Lobbying on Entry

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Abstract

We develop a model of lobbying in which wealth inequality and political accountability affect entry and financial development. Incumbents seek a low level of effective investor protection to prevent potential entrants from raising capital. They succeed because they can promise larger political contributions due to the higher rents earned when entry is blocked. Entry and investor protection improve when the political system becomes more accountable. Consistent with these predictions, in a cross-section of 38 countries a higher democracy score is associated with higher entry in sectors which are more dependent on external capital and those with greater growth opportunities. Also, higher accountability and lower income inequality are associated with more effective investor protection, complementing the role of legal origin.

JEL classification: G21, G28, G32.

Keywords: Politics, Entry, Financial Development, Entrepreneurship, Investor protection, Income Inequality, Growth.

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1 Introduction

Entry is an important form of economic renewal and is associated with growth (e.g. Hause and Du Rietz, 1984; Johnson, McMillan and Woodruff, 2003). Yet, recent evidence has highlighted the existence of high barriers to entry facing new entrepreneurs, especially in developing countries. Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2002) show that countries with higher entry barriers tend to have higher corruption and larger unofficial economies.\(^1\) Klapper, Laeven, and Rajan (2003) show that onerous barriers appear to reduce growth and entry in naturally high entry sectors. Both studies offer evidence against the notion that such barriers serve efficiency purposes. Financial underdevelopment appears to be a particularly damaging barrier for the process of new firm creation (e.g. Cabral and Mata, 2003), and may undermine growth (Levine, 1997; Black and Strahan, 2002; Rajan and Zingales, 1998). These findings raise the question whether some agents benefit from hindering entry, and which institutions support it.

We model the lobbying conflict on entry barriers, specifically investor protection, between more established and emerging classes (Rajan and Zingales, 2003a), adopting the view that legislation and its enforcement are affected by elected politicians, rather than chosen directly by voters.\(^2\) Our main prediction is a causal relationship between measures of political accountability (such as constraints on the executive) and actual entry. We provide supporting evidence on sectorial entry rates across a broad sample of industries in 38 countries. There is less entry in more financially-dependent sectors in less democratic countries. Better investor protection is associated with higher accountability, lower income inequality, and common law origin. Finally, in our sample investor protection summarizes entirely the effect of these institutions on entry.

The basic political conflict is simply described. Since wealthier entrepreneurs do not need much external finance for investment, they lobby to seek weak investor protection, to block access to funding for entry by less wealthy entrepreneurs. To win,

\(^1\)Djankov et al (2002) discuss two interpretations, the capture of regulation by industry insiders (Stigler, 1971) and the tollbooth view that barriers are created by politicians to collect bribes (Shleifer and Vishny, 1998). Our approach is consistent with both views.

\(^2\)Lobbying allows interest groups to exert disproportionate influence on legislators and public officials when some affected agents are too dispersed to become active (Olson, 1965).
they need to offer higher political contributions because their preferred legislation
entails lower welfare. Thus, their agenda is chosen to trade off a higher required
contribution against a lower rate of entry, which increases their profits.

The main result is that entry is increasing in political accountability, which we
define as politicians’ sensitivity to voter preferences (a measure of constraints on the
executive). Greater accountability increases the bribe required by the legislator to
accept lower welfare, and thus induces higher entry in order to reduce the required
payment. Thus, the elite should be larger in more democratic societies, or more pre-
cisely, entry should be higher in societies with stronger constraints on the executive.
This result is robust across lobbying models, such as the Grossman and Helpman
(1994) common agency model, as well as a sequential lobbying model.3

The model shows that differences in wealth across entrepreneurs do not affect
entry, after controlling for accountability, although - under some conditions - larger
inequality reduces investor protection. Higher inequality increases the level of investor
protection because the elite needs to raise more capital to fund its own entry. Yet
only accountability enters in the objective function of the legislator, and affects the
winning lobby agenda.4

Next, we test our predictions across a large sample of developed and developing
countries. Adopting the framework of Rajan and Zingales (1998), we show that entry
is significantly higher in more accountable countries in industries that require more
external capital. This is consistent with the argument that less self-sufficient sectors,
where entry needs to rely on external funds, will be more vulnerable to resistance by
established interests. We obtain similar results if we interact political accountability
with opportunities for entry rather than external needs, using industry growth in
the United States as an instrument (Fisman and Love, 2003). Entry is significantly
higher in more accountable countries in sectors with greater opportunities for entry.

As complementary hypotheses, we control for legal origin, economic and financial

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3In an earlier version we also obtain the result with multiple legislators, where the winning
lobby must gain over a “supermajority” of legislators, in line with formal models in political science
(Groseclose and Snyder, 1996).

4Inequality would matter for entry if a) politicians care for the distribution of welfare, b) there
are ex ante lobbying costs, or c) differences in wealth among legislators affects their preferences for
bribes.
development. We find that the effect of political accountability is unaffected, and only stock market development is significant. Since the quality of political institutions may be endogenous, we instrument political accountability with the age of democracy in each country, and are able to confirm our results.

Furthermore, we explore the channels through which political accountability affects entry. Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2002) show evidence that explicit entry barriers are higher in more corrupt countries, and generally in countries with a less accountable political system. We add to this literature by focusing on financial barriers created by weak enforcement of investor rights, which undermines a level playing field for poorer entrepreneurs. We show that effective investor protection - defined as the product of antidirector rights and the quality of legal enforcement - is a key determinant of entry, even when we control for explicit entry barriers.

We next show that both accountability and inequality, together with common law origin, are highly correlated with effective investor protection. We interpret this as evidence that the distribution of political and economic power affects contractual enforcement and thus the ability to raise external funding. Remarkably, the result is robust to introducing per capita income, accommodating the view that economic development may directly affect the quality of institutions (Glaeser, La Porta, Lopez-de-Silanes, and Shleifer, 2004).

Finally, we show that political accountability, income inequality and legal origin are good instruments for effective investor protection. Thus in our sample, effective investor protection appears to be a sufficient statistic for the effect of these institutions on entry. In synthesis, we conclude that access to finance, while endogenous to political and legal institutions, appears to be the key mechanism to block entry. To the extent that new entry is an important engine for economic renewal, it may affect long term growth. Our contribution is to show that entry, arguably a critical variable for economic dynamism, is particularly vulnerable to poor political institutions.

The structure of the paper is as follows. In Section 2 we introduce and derive the

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5Financial and economic development are endogenous to accountability and inequality in our approach, but not in some competing hypotheses.

6Although they are strong determinants of effective investor protection, once we control for the latter variable, they are no longer statistically significant in explaining entry.
equilibrium conditional on a given level of investor protection. In Section 3, we solve for the political equilibrium and endogenize financial development, and examine a few extensions of the basic model. Section 4 contains the empirical analysis. Section 5 concludes.

1.1 Related literature

Legal origin - La Porta, Lopez-de-Silanes, Shleifer, and Vishny [henceforth LLSV] (1997) and (1998) - explains part of the current cross country variation in financial market development, and is related to entry barriers (Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2003). Our results suggests that political institutions have a complementary (and presumably independent) role to determine access to finance and thus entry. From our study we cannot conclude that political institutions (i.e. mechanisms which constrain public abuse) matter more than legal institutions (which constrain private abuse), as argued by Acemoglu and Johnson (2003).7

Recent studies suggest that the extent of relative financial development across countries changes over time, perhaps reflecting legislative changes in response to political shifts (e.g., Rajan and Zingales, 2003a; Roe, 1994). The literature on political economy of finance (Pagano and Volpin, 2004; Perotti and von Thadden, 2004) endogenizes legal and financial institutions as the outcome of political choices. This approach takes the distribution of initial endowment and the political institutions as exogenous determinants of the distribution of political power. Their historical determinants may arise from either legal origin (LLSV, 1998) or initial endowments and local conditions (e.g. Acemoglu, Johnson and Robinson, 2001). In an influential paper, Engerman and Sokoloff (2002) argue that colonies in America created around a sharp initial inequality, reflecting the nature of local endowment, grew less than more equal societies, independently of colonists’ origin.

Most papers in this literature use the median voter approach to endogenize the reliability of property rights. Perotti and von Thadden (2004) show that an unequal society may prefer bank or family governance to free markets, and show how in many

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7On a related issue, our time series is too short to tell whether financial development supports long term growth once we control for accountability. Acemoglu and Johnson (2003) suggests that it does not.
countries large redistributitional shocks after the First World War led to major political reversals which undermined financial development. Berglof and Bolton (2003) and Gradstein (2003) show that income inequality may reduce growth by affecting the protection of property rights. Biais and Mariotti (2003) study how tough bankruptcy laws may be resisted by richer entrepreneurs as they increase wages.

A related body of literature suggests that the greater the wealth inequality, the stronger the incentive of the elite to maintain political control, and restrain the emergence of new producers (Rajan and Zingales, 2003b, and Acemoglu, 2003). The elite may choose distorted institutions, which limit growth, but preserve their control over major decisions. In Bourguignon and Verdier (2000), a rich elite restricts funding for education at a cost of lower growth, in order to limit political participation which leads to more redistribution. He, Morck and Yeung (2003) show that countries where the same companies maintain a dominant position over time have lower economic growth, worse protection of investor rights and less developed capital markets.

2 Setup of the model

We consider an economy inhabited by a population whose size is normalized to 1. There are two types of individuals in this economy: \( m < 1/2 \) entrepreneurs and \( 1 - m \) consumers. The entrepreneurs have the human capital to set up a new firm and an endowment of capital (apples) \( \tilde{w} < I \), where \( \tilde{w} \) is distributed according to a distribution function \( F(w; \sigma) \) on the support \([w, \bar{w}]\) with a mean equal to \( w_e \). The parameter \( \sigma \) is a measure of wealth inequality: an increase of \( \sigma \) results in a mean-preserving spread on the distribution of \( \tilde{w} \). Consumers have an endowment of capital \( \tilde{w}_c \), distributed according to a distribution function \( G(w) \) with a mean equal to \( w_c \). All individuals receive utility from consumption at \( t = 4 \) (the last period in the model).

There are two goods: apples (which is also the investment good and the numeraire) and apple pies (produced by entrepreneurs using apples as input). The utility of a representative individual \( i \) is:

\[
U_i = k_i + u(c_i) = k_i + ac_i - 1/2 c_i^2, \tag{1}
\]

where \( k_i \) is the amount of apples, \( c_i \) is the number of apple pies consumed at \( t = 4 \),
a > 1 is a constant.\textsuperscript{5}

The capital needed to finance the project can be raised in two ways. (i) Entrepreneurs can invest their own wealth in their own company. Of course, this source of funds is bounded above by their wealth $\tilde{w}$. (ii) They can raise funds on the capital market as external equity.\textsuperscript{9} We denote $\alpha_{ik}$ as the stake held by agent $i$ in firm $k$, and $\alpha_{jj}$ is the equity stake owned by the entrepreneur $j$ in his own firm.

As an alternative investment opportunity, individuals can access a riskless technology that produces $(1 + r)$ units of apples in $t = 4$ for each apple invested in $t = 0$. Competition in the public capital market ensures that the required rate of return on equity financing is $r$, which we normalize to zero.

2.1 Timeline

The sequence of events, depicted in Figure 1, is as follows:

At $t = 0$, entrepreneurs may form interest groups to lobby politicians.

At $t = 1$, lobbying takes place on the choice of the degree of investor protection $\delta$. We postpone the description of the lobbying subgame to Section 3.

At $t = 2$, an individual entrepreneur can set up a firm with a fixed amount of apples, $I$. Firms last for one period and each produce an output of 1 apple pie.

At $t = 3$, the output of apple pies is produced. Before paying dividends to shareholders, the entrepreneur can keep some of the pies for himself (expropriating the other shareholders). This expropriation is limited by the degree of investor protection, which imposes a minimum fraction $\delta$ of the output to be paid as dividends.

At $t = 4$, the market for apple pies opens and the equilibrium price of apples pies $p$ is determined. Individuals then choose their consumption bundle and consume.

The budget constraint faced by a generic agent $i$ is

$$k_i + pc_i \leq y_i$$

\textsuperscript{8}The specific functional form of (1) simplifies the analysis but is not required: the essence of the results would go through for any quasilinear utility function.

\textsuperscript{9}Because there is no profit uncertainty, we do not distinguish between equity or other corporate liabilities. Modigliani and Perotti (2000) argue that bank debt may be the easier form of financing under poor protection of minority investors.
where $y_i$ is the total income produced at $t = 3$. For the representative consumer $c$,

$$y_c = \left( w_c - \sum_k \alpha_{ck} P_k \right) + p \sum_k \alpha_{ck} d_k$$

(3)

where $\sum_k \alpha_{ck} P_k \leq w_c$ is total financial investment ($P_k$ is the price of company $k$ at $t = 2$), and $d_k$ is the total dividends (in apples) paid by firm $k$. For the representative entrepreneur $j$ with his own firm, there are two extra terms:

$$y_j = \left( w_j - \sum_k \alpha_{jk} P_k \right) + p \sum_k \alpha_{jk} d_k + [(1 - \alpha_{jj}) P_j - I] + p(1 - d_j)$$

(4)

where the third term is the capital raised on the market net of the investment in firm $j$, and the last term reflects his private control benefits.

We assume that the economy is closed and the maximum number of firms in this economy ($m$) is such that the net present value of setting up a firm equals zero. Specifically, in our setting this is equivalent to assuming $(a - m) = I$.

Finally, we assume that only entrepreneurs lobby politicians. This assumption can be justified on the basis that consumers are dispersed and cannot overcome the free-riding problem.$^{10}$

2.2 Market equilibrium

We establish the subgame perfect equilibrium of the model by backward induction.

At $t = 4$, each agent $i$ maximizes the utility function (1) subject to the budget constraint (2). From the first order conditions (which are necessary and sufficient), we obtain that for all $i$, $c_i = a - p \equiv c$, that is, all individuals choose to consume the same amount of apple pies: $a - p$. The consumption of apples depends instead on the individual income: $k_i = y_i - p(a - p)$.

The price of pies is obtained by the market clearing condition: with $n$ active firms, the supply of pies is $n$, while the demand of pies is $(a - p)$. Hence,

Lemma 1 In equilibrium, $p = a - n$, and $c = n$. The indirect utility of a generic agent $i$ is $V_i = y_i + 1/2 n^2$, where $y_i$ is his income.

$^{10}$Alternatively, there can be constraints on consumers’ ability to borrow money to lobby politicians: for instance, one can borrow money only against future profits.
Notice that the income of a representative consumer $c$ is given in (3), while the income of the representative (active) entrepreneur $j$ is given in (4).

At $t = 3$, active entrepreneurs choose to what extent they appropriate profits. Consider a representative firm $j$. Since dividends paid out to shareholders are $d_j$, the private benefits of control enjoyed by the insiders are $(1 - d_j)$. The entrepreneurs also receive the dividend on their equity stake $\alpha_{jj}d_j$. All entrepreneurs choose to pay out the very minimum dividend, $d_j = \delta$, because the marginal benefit of pie being diverted is 1 and the marginal cost is $\alpha_{jj} \leq 1$.

Proceeding backwards, at $t = 2$, entrepreneurs have limited ability to raise external capital because investors rationally expect them to pay out only a fraction $\delta$ of their output. Indeed, investors buying a fraction $1 - \alpha_{jj}$ of the firm expect to receive $(1 - \alpha_{jj})\delta$ pies, valued at a price $(a - n)$ each. The return from their investment is therefore $(a - n)(1 - \alpha_{jj})\delta$. Since they can alternatively invest their apples with a rate of return 1, minority investors are willing to give the entrepreneur at most $(a - n)(1 - \alpha_{jj})\delta$ apples. Since $\alpha_{jj}$ is bound between zero and one, the maximum amount of external capital that entrepreneurs can raise is $(a - n)\delta$. Hence,

**Lemma 2** Only entrepreneurs with a wealth $w \geq I - (a - n)\delta \equiv \hat{w}$ are able to set up a firm.

Here we obtain a first useful result: $\hat{w}$ is strictly decreasing in the degree of investor protection $\delta$. With better investor protection, entrepreneurs can raise more external capital and need less personal wealth to set up a firm. This is consistent with the theoretical models in Modigliani and Perotti (2001) and Shleifer and Wolfenzon (2002), and the empirical evidence by LLSV (1997, 1998).

The cutoff value $\hat{w}$ is also a function of the number of active firms $n$: the higher the number of active firms, the higher the required personal wealth because profits are lower. The number of active firms $n$ is also a function of the degree of investor protection because only entrepreneurs with an endowment of capital larger or equal to $\hat{w}$ can set up a firm. This implies that $n = m[1 - F(\hat{w}; \sigma)]$.

Therefore, in equilibrium we have:

\[
\begin{align*}
\hat{w} &= I - (a - n)\delta \\
n &= m[1 - F(\hat{w}; \sigma)].
\end{align*}
\]
By solving the system of equations (5) we obtain the following result:

**Lemma 3** There is a monotonic, increasing relation between investor protection $\delta$ and the number of active firms $n$ implicitly defined by this condition: $\delta(n) = \{\delta : n = m[1 - F(I - (a - n)\delta; \sigma)]\}$. The corresponding cutoff level of wealth is $\tilde{w}(n) = I - (a - n)\delta(n)$.

This is an important result: the degree of investor protection $\delta$ has a direct impact on the degree of competition. Specifically, higher investor protection allows greater entry.

From Lemma 3, we can also determine the relation between investor protection and wealth inequality, for given level of entry.

**Lemma 4** For given level of entry, investor protection $\delta$ is decreasing in wealth inequality $\sigma$ iff $\frac{\partial F(\tilde{w})}{\partial \sigma} < 0$.

The intuition for this result is as follows. For entry not to change, the level of investor protection must decrease (increase) with wealth inequality whenever the number of entrepreneurs that are richer than the wealth cutoff increases (decreases) with wealth inequality. In what follows, we will make the assumption that wealth inequality increases the number of entrepreneurs that are richer than a given wealth cutoff. As a consequence, if entry is unaffected by wealth inequality, it must be true that investor protection is a decreasing function of wealth inequality.

We can now show that higher investor protection is also reflected in higher social surplus (since consumers prefer more competition). To see this, consider the indirect utility of representative consumer $c$. Since the capital market is competitive and there is no asymmetry of information, the value of a generic firm $k$ must be such that the return from investing in the firm’s equity, $p\delta/P_k$, equals the return from investing in the alternative investment, which was normalized to 1. Hence, the income of the representative consumer $c$ (3) simplifies to $y_c = w_c$. His indirect utility then becomes:

$$V_c = w_c + 1/2 \cdot n^2. \quad (6)$$

Since $V_c$ is increasing in $n$ and $n$ is increasing in $\delta$, then $V_c$ is increasing in $\delta$.
The income of a representative (active) entrepreneur $j$ given in (4) simplifies instead to $y_j = w_j + (m - n)$, where the second term is the net present value of the project (we used here the assumption that $m = a - I$). Hence, his indirect utility is:

$$V_j = \begin{cases} 
    w_j + 1/2 n^2 + (m - n) & \text{if } w_j \geq \hat{w}(n) \\
    w_j + 1/2 n^2 & \text{otherwise}
\end{cases}.$$  (7)

It is easy to show that $V_j$ is decreasing in investor protection as long as $j$ is an active entrepreneur, that is, if $w_j \geq \hat{w}(n)$.\footnote{The derivative of the utility of an active entrepreneur with respect to $n$ equals $m - n$, which is negative since the total mass of entrepreneurs is less than the whole population.} This reflects the fact that the profit decreases with the number of active entrepreneurs. If instead $j$ is not active ($w_j < \hat{w}(n)$), $V_j$ is increasing in $\delta$ because entrepreneur $j$ is effectively a consumer.

The social surplus can then be written as a function of the number of active firms

$$S = (1 - m)w_c + mw_e + 1/2 n^2 + n(m - n),$$  (8)

where $w_c$ and $I/2$ are the average consumers’ and entrepreneurs’ wealth respectively, $1 - m$ is the number of consumers in the economy, $m$ is the number of entrepreneurs, and $n$ is the number of active entrepreneurs. The derivative of $S$ with respect to $n$ equals $(m - n)$, which is positive because $n < m$.

Since $n$ is increasing in $\delta$, we obtain that:

\textbf{Lemma 5} The social surplus is strictly increasing with investor protection. The socially optimal level of investor protection is $\delta = 1$.

In conclusion, the economy as a whole benefits from high investor protection. However, while this is true for consumers and (to some extent) poor entrepreneurs, rich entrepreneurs prefer low investor protection.

3 Political Decision on Investor Protection

As a benchmark, consider first the case of a government where politicians maximize the welfare of the median voter.\footnote{It is easy to show that the median voter theorem would hold in our setting because preferences are single peaked in the number of entrants $n$.} Since customers represent the majority of the...
population, the political choice will be maximum entry \((n = m)\) and high investor protection \((\delta = 1)\). The reason is that the median voter is a consumer who stand to lose from low entry.

The political outcome differs from the median voter choice because politicians care not only about social surplus but also about contributions they receive from lobbyists. We assume that politicians have the following objective function:

\[
\max_n U^P = \max_n (1 - \beta)L(n) + \beta S(n)
\]  

(9)

where \(L(n)\) is the schedule of political contributions as a function of the chosen level of entry, \(\beta \in [0, 1]\) is a measure of the policymakers’ benevolence (inclination towards the social surplus), and \(S(n)\) is the social surplus associated with \(n\) given in (8). Given that there is a monotonic relationship between \(\delta\) and the number of active firms \(n\), it is easier to think in terms of lobbyists and politicians choosing \(n\).

We take \(\beta\) to be a measure of politicians’ accountability. In an autocratic country, \(\beta\) will be small because politicians are not accountable to voters. In a democratic country, politicians wish to be re-elected. Hence, \(\beta\) indicates to what extent their voting record over issues is important relative to their spending in political promotion. As the political system becomes more democratic politicians become more “accountable” to voters, and \(\beta\) increases.\(^{13}\)

If politicians care about contributions, individuals will organize to lobby in support of their economic interests. In our setting, we assume that consumers are too dispersed to organize in pressure groups, while entrepreneurs can lobby to push for a specific degree of investor protection.

In this section we assume that entrepreneurs can form only one lobby and solve for the optimal (and stable) lobby composition. However, in the extensions we consider an alternative setting where we derive explicit lobby agendas in a sequential-move game, and produce a unique equilibrium. The predictions are robust to changes in the setting.

\(^{13}\)It is also possible to interpret \(\beta\) as a measure of voter education, which allows them to verify the merit of the votes taken by their legislator ahead of considering voting again for him/her. If average education is higher in more equal countries, this would create a direct link between income inequality and political choices and in fact reinforce our result on the negative correlation between wealth inequality and minority protection, as in Bourgignon and Verdier (2000).
3.1 Political equilibrium

Entrepreneurs must set up a coalition to lobby politicians. Otherwise, politicians choose the social optimum. In this Section we assume that the coalition is chosen to maximizes the aggregate utility of all entrepreneurs net of the political contributions. In the extensions we will show that the basic prediction of the model derive from a general set of lobbying models.

Given that the politicians can always choose the social optimum, they accept to deviate from it only if they are paid a contribution that is large enough to offset their cost of deviating. Since the reduction in social surplus from the choice of entry \( n < m \) is \( \Delta S = S(m) - S(n) \), to win the lobby must pay a contribution

\[
L \geq \frac{\beta(m-n)^2}{2(1-\beta)}.
\]

Assuming that when indifferent the politicians choose in favor of the lobby, the constraint will hold with equality, that is, \( L = L(n) = \frac{\beta(m-n)^2}{2(1-\beta)} \).

The utility function of a generic entrepreneur \( j \) with wealth \( w_j \) is:

\[
V_j(n) = w_j + \frac{1}{2} n^2 + p(n)(m-n),
\]

where

\[
p(n) = \begin{cases} 
1 & \text{if } w_j \geq \hat{w}(n) \\
0 & \text{otherwise}
\end{cases}
\]

and \( \hat{w}(n) \) is obtained in Lemma 3. Therefore, the sum of entrepreneurs’ utility function is:

\[
\sum_j V_j(n) = mw_e + mn^2/2 + n(m-n).
\]

The lobbyist chooses \( n \) to maximize:

\[
\sum_j V_j(n) - L(n) = mw_e + mn^2/2 + n(m-n) - \frac{\beta(m-n)^2}{2(1-\beta)}
\]

From the first order conditions of this problem, we obtain:

**Proposition 1:** The number of active entrepreneurs is

\[
n^* = m/[2 - m - \beta(1-m)] \equiv m\phi.
\]

The corresponding level of investor protection is:

\[
\delta^* = \{ \delta : \phi = [1 - F(I - (a - m\phi)\delta; \sigma)] \}
\]
The results in Proposition 1 yield a few empirical predictions.

The level of entry $n^*$ increases with $\phi$. It is easy to see that $\phi$ is strictly increasing in our measure of accountability $\beta$. The intuition is that as $\beta$ increases, it becomes costlier for the lobby to choose a low level of investor protection, because the policy-maker requires a greater compensation for deviating from the median voter choice. A greater political accountability induces the lobby to allow more entry in order to reduce the necessary contribution to gain legislative support. The result is higher output. In this sense, political competition drives economic competition.

Second, notice that the level of minority protection $\delta^*$ also increase with $\phi$. The intuition is that $\phi$ increases entry and more entry is only possible with better investor protection (if we keep the wealth distribution constant). Moreover, we can show that (under some conditions) the level of minority protection $\delta^*$ is decreasing in wealth inequality. The reason is that entry is not affected by wealth inequality. As $\sigma$ increases, there will be more rich entrepreneurs who can setup their firm for a given level of investor protection. Since the optimal number of active entrepreneurs stays constant, investor protection must decrease. As we have already discussed (see Lemma 4), the condition required for this conclusion is that at the cutoff level of wealth the wealth distribution function is decreasing in wealth inequality (that is, $\frac{\partial F(b_w)}{\partial \sigma} < 0$).

We can therefore state the following predictions:

**Prediction 1:** The level of entry increases with greater democracy.

**Prediction 2:** The level of investor protection increases with greater accountability and decreases with more wealth inequality.

We will focus our empirical tests on these two predictions. A third prediction, harder to test, is that for given entry the level of effective investor protection decreases in the profitability of production (formally, $\delta^*$ is decreasing in $a$ and increasing in $I$). A rise in $a$ can be interpreted as a demand shock, while a rise in $I$ as a supply shock that increases the financial requirements for entry. As $a$ increases, the required level of investor protection decreases because entrepreneurs have greater plegiable output. The opposite effect is obtained by a higher $I$, which requires an improvement in minority protection to ensure that the marginal entrants is still able to enter.
3.2 Extensions

We now analyze two extensions of the basic model. First, we show that the model’s predictions extend to the general model of lobbying proposed by Grossman and Helpman (1994). Second, one of the problem with Grossman and Helpman (1994) is the multiplicity of equilibria. We propose an alternative setting in which there are two professional lobbyists in the economy that move sequentially. Each lobbyist receives a fraction of the surplus generated by its activity and captured by the entrepreneurs supporting his lobby, and thus has an incentive to maximize their rents. Lobbyists move sequentially, so the first one has a Stackelberg advantage of choosing the richer lobby.

3.2.1 Common agency

Building on Bernheim and Whinston (1986), Grossman and Helpman (1994) model lobbying as a common agency problem and show that, if one selects only the truthful Nash-equilibria out of the multiplicity of equilibria, the policy maker chooses a policy $p$ so that to maximize:

$$
\sum_{j} W_j(p) + a W(p),
$$

where $W_j(p)$ is the indirect utility of the lobbyists, $W(p)$ is the social surplus, and $a > 0$ measures how much politicians care about the social surplus. In other words, their key result is that policy makers put additional weight on the lobbysts’ utility function.

To apply the Grossman and Helpman framework to our model, we need only a few steps. First, in our setting, the relative weight that politicians put on the social surplus - that is, the parameter $a$ in Grossman-Helpman - equals $\beta/(1 - \beta)$. Second, the sum of entrepreneurs’ utility function is:

$$
\sum_{j} W_j(p) = \sum_{j} V_j(n) = mw_e + mn^2/2 + n(m - n).
$$

Furthermore, the social surplus is:

$$
W(p) = S(n) = (1 - m)w_e + mw_e + 1/2 n^2 + n(m - n).
$$

Finally, to apply the result in Grossman and Helpman, we substitute in (16) the expression for the social surplus (18) and for the sum of entrepreneurs’ utility (17).
Hence, the policy maker chooses $n$ to maximize:

$$(1 - \beta) \sum_j V_j(n) + \beta S(n).$$

(19)

From the first order conditions of this problem, we obtain:

**Proposition 2:** The number of active entrepreneurs is

$$n^* = m/[1 + (1 - \beta)(1 - m)] \equiv m\phi_1.$$  

(20)

The corresponding level of investor protection is:

$$\delta^* = \{\delta : \phi_1 = [1 - F(I - (a - m\phi_1)\delta; \sigma)]\}.$$  

(21)

Proposition 2 yields the same empirical predictions as Proposition 1.

### 3.2.2 Sequential lobbying

The structure of the political subgame is as follows:

1) Nature chooses which lobbyist moves first. The first lobbyist sets up a lobbying group by choosing a target number of firms $n_1$ and collects from them a political contribution, contingent on a successful political choice of the associated level of investor protection $\delta$. Specifically, the lobbyist commits to pay $L_1$ if the politician chooses $\delta$ such that $n = n_1$, and 0 otherwise.

2) The second lobbyist sets up his own lobbying group by choosing $n_2$. He commits to pay $L_2$ if the politician chooses $n = n_2$, and 0 otherwise.

3) Entrepreneurs choose whether to join the first or the second lobbying group, or none of them.

4) Politicians choose between the two proposals so as to maximize their own objective function:

$$\max_{i \in \{1, 2\}} U^P = \max_{i \in \{1, 2\}} (1 - \beta)L_i + \beta S_i$$

(22)

where $L_i$ is the political contribution of lobby $i$, $\beta \in [0, 1]$ is a measure of the policymakers’ benevolence (inclination towards the social surplus), and $S_i$ is the social surplus associated with $n_i$ given in (8).

---

14 As a tie-breaking assumption, we assume that if the two lobbyist offer the same level of investor protection, the entrepreneurs prefer to join the first lobbyist rather than the second one.
5) The entrepreneurs belonging to the winning lobby split equally to costs of the political contribution $L_i$.

In this setting the game-perfect equilibrium of the political game is the following:

**Proposition 3:** The number of active entrepreneurs is

$$n_1^* = m\phi_2.$$  \hfill (23)

where $\phi_2 = \frac{1+(2-\beta)(1-\beta)}{1+2(2-\beta)(1-\beta)} < 1$. The corresponding level of investor protection is:

$$\delta_1^* = \{\delta : \phi_2 = [1-F(I-(a-m\phi_2)\delta; \sigma)]\}. \hfill (24)$$

**Proof:** See Appendix.

The intuition of the proof is simple. The equilibrium is found by backward induction. At stage 4, the politician chooses the number of active entrepreneurs proposed by the first lobby only if the political contribution paid by the first lobby ($L_1$) exceeds the political contribution of the second lobby ($L_2$) plus the difference in social surplus between the two levels of entry ($\Delta S$) weighted by the measure of accountability $\beta$. Otherwise, the politician chooses the level of entry desired by the second lobby.

At stage 3, the richest entrepreneurs choose to join the first lobby. More precisely, all entrepreneurs that will be active with the low level of investor protection chosen by the first lobby - that is, all entrepreneurs with wealth $w_j \geq I(m-n_1)/m$ - will join the first lobby. The poorest entrepreneurs do not join any lobby because they would not be able to set up their firm even with the higher level of investor protection proposed by the second lobby. These are the entrepreneurs with wealth $w_j < I(m-n_2)/m$. The remaining entrepreneurs will join the second lobby.

At stage 2, the second lobbyist chooses the desired level of investor protection to maximize the chances of winning. For this purpose he pays as political contribution the entire surplus enjoyed by the entrepreneurs who join the second lobby. The latter is given by the product of the size of the second lobby ($n_2 - n_1$) and the profit enjoyed by each entrepreneur in the second lobby ($m - n_2$). Hence, $L_2 = (n_2 - n_1)(m - n_2)$. To maximize the chances of winning, the second lobbyist chooses $n_2$ to maximize the costs for the first lobbyist to win: $(n_2 - n_1)(m - n_2)$ and is willing to pay the entire
surplus as a political contribution:

\[ \max_{n_2} L_2 + \beta \Delta S /(1 - \beta). \] (25)

It is interesting to notice that the second lobbyist acts as a Stackelberg’s follower, as his action \( n_2 \) maximizes the residual surplus after the choice of \( n_1 \) by the first lobbyist.

At stage 1, the first lobbyist acts as the Stackelberg’s leader anticipating that he can win by paying a political contribution \( L_1 = L_2 + \beta \Delta S /(1 - \beta) \). The first lobbyist then maximizes the surplus that he can generate, \( n_1 (m - n_1) \), net of the political contribution, \( L_1 \).

Proposition 2 state that the first lobby always wins and defines its optimal size \( n_1 \) and the corresponding level of investor protection. Lobbying competition never leads to the success of the middle class lobby, as the first lobbyist can always adjust its competition by co-opting more intermediate-wealth entrepreneurs. Thus, changes in parameters only affect the size (and thus the legislative preference) of the rich lobby, not whether the rich lobby wins or loses.

It is easy to check that Proposition 3 yields the same empirical predictions as Proposition 1.

4 Empirical Evidence

Our model predicts that political accountability promotes entry via its impact on the quality of investor protection. To test our predictions, we adopt the approach developed by Rajan and Zingales (1998) [henceforth RZ], designed to assuage concerns that financial development may be endogenous to growth. RZ estimate the effect of financial development on growth across industries and countries by controlling for industry and country fixed effects. We apply this approach to industry entry data rather than industry growth, to test whether accountability promotes entry. Next, we explore explicitly our predictions on the channels through which accountability affects entry, focusing on effective investor protection.
4.1 Data

Table 1 describes the data. Entry is the average annual growth rate in the number of establishment during 1983-92 interval from UNIDO. We have a total of 1146 observations from 38 countries and 33 industries. For each country-industry pair, we use as a control the industry’s share of total number of firms.

Our proxy for political accountability is the average democracy score from Polity IV over the 1964-83 interval, which measures the general openness of political institutions. As a proxy for wealth inequality we use the Gini coefficient of income inequality in 1980 from Deininger and Squire (1996). We use the age of democracy as an instrument for political accountability from the Database of Political Institutions 2000.

Our legal origin variable takes value 1 if the origin of the national commercial law code is from the English Common law tradition and 0 otherwise. Our measures of stock market development and per-capita income are as in RZ.

Cost of entry is the direct and indirect cost associated with meeting government requirements for entry scaled by GDP per capita, as reported by Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2002). Enforcement is the average of the five enforcement variables in LLSV (1998). Antidirector rights is the index of shareholder rights produced by LLSV (1998).

The matrix of pair-wise correlations for the country-level variables is shown in Appendix C. It is interesting to see that the political variables (democracy score and age of democracy) are highly correlated with the entry barriers (cost of entry and effective investor protection). These are also correlated with legal origin and stock market development, but less strongly.

At industry level we borrow RZ’s external dependence measure. As in Fisman and Love (2003), we also use a measure of the growth opportunities in the industry, the industry growth rate of value added in the United States over the 1983-92 interval.

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15 UNIDO data is available for the entire set of countries only in 1983, and is interrupted in 1992 because of a major sector reclassification. The industry classification is as in RZ.

16 For countries that were not democracy in 1983, this variable takes value 0. For democracies more than 53 years old in 1983, the age reported in the dataset is 53 years.

17 As in RZ, observations from the United States are excluded from the analysis.
4.2 Actual Entry and Accountability

All our regressions on entry, following the approach in RZ, control for fixed-effects at country and industry level, to address concerns about endogeneity. Our country-level explanatory variables are therefore interacted with industry-level external dependence. In the model, the ability to enter depends on access to external capital, and therefore on the quality of effective investor protection. Interactive terms allow to take advantage of cross sector variation, and is necessary because the fixed effect structure does not allow to estimate country-level variables.

In Table 2, external dependence at the industry level is interacted with four variables at the country level: democracy score and income inequality plus the common law dummy, and stock market development. Our main finding is that the interaction term with democracy score is positively correlated with entry and strongly statistically significant across all specifications, suggesting that accountability facilitates entry in industries that need more external capital. Consistent with our model, there is no significant relationship between income inequality and entry. Common law countries do not have more entry in sectors that need more external capital, although an indirect effect may come from stock markets development, which is significantly correlated with entry.

In Table 2, we control for external financial needs but not for entry opportunities across sectors. It may still be true that in less accountable countries there is adequate entry in high growth sectors. In Table 3 we interact our explanatory variables with a measure of industry growth opportunities (Fisman and Love, 2003). Again, the interaction term on accountability is positively correlated with entry and significant across all specifications. This result complements the findings in Table 2: political accountability facilitates entry in industries with greater growth opportunities.

A concern with our approach is that the endogeneity of the democracy score may not be fully resolved by the fixed effects at country and industry level. Glaeser et al (2004) suggest that the quality of political institutions may be endogenous to economic growth, perhaps because accumulation of human capital improves the functioning of existing institutions. Therefore, in Table 4 we instrument accountability by the age of the democracy.\(^1\) The interaction term of external dependence and accountabil-

\(^{1}\) Age of democracy seems a good instrument for accountability, on the ground that lagged vari-
racy score remains positively correlated with entry and strongly significant across all specifications.

These results do not identify the channels through which politics affects entry. Djankov et al (2002) show that explicit entry barriers are correlated with measures of political accountability. We now examine whether poor investor protection may block entry.

4.3 Investor protection as a barrier to entry

The model predicts that investor protection is the channel through which accountability affects entry. Accordingly, we perform two tests: (i) we first investigate whether effective investor protection - defined as the product of antidirector rights and legal enforcement - facilitates entry; and (ii) we examine whether accountability and inequality produce greater effective investor protection. Previous evidence had established that effective investor protection is highly correlated with legal origin (LLSV 1997, 1998).

Table 5 evaluates the importance of investor protection for entry.19 We control for other direct and indirect barriers to entry, using as proxies stock market development, cost of entry, and per-capita income. While in our model these variables are endogenous to the political decision, we introduce them here as independent explanatory variables, as they may depend on legal origin or other institutions which affect entry. We interact all variables with external dependence.

Investor protection and cost of entry are significantly correlated with entry. There is more entry in industries that need more external capital in countries in countries with stronger effective investor protection and lower cost of entry. In column (5) where we perform a horse-race among all potential barriers to entry, we find that only effective investor protection is statistically significant. These results indicate that reliably enforced laws ensuring access to finance are the most important channel to facilitate entry.

19 The number of observations decreases to 1084 and the number of countries to 36 because Costa Rica and Bangladesh do not have data on effective investor protection and cost of entry.
Our final step is to show that political accountability and income inequality are significant determinants of effective investor protection. The model predicts that accountability should be positively correlated, while income inequality should be negatively correlated with investor protection. The first three columns of Table 6 confirm these predictions, although the results for income inequality are weak.

Next, we introduce two other potential determinants of entry, legal origin and economic development. As shown in columns (4) and (5), the results on accountability are robust to the introduction of both variables. The influence of institutions connected with legal origin appears complementary, rather than competing, relative to political influence. In column (6), we show that political accountability, income inequality and common law are all statistically significant and explain 52 percent of the variability of effective investor protection. We interpret this as evidence that the distribution of political and economic power does affect the reliability of laws.

When we use the age of the democracy in column (7) as an instrument for democracy score, the results are stronger for accountability but income inequality is no longer significant. A possible explanation is that inequality is really an endogenous variable, highly dependent on political variables and entry. In fact, in the model ex post inequality increases with the degree to which entry is blocked, and thus decreases with initial political accountability.

The results appear economically significant. Using the results in column (6), an increase in democracy from zero to 5.6 (from the level in Indonesia to Philippines) is associated with one-half-point increase in effective investor protection (out of six). A decrease in wealth inequality by 10 points (from Brazil’s to Turkey’s) is associated with a one-fourth of a point increase in effective investor protection.

### 4.4 Robustness tests

In Table 7 we estimate simultaneously the relationship between investor protection and entry, and between investor protection and democracy using two-stage least squares.

In column (1), we use the product of external dependence and common law as an instrument for the product of external dependence and effective investor protection. The results of the first stage regression indicate that common law and democracy
are positively correlated with effective investor protection. These results confirm the findings in Table 6. In the second stage, we find that effective investor protection is statistically significant while democracy is not. This result indicates that the effect of democracy on entry in our sample is only through investor protection. We repeat the same analysis for common law, in column (2), finding similar results. These institutional variables are statistically significant as determinants of effective investor protection. An interesting result is that they have no further explanatory power for entry in the second stage. This suggests that barriers to financial access are the key channel through which these institutions affect entry in our sample.

The results in the first three columns indicate that legal and political institutions are good instruments for effective investor protection. In the four remaining columns of Table 7 we use them to address the issue of endogeneity of investor protection in Table 5. These results confirm that effective investor protection is the main determinants of entry in a horse race with stock market development, cost of entry and economic development.

We have so far assumed that the cost of entry, financial development and income per capita were all exogenous variables. In reality, and consistent with the model, we expect them to be endogenous. In regressions that are not reported we show that the results are qualitatively unaffected if we use democracy and common law as instruments for these variables.

A possible concern is that the data we use measure net entry rather than gross entry. A small change in the number of establishments could obtain in two very different countries: one with a lot of entry and a lot of exit and one with very little entry and exit. To address this issue we turn to the measure of entry developed by Klapper, Laeven and Rajan (2004), who produce a measure of gross entry across sectors for a set of 21 European countries. The measure is the percentage of companies (in each sector/country) in the period 1998-1999 that have incorporated in the previous 1 or 2 years. While the dataset focuses on a small number of countries, there is sufficient variation in the democracy score.\footnote{The countries are Austria, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Romania, Spain, Sweden, and United Kingdom.}
Because the industrial classification is at the NACE 2-digit level, we cannot use the measure of external dependence developed by RZ. We instead assume that the natural rate of entry is given by the level of entry in the United Kingdom, the country with the most developed capital market and investor-friendly institutions in the sample.

Table 8 shows that there is more entry in sector with greater natural entry in countries that are more democratic. This result survives when we control for financial development (in column (2)) and economic development (in column (3)).\textsuperscript{21} Thus, the results in Table 8 confirm the findings in Table 3. In column (4), we try to evaluate the importance of differences in legal origin by separating countries with French legal tradition, as there are no countries in the sample with English legal origin. Countries with French legal origin have lower entry rates, but the coefficient is not significant. In the sample, the main source of variation in democracy is coming from the difference between transition and West European countries, which indeed reflects a genuine difference in historical political structure.

We perform several other robustness checks. First, following Acemoglu and Johnson (2003), we use the variable "constraints on executives" from Polity, a component of the democracy score. The results (not reported) are qualitatively identical. Second, following Berkowitz, Pistor, and Richard (2003), we use legality, the principal component of the five enforcement measures reported by LLSV (1998), in place of the average. The results (not reported) are identical to the one reported in the paper.

5 Conclusion

In this paper we present a model in which wealthier elites lobby politicians to maintain a low level of investor protection, in order to prevent entry. We derive endogenously the level of entry and investor protection emerging from the political decision. We show that stronger economic agents have a comparative advantage in lobbying on financial development, since their preferred policy yields greater rents. Our key result is that entry improves when the country becomes more democratic.

Lobbying may create various sorts of formal and informal entry barriers. Under-

\textsuperscript{21}The number of observations decreases to 18 observations in column (2) because Estonia and Latvia do not have information on stock market development.
mining financial development is a natural channel for blocking entry (in part because it is a less explicit barrier than formal entry costs). We show that more accountable countries, and less unequal ones, have stronger effective investor protection, i.e. financial contracting and entry are less subject to political interference.

While financial development promotes entry in our model, it does so as a mechanism of a political equilibrium, not as an independent determinant. Our evidence does suggest that effective investor protection is the key mechanism through which entry may be blocked. However, we cannot offer a generic recommendation in favor of improving formal investor protection laws, while ignoring the institutional context in which its enforcement would take place. Reforms may be captured by an opportunistic elite, since good laws may not be matched by adequate and fair enforcement. Privatization and liberalization of the banking system may fail to deliver growth if it is undermined by connected lending and outright plundering by bank owners, as in Mexico before 1994 (Lopez-de-Silanes, 2002) and in Russia (Perotti, 2001). As in De Soto (2000), poor legal enforcement and unclear property rights limit individuals’ ability to commit contractually, and affect average growth because it reduces the median citizen’s freedom of economic initiative, at the benefit of established interests and at the cost of social welfare, as argued forcefully in Rajan and Zingales (2003b).

Thus legal and regulatory reforms will produce reliable financial development which supports entry only if political accountability constrains lobbying by established interests. Feijen and Perotti (2005) argue that even when financial liberalization and improved legislation allows for broader entry, these reforms may be captured to induce financial fragility, so that external shocks force exit of more leveraged, less wealthy entrepreneurs.

In our model, the initial wealth distribution and the degree of political accountability are exogenous, yet they are certainly negatively correlated and probably mutually reinforcing. The exogenous allocation of power in our model may be due to legal origins or initial endowments related to initial inequality. Glaeser and Shleifer (2002) suggest that power over legal enforcement was assigned in France to the state because high inequality made local lords too powerful, and to the judiciary in the UK because dispersion of income made the king potentially too powerful. The diffusion of the ownership of land may have empowered the British middle class to constrain
the power of the king (Rajan and Zingales, 2003b). Colonies created around planta-
tion economies were inherently unequal and needed a repressive system to function
(Engerman and Sokoloff, 1997).

A final consideration is that our simple model probably underestimate the role of
inequality, which most probably affects not just enforcement but accountability itself.
The results suggest that wealth inequality may not just persist but worsen over time
under limited entry. When a highly unequal distribution of wealth produces limited
entry, only those able to create firms will accumulate profits, thus producing an even
more skewed ex post wealth distribution which would tend to self reinforce itself.
Income inequality may thus create a underdevelopment trap, which may persist until
the political environment becomes more accountable.
References


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Feijen, Erik and Enrico Perotti, 2005. The Political Economy of Financial Fragility, University of Amsterdam mimeo


Appendix A: Proofs

Proof of Proposition 2. At stage 4 the politician compares the values of $n$ requested by the two lobbies: $n_1$ and $n_2$. The difference in social surplus between $n_2$ and $n_1$ is

$$\Delta S = (n_2 - n_1)[m - (n_1 + n_2)/2].$$

(A1)

Hence, the politicians will vote in favor of the first lobby as long as

$$L_1 \geq L_2 + \beta \Delta S/(1 - \beta),$$

(A2)

where $L_1$ and $L_2$ are the contributions of the first and second lobbies, respectively. They vote in favor of the second lobby, otherwise.

At stage 3, assuming without loss of generality that $n_2 > n_1$, entrepreneurs join the first lobby if their wealth is sufficiently high: that is, if $w_j \geq I(m - n_1)/m$. For these entrepreneurs the success of the first lobby guarantees them higher profits. Those potential entrepreneurs with intermediate level of wealth join the second lobby: if $I(m - n_1)/m > w_j \geq I(m - n_2)/m$. All the remaining potential entrepreneurs do not join any lobby, since they will never be able to enter in either case.

At stage 2, the second lobbyist chooses $n_2$ to make it as costly as possible for the first lobby to win, that is he chooses $n_2$ to maximize $L_2 + \beta \Delta S/(1 - \beta)$, where $L_2 = (n_2 - n_1)(m - n_2)$ is the surplus enjoyed by the second lobby. Substituting $\Delta S$ using expression (A1), we have that the second lobbyist maximizes

$$\max_{n_2} (n_2 - n_1)((m - n_2) + \frac{\beta}{1 - \beta}(n_2 - n_1)/2].$$

(A3)

From the first order condition (necessary and sufficient since the objective function is concave in $n_2$), we find that

$$n_2 = \frac{m + n_1(1 - \beta)}{2 - \beta}.$$ 

(A4)

At stage 1, the first lobbyist anticipates that he will win by paying a political contribution that satisfies the inequality (A2). Substituting the expression for $n_2$ given in (A4) in expression (A3), we obtain the expression for the political contribution that the first lobby needs to pay in order to win:

$$L_1 = \frac{(m - n_1)^2}{2(2 - \beta)(1 - \beta)},$$

(A5)
The first lobbyist then maximizes the surplus that he can generate:

\[ \max_{n_1} n_1(m - n_1) - L_1. \]  

(A6)

From the first order condition (necessary and sufficient because the objective function is concave in \( n_1 \)), we find that \( n_1^* = m\phi \), where \( \phi \equiv \frac{1+(2-\beta)(1-\beta)}{1+2(2-\beta)(1-\beta)} < 1 \). Thus the size of the winning lobby is smaller than \( m \). By substituting \( n_1^* \) into the objective function (A6), it is easy to see that the objective function is strictly positive. Hence, the first lobbyist will indeed choose \( n_1 = n_1^* \), the first lobby will win, and the number of active entrepreneurs in the economy will be \( n_1^* \).

Since \( n \) maps into a level of investor protection \( \delta \) given in Lemma 3, we find the level of investor protection by replacing \( n = n_1^* \) in the expression in Lemma 3.
Appendix B: Definitions

**Entry**: Average annual growth rate in the number of establishments operating in a sector in the 1983-92 interval, as reported by UNIDO.

**Industry’s share of number of establishments**: Number of establishment in a manufacturing sector of a country as a fraction of total number of establishments in the country at the beginning of the interval, from UNIDO.

**Democracy score**: score produced by Polity IV for 1980. It ranges between 0 and 10 (a greater number indicates more democracy). The democracy score measures the "general openness of political institutions." It is a combined score based on the following six criteria.  
1. How institutionalized are the procedures regarding the transfer of executive power?  
2. How competitive are the elections that allocate executive power?  
3. To what extent non-elites can attain executive office?  
4. How independent is (de-facto) the chief executive?  
5. How institutionalized is the structure for political expression?  
6. To what extent non-elites are able to access institutional structures for political expression?

**Income inequality**: Gini coefficient of income inequality for 1980, from Deininger and Squire (1996). It ranges between 0 and 100 (a greater number indicates greater inequality).

**Common law dummy**: variable that takes value 1 if the origin of the commercial law is the English common law, and 0 otherwise (computed from LLSV, 1998).

**Stock market development**: ratio of stock market capitalization and GDP in 1980, as reported by RZ.

**Age of democracy**: tenure of the system as of 1980, as reported by the Database of Political Institutions 2000. For countries that were not democracy in 1980, this variable takes value 0. For democracies more than 50 years old in 1980, the age reported in the dataset is 50 years.

**Cost of entry**: direct cost associated with meeting government requirements for entry plus the monetized value of the entrepreneur’s time (as a fraction of GDP per capita in 1999), as reported by Djankov, et al. (2002).
**Enforcement:** average of the five enforcement variables produced by LLSV (1998): efficiency of the judicial system, rule of law, corruption, risk of expropriation, and risk of contract repudiation. It ranges between 0 and 10 (a greater number indicates stronger enforcement).

**Per capita income:** 1980 GNP per capita in US dollars, as reported by RZ.

**Antidirector rights:** index of shareholder rights produced by LLSV (1998).

**Effective investor protection:** the product of antidirector rights and enforcement divided by 10.

**External dependence:** measure of the dependence on external capital for young firms as measured by RZ.

**Entry opportunity:** growth rate of value added by industry over the 1983-92 interval in the USA.

**French legal origin:** dummy variable that takes value 1 if the origin of the commercial law is the French civil law, and 0 otherwise (computed from LLSV, 1998).

**Transition country:** dummy variable that takes value 1 if the country is a East European country in transition from the Communist regime, and 0 otherwise (computed from Pistor, Raiser, and Gelfer, 2000).
## Appendix C: Correlations Matrix

All variables are defined in Appendix A. The p-values are reported in parentheses.

<table>
<thead>
<tr>
<th></th>
<th>Effective inv. prot.</th>
<th>Democracy score</th>
<th>Income inequality</th>
<th>Common Law dummy</th>
<th>Per-capita income</th>
<th>Stock mkt. development</th>
<th>Age of democracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy score</td>
<td>0.486 (0.003)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income inequality</td>
<td>-0.282 (0.095)</td>
<td>-0.482 (0.005)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Law dummy</td>
<td>0.527 (0.001)</td>
<td>0.048 (0.782)</td>
<td>0.160 (0.351)</td>
<td></td>
<td></td>
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<tr>
<td>Per-capita income</td>
<td>0.452 (0.006)</td>
<td>0.677 (0.000)</td>
<td>-0.485 (0.003)</td>
<td>-0.233 (0.171)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of entry</td>
<td>-0.623 (0.000)</td>
<td>-0.536 (0.000)</td>
<td>0.135 (0.433)</td>
<td>-0.233 (0.171)</td>
<td>-0.622 (0.000)</td>
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<td></td>
</tr>
<tr>
<td>Stock market development</td>
<td>0.395 (0.017)</td>
<td>0.212 (0.214)</td>
<td>-0.109 (0.525)</td>
<td>0.256 (0.131)</td>
<td>0.391 (0.018)</td>
<td>-0.289 (0.088)</td>
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<tr>
<td>Age of democracy</td>
<td>0.599 (0.000)</td>
<td>0.756 (0.000)</td>
<td>-0.444 (0.007)</td>
<td>0.232 (0.174)</td>
<td>0.693 (0.000)</td>
<td>-0.631 (0.000)</td>
<td>0.231 (0.175)</td>
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Table 1. Descriptive Statistics

This table presents mean, median, standard deviation, minimum, and maximum for all variables used in the paper. The variables are defined in Appendix B.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Std.Dev.</th>
<th>Min.</th>
<th>Max.</th>
<th>N.Obs.</th>
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<tr>
<td><strong>A. Country-and-industry-level variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Entry</td>
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<td>0.017</td>
<td>0.155</td>
<td>−1</td>
<td>1</td>
<td>1146</td>
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<td>0.000</td>
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<td><strong>B. Country-level variables</strong></td>
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<td></td>
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<tr>
<td>Democracy score</td>
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<tr>
<td>Stock market development</td>
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<td>0.685</td>
<td>0.392</td>
<td>0.132</td>
<td>1.962</td>
<td>38</td>
</tr>
<tr>
<td>Age of democracy</td>
<td>20.553</td>
<td>13.5</td>
<td>21.347</td>
<td>0</td>
<td>50</td>
<td>38</td>
</tr>
<tr>
<td>Cost of entry</td>
<td>0.403</td>
<td>0.355</td>
<td>0.292</td>
<td>0.017</td>
<td>1.170</td>
<td>36</td>
</tr>
<tr>
<td>Effective investor protection</td>
<td>2.214</td>
<td>1.949</td>
<td>1.202</td>
<td>0.588</td>
<td>4.788</td>
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</tr>
<tr>
<td>Per-capita income</td>
<td>4.726</td>
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<td>4.584</td>
<td>121</td>
<td>14,368</td>
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<tr>
<td><strong>C. Industry-level variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>External dependence</td>
<td>0.672</td>
<td>0.664</td>
<td>0.653</td>
<td>−1.535</td>
<td>2.058</td>
<td>33</td>
</tr>
<tr>
<td>Entry opportunity</td>
<td>0.047</td>
<td>0.047</td>
<td>0.026</td>
<td>−0.033</td>
<td>0.107</td>
<td>33</td>
</tr>
</tbody>
</table>
Table 2. Entry, Democracy, Inequality and Law

The dependent variable is entry. Independent variables are the industry’s share of total number of establishment in the country in 1983, and several interaction terms obtained by multiplying external dependence for young firms with country-level variables: (1) democracy score; (2) income inequality; (3) common law dummy; and (4) stock market development. All regressions contain fixed effects for countries and industries (not reported). *, **, *** indicate significance at 10, 5, 1 percent respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber-White correction.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry’s share of total</td>
<td>$-0.711^{***}$</td>
<td>$-0.711^{***}$</td>
<td>$-0.718^{***}$</td>
<td>$-0.714^{***}$</td>
</tr>
<tr>
<td>number of establishments</td>
<td>(0.205)</td>
<td>(0.205)</td>
<td>(0.205)</td>
<td>(0.206)</td>
</tr>
<tr>
<td>External dependence × democracy score</td>
<td>0.005***</td>
<td>0.005***</td>
<td>0.005***</td>
<td>0.005***</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>External dependence × income inequality</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External dependence × Common Law dummy</td>
<td>0.017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External dependence × Stock market development</td>
<td>0.019**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>0.291</td>
<td>0.290</td>
<td>0.292</td>
<td>0.291</td>
</tr>
<tr>
<td>N. obs</td>
<td>1146</td>
<td>1146</td>
<td>1146</td>
<td>1146</td>
</tr>
<tr>
<td>N. countries</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
</tbody>
</table>
Table 3. Entry Opportunity

The dependent variable is entry. Independent variables are the industry’s share of total number of establishments in the country in 1983, and several interaction terms obtained by multiplying entry opportunity (the level of growth in the Unites States by industry) and country-level variables: (1) democracy score; (2) income inequality; (3) common law dummy; and (4) stock market development. All regressions contain fixed effects for countries and industries (not reported). *, **, *** indicate significance at 10, 5, 1 percent respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber-White correction.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry’s share of total number of establishments</td>
<td>-0.713***</td>
<td>-0.718***</td>
<td>-0.710***</td>
<td>-0.712***</td>
</tr>
<tr>
<td></td>
<td>(0.206)</td>
<td>(0.207)</td>
<td>(0.207)</td>
<td>(0.207)</td>
</tr>
<tr>
<td>Entry opportunity ×</td>
<td>0.051*</td>
<td>0.044*</td>
<td>0.055**</td>
<td>0.045*</td>
</tr>
<tr>
<td>Democracy score</td>
<td>(0.027)</td>
<td>(0.025)</td>
<td>(0.027)</td>
<td>(0.026)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry opportunity ×</td>
<td>-0.007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income inequality</td>
<td>(0.010)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry opportunity ×</td>
<td></td>
<td>-0.351</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Law dummy</td>
<td>(0.265)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry opportunity ×</td>
<td></td>
<td></td>
<td>0.340*</td>
<td></td>
</tr>
<tr>
<td>Stock market development</td>
<td></td>
<td></td>
<td></td>
<td>(0.204)</td>
</tr>
</tbody>
</table>

| Adj. $R^2$              | 0.286    | 0.285    | 0.286    | 0.286    |
| N. obs                  | 1146     | 1146     | 1146     | 1146     |
| N. countries            | 38       | 38       | 38       | 38       |
Table 4. Age of Democracy as an Instrument for Democracy Score

The dependent variable is entry. Independent variables are the industry’s share of total number of establishments in the country in 1983, and several interaction terms obtained by multiplying the level of entry in the United States external dependence for young firms with country-level variables: (1) democracy score; (2) income inequality; (3) common law dummy; and (4) stock market development. The table reports the result of the second-stage regression in a two-stage-least-square estimation procedure, where the age of the democracy is used as an instrument for democracy score. The $R^2$ of the first-stage regression (not reported) is 84 percent. All regressions contain fixed effects for countries and industries (not reported). *, **, *** indicate significance at 10, 5, 1 percent respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber-White correction.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry’s share of total</td>
<td>$-0.708^{***}$</td>
<td>$-0.710^{***}$</td>
<td>$-0.713^{***}$</td>
<td>$-0.709^{***}$</td>
</tr>
<tr>
<td>number of establishments</td>
<td>(0.203)</td>
<td>(0.203)</td>
<td>(0.204)</td>
<td>(0.204)</td>
</tr>
<tr>
<td>External dependence ×</td>
<td>0.011^{***}</td>
<td>0.013^{***}</td>
<td>0.011^{***}</td>
<td>0.011^{***}</td>
</tr>
<tr>
<td>Democracy score</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.004)</td>
</tr>
<tr>
<td>External dependence ×</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Income inequality</td>
<td>(0.001)</td>
<td>0.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>External dependence ×</td>
<td></td>
<td>0.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Law dummy</td>
<td>(0.015)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External dependence ×</td>
<td></td>
<td></td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td>Stock market development</td>
<td></td>
<td></td>
<td></td>
<td>(0.014)</td>
</tr>
</tbody>
</table>

$Adj.R^2$ | 0.326 | 0.323 | 0.328 | 0.327 |
N. obs    | 1110  | 1110  | 1110  | 1110  |
N. countries | 38    | 38    | 38    | 38    |
Table 5. Channels: Determinants of Entry

The dependent variable is entry. Independent variables are the industry’s share of total number of establishments in the country in 1983, and several interaction terms obtained by multiplying external dependence, which measures the industry dependence on external capital for young firms, with country-level variables: (1) effective investor protection (enforcement * antidirector rights); (2) stock market development; (3) cost of entry; and (4) per capita income (in logarithm). All regressions contain fixed effects for countries and industries (not reported). *, **, *** indicate significance at 10, 5, 1 percent respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber-White correction.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry’s share of total</td>
<td>-0.679 **</td>
<td>-0.679 **</td>
<td>-0.683 **</td>
<td>-0.680 **</td>
<td>-0.682 **</td>
</tr>
<tr>
<td>number of establishments</td>
<td>(0.243)</td>
<td>(0.242)</td>
<td>(0.243)</td>
<td>(0.243)</td>
<td>(0.243)</td>
</tr>
<tr>
<td>External dependence ×</td>
<td>0.018 **</td>
<td>0.018 **</td>
<td>0.011 **</td>
<td>0.014 **</td>
<td>0.011 **</td>
</tr>
<tr>
<td>Effective investor protection</td>
<td>(0.005)</td>
<td>(0.006)</td>
<td>(0.004)</td>
<td>(0.005)</td>
<td>(0.005)</td>
</tr>
<tr>
<td>Stock market development</td>
<td>(0.011)</td>
<td>(0.012)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External dependence ×</td>
<td>-0.005</td>
<td>-0.010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of entry</td>
<td>(0.021)</td>
<td>(0.025)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>External dependence ×</td>
<td>-0.048 **</td>
<td>-0.038</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log (Per-capita income)</td>
<td>(0.004)</td>
<td>(0.005)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.278</td>
<td>0.277</td>
<td>0.280</td>
<td>0.279</td>
<td>0.279</td>
</tr>
<tr>
<td>N. obs</td>
<td>1084</td>
<td>1084</td>
<td>1084</td>
<td>1084</td>
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<tr>
<td>N. countries</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
</tr>
</tbody>
</table>
Table 6. Channels: Determinants of Effective Investor Protection

The dependent variable is effective investor protection (which is the interaction of enforcement and antidirector rights). The independent variables are: democracy score, income inequality, common law dummy, and per capita income. These variables are defined in Table 1. In column (7), we report the results of the second stage of a two-stage-least-square model where age of the democracy is used as instrument for democracy score. The $R^2$ of the first-stage regression (not reported) is 66 percent. *, **, *** indicate significance at 10, 5, 1 percent respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber-White correction.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
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<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7) - IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy score</td>
<td>0.140***</td>
<td>0.130***</td>
<td>0.133***</td>
<td>0.096**</td>
<td>0.106**</td>
<td>0.166***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.042)</td>
<td>(0.032)</td>
<td>(0.052)</td>
<td>(0.031)</td>
<td>(0.044)</td>
<td></td>
</tr>
<tr>
<td>Income inequality</td>
<td>-0.034*</td>
<td>-0.009</td>
<td>-0.024*</td>
<td>-0.012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td>(0.018)</td>
<td>(0.014)</td>
<td>(0.015)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common law</td>
<td>1.270***</td>
<td></td>
<td>1.362***</td>
<td></td>
<td>1.297***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.329)</td>
<td></td>
<td>(0.311)</td>
<td></td>
<td>(0.320)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log (Per-capita income)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.208</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.170)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>1.354***</td>
<td>3.554***</td>
<td>1.765**</td>
<td>0.973***</td>
<td>-0.011</td>
<td>2.055***</td>
<td>1.238*</td>
</tr>
<tr>
<td></td>
<td>(0.222)</td>
<td>(0.827)</td>
<td>(0.849)</td>
<td>(0.179)</td>
<td>(1.099)</td>
<td>(0.606)</td>
<td>(0.702)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.236</td>
<td>0.080</td>
<td>0.240</td>
<td>0.490</td>
<td>0.264</td>
<td>0.520</td>
<td>0.487</td>
</tr>
<tr>
<td>N. obs</td>
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<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
</tr>
</tbody>
</table>
Table 7. Simultaneous Equation Results

We estimate via two stage - least squares a system of two equations, where the dependent variables are entry and effective investor protections. The independent variables are: democracy score, income inequality, common law dummy, stock market development, the cost of entry, and per capita income. All regressions contain industry share of total number of establishment, fixed effects for countries and industries (not reported). *, **, *** indicate significance at 10, 5, 1 percent respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber-White correction.

<table>
<thead>
<tr>
<th>Instruments for External dependent × Effective investor protection:</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>External dependence ×</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Law dummy</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Democracy score</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Second stage. Dependent variable: Entry

| External dependence × | Effective investor protection | (0.012) | (0.007) | (0.008) | (0.010) | (0.010) | (0.010) |
|---|---|---|---|---|---|---|
| External dependence × | 0.026*** | 0.015** | 0.015* | 0.021** | 0.023** | 0.021** |
| Effectiveness investor protection | | | | | | |
| External dependence × | −0.001 | | | | | |
| Democracy score | | | | | | |
| External dependence × | 0.014 | | | | | |
| Common Law dummy | | | | | | |
| External dependence × | −0.038** | −0.017 | | | | |
| Cost of entry | | (0.018) | | (0.025) | | |
| External dependence × | −0.008 | −0.017 | | | | |
| Stock market development | | (0.015) | | (0.016) | | |
| External dependence × | 0.003 | 0.004 | | | | |
| Log (Per-capita income) | | | | | (0.004) | (0.005) |

| R² | 0.323 | 0.325 | 0.326 | 0.324 | 0.268 | 0.325 |
| N. obs | 1084 | 1084 | 1084 | 1084 | 1084 | 1084 |
| N. countries | 36 | 36 | 36 | 36 | 36 | 36 |
Table 8. Entry data from Klapper, Laeven, and Rajan (2004)

The dependent variable is the fraction of companies (in each sector/country) in the period 1998-1999 that have incorporated in the previous 1 or 2 years, as computed in Klapper, Laeven, and Rajan (2004). Independent variables are interaction terms obtained by multiplying entry opportunity (the level of entry in the United Kingdom by industry) and democracy score, stock market development and per capita income. All regressions contain fixed effects for countries and industries (not reported). *, **, *** indicate significance at 10, 5, 1 percent respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity using Huber-White correction.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry opportunity ×</td>
<td>0.064***</td>
<td>0.041*</td>
<td>0.056**</td>
<td>0.065***</td>
</tr>
<tr>
<td>Democracy score</td>
<td>(0.023)</td>
<td>(0.025)</td>
<td>(0.025)</td>
<td>(0.024)</td>
</tr>
<tr>
<td>Entry opportunity ×</td>
<td>−0.037</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock market development</td>
<td>(0.235)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry opportunity ×</td>
<td></td>
<td>0.115*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log (Per-capita income)</td>
<td>(0.060)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry opportunity ×</td>
<td>−0.009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>French law dummy</td>
<td>(0.074)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.593</td>
<td>0.614</td>
<td>0.597</td>
<td>0.593</td>
</tr>
<tr>
<td>N. obs</td>
<td>706</td>
<td>638</td>
<td>706</td>
<td>706</td>
</tr>
<tr>
<td>N. countries</td>
<td>20</td>
<td>18</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>
• Entrepreneurs form two lobbies that propose alternative levels of investor protection.

• Politicians choose between the two lobbies.
• Investor protection is set.

• Entrepreneurs raise capital on the equity market.
• An amount of apples (capital) \( I \) is needed to set up a firm.

• Apple pies (output) are produced.
• Entrepreneurs can expropriate shareholders by keeping up to a fraction \( 1-\delta \) of the output.

• The market of pies opens: price \( p \) is determined.
• Dividends are paid out.
• Agents choose their consumption bundle and consume.

Figure 1. Timeline