directly improve infrastructure or other economic conditions in the region, it works indirectly by removing the impediments to good governance by elected governments. By getting the elite to modernize, it helps align (or rather lessens the divergence of) the interests of the elite and the majority. Alternately, if b^{\min} is very close to b^{\max} , development policy in the form of lowering the cost of investing in the region could also overturn the inequality $b^{\min} < b^{\max}$, thereby also leading to true political and economic change.

Left to their own devices, perhaps most nascent democracies would be vulnerable to elite capture and stuck with a low income. External policymakers have often used some form of development policy to co-opt elites in a country's nation building. The most ambitious (and successful) such experiment in recent times has been the incorporation of the nascent democracies of Portugal and Spain into the European Union (Maravall and Przeworski, 2001). Developmental expenditure from the EU towards building infrastructure, privatizing an inefficient public sector and retraining the labor force was upwards of 120 billion dollars and was a crucial element of this strategy. More recently, consider the ongoing nation building experiment in Afghanistan. The traditional landowning elite obtains its revenue from opium production and smuggling. Not surprisingly, this group has little interest in improving institutions. Aware of this, much of recent developmental efforts are aimed at giving these landowners and opium producers incentives to switch production to other crops and engage in other economic activity (Goodson, 2005).

(C) Elite Entrenchment, Institutional Persistence and Democratic Failure:

From a policymaker's perspective, the most difficult scenario is when the region's institutional equilibrium has $b^{\min} < b^{\max}$ and $w_0 + \Delta w < 2(1 - \delta)c^{1/2}[F - \frac{b^{\min} - l_0 \Delta w}{1 - \delta}]^{1/2}$. This scenario arises when political accountability is weak and the elite find it relatively easy to retain political control. This is the situation which is likely to see the most persistence in traditional inefficient institutions. Here, although there is a change in the de facto political process, nothing changes either in terms of who holds actual control or in terms of economic outcomes. It is also the situation which is perhaps the most difficult to rectify. When the traditional elite are too far away from the technology frontier (i.e. F and/or c is very high), marginal changes in the cost of adopting modern technology is

unlikely to make a difference. Similarly, if the basic infrastructure in the province is very poor (thus creating extremely weak incentives for governments at good governance), marginal changes in k are unlikely to change the political incentive. Therefore, in such a region the introduction of democratic elections does not bring about change and neither does the use of developmental policy. In such a situation, it appears that forcible modernization of the elite or removing their source of monopoly rents is necessary for democracy to work. In practice, this would require the external policymaker to use some kind of coercive policy which results in a large scale redistribution of land and other assets.

The necessity of such coercive policy is clear in many instances of nation building - from postwar Germany to Bosnia, Kosovo and East Timor (Dobbins et al, 2003). However, perhaps the classic instance where the use of coercive technology was necessary and successful is postwar Japan. In particular, the military defeat of Japan had diminished the ability of the political and economic elites to block institutional change (Kawagoe, 2000). Accordingly General MacArthur (and policymakers at SCAP) attempted to take advantage of this temporary weakness of the traditional elite. In an array of policy measures, they attempted to restructure society so as to diminish the influence of the traditional sources of power. First, they attempted to breakup the hold of the traditional *zaibatsu* holding companies - “eighty three of the leading zaibatsu were broken up into their component parts and antimonopoly laws were passed to prevent their reestablishment” (Dobbins et al, 2003). Further, labor was given the right to organize into unions, to bargain collectively and to strike. Contemporaneously, MacArthur helped push through the most sweeping land reform bill through the Japanese Diet and oversaw its implementation.⁷ Clearly to General MacArthur, establishment of a vibrant democracy meant tackling the economic and political roots of traditional elites.

5 Conclusion

In this paper, we examine the role of policy intervention in engendering comprehensive institutional change. Political interests may potentially undermine benevolent policy interventions and we show that imposition of first order changes in the political structure (e.g. introduction of democracy) may be accompanied by institutional persistence and no improvement in the quality of governance.

⁷That institutional change was firmly on his mind is clear from General MacArthur’s press release on the day of the bill’s passage: “...one of the most important milestones yet by Japan in the creation of an economically stable and politically democratic society. It marks the beginning of the end of an outmoded agricultural system...These can be no firmer foundation for a sound and moderate democracy and no firmer bulwark against the pressure of an extreme philosophy” (quoted in Kawagoe, 2000).

In this scenario, we identify two effects of development policy as a tool for institutional change. One, by increasing political accountability, it may encourage nascent democratic governments to invest in good institutions – the incentive effect. However, we show that it also increases the incentive of the rentier elite to tighten their grip on political institutions – the political control effect. Which of these dominate determine the overall impact on institutional quality. Under some conditions, by getting the elite to align their economic interests with that of the majority, development policy can lead to democratic consolidation and economic improvement. However if elite entrenchment is pervasive, then comprehensive change may require more coercive means. Thus for successful policy intervention, a good knowledge of local conditions and an appropriately tailored policy is needed for bringing about comprehensive change.

While we have delineated the effects of policies at bringing about (or not) institutional change, often the objectives and identity of the policymaker are also important in determining the success and failure of policies. This holds particular significance when the policy maker is external to the region, be it the central government in relation to a province or another nation/international organization in relation to a country. In this paper, we identify the consequences of following different policies as a first step towards understanding how to bring about institutional change. Enriching our framework to explore policy-analysis by an “interested” policymaker is an important next step. We leave this and much else for future work.

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