INEQUALITY, DEMOCRACY, AND THE PROTECTION OF PROPERTY RIGHTS

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ABSTRACT
Motivated by the observed relevance of institutional quality, such as strong property rights, for economic performance, this research considers the emergence of property rights protection as a political outcome. It argues that the support for such protection is greater the more equal income distribution and the smaller political bias. When these conditions initially hold, the politically influential rich elite may prefer to relinquish its power through democratization in order to commit future policy makers to the enforcement of property rights thus ensuring larger investment and faster growth along the transition path. In a very unequal economy, however, such democratization will not take place.

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1. Introduction

The importance of property rights protection for economic performance has long been recognized.¹ More recent research documents this statistically, invariably finding that the rule of law, political stability, and protection of property rights enhance economic growth.² Yet, a glance at the latest Corruption Perceptions Index published by Transparency International reveals that countries differ much in the quality of their institutions (http://www.transparency.org/cpi/2004/cpi2004.en.html#cpi2004).³ This begs the question as to what factors prevent societies to adopt growth promoting institutions, such as property rights protection, the rule of law etc. Given that the decisions on these issues are ultimately determined by a political process, one explanation for the observed diversity in institutional quality is that policy makers may or may not find it in their best interest to opt for good institutions.

The divergent routes of Britain and Russia in the 19th century illustrate the political underpinnings of the emergence of high quality institutions. While the former entered this period with some kind of checks and balances on the monarchic appropriative power already in place, analogous system did not exist in the latter. Moreover, a substantial middle class emerged in Britain in the aftermath of the Industrial Revolution, whereas it sorely lacked in Russia. As a result, the gradual extension of the franchise in Britain in the course of the 19th century, accompanied and followed by changes in the political arena and social legislation,

¹ Cf., "In all countries where there is a tolerable security, every man of common understanding will endeavor to employ whatever stock he can command…" (Adam Smith, The Wealth of Nations, 1776, Book II, Ch.1)
³ Finland and New Zealand top the list of least corrupt countries; Bangladesh and Haiti are perceived as the most corrupt.
was not matched by similar processes in Russia.\textsuperscript{4}

This suggests that the prevalence of the rule of law and the degree of enforcement of property rights in an economy, while conducive to its performance, are themselves endogenous, being determined, among other things, by political and economic conditions, in particular, by the distribution of political power and economic resources. In the context of the development of North American versus South American colonies, Engerman and Sokoloff, 2001, 2002, have convincingly argued that the initial distribution of wealth and political power was a key to understanding the divergent routes along which these economies evolved. Contemporary data also shows that inequality and bad governance are significantly correlated. Table 1 below exhibits correlations across countries between various measures of income inequality and governance indicators. The latter have been compiled from two different sources: the World Bank cross-section data covering recent years, and panel data from the International Country Risk Guide (ICRG) going back to the 1970s. In both cases, the measures refer to various aspects of governance quality. Depending on the measure used, the correlations between inequality and these governance quality measures hover in the range -0.20 to -0.45, invariably significant. In particular, the correlation between the Gini coefficient and the summarizing governance index based on ICRG is -0.439. Moreover, the rule of law and control of corruption variables are especially highly correlated with income inequality.

\textbf{INSERT TABLE 1 HERE}

This leads to this paper’s argument. Specifically, it is maintained that strong

\textsuperscript{4} A further illustration is provided by the recent episode of Russia’s transition. In the aftermath of the mass privatization in the early 1990s, a small group of entrepreneurs gained access to political power and then used it to promote their own interests, constantly subverting the emergence of institutions committed to the protection
institutions protect the poor, making appropriation of their income through rent seeking by the rich impossible. It then follows that individual wealth determines to a large extent the attitudes towards the enforcement of property rights and, consequently, the distribution of wealth determines the political outcome in this regard. When the political machinery is controlled by small wealthy elite, it will not be interested in state protection against appropriative rent seeking despite its growth enhancing potential because rent seeking benefits the rich relatively more.\(^5\)

Endogenizing political participation, we consider a situation where the elite initially holds political power and contemplates the possibility of allowing mass political participation. It is unable to directly commit itself to the enforcement of private property rights; rather, the decision in this regard is discretionary and is being made after the individuals have made their investment choices. Envisioning the adverse effects of rent seeking on the individuals’ investment, hence aggregate growth, the elite may want to democratize so as to commit future government to enforce property rights protection. It faces a tradeoff, however, when – because of the existing polarization - democratization is expected to result in a major shift in subsequent policy making away from the preferred policy by the elite. Thus, eventual mass political participation will only occur if initial inequality is moderate or when the middle class is initially politically active. Then democratization will be followed by an increase in investment, whose fruits will be protected by the ruling government, reduced inequality and rapid growth. If, however, these initial conditions do not hold, then the elite will stick to power and, in anticipation of rent seeking, investment and growth will be small. In this case, the potential economic gains as a result of

\(^5\) As noted by an influential observer, “Those in power have no need of courts and laws to have their way; it is the poor and the weak who do. Anyone who doubts this proposition has only to compare the general condition and the sense of security of the lower orders in areas with weak legal traditions, as for example south-east Asia,
mass political participation with its commitment to the alleviation of rent seeking, will fail to be realized. The reason for this lies with the impossibility of the design of a social contract whereby the poor masses – who disproportionately gain from democratization – compensate the rich elite after the new government has been formed.

This research is related to several branches of the literature. One is that on rent seeking as appropriative activity, e.g., Skaperdas, 1992, and Konrad, 2002. This literature is extended here in several regards. For one, the dynamic framework offered enables us to focus on growth and distributional implications of rent seeking. In addition, while in these studies the amount of rent seeking is either determined by market forces or by a benevolent planner, here the focus is on a political choice. Finally, this paper emphasizes the importance of credit constraints, which that literature typically ignores.

Another literature examines how economic conditions affect the potential emergence of the rule of law and property rights enforcement. Gradstein, 2004, relates this to the economy's level of economic development, arguing that a poor economy may lack the resources needed to make an adequate investment in institutions. Glaeser et al., 2003, and Sonin, 2003, focus instead on income distribution, asserting that an equal income distribution is a more fertile ground for good institutions. The analysis below is closely related to all these papers by emphasizing the role of credit constraints in affecting the ability of the poor to make adequate investments.

Our main contribution relative to the above studies is that here political participation – taken typically as given - is endogenized. In this regard, this research is linked to Acemoglu and Robinson, 2000, Bertocchi and Spagat, 2001, and Conley and Temimi, 2001. In these papers, the rich may prefer to extend political franchise in order to alleviate the threat of violent appropriation by the poor, the empirical implication being that franchise extension

with those like western Europe and the United States where they are deeply entrenched.” (Richard Pipes, 1995, p. 289).
should follow manifestations of civil unrest. While there the poor have the access to the appropriation technology, the view proposed here is that, in the absence of adequate law enforcement procedures it is the rich who are likely to gain from appropriation. Lizzeri and Persico, 2004, present a different motive where franchise extension can resolve the potential tension among the members of the elite resulting from the choice between redistributitional aspects of public spending versus provision of public goods. Here we offer a complementary explanation arguing that the rich may want to democratize so as to create a credible commitment to the enforcement of property rights. The element of the model shared with Lizzeri and Persico, 2004, is that the democratic transition occurs peacefully, unlike in, say, Acemoglu and Robinson, 2000. One difference is that in this paper’s view democracy constitutes a commitment to maintaining property rights, whereas Lizzeri and Persico, 2004, have in mind other types of public goods such as the public health system. Our interpretation of property rights enforcement as a mechanism of time-consistent commitment is related to Fleck and Hanssen, 2002, whose account of the evolution of democratic institutions in ancient Greece is supportive of this paper’s argument. Finally, the independent work Cervellati et al., 2005, considers democratization as a commitment for peaceful accumulation as opposed to an armed class struggle. While its conclusions regarding the adverse effects of initial inequality are similar to this paper’s, the determination of institutional quality through a social contract there differs from the political economy approach adopted here; in this sense, the two are complementary to each other.

The rest of the presentation is organized as follows. The next section begins by presenting some historical motivation. Section 3 introduces the basic model, whose initial analysis is conducted in Section 4 followed by the main results derived in Section 5, and Section 6 concludes with brief remarks.

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6 The violence theory is arguably better suited to understand episodes of democratization in some countries than in others.
2. Historical motivation: Russia and Britain

It is instructive to contrast the account of Russia's institutional history with that of Britain. Britain had had a long history of continuous struggle between the monarchy and the nobility, from the Magna Carta to the Glorious Revolution. It entered the nineteenth century as a well-constrained monarchy, with an independent judiciary and a Bill of Rights. As a result, individual rights to property and contract enforcement were relatively secure prior to the Industrial Revolution. The latter further reinforced the status of commercial interests and the bourgeoisie, which had already possessed considerable strength as a power broker in the confrontation between the monarchy and the nobility.

The Reform Acts of 1832 and 1867 gave formal recognition to the already existing political power of the middle class. In particular, corruption was a major motivation behind the former Act. Prior to the Reform Act of 1832 political corruption, which manifested itself in nomination boroughs, limited rights of election, the sale of seats in parliament, and the prevalence of bribery, was rampant. By the Reform Act of 1832 political representation was reconstructed so as to enfranchise populous places, to widen the suffrage and make it more equal (see Rubinstein, 1983). The electorate in England increased from 435000 to 653000, middle-class voters constituting most of the increase. The immediate effects of this new spirit were perceptible in the increased legislative activity of the reformed parliament, its vigorous grappling with old abuses, and its preference of the public welfare to the narrower interests of classes (see Phillips and Wetherell, 1995). That corruption was a major impetus for the drive to extend franchise in Britain is consistent with the arguments made below.
Russia's initial conditions upon entering the 19th century differed in several important respects from those of Britain. First, Russia did not have the history of struggle between the nobility and monarchy, consequently, the nobility was relatively powerless. Second and related to the former, both the state and nobility were perceived as not only being responsible for protection against external threats, but also for daily routine of the populace. Justice formed a part of the administration, which was a major difference between the social order in Russia and Britain. In the latter, some kind of separation of the judicial process from the state has existed since the 13th century, which in itself implies an element of property rights and individual autonomy from administrative powers; in contrast, in Russia all legal matters, were decided by state appointed courts. Third, money economy was almost non-existent, implying that monetary interests in the form of the bourgeoisie were not represented in any power struggle. Many of the trade and commerce functions typically performed by various population groups, in Russia were the privilege of the nobility, which virtually held monopoly rights over mining and metallurgy, vital industries of the time. Early in the century, a few nobility families owned 64 percent of the mines, 66 percent of the glass manufactures, and 80 percent of the potash works. As a result, there virtually was no middle class in Russia in the beginning of the nineteenth century (Pipes, 1995, p. 212).

One of the pillars of the Great Reforms of the 1860s aimed at the abolishment of serfdom, which signified probably for the first time the acknowledgment by the ruling elite of private property rights of broad masses of the population (see Walkin, 1962). It was hoped that the reforms will ignite modernization and growth. This process, however, failed to benefit broad groups of the population. Concentration of business ownership in Russia significantly exceeded that in other European countries, implying that the fruits of

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7 Because the distinction between the private and the public spheres was blurred, state officials, including the judiciary, were perceived not as executives acting in the interests of the public, but rather as enforcers of the autocratic rule.
modernization were reaped by a relatively small group.\textsuperscript{8}

3. Rent seeking versus property rights

The model economy is populated by a measure one of households indexed by \(i\), each consisting of a parent and child, and it operates in discrete time \(t\). The initial level of household \(i\)'s income is exogenously given at \(y_{i0}\), and the income level in period \(t\), \(y_{it}\) is endogenously determined. \(F_t\) denotes the distribution of income in period \(t\). In each period, the households' income is allocated between consumption and investment. Specifically, the individuals allocate resources between consumption, \(c_{it}\), productive investment, \(k_{it+1}\), and unproductive investment in rent seeking, \(r_{it+1}\). Normalizing all prices to one, the budget constraint then is

\[
y_{it} = c_{it} + k_{it+1} + r_{it+1}
\]

(1)

It is assumed that this constraint is binding and that, because of capital market imperfections, it is impossible to borrow.

Under the regime of full protection of property rights (PR), the production function depends only on the productive investment, exhibits decreasing returns to scale, and is given by:

\[
y_{it+1} = A k_{it+1}^\alpha, \quad A > 0, \quad 0 < \alpha < 1
\]

(2)\textsuperscript{9}

\textsuperscript{8} Consequently, “Russia had missed the chance to create a bourgeoisie at a time when that had been possible, that is on the basis of manufacture and private capitalism; it was too late to do so in an age of mechanized industry dominated by joint-stock corporations and banks. Without experience in the simplest forms of capitalist finance and production, the Russian middle class lacked the capacity to participate in economic activity involving its more sophisticated forms.” (Pipes, 1995, p. 218).
Note that this formulation assumes away any direct costs of enforcing the property rights regime. As will become clearer subsequently, the effect of such costs – provided that their funding is through proportional income tax – would be to uniformly decrease the support for property rights protection across the individuals; the substantive part of the analysis would remain, however, intact.

Alternatively, under the rent seeking regime (RS) the state does not enforce property rights protection. This implies that the distribution of the aggregate investment, \( \int_0^1 k_{jt+1}dj \), among the households is determined through appropriative activities. In particular, the share \( s_{i,t+1} \) that household \( i \) is able to retain is a function of both the amount of productive and appropriative investments made by the household:

\[
 s_{i,t+1} = \frac{k_{jt+1}r_{jt+1}}{\frac{1}{0} \int k_{jt+1}r_{jt+1}dj}
\]

Then the net capital endowment, \( \kappa_{i,t+1} \), is determined jointly by productive and unproductive individual investments as follows:

\[
 \kappa_{i,t+1} = s_{i,t+1} \int_0^1 k_{jt+1}dj = \frac{k_{jt+1}r_{jt+1}}{\frac{1}{0} \int k_{jt+1}r_{jt+1}dj} \int_0^1 k_{jt+1}dj \quad (3)
\]

Thus, gross investment is just one factor determining net capital endowment. Another factor are the asset claims made by the households through rent seeking investment efforts. This formulation embodies complementarity between the two types of investment and, in particular, implies that the marginal value of making asset claims through rent seeking is

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\(^9\) The decreasing returns to scale technology could be the consequence of the existence of an additional complementary to capital input, such as land, whose amount is fixed.
larger for large investors in productive capital. It can further be interpreted as a “leaky bucket” redistribution of capital assets in the population. Poorer household, whose opportunities of making such claims are more limited because of credit market imperfections, are at a disadvantage here. This view runs contrary to a theory in Acemoglu and Robinson, 2000, and Bertocchi and Spagat, 2001, which depicts a situation where the rich tend to be productive and the poor tend to resort to appropriation. While this may be true for violent forms of appropriation, when it comes to more peaceful means of appropriation such as through lobbying and rent seeking, we submit that the poor are more likely to be at a disadvantage. Because both types of investment are being endogenously determined, this specification, while being closely related to, generalizes previous formulations which rely on complementarity between rent seeking and an exogenously given productivity parameter, see e.g., Gradstein, 1995. Some indirect evidence on such complementarity is provided in Hellman and Kaufman, 2002. Their firm-level survey data on transition economies relates inequality of influence to governance of public institutions, with stark results. Inequality, crony bias at a firm and a country level, is strongly correlated with a weak performance of public institutions, tilting the enforcement of property rights in favor of big influential firms; moreover, it is associated with lower willingness to use courts to resolve business disputes, with lower levels of tax compliance, and with higher levels of bribery.

The economy's production function under the rent seeking regime then is

10 Note that the aggregate levels of gross and net investment are equal, so rent seeking indeed just redistributes income.

11 In a related work, Yakovlev and Zhuravskaya, 2005, present more direct evidence that firms’ size is positively related to the degree of their political control in Russia’s context. Further, as noted by an influential commentator, in Russia, "...the state does not represent the interests of the society as a whole, but rather is deeply penetrated by Russia's emerging capitalist class. In a sense, the state has been privatized by these nouveaux riches and thereby operates in the interests of its new owners rather than society at large." (McFaul, 2002)
\begin{align*}
y_{it+1} = \kappa_{it+1}^\alpha = A \left[ \int_0^{k_{jt+1}} k_{jt+1} dj \right] \alpha
\end{align*}

(4)

It is assumed that, initially, the rent seeking regime prevails.\(^{12}\)

Each parent’s preferences derive from consumption as well as from the amount of income accrued to the child. This specification greatly simplifies the analysis by making current policy choices independent of future expectations. Assuming for concreteness symmetric logarithmic preferences, we write the individual household’s utility:

\[ V(c_{it}, y_{it+1}) = \ln(c_{it}) + \ln(y_{it+1}) \]

(5)

The level of democratization will be represented by the fraction of enfranchised individuals. We will assume that income determines enfranchisement, so that only the households whose income exceeds \(y_t\) are enfranchised. A direct interpretation of this threshold is the property and literacy requirements which were widespread until quite recently in many parts of the world, including Europe and the Americas (for an excellent review of the latter, see Engerman and Sokoloff, 2001).\(^{13}\) Political bias is directly related to this minimal income requirement: the larger \(y_t\), the smaller and the richer is the politically decisive oligarchy. Initially, incomes are assumed to be relatively low. In each period, all decisions in the economy are made by the parents. In particular, the enfranchised parents first determine by majority voting the new franchise. Then a decision on the institutional regime is made by the entitled voters, and the consumption-investment choices are individually made.

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\(^{12}\) The focus on the two polar regimes is mainly for analytical simplicity. In the appendix, an extension is briefly considered whereby a level of property rights protection is determined.

\(^{13}\) Even where suffrage is universal, however, political activism is strongly correlated with income – see, e.g., Rosenstone and Hansen, 1993, for the evidence in the US and Verba et al., 1978, for a cross-country evidence.
4. Equilibrium analysis

This section sets the stage for the subsequent analysis of enfranchisement. In particular, throughout this section it is assumed that the enfranchisement threshold is exogenously given.

4.1. Consumption-investment choices

We first present the equilibrium consumption-investment choices for each type of institutional regime. Under rent seeking, logarithmic utility along with the multiplicative production function implies that each individual household will allocate a constant fraction of its income to consumption and another fraction to each type of investment. Specifically, maximization of the individual utility function (5) with respect to consumption, productive investment and rent seeking outlays subject to the budget constraint (1) and the production function (4) yields the following first order conditions:

\[-1/c_{it} + \alpha/k_{it+1} = 0, \quad \alpha k_{it+1} = \alpha r_{it+1}\]  

which, together with the budget constraint, yields the equilibrium choices:

\[c_{it}^{RS} = y_{it} / (1+2\alpha), \quad k_{it+1}^{RS} = r_{it+1}^{RS} = \alpha y_{it} / (1+2\alpha), \quad \int_{0}^{1} k_{jt+1}^{RS} dj = \alpha Y_{t} / (1+2\alpha)\]  

Substitution of $k_{it+1}^{RS}$ and $r_{it+1}^{RS}$ into the production function yields the future income levels:
\[ y_{it+1}^{RS} = A \left[ \frac{y_i^2}{1 + 2\alpha} \int y_j^2 \, dj \right]^\alpha \] (8)

and the utility level

\[ V_{it}^{RS} = \ln \left[ \frac{y_{it}}{1 + 2\alpha} \right] + \ln \left\{ A \left[ \frac{y_i^2}{1 + 2\alpha} \int y_j^2 \, dj \right]^\alpha \right\} \] (9)

From (8), summing up across the individuals, the average next-period income is

\[ Y_{it+1}^{RS} = A \left( \frac{\alpha}{1 + 2\alpha} \right)^\alpha \left[ \int \frac{y_j^{2\alpha}}{y_j^2} \, dj \right] Y_i^\alpha \] (10)

Moreover, assuming that \( \alpha > 1/2 \) guarantees that (8) is a convex function of current income, hence income inequality – in the sense of a mean preserving spread, for example - increases over time. Note that this result also hinges on the assumed complementarity between the productive and the unproductive inputs.

With the enforcement of property rights, individual utility maximization with respect to productive investment and rent seeking outlays subject to the budget constraint (1) and the production function (2) yields the following equilibrium choices:

\[ c_{it}^{PR} = y_{it} / (1 + \alpha), \quad k_{it+1}^{PR} = \alpha y_{it} / (1 + \alpha) \] (11)

the future income level:

\[ y_{it+1}^{RS} = y_{it} / (1 + \alpha) \]

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\[ ^{14} \text{With a slight abuse of notation, the expectation operator refers to averaging across the households.} \]
\[ y_{it+1}^{PR} = A \left[ \alpha y_{it} / (1+\alpha) \right]^\alpha \] (12)

and the utility level

\[ V_{it}^{PR} = \ln[y_{it} / (1+\alpha)] + \ln \left[ A \left[ \alpha y_{it} / (1+\alpha) \right]^\alpha \right] \] (13)

From (12), there is income convergence over time, and the average next-period income is:

\[ Y_{t+1}^{PR} = A \left[ \alpha / (1+\alpha) \right]^\alpha \int_0^1 y_{jt}^\alpha dj \] (14)

Comparison reveals that the regime of property rights protection, by alleviating wasteful rent seeking, generates higher total net investment than the rent seeking regime. Moreover, comparing next-period incomes under the two regimes we obtain:

\[ Y_{t+1}^{RS} - Y_{t+1}^{PR} = A[\alpha / (1+2\alpha)]^\alpha \left[ \frac{1}{\left( \int_0^1 y_{jt}^\alpha dj \right)^\alpha} \right] Y_t^\alpha - A \left[ \alpha / (1+\alpha) \right]^\alpha \int_0^1 y_{jt}^\alpha dj \]

Since \( y_{jt}^2 \) is a convex transformation of income, it follows from Jensen’s inequality that

\[ \frac{1}{\left( \int_0^1 y_{jt}^\alpha dj \right)^\alpha} < \frac{1}{\int_0^1 y_{jt}^\alpha dj} \]

implying that the next-period income, hence, the growth rate, are

15 Under the alternative assumption, incomes converge, and it is not difficult to show that the steady state income level is higher under the property rights regime than under rent seeking. While the assumed case leads to more interesting dynamics, the gist of the comparison between the two regimes remains unchanged.

16 As \( \int_0^1 k_{it+1}^\alpha di = \alpha Y/(1+\alpha) > \int_0^1 k_{it+1}^\alpha di = \alpha Y/(1+2\alpha) \).

17 This is analogous to the claim that the risk premium is higher the more risk averse the individual is.
higher under the property rights regime.

Collecting the results,

**Proposition 1.** Under the property rights regime income inequality decreases whereas under
the rent seeking regime it increases over time; and the economy's net investment and next-
period average income growth rate are higher under the former.

The results with respect to income inequality follow directly from the technology
assumptions. The investment and growth results follow from the adverse effect of rent
seeking claims on productive accumulation.

### 4.2. Regime commitment

It will be useful to separately conduct the analysis of the regime choice depending on whether
commitment to an institutional regime is possible or not. Here we suppose that the regime
choice is made by majority voting among the enfranchised parents, in anticipation of the
consumption-investment decision characterized above.

Comparing the two regimes from the viewpoint of an individual household we obtain:

\[
V_{it}^{PR} - V_{it}^{RS} = \\
\ln[y_{it} / (1+\alpha)] - \ln[y_{it} / (1+2\alpha)] - \ln[A[\int_0^1 y_{it}^2 dj / (1+2\alpha)]^{\alpha}]
\]

(15)
The welfare differential (15) decreases in income so that richer individuals stand to gain relatively less than the poor from the property rights regime. The reason for this is that the rich have a comparative advantage in rent seeking, implying that they stand to benefit relatively less than the poor from public protection of property rights. Another interpretation of this result is that the rich are less interested in public protection of property rights as they can do with a private protection. This, in turn, implies that the median income household’s vote among the enfranchised is decisive. Letting subscript “d” denote that household, the individuals will choose the regime of public protection of property rights if and only if the welfare differential is positive:

\[
(1 + \alpha)\ln\left[\frac{1 + 2\alpha}{1 + \alpha}\right] + \alpha\ln\left[\frac{\int_0^1 y_\mu^2 dj}{y_d Y_r}\right] > 0
\] (16)

where the identity of the decisive voter is determined from:

\[
F_t(y_{dt}) - F_t(y_t)/2 = 1/2
\] (17)

Clearly, from (17), the larger the political bias in favor of the rich (in the sense of limiting political participation by increasing \( y_t \)) the richer is the decisive voter. Inspection of (16) and (17) reveals then that the political preference for protection of property rights decreases with the political bias in favor of the rich. When the franchise threshold (hence, because of (17), the income of the decisive voter \( y_{dt} \)) is low, then protection of property rights prevails, and if the threshold is large enough, rent seeking will be the choice of the decisive majority.

Because rent seeking leads to slow average income growth and, in particular, slow income growth among the poor, a Pareto improving arrangement would be for the enfranchised rich to choose property rights protection and to be compensated for this by the
4.3. Lack of commitment

We assume that a ruling coalition cannot directly commit itself to the enforcement of property rights in a credible way, so that the consumption-investment choices are made simultaneously with the political determination of the institutions. Arguably, this is a realistic scenario:

"To be sure, the rational autocrat will have an incentive, because of his interest in increasing the investment and trade of his subjects, to promise that he will never confiscate wealth or repudiate assets. But the promise of an autocrat is not enforceable by an independent judiciary… History provides not even a single example of a long and uninterrupted sequence of absolute rulers who continuously respected the property and contract-enforcement rights of their subjects." (Olson, 1993, p. 572)

The analysis proceeds backwards. At the last stage of the decision making process the enfranchised voters collectively determine the property rights regime and make their investment decisions. Comparing the utility levels under the two regimes from an individual viewpoint, the property rights regime is preferred if and only if

\[-\ln r_{t+1} - \ln \left[ \int_{0}^{1} k_{j,t+1} dj / \int_{0}^{1} k_{j,t+1} r_{j,t+1} dj \right] > 0\]  (18)

In other words, public protection of property rights is the preferred regime for individuals whose rent seeking claims are relatively low; those with large rent seeking claims prefer the rent seeking regime which allows them to appropriate a larger fraction of aggregate investment.
The respective individually optimal investment decisions under each regime are given as in the above analysis. At the equilibrium, these decisions should be taken along with (18). Employing this and because the identity of the decisive voter is given by (17), simple calculations confirm that the property rights regime will emerge in the political equilibrium if and only if

\[ \ln y_{dt} < \ln[\int_0^1 y_{jt}^2 dj / Y_t] \]  

(19)

Thus, as in the previous case, if the income of the decisive voter is large enough, the rent seeking regime will be preferred, and if it is sufficiently small, the regime of full property rights protection will constitute the equilibrium choice.

To sum up,

**Proposition 2.** Both with and without commitment to an institutional regime, the richer an individual the more favorable she is toward inefficient rent seeking; and when the political bias in favor of the rich (the franchise threshold, hence the policy maker's income) is large enough, rent seeking will be preferred by the politically decisive elite.

The intuition behind these results is that the rich, having an advantage in rent seeking, are less interested in property rights protection, which restricts their ability to lay claims on assets through rent seeking investment. This has direct dynamic implications for the economy's evolution which will be more fully explored in the next section.

5. Democratization
The previous analysis has taken the level of democracy as given, ignoring the emergence of democratic institutions. These, however, are in a sense most fundamental. In particular, the episodes of democratization – such as the emergence of universal male suffrage in the course of the nineteenth century Britain; female suffrage movement in several European countries and the US in the twentieth century; voting franchise of the African Americans in the South of the United States – have all been dramatic events in the histories of these countries, and their incidence took place over relatively long period of time. While the decisions on the rule of law and on the extent to which private property rights are enforced are also evidently extremely important, they are nevertheless secondary to the political system and ultimately reflect the will of politically active ruling groups; in other words, arguably, it may be impossible for a ruler to directly commit himself to the enforcement of property rights. Even if these are legally protected their enforcement is a political decision, so that the only possible means to commit future generations to enforce property rights is indirect, by shaping the political decision making process.

Because in our framework voting franchise fully determines the identity of the decisive voter, in this section we endogenize the democratization process, assuming that the initial franchise threshold, $y_0$, is given and determining future thresholds $y_t$. The period $t$ franchise decision, $y_t$, is made first by currently decisive majority, determined from the beginning-of-the-period franchise threshold, $y_{t-1}$, upon which the newly enfranchised majority determines the institutional regime, and the individuals simultaneously make their consumption-investment choices.

From equation (17), the determination of the voting franchise, $y_t$, is tantamount to the determination of the identity of the decisive voter in the institutional choice stage. Comparing (16) and (19), when the median income of the currently enfranchised is high enough, this voter will prefer rent seeking at both ex ante and ex post stage; likewise, if his
income is low enough, he will prefer full property rights protection at both stages. In these cases, the currently enfranchised majority has no incentive to relinquish its powers by lowering the franchise threshold. Recall that, when the majority consists of wealthy elite and, therefore, implements the rent seeking regime, the economy grows slowly and inequality increases. A Pareto improving social contract would then be for the rich to extend the franchise and to get compensated for this by the poor. This, however, is highly unlikely to be implemented as the newly enfranchised majority will always have an incentive to renege, and the rich will not have the political power to enforce the contract.\textsuperscript{18}

When the income of the currently decisive voter is in the intermediate range, however, more precisely,

\[
\ln \left[ \int_0^1 y^2 \frac{dj}{Y_t} \right] < \ln y_{dt} < \ln \left[ \int_0^1 y^2 \frac{dj}{Y_t} \right] + \frac{(1+\alpha)\ln[(1+2\alpha)/(1+\alpha)]}{\alpha}
\]

then, as revealed by comparing (16) and (19), the current majority prefers protection of property rights \textit{ex ante}, but is better off under rent seeking \textit{ex post}, the reason being the different constraints faced by the policy maker whose regime choice affects investment decisions only in the \textit{ex ante} scenario. In this case, it will want to delegate the decision making power to an individual with a lower income by decreasing the franchise threshold so as to commit the future decisive majority to choose its preferred level of property rights protection.

To sum up,

**Proposition 3.** When the decisive policy maker belongs to the rich elite, the franchise will not be extended despite its growth and welfare enhancing potential. Only when the policy maker's income is in the intermediate range, will the franchise be extended in order to

\textsuperscript{18} Acemoglu and Robinson's, 2000, model also exhibits this feature in a related but different setting.
commit the future governments to the regime of property rights protection.

The intuition behind this proposition is as follows. Lowering the franchise threshold has the effect of commitment to the property rights regime thus causing an increase in capital accumulation. Its other effect, however, is to curtail rent seeking opportunities of the rich elite thus decreasing the share of aggregate income it is able to appropriate. When the decisive voter belongs to the rich elite the second effect causes the preferred choice to be not to increase the franchise. In contrast, when the decisive voter’s income is in the intermediate range, the former effect dominates and the preferred choice is lower the franchise threshold.

To examine the dynamic implications of this analysis, recall that the initial franchise threshold is high, so that the wealthy control the political machinery, and that the rent seeking regime prevails. The nature of the political outcome crucially depends on the evolution of the enfranchised fraction of the population. Because income evolves over time monotonically (i.e., if \( y_{it} > y_{jt} \), then \( y_{it+1} > y_{jt+1} \)), this, in turn, depends on whether next-period income of a household with the current income of \( y_i \) increases or decreases over time. From (8) this is determined by comparing \( A\left[ \frac{y_i^2}{\alpha Y_i} \right] \) and \( y_i \); in particular, the fraction of enfranchised population increases whenever

\[
A\left[ \frac{y_i^2}{\alpha Y_i} \right] > y_i \tag{21}
\]

To proceed, suppose that the initial distribution of income is lognormal, with the parameters \( \mu_0 \) and \( \sigma_0^2 \); equation (8) then implies that it will be lognormal, say with the parameters \( \mu_t \) and \( \sigma_t^2 \) in any future period \( t \). Using the properties of the lognormal distribution, \( Y_t = \mu_t + \sigma_t^2 / 2 \),
and \( \int y_{jt}^2 \, dj = 2\mu_t + 2\sigma_t^2 \), implying that (21) can be re-written as follows:

\[
A \left[ \frac{y_{jt}^2}{2\mu_t + 2\sigma_t^2} \right]^{\alpha(\mu_t + \sigma_t^2/2)} \frac{1}{1 + 2\alpha} > y_0
\]  

(22)

The left-hand side in (22) decreases in \( \sigma_t^2 \) and increases in \( A \), implying that smaller income inequality and a larger value of the productivity parameter lead to a larger enfranchisement in the next period. Thus, if initial inequality is small, or the productivity parameter is large so that the poor experience significant income growth, then the fraction of enfranchised individuals will increase over time. This will cause the shift of the political power to the middle income group, which then may lower the franchise threshold causing massive political participation. This, in turn, will result in the adoption of the property rights regime, increase in the growth rate and reduction in inequality. If, in contrast, initial inequality is high and the rate of income growth is slow, the share of individuals with income above the initial voting franchise \( y_0 \) will not rise. This implies that the identity of the decisive voter will not change, and the rich will continue to constitute the ruling elite. As a result, franchise will not be extended, and rent seeking will prevail, accompanied with sluggish growth and rising inequality.

This discussion is summarized in

**Proposition 4.** Ultimate democratization depends on initial conditions. If the initial inequality is relatively low, and the economy is productive enough to generate income growth among the poor, democratization will eventually follow, resulting in protection of property rights, lower inequality and faster growth. Otherwise, the economy will be ruled by wealthy elite and rent seeking will prevail, generating slow growth and high inequality along the
High initial inequality implies that, because it has a comparative advantage in rent seeking, the ruling elite is able to appropriate a disproportionate share of aggregate investment, thus further enriching itself, at the expense of the poor masses. The latter remain, therefore, locked in a trap, whereby their limited endowments prevent an adequate appropriation of aggregate investment thus reaching the franchise threshold. But then the balance of political power remains unchanged, the rich oligarchy continues to be in control of the political machinery, and consequently the rent seeking regime perpetuates itself.

6. Concluding remarks

The recognition of the importance of high quality institutions for economic growth motivates a close scrutiny of their formation. Specifically, the issue is what factors prevent the emergence of good institutions. It is argued in this paper that, while good for growth, high quality institutions, specifically, public protection of property right, also redistribute resources thus creating opposing political interests in their support or against it.

The paper's starting point is that democracy is a political institution conducive to the public protection of property rights and then it goes on to examine the incentives for the rich oligarchy to relinquish its political power through democratization. In its framework, such democratization is viewed as a commitment to property rights protection. Its ultimate growth benefits have to be weighed, however, against redistributive consequences, away from the rich elite and toward the poor; only if the former outweigh the latter from the perspective of the ruling coalition, will democratization take place. The analysis of the intertemporal evolution of the economy reveals that political, economic and institutional factors feed each
other. Initial conditions – in particular, income distribution and the political bias – have been found to play a key role for the likelihood of eventual democratization; in particular, the analysis identifies an important role for a powerful middle class, which can propel political and, ultimately, economic changes. Depending on these conditions the economy may converge to democratic participation, resulting in egalitarian income distribution and relatively fast growth; or get stuck in a situation where the rich elite controls policy making, with higher inequality and slower growth.

APPENDIX

Intermediate levels of property rights protection

While the analysis in the text considers two polar cases of perfect property rights protection and lack thereof, its extension to the case of intermediary level of property rights protection can be of interest. To this end, let $P_{t+1}$ denote the level of property right protection in period $t+1$, $0 \leq P_{t+1} \leq 1$. The relationship between gross and net investments is given now by:

$$
\kappa_{it+1} = \frac{k_{it+1}(P_{t+1} + r_{it+1})}{\int_{0}^{1} k_{t+1}(P_{t+1} + r_{jt+1})dj} \quad (A1)
$$

When $P_{t+1} = 0$, this specification coincides with the rent seeking regime in the text. As $P_{t+1}$ increases, the marginal productivity of rent seeking decreases; and when $P_{t+1}$ tends to infinity, (A1) tends to the property rights regime in the text.

For a given $P_{t+1}$ maximization of the utility function subject to (1), (2) and (A1) yields the first order conditions

$$
1/c_{it} = \alpha \frac{d}{dt} k_{it+1} = \alpha (P_{t+1} + r_{it+1}) \quad (A2)
$$
These, in conjunction with the budget constraint yield the following equilibrium values:

\[ c_{it} = (y_{it} - P_{t+1})/(2\alpha + 1), \quad r_{it+1} = [\alpha y_{it} - (1 + \alpha) P_{t+1}]/(2\alpha + 1), \quad k_{it+1} = (\alpha y_{it} + \alpha P_{t+1})/(2\alpha + 1) \]  \hspace{1cm} (A3)

so that, in particular, the aggregate investment is \((\alpha Y_t + \alpha P_{t+1})/(2\alpha + 1)\) and is increasing in the degree of property rights protection.

Substitution of the equilibrium values into (2) yields the next-period income of

\[ y_{it+1} = A \left[ \int_0^1 k_{jt+1}(P_{t+1} + r_{jt+1}) \, dj \right]^{\alpha} = A \left[ \int_0^1 (y_{jt} + P_{t+1})^2 \, dj \right]^{\alpha} \]  \hspace{1cm} (A4)

It can be shown that larger levels of \(P_{t+1}\) result in reduced next period inequality. For consider two individuals, \(i\) and \(j\), assuming without loss of generality that the former is the richer among the two, \(y_{it+1} > y_{jt+1}\). Then

\[ y_{it+1} / y_{jt+1} = \left( \frac{y_{jt} + P_{t+1}}{y_{jt} + P_{t+1}} \right)^{2\alpha} \]  \hspace{1cm} (A5)

which decreases in \(P_{t+1}\). This implies that next-period income inequality is a decreasing function of the level of property rights protection.

It is not difficult to show that, both with and without commitment to a level of property rights, the preferred level is a decreasing function of income. Consider, for example, the commitment case. Maximization of the utility function while using the calculated above equilibrium values for consumption and future income yields, assuming an internal solution, the first order condition:

\[-1/(y_{it} - P_{t+1}) + 2\alpha(y_{it} + P_{t+1}) + \alpha(Y_t + P_{t+1}) - 2\alpha(Y_t + P_{t+1}) \int_0^1 (y_{jt} + P_{t+1})^2 \, dj = 0 \]  \hspace{1cm} (A6)
Assuming that the second order condition holds, differentiation of (A6) then reveals that the preferred level of property rights protection is a decreasing function of income.

Moreover, this model allows for the consideration of a gradual extension of the franchise, a possibility also studied in Jack and Lagunoff, 2003. While the incentive to extend the franchise is similar to the one identified in the text, it can be conjectured that, in each subsequent period, the franchise threshold will be reduced, which will result in a higher level of property rights protection. A more complete study of this scenario is, however, beyond the scope of this paper.

References


<table>
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<tr>
<th>Variable**</th>
<th>Gini coefficient</th>
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* All correlations are significant at 0.01 level.

**The World Bank set of indicators was developed in Kaufmann et al. (2003). With regard to the International Country Risk Guide (ICRG), five of the most commonly used institutional dimensions used in the literature are considered; and an average of these five dimensions is calculated; all indices are averaged over 5 year intervals. The results are based on a panel data set of 121 industrial and developing countries.