Getting to Middle Income: A Theory of Selective Property Rights*

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Abstract

Countries such as Indonesia, Mexico, and Thailand grew from low income to middle income status under the rule of authoritarian regimes that awarded property rights to a small set of firms while ignoring the property rights of all other economic actors. We develop a model to explain how these selective property rights arrangements can be politically feasible when first-best universal property rights institutions are not. Selective property rights regimes are second-best institutions, but are welfare-enhancing relative to having no property rights at all. Low-income countries that have no politically feasible path to institutionalized property rights protections may nevertheless have a feasible path to middle income status.

Key words: middle income, property rights, expropriation risk, crony capitalism, institutions, development

JEL Classification Codes: H2, N40, O1, O43

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1 Introduction

The world distribution of income is characterized by three distinct classes of countries (high, middle, and low-income), but the theoretical literature on institutions and development focuses primarily on two equilibria. One equilibrium, which has been extensively treated in the literature, exists in high-income countries such as Canada, Japan, and Switzerland, and is characterized by economic and political institutions that provide universal protection of private property rights, limits on the political power of the executive, and long-term economic prosperity. Another equilibrium that has been extensively treated in the literature exists in low-income countries such as Burundi, Afghanistan, and Nicaragua, and is characterized by economic and political institutions that afford no protection of property rights against expropriation, few limits on the political power of the executive, and long-term economic stagnation.

These two equilibria have become the key stylized facts in a flourishing literature which links growth to institutions that protect private property rights (see Besley and Ghatak, 2010, Acemoglu, 2006, for surveys). The logic underlying these equilibria is simple. If rational entrepreneurs expect their investments to be safe from expropriation and theft, then they will be more likely to put their money in productive investments rather than hiding it in safe but unproductive assets. The result will be economic growth. If, on the other hand, they expect that their investments are vulnerable to expropriation then they will make no investments, invest in only in economic activities that are illegible to the state, or invest in competitive rent-seeking. The result will be low (or no) growth. A wide variety of factors have been suggested to explain why some countries are able to overcome this commitment problem, but one prominent view is that institutions that prevent expropriation do not emerge everywhere because those in power are reluctant to enact reforms that may have the byproduct of empowering their political enemies (Acemoglu and Robinson, 2000, 2006). Nevertheless, there is broad agreement that "good" institutions are a necessary, and possibly a sufficient, condition for becoming a high-income country.

There is, however, a third class of countries, often referred to as middle income, such as Brazil, Mexico, the Dominican Republic, Indonesia, Malaysia, Guyana, Jamaica, Thailand, the Philippines, and China. These countries present a challenge for theories that link economic growth to "good" institutions, because they did not provide universal protection of property rights or have limits on the executive during the periods of rapid growth that brought them out of poverty. In fact, most have never acquired these institutions.

This paper offers a theory of the transition from poverty to middle income without universal property rights protection. We model an economy with a ruler and two firms, which may differ in their level of efficiency (both relative to each other and to firms in other countries) and their ability to overthrow the ruler. Rulers set a tax rate for firms, and then choose whether to consume the taxes or use them to provide growth-enhancing public goods such as security, infrastructure, or education. They may of course, set the tax rate to 100% and provide no public goods, which we refer to as "expropriation." Firms, after observing the ruler's decisions, must choose how much to invest, and whether to attempt to overthrow the ruler, which is costly but becomes less risky as the firm's capital grows. As in conventional models, repeated play can create an equilibrium where the ruler does not expropriate.

The key innovation in our model is that the ruler may choose to provide property rights protection for only one firm. Such selective protection could take the form of expropriating a firm's rival or providing "public" goods to only the favored firm. Selective protection involves a sacrifice on the ruler's part, since total taxable production is smaller than it would be under universal property rights protection. However, the ruler might be willing to make this sacrifice for two reasons. Firstly, if one firm is less likely to support the regime than the other firm, granting universal protection will lead to the ruler's fall once this firm grows sufficiently strong that its withdrawal of support would undermine the regime. Secondly, the favored firm may be willing to accept a higher effective tax rate under selective protection than under universal protection, because in the absence of competition it can charge monopoly prices. In essence, the ruler and the favored firm can compensate for lower economic productivity by jointly appropriating some of the consumer surplus.

This equilibrium can be welfare improving in a relative sense if the ruler would otherwise choose to protect no one's property rights because the selective property rights option was not available. However, it is obviously socially sub-optimal relative to universal property rights protection because only a portion of potential firms (and often the less efficient ones) are allowed to produce. While selective protection may thus allow a country to achieve middle income status, it at the same time hampers countries attaining high income, particularly if the favored firms are less efficient than global competitors. This potentially explains why we observe very few countries in the past century and a half that have successfully transitioned from low to high income, a pattern has led to discussion of a "middle income trap," though the mechanics of the extant theories about that trap are very different from ours (Gill et al., 2007, Doner and Schneider, 2016).

Our theory generates several predictions that can be tested against the historical experience of middle-income countries during the period in which they ceased to be poor. First, these countries should contain a set of favored firms, who receive some combination of freedom from expropriation and high levels of public services and transfers. Second, those firms should share a relatively large share of their profits with government officials, either directly (through transfers to officials and their families) or indirectly (through high levels of taxation that are then diverted by officials). Third, the favored firms should be those who are less politically threatening to the ruler, either because they are closely linked to the ruler or have little political power. Fourthly, the favored firms should be especially concentrated in those sectors of the economy that are dependent on government protection, either because production in these sectors is inefficient relative to exports or because it requires substantial public goods inputs to become competitive.

The logic of the welfare gains from selective property rights protection may seem perverse to many readers, given widespread condemnation of "crony capitalism" (Kang, 2002, Aslund, 2019). Our point is that when the first best solution is not available, either because the ruler does not have the fiscal and administrative capacity to provide property rights universally or because he may otherwise prefer to protect no one's property rights, the second best solution is Pareto improving.

Consider, for example, the cases of Indonesia and Madagascar in the 1970's and 1980's. In 1970, both were low-income countries, with economies reliant on sectors such as agriculture, tourism, mining, and textiles. The World Bank estimates that in 1970 Madagascar had a level of GDP per capita more than twice as high as Indonesia; $167 per capita compared to Indonesia's $79. During the next two decades, Indonesia's Suharto regime protected the property rights of only a select group of cronies who were given monopoly rights, free land, and concessionary loans. Meanwhile, in Madagascar the government of Admiral Didier Ratsiraka protected the property rights of no one. He nationalized all firms with French ties, as well as all import-export companies, banks, and insurance companies, while using "omnidirectional borrowing" to fund a policy of state-led industrialization modeled on the regime's closest ally, North Korea. By 1997, near the end of the Suharto regime, Indonesia's GDP per capita had increased over ten-fold, to $1054 while Madagascar's GDP per capita, at $288 per capita, had not even doubled. Today, the average Indonesian is more than nine times richer than the average Madagascan.

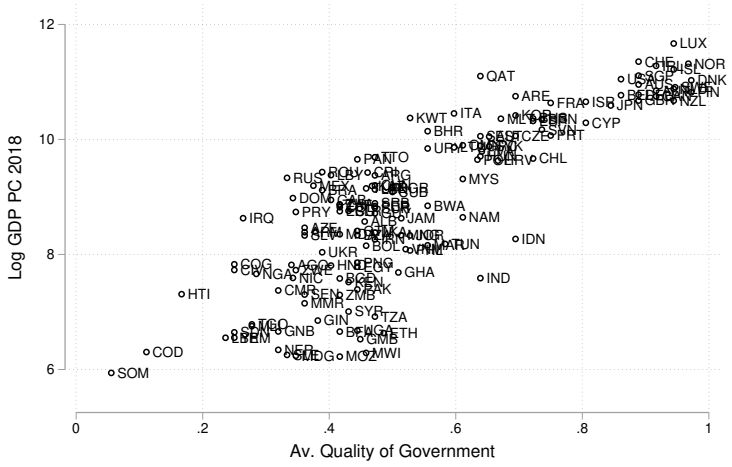
Section 2 briefly describes the puzzle of high growth in some weakly institutionalized countries. In Sections 3 and 4 we develop and analyze the model. We then show in Sections 5 how the logic of our model is demonstrated by the growth experiences of three middle income

countries: Indonesia, Mexico and Thailand. We show that high levels of economic growth happened even though formal institutional protections were very weak, but some firms were favored over others in the protection of property rights and infrastructure provision. Moreover, those were the firms that would have found overthrowing the ruler costly or had close ties to the ruler. Section 6 concludes with some brief remarks about policy implications.

2 Descriptive Patterns

It is easy to see why scholars have drawn a tight connection between institutions and incomes: in cross section, the two are highly correlated. Figure 1 plots the International Country Risk Group's "Quality of Government" Score, a commonly used metric of the institutional risks of doing business (Acemoglu et al., 2001), against GDP per capita. Overall, there is a robust positive association between institutions and economic production, with only a few oil producers disrupting the overall pattern.

Figure 1: Institutions and Income Levels

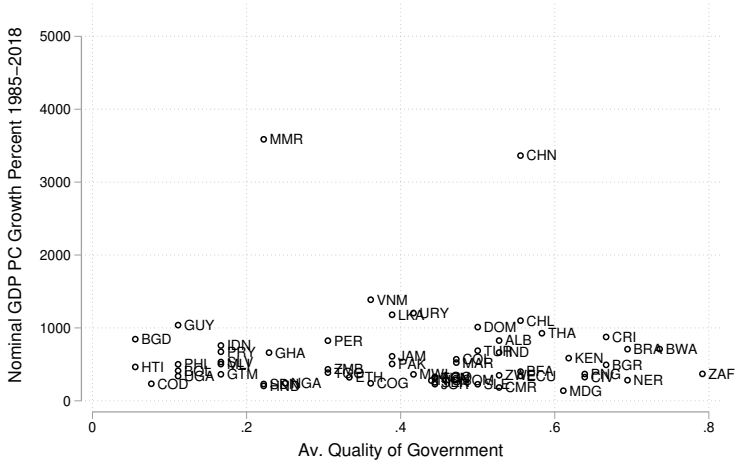


Notes. The figure shows the country's 2018 GDP per capita in US Dollars, plotted against the 2018 ICRG "Quality of Government" score.

As Figure 2 shows, however, the fact that higher income countries have more pro-property rights institutions does not mean that institutions predict growth in poor countries. Among countries that were low income in 1985 (the first full year of ICRG data),

institutional quality tended to be lower than the global average, though there was considerable variation. However, the variation in institutional quality among those countries in 1985 is a poor predictor of their growth experiences over the next three decades. In practice, this lack of association means that many low income countries achieved sustained economic growth did so under institutions that differed substantially from those of 21st century western democracies.

Figure 2: Institutions and Income Growth



Notes. The figure shows the country's nominal GDP per capita growth in percent, 1984-2018, plotted against the, plotted against the 1984 ICRG "Quality of Government" score. Only countries below $2000 GDP PC in 1984 are included.

In fact, having "bad" or mediocre institutions is virtually a necessary requirement for becoming a middle income. Measuring this assocation is complicated by the difficulties of defining middle income status, and the difficulties of measuring institutional protection, especially since many of the commonly used indices of institutional quality are only available for a restricted time period. Table 1 approaches these problems by using both the ICRG's government quality index and the World Bank's rule of law index and focusing on countries that rose from below the median of the world income distribution and stayed above it for five years. In this sample, with a single exception (Botswana), every country that rose abovie the median for which we have data had institutional protections below the mean of both measures. Appendix Table 2 shows that the results are similar when an absolute measure of middle income state (a per capita GDP of 5000 USD) is used: every country

except Botswana that achieved this threshold had institutional productions below the 60th percentile on both measures.

Table 1: Institutional Quality at Time of "Graduation" to Middle Income Status

Country	Year	ICRG Gov. Qual.	WB Rule of Law
Jamaica	1987	0.39	.
Botswana	1989	0.77	.
UAE	1993	0.50	.
Lebanon	1994	0.43	.
Bosnia	1998	.	-0.67
Turkmenistan	2004	.	-1.63
Ukraine	2004	0.36	-0.78
Azerbaijan	2006	0.38	-0.89
Dominican Rep.	2007	0.32	-0.63
Iraq	2011	0.29	-1.56
Mongolia	2013	0.50	-0.36
China	2014	0.47	-0.40

Notes: The date is the year each country attained middle income status and retained it for a five year period. This table defines middle income status as the median of that years' distribution of country GDP per capita.

A Trap?: Will the institutions that enabled the countries that climbed out of low income status in the 20th century enable them to move from middle to high income? While this question cannot be answered definitively, in the post-war era it appears very difficult for countries to attain middle income status and then attain high income status. In fact, using the thresholds defined by Doner and Schneider (2016) only two countries that were low income in 1951 (out of 86) had attained high income status by 2010: South Korea and Taiwan. Even these exceptional countries might not have been below the low income threshold in 1951 if they can not suffered from severe short-term political disruptions in the preceding decade.

There are, of course, are large number of countries that became middle income before 1951 which have subsequently become high income.[1] However these countries are in many ways atypical of low and middle income countries in the world today. Using Doner and Schneider's classifications, 26 of the 36 countries who had gained sustained high income

[1]In Doner and Schneider's coding, no country was high income in 1951.

status by 2010[2] are either in western or central Europe or settled by migrants from that region. Another four are Persian Gulf oil producers and three (Singapore, Hong Kong, and Mauritius) are tiny colonies that received a vastly disproportionate share of colonial investment, leaving only Japan, South Korea and Taiwan as a large non-western nations that made the transition without minerals. Given the many historical and institutional differences between these nations and the rest of the world, it is certainly plausible that the economic dynamics that let them become high income are different than those which allowed other countries (in many cases, their ex-colonies) to become middle income.

3 Model

3.1 Economy

There is a continuum of workers of unit mass, a low productivity firm L, and a high productivity firm H. The firms can either be operational or non-operational. A firm that is non-operational earns a profit of 0.

Workers may work outside of the formal economy, or for a firm that is operational. Each worker has a type θ that represents his income from working in the informal sector. We assume that the distribution of types is a Pareto distribution $F(\theta) = \theta^{\phi}$ on support normalized to $[0, 1]$ where $0 < \phi \leq 1$.[3]

Each operational firm $j \in \{L, H\}$ posts a wage rate w_j, and all workers work for the firm that offers the higher wage provided it is higher than their outside option θ. Those with a better outside option work in the informal sector. If the firms post the same wage, then workers can work for either firm. If firm j is operational, it can produce $A_j L_j$ units of output by employing L_j units of labor, where $0 < A_L < A_H < 1$ are the productivity levels of the firms. Thus, firm j's profit is

$$\Pi_j = A_j L_j - w_j L_j$$

If only one firm j is operational, then it is a monopoly employer (monopsony in the labor market) and optimally chooses wage

$$w_j^m = \frac{\phi}{1+\phi} A_j \tag{1}$$

[2]Those with five or more years above a GDP per capita above 11,750 constant 1990 USD. Five other countries spent less than five years above the threshold by 2010.

[3]Actually, when $\phi = 1$ this is the uniform distribution on $[0, 1]$, which we allow.

so that labor employed is $L_j^m = (w_j^m)^\phi$ and its profit is

$$\Pi_j^m := \frac{\phi^\phi}{(1+\phi)^{1+\phi}} A_j^{1+\phi} \tag{2}$$

Note that we have assumed that even a monopoly employer cannot wage-discriminate, and that labor supply meets labor demand.[4]

If both firms operate, then they are Bertrand competitors in the labor market. By standard arguments detailed in Appendix A, the labor market clearing wage rate in this case is either the rate that would give the low productivity firm a zero profit if it employed any positive mass of workers, i.e. $w = A_L$, or the high productivity firm's monopoly wage rate, i.e. $w = w_H^m$, the higher of the two.

To ensure that there is a wedge between the competition equilibrium and the high productivity firm monopoly equilibrium, we assume throughout that

$$\frac{\phi}{1+\phi} < \frac{A_L}{A_H} \tag{A1}$$

When this is the case wages are higher under the competition equilibrium and thus more workers are employed in the formal economy.

In the proposition below, we summarize the main claims above.

Proposition 1. *In a labor-market clearing equilibrium:*

(i) If only one firm j is operational then the labor market clears at wage rate w_j^m given in (1) *and the firm's profit is Π_j^m given in* (2)*.*

(ii) If both firms are operational then the labor market clears at wage rate $w^c = A_L$, firm L makes a profit $\Pi_L^c = 0$, and firm H makes a profit $\Pi_H^c = (A_H - w^c)(w^c)^\phi$.

Proof. See Appendix A. ■

Since $A_j < 1$ for $j = L, H$, some workers will work in the informal sector given that all of the possible equilibrium wage rates in the proposition above are below 1. In addition, note that $\Pi_H^m > \Pi_H^c$ so that aggregate profits under high productivity firm monopoly are higher than aggregate profits under competition.

[4] A foundation for this assumption is given by the Coase conjecture, which implies that wage discrimination would not be possible when workers have private information about their outside options and firms can only screen workers over time by progressively increasing wage offers, as then workers would have an incentive to wait to accept a higher wage rather than a lower wage.

Given a market clearing wage rate $w > 0$, define worker surplus as the net wages earned by workers above their outside option of working in the informal economy:

$$WS(w) = \int_0^w (w - \theta) dF(\theta) = \frac{w^{1+\phi}}{1+\phi}.$$

Because this is increasing in formal sector wages, worker welfare is highest under labor market competition, second highest when the high productivity firm is a monopoly, third highest when the low productivity firm is a monopoly, and lowest when neither firm is operational. Thus,

$$WS(w^c) > WS(w_H^m) > WS(w_L^m) > WS(0) \tag{3}$$

which follows because $w^c > w_H^m > w_L^m > 0$. Note that worker surplus is takes the value 0 when all workers work in the informal sector, corresponding to a situation in which formal sector wages are $w = 0$.

As for aggregate income, note that because only the high firm produces by hiring workers under wage competition, we can write aggregate income as a function under both monopoly and competition as a function of the wage w that the only firm j that produces pays, and that firm's aggregate productivity, A_j:

$$Y(w, A_j) = A_j w^\phi + \int_w^1 \theta dF(\theta) = A_j w^\theta + \frac{\phi}{1+\phi}\left(1 - w^{1+\phi}\right)$$

As with worker surplus, this formula also gives aggregate income when neither firm is operational in the formal economy, in which case wages in the formal sector are $w = 0$ and aggregate income is $\phi/(1+\phi)$ for both $j = L, H$ — the income generated from all workers working in the informal economy. The expression for aggregate income above is increasing in w for $A_j > w$ since its derivative in w is $\phi(A_j - w)w^{-1+\phi}$. Since $A_H > w^c$, this implies

$$Y(w^c, A_H) > Y(w_H^m, A_H) > Y(w_L^m, A_L) > Y(0, A_j), \quad j = L, H \tag{4}$$

Therefore, like worker surplus, aggregate income is highest under the competition equilibrium, then under the high firm monopoly equilibrium, then under the low firm monopoly equilibrium, and finally when neither firm is operational in the formal economy. As with worker welfare, this follows straightforwardly from the ordering of wages.

We summarize the main claims as follows.

Proposition 2. *Worker welfare WS and aggregate income Y both are highest under competition between the firms, then under high productivity firm monopoly, then under low productivity firm monopoly, and lowest when no firm is operational.*

3.2 Politics

We consider a repeated game between an incumbent ruler, an infinite set of potential challengers, and the two firms. Periods are discrete and indexed by $t = 0, 1, 2, ..., \infty$. We take as given that the labor market clears as per Proposition 1 in each period so that the workers are not part of the game, and the earnings of any firm that is operational in any period are its labor-market equilibrium profits described in the proposition. As per the proposition, a firm's earnings depend on whether the other firm is also operational.

In each period of the game, a ruler is in power and the period begins with the ruler deciding which firms to offer licenses to operate. If no firms are granted a license, then the period ends immediately with the firms each receiving a zero profit and the ruler receiving a payoff of R, reflecting the political rents from holding office.

If at least one firm is granted a license, then the period proceeds with the operating firms earning their profits as per Proposition 1 and deciding whether or not to support the ruler. If all operating firms support the ruler, then the ruler remains in power and sets tax rates $\tau_j \in [0, 1]$ on the profits of all firms $j \in \{L, H\}$ that are operational. We assume for simplicity that the ruler does not tax wage income and cannot tax income earned by workers employed in the informal economy, though this assumption does not affect our main results. The period then ends with the firms receiving their net of tax profits, and the ruler collecting the tax revenue in addition to political rents R.

If at least one operating firm does not support the ruler, then with probability $p > 0$ the ruler is ousted from office, for example in a political rebellion in which the firm sides with the opposition. With probability $1 - p$ no such political crisis occurs and the ruler survives in office. If the ruler survives, he then sets the tax rates $\hat{\tau}_j$ on the profits earned by all operational firms $j \in \{L, H\}$, and the period ends with the firms receiving their net of tax profits and the ruler accruing the tax revenue and his political rents. If the ruler is ousted then no firm pays any taxes in the current period, and the deposed ruler loses his political rents once and for all, earning 0 in the present and every subsequent period.

When a ruler is ousted, the political crisis is resolved in one of two ways. With probability $1 - q$, a new ruler enters office and the game continues to the next period. The new ruler is identical to the previous one, and faces the same environment with all subsequent periods being identical to past periods in terms of the sequence of events. Alternatively,

with probability q the game ends with the regime being replaced with a *universal property rights regime*, in which both firms become operational in each period, and each pays a fixed tax rate of $\tau^{PR} < 1$ on profits in every period. Thus, the high productivity firm earns a payoff of $(1 - \tau^{PR})\Pi_H^c$ in each subsequent period while the low firm gets 0.

To summarize, the timing of events within each period (in which a universal property rights regime is not in place) is as follows:

1. The ruler decides which firms to grant/renew operating licenses to. If he grants no licenses then the period ends with him earning only his political rents R and the firms both getting 0.

2. If at least one license is granted, operating firms earn their profits and decide whether or not to support the ruler.

3. If all operating firms support the ruler, then he remains in power, sets the tax rate τ on profits and collects the taxes along with his political rents.

4. If an operating firm does not support the ruler, then either the ruler is ousted and replaced by a new identical ruler (with probability $p(1-q)$), replaced by the universal property rights regime (with probability pq), or the ruler survives in office (with probability $1 - p$) in which case he sets the tax rate τ and collects his political rents. If the ruler is ousted, the firms pay no taxes in the current period, and the ruler loses his rents, earning 0 in the current and all subsequent periods.

All players share a common discount factor β and our solution concept is subgame perfect equilibrium (SPE).

3.3 Discussion of Some Simplifying Assumptions

As the model abstracts from many features of political and economic reality, we now provide a discussion of its simplifying assumptions and their roles in our analysis.

First, we have labeled workers not working for either firm as working in the informal sector to indicate that their activities are beyond the regulation of the ruler—e.g., the ruler does not collect taxes from these workers or the businesses that employ them. Indeed, the only source of revenue for the government in our model is from firms that operate in the formal economy. Even in many middle income countries, the government's capacity to regulate the economy and collect taxes is low enough that this assumption is reasonable

(Besley and Persson, 2009). But it plays no critical role in our analysis: our main results would continue to hold even if we expanded the government's fiscal reach.

Second, we have assumed that the ruler stays in power if he has the support of all the operating firms and is vulnerable (departing office with probability $p > 0$) when he does not have their full support. We make this assumption to keep the accounting simple, but all of our results carry over to the case where the ruler may be vulnerable to overthrow even when all firms support him, and the degree of vulnerability is increasing strictly in the number of firms that support him with different firms having different levels of political influence—e.g. the drop in his probability of surviving when firm H does not support him, is greater than the drop in his probability when firm L does not support him.

Third, our model has simplified to the case of only two firms working in a single industry, but our results carry over to the case of many firms operating in different industries provided each operating firm has some political influence in the sense that the ruler's ability to remain in power is strictly higher when he has the support of the firm than when he does not. This implies that the ruler will consider whether or not to grant a license to the firm, based on whether the firm can be trusted to not aid the opposition.

Finally, to simplify the analysis we have modeled universal property rights regime as exogenous. What we have in mind is that when the ruler is ousted, there is some chance a new regime takes over that is ideologically committed to full scale economic competition and property rights protection. This may be either a democratic regime, or an authoritarian regime. In Section 4.3 below, we outline a method of endogenizing this regime.

4 Results

4.1 Low Income Outcomes

We start with the observation that in the one-shot version of the game, the ruler will always collect $\tau_j = 1$ from all operating firms j, if he is able. If only one firm j is operational, that firm prefers not to support the ruler: If it supports the ruler then it earns 0, while if it does not support the ruler then it earns at least $p\Pi_j^m > 0$. If both firms are operational, then the high productivity firm strictly prefers to not support the ruler. Thus, if at least one firm is operational then at least one of them does not support the ruler and the ruler departs with probability p. To ensure that the ruler would rather not grant a license to any firm if he expected to run the risk of being replaced, we assume that the political rents R that he would lose from being ousted are large enough that he would not want to take this

risk. Specifically, we assume that $R > (1-p)[\Pi_H^m + R]$, or in other words

$$R > \frac{1-p}{p}\Pi_H^m \tag{A2}$$

We maintain this assumption throughout. It will imply that the ruler would prefer not to grant a license to either firm than run the risk of being replaced, both in the one-shot game and in the the repeated game. In fact, this outcome that we have described for the one shot version of the game is also the repeated outcome under any history-independent equilibrium of the repeated game.

Proposition 3. ***(low income outcomes)*** *The game has a stationary equilibrium in which in every period, the ruler is expected to fully expropriate (i.e. set $\tau_j = \hat{\tau}_j = 1$ on all operating firms j) whenever he has the choice, some operating firm is expected to not support him, and consequently the ruler does not grant a license to either firm.*

The proof of this result is standard and omitted.

Note that the equilibrium above also delivers the minmax values to both the firms and the ruler in any continuation game that begins at the start of a period. On any path in which the ruler granted a license to some firm, the worst punishment that could be imposed on a firm for not supporting the ruler would be to not grant it a license ever again—not just by the present ruler, if he survives office, but also by every subsequent ruler as well, given the equilibrium of Proposition 3 above. Likewise, if the ruler ever deviated from an equilibrium path, the worst punishment that could be imposed on the ruler is for any operating firm in the current period to not support him and then to play the equilibrium of Proposition 3 starting in the following period. These punishments serve as the basis of our analysis of the conditions required to support other outcome paths in equilibrium.

The substantive interpretation of the low income outcome path as a no property rights regime is that under the equilibrium that generates this path the ruler is unable to commit to not expropriate the firms fully, i.e. to not confiscate the entire profits earned by any operating firm. This is a situation in which the firms have no guarantees to protection of their rights over any portion of their income.

4.2 Middle Income Outcomes

In addition to the low income outcome, there are other outcome paths that may be supported in equilibrium depending on the parameters. Here we look at stationary paths, meaning the firms make the same choices on the path of play in every period, as does the

ruler. Such a path is a *high firm monopoly* (resp. *low firm monopoly*) if the high (resp. low) productivity firm operates as a monopoly in every period. By Proposition 2, a high firm monopoly outcome generates higher aggregate income and higher worker welfare than a low firm monopoly outcome; so, we first focus on conditions under which the high firm monopoly can be supported in equilibrium. If these conditions cannot be met, we then ask whether the low firm monopoly can be supported.

A high or low firm monopoly path may involve the operating firm j not supporting the ruler in every period in which case the ruler would prefer to set the maximum possible tax of $\tau_j = \hat{\tau}_j = 1$ whenever possible. But such paths are ruled out by assumption (A2), as the ruler would rather not grant any licenses than run the risk of losing his political rents in each period.[5] Thus, there is no "politically unstable" equilibrium in which the ruler grants a license despite not receiving political support from the firm: if a stationary high or low firm monopoly path is the outcome of an equilibrium, the firm has to support the ruler in every period. We refer to this as a *politically stable* path.

Proposition 4. ***(middle income outcomes)*** *There is an equilibrium that supports a high firm monopoly outcome path if and only if*

$$\beta \geq \frac{p}{1+p-pq(1-\tau^{PR})\Pi_H^c/\Pi_H^m} =: \overline{\beta}_H^m.$$

On the other hand, there is an equilibrium that supports a low firm monopoly outcome path if and only if

$$\beta \geq \frac{p}{1+p} =: \overline{\beta}_L^m.$$

Proof. By assumption (A2) and the argument above, if a stationary high or low firm monopoly path is the outcome path of an equilibrium then it must be politically stable. Let τ be the stationary tax rate implemented by the ruler on such a path in which firm j is active in the formal economy every period, so that $\tau\Pi_j^m + R$ is the ruler's on path time averaged payoff and $(1-\tau)\Pi_j^m$ is the firm's. A necessary and sufficient condition for the ruler to not have an incentive to deviate is

$$\tau\Pi_j^m + R \geq (1-\beta)\Pi_j^m + R,$$

[5]The maximum (time averaged) payoff of the ruler under such an outcome path is $(1-\beta)\frac{1-p}{1-\beta(1-p)}[\Pi_H^m + R]$, whereas if he does not grant a license in any period he gets to remain safely in office and enjoy the political rents R each period. As a result, if $R > (1-\beta)\frac{1-p}{p}\Pi_H^m$ then such a path cannot be supported in equilibrium. But this inequality is implied by (A2).

since the best possible deviation at this stage is to set a tax rate of $\tau = 1$, and because the history-independent continuation equilibrium of Proposition 3 provides the worst equilibrium punishment to the ruler from deviating. This condition is equivalent to

$$\tau \geq 1 - \beta. \tag{5}$$

Because the same continuation equilibrium also provides the worst punishment to a firm from deviating, a necessary and sufficient condition for the firm to have no incentive to not support the ruler is

$$(1-\tau)\Pi_j^m \geq p\left[(1-\beta)\Pi_j^m + \beta q V_j^{PR}\right]$$

where V_j^{PR} is the value of the property rights regime to firm j, which is $(1-\tau^{PR})\Pi_H^c$ for firm H and 0 for firm L. This follows because with probability $1-p$ the ruler survives in power, taxes at the rate of 1, and withdraws the firm's license starting in the next period; while with probability $p(1-q)$ the new ruler (and every subsequent one) plays the continuation equilibrium of Proposition 3 in which no license is granted. Only with probability pq does the full property rights regime get put in place. Rearranging the above inequality, we have

$$\tau \leq 1 - (1-\beta)p - \beta pq\frac{V_j^{PR}}{\Pi_j^m} \tag{6}$$

Thus, there exists a stationary tax rate τ that can simultaneously satisfy inequalities (5) and (6) if the right hand side of the first inequality is no greater than the right hand side of the second. This condition rearranges to

$$\beta \geq \frac{p}{1+p-pqV_j^{PR}/\Pi_j^m}$$

which provides the conditions stated in the proposition for both $j = L, H$.

Finally, what happens if the ruler were to deviate and not grant a license in some period to the firm j? We specify that following this deviation the low income continuation equilibrium under which the ruler grants no licenses in any subsequent period is played. Since the ruler's payoff is lower under this continuation equilibrium than it is under either the high or low firm monopoly outcome path, this deviation is not profitable. Therefore, the conditions stated in the proposition are both necessary and sufficient. ■

Our game has a two sided commitment problem under which the ruler may be tempted to expropriate an operating firm and the firm may be tempted to withdraw support from

the ruler (to avoid having to share its profits). These two commitment problems are non-binding when the share of the firm's profit accruing to the ruler is at least the threshold given in equation (5) and at most the threshold given in equation (6). If these thresholds are incompatible with each other then there is no way to simultaneously resolve these two commitment problems. The thresholds are compatible with each other only when both sides are sufficiently forward looking, meaning the discount factor β is large enough. Only then does the middle income path associated with monopoly become politically feasible.

In comparing the thresholds for the high and low productivity firms, we see from inequality (6) that the ruler's share of income for the the firm to not be tempted to withdraw support can be lower for the high productivity firm than it is for the low productivity firm. The reason is that the ruler being deposed is better for the high productivity firm than it is for the low productivity firm. When the ruler is deposed, there is some chance that a universal property rights regime will be implemented under which the high productivity firm will do better than the low productivity firm. Therefore, there are instances in which the high productivity firm is willing to take its chances in withdrawing support from the ruler when the low productivity firm is not willing to do so. This implies that the low firm monopoly path may be politically feasible when the high firm monopoly path is not.

The main comparative statics of interest that follow from Proposition 4 have to do with the size of the parameter region in which a low firm monopoly path can be supported when a high firm monopoly path cannot. As the punishment wedge V_H^{PR}/V_L^{PR} between the high and low productivity firms increases, this parameter region grows. It also grows when the profit ratio Π_H^m/Π_L^m grows. Finally, holding the remaining parameters fixed, it also grows when p and q grow, meaning it grows when a political crisis becomes more likely if the ruler does not have the monopoly firm's support and when the odds of transitioning to a universal property rights regime increases.

Political Connections. Equilibria in which the two-sided commitment problems between a firm and the ruler is solved represent trust between the the ruler and the firm—that the ruler will not expropriate, and the firm will support the ruler. This trust is likely to arise when there is a political connection between the firm and the ruler. When there is no political connection between them, the ruler may be reluctant to grant a license to the firm, fearing that the firm will not support him; and even if the ruler were willing to grant the license, the firm may fear expropriation by the ruler and withdraw its support.

For example, suppose the incumbent ruler and the the high productivity firm H do not have a political connection between them that engenders trust, but the low productivity

firm L does have a political connection to the ruler. In this case, even if $\beta > \overline{\beta}_H$, it may be the case that an equilibrium that supports the low firm monopoly outcome path arises even though in principle the high firm monopoly outcome path *could* be supported, and the ruler would even prefer to do business with the high productivity firm if the two sides could trust each other to resolve their commitment problems. The key is that which firm becomes operational depends on whether there is a connection between the ruler and the firm. Our illustrative cases below show that these connections matter.

One important way in which such connections could alter the predictions of our model is if the ruler that replaces the incumbent ruler when he is ousted has a political connection to one of the firms, say firm H, and we could expect that ruler to play an equilibrium that supports the high-firm monopoly outcome path rather than play the low income equilibrium when the incumbent ruler is ousted from office. This means that if firm H deviates from the high firm monopoly outcome path by withdrawing support from the incumbent ruler, it would no longer be punished with the severest possible punishment. This makes the deviation more attractive, which means that the incumbent ruler would be more reluctant to play an equilibrium supporting the high firm monopoly outcome path. In fact, a straightforward calculation that follows that in the proof of Proposition 4 shows that in this case the threshold need on β for there to exist an equilibrium that supports the high firm monopoly outcome path is larger than $\overline{\beta}_H$. This means that the parameter range for which the ruler would do business with the low firm (even though he would in principal prefer to do business with the high firm) grows, and we are more likely to see low firm monopoly.

4.3 High Income Outcome Paths

Aggregate income and worker surplus are not as high even under the high firm monopoly outcome path as they would be under an outcome path under which the ruler granted licenses to both firms in every period, leading to competition between them. We now study the necessary and sufficient conditions for such a *competitive outcome path* to be supported in equilibrium under which both firms operate in all periods of the game.

Proposition 5. ***(high income outcome)*** *There is an equilibrium that supports the competitive outcome path if and only if*

$$\beta \geq \frac{p}{1 + p - pq(1 - \tau^{PR})} =: \overline{\beta}^c$$

Proof. As with the monopoly outcome paths, a stationary competitive outcome path must be politically stable so that the ruler never runs the risk of replacement. In addition, as

in the analysis of the previous section, we specify that if the ruler does not grant licenses to both firms in any period, or if the ruler deviates to a different tax rate than the one that is supposed to be played in the stationary outcome, then the low income continuation equilibrium is played from the next period on. This means that the only condition that must be met for the ruler to have no gain from leaving the competitive outcome path is again the condition stated in equation (5).

Note that the low productivity firm makes a zero profit both under competition and under the low income equilibrium so it has no incentive to deviate from the competitive outcome path by failing to support the ruler in some period. The high productivity firm may, however, have an incentive to deviate. The worst equilibrium continuation payoff for the firm is 0 (associated with the low income equilibrium), if the firm deviates expecting the harshest possible punishment then it gets a payoff of $p\left[(1-\beta)\Pi_H^c + \beta q V_H^{PR}\right]$ where $V_H^{PR} = (1-\tau^{PR})\Pi_H^c$. If it stays on the path it gets $(1-\tau)\Pi_H^c$. Thus, the firm has no incentive to deviate if the condition stated in the proposition is met. ■

Since the threshold stated in the proposition is smaller than the threshold on β stated in the right side of the centered inequality in Proposition 4, there are conditions under which a high firm monopoly can be supported in equilibrium when the competitive outcome path cannot. In fact, we have the following ordering on thresholds:

$$0 < \overline{\beta}_L^m < \overline{\beta}_H^m < \overline{\beta}^c$$

which implies that if $\beta > \overline{\beta}^c$ then all three outcome paths (low firm monopoly, high firm monopoly, and competitive outcome paths) can be supported in equilibrium. However, if we choose the ruler-optimal outcome path, then then the ruler sets the highest possible tax rate among those that are politically feasible in equilibrium and prefers the high firm monopoly outcome path to the competitive outcome path even when supporting the competitive outcome path is politically feasible in equilibrium.[6]

Endogenous Universal Property Rights Regime. The result in the Proposition 5 can be used to justify the assumption that if a regime transition occurs then with probability q the full property rights regime is put in place. Consider an alternative version of the model in which whenever the ruler is ousted then with probability $1-q$ an identical new ruler

[6]The ruler's best time averaged payoff under high firm monopoly is $[1-(1-\beta)p-\beta pq(1-\tau^{PR})\frac{\Pi^c}{\Pi_H^m}]\Pi^m$ whereas under the competitive path it is only $[1-(1-\beta)p-\beta pq(1-\tau^{PR})]\Pi^c$.

enters office while with probability q a different ruler D enters office for whom only the competitive outcome path is credible in the following sense: The competitive equilibrium outcome path is played by the firms with that ruler, and any deviation from this path is met with reversion to a low income stationary continuation equilibrium. This ruler has his own discount rate β_D high enough to sustain the competitive equilibrium. In other words, ruler D is assumed to be sufficiently forward-looking to want to maintain the universal property rights regime. The conditions under which this continuation path is supported in equilibrium hold whenever the conditions under which any of the other three outcome paths that we have considered (low firm monopoly, high firm monopoly, or competitive outcome) in the baseline model above can be supported (see Appendix B for formal details).

5 Illustrative Cases

5.1 Indonesia

In the 1960s, Indonesia was one of the poorest countries in the world. In 1967, the first year for which the World Bank provides an estimate and just two years after a military coup brought army chief of staff Suharto to power, it had a GDP per capita of only 53 US dollars, putting it in the bottom decile of the world income distribution. The main story of the subsequent three decades was one of rapid economic growth. By 1997, the year before Suharto was deposed by a popular uprising, nominal per capita GDP had grown roughly 20-fold, to $1,055, putting it in the fourth decile of the world income distribution. While the Asian financial crisis of 1998-99 led to a major recession, Indonesia returned to its pre-crisis growth path and today remains a middle-income country.

Part of this increase, particularly in the 1970s, was a result of a surge in oil prices. However, the more sustained and interesting story was the growth of manufacturing in a country previously dominated by agriculture. Urbanization went from 16% to 38%, and the share of manufacturing in non-mining GDP quadrupled to 40%, while employment in agriculture declined from 75% to 50% (Van der Eng, 2009). The new firms were generally domestic rather than foreign: even at its 1996 peak, FDI accounted for only 9% of investment (Temple, 2001).

The institutional context for Indonesia's economic transformation was in many aspects extremely unpromising. Suharto inherited an economy dominated by the state, and with only very weak democratic accountability. His predecessor, President Sukarno, influenced by Marxist economic theories and the disorders of the decolonization process, had concentrated

state investment in state owned firms, and nationalized most of the major private firms. The state funded itself by printing money, which set off hyper-inflation that peaked at at 300% a year in 1965. Moreover, Suharto did not reform Indonesia's political institutions. In fact, his regime was "almost monarchical" with no formal checks and balances (Temple, 2001)). In 1996, the last full year of the Suharto regime and first year of the World Bank's Governance Indicators, Indonesia scored in the 36th percentile on the rule of law, the 23rd percentile on government effectiveness, the 22nd percentile on the control of corruption, and the 20th percentile on voice and accountability.

While a "Berkeley mafia" of trained economists exercised a tenuous influence over the central bank, the general tenor of policymaking under Suharto was anything but technocratic, and only intermittently pro-market. (Bhattacharya and Pangestu, 1997). The regime frequently seized land without compensation (Thorburn, 2004). Perhaps most notoriously, immediately after Suharto came to power, some one million left wing sympathizers were murdered.

Economic Favoritism. The main thrust of economic policy making under Suharto was the generation of rents for favored economic actors, either by eliminating competition or through direct transfers of state resources. McLeod (2000) lists the ways in which Suharto favored well connected firms:

- Import protections.
- Low interest loans from state-owned banks.
- Concessions to exploit natural resources.
- Designation as mandatory partners in foreign joint ventures.
- Warrants to take over land.
- Ability to purchase inputs from state-owned firms at artificially low prices.
- Favorable treatment by the tax office.

The most favored category of "entrepreneurs" were members of Suharto's immediate family. Tommy Suharto, the dictator's son was a major beneficiary of the privatizations of the 1980s, buying an oil marketing company and an airline at concessionary prices. At the same time Tommy was granted the contract to build a toll highway south of the capital, a move widely interpreted as a consolation prize for losing the competition to build a toll road

north of the capital to his sister's company. Tommy also benefited from loans from state owned banks to found new companies, with a 650-million-dollar loan to create a "national" car company (which assembled Korean cars from kits) being especially notorious. Finally, in some cases, Tommy's companies were simply granted legal monopoly rights, as when he was granted the exclusive right to buy, sell, and import cloves–a right he promptly used to lower the prices paid to farmers while raising the prices paid by consumers.

When key inputs were not for sale, the Suharto family simply took them. Tommy Suharto, for example, obtained property in Bali worth over $1 billion by expropriating land from farmers for approximately 6% of its market value. When the farmers protested, the regime used the army to evict them. The hotels built on this land helped grow the Balinese tourism sector. International arrivals rose from only 23,000 in 1970 to nearly a 1.5 million in 2000. Bali's per capita income increased by 270% during this period.

Protection from competition and access to cheap inputs would have meant little if Suharto could not prevent other actors from extorting producers or holding up investments. Suharto's "new order" was marked by higher levels of state capacity than the regimes that immediately preceded and followed it (Mietzner, 2018) with an emphasis on centralized and highly coercive law and order policies. The most extreme example the was the use of the Indonesian Army to protect the Freeport Corporation's copper mines from locals: in 1977 the army massacred 900 villagers after an insurgent attack on the mine's slurry pipeline (Leith, 2002). The Suharto regime was less well-positioned to preempt rent-seeking by junior bureaucrats; low-level corruption remained an annoyance. Suharto was, however, willing to act dramatically if petty corruption got out of hand. He famously privatized most of the customs service after complaints that its restrictions were holding up imports (McLeod, 2000).

The favored firms under the Suharto Regime were concentrated in sectors of the economy where state benefits would be most efficacious, especially highly-regulated industries, import-competing industries, industries with high capital requirements, or industries that required the use of land or natural resources controlled by the state. Textiles, a lightly regulated export industry with little need for land or capital, was perhaps a most prominent example of a traditional industry in which state favoritism was not especially valuable, which "meant that it was less open to the monopolising attentions of [the regime]" and was dominated by small firms (Vickers, 2012, 43). In consequence, state policy tended to neglect the textile industry relative to other sectors.

The Favored Firms. The favored firms were carefully chosen so that their wealth did not pose a threat to the regime. In the case of Suharto's relatives, the lack of threat came from their family ties; their influence and wealth would decline if Suharto was removed from office. The dependence of these firms on Suharto's health was so notorious that they became the subject of a pioneering economic study of the value of political connections (Fisman, 2001). Similar considerations applied to the military officers and army units that assembled business empires using loans from state-owned banks.

Among the biggest economic beneficiaries of Suharto's regime were a small group of businessmen drawn from Indonesia's Chinese community. The Chinese community, though only about 1% of Indonesia's population, had a disproportionate share of the country's entrepreneurial experience and capital, as a product of their favored status under the Dutch colonial regime. For that very reason, the Chinese minority was unpopular in Indonesia–so much so that anti-Chinese riots were not uncommon, and the Sukarno regime had even restricted the right of Chinese firms to engage in retail trade. The Chinese elite was, therefore, politically dependent on the Suharto regime; any plausible political alternative, whether nationalist or Islamicist, was likely to be much more hostile to them, while a "return" to communist China (a country most had never seen) was an even more terrifying. The status of the Chinese as "politically weak but economically important" group "whose ethnicity precisely served to discount any credible future claim they could lay national political power" has been cited as a major factor in Suharto's favoritism towards them (Dunning, 2005, 459, 469).

The Chinese business groups benefited from the same mix of policies that enriched the Suharto family: "the big Sino-Indonesian conglomerates ... have been able to benefit from deviations from free-market principles by taking advantage of privileged access to resources (particularly subsidized loans), quasi-monopoly situations, and rent-seeking opportunities" (Mackie, 1991). The largest of these firms (and, in fact, the largest firm in the country) was the Salim group, founded by an old acquaintance of Suharto, Liem Sioe Liong, who benefited from early grants of monopolies on clove imports and flour milling to create a conglomerate that touched almost every sector of the economy, with particularly large interests in cement, petrochemicals, and steel. Suharto's golf partner, Bob Hasan, benefited from access to state forest lands and the chairmanship of a government-created cartel to control 70% of the global market in plywood (Barr, 1998).

The Chinese entrepreneurs faced the problem of skilled and well-capitalized foreign competition. In sectors where Indonesia did not have a comparative advantage, this required the creation of trade barriers, while in sectors where Indonesia did have a comparative

advantage this required the creation of restrictions on foreign direct investment. Indonesia combined "non-tariff barriers and high rates of protection in manufacturing activities [with] ... extensive controls on foreign direct investment" (Bhattacharya and Pangestu, 1997, 409). Among the protected industries were Bob Hasan's plywood processing plants (whose input prices were lowered by restrictions on the export of unprocessed lumber) and Tommy Suharto's car plants (which were protected by high tariffs and exempted from tariffs foreign made components). In areas where foreign skills were needed, firms were allowed to enter if they partnered with connected firms (McLeod, 2000).

The Chinese entrepreneurs had to pay for their privileges as "pariah capitalists" with political and financial support for the regime (Dunning, 2005). Some of this payment was public, as when in 1990 Suharto gathered the founders of the leading Chinese conglomerates on national television to pledge to 25% of their shares to cooperatives. But the more important contributions were private. Chinese companies were forced into joint ventures with firms that were controlled by army officers or Suharto family members. In addition, Chinese entrepreneurs had to provide a constant flow of bribes and "license payments" (McLeod, 2000). From such payments Suharto accumulated a personal fortune of some $16 billion.

Summary. The Indonesian economy under Suharto was inefficient relative to the first-best solution of universal property rights. Capital was allocated inefficiently. Resources were exploited haphazardly. Licenses and concessions were allocated based on political harmlessness rather than entrepreneurial skill. Some of the resulting economic losses were visible: despite enormous government subsidies, Tommy Suharto never succeeded in building an indigenous car, or even the factory that would have produced one. More commonly, the results were invisible: there were firms that never founded and jobs that were never created.

Nevertheless, it was under the Suharto regime that Indonesia succeeded in becoming a middle-income country. Whatever the inefficiencies of the Chinese-Indonesian conglomerates, even after massive rent payments they represented a more efficient form of production than the subsistence agriculture and subsidized state industries that had characterized the Indonesian economy before Suharto. In addition, the crony capitalism of the Suharto regime created some positive spillovers, notably a stable macro-economy, infrastructure investments, and a loose upper bound on petty corruption. To the extent that post-Suharto Indonesia has a viable basis for becoming a high-income country, it relies on those legacies.

5.2 Thailand

In both Mexico and Indonesia during the period of rapid growth a single man made most important political decisions, and many of the favored firms owned by his personal associates without meaningful institutional constraints. Thailand is an example of another type of low income country, where political power is exercised by a small clique or political class without meaningful institutional constraints. This diffusion of political did not lead to a diffusion of property rights: as in personalistic regimes, only very well-connected firms could operate successfully. Relative personalist regimes, these firms tended to have ties to many elite members and elite institutions rather than a single all-powerful patron. Perhaps for this reason, Thailand's crony economy has proved relatively resilient. While the falls of Suharto and Diaz led to major losses for the favored firms, Thailand's system of partial property rights has been able to survive numerous changes of formal regime little altered.

The collective power of the Thai elite in its current form is a 20th century creation. From the founding of the Chakri dynasty in 1782 until 1932 Thailand was an absolute monarchy, where the king was the source of law. In 1932 a military coup created, once the dust settled, the form of a constitutional monarchy. The real consequence, however, was to create a partnership between the army, the throne and a small group of sympathetic civilian politicians that have dominated the country since that time, with formal control oscillating between short-lived democratically elected parliaments and the military regimes that overthrow them in the name of curtailing corruption and restoring political stability. Since 1932 the Thai army has staged 18 coups, 11 of which successfully overthrew the government. A senior officer of the Thai military has occupied the post of prime minister for 65 out of the past 91 years.

Even in its more democratic periods Thailand has not had strong institutional protections. Transparency International has regularly ranked Thailand as worse than the global average in corruption (in 2022, 101st of 178 countries), and indices of institutional protections and "quality of government" are similarly pessimistic.[7]

The absence of "good" institutions did not impede Thai economic growth. In 1960, the first year for which the World Bank provides an estimate, Thailand had a per capita GDP of only $103, putting it in the bottom quartile of the world income distribution. Over the next four decades, the economy grew like wildfire; on the eve of the Asian Financial Crisis of 1997-99 Thailand's per capita GDP had surpassed $3,000. The financial crisis of the late 1990s represented but a brief pause; per capita GDP began to grow again by 2001. As of

[7]In 2022 Thailand was ranked 92nd out of 139 countries in the International Country Risk Group's quality of government index.

this writing Thailand has a per capita income of just over $7,000, putting it almost exactly at the mid-point of the world income distribution.

Economic Favoritism. In Thailand, certain favored firms closely associated with the ruling elite have been favored by the state. Perhaps the most powerful way in which the playing field has been tilted in the Thai economy is through control of access to capital. Circa 1996, the top four banks in Thailand accounted for 54 percent of the assets of all commercial banks. These same entities controlled 15 finance companies, accounting for one-third of total finance company assets. These banks and finance companies, in turn, tended to lend to firms that were also owned by the same group, and the privileged access to credit of firms within these conglomerates gave them an advantage over potential rivals (Charumilind et al., 2006). Many of the larger banks are either owned by the state (Krungthai Bank, Government Savings Bank, Thai Military Bank) or the crown (Siam Commercial Bank). Since both the private and public banks offer loans on the basis of private relationships rather than business considerations and are thought to have implicit guarantees from the government, they tend to have tended to give risky loans to their associates, a practice that became a major factor in the 1997 Asian financial crisis (Charumilind et al., 2006).

At the beginning of Thailand's development process, the use of state capital to favor the elite was even less subtle: the king simply used tax money to buy assets and provide himself with startup capital. In the late 19th century, the Crown replaced labor duties with direct taxes, and 15 percent of all tax revenues were separated from the government budget and placed in the hands of a Privy Purse Bureau (PPB), which was charged with covering the (rather considerable) expenses associated with the maintenance of the royal family. As surpluses accrued in the PPB, the royal family began to deploy them for investments in commercial real estate, banking, manufacturing, and shipping. By 1918, the PPB's investments spanned rice milling, saw milling, railways, tramways, coal mines, electricity generation, banking, shipping, and manufacturing. There were three particularly noteworthy jewels; the Siam Cement Company (which effectively operated a monopoly), the Siam Commercial Bank, and investments in urban real estate that made the PPB the largest single landowner in Bangkok (Ouyyanont, 2015, Unchanam, 2020). After the 1932 coup, the military government transferred the assets of the PPB to a new body called the Crown Property Bureau (CPB), which continues to operate today.

In other cases, the government favors specific types of firms through a manipulation of the regulatory process. Competition law, for instance, has been used to punish foreign firms with a large share of the market, but goes unenforced against well-connected domestic firms

guilty of identical practices (Nikomborirak, 2005). In the manufacturing sector, domestic firms are favored by import duties and domestic content requirements (McKean et al., 1994). The right to operate TV stations is also only allocated to the exceptionally well-connected (Naknoi, 2020). Consequently, connections to powerful politicians, especially members of the Cabinet, also influenced the profitability of firms (Naknoi, 2020). As Imai (2006) shows, enterprises controlled by family businesses that had a member of the family in the Cabinet during the period 2001-2005 achieved rates of return ten percent higher than those of unconnected firms in the same industry.

If the government can give, it can also take away. The career of Thaksin Shinawatra (Prime Minister 2001-6) illustrates this duality. Thaksin was a former police lieutenant colonel who got his start in business leasing IBM computers to the police (Mesher and Jittrapanun, 2004). However, the real basis of Thaksin's fortune was laid in the 1990s when friends in the government granted him without competitive bidding the monopoly right to sell GSM 900 compliant cell phones, as well as several landline concessions and the right to operate a cable channel (McCargo and Pathmanand, 2005, 27-8). Initially, Thaksin's premiership saw even greater favoritism to his business group, including concessionary tax breaks and sales of state land. However, after Thaksin was overthrown in a military coup in 2006 he saw his passport revoked, his assets frozen, and himself convicted in absentia of corruption charges.

The Favored Firms Thaksin's fall underscored the collective power of the Thai elite, and their hostility to the idea of a single strong ruler. Whatever the nature of the regime, the country is dominated by a coalition among three powerful interconnected groups, all of whom share in control of the economy. The first is a set of Sino-Thai business tycoons who headed (and continue to head) family-based holding companies that control virtually all large-scale Thai business enterprises. These holding companies sit on the top of complex investment pyramids such that the tycoon's family owns just enough shares to control the downstream firms by naming the boards of directors and the senior managers, while leaving most of the shares in those companies in the hands of passive minority shareholders. The tycoon family therefore controls large numbers of corporations without being at full risk for bad decisions. Minority shareholders invest in full knowledge of these arrangements; they count on the political connections of the tycoon families to protect the firms' property rights and provide it with favorable public policies (Suehiro and Wailerdsak, 2004, Bertrand et al., 2008).

The second pivotal group is the Thai Army officer corps, whose upper echelons sat (and continue to sit) on the boards of the business enterprises controlled by the family-based holding companies, on the king's privy council, and in the Thai cabinet ((Naknoi, 2020).

The third pivotal group is the Crown—the king, his extended family, and the tax-exempt holding company that acts as its private investment arm, the Crown Property Bureau (CPB). The CPB is, in fact, the largest family-based holding companies in the country. The participation of the king conferred political legitimacy on tycoon/military/crown coalition. The monarchy as an institution is intimately tied to Thai national identity, allowing the king to emerge as the single most powerful cultural and political figure in the country. Elected governments who sought to challenge this coalition were undermined by disapproving speeches by the king or were removed by the army via coups d'etat (McCargo, 2005).

This alliance between these three groups took time to develop. In the 1930s the monarchy and the military had been rivals, but after the military was discredited by their involvement on the Japanese side in the Second World War an anti-communist king was seen as necessary to legitimize military government and subvert elected governments that veered too far left. King Bhumibol Adulyadej ruled from 1946 to 2016, and over the course of his reign clawed back the authority and power of the Crown. One concession he obtained almost immediately, however, was a reform of the CPB. The CPB was removed from the control of the Ministry of the Treasury; it was defined as juristic person whose board members were chosen by the king and whose resources "depends totally on the royal inclination," while retaining its tax exemption. In short, the royal family once again had its own holding company—and that holding company was the single largest investor in the Thai economy (Ouyyanont, 2015).

The Chinese Thai were even more marginal to the governing coalition at first. Mass immigration in the late 19th century led to a popular suspicion of the emerging class of Sino-Thai business tycoons among ethnic Thai, with the King himself denouncing them as "vampires who steadily suck dry an unfortunate victim's life blood" (quoted in Unchanam (2020, 50). The strongly nationalist—indeed, proto-fascist—military governments of the 1930s and early 1940s were even more hostile: every citizen who was not an ethnic Thai was forced to take a Thai name, Chinese schools were closed, and some Chinese enterprises were expropriated. The Sino-Thai business elite responded by offering to pay for protection; they invited high ranking army officers to join the boards of directors of their firms, compensating them with director's fees, stock distributions, and sinecures (Unchanam, 2020, Laothamatas, 1988, Dhiravegin, 1975).

As the Thai economy grew during the post World War II period, the Sino-Thai family business groups prospered. In 1997, they controlled 194 of the 220 leading business groups in the country (Suehiro and Wailerdsak, 2004). At least part of their success owed to what by then had become the long-standing practice of inviting army generals and powerful politicians on to their boards of directors (Bertrand et al., 2008, Laothamatas, 1988). This helped them gain the scarce capital necessary to grow: During the period 1930-1950 the major business groups obtained charters from the government to establish commercial banks, which they used to channel the funds to their own enterprises. Of the 20 commercial banks established during this period 14 were founded by Sino-Thai business groups, while the remaining six were founded by the CPB (Charumilind et al., 2006).

The tycoons also began to invite the CPB to join them as a passive minority investor in their projects. By 1970, the CPB held shares in over 30 companies. The two largest of these, the Siam Cement Company and the Siam Commercial Bank, were immense holding companies in their own right. By the mid-1990s, the CPB had investments in 92 enterprises, spanning manufacturing, insurance, banking, hotels, property development and construction, and communication. The Siam Cement company, which was one of those 92 enterprises, in turn had investments in a multitude of other companies, spanning iron and steel, ceramic tiles, petrochemicals, pulp and paper, and electrical products. The Siam Commercial Bank, which was another of the 92 CPB enterprises, in turn had investments in 77 other companies, spanning asset management, real estate, manufacturing, warehousing, mutual funds, insurance, mining, construction, entertainment, and vehicle production (Ouyyanont, 2015).

The military also played a direct role in the economy, particularly after the 1957 coup that ended a short-lived political opening. Naknoi (2020) identified over 100 military-related firms scattered across most major sectors of the economy. The most important of these were the Thai Military bank, which on founding was owned by the military itself (58%) and individual officers (42%). The bank in turn controls three "asset management companies" with a wide range of holdings. The military also owns two TV channels and a large portfolio of urban property.

By the late 1990s, the Sino-Thai family-based holding companies controlled most of the Thai private sector. Circa 1996, 93 family holding companies controlled 40 percent of the assets in the largest 2,153 publicly-traded and privately-held Thai business enterprises (Bertrand et al., 2008). As multinational enterprises entered the Thai market they were actively encouraged by the Thai government to form joint ventures with existing Thai enterprises, such that the influx of foreign capital broadened the reach of the tycoon families.

Over time, the ties between business and political worlds became even closer. Members of the families that controlled those holding companies increasingly entered politics and served on the Thai Cabinet (Laothamatas, 1988) and key army generals served on the boards of enterprises controlled by the CPB and the family-based holding companies. Businessmen also served in key political positions, including Prime Minister and President of the Privy Council, under both under military and democratically-elected governments (Laothamatas, 1988).

The most prominent example of such a crossover figure was Prem Tinsulanonda, who served as president of the Charoen Pokphand Foods Group, controlled by the Chearavanont family, and as honorary president of the Bangkok Bank, controlled by the Sophonpanich family (Ouyyanont, 2015). Tinsulanonda was also Commander in Chief of the Thai Army from 1978 to 1982, Minister of Defense from 1979 to 1986, Prime Minister from 1980 to 1988, and President of the Privy Council from 1998 to 2019. He is widely acknowledged as the political mastermind of the post-war Thai political system. This example is not unique. Circa 2000, 15 percent of the directors of Thailand's corporate boards (comprising 323 publicly-traded firms) were government officials, many of them with ties to the military (Suehiro and Wailerdsak, 2004, Naknoi, 2020). The financial crisis of 1997-99 did little to change this ownership structure (Unchanam, 2020, 103). Even Thaksin Shinawatra, the most prominent political and business "outsider" in Thailand in the past quarter century, was from a well-established Sino-Chinese business family who benefited from strong military contacts and business deals with the CPB.

Summary. Thailand is a canonical case of a rent-sharing economy. The Crown, through the CPB, ran the largest business group in Thailand, with the military not far behind. Both institutions were networked with the family-based holding companies via interlocking boards of directors and shareholdings. Relative to Indonesia and Mexico, the group of rent receivers was large and its boundaries amorphous: a political class rather than a narrow camarilla. For that very reason, however, their aggregate control of both economic and political power was even tighter, and the chances of success for an unconnected entrepreneur or a democratic reformer even smaller. Consequently, firms connected to the court and the military can invest with confidence even without formal institutional guarantees, and the court and the military can afford to take a relatively long-term view with respect to the amount of rents they demand from private entrepreneurs.

5.3 Mexico

In both Indonesia and Thailand, the links between the favored entrepreneurs and the political elite was very close–indeed the two groups were often related. In 20th century Mexico, on the other hand, while there was very substantial favoritism towards certain privileged economic actors, the relationship was always more distant, and at times openly adversarial. This distance and the consequent risks of defection (expropriation by government, opposition support by business) would ultimately prove to be a major source of weakness for the Mexican economy and the Mexican regime.

During the regime of Porfirio Díaz (president de facto 1876-1911), the Mexican elite and business community had been closely connected. The Díaz awarded lucrative privileges to a select group of merchants, financiers, and industrialists, including monopoly rights to new technologies, tax exemptions, subsidized loans and expropriated land (**??**). The favored firms were either close political associates of the regime or domiciled foreigners, with a few straddling both categories (Maurer and Haber, 2007). Under Díaz, both Mexico City and the various state capitals developed a network of wealthy families who controlled the major banks, the state government, and important industrial enterprises.

The Mexican Revolution chased Díaz into Parisian exile and began two decades of civil war and political conflict. When stability was restored in the 1930s under the dominant National Revolutionary Party (later renamed the Institutional Revolutionary Party or PRI), power was more broadly distributed, with a series of presidents sharing power with party bosses and making limited concessions to organized workers and peasants. The PRI's "perfect dictatorship" was not a regime with strong institutional protections. Election outcomes were preordained, with the "network breakdown" that halted and then reversed the results of the 1988 presidential election being only the most infamous such intervention. Protections for investors were also weak, with memories of the expropriation of the oil sector and much of the country's best land during the 1930s being especially fresh (Haber et al., 2008).

Despite these disadvantages, Mexico experienced rapid growth under the PRI, in particular in the decades after the Second World War—real GDP per capita increased 237% from 1946 to 1981. This was a much faster pace than contemporary Latin American countries, though slower than some countries in Asia and Southern Europe. Mexico was not only a comfortably upper middle income country but is appeared to be closing the gap with the developed world, with real per capita GDP increasing from 24% of the US level in 1946 to 36% in 1981. Life expectancy increased from 39 years in 1940 to 67 years in 1980, while literacy increased from 37% to 83%.

Economic Favoritism. While wealthy Mexicans had initially opposed the revolution, they quickly made their peace with it. Sometimes this relationship was formalized, as at the 1925 conference when Mexico's bankers wrote a new code for their industry (Haber et al., 2008). More often, the arrangements were temporary and informal.

The techniques of government favoritism were broadly similar to those used in Indonesia and Thailand. Government development banks provided concessionary loans and loan guarantees to private banks, who in turn passed them on to the firms with which they shared owners (Del Angel-Mobarak, 2003). At times, the government cut out the middlemen and lent directly to the private sector through the Nacional Financiera (NAFINSA) (Haber et al., 2008).

There were also extensive policies to restrict competition. Local firms were protected from competition by foreign firms: "Few non-Communist economies were more closed than Mexico's at the onset of the 1980s" (Baer and Weintraub, 1994, 159). While this was general policy, the granting and refusal of import permits was potentially a highly individuated process, with favored importers being given windfalls and disfavored producers seeing their opportunities limited by a lack of intermediate goods. In a nation dominated by "a relatively small number of large private sector interests dependent on a favorable relationship with an interventionist government" it is often more important to have good connections than entrepreneurial skills (quoted in Morris (1991, 52). Ambitious young people who in other countries might have formed new firms either entered the public sector or emigrated to the United States.

The career of former President Miguel Alemán (1946-1952) illustrated some of the other techniques available. Alemán was one of the founding partners of the country's only TV channel, whose monopoly status was guaranteed not just by its owners' power by its favorable coverage of the PRI. When Alemán decided that the small port town of Acapulco was ripe for tourism, he was able to buy up normally non-marketable peasant smallholdings (ejidos) for conversion into private hotels. The construction of these hotels was made easier by Alemán's post-presidential job as minister of tourism.

The Favored Firms: Post-revolutionary Mexico inherited from Porfirian times an entrepreneurial class that was cohesive, autonomous, and politically aware. Mexican business is organized into "a dense network of sectoral associations which engage in lobbying of the state to a degree that is anomalous ...in both Latin America and among developing countries" (Schneider, 2002, 78). Organized business was also closely involved with the PRI's token opposition party, the National Action Party (PAN). The distance was also social:

Relative to the political elites of the PRI, the business were more likely to be northern than southern and observant rather than lapsed Catholics (Camp, 1989).

While there were a few politically connected entrepreneurs like Alemán, most leading businessmen were members of established dynasties. The Creel-Terrazas family of Chihuahua is a well-known example. Founded by a Porfirian governor, the family was the dominant economic producer in the state, both through their extensive agricultural landholdings and their banking and corporate interests. The revolution temporarily sent them into exile, but they were soon back, and Enrique Creel (himself a former governor and foreign minister) was a key figure in the negotiations that established the regulatory system for the Mexican banking system (Maxfield, 2019, 38). Enrique's grandson René Creel was a founding member of the PAN. Later day members of the family have remained active in the business community and the PAN, including Gustavo Madero (former vice president of the regional employers association and president of the PAN) and Santiago Creel (former PAN senator and Minister of the Interior).

The Creels were sometimes associated in business with the Garza-Sada family, who turned a regional brewery into the Grupo Monterey, which dominates the Mexican food, beverage and packaging industries and has extensive interests in auto parts, steel, real estate and banking (Maxfield, 2019, 48). The Garza-Sadas are extensively involved in civic activism in Northern Mexico, and cultivated a reputation for keeping politics at arms length, though this did not keep them from making a series of payments to the brother of PRI President Carlos Salinas de Gortari at the same time they bidding on privatized corporations from his government (Sheridan, 1996).

It might be wondered why the PRI did not eliminate a business class that was at best indifferent to them and often traced its roots to the previous regime? Certainly their were voices within the PRI coalition in favor of such a path, typically arguing for increased state ownership. However, the regime appears to have believed that the financial capital and human capital possessed by existing entrepreneurs was not easily replaceable.

The arms length nature of the "alliance for profits" between the PRI and the business class made it unstable. The business class had no assurance that the state would not come and take their profits away. The non-independent judicial system gave little assurance (Finkel, 2005), and unlike workers and farmers, they had no official representation with the official corporatist organizations of the ruling party. Moreover, while the business community had a good relationship with some PRI politicians like Miguel Alemán, no reelection rules meant that they did not stay in office more than a few years. Businessmen were of course, compensated by "granting them special privileges designed to raise their

rates of return high enough to compensate them for the risk that the government will expropriate their property" (Haber et al., 2008, 9), but the risk remained.

The inevitable expropriation event began in the 1970s, when President Luis Echeverría sought to vastly increase government spending while keeping taxes low. The costs were transferred to capital holders (through higher inflation) and banker (through requirements that they lend to the government at high interest rates) (Haber et al., 2008, 57-65). Echeverría also began a limited expropriation of agricultural land, and removed politicians sympathetic to business, as Nuevo Leon Governor Eduardo A. Elizondo.[8] Businessmen naturally responded by their reducing their domestic investments, though neither this nor their protests were very effective(Camp, 1989, 24-27).

When the deficits and government borrowing became unsustainable in 1982, the government defaulted on its debt and devalued the currency. When these steps proved insufficient, the government first forcibly converted all dollar bank deposits into pesos then nationalized all private sector banks. The result was a dramatic decline in private sector confidence. José María Basagoiti, leader of the Mexican Employers' Confederation (COPARMEX), remarked that after the bank nationalization, "Anything could happen in Mexico," while 96% of surveyed businessmen called bank expropriation "extremely important" in reducing their confidence (Haber et al., 2008, 66-68). The crisis was not only the start of a "lost decade" for economic growth but an inflection point in the economic history of the country. Economic policy over the next few decades would emphasize the encouragement of foreign investors, who could rely on their own governments or bilateral agreements like the North American Free Trade Agreement to provide the investor protections that Mexico's domestic institutions could not.

The political consequences of the government's break with the private sector were equally dramatic, though they were delayed by the PRI's skill in electoral manipulation. Many businessmen, especially smaller ones, switched their loyalties to PAN (Haber et al., 2008, 68), and business organization were increasingly vocal in their criticism of the PRI (Hogenboom, 2014). The defection of business also reduced the party's ability to influence the media (Haber et al., 2008, 145-7). even by their own counting PRI voteshare in presidential elections declined from 86% in 1970 to 49% in 1994. The PAN would win the 2000 election, ending the PRI's hegemony and turning Mexico into an electoral democracy.

Summary. Haber et al. (2008, 54-5) provide a succinct summary of the triumphs and limitations of Mexico's mid 20th century growth spirit.

[8]

> The alliance of convenience between successive PRI administrations and the private sector succeeded in coaxing capital into production. Trade protection, domestic barriers to market entry, the creation of bank-centered industrial conglomerates, and subsidized government credit produced rapid industrialization.... Between 1940 and 1980 the volume of output in the manufacturing sector grew at a rate of more than ten percent per year. By 1980, there was virtually no consumer item that was not domestically manufactured in Mexico ... labor productivity in the aggregate grew by 165 percent over the period from 1950 to 1982. This increase...was the result of two factors: workers moved from low-productivity agricultural activities into higher-productivity manufacturing activities, and workers in manufacturing had progressively larger amounts of capital to work with.

Like the peasants of Indonesia and Thailand, Mexico's campesinos were much more productive working in factories than on subsistence farms even when the factories were inefficient relative to international competition. They were also better fed, longer lived, and better educated. Unlike Indonesia and Thailand, however, the business class were not closely linked to the regime or dependent on it; in fact they were semi-detached and hostile. This meant that the state's commitment problem was only imperfectly solved. While it was difficult to imagine Suharto's children or golf partners funding opposition political parties, it was easy to imagine the northern Mexican oligarchs doing so. This distance would eventually undermine both Mexico's economic growth and the rule of the PRI.

6 Conclusion

A goal of development policy is to find ways of improving the lives of people in underdeveloped countries. For all underdeveloped countries, the obvious first step is to become a moderately developed country. To see how this step might be taken, we examined specific cases of development in Mexico, Indonesia and Thailand. What happened in these countries that took many of their citizens out of poverty and enabled them to achieve living standards that—while still low in comparison to those found in Europe—were and are nevertheless higher than they are in sub-Saharan Africa? Are there lessons that can be learned from studying the paths of these countries that inform smarter and more realistic policymaking in the poorest places of the world?

The institutions literature poses growth as a commitment problem, where the ruler passes up opportunities for economic growth for fear of the political consequences. A partial

"solution" to this problem, we propose, is to limit the scope of property rights protections to the ruling elite, their close associates, and other members of society whom they can trust to be business partners and support them politically. We show that this is precisely what happened in our three cases studies, we see little evidence that many countries that have become middle income in the past century have strong institutions.

If we are right that the first politically feasibly steps to development may entail such selective protection of property rights, then an interesting question emerges concerning their next steps. Does following the path that we have laid out to middle income status make it harder for a country to eventually attain high income status? For example, it could be that if the ruling elite are further empowered by greater income, they will have more to lose from expanding property rights protections and become even more reluctant to enact further institutional reforms. This would be consistent with the experience of the many countries (including our three cases studies) do appear to have stalled at middle income status without moving on to high income. However, a few nations, primarily in east Asia, were able to attain middle income status during a "gilded aged" of crony capitalism that eventually gave way to both high income status and the broader political and economic rights that the citizens of these countries now enjoy.

Even if selective property rights restrict a countries ability to grow beyond a certain point, it is up to policymakers to ask whether this is a sufficiently good reason to deny a low-income country the possibility to achieve middle-income status if it simply does not have a politically feasible direct path to becoming a high-income country. In other words, the policy implications of our analysis should apply in cases where the alternative to being a flawed an unequal middle-income country is to be a flawed an unequal poor country with lower welfare for all citizens.

References

Acemoglu, D. (2006): "Modeling inefficient institutions," Tech. rep., National Bureau of Economic Research.

Acemoglu, D., S. Johnson, and J. A. Robinson (2001): "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, 91, 1369–1401.

Acemoglu, D. and J. A. Robinson (2000): "Political losers as a barrier to economic development," *American Economic Review*, 90, 126–130.

——— (2006): *Economic origins of dictatorship and democracy*, Cambridge University Press.

Aslund, A. (2019): *Russia's Crony Capitalism: The Path from Market Economy to Kleptocracy*, Yale University Press.

Baer, M. D. and S. Weintraub (1994): *The NAFTA Debate: Grappling with Unconventional Trade Issues*, Boulder, USA: Lynne Rienner Publishers, chap. The Pressures for Political Reform in Mexico, 159–180.

Barr, C. M. (1998): "Bob Hasan, the rise of APKINDO, and the shifting dynamics of control in Indonesia's timber sector," *Indonesia*, 1–36.

Bertrand, M., S. Johnson, K. Samphantharak, and A. Schoar (2008): "Mixing family with business: A study of Thai business groups and the families behind them," *Journal of financial Economics*, 88, 466–498.

Besley, T. and M. Ghatak (2010): "Property rights and economic development," in *Handbook of Development Economics*, Elsevier, vol. 5, 4525–4595.

Besley, T. and T. Persson (2009): "The origins of state capacity: Property rights, taxation, and politics," *American economic review*, 99, 1218–1244.

Bhattacharya, A. and M. E. Pangestu (1997): "Indonesia: development transformation and public policy," in *Lessons from East Asia*, ed. by D. Leipziger, University of Michigan Press.

Camp, R. A. (1989): *Entrepreneurs and politics in twentieth-century Mexico*, Oxford University Press, USA.

Charumilind, C., R. Kali, and Y. Wiwattanakantang (2006): "Connected lending: Thailand before the financial crisis," *The Journal of Business*, 79, 181–218.

Del Angel-Mobarak, G. A. (2003): "Paradoxes of financial development: The construction of the Mexican banking system, 1941–1982," Ph.D. thesis, Stanford University.

Dhiravegin, L. (1975): "The Power Elite in Thailand: A General Survey with a Focus on the Civil Bureaucrats," *Asian Journal of Social Science*, 3, 1–15.

Doner, R. F. and B. R. Schneider (2016): "The middle-income trap: More politics than economics," *World Politics*, 68, 608–644.

Dunning, T. (2005): "Resource dependence, economic performance, and political stability," *Journal of conflict resolution*, 49, 451–482.

Finkel, J. (2005): "Judicial reform as insurance policy: Mexico in the 1990s," *Latin American Politics and Society*, 47, 87–113.

Fisman, R. (2001): "Estimating the value of political connections," *American economic review*, 91, 1095–1102.

Gill, I. S., H. J. Kharas, and D. Bhattasali (2007): *An East Asian renaissance: Ideas for economic growth*, World Bank Publications.

Haber, S. H., H. S. Klein, N. Maurer, and K. J. Middlebrook (2008): *Mexico since 1980*, Cambridge University Press.

Hogenboom, B. (2014): "The changing politics of lobbying: private sector organizations in Mexico," *Journal of Public Affairs*, 14, 296–309.

Imai, M. (2006): "Mixing family business with politics in Thailand," *Asian Economic Journal*, 20, 241–256.

Kang, D. C. (2002): *Crony capitalism: Corruption and development in South Korea and the Philippines*, Cambridge university press.

Laothamatas, A. (1988): "Business and politics in Thailand: New patterns of influence," *Asian Survey*, 28, 451–470.

Lee, J.-W. and H. Lee (2016): "Human capital in the long run," *Journal of development economics*, 122, 147–169.

Leith, D. (2002): "Freeport and the Suharto regime, 1965-1998," *The Contemporary Pacific*, 14, 69–100.

Mackie, J. (1991): "Towkays and tycoons: the Chinese in Indonesian economic life in the 1920s and 1980s," in *Indonesia*, Cornell Univ Press, 83–96.

Maurer, N. and S. Haber (2007): "Related lending and economic performance: Evidence from Mexico," *The Journal of Economic History*, 67, 551–581.

Maxfield, S. (2019): *Governing capital: International finance and Mexican politics*, Cornell University Press.

McCargo, D. (2005): "Network monarchy and legitimacy crises in Thailand," *The Pacific Review*, 18, 499–519.

McCargo, D. and U. Pathmanand (2005): *The thaksinization of Thailand*, 4, Nias Press.

McKean, C. S., K. Toh, and W. Fisher (1994): *Export and investment promotion in Thailand*, 17, Center for Development Information and Evaluation, US Agency for ....

McLeod, R. H. (2000): "Soeharto's Indonesia: a better class of corruption," *Agenda: a journal of policy analysis and reform*, 99–112.

Mesher, G. and T. Jittrapanun (2004): "Thailand's long road to telecom reform," *ASEAN Economic Bulletin*, 21, 94–105.

Mietzner, M. (2018): "Authoritarian elections, state capacity, and performance legitimacy: Phases of regime consolidation and decline in Suharto's Indonesia," *International Political Science Review*, 39, 83–96.

Morris, S. D. (1991): *Corruption & politics in contemporary Mexico*, University of Alabama Press.

Naknoi, K. (2020): "The Thai Military as a Business Group, 1940-2016," Tech. rep., Center for Economic Institutions, Institute of Economic Research ....

Nikomborirak, D. (2005): "The political economy of competition law: The case of Thailand," *Nw. J. Int'l L. & Bus.*, 26, 597.

Ouyyanont, P. (2015): *Crown property Bureau in Thailand and its role in political economy*, ISEAS–Yusof Ishak Institute Singapore.

Schneider, B. R. (2002): "Why is Mexican business so organized?" *Latin American Research Review*, 37, 77–118.

Sheridan, M. B. (1996): "Scandal Casts a Cloud Over a Proud City and an Industrial Dynasty," *Los Angeles Times*.

Suehiro, A. and N. Wailerdsak (2004): "Family business in Thailand: Its management, governance, and future challenges," *ASEAN Economic Bulletin*, 81–93.

Temple, J. (2001): "Growing into Trouble: Indonesia After 1966," in *In search of prosperity*, ed. by D. Rodrik, Princeton University Press.

Thorburn, C. C. (2004): "A long row to hoe: Decentralization, reformasi, and land management policy in Indonesia," *Asia Pacific Viewpoints*, 45.

Unchanam, P. (2020): *Royal capitalism: Wealth, class, and monarchy in Thailand*, University of Wisconsin Press.

Van der Eng, P. (2009): "Growth and inequality: The case of Indonesia, 1960-1997," *Working Paper*.

Vickers, A. (2012): "Clothing Production in Indonesia: A Divided Industry," *Institutions and Economies*, 41–60.

Appendix

A Proof of Proposition 1

Part (i) is explained in the main text, so we only provide a proof of part (ii) here to complete the argument. We proceed by examining two cases.

Case 1: $w^c = A_L \geq w_H^m$. Note that if both firms offer the same wage, they must split the total labor L given by the supply function at this wage. Any split can be maintained in equilibrium, including one in which a firm gets no workers. However, a firm with the smallest labor force must have no more than half of it. We label any such firm j and denote the fraction of the labor captured by it when the wages are the same $\kappa \in [0, \frac{1}{2}]$.

Now suppose that the equilibrium wage is $w < A_L$. Then, firm j could offer wage $w + \epsilon$, with $\epsilon \in (0, w - A_L)$. The firm gets all the workers in the formal economy since it offers a better wage. Hence, its profit is now $\Pi_j(w + \epsilon) = A_j(w + \epsilon)^\phi - (w + \epsilon)^{(\phi+1)}$. It follows that

$$\lim_{\epsilon \to 0} \Pi_j(w + \epsilon) = A_j w^\phi - w^{(\phi+1)} > A_j \kappa w^\phi - \kappa w^{(\phi+1)} = \Pi_j(w) > 0.$$

Therefore there is some $\epsilon > 0$ such that $\Pi_j(w+\epsilon) > \Pi_j(w)$ and a profitable deviation exists for one of the firms. Therefore, we cannot have $w < A_L$.

Now, suppose that the equilibrium wage is $w > A_L$. This implies that L does not make a profit at this wage and is better off not hiring. Then, the only active firm is H and it can increase its profit by setting $w - \epsilon > A_L$. Since $w > A_L \geq w_H^m$ and the monopsony optimization problem is concave, it follows that setting a wage closer to the optimum by subtracting $\epsilon > 0$ (while maintaining a wage high enough to prevent firm L from hiring) must increase the profit of the H firm. Therefore, firm H has a profitable deviation and we cannot have $w > A_L$.

We conclude that $w = A_L$ and profits are $\Pi_L^c = 0$ and $\Pi_H^c = (A_H - w^c)(w^c)^\phi$. At this wage, firm L is indifferent between hiring or not, but in equilibrium, it will not hire. We can easily show that this is an equilibrium since there are no profitable deviations. On the one hand, firm L cannot increase the wage since it could only lower its profit and it would still get zero workers if it decreased the wage. On the other hand, firm H already captures all the available workers at this wage. If it lowers the wage below A_L, firm H will lose all its employees and get zero profit and if it increases the wage, it will get further away from its optimum without "stealing" workers from the other firm. Since the monopsony problem is concave, this can only reduce profits.

Case 2: $w^c = w_H^m > A_L$. Although, this case is ruled out by Assumption (A1), we will treat it here to cover the claim in the text preceding this inequality. In this case, firm L must not hire since it would have negative profit otherwise. Suppose that the equilibrium wage is $w \neq w_H^m$. Then, firm H would increase its profit by changing the wage to w_H^m since w_H^m is the optimum and firm L does not hire at this wage (there is no competition for labor). Hence, there is a profitable deviation for H and $w \neq w_H^m$ cannot be an equilibrium. We conclude that $w = w_H^m$ and profits are $\Pi_L^c = 0$ and $\Pi_H^c = (A_H - w^c)(w^c)^\phi$. This is indeed an equilibrium since firm L cannot offer a competing wage without getting negative profits, and firm H is offering the unique wage that maximizes the monopsony problem. □

B Endogenous Universal Property Rights Regime

To characterize the conditions under which the universal property rights continuation path is enforceable (itself an SPE), we need to take into account that τ^{PR} is endogenous in this version of the model. The maximum bound on τ^{PR} is given by the firm's incentive constraint—like in (6)—which itself depends on τ^{PR} through future taxation in this equilibrium:

$$\tau^{PR} \leq 1 - (1-\beta)p - \beta pq(1-\tau^{PR}) \quad \iff \quad \tau^{PR} \leq 1 - \frac{(1-\beta)p}{1-\beta pq}$$

Like in the baseline version of the model, the continuation path is sustained as an equilibrium if and only if the ruler doesn't have an incentive to deviate: $\tau^{PR} \geq 1 - \beta_D$. Similarly as argued before, for the two incentive constraints to be compatible—i.e., there exists τ^{PR} that respects both constraints—we need the latter threshold on τ^{PR} to be lower than the former. We get the following condition:

$$\beta_D \geq \frac{(1-\beta)p}{1-\beta pq}$$

Therefore, we require β_D to be sufficiently close to 1 to sustain this continuation path. Implicitly, we also require that

$$\tau^{PR} \in [\frac{(1-\beta)p}{1-\beta pq}, \beta_D].$$

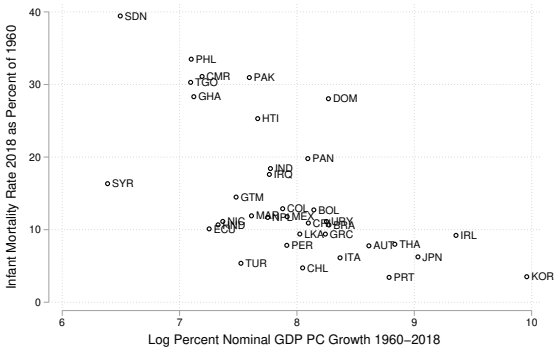
C Additional Table

Table 2: Institutional Quality at Time of "Graduation" to Absolute Middle Income Status

Country	Year	ICRG Gov. Qual.	WB Rule of Law
Morocco	1988	0.44	.
Egypt	1988	0.39	.
Botswana	1989	0.77	.
Indonesia	1990	0.13	.
Sri Lanka	1991	0.33	.
Dominican Republic	1992	0.50	.
UAE	1993	0.50	.
Bosnia	1996	.	-0.24
China	1996	0.60	-0.55
Equatorial Guinea	1996	.	-1.28
Georgia	1996	.	-1.26
Yemen	1998	0.42	-1.39
Albania	1999	0.35	.
Azerbaijan	2000	0.42	-1.15
Philippines	2000	0.56	-0.39
Turkmenistan	2000	.	-1.37
Mongolia	2004	0.50	0.18
Moldova	2005	0.44	-0.35
Angola	2006	0.36	-1.31
Honduras	2006	0.36	-0.99
Pakistan	2006	0.42	-0.86
Viet Nam	2007	0.55	-0.49
India	2008	0.61	0.10
Nigeria	2008	0.28	-1.04
Laos	2010	.	-0.97
Kyrgyzstan	2011	.	-1.20
Myanmar	2012	0.33	-1.36
Ghana	2017	0.50	0.13
Tajikistan	2017	.	-1.37
Bangladesh	2018	0.42	-0.63

Notes: The date is the year each country attained middle income status and retained it for a five year period. This table defines middle income status as a GDP per capita of 4000 constant 2011 USD dollars.

Figure 3: Welfare and GDP Growth in Low Income Countries



(a) Infant Mortality

(b) Years of Schooling

Notes. The figure shows the country's logged nominal GDP per capita growth in percent, 1961-2018 (1965-2015 in subfigure B), plotted against the infant mortality rate 2018 as a percent of the 1961 rate (world development indicators) and change in years average female years of schooling from 1965 to 2015 (Lee and Lee, 2016). Only countries below $500 GDP PC in 1961 are included.