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Motivation

- Effective contract enforcement institutions are essential to achieve cooperation in voluntary exchange.
- Different contract enforcement institutions usually coexist in many societies. Their relative prevalence, however, differs across society in an important way.
- Relational contracts typically prevalent in developing countries, while legal contracts in developed economies.
- How to account for such differences?
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Legal contracts use an impersonal third party, the legal court, to deter cheating. ⇒ Agents do not need to maintain less productive relationships.
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So the more productive the new matches are relative the old ones, the higher the returns of using legal enforcement, and the larger the incentives to invest in the legal system.
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In time when relational contracts are used predominantly, the rich elite must have enjoyed higher gains from trade using relational contracts than others \( \Rightarrow \) gain less from legal quality.
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So legal development will be slower when the rich elite are politically dominant $\Leftarrow$ more likely with unequal endowment.
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High income inequality $\rightarrow$ elite rule $\rightarrow$ lower legal quality
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\[
\begin{align*}
\text{High income inequality} & \quad \rightarrow \quad \text{elite rule} & \quad \rightarrow \quad \text{lower legal quality} \\
\text{Low income inequality} & \quad \rightarrow \quad \text{majority rule} & \quad \rightarrow \quad \text{higher legal quality}
\end{align*}
\]
Agents live infinitely. The elite have more wealth and better connection/education than the poor.
The model setup

- Agents live infinitely. The elite have more wealth and better connection/education than the poor.
- Two phases. In the 1st phase, the legal quality $q$ is determined by a political process; in the 2nd phase, agents match into pair-wise partnerships to carry out projects, using relational contract or legal contract to deter cheating.
Repeated matching game (2nd phase)

The basic stage game.

Table 1: A Prisoner’s Dilemma

<table>
<thead>
<tr>
<th>Agent 1</th>
<th>Cooperate</th>
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<td>Agent 2</td>
<td>(a, a)</td>
<td>(0, 0)</td>
</tr>
<tr>
<td>Cooperate</td>
<td>(a + b, −d)</td>
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Table 1: A Prisoner’s Dilemma

The elite enjoy higher returns in established partnership since their education is higher.

New Trade Opportunity. In each period, the return in a new match is $\alpha$ with probability $\rho$, where $\rho$ is in $(0, 1)$. With probability $1 − \rho$, it increases to $\alpha(1 + \epsilon)$ for the first $N$ periods, where $\epsilon > 0$, after which it goes back to normal.
Repeated matching game (2nd phase)

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- **Learning-by-Doing.** The return increases to \(a(1 + g(h_1, h_2))\) from the second period onwards after the partnership is formed, where \(g_1, g_2 > 0\) and \(g_{12} \geq 0\).
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- **New Trade Opportunity.** In each period, the return in a new match is \( a \) with probability \( \rho \), where \( \rho \in (0, 1) \). With probability \( 1 - \rho \), it increases to \( a(1 + \varepsilon) \) for the first \( N \) periods, where \( \varepsilon > 0 \), after which it goes back to normal.
The paper focuses on two types of enforcement institutions (subgame perfect equilibrium (SPE) outcomes) that enable agents to cooperate.

- One is a long-term relational contract that demands both agents to always cooperate and to continue the partnership regardless of exogenous shocks, and if any agent defects, it dissolves automatically at no cost to both agents. To deter cheating, each agent in the partnership has to incur a sunk cost $R$ up-front, which cannot be recovered once the relationship stops.
Strategy and equilibrium

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- **The other is to sign a short-term formal legal contract** that mandates cooperation during the match, punishes cheating but allows agents to break up when a new match becomes more productive. The court identifies cheating when it occurs with probability $Q(c, q)$ and punishes the cheater, where $c$ is the cost of writing the legal contract.
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5. Players exiting from an old relationship form new matches (individual matching history is private information) and then the same action sequence follows.
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Lemma 2. The short-term legal contract is a subgame perfect equilibrium for an elite agent when $\varepsilon \geq \varepsilon_{Le}$ and for a non-elite when $\varepsilon \geq \varepsilon_{Lm}$, where $\varepsilon_{Lm} < \varepsilon_{Le} < b/\delta \rho a$. 
Comparing relational and legal contracts

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\[
\therefore \text{The elite are less likely to use legal contracts.}
\]
Investment in legal quality

Without any investment, the initial legal quality is zero and thus all agents use relational contracts. So the legal investment, if ever made, has to be large enough to make agents willing to shift from relational to legal contracts.

- Proposition 1. The social optimal legal quality $q_s$ is zero when $\varepsilon \leq \varepsilon^s$, and becomes positive when $\varepsilon > \varepsilon^s$, where $\partial \varepsilon^s / \partial g_i \geq 0$ and $\partial q^s / \partial g_i \leq 0$. 

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- \( \Rightarrow \) So a society is less likely to invest in legal quality and invests less when relational contracts are more effective in achieving cooperation.
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- **Proposition 3.** Under the majority rule: $\epsilon_m^* < \epsilon^s$ and $q_m^* > q^s$. 
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- Proposition 3. Under the majority rule: $\varepsilon^*_m < \varepsilon^s$ and $q^*_m > q^s$.

- $\Rightarrow$ The elite rule may under-invest in legal quality than the social optimal level, while the majority rule may over-invest.
Figure: Legal Investment under Different Political Regimes

Proposition 4. The legal development is more likely to start when the exogenous productivity shock $\varepsilon$ is larger, and it leads to lower income inequality, regardless of political regimes. When faced with the same $\varepsilon$, the legal investment is less likely to start, the legal quality is lower, and the income inequality is higher under the elite rule than under majority rule.
When the political dominance has to be backed up by economic strength, the elite are even less willing to invest in legal quality because their relative economic power is likely to be weakened by legal development.
Extensions

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- The existence of social communities improves trading efficiency over bilateral relational contracts but reduces the incentives to invest in legal quality.
Extensions

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- The existence of social communities improves trading efficiency over bilateral relational contracts but reduces the incentives to invest in legal quality.

- If the productivity shock $\varepsilon$ can be affected by policies, the difference in legal development can be even larger across societies.
This paper finds that a fundamental conflict of interests in legal investment lies in the different returns of using relational and legal contracts across agents, where the traditional rich elite gain less from legal enforcement than the masses.
Conclusions

- This paper finds that a fundamental conflict of interests in legal investment lies in the different returns of using relational and legal contracts across agents, where the traditional rich elite gain less from legal enforcement than the masses.

- The elite rule tends to under-invest in legal quality. The majority rule tends to overinvest in legal quality.
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The elite rule tends to under-invest in legal quality. The majority rule tends to overinvest in legal quality.

The elite rule, slow legal development, and high income inequality form a self-perpetuating circle. So are their opposites. The dynamic transition is left for future research.