Property Rights and Finance

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Which is the tighter constraint on private sector investment: weak property rights or limited access to external finance? From a survey of new firms in post-communist countries, we find that weak property rights discourage firms from reinvesting their profits, even when bank loans are available. Where property rights are relatively strong, firms reinvest their profits; where they are relatively weak, entrepreneurs do not want to invest from retained earnings. (*JEL* D23, P23)

Property rights are fundamental: entrepreneurs will not invest if they expect to be unable to keep the fruits of their investment. Country-level studies consistently show that less secure property rights are correlated with lower aggregate investment and slower economic growth (Stephen Knack and Philip Keefer, 1995; Paolo Mauro, 1995; Jakob Svensson, 1998; Daron Acemoglu et al., 2001). The microeconomic evidence is more limited, but Timothy Besley (1995), for example, finds in Ghana a significant link between property rights and investment.

Secure property rights may be necessary for entrepreneurial investment, but are they sufficient? External finance could also matter for investment and growth, for if bank credit is not available it may be hard for entrepreneurs to take advantage of new opportunities. There is evidence that a well-functioning financial system contributes to investment and growth (Ross Levine, 1997; Raghuram Rajan and Luigi Zingales, 1998). Is external finance, in addition to secure property rights, necessary for entrepreneurs to invest, or is property-rights security all that is needed? Broad cross-country studies cannot answer this question because effective protection for property rights is positively correlated with the use of external finance. For example, Rafael La Porta et al. (1997, 1998, 2000) show more external finance is available when there is a stronger legal system in general and more effective protection of investors in particular, while Asli Demirgüç-Kunt and Vojislav Maksimovic (1998) find that firms invest more from external funds in countries with secure property rights.

Recent experience in Eastern Europe and the former Soviet Union offers an experiment that can help disentangle the effects of property rights and external finance. Although all these former communist countries have relatively weak institutional environments, there is considerable variation in the extent to which property rights are protected. For example, Timothy Frye and Shleifer (1997) and Shleifer (1997) provide evidence that the Russian government acts like a "grabbing hand," discouraging entrepreneurs from investing, while the Polish government does not. In general, property rights have proven more secure in Poland than in other parts of Eastern Europe and the former Soviet Union. Within countries, also, there is variation in both the perceived security of property rights and in the access to bank credit. Given these countries' banking systems, small firms are able to borrow only if they can provide adequate collateral. Owning collateral is therefore a good proxy for at least having the possibility to

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borrow. Firm-level evidence from these post-communist countries therefore allows us to determine whether secure property rights are (a) necessary, (b) sufficient, or (c) necessary and sufficient for investment by entrepreneurs.

Our data come from a 1997 survey of recently formed and relatively small manufacturing firms in five transition countries: Poland, Romania, Slovakia, Ukraine, and Russia. The perceived security of property rights and the use of bank credit vary considerably both across and within these countries. As an outcome variable, we focus on the amount entrepreneurs choose to reinvest out of their profits. This provides a robust measure of investment, as our survey work indicates, that is comparable across firms.

Our approach has two parts, both of which are designed to be straightforward to implement in countries where standard financial information is hard to obtain. First, we explain the data we were able to obtain, putting particular emphasis on what our investigation shows is a reasonable way to ask questions about sensitive financial information and property-rights issues (Section I).[1] Second, we test whether secure property rights are sufficient for investment by entrepreneurs (Sections II and III).

The entrepreneurs in our sample reinvest less of their retained earnings when they perceive their property rights to be insecure, irrespective of whether they own the collateral that is generally needed to obtain credit. This effect is large. Those entrepreneurs in our sample with the least secure property rights invest nearly 40 percent less of their profits than those with the most secure property rights (specifically, entrepreneurs with the least secure perceived property rights reinvest 32 percent of their profits, while those with the most secure reinvest 56 percent). Secure property rights are necessary for the entrepreneurs in our sample to take full advantage of opportunities to invest. Moreover, we find that the absence of bank finance does not prevent the entrepreneurs in our sample from investing. Controlling for property rights, there is no evidence that access to bank credit leads to more investment for these firms. Secure property rights are therefore also sufficient for investment. In fact, the firms in our sample with weak perceived property rights and high levels of unreinvested profits do not want to borrow.

Part of the explanation for these results is that, for the firms in our sample, retained earnings have consistently been large, and therefore have been a source of potential investment funds. Many of these new firms are extremely profitable because the relatively hostile business environment creates barriers to entry and because the partially reformed economy offers entrepreneurs lucrative unfilled niches.[2] High profits mean that entrepreneurs have the resources they need for expansion, without needing to borrow. The issue is not whether entrepreneurs have enough resources, but rather whether they want to invest their retained earnings or instead consume these earnings, perhaps outside the country.

At the low level of institutional development of the countries in our sample, secure property rights are both necessary and sufficient to induce investment by entrepreneurs. The availability of bank loans surely matters for growth, but perhaps only once property rights are perceived to be secure. If property rights are insecure, it is immaterial whether or not finance is available. Our findings thus add empirical detail to the view that certain market-supporting institutions will work only after other institutions have been built (McMillan, 1997; Shleifer and Vishny, 1998).

Because our survey covers only firms already in existence, we cannot infer anything about the relative importance of property rights and finance for potential entrepreneurs who are considering entry. We focus instead on entrepreneurs who are already in business with small-scale operations. Our question is: under what conditions

[1] For more detail on the survey see Appendices A, B, and C, which are on the *American Economic Review* web site: ⟨www.aeaweb.org/aer⟩. The questionnaire and the complete raw data are available at ⟨http://www-irps.ucsd.edu/faculty/cwoodruff/data.htm⟩.

[2] High profits to new entrants appear to have been common in the early stages of reform in the formerly planned economies. China's newly entering rural firms had an average rate of profit on capital of 40 percent in 1978, the first year of reform; in subsequent years this profit rate fell as China's marketization proceeded (Barry Naughton, 1995, p. 150). Anecdotal evidence that early entrants in Poland earned high profits is given in Johnson and Gary W. Loveman (1995).

will these entrepreneurs reinvest their profits to make their businesses grow?

I. The Data

A. *The Sample*

We surveyed private manufacturing firms in May and June of 1997 in Russia and Ukraine and from September to December of 1997 in Poland, Slovakia, and Romania.[3] The survey was designed to find similar relatively small firms in comparable cities in all five countries.

We chose the countries explicitly to look for variation in institutional conditions. The previously available cross-country evidence, for example from European Bank for Reconstruction and Development (EBRD, 1996) and Shleifer (1997), suggested that property rights were less secure in countries further to the East. We intentionally surveyed only firms that were going concerns, in order to focus on investment decisions by firms that had managed to enter an industry and survive. Other researchers have found that weak property rights increase barriers to entry (Simeon Djankov et al., 2002). Daniel Berkowitz and David N. DeJong (2002) find variation across Russian regions in the rate of formation of new firms is associated with the degree of local political support for reform. This paper looks instead at the effects of weak property rights on entrepreneurial investment conditional on entry having occurred.

The sample includes about 300 manufacturing firms with between seven and 270 employees in each country; the total sample size for most variables is about 1,400 observations. Some of the firms were started from scratch and others were spun off from state enterprises, which probably reflects characteristics of the population of firms. In our sample for Poland, Romania, and Slovakia, start-ups far outnumber spin-offs; in Russia and especially Ukraine, spin-offs predominate. We control for these characteristics of the firms in our regression analysis.

B. *The Questions*

The survey design incorporated both experience of previous surveys on these topics and the results of pilot studies we carried out in each country. The pilots tested precisely how people understood various questions and established the best ways to ask about sensitive information. For the purposes of this paper, the most important issue was how to ask about profits and their reinvestment.

We expected respondents would be reluctant to answer questions about the specific nominal amounts of profits and investments, and we found this to be the case. However, they were more willing to answer questions posed in terms of ratios. We also found that respondents found it much easier to answer questions that posed this ratio in terms of a closed-end question listing various ranges from which they could choose. For example, our key question was: "How much did you reinvest out of profits during 1996?" We offered respondents six choices: 0 percent, 1–10 percent, 11–25 percent, 26–49 percent, 50–75 percent, or more than 75 percent. Both the use of ratios and the closed categories represent compromises. We obtain much higher response rates: in the case of reinvestment rates, the response rate exceeded 94 percent.[4] But we have only categorical rather than continuous data. As a result, our regressions will be ordered probits.

Previous research indicated that for particularly sensitive issues, for example relating to bribes and other issues linked to security rights, the response rate was higher when we posed the questions in terms of asking about "firms in your industry" rather than the entrepreneur's own firm.[5] Our assumption, based on other

[3] We chose these three countries on the basis of country-level measures that indicated substantial variation in institutional environment. The survey is described in more detail in Appendix A, and Appendix C summarizes our key questions about finance, profits, investment, and property rights. (These Appendices are available at ⟨www.aeaweb.org/aer⟩.)

[4] For questions where the range of potential responses ranged too widely to use categories, we did ask for specific nominal amounts. In these cases—for example, when we asked firms how much capital they invested in the firm at start-up—response rates were much lower.

[5] This way of asking about sensitive issues, such as property rights and underground economic activity, was developed by Daniel Kaufmann in his earlier empirical work; see, for example, Joel Hellman et al. (2000). The

TABLE 1—PERCEIVED SECURITY OF PROPERTY RIGHTS

Survey result	All countries	Poland	Slovakia	Romania	Russia	Ukraine
1) Percentage of respondents who say firms make extralegal payments for government services	37.3 (1,117)	20.1 (298)	38.2 (306)	20.0 (315)	91.2 (114)	86.9 (84)
2) Percentage of respondents who say firms make extralegal payments for licenses	37.9 (1,128)	19.3 (300)	42.2 (303)	17.0 (317)	91.7 (120)	87.5 (88)
3) Percentage of respondents who say firms make payments for protection	24.4 (1,163)	7.9 (302)	14.9 (308)	0.6 (320)	92.9 (126)	88.8 (107)
4) Percentage of respondents who say firms make unofficial payments for ongoing registration	14.0 (805)	0.4 (234)	3.0 (236)	19.1 (267)	80.0 (55)	76.9 (13)
5) Percentage of respondents who say firms make unofficial payments for fire/sanitary inspection	19.2 (881)	2.8 (254)	12.1 (248)	21.8 (289)	67.9 (56)	91.2 (34)
6) Percentage of respondents who say firms make unofficial payments for tax inspection	12.9 (843)	0.8 (247)	2.5 (242)	17.3 (289)	75.6 (45)	85.0 (20)
7) Tax payments to government as a percentage of sales for firms in industry	18.9 (1,130)	15.5 (277)	16.4 (278)	17.2 (321)	26.9 (119)	28.0 (135)
8) Percentage of respondents who say courts cannot be used to enforce contracts	31.6 (1,470)	27.1 (303)	32.1 (308)	13.1 (321)	44.2 (269)	45.4 (269)
Number of entrepreneurs surveyed	1,471	303	308	321	269	270

Note: The number of observations is given in parentheses below each response level.

experience, is that answers to this question reflect the entrepreneur's own experience. At least one respondent confirmed this, telling our survey firm that he knew the questions were designed to "disguise the fact that [the survey] was after information about his own firm." He responded to the questions anyway.

C. *Measuring Property Rights*

The entrepreneur's beliefs about the security of his or her property rights are indicated by responses to several survey questions. We asked entrepreneurs first whether firms in their industry make "extralegal payments" for government services, and second whether firms in their industry make "extralegal payments" for licenses. More than 90 percent of the Russian entrepreneurs and almost 90 percent of Ukrainian entrepreneurs answered affirmatively to these questions (see the first two rows of Table 1). Only one in five entrepreneurs in Poland and Romania said firms make extralegal payments for services or licenses. The response rates for these questions are well above 98 percent in the three Eastern European countries, but are 40 percent or less in Russia and Ukraine. One reasonable interpretation of a refusal to answer the question, in this context, is that the entrepreneur makes these payments and—for obvious reasons—does not want to discuss them.

We also asked whether firms make payments for "protection" of their activities, finding a similar pattern of responses across the countries (in the third row of Table 1). We chose not to ask directly about whether firms made payments to organized crime, because we expected that most entrepreneurs would not admit this. However, the indirect question probably picks up whether a firm believes it is likely to be subject to extortion by some form of mafia—although we would caution that anecdotal evidence suggests this sort of organized crime often operates with the tacit protection of some local government officials.

For further measures of property-rights se-

results seem consistent with available cross-country evidence and across surveys.

curity, we asked entrepreneurs whether they make "unofficial" payments for specific services: payments for renewing their business registration, and payments to fire, sanitary, and tax inspectors (see the fourth, fifth, and sixth rows of Table 1). Though the response rates to these questions are lower, the pattern is the same. A majority of entrepreneurs in Russia and Ukraine say such payments are common, while a minority of entrepreneurs in the other three countries say the same. We use these detailed corruption measures to check the robustness of results from our basic regression.

Official payments to government are also higher in Russia and Ukraine, where tax payments are more than one quarter of sales, compared to about a sixth of sales in Eastern Europe (see the seventh row of Table 1).[6] We control for tax payments as a percent of sales to see whether this is a direct disincentive to invest. We do find some evidence that investment rates are negatively impacted by higher tax rates, though in contrast to other results, the tax rate findings are not robust.

Using courts to enforce contracts with trading partners is a logically distinct activity from protecting property rights. Nevertheless the effects on investment are similar. Inadequate contractual enforcement could put firms' profits at risk and make them reluctant to invest. Asked whether courts could be used to enforce an agreement with a customer or supplier, most firms in all of the countries said they could. Affirmative answers to this question ranged from 87 percent in Romania to 56 percent in Ukraine (see the last row of responses in Table 1).

Overall, Table 1 shows that the five countries fall into two distinct groups—the three East European countries have relatively more secure property rights than do the two former Soviet Union countries. Courts are less reliable in resolving commercial disputes in Russia and Ukraine, and interactions with the government are also more costly in these countries. This is consistent with the existing evidence that the regulatory environment in Eastern Europe is less hostile to business activity than in the former Soviet Union (see, for example, Frye and Shleifer, 1997).

Entrepreneurs' perceptions of the security of property rights may vary within a country for three reasons. First, different firms may face different realities. Interaction with the government may be more frequent in some industries than in others. Activities may vary in the ease with which they can be hidden from government bureaucrats. And some entrepreneurs may have connections that allow them to avoid extortion. In our data, for example, entrepreneurs who previously worked as high-level entrepreneurs in state-owned enterprises are less likely to say bribes are paid. Second, entrepreneurs may differ in their perceptions. This is especially likely in an economy undergoing deep reform, where institutions and circumstances change quickly. We find, for instance, that older entrepreneurs are less likely to say bribes are paid. Third, the responses may reflect some other characteristic of the firm or the entrepreneur. In our regressions we control for as many characteristics as possible, but some unobserved attributes may matter for investment.

D. *An Index of the Insecurity of Property Rights*

Table 2 shows the correlations among our property-rights measures for individual firms in all five countries. Not surprisingly, most are highly correlated. Extralegal payments for services and extralegal payments for licenses have a correlation coefficient of 0.66, while the correlation between payments for "protection" and either of these measures is larger than 0.50.

For our regression analysis, we combine the three main property-rights questions—extralegal payments for licenses, extralegal payments for services, and paying for protection—into an additive index of property-rights insecurity for

[6] We asked entrepreneurs to report taxes as a percent of total sales. Firms in Eastern Europe and the former Soviet Union routinely underreport sales to avoid taxes and extortion (Johnson et al., 1997). In separate questions, entrepreneurs indicated that the percentage of sales hidden by firms in their industry is about 41 percent in Ukraine, 29 percent in Russia, and around 6 percent in the other three countries. It may be that some entrepreneurs reported taxes and profits as a percent of official sales rather than total sales. If so, then the tax burden and profit rates will be overstated, especially for Russia and Ukraine. But this should not affect our analysis of reinvestment rates.

TABLE 2—CORRELATIONS AMONG VARIOUS INDICATORS FOR THE SECURITY OF PROPERTY RIGHTS

Indicator	Payments for services	Payments for licenses	Payments for protection	Index of property rights
Firms make extralegal payments for licenses	0.66 (1,105, <0.01)			
Firms make payments for protection	0.52 (1,109, <0.01)	0.54 (1,122, <0.01)		
Index of property rights insecurity	0.87 (1,099, <0.01)	0.87 (1,099, <0.01)	0.79 (1,099, <0.01)	
Courts cannot enforce contracts	0.1 (1,117, <0.01)	0.11 (1,117, <0.01)	0.22 (1,163, <0.01)	0.15 (1,099, <0.01)
Tax payments as a percentage of sales for firms in industry	0.24 (996, <0.01)	0.24 (1,007, <0.01)	0.31 (1,042, <0.01)	0.29 (981, <0.01)
Firms make unofficial payments for ongoing registration	0.29 (775, <0.01)	0.27 (783, <0.01)	0.36 (789, <0.01)	0.38 (769, <0.01)
Firms make unofficial payments for fire/sanitary inspection	0.33 (840, <0.01)	0.32 (843, <0.01)	0.29 (857, <0.01)	0.39 (830, <0.01)
Firms make unofficial payments for tax inspection	0.36 (816, <0.01)	0.34 (818, <0.01)	0.32 (828, <0.01)	0.43 (806, <0.01)
Firm had loan before 1996	0.15 (1,072, <0.01)	0.16 (1,082, <0.01)	0.26 (1,115, <0.01)	0.20 (1,055, <0.01)
Firm has collateral	−0.05 (997, 0.13)	−0.03 (1,006, 0.28)	−0.03 (1,040, 0.28)	−0.05 (980, 0.09)

Notes: Correlations are for all five countries combined. The number of observations and significance level are in parentheses.

each firm. The property-rights index we construct ranges from 0 to 3, with 3 indicating that the entrepreneurs said all three payments were common, 2 indicating an affirmative response to two of the payments, 1 indicating an affirmative response to one of the payments, and 0 indicating an affirmative response to none. A higher value of this index therefore represents less secure property rights.

An alternative index for property rights insecurity would equal one if firms make any one of the three types of payments and zero otherwise. Either of these indexes can be justified theoretically.

The additive index is appropriate if responding affirmatively to more than one question indicates a greater level of insecurity than responding affirmatively to only one question. The either/or index is appropriate if one bribe-taker has the same effect as multiple bribe-takers. According to the model of Shleifer and Vishny (1993), if two or more corrupt bureaucrats coordinate so as to maximize their total bribes, they will extract the same total amount as a monopoly extortionist. If they compete with each other, however, their total bribes will, by prisoners'-dilemma logic, exceed the bribe-maximizing amount. The data show the effects of corruption are additive, as discussed below (Section III), suggesting the rate of total bribes might exceed what even the bribe-takers would want.

A belief that courts are not effective in enforcing contracts is positively correlated with the corruption measures, but the correlation is smaller. The correlation between courts and the index for insecurity of property rights is 0.15. While this correlation may seem low, it probably reflects the fact that believing the courts can enforce private contracts is quite different from trusting the government not to expropriate your property. With regard to courts, the issue is presumably whether judges are incompetent or corruptible. With regard to security of property rights, the issue is to what extent members of the executive feel constrained to act responsibly and within the law. Even in environments where the executive is quite predatory

TABLE 2—*Continued.*

Courts enforce	Taxes as a percentage of sales	Bribes registration	Bribes fire/sanitary	Bribes taxes	Loan before 1996
0.11 (1,130, <0.01)					
0.06 (805, 0.09)	0.19 (756, <0.01)				
0.03 (881, 0.40)	0.17 (820, <0.01)	0.49 (757, <0.01)			
0.01 (843, 0.74)	0.16 (789, <0.01)	0.47 (734, <0.01)	0.63 (811, <0.01)		
0.06 (1,302, 0.02)	0.15 (1,094, <0.01)	0.16 (739, <0.01)	0.16 (863, 0.01)	0.08 (828, 0.02)	
−0.05 (1,217, 0.08)	−0.04 (1,018, 0.25)	0.08 (739, 0.03)	0.03 (805, 0.37)	0.04 (769, 0.29)	0.30 (1,189, <0.01)

(Russia, for example), we see considerable willingness on the part of entrepreneurs to rely on courts for the enforcement of contracts with other entrepreneurs.

In the main regressions, we use the effectiveness of courts alongside the index of property rights. We also run regressions using the components of the index separately. Finally, an alternative index of property rights that we use in the regressions, ranging from 0 to 4, adds to the first index the measure of the ineffectiveness of courts (that is, we add one if the entrepreneur thinks the courts cannot be used to enforce contracts and zero otherwise).

E. *Reinvestment of Profits*

Initial entrants in transition economies often earn large profits, which decline over time as new firms enter (McMillan, 1997). Our data are consistent with this at the country level. Table 3 (second line) shows the firms' average profit after taxes as a percent of sales in 1996. Reported after-tax profits are much higher in Russia (21 percent) and Ukraine (18 percent), where there has been the least progress with economic reform, than in Poland (10 percent), where the transition has progressed much further. Romania is in between (13 percent). Slovakia appears to be the outlier in this pattern, with profit rates much lower than in any of the other countries (6 percent).[7] Entrepreneurs were also asked to estimate profit rates after taxes in their industry, as a percent of sales. As we would expect, the estimates of industry profits and the firm's own profit rates are highly correlated ($p = 0.41$). At the country level, these estimates, also shown in Table 3 (third line),

[7] Responses to questions about the entrepreneur's own profits were provided in categories. Appendix B (at ⟨www.aeaweb.org/aer⟩) explains how the numbers in Table 3 were calculated from these responses. The profit data are also compared in Appendix B to data from the National Survey of Small Business Finance, conducted in 1993 in the United States among similarly sized firms (Federal Reserve Board of Governors, 1994).

TABLE 3—USE OF INTERNAL FINANCE

Measure	Poland	Slovakia	Romania	Russia	Ukraine
Number of firms	303	308	321	269	270
1996 profit after taxes, percentage of annual sales	9.9	5.7	12.9	20.6	18.0
Estimated industry profit rate after taxes	11.1	10.0	13.4	17.6	14.3
Profit reinvestment, percentage of profits after taxes	52.6	42.3	52.8	38.8	29.6
Unreinvested profit, percentage of annual sales	4.8	3.6	5.7	11.7	12.3
Profit after taxes in first year of operation, for firms started in:					
1989–1991	9.9	2.4	8.3	4.3	7.6
1992–1993	4.2	−0.2	7.8	4.5	6.6
1994–1996	2.1	−1.1	6.7	3.9	7.4
Start-ups:					
Number of firms	237	238	281	128	82
1996 profit after taxes, percentage of annual sales	10.5	6.0	13.4	20.8	19.0
Estimated industry profit rate after taxes	11.3	9.8	13.8	18.3	14.9
Profit reinvestment, percentage of profits after taxes	53.6	44.8	54.2	37.5	29.4
Unreinvested profit, percentage of annual sales	4.8	3.7	5.8	12.2	12.9
Spin-offs:					
Number of firms	66	70	40	123	183
1996 profit after taxes, percentage of annual sales	7.7	4.6	9.6	20.3	17.7
Estimated industry profit rate after taxes	10.1	10.6	10.5	17.1	14.0
Profit reinvestment, percentage of profits after taxes	49.0	33.7	42.5	39.4	29.6
Unreinvested profit, percentage of annual sales	5.0	3.5	5.0	11.2	12.1

Notes: Profit reinvestment as a percentage of profits excludes firms with zero or negative profits. In order to make the data more comparable to the external finance data shown in Table 4, we assume that firms with negative or zero profits reinvest zero percent of sales and have unreinvested profits of zero percent of sales. Profit reinvestment as a percentage of annual sales is calculated by multiplying profits as a percentage of sales by profit reinvestment as a percentage of profits. Unreinvested profits as a percentage of sales is calculated as profits as a percentage of sales times one minus profit reinvestment as a percentage of profits. See Appendix B at ⟨www.aeaweb.org/aer⟩ for more details on the calculations.

indicate a similar pattern, but with less variation across countries.[8]

These profit rates are high relative to the available data for large firms in these countries. The best data are for Poland. According to the most recent data in Worldscope, average profit/

[8] Throughout, we use the reported rate of profit as a proxy for the firm's cash flow available for reinvestment. In reality, profits and cash flow may diverge for a number of reasons, in particular depreciation. However, information on depreciation recorded by the firms is not available from the survey.

sales for Polish firms from all industries is about 5 percent.[9] However, this average hides considerable disparity. In particular, large firms operating in sectors with substantial barriers to entry, for example due to regulations, had profits as a percent of sales that were comparable to the small firms in our sample.

These data are consistent with the idea that the insecurity of property rights may deter entry into the small-firm sector (Djankov et al., 2002). In addition, these partially reformed post-communist economies offer entrepreneurs lucrative unfilled niches. There is also presumably a survivorship bias for small firms. We are measuring only the firms that have not gone out of business (although arguably this should overstate the importance of external finance and understate the importance of expropriation risk). Large firms may not show such a bias because, in these countries, the government may provide implicit subsidies that prevent them from going out of business.

Entrepreneurs also reported profits as a percentage of sales during their firm's first full year of operation. We show in Table 3 (see the sixth, seventh, and eighth lines) the average first-year profit rates by country and by year in which the firms began operation. In Poland, firms started between 1989 and 1991, just after the reforms, reported earning an average of 9.9 percent of sales during their first year of operation. First-year profits were markedly lower—4.2 percent of sales—for firms started in 1992 or 1993, and lower still for the most recent group of entrants (2.1 percent of sales for firms entering between 1994 and 1996). These data are consistent with our expectation that entry leads to lower profit rates.

A downward trend over time in profit rates for entrants in their first year of business is also evident in Slovakia and Romania, though the rate of fall is not as steep as in Poland. There is even less difference across time in the profit rates of start-up firms in either Russia or Ukraine. Firms entering between 1989 and 1991 had average first-year profit rates of 4.3 percent and 7.6 percent of sales in Russia and Ukraine, respectively. Those entering five years later had average profit rates of 3.9 percent and 7.4 percent of sales, respectively.[10]

We also asked what fraction of 1996 profits after taxes were reinvested in the firm. Polish and Romanian firms reinvested the highest fraction, slightly more than 50 percent on average (fourth line of Table 3). Reinvestment rates average about 40 percent in Slovakia and Russia, and 30 percent in Ukraine.[11] We also compute the profits entrepreneurs choose not to reinvest in their businesses (fifth line of Table 3). Unreinvested profits as a percentage of sales are highest in Russia and Ukraine, where they exceed 10 percent of sales, and lower in Romania (5.9 percent of sales), Poland (5.2 percent), and Slovakia (5.1 percent). In Russia and Ukraine, where property rights are the least secure, entrepreneurs are on average the most reluctant to reinvest their profits.

Table 3 also divides these data into start-ups and spin-offs. Start-ups are more profitable than spin-offs in all five countries, though the difference is much greater in Poland and Romania than in the other three countries. Start-ups reinvest a greater proportion of their profits than spin-offs in Poland, Slovakia, and Romania.

F. *External Finance*

The survey contains three indications of having received bank credit. First, we asked firms what their sources of start-up capital were. A minority of firms, ranging from 6.6 percent of Polish firms to 27 percent of Slovakian firms, obtained part of their start-up capital from bank loans (see the second line of Table 4). Second, we asked whether they obtained a loan at some point in the past. Over 90 percent of Russian firms and 79 percent of Ukrainian firms say they have received loans at some time (third line of Table 4). Only half of Slovakian and Romanian firms have had a loan at

[9] Worldscope also has data for Russia and Slovakia, although this is available for fewer firms. The average profit–sales ratio in Russia for 1999 is 7.11 percent, although firms with substantial market power show higher profit rates. Almost all the Slovak firms show losses.

[10] *T*-tests comparing the profit rate in the early period (1990–1992) with the profit rate in the last period (1994–1996) indicate that the drop in first-year profit rates is significant at the 1-percent level in Poland ($t = 3.38$) and in Slovakia ($t = 2.96$), but not in Romania ($t = 0.99$), Russia ($t = 0.30$), or Ukraine ($t = 0.61$).

[11] See Appendix B at ⟨www.aeaweb.org/aer⟩ for the details of these calculations as well as some caveats to their interpretation.

TABLE 4—SOURCES OF EXTERNAL FINANCE

Measure	Poland	Slovakia	Romania	Russia	Ukraine
Number of firms	303	308	321	269	270
Percentage of firms with bank loans at start-up	6.6	27.0	9.7	15.2	12.2
Percentage of firms with bank loans ever	70.0	51.0	49.8	92.4	79.0
Percentage of firms with bank loans in 1996	48.8	27.6	24.1	17.0	13.8
Percentage of firms with collateral at the time of interview	95.7	80.8	94.4	87.2	75.5
Average 1996 loan, percentage of annual sales					
All firms (no loan = 0 percent)	2.3	2.5	1.7	2.3	0.8
Firms with loans	4.8	10.6	7.3	24.7	13.4
Accounts payable, percentage of annual sales					
All firms	2.7	3.4	NA	0.1	0.7
Firms with 1996 loans	2.5	4.2	NA	0.04	0.3
Start-ups:					
Number of firms	237	238	281	128	82
Percentage of firms with bank loans:					
ever	72.2	42.4	46.6	95.4	81.9
in 1996	50.6	22.7	20.8	12.0	11.1
Average 1996 loan, percentage of annual sales (no loan = 0 percent)	2.5	2.0	1.7	1.7	1.3
Accounts payable, percentage of annual sales	2.5	3.2	NA	0.1	0.9
Spin-offs:					
Number of firms	66	70	40	123	183
Percentage of firms with bank loans:					
ever	62.1	80.0	72.5	89.4	78.5
in 1996	42.4	44.3	47.5	21.5	14.6
Average 1996 loan, percentage of annual sales (no loan = 0 percent)	1.5	4.4	2.2	2.8	0.6
Accounts payable, percentage of annual sales	3.2	4.0	NA	0.1	0.7

Note: For details of variable definitions, see Section II of the text.

some point in the life of the enterprise. Third, we asked whether they obtained loans from banks in 1996, the year before the survey. The greatest percentage of current borrowers was in Poland, where just under half (49 percent) of firms said they had loans in 1996. About a quarter of firms in Slovakia and Romania said they had loans in 1996, with lower percentages in Russia (17 percent) and Ukraine (14 percent).[12]

Although fewer firms in Russia and Ukraine received loans than in the other three countries, the average loan size was larger there. Loans average less than 5 percent of a borrower's

[12] There are no reliable comparable data on credit to the private sector across transition countries, but the ratio of broad money to GDP provides a rough indicator. In 1996, broad money was 37.5 percent of GDP in Poland, 28.9 percent in Romania, 13.1 percent in Russia, 71 percent in Slovakia, and 11.16 percent in Ukraine (EBRD, 1997). The real money supply in Russia and Ukraine fell dramatically between 1991 and 1996, which partially accounts for credit becoming harder to get in these two countries (EBRD, 1997). Of course, our sample has quite different characteristics from the large state or privatized firms that receive (or do not receive) most of the credit in these transition economies.

annual sales in Poland, more than 10 percent of annual sales in Slovakia and Ukraine, and almost 25 percent of annual sales in Russia. As a result, the variation across countries in the total funds provided by banks is small. Including firms who do not receive loans, Slovakian firms received the most credit in 1996, amounting to 2.5 percent of annual sales. In Poland and Russia, finance provided by banks represents 2.3 percent of annual sales, in Romania 1.7 percent, and in Ukraine 0.8 percent.

Even though Polish firms are much more likely to have obtained a loan in 1996 than firms in the other four countries, the Polish credit markets are underdeveloped by western standards. In the United States, small and medium-sized firms are surveyed periodically by the Federal Reserve Board of Governors (FRBG). Among the 344 firms in the 1993 National Survey of Small Business Finances (NSSBF) that are manufacturers with between ten and 270 employees, 84 percent reported having a loan at the time of the survey. This level is substantially higher than the 49 percent rate in Poland. Moreover, loan amounts were 16 percent of sales among the group of small U.S. manufacturers, several times the levels in any of the countries we surveyed.[13]

Compared to a developed capital market, loans in our five countries are also much more likely to require collateral. While 20 percent of bank loans obtained by U.S. firms were without collateral, less than 2 percent of the firms in our sample obtaining loans did so without collateral. A lack of collateral, however, is not the main reason for less borrowing in our sample than in the United States. More than 75 percent of firms in each of the countries—and more than 90 percent of firms in Poland and Romania—say they were able to offer collateral to banks. At least in the minds of entrepreneurs, a lack of collateral does not appear to be a major constraint on borrowing.[14]

An alternative source of external funds is credit received from other firms. We measure trade credit by the level of accounts payable reported by firms (the eighth and ninth rows of Table 4). Trade credit is almost nonexistent in Russia (0.1 percent of annual sales) and is low in Ukraine (0.7 percent), but is an important source of capital in Poland (2.7 percent) and Slovakia (3.4 percent). Credit received from suppliers is comparable in size to credit received from banks in Poland, Slovakia, and Ukraine. Reliable data for this question are not available for Romania.[15] (For more on trade credit, see Johnson et al., 2002, where we use trade credit as a measure of a firm's trust in its trading partner.)

Profit reinvestment is a larger source of investment capital than either bank funds or trade credit in all five countries, as is seen by comparing Tables 3 and 4 (except that trade credit is bigger than profit reinvestment in Slovakia). In Poland, firms internally generate funds for investment averaging 9.9 percent of sales (Table 3, second line). Bank loans average 2.3 percent of sales for the whole sample and 4.8 percent of sales for firms receiving loans in Poland (Table 4, sixth and seventh lines). In contrast, we estimate that firms in Russia and Ukraine have unreinvested profits averaging 12 percent of sales (Table 3, fifth line). This suggests the Russian and Ukrainian firms could have used their unreinvested profits in productive projects (earning high rates of return), but for some reason they chose not to. The potential for using retained earnings as a source of capital is seen from the fact that, in all five countries, the capital available from unreinvested profits exceeds the capital provided by banks (compare the fifth row in Table 3 with the sixth row in Table 4).

Table 2 shows correlations between the various measures of property rights on the one hand and variables indicating access to credit on

[13] When lines of credit are excluded, loans were 5.8 percent of sales among the small manufacturers in the NSSBF survey. Both of these averages assign a value of zero to firms without loans. (See Appendix B, at ⟨www.aeaweb.org/aer⟩, for more discussion of the NSSBF data.)

[14] While the response rate to the collateral question was more than 99 percent in Romania, it was only 76 percent in Ukraine and 61 percent in Russia. If nonrespondents are less likely to have collateral, then the numbers in Table 2 may overstate the availability of collateral in Russia and Ukraine. Still, as a lower bound (taking all nonrespondents as having no collateral), the survey indicates that more than half of firms in Russia (53 percent) and Ukraine (57 percent) are able to offer collateral.

[15] Apparently respondents misunderstood what we were asking. This question may not have been translated properly.

the other. We would be concerned if access to capital is strongly correlated with security of property rights, because that would make it difficult to disentangle access to credit from security of property. We measure the ability to access credit in 1996 with two variables—an indication that the firm received a bank loan at some point before 1996, and an indication that the firm has collateral that can be used to obtain a loan. The correlations indicate that firms with less secure property rights are more likely to have had a loan before 1996. Firms with less secure property rights are less likely to have collateral to offer banks, but the correlation is small and is significant only for the index of insecurity and for a lack of confidence in courts. Hence, we are not concerned that our measures of insecure property rights are proxying for a lack of access to credit.[16]

G. *Assessment*

The cross-country evidence suggests that property rights are an important determinant of investment by entrepreneurs. In Poland, where property rights are relatively secure, we find high rates of reinvestment. In contrast, in Russia and Ukraine, where property rights are weak, we find that the level of unreinvested profits is high; entrepreneurs there have the ability to do much more investment than they actually do. The next question is whether these results hold in the firm-level data when we control for characteristics of the firm and entrepreneur.

II. A Framework for Investment Decisions

This section lays out a simple framework that explains and defends the assumptions needed for our regression analysis. A firm's desired investment level is a function of both industry and firm-specific factors. Firms in growing industries are faced with more investment opportunities than are firms in declining industries. Production in a capital-intensive industry also necessitates higher investment levels. More able entrepreneurs will find investments more profitable in any industry. All of these factors affect the profitability of potential investments.

Investment demand also depends on the ability of entrepreneurs to retain any profits they make. Entrepreneurs may be unwilling to invest when returns are insecure. The effect of entrepreneurs' perceptions of property rights on investment decisions is the main issue we want to explore. Suppose that the firm makes its investment and borrowing decisions simultaneously, and extortion, if it occurs, comes after any profits are realized, so that firm's demand for investable funds is given by

$$I^{d} = I(\pi, s, r^{I}, r^{L}) \tag{1}$$

where π represents expected (pre-extortion) profits, s represents the amount of those profits that will be extracted by corrupt bureaucrats or criminals, r^{I} represents the interest rate the entrepreneur can earn by investing the firm's profits outside the firm and r^{L} the interest rate the entrepreneur pays on borrowed money. Investable funds may be obtained either internally from retained earnings or externally through credit markets. Thus:

$$I^{d} = R + L^{d} \tag{2}$$

where R represents reinvested earnings and L^{d} is the firm's demand for loans.

The usual assumption is that the value to the firm of internal funds, r^{I}, is less than the cost to the firm of external funds, r^{L}. The wedge between the two interest rates arises because entrepreneurs have better information about their prospects than outside lenders or investors. Lenders demand a premium to offset their informational disadvantage. The difference between r^{I} and r^{L} creates a pecking order in which internal funds are exhausted first before external funds are obtained (Stewart C. Myers and Nicholas S. Majluf, 1984; Lakshmi Shyam-Sunder and Myers, 1999). This idea was developed from the experience of firms in the United States. The wedge between the value of internal

[16] The correlations between property rights and access to credit are driven primarily by differences across countries. When Poland, Slovakia, and Romania are separated from Russia and Ukraine, insecure property rights are positively correlated with a lack of collateral. However, the correlations are low, all below 0.11, and there is no correlation between security of property rights and having had a loan before 1996. In Russian and Ukraine, firms with less secure property rights are more likely to have collateral to offer and to have had a loan before 1996.

funds and the cost of external funds is likely to be larger in transition countries than in developed market economies because information sources are missing and investment uncertainties are much greater in transition countries. Information asymmetries are therefore likely to be more severe.

Firms in transition economies have another reason to prefer internal financing in addition to borrower/lender information asymmetries. External financing makes it hard for firms to hide their activities from tax collectors or the mafia. The effective cost of external finance in Russia is increased, according to Anna Meyendorff (1998), by the fact that firms that apply for a bank loan are more likely to have to pay their taxes. According to Richard Lotspeich (1996), firms are reluctant to disclose information to banks for fear it will be leaked to the mafia. Given these conditions, the assumption that the value of internal funds is less than the cost of external funds is a reasonable one to make in examining the investment decisions of firms.

The difference in cost of internal and external funds leads to a discontinuity between the investment of internal funds and the decision to seek external funds. Investment projects must have an expected return (after extortion and adjusted for risk) comparable to r^{I} to be profitable when financed by internal funds, but a return comparable to r^{L} to be profitable when financed by external funds. As a result, a firm's decision to invest internally generated funds is made independently of a decision to seek external finance. This allows us to estimate econometrically an equation for reinvestment of profits independent of the demand for external finance.

We represent the pecking-order hypothesis by supposing that firm i has a maximum amount of money that it is willing to reinvest out of its current profits, E_i; this might be the total current profit, or it might be strictly less than that. We assume E_i depends on entrepreneur-specific characteristics. Then the pecking-order hypothesis implies:

$$(3)\qquad \begin{aligned} I^{\mathrm{d}} &= R && \text{if } I^{\mathrm{d}} \le E_i \\ I^{\mathrm{d}} &= E_i + L^{\mathrm{d}} && \text{if } I^{\mathrm{d}} > E_i. \end{aligned}$$

This gives us the main equation we will estimate, relating the firm's willingness to reinvest its profits to its expected profits and the security of its property rights:

$$(4)\qquad \begin{aligned} R &= I(\pi, s, r^{\mathrm{I}}) && \text{if } I^{\mathrm{d}} \le E_i \\ R &= E_i && \text{if } I^{\mathrm{d}} > E_i. \end{aligned}$$

In our data, we will use explicit measures of π and s. Differences in r^{I} across firms in the sample will be subsumed in country/industry control variables.

If the assumption that investment of internally generated funds is independent of access to external funds were invalid, then investment of internal and external funds would need to be examined simultaneously. There are (at least) three reasons that investment of internal funds might depend on access to external funds. First, r^{L} may not be higher than r^{I} if loans are subsidized by the government. This does not appear to be the case in our data. Subsidies were most important in loans to state-owned firms. There are no state-owned firms in our sample. Only in Romania do we find that interest rates paid by firms spun off from state-owned enterprises are lower than those paid by de novo start-ups. In the remaining countries, there are no significant differences in loan rates between the two groups of firms. Moreover, across the sample, loans given by state banks have higher interest rates than loans given by private banks. In Poland and Slovakia, where loans are equally divided between state and private banks, interest rates are nearly the same, with rates from state banks very slightly higher than rates from private banks.

Second, entrepreneurs for whom property rights are insecure may prefer to invest bank funds in their businesses and to divert internally generated funds to more secure accounts. This implies that firms receiving loans should invest, on average, a lower proportion of their own profits than firms without loans. The data suggest this is not the case. Among the most profitable firms (those with profits 10 percent or more of sales) who are investing less than half of their profits, loans are infrequent. Only 64 of 476 (13 percent) of these firms received loans in 1996. On the other hand, 104 of the 259 (40 percent) firms investing more than 75 percent of

TABLE 5—REINVESTMENT RATES, FIRMS WITH AND WITHOUT LOANS

Reinvestment rate[a]	Percentage of firms	
	Firms with loans in 1996	Firms without loans in 1996
0–25 percent	26.0	33.0
26–49 percent	21.0	31.5
50–75 percent	21.3	18.2
76–100 percent	31.7	17.4

[a] Percentage of after-tax profits.

their profits received loans.[17] The survey does not indicate whether a loan received in 1996 represented new capital, or a rollover of a loan from previous years. But we would expect that firms investing most of their profits are both more likely to roll over existing loans and more likely to take out new loans. In either case, firms that are investing aggressively will be more likely to have a loan in 1996, as the data suggest.

Finally, investment may be lumpy, with the minimal investment larger than retained earnings can accommodate. Given the level of technology used by small-scale manufacturers in these countries, however, it seems unlikely that investments are lumpy. Moreover, Table 5 shows that 35 percent of firms without loans in 1996 reinvested half or more of their profits, indicating that the lack of external finance does not preclude internally funded investment. (By comparison, 53 percent of firms with loans in 1996 invested half or more of their profits.) Further evidence on this is discussed in Section III, where we use a firm's ability to offer collateral and loans prior to 1996 as a measure of access to loans in the 1996 reinvestment equation. If investments are lumpy then reinvestment should be positively associated with collateral; we find no significant interaction.

Thus, examining reinvestment of profits independent of access to external finance appears to be reasonable for our data. In the next section, we examine the determinants of the firm's decision to reinvest from its profits [equation (4)]. The main hypothesis is that firms reinvest less if they perceive their property rights to be more insecure.

[17] Because of the categorical responses, we cannot determine how many firms obtained new loans and invested more than 100 percent of their profits, though it is likely that some did. Just over a fifth of the firms reported investing more than 75 percent of profits, the highest reinvestment category. In Poland, 35 percent of firms reported investing at least 75 percent of profits.

III. Determinants of Profit Reinvestment

Security of property rights is positively correlated with profit reinvestment rates at the country level, as we saw in Section I. Reinvestment rates are highest in Poland and Romania, where extralegal payments and payments for protection are lowest and the reliability of the courts is highest. Reinvestment rates are lowest in Ukraine and Russia, where extralegal payments are highest and courts less effective. Reinvestment rates are affected, however, by factors other than property rights.

A. *Basic Specification*

In this subsection, we estimate the reinvestment-demand equation (4), with the percentage of its profits a firm reinvests as the dependent variable and our property-rights indices as independent variables. Our data on reinvestment rates are categorical rather than continuous, and hence we use ordered probit regressions (although we have checked the robustness of our results using alternative specifications). We control for factors affecting investment demand other than property rights: the industry profit rate (as a proxy for expected investment opportunities more generally),[18] the age of the firm, access to external finance (represented by whether the firm had collateralizable assets), entrepreneur characteristics, and other industry effects.

[18] We do not use the firm's own profit rate due to concern about reverse causation: higher investment levels might lead to higher rates of profits. Given our belief that the manager's estimate of industry conditions is based on his own experience, use of industry profits does not completely eliminate endogeneity concerns. However, none of the results we report are altered if we use the firm's profit rate during its first year of operation, or exclude all measures of profits.

TABLE 6—ORDERED PROBITS FOR REINVESTMENT RATE IN 1996

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Index for perceived insecurity of property rights	−0.17	−0.12	−0.12	−0.18	−0.0003		−0.18		−0.17
	(5.51)	(3.39)	(1.97)	(2.83)	(0.01)		(2.87)		(2.88)
Dummy for believing courts ineffective		−0.18	−0.18	−0.15	−0.11		−0.16	−0.45	−0.23
		(2.01)	(1.85)	(1.31)	(0.47)		(1.32)	(1.95)	(1.85)
Index for perceived insecurity of property rights including courts (four-element index)						−0.17			
						(2.93)			
Estimated industry profit rate		0.005	0.004	0.01	−0.02	0.01	0.01	−0.07	0.01
		(1.13)	(0.91)	(1.80)	(0.97)	(1.81)	(1.86)	(1.55)	(1.90)
Log of firm age		−0.25	−0.30	−0.25	−0.77	−0.25	−0.25	−0.35	−0.33
		(3.34)	(3.73)	(2.35)	(3.51)	(2.36)	(2.40)	(1.22)	(2.69)
Dummy for being a start-up		0.30	0.35					−0.04	
		(2.80)	(2.73)					(0.15)	
Tax payments as a percentage of sales		−0.01	−0.01	−0.004	−0.02	−0.004	−0.003		−0.002
		(1.69)	(1.68)	(0.92)	(1.50)	(0.93)	(0.86)		(0.43)
Dummy for collateral to offer bank									−0.11
									(0.64)
Dummy for obtaining loan prior to 1996									0.14
									(1.57)
Industry controls	no	yes	yes	yes	yes	yes	yes	yes	yes
Country controls	no	no	yes	yes	yes	yes	yes	yes	yes
Manager characteristics included in regression	no	no	yes	yes	yes	yes	yes	yes	yes
Number of observations:	815	815	815	619	196	619	574	116	559
Chi-square:	30.3	236.2	570.4	722.9	28.3	314.6	549.2	98.8	263.6
Probability:	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001

Notes: Regressions are ordered probits. The dependent variable is the firm's profit reinvestment rate, divided into categories, with a higher value indicating more investment as a percentage of profits (see Appendix B at ⟨www.aeaweb.org/aer⟩ for details). Numbers in parentheses are *t*-statistics based on robust standard errors. Country and industry controls are interacted when both are included. Manager controls are manager's age and education level, an indicator that the manager was previously a high-level manager in a state-owned enterprise and an indicator that the manager has previous experience in the private sector. Columns (1)–(6) present results for all five countries from regressions including:

1) all firms, without country and industry controls;
2) all firms, without country controls;
3) all firms, with country controls;
4) start-ups only;
5) spin-offs only;
6) the four-element alternative index of security of property rights.

Column (7) presents results from regressions including only start-ups in Poland, Slovakia, and Romania. Column (8) presents results using all firms in Russia and Ukraine only. Finally, column (9) gives results for start-ups with loan variables, using data from all five countries. (See text for additional details.)

Table 6 presents the results of these regressions. There are six categories of responses to the reinvestment question, increasing in the rate of reinvestment. A positive coefficient indicates that an increase in the level of the independent variable increases the chance that a firm is in a higher reinvestment category.[19] We exclude from the regression sample firms that had zero or negative profits in 1996, since we are unable to measure their reinvestment rate. We also exclude firms not operating at the start of the

[19] We have run all of the regressions using ordinary least squares, using the midpoint of the reinvestment categories, with robust standard errors. The results are qualitatively similar to those reported. We prefer the ordered probit because it does not require the assumption that investment rates are exactly at the midpoint of the categories specified in the survey. (See Appendix B at ⟨www.aeaweb.org/aer⟩ for the details on the six categories of responses to the reinvestment question.)

year in 1996. Both start-ups and spin-offs are included in the initial regressions (first and second columns). Recall that the questions on which the key independent variables are based refer to payments made by firms in the respondent's industry. To be conservative, we therefore report *t*-values based on standard errors adjusted for clustering for 44 industry/country groups. Adjusting for clustering has only a small effect on the standard errors in these regressions and does not affect the significance level for any of our results.

The first column of Table 6 includes only the index that represents the insecurity of property rights. Greater insecurity is associated with lower levels of profit reinvestment, and this effect is highly significant. The second column adds the variable that indicates the entrepreneur thinks courts are ineffective. Ineffective courts are associated with lower levels of investment as well, an effect significant at the 0.05 level. Additional variables added in the second column control for the entrepreneur's estimate of the industry profit rate[20] and tax rate, the log age of the firm in years, a dummy variable indicating that the firm is a start-up and nine industry dummy variables. Older firms invest a lower proportion and start-ups a higher proportion of their profits. Higher tax rates are associated with lower investment rates, though the effect is significant at only the 0.10 level. The regression also controls for the age of the firm and whether the firm is a start-up.

Our index for the insecurity of property rights is additive. An alternative index would take a value of one if firms make any one of the three types of payments, and a value of zero otherwise. Both indices have theoretical merit, but the additive index explains the data better. The either/or index is significant ($\beta = -0.27$, $t = 3.48$), but has a lower *t*-value and results in a lower χ^2 (60.8 vs. 65.4 with the additive index). The additive index can be used to create four dummy variables, the first representing an index value of zero, the second representing an index value of one, and so on. When dummies representing index values of three, two, and one are used in place of the index (with the value zero being the base group), the coefficients are -0.35, -0.26, and -0.14, respectively. These results suggest that the effects of corruption are additive, perhaps because multiple affirmative responses indicate stronger convictions on the part of the entrepreneur. Alternatively, the better performance of the additive index may indicate that those extracting payments do not coordinate their activities, consistent with the model of Shleifer and Vishny (1993).

The first two regressions do not control for country effects. Since much of the variance in security of property rights is across countries rather than within country, this measures the full effect of property rights. However, there may be other factors that vary across countries and affect the demand for investment. If so, then these other country-level effects will be correlated with our measures of property rights. The regressions in columns (3)–(9) control for differences in each industry in each country using 39 industry/country dummy variables. We include interacted controls because the factors affecting investment demand in the food industry in Poland, for example, may differ from factors affecting investment demand in the food industry in Russia. Neither the index of property rights nor the reliability of the courts is much affected by the inclusion of the industry/country dummies, though the index is now significant only at the 0.05 level.[21]

B. *Alternative Specifications*

The regressions in columns (3)–(9) also include a set of four variables measuring entrepreneur characteristics. These variables measure the age, years of schooling, and prior work experience of the entrepreneur. The two work experience variables indicate whether the entre-

[20] We use the entrepreneur's estimate of industry profits rather than the firm's own profits because we believe the former are more likely to represent the expected profits from new investments. Additionally, own profits may be determined in part by reinvestment, creating endogeneity problems. Nevertheless, when we rerun all of the regressions in Table 6 with own profits replacing industry profits, we find that own profits are significant everywhere that industry profits are significant. The property-rights index and courts results are not affected.

[21] Because response rates were lower in Russia and Ukraine, only 14 percent of the observations in the regressions are firms in those countries. This may explain why the country controls have only a small impact on the property-rights variables.

preneur previously was a high-level manager in a state-owned enterprise and whether the entrepreneur had prior experience in the private sector. The coefficients of these controls for entrepreneur characteristics (not shown on Table 6) indicate that investment rates are higher for younger entrepreneurs ($\beta = -0.01$, $t = 2.77$ in the third-column specification) and for entrepreneurs who were previously high-level managers at state-owned enterprises ($\beta = 0.24$, $t = 2.98$ in the third-column specification). Education and private sector experience have no significant effect.

We split the sample, in the fourth and fifth columns, into firms that are start-ups and those that were spun off from a state enterprise. For start-ups, the coefficients are similar to those obtained for the whole sample, though the measure of courts is not significant at the 0.10 level. The industry tax rate is not significant in either subsample. However, the entrepreneur's estimated profit rate for the industry is significant at the 0.10 level among start-ups. Among spin-offs, no variable measuring property rights has any effect on investment. The industry profit rate has the wrong sign and is insignificant. There are significant differences between the behavior of spin-offs and start-ups, with the regressions doing a better job explaining the behavior of start-ups. Given that most of the spin-offs underwent downsizing after being privatized, other factors may play an important role in determining reinvestment rates for these firms. For the regressions in the sixth, seventh, and ninth columns we limit the sample to start-up firms.

The regression in the sixth column uses an alternative index of security of property rights. This alternative index ranges from zero to four—it adds one to the original index if the entrepreneur thinks courts are ineffective for enforcing contracts. As with the original index, a higher value represents less secure property rights. The four-element index has the expected negative sign, and is significant at the 0.01 level.

Last, we divide the sample by region, first considering investment among start-ups in Poland, Slovakia, and Romania (the seventh column), and then considering all firms in Russia and Ukraine (the eighth column). (The number of start-ups with nonmissing responses in Russia and Ukraine is too small for us to use only start-ups in this regression.) The two property-rights measures both have the expected sign in the three Eastern European countries. The index is significant at the 0.01 level; the significance of the effectiveness of courts falls below the 0.10 level. In Russia and Ukraine, the effectiveness of courts is significant. The index of property rights is not included in this regression because there is not enough variation in the index in the Russia/Ukraine sample to make the results meaningful. (Only three of 116 firms in the sample answer "no" to any of the three questions in the index!)

The ordered probit coefficients represent changes in the probabilities of being in each category of investment. Hence, giving an economic interpretation of their magnitude is difficult. To gain a better picture of the effect of property rights on investment, we calculate the probability of being in each investment category conditional on different values of the property-rights index. We use the regression reported in the sixth column of Table 6, using the four-element security index. The results are shown in Table 7. The bottom row of the table shows the weighted average reinvestment rate for each value of the index, using the midpoint of each reinvestment category. Firms with the most secure property rights (those with an index value of zero) have an average predicted reinvestment rate of 55.1 percent; those with the least secure property rights have an average predicted reinvestment rate of 33.5 percent. The most insecure firms' investment is therefore 39 percent lower than the investment of the most secure firms.

In sum, the index of property rights has a significant effect on firms' investment rates, especially among de novo start-ups. We find only weak evidence that tax rates affect investment demand. The lack of robustness in the tax effects may reflect a lack of variance in taxes across firms, since statutory tax rates vary only across countries. Alternatively, perhaps it is the clandestine and unpredictable nature of the unofficial payments, rather than just the fact that some profits will be taken, that discourages firms from investing.

C. *Access to Credit*

Our framework assumes that the decision to invest internally generated funds is independent

TABLE 7—PREDICTED PROFIT REINVESTMENT RATE FROM THE ORDERED PROBIT RESULTS IN TABLE 6, COLUMN (6)

	Percentage of firms in investment category					
		Insecurity of property-rights index[a]				
Profit reinvestment rate (percent)	All firms	4	3	2	1	0
0	3.3	9.2	6.5	4.4	3.2	1.9
1–10	13.7	25.0	21.0	16.6	13.6	10.4
11–25	10.9	14.9	14.0	12.4	11.1	9.5
26–49	20.2	21.3	21.8	21.3	20.6	19.2
50–75	21.0	16.1	18.4	20.3	21.4	22.0
76–100	30.8	13.5	18.3	25.0	30.2	36.9
Weighted investment rate:	49.9	33.5	39.0	45.3	49.8	55.1

Notes: We calculate the probability of being in each investment category conditional on different values of the property-rights index. We use the regression reported in column (6) of Table 6, utilizing the four-element security index (i.e., including belief in the effectiveness of the courts). The last row of Table 7 shows the weighted average reinvestment rate for each value of the index, using the midpoint of each reinvestment category.

[a] Scale for insecurity of property-rights index ranges from 0 (most secure) to 4 (least secure).

of access to external funds. It is possible, however, for internal and external funds to complement one another. If investment projects are lumpy, then firms may need outside finance in order to undertake investment projects at all. In this case, those not receiving loans would not invest internal funds either. We cannot include a direct measure of whether the firm has a loan because the latent variable—investment demand—determines (at least in part) both reinvestment of profits and demand for loans. Instead, we test for the importance of loans by including variables that are correlated with access to finance but that we expect are uncorrelated, or only weakly correlated, with investment demand.[22] We include two variables, one indicating that the firm has collateralizable assets, and the other indicating the firm received a loan prior to 1996. Both of these variables are strongly correlated with receiving a loan in 1996. Collateral is necessary for access to loans. Only six of 310 firms reporting loans in 1996 said they did not provide collateral. Loans obtained prior to 1996 provide an additional indication of creditworthiness. In most cases (69 percent) where firms had loans prior to 1996 and in 1996 as well, the firm obtained both loans from the same bank. Given that our sample is limited to firms with positive profits in 1996, we believe these two variables are good indications of access to credit.[23] Neither has a significant effect on the rate of reinvestment (ninth column of Table 6). The inclusion of the instruments for bank finance has little impact on the magnitude or significance of the coefficient on the index of property-rights insecurity. The variable measuring the reliability of courts is now significant at the 0.10 level.

In unreported regressions available from the authors, we pursued an alternative test for an interaction between security of property rights and use of external credit. We included the index of insecurity as an independent variable in a regression with the receipt of a loan in 1996 as the dependent variable. We found that the index of insecurity has no effect on the likelihood a firm obtained a loan in 1996. This provides additional evidence that less secure property rights did not encourage entrepreneurs to invest

[22] Because investment opportunities may be correlated across time within a firm, we had some concern that either of these variables might be partially endogenous to current reinvestment rates. Their insignificance in the reinvestment equation suggests that endogeneity of our measures through temporal correlation of investment rates is not a serious problem.

[23] Our results are consistent with those found by Andrzej Bratkowski et al. (2000), who find for a sample of new firms in the Czech Republic, Hungary, and Poland that loans are significantly associated with collateral and past loans.

TABLE 8—ORDERED PROBITS FOR REINVESTMENT RATE IN 1996: ALL FIVE COUNTRIES, START-UPS ONLY

Dummy variables	(1)	(2)	(3)	(4)	(5)	(6)
Firms make extralegal payments for services	−0.42 (4.33)					
Firms make extralegal payments for licenses		−0.11 (0.84)				
Firms make payments for protection			−0.34 (1.60)			
Firms make unofficial payments—ongoing registration				−0.40 (3.04)		
Firms make unofficial payments—fire and sanitary inspections					−0.31 (2.45)	
Firms make unofficial payments—tax inspection						−0.27 (1.76)
Courts cannot be used to enforce contracts	−0.16 (1.39)	−0.14 (1.20)	−0.13 (1.13)	−0.21 (1.65)	−0.14 (1.21)	−0.20 (1.63)
Controls included	industry/ country	industry/ country	industry/ country	industry/ country	industry/ country	industry/ country
Manager characteristics	yes	yes	yes	yes	yes	yes
Number of observations:	619	619	619	499	538	529
Chi-square:	428.4	339.8	235.2	512.3	470.2	169.1
Probability:	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Notes: All regressions are ordered probits. The dependent variable is the level of investment, divided into categories, with a higher value indicating more investment as a percentage of profits (see Appendix B at ⟨www.aeaweb.org/aer⟩ for details). All regressions also include the entrepreneur's estimate of the industry profit rate and the age of the firm. Numbers in parentheses are *t*-statistics based on robust standard errors.

from bank funds rather than from their own profits. In the regressions, both the availability of collateral and receipt of loans prior to 1996 had large and significant effects on the likelihood a firm received credit in 1996, suggesting that banks' willingness to lend is an important determinant of credit availability. The level of unreinvested profits also has a large and significant effect on the likelihood a firm received credit. The last result suggests an indirect link between property rights and credit: firms perceiving property rights as insecure invest less, and so demand less credit. Low levels of observed credit may result from a lack of demand as well as a lack of supply.

D. *Further Robustness Checks*

Table 8 reports regressions that use the components of the index one at a time. We use the sample of start-ups in these regressions. Among the elements of the index, extralegal payments for government services clearly have the most significant effect (the first column). Payments for protection fall just below the 0.10 level of significance, and payments for licenses is insignificant as well (the third and second columns, respectively).

The fourth, fifth, and sixth columns of Table 8 replace the components of our index with the responses to questions about bribes paid for specific services. All three types of bribes—payments for ongoing registration, payments for fire/sanitary inspection, and payments for tax inspection—are negatively and significantly associated with reinvestment levels. The sample size in these regressions varies and is smaller than the other regressions because the response rate for these questions is generally lower. The variable representing trust in the courts has the correct sign in all of the regressions reported on Table 8, though it is insignificant in all but one

of the specifications (see the last row of coefficients in each column).

Our findings are also robust to alternative ways of defining the dependent variable. Ordinary least-squares regressions using the midpoint of the investment categories (i.e., five for the 1–10 percent category, eighteen for the 11–25 percent category, and so on) produces very similar results. Probits for over/under 75 percent reinvestment or over/under 50 percent reinvestment also produce similar findings.

E. *Caveats to Our Interpretation*

In the regressions, we treat property rights as exogenous to the investment decisions of our firms. There are at least two reasons why this may not be a valid assumption. First, higher investment rates may lead to more secure property rights, as in the model of Besley (1995). While it is plausible that very large firms in post-communist transition countries may endogenously create property rights by becoming "too big to fail," we do not view this as likely for our firms, given their relatively small size.

Of more concern is the possibility that higher reinvestment rates and more secure property rights may both reflect the optimism of the responding managers. Managers may also attempt to justify an unwillingness to invest by saying that property rights are insecure. In either of these cases, endogeneity of property-rights security arises from our inability adequately to control for manager characteristics. We lack direct measures of a manager's attitudes, but managers who say property rights are less secure also say their own profits and their industry's profits are higher. Insecurity is also significantly correlated with characteristics of the manager that we can measure. For example, older managers and managers who formerly worked as a high-level manager of a state-owned enterprise say property rights are more secure. These correlations suggest there is an important exogenous component of our insecurity index. Nevertheless, the estimated impacts of insecurity on investment may be overstated if unmeasured manager characteristics are important.

Alternatively, our regression coefficients may understate the effects of property-rights insecurity. Since we surveyed existing firms, our sample omits both failed firms and potential firms that were deterred from entering. Both failure and the decision not to enter presumably reflect the insecurity of property rights. Additionally, because our regressions look at the determinants of firms' marginal investment decisions in their current lines of activity, we cannot pick up possible intersectoral distortions. For example, certain industries might be especially susceptible to extortion; the insecurity of property rights might cause entrepreneurs to shun those industries. If capital is more susceptible to extortion than labor, weak property rights may also cause production to be inefficiently labor intensive. We have no way of determining the net effect of the biases of opposite directions.

In summary: Weak perceived property rights have a consistently negative effect on reinvestment in our regressions. The index of property rights is significant in all subsamples apart from spin-offs. The measure of trust in courts has a less robust effect on reinvestment, but is significant for the full sample. The availability of collateral is not correlated with the reinvestment of profits.

IV. Conclusion

Firms' investment is affected by the perceived security of property rights, as shown by both our cross-country data and firm-level regressions. Reinvestment rates are lowest in Russia and Ukraine, where bribes for government services and licenses are common, firms make payments for protection, and the courts are least effective, and highest in Poland and Romania, where property rights are the most secure. Within countries, also, there is also significant variation, as our firm-level regressions indicate. The entrepreneurs who perceive their property rights to be the least secure reinvest 32 percent of their profits, while those with the most secure property reinvest 56 percent. Insecurity of property rights, all else equal, reduces a firm's investment by over a third.

Most of the firms say they were able to offer collateral to banks (more than three-quarters of the firms in each of the countries). Lack of collateral, therefore, does not appear to have been a binding constraint on firms' investment. There are two reasons why, until now, external credit has not been essential for private-sector development. First, insecure property rights mean firms have limited incentive to invest and

therefore little demand for external finance (especially in Russia and Ukraine). Second, the high profits of early entrants in all these transition economies meant that firms that wished to invest were able to do so. The potential for using retained earnings as a source of investment is seen from the fact that, in all five countries, unreinvested profits exceed the funds provided by banks. Our evidence indicates, then, that secure property rights have been both necessary and sufficient for investment.

Although the firms have had little demand for external finance at the time of our survey, they will begin to need access to credit as these economies develop their market-supporting institutions. This is because legal and bureaucratic reforms increase the demand for investable funds by solidifying property rights;[24] and because profits will be driven down to normal levels as transaction costs fall and market competition increases, so investment from internal funds will not be sustainable.

REFERENCES

Acemoglu, Daron; Johnson, Simon and Robinson, James. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review*, December 2001, *91*(5), pp. 1369–401.

Berkowitz, Daniel and DeJong, David N. "Policy Reform and Growth in Post-Soviet Russia." *European Economic Review*, 2002 (forthcoming).

Besley, Timothy. "Property Rights and Investment Incentives: Theory and Evidence from Ghana." *Journal of Political Economy*, October 1995, *103*(5), pp. 903–37.

Bratkowski, Andrzej; Grosfeld, Irena and Rostowski, Jacek. "Investment and Finance in De Novo Private Firms: Empirical Results from the Czech Republic, Hungary, and Poland." *Economics of Transition*, March 2000, *8*(1), pp. 101–16.

Demirgüç-Kunt, Asli and Maksimovic, Vojislav. "Law, Finance, and Firm Growth." *Journal of Finance*, December 1998, *53*(6), pp. 2107–37.

Djankov, Simeon; La Porta, Rafael; Lopez-de-Silanes, Florencio and Shleifer, Andrei. "The Regulation of Entry." *Quarterly Journal of Economics*, February 2002, *117*(1), pp. 1–37.

European Bank for Reconstruction and Development. *Transition report*. London: EBRD, 1996.

Federal Reserve Board of Governors. *National survey of small business finance*. Washington, DC: Federal Reserve Board, 1994.

Frye, Timothy and Shleifer, Andrei. "The Invisible Hand and the Grabbing Hand." *American Economic Review*, May 1997 (*Papers and Proceedings*), *87*(2), pp. 354–58.

Hellman, Joel; Jones, Geraint; Kaufmann, Daniel and Schankerman, Mark. "Measuring Governance and State Capture: The Role of Bureaucrats and Firms in Shaping the Business Environment." Workshop on the Institutional Foundation of a Market Economy, Berlin, February 2000.

Johnson, Simon; Kaufmann, Daniel and Shleifer, Andrei. "The Unofficial Economy in Transition." *Brookings Papers on Economic Activity*, Fall 1997, (2), pp. 159–221.

Johnson, Simon and Loveman, Gary W. *Starting over in Eastern Europe*. Boston, MA: Harvard Business School Press, 1995.

Johnson, Simon; McMillan, John and Woodruff, Christopher. "Entrepreneurs and the Ordering of Institutional Reform: Poland, Slovakia, Romania, Russia and Ukraine Compared." *Economics of Transition*, March 2000, *8*(1), pp. 1–36.

_____. "Courts and Relational Contracts." *Journal of Law, Economics, and Organization*, Spring 2002, *18*(1), pp. 221–77.

Knack, Stephen and Keefer, Philip. "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures." *Economics and Politics*, November 1995, *7*(3), pp. 207–28.

La Porta, Rafael; Lopez-de-Silanes, Florencio; Shleifer, Andrei and Vishny, Robert. "Legal Determinants of External Finance." *Journal of Finance*, July 1997, *52*(3), pp. 1131–50.

_____. "Law and Finance." *Journal of Political Economy*, December 1998, *106*(6), pp. 1113–55.

[24] Low reinvestment may be the result of a high required rate of return, rather than a high probability of expropriation, because imperfect financial markets mean entrepreneurs bear a large amount of idiosyncratic risk. Improved capital markets would then facilitate investment because they would increase diversification possibilities and reduce idiosyncratic risk.

_____. "Investor Protection and Corporate Governance." *Journal of Financial Economics*, October–November 2000, *58*(1–2), pp. 3–28.

Levine, Ross. "Financial Development and Economic Growth: Views and Agenda." *Journal of Economic Literature*, June 1997, *35*(2), pp. 688–726.

Lotspeich, Richard. "An Economic Analysis of Extortion in Russia." Unpublished manuscript, Indiana State University, 1996.

Mauro, Paolo. "Corruption and Growth." *Quarterly Journal of Economics*, August 1995, *110*(3), pp. 681–712.

McMillan, John. "Markets in Transition," in David M. Kreps and Kenneth F. Wallis, eds., *Advances in economics and econometrics: Theory and applications*. Cambridge: Cambridge University Press, 1997, pp. 210–39.

Meyendorff, Anna. "Tax Avoidance and the Allocation of Credit." Unpublished manuscript, William Davidson Institute, University of Michigan, May 1998.

Myers, Stewart C. and Majluf, Nicholas S. "Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have." *Journal of Financial Economics*, June 1984, *13*(2), pp. 187–221.

Naughton, Barry. *Growing out of the plan*. New York: Cambridge University Press, 1995.

Rajan, Raghuram and Zingales, Luigi. "Financial Dependence and Growth." *American Economic Review*, June 1998, *88*(3), pp. 559–86.

Shleifer, Andrei. "Government in Transition." *European Economic Review*, April 1997, *41*(3–5), pp. 385–410.

Shleifer, Andrei and Vishny, Robert W. "Corruption." *Quarterly Journal of Economics*, August 1993, *108*(3), pp. 599–617.

_____. *The grabbing hand: Government pathologies and their cures*. Cambridge, MA: Harvard University Press, 1998.

Shyam-Sunder, Lakshmi and Myers, Stewart C. "Testing Static Tradeoff Against Pecking Order Models of Capital Structure." *Journal of Financial Economics*, February 1999, *52*(1), pp. 219–44.

Svensson, Jakob. "Investment, Property Rights and Political Instability: Theory and Evidence." *European Economic Review*, July 1998, *42*(7), pp. 1317–41.

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1. Ron Alquist, Benjamin R. Chabot, Ram Yamarthy. 2022. The price of property rights: Institutions, finance, and economic growth. *Journal of International Economics* **137**, 103594. [Crossref]
2. Yixin Liu, Yu Liu, Zuobao Wei. 2022. Property rights protection, financial constraint, and capital structure choices: Evidence from a Chinese natural experiment. *Journal of Corporate Finance* **73**, 102167. [Crossref]
3. Heng (Griffin) Geng, Yi Huang, Chen Lin, Sibo Liu. 2022. Minimum Wage and Corporate Investment: Evidence from Manufacturing Firms in China. *Journal of Financial and Quantitative Analysis* **57**:1, 94-126. [Crossref]
4. Rui Fan, Ruoyu Weng, Jianping Pan. 2022. How Property Rights Affect Firm's Labor Investment Efficiency? Evidence from a Property Law Enactment in China. *Emerging Markets Finance and Trade* **58**:2, 381-397. [Crossref]
5. Di Song, Aiqi Wu, Xiaotong Zhong, Shufan Yu. 2022. Sleep late? Pre-reform institutional embeddedness and entrepreneurial reinvestment of private firms in China's transition economy. *Chinese Management Studies* **50**. . [Crossref]
6. Habeeb Abdulrauf Salihu. 2022. Corruption: an impediment to good governance. *Journal of Financial Crime* **29**:1, 101-110. [Crossref]
7. Sanjai Bhagat, Glenn Hubbard. 2022. Rule of law and purpose of the corporation. *Corporate Governance: An International Review* **30**:1, 10-26. [Crossref]
8. Elisa Aracil, Gonzalo Gómez-Bengoechea, Olga Moreno-de-Tejada. 2022. Institutional quality and the financial inclusion-poverty alleviation link: Empirical evidence across countries. *Borsa Istanbul Review* **22**:1, 179-188. [Crossref]
9. Wenlong He, Tony W. Tong, Mingtao Xu. 2022. How Property Rights Matter to Firm Resource Investment: Evidence from China's Property Law Enactment. *Organization Science* **33**:1, 293-310. [Crossref]
10. Lan Khanh Chu. 2021. Financial Access of Latin America and Caribbean Firms: What Are the Roles of Institutional, Financial, and Economic Development?. *Journal of Emerging Market Finance* **20**:3, 227-263. [Crossref]
11. Rouven E. Haschka, Helmut Herwartz, Philipp Struthmann, Viet Tuan Tran, Yabibal M. Walle. 2021. The joint effects of financial development and the business environment on firm growth: Evidence from Vietnam. *Journal of Comparative Economics* **108**. . [Crossref]
12. Ichiro Iwasaki, Evžen Kočenda, Yoshisada Shida. 2021. Distressed acquisitions: Evidence from European emerging markets. *Journal of Comparative Economics* **49**:4, 962-990. [Crossref]
13. Mark D Potts, Joseph A Affholter, Sydney Harless. 2021. Entrepreneurship Factors Among Developed Countries and Emerging Regions. *South East European Journal of Economics and Business* **16**:2, 82-100. [Crossref]
14. Claudel Mombeuil, Anestis K. Fotiadis, Withz Aimable. 2021. Institutional reforms, control of corruption, and diaspora entrepreneurship: insights and perspectives on America's poorest economy. *Journal of Entrepreneurship and Public Policy* **10**:4, 471-491. [Crossref]
15. Xiude Chen, Guocai Chen, Miaoxin Lin, Kai Tang, Bin Ye. 2021. How does anti-corruption affect enterprise green innovation in China's energy-intensive industries?. *Environmental Geochemistry and Health* **86**. . [Crossref]
16. Edmund J. Malesky, Helen V. Milner. 2021. Fostering global value chains through international agreements: Evidence from Vietnam. *Economics & Politics* **33**:3, 443-482. [Crossref]

17. Yu Liu, Jian Xu. 2021. Residual state ownership, foreign ownership and firms' financing patterns. *Emerging Markets Review* **100**, 100868. [Crossref]
18. Vi Dung Ngo, Quang Evansluong, Frank Janssen, Duc Khuong Nguyen. 2021. Social capital inequality and capital structure of new firms in a developing country: the role of bank ties. *International Journal of Entrepreneurial Behavior & Research* **27**:7, 1649-1673. [Crossref]
19. Cheng Liu, Yu Deng, Weixuan Song, Qiyan Wu, Jian Gong. 2021. Differentiation under capitalism: Genesis and consequences of the rent gap. *Environment and Planning A: Economy and Space* **53**:7, 1770-1788. [Crossref]
20. Haggai Kennedy Ochieng, Bokyeong Park. 2021. Institutional Quality, Regulatory Environment and Microeconomic Performance: Evidence from Transition and Non-transition Developing Countries. *East Asian Economic Review* **25**:3, 273-309. [Crossref]
21. Hannes W. Lampe, Jan Reerink. 2021. Know your audience: how language complexity affects impact in entrepreneurship science. *Journal of Business Economics* **91**:7, 1025-1061. [Crossref]
22. Bach Nguyen. 2021. Local institutions, external finance and investment decisions of small businesses in Vietnam. *Economic Systems* **45**:3, 100880. [Crossref]
23. Shamsuzzoha, Makoto Tanaka. 2021. Formalization of manufacturing firms in Bangladesh. *Review of Development Economics* **25**:3, 1668-1694. [Crossref]
24. Farzana Chowdhury, David B. Audretsch. 2021. Do corruption and regulations matter for home country nascent international entrepreneurship?. *The Journal of Technology Transfer* **46**:3, 720-759. [Crossref]
25. Lucio Fuentelsaz, Consuelo González, Juan P. Maícas. 2021. High-growth aspiration entrepreneurship and exit: the contingent role of market-supporting institutions. *Small Business Economics* **57**:1, 473-492. [Crossref]
26. Yamlaksira S. Getachew, Paul W. Beamish. 2021. Unbundling the effects of host-country institutions on foreign subsidiary survival: A case for subsidiary heterogeneity. *Journal of World Business* **56**:4, 101226. [Crossref]
27. Subhra K. Bhattacharya, Ranojoy Basu. 2021. Public security, technology adoption and welfare implications in an insecure property rights environment. *Indian Economic Review* **56**:1, 147-172. [Crossref]
28. Tian Jin Fang, Jianlei Han, Jing He, Jing Shi. 2021. Property rights protection and mergers and acquisitions. *Pacific-Basin Finance Journal* **113**, 101593. [Crossref]
29. Yu Lin, Jiannan Wang, Yingjie Shi. 2021. The impact of inventory productivity on new venture survival. *International Journal of Productivity and Performance Management* **48**. . [Crossref]
30. George R. G. Clarke. 2021. How Do Women Managers Avoid Paying Bribes?. *Economies* **9**:1, 19. [Crossref]
31. Prabal Shrestha, Özgür Arslan-Ayaydin, James Thewissen, Wouter Torsin. 2021. Institutions, regulations and initial coin offerings: An international perspective. *International Review of Economics & Finance* **72**, 102-120. [Crossref]
32. Guangzhong Li, Jie Li, Ying Zheng, Peter H. Egger. 2021. Does property rights protection affect export quality? Evidence from a property law enactment. *Journal of Economic Behavior & Organization* **183**, 811-832. [Crossref]
33. José-Daniel Reyes, Mark Roberts, Lixin Colin Xu. 2021. The heterogeneous growth effects of the business environment: Firm-level evidence for a global sample of cities. *China Economic Quarterly International* **1**:1, 15-28. [Crossref]
34. Min Bai, Jifu Cai, Yafeng Qin. 2021. Ownership Discrimination and Private Firms Financing in China. *Research in International Business and Finance* 101406. [Crossref]

35. Xiao Li, Jeffrey Ng, Walid Saffar. 2021. Financial Reporting and Trade Credit: Evidence from Mandatory IFRS Adoption*. *Contemporary Accounting Research* **38**:1, 96-128. [Crossref]
36. Heather Huntington, Ajay Shenoy. 2021. Does insecure land tenure deter investment? Evidence from a randomized controlled trial. *Journal of Development Economics* **113**, 102632. [Crossref]
37. Michael Schlattau. The Institutional Framework for Entrepreneurship in Transition 51-134. [Crossref]
38. Ali Hussein Samadi, Masoumeh Alipourian. Measuring Institutional Quality: A Review 143-171. [Crossref]
39. Min Huang, Mengyao Li, Zhihan Liao. 2021. Do politically connected CEOs promote Chinese listed industrial firms' green innovation? The mediating role of external governance environments. *Journal of Cleaner Production* **278**, 123634. [Crossref]
40. Ram Singh. Land for Development: Market Versus Non-market Mechanisms 187-204. [Crossref]
41. Scott Burns, Caleb Fuller. 2020. Institutions and Entrepreneurship: Pushing the Boundaries. *Quarterly Journal of Austrian Economics* **23**:3-4, 568-612. [Crossref]
42. Arezou Harraf, Hasan Ghura, Allam Hamdan, Xiaoqing Li. 2020. Formal institutions and the development of entrepreneurial activity – the contingent role of corruption in emerging economies. *Journal of Entrepreneurship and Public Policy* **ahead-of-print**:ahead-of-print. . [Crossref]
43. Jiafu An. 2020. Is there an employee-based gender gap in informal financial markets? International evidence. *Journal of Corporate Finance* **65**, 101737. [Crossref]
44. Go Yano, Maho Shiraishi. 2020. Finance, institutions, and innovation activities in China. *Economic Systems* **44**:4, 100835. [Crossref]
45. Bach Nguyen. 2020. The relative importance of regional institutions and external finance for small business investment: evidence from Vietnam. *Journal of Institutional Economics* **16**:6, 911-929. [Crossref]
46. Jinyu Liu, Zhengwei Wang, Wuxiang Zhu. 2020. Does privatization reform alleviate ownership discrimination? Evidence from the Split-share structure reform in China. *Journal of Corporate Finance* 101848. [Crossref]
47. Shaojian Chen, Hui Mao, Zongxian Feng. 2020. Political uncertainty and firm entry: Evidence from Chinese manufacturing industries. *Journal of Business Research* **120**, 16-30. [Crossref]
48. Douglas Cumming, Shan Ji, Rejo Peter, Monika Tarsalewska. 2020. Market manipulation and innovation. *Journal of Banking & Finance* **120**, 105957. [Crossref]
49. Kun Tracy Wang, Yanjun Liu, Wanbin Walter Wang. 2020. Government Control, Regulatory Enforcement Actions, and the Cost of Equity. *European Accounting Review* **41**, 1-45. [Crossref]
50. Alina Maria Landowska, Bice Della Piana, Rosangela Feola. 2020. Humane Entrepreneurship Model: Does morality of entrepreneurs matter?. *Journal of the International Council for Small Business* **1**:3-4, 177-198. [Crossref]
51. Wenjue Zhu, Krishna P. Paudel, Biliang Luo. 2020. The influence of land titling on the disparity between willingness to accept and willingness to pay values. *Journal of Environmental Planning and Management* **143**, 1-24. [Crossref]
52. Guanchun Liu, Chien-Chiang Lee, Yuanyuan Liu. 2020. Growth path heterogeneity across provincial economies in China: the role of geography versus institutions. *Empirical Economics* **59**:2, 503-546. [Crossref]
53. Yongqi Feng, Xinye Yu. 2020. The impact of institutions on financial development: Evidence from East Asian countries. *Australian Economic Papers* **34**. . [Crossref]

54. Dimitris Manolopoulos, Aristides Bitzenis, Ekrem Tatoğlu. 2020. The Impact of Governance Quality on Subsidiaries' Performance: A Survey Analysis from Turkey. *Journal of East-West Business* **26**:3, 269-292. [Crossref]
55. Yongseok Jang, Woo Jin Lee, Brandy Hadley. 2020. Interactive Effects of Business Environment Assessment and Institutional Programs on Opportunity Entrepreneurship. *Sustainability* **12**:13, 5280. [Crossref]
56. Fuxiu Jiang, Kenneth A Kim. 2020. Corporate Governance in China: A Survey*. *Review of Finance* **24**:4, 733-772. [Crossref]
57. Mariarosaria Agostino, Annamaria Nifo, Francesco Trivieri, Gaetano Vecchione. 2020. Rule of law and regulatory quality as drivers of entrepreneurship. *Regional Studies* **54**:6, 814-826. [Crossref]
58. Yu Liu, Nilesh Sah, Barkat Ullah, Zuobao Wei. 2020. Financing patterns in transition economies: Privatized former SOEs versus ab initio private firms. *Emerging Markets Review* **43**, 100680. [Crossref]
59. Thomas Gries, Rainer Grundmann. 2020. Modern sector development: The role of exports and institutions in developing countries. *Review of Development Economics* **24**:2, 644-667. [Crossref]
60. Reza H. Chowdhury, Min Maung. 2020. Accessibility to external finance and entrepreneurship: A cross-country analysis from the informal institutional perspective. *Journal of Small Business Management* **68**, 1-36. [Crossref]
61. Viet T. Tran, Yabibal M. Walle, Helmut Herwartz. 2020. The impact of local financial development on firm growth in Vietnam: Does the level of corruption matter?. *European Journal of Political Economy* **62**, 101858. [Crossref]
62. Aldo Salinas, Cristian Ortiz, Moreno Muffatto, Javier Changoluisa. 2020. Formal Institutions and Informal Entrepreneurial Activity: Panel Data Evidence from Latin American Countries. *Entrepreneurship Research Journal*, ahead of print. [Crossref]
63. Yong Kyu Gam, Min Jung Kang, Junho Park, Hojong Shin. 2020. How inheritance law affects family firm performance: Evidence from a natural experiment. *Pacific-Basin Finance Journal* **59**, 101243. [Crossref]
64. Barkat Ullah. 2020. Financial constraints, corruption, and SME growth in transition economies. *The Quarterly Review of Economics and Finance* **75**, 120-132. [Crossref]
65. Matthew Elliott, Benjamin Golub, Matt V. Leduc. 2020. Supply Network Formation and Fragility. *SSRN Electronic Journal* . [Crossref]
66. Oghenovo A. Obrimah. 2020. Income Inequality and Per Capita Income: Equilibrium of Interactions. *SSRN Electronic Journal* . [Crossref]
67. Niklas Elert, Magnus Henrekson. 2020. Innovative Entrepreneurship as a Collaborative Effort: An Institutional Framework. *SSRN Electronic Journal* . [Crossref]
68. Gan-Ochir Doojav, Davaajargal Luvsannyam, Bilguun Sukhbaatar, Bilguunzul Sodnomdarjaa, Tsolmon Otgonbat, Khuslen Batmunkh, Munkhbayar Gantumur, Elbegjargal Enkh-Amgalan. Development and Access to Finance of Small and Medium-Sized Enterprises in Mongolia 265-294. [Crossref]
69. Lydia Takyi, Vannie Naidoo. Innovation and Business Sustainability Among SMEs in Africa 50-74. [Crossref]
70. Weiqi Dai, Mingqing Liao. 2019. Entrepreneurial attention to deregulations and reinvestments by private firms: Evidence from China. *Asia Pacific Journal of Management* **36**:4, 1221-1250. [Crossref]
71. Sanday Amos, Doungahire Abdoul Karim Zanhouo. 2019. Financial constraints, firm productivity and cross-country income differences: Evidence from sub-Sahara Africa. *Borsa Istanbul Review* **19**:4, 357-371. [Crossref]

72. Pavla Pokorná, Jarmila Šebestová. 2019. Profit Reinvestment: Main Motives Supporting Financial Decisions. *e-Finanse* **15**:4, 34-43. [Crossref]
73. Bach Nguyen. 2019. Entrepreneurial Reinvestment: Local Governance, Ownership, and Financing Matter—Evidence from Vietnam. *Journal of Small Business Management* **57**:sup2, 323-349. [Crossref]
74. Mingzhi Hu, Yinxin Su, Wenping Ye. 2019. Promoting or inhibiting: The role of housing price in entrepreneurship. *Technological Forecasting and Social Change* **148**, 119732. [Crossref]
75. Eduard Baumöhl, Ichiro Iwasaki, Evžen Kočenda. 2019. Institutions and determinants of firm survival in European emerging markets. *Journal of Corporate Finance* **58**, 431-453. [Crossref]
76. Leming Lin, Atanas Mihov, Leandro Sanz, Detelina Stoyanova. 2019. Property rights institutions, foreign investment, and the valuation of multinational firms. *Journal of Financial Economics* **134**:1, 214-235. [Crossref]
77. Wei Huang, Jinxian Li, Qiang Zhang. 2019. Information asymmetry, legal environment, and family firm governance: Evidence from IPO underpricing in China. *Pacific-Basin Finance Journal* **57**, 101109. [Crossref]
78. Daisuke Tsuruta, Hirofumi Uchida. 2019. The real driver of trade credit. *Pacific-Basin Finance Journal* **57**, 101183. [Crossref]
79. Hasan Ghura, Arezou Harraf, Xiaoqing Li, Allam Hamdan. 2019. The moderating effect of corruption on the relationship between formal institutions and entrepreneurial activity. *Journal of Entrepreneurship in Emerging Economies* **12**:1, 58-78. [Crossref]
80. Myint Moe Chit. 2019. Financial Information Credibility, Legal Environment, and SMEs' Access to Finance. *International Journal of the Economics of Business* **26**:3, 329-354. [Crossref]
81. Nisha M Bellinger, Byunghwan Son. 2019. Political Parties and Foreign Direct Investment Inflows among Developing Countries. *Political Studies* **67**:3, 712-731. [Crossref]
82. Yüksel İLTAŞ, Gülbahar Üçler. 2019. The Influence of Institutional Quality and Financial Risk on Stock Market Index: An Empirical Study for Turkey. *Sosyoekonomi* 113-128. [Crossref]
83. Chandramouli Banerjee, Niloy Bose, Chitralekha Rath. 2019. Explaining the effect of financial development on the quality of property rights. *Review of Development Economics* **23**:2, 957-974. [Crossref]
84. Edmund Malesky. Decentralization and Business Performance 144-177. [Crossref]
85. Ralph De Haas, Steven Poelhekke. 2019. Mining matters: Natural resource extraction and firm-level constraints. *Journal of International Economics* **117**, 109-124. [Crossref]
86. Jiri Chod, Evgeny Lyandres, S. Alex Yang. 2019. Trade credit and supplier competition. *Journal of Financial Economics* **131**:2, 484-505. [Crossref]
87. Lucio Fuentelsaz, Consuelo González, Juan P. Maicas. 2019. Formal institutions and opportunity entrepreneurship. The contingent role of informal institutions. *BRQ Business Research Quarterly* **22**:1, 5-24. [Crossref]
88. Jędrzej Białkowski, Ehud I. Ronn. 2019. The global equity premium revisited: What human rights imply for assets' purchasing power. *International Review of Financial Analysis* **61**, 175-187. [Crossref]
89. Anna Remišová, Anna Lašáková, Alexandra Bohinská. 2019. Reasons of Unethical Business Practices in Slovakia: The Perspective of Non-Governmental Organizations' Representatives. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis* **67**:2, 565-581. [Crossref]
90. Niklas Elert, Magnus Henrekson, Mark Sanders. Entrepreneurship, the Rule of Law, and Protection of Property Rights 25-33. [Crossref]

91. Mohsen Mohammadi Khyareh. 2019. A cointegration analysis of tax evasion, corruption and entrepreneurship in OECD countries. *Economic Research-Ekonomska Istraživanja* **32**:1, 3627-3646. [Crossref]
92. Eric Alston, Steven Smith. 2019. Development Derailed: Railroad Land Grants and Irrigation in the Western United States. *SSRN Electronic Journal* . [Crossref]
93. Sreevas Sahasranamam, G. Venkat Raman. 2018. Individual resources, property rights and entrepreneurship in China. *International Journal of Emerging Markets* **13**:6, 1502-1521. [Crossref]
94. Gerald Yong Gao, Danny Tan Wang, Yi Che. 2018. Impact of historical conflict on FDI location and performance: Japanese investment in China. *Journal of International Business Studies* **49**:8, 1060-1080. [Crossref]
95. Ashantha Ranasinghe, Diego Restuccia. 2018. Financial frictions and the rule of law. *Journal of Development Economics* **134**, 248-271. [Crossref]
96. Yunong Li, Mao Zhou, Yan Du, Wei Zhao. 2018. Legal System and Trade Credit: Evidence from Emerging Economies. *Emerging Markets Finance and Trade* **54**:10, 2207-2224. [Crossref]
97. Yongxin Xu. 2018. Anticorruption regulation and firm value: Evidence from a shock of mandated resignation of directors in China. *Journal of Banking & Finance* **92**, 67-80. [Crossref]
98. Christopher A. Hartwell. 2018. The impact of institutional volatility on financial volatility in transition economies. *Journal of Comparative Economics* **46**:2, 598-615. [Crossref]
99. Turan Yay, Gülsün G. Yay, Tolga Aksoy. 2018. Impact of institutions on entrepreneurship: a panel data analysis. *Eurasian Economic Review* **8**:1, 131-160. [Crossref]
100. Wentao Gu, Xuzheng Qian, Junpeng Lu. 2018. Venture capital and entrepreneurship: a conceptual model and research suggestions. *International Entrepreneurship and Management Journal* **14**:1, 35-50. [Crossref]
101. Wubiao Zhou. 2018. Property Rights, Deregulation, and Entrepreneurial Development in a Transition Economy. *Management and Organization Review* **14**:1, 73-103. [Crossref]
102. Robyn Meeks. 2018. Property Rights and Water Access: Evidence from Land Titling in Rural Peru. *World Development* **102**, 345-357. [Crossref]
103. Michael Troilo, Brian R. Walkup, Masato Abe, Seulki Lee. 2018. Legal systems and the financing of working capital. *International Review of Economics & Finance* . [Crossref]
104. Young Hoa Jung. The Responsive Judge: Comparative Perspectives of Korea and Japan 277-309. [Crossref]
105. James Kai-sing Kung, Chicheng Ma. 2018. Friends with Benefits: How Political Connections Help to Sustain Private Enterprise Growth in China. *Economica* **85**:337, 41-74. [Crossref]
106. Kezhou Xiao. 2018. Becoming Global Billionaires from Mainland China: A Theoretical Investigation. *SSRN Electronic Journal* . [Crossref]
107. Jedrzej Pawel Bialkowski, Ehud I. Ronn. 2018. The Global Equity Premium Revisited: What Human Rights Imply for Assets' Purchasing Power. *SSRN Electronic Journal* . [Crossref]
108. Barkat Ullah. 2018. SME Growth, Financing Constraints, and Corruption: Evidence from Transition Economies. *SSRN Electronic Journal* . [Crossref]
109. Barkat Ullah. 2018. Does Innovation Explain the Performance Gap Between Privatized and Private Firms?. *SSRN Electronic Journal* . [Crossref]
110. Yixin Liu, Yu Liu, William L. Megginson, Zuobao Wei. 2018. The Effect of Property Rights on Capital Structure: Evidence from a Natural Experiment. *SSRN Electronic Journal* . [Crossref]

111. Sinziana Dorobantu, Kate Odziemkowska. 2017. Valuing Stakeholder Governance: Property Rights, Community Mobilization, and Firm Value. *Strategic Management Journal* **38**:13, 2682-2703. [Crossref]

112. NGO VI DUNG, NGUYEN NGOC THANG, FRANK JANSSEN, DAMIAN HINE. 2017. EMPLOYMENT CONTRACT AND SMES' INNOVATION IN DEVELOPING AND TRANSITION ECONOMIES: THE CASE OF VIETNAM. *Journal of Developmental Entrepreneurship* **22**:04, 1750027. [Crossref]

113. Umut Oguzoglu, Ashantha Ranasinghe. 2017. Crime and Establishment Size: Evidence from South America. *The B.E. Journal of Economic Analysis & Policy* **17**:4. . [Crossref]

114. Gaoliang Tian, Yi Si, M.M Fonseka. 2017. Impact of ownership types and political connection on private equity placement. *Nankai Business Review International* **8**:4, 390-403. [Crossref]

115. Iftekhar Hasan, Nada Kobeissi, Haizhi Wang, Mingming Zhou. 2017. Bank financing, institutions and regional entrepreneurial activities: Evidence from China. *International Review of Economics & Finance* **52**, 257-267. [Crossref]

116. Thorsten Beck, Haki Pamuk, Burak R. Uras. 2017. Entrepreneurial Saving Practices and Reinvestment: Theory and Evidence. *Review of Development Economics* **21**:4, 1205-1228. [Crossref]

117. Mehmet Altin, Esra Memili, Sevil Sönmez. 2017. Institutional economics and firm creation in the hospitality and tourism industry. *Tourism Economics* **23**:7, 1381-1397. [Crossref]

118. Shuo Chen, Xiaohuan Lan. 2017. There Will Be Killing: Collectivization and Death of Draft Animals. *American Economic Journal: Applied Economics* **9**:4, 58-77. [Abstract] [View PDF article] [PDF with links]

119. Ashantha Ranasinghe. 2017. Property rights, extortion and the misallocation of talent. *European Economic Review* **98**, 86-110. [Crossref]

120. Qiong Zhang, Yupeng Shi, Angda He, Xueting Wen. 2017. Property rights security and firm survival: Micro-data evidence from China. *China Economic Review* **44**, 296-310. [Crossref]

121. Jianhua Ge, Laura J. Stanley, Kimberly Eddleston, Franz W. Kellermanns. 2017. Institutional deterioration and entrepreneurial investment: The role of political connections. *Journal of Business Venturing* **32**:4, 405-419. [Crossref]

122. Yi Che, Yi Lu, Zhigang Tao. 2017. Institutional quality and new firm survival. *Economics of Transition* **25**:3, 495-525. [Crossref]

123. Alexander Abramov, Alexander Radygin, Revold Entov, Maria Chernova. 2017. State ownership and efficiency characteristics. *Russian Journal of Economics* **3**:2, 129-157. [Crossref]

124. JORDAN GANS-MORSE. 2017. Demand for Law and the Security of Property Rights: The Case of Post-Soviet Russia. *American Political Science Review* **111**:2, 338-359. [Crossref]

125. A. Abramov, A. Radygin, M. Chernova, R. Entov. 2017. State ownership and efficiency characteristics. *Voprosy Ekonomiki* :4, 5-37. [Crossref]

126. Wubiao Zhou. 2017. Institutional environment, public-private hybrid forms, and entrepreneurial reinvestment in a transition economy. *Journal of Business Venturing* **32**:2, 197-214. [Crossref]

127. Adan Guyo Shibia, Dulacha Galgallo Barako. 2017. Determinants of micro and small enterprises growth in Kenya. *Journal of Small Business and Enterprise Development* **24**:1, 105-118. [Crossref]

128. Mathieu Couttenier, Farid Toubal. 2017. Corruption for sales. *Journal of Comparative Economics* **45**:1, 56-66. [Crossref]

129. Andrés Fernández, César E. Tamayo. 2017. FROM INSTITUTIONS TO FINANCIAL DEVELOPMENT AND GROWTH: WHAT ARE THE LINKS?. *Journal of Economic Surveys* **31**:1, 17-57. [Crossref]

130. . Governance for Growth 137-165. [Crossref]
131. Christopher Hartwell. 2017. The Coevolution of Finance and Property Rights: Evidence from Transition Economies. *Journal of Economic Issues* **51**:1, 73-97. [Crossref]
132. Robert Jeremy Fish, Denise Linda Parris, Michael Troilo. 2017. Compound Voids and Unproductive Entrepreneurship: The Rise of the "English Fever" in China. *Journal of Economic Issues* **51**:1, 163-180. [Crossref]
133. Ngo Vi Dung, Nguyen Ngoc Thang. 2017. Forestland rights institutions and forest management of Vietnamese households. *Post-Communist Economies* **29**:1, 90-105. [Crossref]
134. Niklas Elert, Magnus Henrekson, Mikael Stenkula. Innovation and Entrepreneurship in the European Union—A Reform Agenda 25-86. [Crossref]
135. Daniel Oto-Peralías, Diego Romero-Ávila. Literature Review on the Effect of the Ease of Doing Business on Economic and Financial Outcomes 37-56. [Crossref]
136. Maria Psillaki, Emmanuel Mamatzakis. 2017. What drives bank performance in transitions economies? The impact of reforms and regulations. *Research in International Business and Finance* **39**, 578-594. [Crossref]
137. Meng Miao. 2017. Insider Takes All! Value of Political Connections in a Property Rights Reform. *SSRN Electronic Journal* . [Crossref]
138. Silvia Giacomelli, Sauro Mocetti, Giuliana Palumbo, Giacomo Roma. 2017. La Giustizia Civile in Italia: Le Recenti Evoluzioni (Civil Justice in Italy: Recent Trends). *SSRN Electronic Journal* . [Crossref]
139. Mai Phuong Chu Thi. 2017. Impacts of Institutions on the Performances of Enterprises in Vietnam. *SSRN Electronic Journal* . [Crossref]
140. Xiao Li, Jeffrey Ng. 2017. The Role of Financial Reporting in Trade Credit: Evidence from Mandatory IFRS Adoption. *SSRN Electronic Journal* . [Crossref]
141. Wei Zhang, Ji Li. 2017. Weak Law v. Strong Ties: An Empirical Study of Business Investment, Law and Political Connections in China. *Review of Law & Economics* **13**:1. . [Crossref]
142. Qian Qi. 2017. A Unified Tobin's q Theory of Investment Structure, Capital Allocation, Risk Management, and Asset Pricing. *SSRN Electronic Journal* . [Crossref]
143. Stanislav Markus. 2016. Sovereign Commitment and Property Rights: the Case of Ukraine's Orange Revolution. *Studies in Comparative International Development* **51**:4, 411-433. [Crossref]
144. Rajesh SN Raj, Kunal Sen. 2016. Moving out of the bottom of the economy? Constraints to firm transition in the Indian informal manufacturing sector. *IZA Journal of Labor & Development* **5**:1. . [Crossref]
145. Emilio Gutiérrez, Kensuke Teshima. 2016. Does household financial access facilitate law compliance? Evidence from Mexico. *Economics Letters* **149**, 120-124. [Crossref]
146. Byung-Yeon Kim, Jieun Park. 2016. Financial Systems and Enterprise Restructuring in Eastern Europe. *Eastern European Economics* **54**:6, 503-520. [Crossref]
147. Hans B. Christensen, Luzi Hail, Christian Leuz. 2016. Capital-Market Effects of Securities Regulation: Prior Conditions, Implementation, and Enforcement. *Review of Financial Studies* **29**:11, 2885-2924. [Crossref]
148. Mengyang Wang, Qiyuan Zhang, Yonggui Wang, Shibin Sheng. 2016. Governing local supplier opportunism in China: Moderating role of institutional forces. *Journal of Operations Management* **46**:1, 84-94. [Crossref]

149. Tarek Ibrahim Eldomiaty, Tariq Bin Faisal Al Qassemi, Ahmed Fikri Mabrouk, Lamia Soliman Abdelghany. 2016. Institutional quality, economic freedom and stock market volatility in the MENA region. *Macroeconomics and Finance in Emerging Market Economies* **9**:3, 262-283. [Crossref]

150. Vi Dung Ngo, Frank Janssen, Leonidas C. Leonidou, Paul Christodoulides. 2016. Domestic institutional attributes as drivers of export performance in an emerging and transition economy. *Journal of Business Research* **69**:8, 2911-2922. [Crossref]

151. Julia Shvets. 2016. Presidential Control of the Judiciary via the Appointment Power: Evidence from Russia. *Journal of Law, Economics, and Organization* **32**:3, 478-507. [Crossref]

152. Richard A. Hunt, Bret R. Fund. 2016. Intergenerational Fairness and the Crowding Out Effects of Well-Intended Environmental Policies. *Journal of Management Studies* **53**:5, 878-910. [Crossref]

153. Niklas Elert, Magnus Henrekson. 2016. Evasive entrepreneurship. *Small Business Economics* **47**:1, 95-113. [Crossref]

154. John Kitching. 2016. The ubiquitous influence of regulation on entrepreneurial action. *International Journal of Entrepreneurial Behavior & Research* **22**:2, 215-233. [Crossref]

155. Vi Dung Ngo, Frank Janssen, Marine Falize. 2016. An incentive-based model of international entrepreneurship in emerging and transition economies. *Journal of International Entrepreneurship* **14**:1, 52-74. [Crossref]

156. MITJA KOVAČ, ROK SPRUK. 2016. Institutional development, transaction costs and economic growth: evidence from a cross-country investigation. *Journal of Institutional Economics* **12**:1, 129-159. [Crossref]

157. Sadok El Ghoul, Omrane Guedhami, Chuck Kwok, Liang Shao. 2016. National Culture and Profit Reinvestment: Evidence from Small and Medium-Sized Enterprises. *Financial Management* **45**:1, 37-65. [Crossref]

158. Vlatka Skokic, Paul Lynch, Alison Morrison. 2016. Hotel entrepreneurship in a turbulent environment. *International Journal of Hospitality Management* **53**, 1-11. [Crossref]

159. Quyen T. K. Nguyen. Determinants of Reinvested Earnings of Multinational Subsidiaries in Emerging Economies 43-61. [Crossref]

160. Ralph <!>de Haas, Steven Poelhekke. 2016. Mining Matters: Natural Resource Extraction and Local Business Constraints. *SSRN Electronic Journal* . [Crossref]

161. Jinyu Liu, Zhengwei Wang, Zhu wuxiang. 2016. Ownership and Financing Discrimination: Evidence from the Split-Share Structure Reform in China. *SSRN Electronic Journal* . [Crossref]

162. Tristan A. Canare, Alvin Ang. 2016. Ease of Doing Business: International Policy Experience and Evidence. *SSRN Electronic Journal* . [Crossref]

163. Sinziana Dorobantu, Kate Odziemkowska. 2016. Valuing Stakeholder Governance: Property Rights, Stakeholder Mobilization, and the Value of Community Benefits Agreements. *SSRN Electronic Journal* . [Crossref]

164. Chandramouli Banerjee, Niloy Bose, Chitralekha Rath. 2016. Explaining the Effect of Financial Development on the Quality of Property Rights. *SSRN Electronic Journal* . [Crossref]

165. Bjoern Rother, Gaelle Pierre, Davide Lombardo, Risto Herrala, Priscilla Toffano, Erik Roos, Allan Auclair, Karina Manasseh. 2016. The Economic Impact of Conflicts and the Refugee Crisis in the Middle East and North Africa. *Staff Discussion Notes* **16**:8, 1. [Crossref]

166. Mehmet Demirbag, Martina McGuinnness, Geoffrey Wood, Nizamettin Bayyurt. 2015. Context, law and reinvestment decisions: Why the transitional periphery differs from other post-state socialist economies. *International Business Review* **24**:6, 955-965. [Crossref]

167. Guangrong Ma, Oliver Meng Rui, Yiping Wu. 2015. A springboard into politics: Do Chinese entrepreneurs benefit from joining the government-controlled business associations?. *China Economic Review* **36**, 166-183. [Crossref]

168. M. M. Fonseka, Xing Yang, Gao-Liang Tian, Sisira R. N. Colombage. 2015. Political connections, ownership structure and private-equity placement decision: evidence from Chinese listed firms. *Applied Economics* **47**:52, 5648-5666. [Crossref]

169. Paul Minard. 2015. Property Rights and Investment Among Chinese Firms: The Importance of Sunk Costs. *The Chinese Economy* **48**:6, 413-429. [Crossref]

170. . Back Matter: Appendices A through F and Bibliography 157-205. [Crossref]

171. Benjamin Balsmeier, Julie Delanote. 2015. Employment growth heterogeneity under varying intellectual property rights regimes in European transition economies: Young vs. mature innovators. *Journal of Comparative Economics* **43**:4, 1069-1084. [Crossref]

172. Michael Crum, Thomas E. Nelson. 2015. Stabilizing institutions for new venture investment decisions. *Journal of Enterprising Communities: People and Places in the Global Economy* **9**:4, 344-360. [Crossref]

173. Colin W. O'Reilly. 2015. Firm Investment decisions in the post-conflict context. *Economics of Transition* **23**:4, 717-751. [Crossref]

174. . References 327-362. [Crossref]

175. Fernando M. Aragón. 2015. Do better property rights improve local income?: Evidence from First Nations' treaties. *Journal of Development Economics* **116**, 43-56. [Crossref]

176. Oghenovo A. Obrimah, Jacob Alabi, Blessing Ugo-Harry. 2015. How Relevant Is the Capital Asset Pricing Model (CAPM) for Tests of Market Efficiency on the Nigerian Stock Exchange?. *African Development Review* **27**:3, 262-273. [Crossref]

177. Evgeni Peev. 2015. Institutions, economic liberalization and firm growth: evidence from European transition economies. *European Journal of Law and Economics* **40**:1, 149-174. [Crossref]

178. Pierre-Guillaume Méon, Khalid Sekkat. 2015. The formal and informal institutional framework of capital accumulation. *Journal of Comparative Economics* **43**:3, 754-771. [Crossref]

179. Samuel Adomako, Albert Danso, Ernest Ampadu. 2015. Institutional outlook of the entrepreneurial climate in Ghana. *International Journal of Social Economics* **42**:6, 566-582. [Crossref]

180. Per-Olof Bjuggren, Johan E. Eklund. 2015. Property rights and the cost of capital. *European Journal of Law and Economics* **39**:3, 523-537. [Crossref]

181. Daniel Berkowitz, Chen Lin, Yue Ma. 2015. Do property rights matter? Evidence from a property law enactment. *Journal of Financial Economics* **116**:3, 583-593. [Crossref]

182. Tao Chen. 2015. Institutions, board structure, and corporate performance: Evidence from Chinese firms. *Journal of Corporate Finance* **32**, 217-237. [Crossref]

183. Myrto Chliova, Jan Brinckmann, Nina Rosenbusch. 2015. Is microcredit a blessing for the poor? A meta-analysis examining development outcomes and contextual considerations. *Journal of Business Venturing* **30**:3, 467-487. [Crossref]

184. Sanchari Roy. 2015. Empowering women? Inheritance rights, female education and dowry payments in India. *Journal of Development Economics* **114**, 233-251. [Crossref]

185. Alexei Karas, William Pyle, Koen Schoors. 2015. A “de Soto Effect” in Industry? Evidence from the Russian Federation. *The Journal of Law and Economics* **58**:2, 451-480. [Crossref]

186. Gjalt de Jong, Phan Anh Tu, Hans van Ees. 2015. The Impact of Personal Relationships on Bribery Incidence in Transition Economies. *European Management Review* **12**:1, 7-21. [Crossref]

187. Curt B. Moore, G. Tyge Payne, R. Greg Bell, Justin L. Davis. 2015. Institutional Distance and Cross-Border Venture Capital Investment Flows. *Journal of Small Business Management* **53**:2, 482-500. [Crossref]

188. Martin J. Conyon, Lerong He, Xin Zhou. 2015. Star CEOs or Political Connections? Evidence from China's Publicly Traded Firms. *Journal of Business Finance & Accounting* **42**:3-4, 412-443. [Crossref]

189. Andrew G. Walder, Andrew Isaacson, Qinglian Lu. 2015. After State Socialism. *American Sociological Review* **80**:2, 444-468. [Crossref]

190. Inessa Love, Andrei Rachinsky. 2015. Corporate Governance and Bank Performance in Emerging Markets: Evidence from Russia and Ukraine. *Emerging Markets Finance and Trade* **51**:sup2, S101-S121. [Crossref]

191. George RG Clarke, Klaus S Friesenbichler, Michael Wong. 2015. Do Indirect Questions Reduce Lying about Corruption? Evidence from a Quasi-Field Experiment. *Comparative Economic Studies* **57**:1, 103-135. [Crossref]

192. Julan Du, Yi Lu, Zhigang Tao. 2015. Government expropriation and Chinese-style firm diversification. *Journal of Comparative Economics* **43**:1, 155-169. [Crossref]

193. Hongyan Yang, Ting Ren, Massimiliano Sassone. Foreign Direct Investment, Institutional Environment, and the Establishment of Private Economy in China 107-132. [Crossref]

194. Tristan A. Canare, Alvin Ang, Ronald U. Mendoza. 2015. Enhancing the Ease of Doing Business in APEC Countries: A Comprehensive Review of Literature. *SSRN Electronic Journal* . [Crossref]

195. Andrrs Fernnndez, CCsar E. Tamayo. 2015. From Institutions to Financial Development and Growth: What are the Links?. *SSRN Electronic Journal* . [Crossref]

196. Meng Miao. 2015. Using City Mayoral Replacements to Estimate the Effect of Property Rights Protection on Investment. *SSRN Electronic Journal* . [Crossref]

197. Jedrzej Pawel Bialkowski, Ehud I. Ronn. 2015. Financial Markets in the Face of the Apocalypse. *SSRN Electronic Journal* . [Crossref]

198. Mitja Kovac, Rok Spruk. 2015. The Effect of Legal Institutions on the Wealth of Mexico: Evidences from a Sub-National Empirical Investigation. *SSRN Electronic Journal* . [Crossref]

199. Paul Castaaeda Dower, Egor Malkov, Leonid Polishchuk, William Pyle. 2015. Costs and Benefits of Land Ownership: The Case of Russian Firms. *SSRN Electronic Journal* . [Crossref]

200. Tarek Ibrahim Eldomiaty, Tariq Bin Faisal Al Qassemi, Ahmed Fikri Mabrouk, Lamia Soliman Abdelghany. 2015. Institutional Quality, Economic Freedom and Stock Market Volatility in the MENA Region. *SSRN Electronic Journal* . [Crossref]

201. Qi-An Luo, Hong-Fei Ye. 2015. Corporate Governance, Institutional Environment, Behavioral Corporate Finance and Inefficient Investment. *Journal of Service Science and Management* **08**:03, 452-459. [Crossref]

202. Andy Titus Okwu. 2015. Business environment and the financial performance of small and medium enterprises: A study of Lagos state, Nigeria. *Corporate Ownership and Control* **12**:4, 493-505. [Crossref]

203. Mohammed Yelwa, S.A.J. Obansa Awe, Emmanuel Omonoyi. 2015. Informality, Inclusiveness and Economic Growth in Nigeria. *The International Journal of Management Science and Business Administration* **1**:10, 33-44. [Crossref]

204. Travis Ng, Linhui Yu. 2014. Which types of institutions hinder productivity among private manufacturing firms in China?. *China Economic Review* **31**, 17-31. [Crossref]

205. Krista B. Lewellyn, Shuji 'Rosey' Bao. 2014. A cross-national investigation of IPO activity: The role of formal institutions and national culture. *International Business Review* **23**:6, 1167-1178. [Crossref]

206. Lerong He, Hong Wan, Xin Zhou. 2014. How are political connections valued in China? Evidence from market reaction to CEO succession. *International Review of Financial Analysis* **36**, 141-152. [Crossref]

207. Julan Du, Yi Lu, Zhigang Tao. 2014. The role of the state in resolving business disputes in China. *Journal of Comparative Economics* **42**:4, 940-953. [Crossref]

208. Jingjie Chu, Lacey Tudur. 2014. Looking to Grow Outside the United States. *Marine Resource Economics* **29**:4, 323-337. [Crossref]

209. Ann E. Harrison, Justin Yifu Lin, Lixin Colin Xu. 2014. Explaining Africa's (Dis)advantage. *World Development* **63**, 59-77. [Crossref]

210. Doaa M. Salman. 2014. Mediating role of research and development on entrepreneurial activities and growth. *World Journal of Entrepreneurship, Management and Sustainable Development* **10**:4, 300-313. [Crossref]

211. Doaa M. Salman. 2014. Determinants of Entrepreneurs' Activities: New Evidence from Cross-Country Data. *Journal of International Commerce, Economics and Policy* **05**:03, 1440013. [Crossref]

212. Luigi Moretti. 2014. Local financial development, socio-institutional environment, and firm productivity: Evidence from Italy. *European Journal of Political Economy* **35**, 38-51. [Crossref]

213. Daniel Berkowitz, Mark Hoekstra, Koen Schoors. 2014. Bank privatization, finance, and growth. *Journal of Development Economics* **110**, 93-106. [Crossref]

214. Hatem Masri, Anis Khayati. 2014. An Imprecise Multiple Criteria Decision Model for Gulf's Foreign Direct Investment in the North African Countries. *INFOR: Information Systems and Operational Research* **52**:3, 108-115. [Crossref]

215. Wubiao Zhou. 2014. Regional institutional development, political connections, and entrepreneurial performance in China's transition economy. *Small Business Economics* **43**:1, 161-181. [Crossref]

216. Dae-il Nam, K. Praveen Parboteeah, John B. Cullen, Jean L. Johnson. 2014. Cross-national differences in firms undertaking innovation initiatives: An application of institutional anomie theory. *Journal of International Management* **20**:2, 91-106. [Crossref]

217. Hernán Herrera-Echeverri, Jerry Haar, Juan Benavides Estevez-Bretón. 2014. Foreign Investment, Institutional Quality, Public Expenditure, and Activity of Venture Capital Funds in Emerging Market Countries. *Global Economy Journal* **14**:2, 127-162. [Crossref]

218. Jean P. Sepúlveda, Claudio A. Bonilla. 2014. The factors affecting the risk attitude in entrepreneurship: evidence from Latin America. *Applied Economics Letters* **21**:8, 573-581. [Crossref]

219. Akmalia M. Ariff, Steven F. Cahan, David M. Emanuel. 2014. Institutional Environment, Ownership, and Disclosure of Intangibles: Evidence from East Asia. *Journal of International Accounting Research* **13**:1, 33-59. [Crossref]

220. S. Quinn. 2014. The Value of Corporate Governance for Bank Finance in an Emerging Economy: Evidence from a Natural Experiment. *Journal of Law, Economics, and Organization* **30**:1, 1-38. [Crossref]

221. Guanghua Yu. Informal and Formal Contracts 13-44. [Crossref]

222. Benjamin Balsmeier, Dirk Czarnitzki. 2014. How Important is Industry-Specific Managerial Experience for Innovative Firm Performance?. *SSRN Electronic Journal* . [Crossref]

223. Thorsten Beck, Haki Pamuk, Burak Uras. 2014. Entrepreneurial Saving Practices and Reinvestment: Theory and Evidence. *SSRN Electronic Journal* . [Crossref]

224. Niklas Elert, Magnus Henrekson. 2014. Evasive Entrepreneurship and Institutional Change. *SSRN Electronic Journal* . [Crossref]

225. Meng Miao. 2014. Property Rights Protection and Investment: A Natural Experiment from China. *SSRN Electronic Journal* . [Crossref]

226. Travis Ng. 2013. Information acquisition and institutions: An organizational perspective. *Information Economics and Policy* **25**:4, 301-311. [Crossref]

227. J. P. H. Fan, T. J. Wong, T. Zhang. 2013. Institutions and Organizational Structure: The Case of State-Owned Corporate Pyramids. *Journal of Law, Economics, and Organization* **29**:6, 1217-1252. [Crossref]

228. Neil Foster-McGregor. 2013. On the Determinants of Investment in Sub-Saharan African Manufacturing Firms. *African Development Review* **25**:4, 573-586. [Crossref]

229. Yingkai Tang, Shuanghong Ye, Jing Zhou. 2013. Political Connections, Legal Environment, and Corporate Valuation in Chinese Public Family Firms. *The Chinese Economy* **46**:6, 32-49. [Crossref]

230. Tianshu Zhang, Jun Huang. 2013. The value of group affiliation: evidence from the 2008 financial crisis. *International Journal of Managerial Finance* **9**:4, 332-350. [Crossref]

231. Satish Jayachandran, Peter Kaufman, V. Kumar, Kelly Hewett. 2013. Brand Licensing: What Drives Royalty Rates?. *Journal of Marketing* **77**:5, 108-122. [Crossref]

232. J. Shvets. 2013. Judicial Institutions and Firms' External Finance: Evidence from Russia. *Journal of Law, Economics, and Organization* **29**:4, 735-764. [Crossref]

233. Joseph P.H. Fan, Stuart L. Gillan, Xin Yu. 2013. Innovation or imitation?. *Journal of Multinational Financial Management* **23**:3, 208-234. [Crossref]

234. Stephen Weymouth, J. Lawrence Broz. 2013. Government Partisanship and Property Rights: Cross-Country Firm-Level Evidence. *Economics & Politics* **25**:2, 229-256. [Crossref]

235. Klaus Gugler, Dennis C. Mueller, Evgeni Peev, Esther Segalla. 2013. Institutional determinants of domestic and foreign subsidiaries' performance. *International Review of Law and Economics* **34**, 88-96. [Crossref]

236. Michael Firth, Stephen X. Gong, Liwei Shan. 2013. Cost of government and firm value. *Journal of Corporate Finance* **21**, 136-152. [Crossref]

237. Zhiyong An. 2013. Private Property Rights, Investment Patterns, and Asset Structure. *Economics & Politics* **91**, n/a-n/a. [Crossref]

238. Abdoul' Ganiou Mijiyawa. 2013. Determinants of property rights institutions: survey of literature and new evidence. *Economics of Governance* **14**:2, 127-183. [Crossref]

239. Zafar U. Ahmed, Philip W. Zgheib, Shawn Carraher, Abdulrahim K. Kowatly. 2013. Public policy and expatriate entrepreneurs. *Journal of Entrepreneurship and Public Policy* **2**:1, 42-53. [Crossref]

240. Klaus Gugler, Evgeni Peev, Esther Segalla. 2013. The internal workings of internal capital markets: Cross-country evidence. *Journal of Corporate Finance* **20**, 59-73. [Crossref]

241. Wubiao Zhou. 2013. Political connections and entrepreneurial investment: Evidence from China's transition economy. *Journal of Business Venturing* **28**:2, 299-315. [Crossref]

242. Yi Che, Danny T. Wang. 2013. Multinationals, Institutions and Economic Growth in China. *Asian Economic Journal* **27**:1, 1-16. [Crossref]

243. April M. Knill. 2013. Does Foreign Portfolio Investment Reach Small Listed Firms?. *European Financial Management* **19**:2, 251-303. [Crossref]

244. Yi Lu, Ivan P.L. Png, Zhigang Tao. 2013. Do institutions not matter in China? Evidence from manufacturing enterprises. *Journal of Comparative Economics* **41**:1, 74-90. [Crossref]

245. Rostislav Kapeliushnikov, Andrei Kuznetsov, Natalia Demina, Olga Kuznetsova. 2013. Threats to security of property rights in a transition economy: An empirical perspective. *Journal of Comparative Economics* **41**:1, 245-264. [Crossref]

246. Larry Chavis. 2013. Social networks and bribery: The case of entrepreneurs in Eastern Europe. *Journal of Comparative Economics* **41**:1, 279-293. [Crossref]

247. Chen Lin, Sonia Man-lai Wong. 2013. Government intervention and firm investment: Evidence from international micro-data. *Journal of International Money and Finance* **32**, 637-653. [Crossref]

248. Go Yano, Maho Shiraishi, Haiqing Hu. 2013. Property rights, trade credit and entrepreneurial activity in China. *Journal of the Asia Pacific Economy* **18**:1, 168-192. [Crossref]

249. Meghana Ayyagari, Asli Demirguc-Kunt, Vojislav Maksimovic. Financing in Developing Countries 683-757. [Crossref]

250. Birungi Korutaro, Nicholas Biekpe. 2013. Effect of business regulation on investment in emerging market economies. *Review of Development Finance* **3**:1, 41-50. [Crossref]

251. Hugo J. Faría, Hugo M. Montesinos-Yufa, Daniel R. Morales, César G. Aviles B., Osmel Brito-Bigott. 2013. Does corruption cause encumbered business regulations? An IV approach. *Applied Economics* **45**:1, 65-83. [Crossref]

252. Enrico C. Perotti. 2013. The Political Economy of Finance. *SSRN Electronic Journal* . [Crossref]

253. Moinul Zaber. 2013. The Impact of Bureaucratic Structures of the Regulatory Authorities on Diffusion of Telecommunication Technology: A Cross-National Analysis of the Regulatory Governance and its Impact on VoIP Regulation. *SSRN Electronic Journal* . [Crossref]

254. Yutao Han, Patrice Pieretti, Benteng Zou. 2013. On the Desirability of Tax Coordination When Countries Compete in Taxes and Infrastructure. *SSRN Electronic Journal* . [Crossref]

255. Wei Zhang, Ji Li. 2013. Soft Law v. Hard Guanxi: An Empirical Study of Business Investment, Law and Political Connections in China. *SSRN Electronic Journal* . [Crossref]

256. Colin O'Reilly. 2013. Firm Investment Decisions in the Post-Conflict Context. *SSRN Electronic Journal* . [Crossref]

257. Claudia R. Williamson. 2012. Dignity and development. *The Journal of Socio-Economics* **41**:6, 763-771. [Crossref]

258. Saul Estrin, Tomasz Mickiewicz. 2012. Shadow Economy and Entrepreneurial Entry. *Review of Development Economics* **16**:4, 559-578. [Crossref]

259. Niloy Bose, Antu Panini Murshid, Martin A. Wurm. 2012. The Growth Effects of Property Rights: The Role of Finance. *World Development* **40**:9, 1784-1797. [Crossref]

260. Kevin Zheng Zhou, Dean Xu. 2012. How foreign firms curtail local supplier opportunism in China: Detailed contracts, centralized control, and relational governance. *Journal of International Business Studies* **43**:7, 677-692. [Crossref]

261. Yue Ma, Baozhi Qu, Yifan Zhang. 2012. Complex Goods' Exports and Institutions: Empirics at the Firm Level. *Review of International Economics* **20**:4, 841-853. [Crossref]

262. SÖHNKE M. BARTRAM, GREGORY BROWN, RENÉ M. STULZ. 2012. Why Are U.S. Stocks More Volatile?. *The Journal of Finance* **67**:4, 1329-1370. [Crossref]

263. Franklin Allen, Rajesh Chakrabarti, Sankar De, Jun "QJ" Qian, Meijun Qian. 2012. Financing firms in India. *Journal of Financial Intermediation* **21**:3, 409-445. [Crossref]

264. Jordan Gans-Morse. 2012. Threats to Property Rights in Russia: From Private Coercion to State Aggression. *Post-Soviet Affairs* **28**:3, 263-295. [Crossref]

265. Wubiao Zhou. 2012. Regulatory models and entrepreneurial growth: evidence from China's transition economy. *Strategic Change* **21**:3-4, 119-142. [Crossref]

266. Dirk De Clercq, Miguel Meuleman, Mike Wright. 2012. A cross-country investigation of micro-angel investment activity: The roles of new business opportunities and institutions. *International Business Review* **21**:2, 117-129. [Crossref]

267. Chen Lin, Ping Lin, Hong Zou. 2012. Does property rights protection affect corporate risk management strategy? Intra- and cross-country evidence. *Journal of Corporate Finance* **18**:2, 311-330. [Crossref]

268. Jiaxing You, Guqian Du. 2012. Are Political Connections a Blessing or a Curse? Evidence from CEO Turnover in China. *Corporate Governance: An International Review* **20**:2, 179-194. [Crossref]

269. Yi Lu, Travis Ng, Zhigang Tao. 2012. Outsourcing, Product Quality, and Contract Enforcement. *Journal of Economics & Management Strategy* **21**:1, 1-30. [Crossref]

270. Julan Du, Yi Lu, Zhigang Tao. 2012. Contracting institutions and vertical integration: Evidence from China's manufacturing firms. *Journal of Comparative Economics* **40**:1, 89-107. [Crossref]

271. T. J. Besley, K. B. Burchardi, M. Ghatak. 2012. Incentives and the De Soto Effect. *The Quarterly Journal of Economics* **127**:1, 237-282. [Crossref]

272. Haitian Lu, Hongbo Pan, Chenying Zhang. 2012. Property Rights Protection Through Litigations: Ownership Bias and the Role of Political Connections. *SSRN Electronic Journal* . [Crossref]

273. Noha Emara. 2012. Inflation Volatility, Institutions, and Economic Growth. *Global Journal of Emerging Market Economies* **4**:1, 29-53. [Crossref]

274. Saul Estrin, Tomasz Mickiewicz. 2011. Institutions and female entrepreneurship. *Small Business Economics* **37**:4, 397-415. [Crossref]

275. Sebastian Galiani, Ernesto Schargrodsky. 2011. Land Property Rights and Resource Allocation. *The Journal of Law and Economics* **54**:S4, S329-S345. [Crossref]

276. Sugato Chakravarty, Meifang Xiang. 2011. Determinants of Profit Reinvestment by Small Businesses in Emerging Economies. *Financial Management* **40**:3, 553-590. [Crossref]

277. L. C. Xu. 2011. The Effects of Business Environments on Development: Surveying New Firm-level Evidence. *The World Bank Research Observer* **26**:2, 310-340. [Crossref]

278. Hung M. Chu, Orhan Kara, Xiaowei Zhu, Kubilay Gok. 2011. Chinese entrepreneurs. *Journal of Chinese Entrepreneurship* **3**:2, 84-111. [Crossref]

279. Michael Troilo. 2011. Legal institutions and high-growth aspiration entrepreneurship. *Economic Systems* **35**:2, 158-175. [Crossref]

280. Daniel Berkowitz, David N. DeJong. 2011. Growth in post-Soviet Russia: A tale of two transitions. *Journal of Economic Behavior & Organization* **79**:1-2, 133-143. [Crossref]

281. Stephan Haggard, Lydia Tiede. 2011. The Rule of Law and Economic Growth: Where are We?. *World Development* **39**:5, 673-685. [Crossref]

282. Julia Korosteleva, Tomasz Mickiewicz. 2011. Start-Up Financing in the Age of Globalization. *Emerging Markets Finance and Trade* **47**:3, 23-49. [Crossref]

283. Reyes Aterido, Mary Hallward-Driemeier, Carmen Pagés. 2011. Big Constraints to Small Firms' Growth? Business Environment and Employment Growth across Firms. *Economic Development and Cultural Change* **59**:3, 609-647. [Crossref]

284. W. Pyle. 2011. Organized Business, Political Competition, and Property Rights: Evidence from the Russian Federation. *Journal of Law, Economics, and Organization* **27**:1, 2-31. [Crossref]

285. Yi Lu. 2011. Political connections and trade expansion. *Economics of Transition* **19**:2, 231-254. [Crossref]

286. Simon Commander, Jan Svejnar. 2011. Business Environment, Exports, Ownership, and Firm Performance. *Review of Economics and Statistics* **93**:1, 309-337. [Crossref]

287. Larry W. Chavis, Leora F. Klapper, Inessa Love. Access to Bank Financing and New Investment: Evidence from Europe 115-132. [Crossref]

288. Asli Demirgüc-Kunt, Leora F. Klapper, Georgios A. Panos. 2011. Entrepreneurship in post-conflict transition1. *Economics of Transition* **19**:1, 27-78. [Crossref]
289. Chen Lin, Ping Lin, Hong Zou. 2011. Does Property Rights Protection Affect Corporate Risk Management Strategy? Intra- and Cross-Country Evidence. *SSRN Electronic Journal* . [Crossref]
290. Hans Bonde Christensen, Luzi Hail, Christian Leuz. 2011. Capital-Market Effects of Securities Regulation: Hysteresis, Implementation, and Enforcement. *SSRN Electronic Journal* . [Crossref]
291. Yi Che, Yi Lu, Zhigang Tao. 2011. Institutional Quality and Firm Survival. *SSRN Electronic Journal* . [Crossref]
292. Paul M. Healy, George Serafeim, Suraj Srinivasan, Gwen Yu. 2011. Market Competition, Government Efficiency, and Profitability Around the World. *SSRN Electronic Journal* . [Crossref]
293. Thorsten Beck. 2011. The Role of Finance in Economic Development: Benefits, Risks, and Politics. *SSRN Electronic Journal* . [Crossref]
294. Elias Albagli, Pengjie Gao, Yongxiang Wang. 2011. Property Rights Protection, Information Acquisition, and Asset Prices: Theory and Evidence. *SSRN Electronic Journal* . [Crossref]
295. Alina Mungiu-Pippidi, Laura Stefan. 2011. Perpetual Transitions: The Europeanization of Property Restitution Problems in South-Eastern Europe. *SSRN Electronic Journal* . [Crossref]
296. Karen Macours, Alain de Janvry, Elisabeth Sadoulet. 2010. Insecurity of property rights and social matching in the tenancy market. *European Economic Review* **54**:7, 880-899. [Crossref]
297. Sebastian Galiani, Ernesto Schargrodsky. 2010. Property rights for the poor: Effects of land titling. *Journal of Public Economics* **94**:9-10, 700-729. [Crossref]
298. Nir Kshetri. 2010. Business perceptions of regulative institutions in Central and Eastern Europe. *Baltic Journal of Management* **5**:3, 356-377. [Crossref]
299. Chen Lin, Ping Lin, Frank Song. 2010. Property rights protection and corporate R&D: Evidence from China. *Journal of Development Economics* **93**:1, 49-62. [Crossref]
300. Yue Ma, Baozhi Qu, Yifan Zhang. 2010. Judicial quality, contract intensity and trade: Firm-level evidence from developing and transition countries. *Journal of Comparative Economics* **38**:2, 146-159. [Crossref]
301. Jiangyong Lu, Zhigang Tao. 2010. Determinants of entrepreneurial activities in China. *Journal of Business Venturing* **25**:3, 261-273. [Crossref]
302. Kian-Ping Lim, Robert D. Brooks. 2010. WHY DO EMERGING STOCK MARKETS EXPERIENCE MORE PERSISTENT PRICE DEVIATIONS FROM A RANDOM WALK OVER TIME? A COUNTRY-LEVEL ANALYSIS. *Macroeconomic Dynamics* **14**:S1, 3-41. [Crossref]
303. Tianli Feng, Guofeng Wang. 2010. How private enterprises establish organizational legitimacy in China's transitional economy. *Journal of Management Development* **29**:4, 377-393. [Crossref]
304. Jun Su, Jia He. 2010. Does Giving Lead to Getting? Evidence from Chinese Private Enterprises. *Journal of Business Ethics* **93**:1, 73-90. [Crossref]
305. Kalu Ojah, Tendai Gwatidzo, Sheshangai Kaniki. 2010. Legal Environment, Finance Channels and Investment: The East African Example. *Journal of Development Studies* **46**:4, 724-744. [Crossref]
306. Tidiane Kinda, Josef L. Loening. 2010. Small Enterprise Growth and the Rural Investment Climate: Evidence from Tanzania. *African Development Review* **22**:1, 173-207. [Crossref]
307. Stephen Bryan, Robert Nash, Ajay Patel. 2010. How the Legal System Affects the Equity Mix in Executive Compensation. *Financial Management* **39**:1, 393-418. [Crossref]
308. Magnus Henrekson, Mikael Stenkula. Entrepreneurship and Public Policy 595-637. [Crossref]
309. Amir N. Licht. Entrepreneurial Motivations, Culture, and the Law 11-40. [Crossref]

310. Timothy Besley, Maitreesh Ghatak. Property Rights and Economic Development* 4525-4595. [Crossref]
311. Ernesto Schargrodsky, Sebastian Galiani. 2010. Property Rights for the Poor: Effects of Land Titling. *SSRN Electronic Journal* . [Crossref]
312. Maggie Xiaoyang Chen. 2010. The Matching of Heterogeneous Firms and Politicians. *SSRN Electronic Journal* . [Crossref]
313. Daniel Berkowitz, David N. DeJong. 2010. The Emergence of Bank-Issued Credit in Russia: An Empirical Characterization. *SSRN Electronic Journal* . [Crossref]
314. Lixin Colin Xu. 2010. The Effects of Business Environments on Development: Surveying New Firm-Level Evidence. *SSRN Electronic Journal* . [Crossref]
315. Thorsten Beck. 2010. Legal Institutions and Economic Development. *SSRN Electronic Journal* . [Crossref]
316. Sebastian Galiani, Ernesto Schargrodsky. 2010. Land Property Rights and Resource Allocation. *SSRN Electronic Journal* . [Crossref]
317. Osmel Brito-Bigott, Hugo Joaquin Faria, Daniel R. Morales, Hugo Montesinos. 2010. Do High Levels of Economic and Political Freedom Cause Less Corruption?. *SSRN Electronic Journal* . [Crossref]
318. . References 187-209. [Crossref]
319. Malmendier Ulrike. 2009. Law and Finance "at the Origin". *Journal of Economic Literature* **47**:4, 1076-1108. [Abstract] [View PDF article] [PDF with links]
320. Yi Lu, Zhigang Tao. 2009. Contract enforcement and family control of business: Evidence from China. *Journal of Comparative Economics* **37**:4, 597-609. [Crossref]
321. Nir Kshetri. 2009. Entrepreneurship in post-socialist economies: A typology and institutional contexts for market entrepreneurship. *Journal of International Entrepreneurship* **7**:3, 236-259. [Crossref]
322. JAVED YOUNAS. 2009. Does institutional quality affect capital mobility? Evidence from developing countries. *Journal of Institutional Economics* **5**:2, 207-223. [Crossref]
323. Charles E. Eesley. Who has ‘the right stuff’? human capital, entrepreneurship and institutional change in China 1919-1944. [Crossref]
324. Badi H. Baltagi, Panicos O. Demetriades, Siong Hook Law. 2009. Financial development and openness: Evidence from panel data. *Journal of Development Economics* **89**:2, 285-296. [Crossref]
325. Jeffrey B. Nugent, Grigor Sukiassyan. 2009. Small Firms and Formality: The Influence of Judicial Efficiency and Regulation Costs. *Review of Industrial Organization* **34**:4, 349-371. [Crossref]
326. Klaus Deininger, Songqing Jin. 2009. Securing property rights in transition: Lessons from implementation of China's rural land contracting law. *Journal of Economic Behavior & Organization* **70**:1-2, 22-38. [Crossref]
327. Robert Cull, Lixin Colin Xu, Tian Zhu. 2009. Formal finance and trade credit during China's transition. *Journal of Financial Intermediation* **18**:2, 173-192. [Crossref]
328. Mariassunta Giannetti, Steven Ongena. 2009. Financial Integration and Firm Performance: Evidence from Foreign Bank Entry in Emerging Markets*. *Review of Finance* **13**:2, 181-223. [Crossref]
329. Alberto Chong, Mark Gradstein. 2009. Volatility and firm growth. *Journal of Economic Growth* **14**:1, 1-25. [Crossref]
330. C. Simon Fan, Chen Lin, Daniel Treisman. 2009. Political decentralization and corruption: Evidence from around the world. *Journal of Public Economics* **93**:1-2, 14-34. [Crossref]
331. Sofia B. Ramos. 2009. Competition and stock market development. *The European Journal of Finance* **15**:2, 231-247. [Crossref]

332. Iftekhar Hasan, Haizhi Wang, Mingming Zhou. 2009. Do better institutions improve bank efficiency? Evidence from a transitional economy. *Managerial Finance* **35**:2, 107-127. [Crossref]
333. Allen N. Berger, Iftekhar Hasan, Mingming Zhou. Institutional Development, Ownership Structure, and Business Strategies: A New Era in the Chinese Banking Industry 369-401. [Crossref]
334. Jie Gan. Privatization in China: Experiences and Lessons 581-592. [Crossref]
335. Chen Lin, Clement Chun-Yau Shum, Sonia Man-Lai Wong. The Emergence of Shareholder Protection in China 593-616. [Crossref]
336. Iftekhar Hasan, Paul Wachtel, Mingming Zhou. 2009. Institutional development, financial deepening and economic growth: Evidence from China. *Journal of Banking & Finance* **33**:1, 157-170. [Crossref]
337. Espen Sjaastad, Ben Cousins. 2009. Formalisation of land rights in the South: An overview. *Land Use Policy* **26**:1, 1-9. [Crossref]
338. Thi Bich Tran, R. Quentin Grafton, Tom Kompas. 2009. Institutions matter: The case of Vietnam. *The Journal of Socio-Economics* **38**:1, 1-12. [Crossref]
339. Simeon Djankov, Yingyi Qian, Gérard Roland, Ekaterina Zhuravskaya. A Portrait of the Chinese Entrepreneur 82-99. [Crossref]
340. Stephen J. Weymouth, J. Lawrence Broz. 2009. Partisanship versus Institutions as Determinants of Property Rights: Firm-Level Evidence. *SSRN Electronic Journal* . [Crossref]
341. Julan Du, Yi Lu, Zhigang Tao. 2009. Property Rights Protection and Allocation of Investment: Evidence from China's Private Firms. *SSRN Electronic Journal* . [Crossref]
342. Julan Du, Yi Lu, Zhigang Tao. 2009. China as a Regulatory State. *SSRN Electronic Journal* . [Crossref]
343. Julan Du, Zhigang Tao, Yi Lu. 2009. Institutions, Culture Distance, and FDI Location Choice: Evidence from China. *SSRN Electronic Journal* . [Crossref]
344. Julan Du, Yi Lu, Zhigang Tao. 2009. Contract Enforcement and Vertical Integration: Evidence from China's Manufacturing Firms. *SSRN Electronic Journal* . [Crossref]
345. Yi Lu, Travis Ng, Zhigang Tao. 2009. Outsourcing, Product Quality and Contract Enforcement. *SSRN Electronic Journal* . [Crossref]
346. Chong-En Bai, Julan Du, Yi Lu, Zhigang Tao. 2009. Property Rights, Finance, and Reinvestment: Evidence from China's Private Enterprises. *SSRN Electronic Journal* . [Crossref]
347. Dongya Li, Yi Lu, Travis Ng. 2009. Foreign Ownership and Firm Productivity: Causality and Channels. *SSRN Electronic Journal* . [Crossref]
348. Emilia Bonaccorsi di Patti. 2009. Weak Institutions and Credit Availability: The Impact of Crime on Bank Loans. *SSRN Electronic Journal* . [Crossref]
349. Luis A. V. Catão, Carmen Pages, Maria R. Rosales. 2009. Financial Dependence, Formal Credit and Informal Jobs. *SSRN Electronic Journal* . [Crossref]
350. Valentina Hartarska, Denis Nadolnyak. 2008. An Impact Analysis of Microfinance in Bosnia and Herzegovina. *World Development* **36**:12, 2605-2619. [Crossref]
351. CARRIE B. KEREKES, CLAUDIA R. WILLIAMSON. 2008. Unveiling de Soto's mystery: property rights, capital formation, and development. *Journal of Institutional Economics* **4**:3, 299-325. [Crossref]
352. Andrea Asoni. 2008. PROTECTION OF PROPERTY RIGHTS AND GROWTH AS POLITICAL EQUILIBRIA. *Journal of Economic Surveys* **22**:5, 953-987. [Crossref]
353. Hongbin Li, Lingsheng Meng, Qian Wang, Li-An Zhou. 2008. Political connections, financing and firm performance: Evidence from Chinese private firms. *Journal of Development Economics* **87**:2, 283-299. [Crossref]

354. Iván Major. 2008. Technical Efficiency, Allocative Efficiency and Profitability in Hungarian Small and Medium-Sized Enterprises: A Model with Frontier Functions. *Europe-Asia Studies* **60**:8, 1371-1396. [Crossref]

355. Holger Strulik, Jacob Weisdorf. 2008. Population, food, and knowledge: a simple unified growth theory. *Journal of Economic Growth* **13**:3, 195-216. [Crossref]

356. Joseph P.H. Fan, Oliver Meng Rui, Mengxin Zhao. 2008. Public governance and corporate finance: Evidence from corruption cases. *Journal of Comparative Economics* **36**:3, 343-364. [Crossref]

357. Grigor Sukiassyan, Jeffrey B. Nugent. 2008. Associations versus registration as alternative strategies of small firms. *Small Business Economics* **31**:2, 147-161. [Crossref]

358. Menzie D. Chinn, Hiro Ito. 2008. Global Current Account Imbalances: American Fiscal Policy versus East Asian Savings. *Review of International Economics* **16**:3, 479-498. [Crossref]

359. Una Okonkwo Osili, Anna L. Paulson. 2008. Institutions and Financial Development: Evidence from International Migrants in the United States. *Review of Economics and Statistics* **90**:3, 498-517. [Crossref]

360. S. Jin, K. Deininger. 2008. Key Constraints for Rural Non-Farm Activity in Tanzania: Combining Investment Climate and Household Surveys. *Journal of African Economies* **18**:2, 319-361. [Crossref]

361. Marco G.D. Guidi, Joe Hillier, Heather Tarbert. 2008. Maximizing the firm's value to society through ethical business decisions: Incorporating 'moral debt' claims. *Critical Perspectives on Accounting* **19**:5, 603-619. [Crossref]

362. Christian Ahlin, Jiaren Pang. 2008. Are financial development and corruption control substitutes in promoting growth?. *Journal of Development Economics* **86**:2, 414-433. [Crossref]

363. Christos Pantzalis, Jung Chul Park, Ninon Sutton. 2008. Corruption and valuation of multinational corporations. *Journal of Empirical Finance* **15**:3, 387-417. [Crossref]

364. Harry P Bowen, Dirk De Clercq. 2008. Institutional context and the allocation of entrepreneurial effort. *Journal of International Business Studies* **39**:4, 747-767. [Crossref]

365. Stephan Haggard, Andrew MacIntyre, Lydia Tiede. 2008. The Rule of Law and Economic Development. *Annual Review of Political Science* **11**:1, 205-234. [Crossref]

366. Era Dabla-Norris, Gabriela Inchauste. 2008. Informality and Regulations: What Drives the Growth of Firms?. *IMF Staff Papers* **55**:1, 50-82. [Crossref]

367. Yuriy Gorodnichenko, Yegor Grygorenko. 2008. Are oligarchs productive? Theory and evidence. *Journal of Comparative Economics* **36**:1, 17-42. [Crossref]

368. Anusha Chari, Peter Blair Henry. 2008. Firm-specific information and the efficiency of investment. *Journal of Financial Economics* **87**:3, 636-655. [Crossref]

369. James R. Barth, Mark Bertus, Jiang Hai, Triphon Phumiwasana. 2008. A Cross-Country Assessment of Bank Risk-Shifting Behavior. *Review of Pacific Basin Financial Markets and Policies* **11**:01, 1-34. [Crossref]

370. Era Dabla-Norris, Mark Gradstein, Gabriela Inchauste. 2008. What causes firms to hide output? The determinants of informality. *Journal of Development Economics* **85**:1-2, 1-27. [Crossref]

371. Thorsten Beck, Ross Levine. Legal Institutions and Financial Development 251-278. [Crossref]

372. Iftekhar Hasan, Mingming Zhou. Financial Sector Development and Growth: The Chinese Experience 89-111. [Crossref]

373. Magnus Henrekson, Dan Johansson. 2008. Competencies and Institutions Fostering High-Growth Firms. *SSRN Electronic Journal* . [Crossref]

374. Kian-Ping Lim, Robert Darren Brooks. 2008. Why Do Emerging Stock Markets Experience More Persistent Price Deviations from a Random Walk Over Time? A Country-Level Analysis. *SSRN Electronic Journal* . [Crossref]

375. Yi Lu. 2008. Political Connections and Trade Expansion: Evidence from Chinese Private Firms. *SSRN Electronic Journal* . [Crossref]

376. Daniel Berkowitz, David N. DeJong. 2008. Growth in Post-Soviet Russia: A Tale of Two Transitions. *SSRN Electronic Journal* . [Crossref]

377. Jeffrey B. Nugent, Grigor Martin Sukiassyan. 2008. Small Firms and Formality: The Influence of Judicial Efficiency and Regulation Costs. *SSRN Electronic Journal* . [Crossref]

378. Badi H. Baltagi, Panicos O. Demetriades, Siong-Hook Law. 2008. Financial Development and Openness: Evidence from Panel Data. *SSRN Electronic Journal* . [Crossref]

379. Junko Koeda, Era Dabla-Norris. 2008. Informality and Bank Credit: Evidence From Firm-Level Data. *IMF Working Papers* **08**:94, 1. [Crossref]

380. Hanène Henchiri, Jean-Paul Pollin. 2008. Configurations des systèmes financiers et contraintes de financement. *Revue économique* **59**:6, 1097. [Crossref]

381. Stijn Claessens, Enrico Perotti. 2007. Finance and inequality: Channels and evidence. *Journal of Comparative Economics* **35**:4, 748-773. [Crossref]

382. Ichiro Iwasaki, Taku Suzuki. 2007. Transition strategy, corporate exploitation, and state capture: An empirical analysis of the former Soviet states. *Communist and Post-Communist Studies* **40**:4, 393-422. [Crossref]

383. Klaus Deininger, Songqing Jin, Mona Sur. 2007. Sri Lanka's Rural Non-Farm Economy: Removing Constraints to Pro-Poor Growth. *World Development* **35**:12, 2056-2078. [Crossref]

384. Ichiro Iwasaki. 2007. ENTERPRISE REFORM AND CORPORATE GOVERNANCE IN RUSSIA: A QUANTITATIVE SURVEY. *Journal of Economic Surveys* **21**:5, 849-902. [Crossref]

385. R. Duane Ireland, Justin W. Webb. 2007. A Cross-Disciplinary Exploration of Entrepreneurship Research. *Journal of Management* **33**:6, 891-927. [Crossref]

386. Francisco M. Gonzalez. 2007. Effective property rights, conflict and growth. *Journal of Economic Theory* **137**:1, 127-139. [Crossref]

387. Robert Lensink, Bert Scholtens. 2007. Legal Restrictions and Investment Growth. *Kyklos* **60**:4, 575-600. [Crossref]

388. Luc Laeven, Christopher Woodruff. 2007. The Quality of the Legal System, Firm Ownership, and Firm Size. *Review of Economics and Statistics* **89**:4, 601-614. [Crossref]

389. Mehnaz Safavian, Siddharth Sharma. 2007. When do creditor rights work?. *Journal of Comparative Economics* **35**:3, 484-508. [Crossref]

390. Andrei A. Levchenko. 2007. Institutional Quality and International Trade. *The Review of Economic Studies* **74**:3, 791-819. [Crossref]

391. Menzie D. Chinn, Hiro Ito. 2007. Current account balances, financial development and institutions: Assaying the world "saving glut". *Journal of International Money and Finance* **26**:4, 546-569. [Crossref]

392. Christopher Woodruff, Rene Zenteno. 2007. Migration networks and microenterprises in Mexico. *Journal of Development Economics* **82**:2, 509-528. [Crossref]

393. Hongbin Li, Scott Rozelle, Li-An Zhou. 2007. Incentive contracts and bank performance. *Economics of Transition* **15**:1, 109-124. [Crossref]

394. Peter Blair Henry, Anusha Chari. 2007. Firm-Specific Information and the Efficiency of Investment. *SSRN Electronic Journal* . [Crossref]

395. Badi H. Baltagi, Panicos O. Demetriades, Siong-Hook Law. 2007. Financial Development, Openness and Institutions: Evidence from Panel Data. *SSRN Electronic Journal* . [Crossref]
396. Valentina Hartarska, Denis A. Nadolnyak. 2007. An Impact Analysis of Microfinance in Bosnia and Herzegovina. *SSRN Electronic Journal* . [Crossref]
397. Liesbet Vranken, Karen Macours, Nivelin Noev, Johan F. M. Swinnen. 2007. Property Rights Imperfections, Asset Allocation, and Welfare: Co-Ownership in Bulgaria. *SSRN Electronic Journal* . [Crossref]
398. Andrea Asoni. 2007. Protection of Property Rights and Growth as Political Equilibria. *SSRN Electronic Journal* . [Crossref]
399. Franklin Allen, Rajesh Chakrabarti, Sankar De, Jun Qian, Meijun Qian. 2007. The Financial System Capacities in China and India. *SSRN Electronic Journal* . [Crossref]
400. Damien Sean Eldridge. 2007. Multiple Interactions and the Management of Local Commons. *SSRN Electronic Journal* . [Crossref]
401. Mariassunta Giannetti, Steven R. G. Ongena. 2007. Financial Integration and Firm Performance: Evidence from Foreign Bank Entry in Emerging Markets. *SSRN Electronic Journal* . [Crossref]
402. Enrico C. Perotti, Paolo F. Volpin. 2007. Politics, Investor Protection and Competition. *SSRN Electronic Journal* . [Crossref]
403. James R. Barth, Mark Bertus, Jiang Hai, Triphon Phumiwasana. 2007. A Theoretical and Empirical Assessment of Bank Risk-Shifting Behavior. *SSRN Electronic Journal* . [Crossref]
404. Amir N. Licht. 2007. The Entrepreneurial Spirit and What the Law Can Do About it. *SSRN Electronic Journal* . [Crossref]
405. Robin Douhan, Magnus Henrekson. 2007. The Political Economy of Entrepreneurship: An Introduction. *SSRN Electronic Journal* . [Crossref]
406. Stijn Claessens, Enrico C. Perotti. 2007. Finance and Inequality: Channels and Evidence. *SSRN Electronic Journal* . [Crossref]
407. Era Dabla-Norris, Gabriela Inchauste. 2007. Informality and Regulations: What Drives Firm Growth?. *IMF Working Papers* **07**:112, 1. [Crossref]
408. Edda Zoli. 2007. Financial Development in Emerging Europe: The Unfinished Agenda. *IMF Working Papers* **07**:245, 1. [Crossref]
409. Leora Klapper, Luc Laeven, Raghuram Rajan. 2006. Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics* **82**:3, 591-629. [Crossref]
410. Thorsten Beck, Asli Demirguc-Kunt. 2006. Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance* **30**:11, 2931-2943. [Crossref]
411. Valentina Hartarska, Claudio Gonzalez-Vega. 2006. What Affects New and Established Firms' Expansion? Evidence from Small Firms in Russia. *Small Business Economics* **27**:2-3, 195-206. [Crossref]
412. Menzie D. Chinn, Hiro Ito. 2006. What matters for financial development? Capital controls, institutions, and interactions. *Journal of Development Economics* **81**:1, 163-192. [Crossref]
413. Jung Hur, Manoj Raj, Yohanes E. Riyanto. 2006. Finance and trade: A cross-country empirical analysis on the impact of financial development and asset tangibility on international trade. *World Development* **34**:10, 1728-1741. [Crossref]
414. Nauro F. Campos, Francesco Giovannoni. 2006. The Determinants of Asset Stripping: Theory and Evidence from the Transition Economies. *The Journal of Law and Economics* **49**:2, 681-706. [Crossref]
415. Chong-En Bai, Jiangyong Lu, Zhigang Tao. 2006. Property rights protection and access to bank loans. *The Economics of Transition* **14**:4, 611-628. [Crossref]

416. Hongbin Li, Lingsheng Meng, Junsen Zhang. 2006. Why Do Entrepreneurs Enter Politics? Evidence from China. *Economic Inquiry* **44**:3, 559-578. [Crossref]

417. Thorsten Beck, Luc Laeven. 2006. Institution building and growth in transition economies. *Journal of Economic Growth* **11**:2, 157-186. [Crossref]

418. Daniel Berkowitz, John E. Jackson. 2006. Entrepreneurship and the evolution of income distributions in Poland and Russia. *Journal of Comparative Economics* **34**:2, 338-356. [Crossref]

419. James D. Gwartney, Randall G. Holcombe, Robert A. Lawson. 2006. Institutions and the Impact of Investment on Growth. *Kyklos* **59**:2, 255-273. [Crossref]

420. Simeon Djankov, Yingyi Qian, Gérard Roland, Ekaterina Zhuravskaya. 2006. Entrepreneurship in China and Russia Compared. *Journal of the European Economic Association* **4**:2-3, 352-365. [Crossref]

421. V. Tambovtsev. 2006. Improvement of Property Rights Protection - Dormant Reserve of Russia's Economic Growth?. *Voprosy Ekonomiki* :1, 22-38. [Crossref]

422. Alberto Chong, Mark Gradstein. 2006. Policy Volatility and Growth. *SSRN Electronic Journal* . [Crossref]

423. Simeon Djankov, Yingyi Qian, Gérard Roland, Ekaterina V. Zhuravskaya. 2006. Entrepreneurship in China and Russia Compared. *SSRN Electronic Journal* . [Crossref]

424. Peter Blair Henry, Anusha Chari. 2006. Firm-Specific Information and the Efficiency of Investment. *SSRN Electronic Journal* . [Crossref]

425. Paul Wachtel, Iftekhar Hasan, Mingming Zhou. 2006. Institutional Development, Financial Deepening and Economic Growth: Evidence from China. *SSRN Electronic Journal* . [Crossref]

426. Rajesh Chakrabarti. 2006. Law and Finance in India - an Overview. *SSRN Electronic Journal* . [Crossref]

427. Qiao Liu, Alan Siu. 2006. Institutions, Financial Development, and Corporate Investment: Evidence from an Implied Return on Capital in China. *SSRN Electronic Journal* . [Crossref]

428. Susan Rose-Ackerman. Corruption and Development . [Crossref]

429. Jeffrey Frankel, Shang-Jin Wei. Managing Macroeconomic Crises: Policy Lessons 315-405. [Crossref]

430. J. David Brown, John S. Earle, Dana Lup. 2005. What Makes Small Firms Grow? Finance, Human Capital, Technical Assistance, and the Business Environment in Romania. *Economic Development and Cultural Change* **54**:1, 33-70. [Crossref]

431. Andrei Shleifer. 2005. Understanding Regulation. *European Financial Management* **11**:4, 439-451. [Crossref]

432. Ross Levine. 2005. Law, Endowments and Property Rights. *Journal of Economic Perspectives* **19**:3, 61-88. [Abstract] [View PDF article] [PDF with links]

433. Simeon Djankov, Edward Miguel, Yingyi Qian, Gérard Roland, Ekaterina Zhuravskaya. 2005. Who Are Russia'S Entrepreneurs?. *Journal of the European Economic Association* **3**:2-3, 587-597. [Crossref]

434. Robert MacCulloch. 2005. Income Inequality and the Taste for Revolution. *The Journal of Law and Economics* **48**:1, 93-123. [Crossref]

435. Daniel Berkowitz, David N. DeJong. 2005. Entrepreneurship and Post-socialist Growth*. *Oxford Bulletin of Economics and Statistics* **67**:1, 25-46. [Crossref]

436. Abhijit V. Banerjee, Esther Duflo. Chapter 7 Growth Theory through the Lens of Development Economics 473-552. [Crossref]

437. Ross Levine. Chapter 12 Finance and Growth: Theory and Evidence 865-934. [Crossref]

438. Andrei A. Levchenko. 2005. Institutional Quality and International Trade. *SSRN Electronic Journal* . [Crossref]

439. William Pyle. 2005. Resolution, Recovery and Survival: The Evolution of Payment Disputes in Post-Socialist Europe. *SSRN Electronic Journal* . [Crossref]
440. Erik H. B. Feyen. 2005. Do Incumbents Manipulate Access to Finance During Banking Crises?. *SSRN Electronic Journal* . [Crossref]
441. Julia Shvets. 2005. Courts, Firms, and Allocation of Credit. *SSRN Electronic Journal* . [Crossref]
442. Nauro F. Campos, Francesco Giovannoni. 2005. The Determinants of Asset Stripping: Theory and Evidence from the Transition Economies. *SSRN Electronic Journal* . [Crossref]
443. Timothy Frye. 2005. Original Sin, Good Works, and Property Rights in Russia: Evidence From a Survey Experiment. *SSRN Electronic Journal* . [Crossref]
444. William Tompson. 2005. Putting Yukos in Perspective. *Post-Soviet Affairs* **21**:2, 159-181. [Crossref]
445. Gabriela Inchauste, Mark Gradstein, Era Dabla-Norris. 2005. What Causes Firms to Hide Output? the Determinants of Informality. *IMF Working Papers* **05**:160, 1. [Crossref]
446. John McMillan. 2004. Quantifying creative destruction: Entrepreneurship and productivity in New Zealand. *New Zealand Economic Papers* **38**:2, 153-173. [Crossref]
447. Bruce G. Carruthers, Laura Ariovich. 2004. The Sociology of Property Rights. *Annual Review of Sociology* **30**:1, 23-46. [Crossref]
448. Annette M. Kim. 2004. A market without the 'right' property rights. *The Economics of Transition* **12**:2, 275-305. [Crossref]
449. Le Khuong Ninh, Niels Hermes, Ger Lanjouw. 2004. Investment, uncertainty and irreversibility. *The Economics of Transition* **12**:2, 307-332. [Crossref]
450. George W. J. Hendrikse, Josef Windsperger. Introducing 'Economics and Management of Franchising Networks' 1-13. [Crossref]
451. P. Demetriades, S. Andrianova. Finance and Growth: What we Know and What we Need to Know 38-65. [Crossref]
452. Luc A. Laeven, Christopher M. Woodruff. 2004. The Quality of the Legal System and Firm Size. *SSRN Electronic Journal* . [Crossref]
453. John McMillan, Pablo Zoido. 2004. How to Subvert Democracy: Montesions in Peru. *SSRN Electronic Journal* . [Crossref]
454. Robert Cull, Lixin Colin Xu. 2004. Institutions, Ownership, and Finance: The Determinants of Profit Reinvestment Among Chinese Firms. *SSRN Electronic Journal* . [Crossref]
455. Oghenovo Obrimah. 2004. Law, Finance, and Venture Capitalists' Asset Allocation Decisions. *SSRN Electronic Journal* . [Crossref]
456. Enrico C. Perotti, Paolo F. Volpin. 2004. Lobbying on Entry. *SSRN Electronic Journal* . [Crossref]
457. John McMillan. 2004. A Flexible Economy? Entrepreneurship and Productivity in New Zealand. *SSRN Electronic Journal* . [Crossref]
458. Yuriy Gorodnichenko, Yegor Grygorenko. 2004. Are Oligarchs Productive? Theory and Evidence. *SSRN Electronic Journal* . [Crossref]
459. J. David David Brown, John S. Earle, Almos Telegdy. 2004. Does Privatization Raise Productivity? Evidence from Comprehensive Panel Data on Manufacturing Firms in Hungary, Romania, Russia, and Ukraine. *SSRN Electronic Journal* . [Crossref]
460. Abhijit V. Banerjee, Esther Duflo. 2004. Growth Theory through the Lens of Development Economics. *SSRN Electronic Journal* . [Crossref]
461. Andrei A. Levchenko. 2004. Institutional Quality and International Trade. *IMF Working Papers* **04**:231, 1. [Crossref]

462. Stijn Claessens, Luc Laeven. 2003. Financial Development, Property Rights, and Growth. *The Journal of Finance* **58**:6, 2401-2436. [Crossref]

463. Francesca Pissarides, Miroslav Singer, Jan Svejnar. 2003. Objectives and constraints of entrepreneurs: evidence from small and medium size enterprises in Russia and Bulgaria. *Journal of Comparative Economics* **31**:3, 503-531. [Crossref]

464. George Hendrikse. 2003. Governance of chains and networks: A research agenda. *Journal on Chain and Network Science* **3**:1, 1-6. [Crossref]

465. Daron Acemoglu, Simon Johnson, James Robinson, Yunyong Thaicharoen. 2003. Institutional causes, macroeconomic symptoms: volatility, crises and growth. *Journal of Monetary Economics* **50**:1, 49-123. [Crossref]

466. Franklin Allen, Jun Qian, Meijun Qian. 2003. Law, Finance, and Economic Growth in China. *SSRN Electronic Journal* . [Crossref]

467. Armando Castelar Pinheiro. 2003. A Post-Liberal Agenda. *SSRN Electronic Journal* . [Crossref]

468. Se-Jik Kim. 2003. Macro Effects of Corporate Restructuring in Japan. *IMF Working Papers* **03**:203, 1. [Crossref]

469. John McMillan, Christopher Woodruff. 2002. The Central Role of Entrepreneurs in Transition Economies. *Journal of Economic Perspectives* **16**:3, 153-170. [Abstract] [View PDF article] [PDF with links]

470. Michael A. Schwarz, Edward P. Lazear, Sherwin Rosen. 2002. Russia In Transition. *SSRN Electronic Journal* . [Crossref]

471. Erica Field. 2002. Entitled to Work: Urban Property Rights and Labor Supply in Peru. *SSRN Electronic Journal* . [Crossref]

472. Thorsten Beck, Ross Levine. Legal Institutions and Financial Development 251-278. [Crossref]

473. Annette M. Kim. The role of property rights reforms in Warsaw's housing market 213-230. [Crossref]

474. John McMillan. Quantifying Creative Destruction: Entrepreneurship and Productivity in New Zealand 189-210. [Crossref]

475. Thomas W. Hall, Fredrik Jörgensen. Legal rights matter: evidence from panel data on creditor protection and debt 303-336. [Crossref]