

The Inequality of Influence

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Abstract

This paper develops a proxy measure of the inequality of influence on the basis of survey evidence from 2002 Business Environment and Enterprise Performance Survey (BEEPS) conducted among 6,500 firms in 27 transition countries. We refer to the resulting inequality as *crony bias* in the political system that can be measured at both the firm and country level. We examine the impact of crony bias at both the firm and country levels on three indicators of institutional subversion: 1) perceptions of and interaction with courts; 2) security of property rights; 3) tax compliance; and 4) bribery. We find a consistent pattern in which the inequality of influence has a strongly negative impact on assessments of public institutions that ultimately affects the behavior of firms towards those institutions. Crony bias at both the firm and the country levels is associated with a significantly more negative assessment of the fairness and impartiality of courts and the enforceability of court decisions. Further, firms that report crony bias are significantly less likely to use courts to resolve business disputes. Such firms are shown to have less secure property rights than more influential firms. We also find that crony bias is associated with lower levels of tax compliance and significantly higher levels of bribery. The evidence suggests that the inequality of influence not only damages the credibility of institutions among weak firms, but affects the likelihood that they will use and provide tax resources to support such institutions. By withholding tax revenues, paying bribes, and avoiding courts, these firms ensure that such state institutions are likely to remain weak and subject to capture by the more influential. The inequality of influence thus appears to generate a self-reinforcing dynamic in which institutions are subverted further strengthening the underlying political and economic inequalities.

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Introduction.

There is now a substantial literature demonstrating the negative impact of inequality on economic growth and on a wide range of intermediate social and economic outcomes that affect growth.¹ Linking these results to another well-established literature – the quality of institutions – Glaeser, Scheinkman and Shleifer (2002) have argued that inequality affects growth by subverting the institutions that guarantee secure property rights. The rich can use their superior resources to manipulate political, legal and regulatory institutions to preserve and extend their privileged positions through inefficient redistributions, anti-competitive measures and other discriminatory practices. This subversion of institutions undermines the security of property rights for those less well-endowed and thus weakens investment and growth. Yet to the extent that inequality leads to the subversion of institutions, it is not necessarily through the inequality of wealth per se, but the inequality of influence, though the two are obviously closely inter-related.² The rich are assumed to be able to convert their greater wealth into greater political influence over both the formation and functioning of institutions. However, the extent to which inequalities of wealth can be converted into inequalities of influence will be mediated by different configurations of the political system. In order to understand the mechanisms linking inequality and growth, we need a much deeper investigation into the inequality of influence in developing countries.

¹ The extensive theoretical literature on inequality and growth includes: Aghion and Williamson (1998), Alesina and Rodrik (1994), Banerjee and Newman (1991, 1993), Benabou (1996a, 1996b, 2002), Murphy, Shleifer, and Vishny (1989), Perotti (1993), Persson and Tabellini (1994), Piketty (1997), and Rajan and Zingales (2002).

² In addressing the puzzle of the empirical finding that economic growth per se does not lead to improved institutions and governance, Kaufmann and Kraay (2002), without delving into the issue of unequal influence in detail, suggest that state capture (as elaborated below, a particular manifestation of influence), may be playing an important mediating role.

Building upon the extensive literature on special interest politics in developed countries, recent work has begun to examine the impact of the inequality of influence on economic performance, both at the macro- and micro-levels, with a particular focus on transition economies.³ Hellman, Jones and Kaufmann (2000) use firm-level survey data to investigate the effects of different forms of influence activities on firm performance, emphasizing the strong gains to firms that engage in *state capture*, i.e. paying bribes to influence the basic laws, rules and regulations governing their activity. Slinko, Yakovlev and Zhuravskaya (2002) have created an extraordinary dataset identifying instances of preferential treatment for individual powerful firms in thousands of pieces of regional legislation in Russia to demonstrate how these preferences affect performance at the firm and the regional levels. The transition economies constitute an extremely rich set of cases for such research, since the simultaneous processes of economic liberalization, redistribution of state property and building the political, legal and regulatory institutions of a market economy place these inter-relationships into much sharper relief than in those countries with a more established institutional order.

To date, empirical work on the inequality of influence has focused on identifying “winners” of the influence game and demonstrating the strong performance gains that such firms enjoy as a result. There is also some evidence suggesting that such inequalities do generate negative externalities in the form of less secure property rights and reduced sales growth for the less influential firms (Hellman, et. al. 2002) and higher barriers to entry for small firms and lower growth in regions where state capture is particularly pronounced (Slinko, et. al., 2002).

³ For previous work on transition countries, see Hellman (1997); Hellman, Jones and Kaufmann (2000); Hellman and Schankerman (2000); and for an application to Russia, Hellman (2002). Similar arguments have been developed in the EBRD’s *Transition Report* (1999) and the World Bank’s (2002) retrospective on the first decade of transition. For an analysis of these dynamics on a much broader range of countries, see Kaufmann and Kraay (2002).

Nevertheless, we do not have a clear picture of the mechanisms by which the inequality of influence imposes costs to non-influential firms. If inequalities of influence lead to the subversion of institutions, then we should find differences in the performance and credibility of institutions among firms with different degrees of political influence.

This paper develops a proxy measure of the inequality of influence on the basis of survey evidence from 2002 Business Environment and Enterprise Performance Survey (BEEPS) conducted among 6,500 firms in 27 transition countries. Firms were asked to compare the influence of their collective representative, e.g. business or trade association, on recently enacted laws, rules or regulations that directly impacted their business with the influence of conglomerates, firms or individuals with close ties to political leaders.

We refer to the resulting inequality as a perceived *crony bias* in the political system that can be measured at both the firm and country level. This measure gives us a crude indication of the extent to which firm managers believe that there are other actors with more or less influence than their own collective voice on the basic rules shaping their business environment. If managers believe that the rules of the game are biased in favor of political cronies, then this might be expected to have an impact on how they interact with public institutions, especially those whose reputation for impartiality is critical to their credibility and effectiveness.

We examine the impact of crony bias at both the firm and country levels on three indicators of institutional subversion: 1) perceptions of and interaction with courts; 2) security of property rights; 3) tax compliance; and 4) bribery. Following Glaeser, Scheinkman and Shleifer (2002), we assume that courts are the public institution most susceptible to

subversion as a result of severe inequalities of influence, since their effectiveness is so closely based on expectations of impartiality and their ability to enforce decisions on all participants. Firms that perceive their environment as being sharply skewed in favor of more politically influential players are likely to have greater doubts that courts can render fair and impartial verdicts, as well as enforce such verdicts on more influential firms. As a result, such firms should have more negative perceptions of courts and be less likely to use them. This should, in turn, lead to greater insecurity of property rights among less influential firms.

Tax compliance is a broader indicator of the subversion of public institutions as it reflects both the firm's willingness to contribute to the development of public institutions as well as the effectiveness of the state's capacity to collect taxes. Firms that perceive serious inequalities of influence should be less willing to contribute a share of their revenues to supporting state institutions that are biased in favor of a privileged few. Given the limited capacities of any state to enforce tax provisions, tax compliance becomes a much broader measure of confidence in state institutions. Bribery is also a good indicator of weak state institutions.

We find a consistent pattern in which the inequality of influence has a strongly negative impact on assessments of public institutions that ultimately affects the behavior of firms towards those institutions. Crony bias at both the firm and the country levels is associated with a much more negative assessment of the fairness and impartiality of courts and the enforceability of court decisions, regardless of the firm's actual interaction with the court system. Moreover, firms that do perceive a crony bias are significantly less likely to use courts to resolve business disputes. Such firms are shown to have less secure property rights

than more influential firms. We also find that crony bias is associated with lower levels of tax compliance and significantly higher levels of bribery.

The evidence suggests that the inequality of influence not only damages the credibility of institutions among weak firms, but affects the likelihood that they will use and provide tax resources to support such institutions. By withholding tax revenues, paying bribes, and avoiding courts, these firms ensure that such state institutions are likely to remain weak and subject to capture by more influential firms and individuals. The inequality of influence thus appears to generate a self-reinforcing dynamic in which institutions are subverted further strengthening the underlying political and economic inequalities.

The dataset

The BEEPS questionnaire for the transition economies was developed jointly by the World Bank and the Office of the Chief Economist at the EBRD. The survey was conducted on the basis of face-to-face interviews with high-level firm managers or owners through site visits by local surveyors trained according to a standardized methodology. The first round of BEEPS was conducted at over 4000 firms during the period June through August 1999 in 25 transition countries. The second round of BEEPS was conducted at nearly 6500 firms in the first half of 2002 in all of the transition economies except Turkmenistan,⁴ as well as in Turkey. This paper makes use of only data from the second-round survey as the questions driving the analysis of influence were not included in the first-round survey instrument.

⁴ The survey was terminated mid-course in Turkmenistan due to political harassment of the local survey firm.

In each country, between 150 and 500 firms were interviewed based on the size of their economies. The sample was structured to be fairly representative of the domestic economies with specific quotas placed on size, sector, location, and export orientation.

The BEEPS survey instrument is structured around multiple objectives: 1) to measure managers' perceptions of the investment climate and their interactions with the state; 2) to develop quantitative indicators of various obstacles to business and aspects of market structure based on the direct experiences of firms, and 3) to obtain simple measures of firm performance across a variety of dimensions that can then be related back to varying perceptions and experiences.

Measuring the inequality of influence

To develop a proxy measure for the inequality of influence, we rely on a question in the survey designed to ask firms about the relative influence of different actors on the development of laws, rules and regulations. In the survey, firms were asked: "How much influence do you think the following groups actually had on recently enacted national laws, rules and regulations that have a substantial impact on your business?" It is important to note that the question is structured not just to ask about all laws and regulations, but just those directly affecting their business. Of course, firms cannot be expected to know the actual level of influence of different groups on legislation; the question simply elicits their perceptions of the gaps in influence. Their answers are expected to be more a function of their larger world view than their detailed knowledge of the legislative process.

After assessing their own influence, firms were asked in direct succession to compare the influence of a large set of other actors including: your domestic competitors, foreign firms, your business association, other business associations, dominant firms or conglomerates in key sectors of the economy (other than yours), labor unions, organized crime, regional or local government, military, international development agencies or foreign governments, and individuals or firms with close personal ties to political leaders. For each category, firms could select from a 0-4 range with 0=no impact and 4=decisive influence.

Factor analysis suggests a clear pattern across these institutions, as reported in Table 1. The first two factor loadings explain the dominant share of the variation in a pattern that might be called an “us vs. them” perception of the inequality of influence. Not surprisingly, firms lump most of the institutions listed above into the “them” category with a particularly high correlation among foreign firms, other business associations, dominant firms in other sectors, international development agencies and individuals or firms with close ties to political leaders. More surprising is who the firms consider in the “us” category, i.e. the second factor loading. Given the concerns often expressed about the uneven playing field for competition in transition countries, one might have expected firms to see their domestic competitors as more influential than themselves, i.e. that their business rivals take advantage of political influence to gain competitive advantages. But instead, firms see a reasonably high correlation between their own influence and that of their competitors in contrast to everyone else. Firms seem to be making a distinction between the political playing field in which their influence relative to the other players is quite small and their own competitive playing field where their political influence is not substantially different than their competitors.

[Table 1 about here]

To measure the inequality of influence in the broader political playing field, we identify the extent of *crony bias* as perceived by the firm as the difference between the firm's characterization of the influence of individuals or firms with close, personal ties to political leaders and the influence of its own business or trade association on recently enacted laws, rules and regulations affecting their business. Given that the majority of the firms in the BEEPS sample are small and medium sized enterprises – though there is a quota of 15 percent of the sample in each country for firms over 250 workers – we chose to compare the power of political cronies to some collective representative of the firms rather than their own individual influence. However, the results reported below are not substantially different if we use an index of crony bias based upon the firm's own influence.

Crony bias scores are calculated for each firm ranging from values of -4 to 4 with 0 suggesting equal influence and negative scores indicating firms who see their collective representatives as more influential than political cronies. The distribution of crony bias scores across the sample is shown in Chart 1. Only 16 percent of the firms in the sample assessed the influence of their business association as greater than that of individuals or firms with close ties to political leaders. Nearly 40 percent of the firms did not report any inequality of influence between their business associations and political cronies. Of the remaining 44 percent firms that did report an inequality of influence, there is considerable variation in the extent of this perceived inequality.

[Chart 1 about here]

There is not a strong correlation between the crony bias score and any standard firm characteristics. Not surprisingly, the strongest correlation is with firm size, as firms with a larger number of employees tend to perceive a lower crony bias ($r=-0.10$). Crony bias is also negatively, but weakly, correlated with state ownership ($r=-0.06$). Across the sample, there is no significant correlation between sectors and crony bias. The inequality of influence does not appear to be strongly driven by basic firm-level characteristics.

We can also aggregate the firm-level crony bias scores to construct country level aggregates for the perceived inequality of influence. These country averages are presented in Chart 2.⁵ There is considerable variation in the extent of crony bias across the transition economies. It is interesting to note that at the low end of the crony bias scale are both some of the most democratic (Slovenia, Estonia, the Czech Republic, Lithuania) and some of the least democratic (Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, and Uzbekistan) countries in the region. Slovenia stands out as the only country in which firms see their business associations exceed the influence of political cronies (and hence the negative crony bias). In contrast, Poland is a significant outlier in comparison with all the transition countries and, in particular, with the other more advanced, democratic reformers. Though the influence of the firms' business association in Poland is on par with other countries in the region, the

⁵ We could create these indices by dividing the influence of political cronies and competitors by the firm's own influence and that of its business association, but this would lose valuable information about the overall level of influence perceived across the transition countries. Nevertheless, we have tested this alternative version of the indices on all the results presented in this paper and found similar, albeit occasionally less robust, effects.

perceived influence of political cronies is extremely high exceeding all other countries in the sample.

[Chart 2 about here]

For comparative purposes, Chart 2 also presents the country averages of another form of inequality of influence: the difference between the firm's own influence and that of its direct competitors, which we refer to as *competitor bias*. At the firm level, there is a positive, but weak, correlation between the competitor bias and crony bias ($r=0.08$). Inequalities associated with crony bias are generally seen as more significant across the region than competitor bias, as might be expected. But surprisingly, these biases are not correlated across countries. At the country level, there would appear to be different dynamics shaping perceptions of the inequality of influence in different dimensions of the firm's experience. Firms shape their views about the inequality of influence at higher levels of the political system independently of their views about the inequality of influence in their own competitive playing fields.

Though these patterns are interesting at the country level – and we will later try to link them to measures of institutional quality – the main challenge is to link these perceptions of the environment to the actual behavior of firms. If perceptions of the inequality of influence play a role in subverting institutions, then we should see firms act differently according to their perceptions of these inequalities. For this, we turn to a firm-level analysis.

The inequality of influence and the subversion of courts

If the quality of any institution is likely to be susceptible to the impact of the inequality of influence, it is the courts. The effectiveness of courts is predicated to a large extent on their fairness and impartiality. If individuals can take advantage of inequalities of political and economic power to unduly influence courts, their fairness and impartiality can be undermined.

The link between the inequality of influence and the subversion of institutions such as courts should be highly dependent upon perceptions of both the extent of such inequality and of the institution. If individuals perceive that the political or economic playing field is skewed by severe inequalities of influence, then they are likely to be more concerned about the likelihood of receiving fair and impartial treatment through institutions susceptible to such influence. This should, in turn, affect their behavior in terms of their use of courts to settle disputes and to enforce their property rights.

The BEEPS survey incorporates questions on the perceptions of courts and the use of courts. This provides an opportunity to test empirically the extent to which the inequality of influence subverts the effectiveness of courts in transition economies, as well as the impact on the security of property rights.

Firms were asked to assess the following attributes of the court system in their countries in resolving business disputes: 1) fairness and impartiality; 2) honesty and incorruptibility; and 3) ability to enforce decisions. They could choose from a scale of 1-6, in which 1 denotes

that such attributes “never” apply to the court system and 6 denotes that such attributes “always” apply. We run separate regressions on each of the three attributes of the court system listed above. Crony bias is included in two forms – the individual firm score and the country average – to determine the impact of such bias at both levels. Since the firm’s assessment of courts will also be affected by its experience of interacting with courts, we add a dummy variable (*court exposure*) if the firm identified itself as either a plaintiff or defendant in a civil or commercial arbitration court in the three year period covered by the survey. Just over 37 percent of the firms in the sample used the court system in this period.⁶ We include an interaction term between crony bias at the country level and court exposure (Crony bias*court) to see if the experience of interaction with courts has a different impact in countries with higher levels of inequality of influence. This will also allow us to determine if crony bias has an impact on perceptions of the court even for firms that do not use the courts. Included in the regressions are control variables for firm size, sector, and ownership (state vs. private), as well as country fixed effects. The results are presented in Table 2.

[Table 2 about here]

Firms who see a higher level of bias towards political cronies have a consistently more negative assessment of all attributes of the court system. In addition, higher average scores on crony bias at the country level have a strong negative impact on perceptions of the fairness and honesty/incorruptibility of the courts across all firms in the country. The country level effects of high crony bias are particularly pronounced on the perceptions of the

⁶ This number itself is revealing, especially given that fact that most of the firms in the sample are small and medium sized enterprises and that the question only covered the period from January 2000 until the survey in early 2002. Given the low regard that many in the region hold the court system, it is still actively used.

honesty/incorruptibility of the court system: a one standard deviation increase in the country crony bias average is associated with a quarter point fall in the assessment of the honest of the court system. It is important to note that the negative impact of crony bias holds regardless of the firm's exposure to the court system.

Exposure to courts does bring some small improvement in the assessment of the fairness of courts, though for the honesty and enforceability dimensions this has only borderline significance. Yet exposure to courts has the opposite effect on perceptions of the enforceability of court decisions in countries with a high level of country bias, as evidenced by the significant negative coefficient on the interaction term (crony country avg * court). Those firms that do have experience with courts in crony-dominated systems are even more pessimistic that the courts are able to enforce their decisions.

So far, the results have linked measures of underlying inequalities of influence to perceptions about the various attributes of courts. Yet to the extent that such perceptions subvert institutions, they need to be linked to some aspect of firm behavior. One would expect that perceptions of the credibility of courts influence the likelihood that firms will use courts to resolve disputes. To measure the propensity to use courts, we use a modified variable from the court exposure variable included in the regressions above. Instead of exposure to courts as both a plaintiff and a defendant, we define a dummy variable *court use* based exclusively on whether the firm had ever been a plaintiff in a court case. Being a plaintiff implies a voluntary decision to bring a case to court that entails costs and is thus a better measure of the extent to which a firm is inclined to use courts to resolve disputes. The probit model reported in the last column of Table 2 uses the same specifications as the previous

regressions without the court exposure variable and the interaction term. The results show that in countries with a high crony bias, all firms are less likely to use courts to resolve business disputes. In addition, firms that perceive the business environment as skewed towards political cronies are even less likely to make use of courts. The inequality of influence undermines the credibility of courts and, in so doing, deters firms from using courts. This should only serve to further weaken the courts and increase their susceptibility to undue influence from more powerful firms.

These regressions suggest that the inequality of influence is associated not only with lower perceptions of the credibility of the court system, but also with the firm's behavior in its willingness to use the courts. Perceptions and behavior are closely inter-related and mutually reinforcing.

If the courts cannot be relied upon to adjudicate disputes impartially and honestly and are subject to manipulation by influential firms, then the security of property and contract rights for all should be diminished, but especially for non-influential firms. This can be tested using the survey results. Managers were asked to what degree they agree with the statement: "I am confident that the legal system will uphold my contract and property rights in business disputes." Again, respondents could choose from a 1-6 scale with 1 = "never" and 6 = "always". Using the same specification as the court attributes regressions, we find that crony bias at the firm level has a significant negative impact on the firm's security of property rights, though the country-level effects of crony bias are not significant. Exposure to courts in general does not increase the security of property rights for firms. Indeed, for firms that

have used courts in countries with a high level of crony bias, the security of property rights is even lower.

These results suggest some insights into how the inequality of influence can subvert institutions. The effectiveness of courts in guaranteeing property rights is based on the credibility among potential court users that the courts can be expected to make decisions in a fair and honest manner and that such decisions can be enforced on all participants, regardless of any differences in their economic strength or political influence. Yet in countries where firms on average see a significant inequality of influence, the firms are much less likely to place credibility in these attributes of the court system, irregardless of their direct interaction with the court system. In other words, crony bias systematically weakens firm's perceptions of the credibility of the courts. While direct exposure to courts does mitigate these negative perceptions at least with regards to the fairness of courts, it actually exacerbates the problem with the enforceability of court decisions. Firms who do use courts in countries with a high inequality of influence find that these courts are less able to enforce their decisions. Experience thus reinforces perceptions further weakening the credibility of courts. The result is that the inequality of influence creates disincentives for firms to use the courts with negative implications for the security of their property rights. This is largely consistent with the model of institutional subversion proposed by Glaeser, Scheinkman and Shleifer (2002).

To bribe or pay tax?

Perceptions of the inequality of influence should not only affect attitudes and behavior towards the courts, since one's view of all state institutions should be, to some extent, affected by the extent to which they are anticipated to make decisions and provide services in an impartial, honest and reliable manner. One possible indicator of firm managers' broader attitudes towards state institutions is their willingness to pay taxes.⁷ If a manager believes that the inequality of influence subverts the functioning of all state institutions then she should be less willing to pay taxes to support state institutions that are skewed to someone else's advantages. If the inequality of influence does lead managers to conceal more of their revenue from tax authorities and, hence, reduce the state's tax revenue, then such behavior might further subvert the effectiveness of state institutions.

While tax compliance is obviously a difficult phenomenon to measure, previous business surveys have had some success in estimating relative compliance levels across countries. The BEEPS survey asks managers the following question: "Recognizing the difficulties that many firms face in fully complying with taxes and regulations, what percent of total annual sales would you estimate the typical firm in your area of business reports for tax purposes?"⁸ On the basis of this question, we develop a *tax compliance* variable and measure the impact of different types of inequality of influence. Tax compliance rates should also be affected by the level of tax rates, problems of tax administration, and the performance of firms. To measure

⁷ In the transition economies, such a decision has much more of an element of choice than obligation, as in other countries with more effective tax enforcement mechanisms.

⁸ The assumption, of course, is that firms base their estimate on their own practices. The evidence presented in this paper that firms do not see a vast gap between themselves and their direct competitors (i.e. "the typical firm in your area of business") suggests this assumption is not implausible.

the impact of tax rates and tax administration, we add variables created from the firm's own assessment of the extent that tax rates and tax administration represent a problem for the operation and growth of their business measured on a 1-4 scale, with 1=no obstacle and 4=major obstacle. To measure firm performance, we include a variable indicating the percentage change in sales in real terms from 1998-2001. We also include the standard controls for firm characteristics and country fixed effects. The results are reported in Table 3.

[Table 3 about here]

As might be expected, firm managers that see high tax rates as more of a problem for their business report less their of annual sales for tax purposes. Neither the firm's own sales growth nor problems associated with tax administration (though this is highly correlated with the tax rates variable) have a significant impact on tax compliance.

Higher levels of crony bias at both the country and the firm levels are associated with lower rates of tax compliance. At the firm level, a one standard deviation increase in the crony bias score leads to a one percentage point decrease in tax compliance. The impact of crony bias at the country level is greater with a one standard deviation in the country average score leading to a nearly two percentage point decline in tax compliance across all firms in the country.

The relationship between the inequality of influence and tax compliance would appear to reinforce the underlying imbalance of power that subverts institutions. If firms pay less in

taxes in countries where they believe that political cronies subvert state institutions, then it ensures that such institutions will remain weak (through low pay, low investment, low capacity, etc.) and, therefore, more subject to capture and political influence.

In addition to taxes, there are other payments that firms make to state officials, namely bribes. How does the inequality of influence affect the other main flow of transfers from firms to the state? BEEPS provides a detailed picture of the extent and the types of bribery across the region.⁹ One would expect inequalities of influence to increase the incidence of corruption, and hence bribery, since this is one of the main mechanisms by which such inequalities are created. Firms invest in influence, just as they invest in other assets, to secure advantages arising from the legal, regulatory and distributional powers of the state. At the same time, existing inequalities of influence could lead state officials to target weak firms. In either case, the inequality of influence should be associated with higher levels of corruption.

We look at two different aspects of corruption: 1) the extent of unofficial payments and gifts to public officials as a percent of the firm's annual sales revenues and 2) the frequency of unofficial payments and gifts to public officials in a given year. Corruption should be a function of certain firm characteristics, such as size, ownership, and sector, as previous work has shown. We also add two more dynamic variables – amount of senior management time spent with government officials and firm sales growth. Corruption is often linked to the extent of intervention by bureaucrats at the firm level, so the government “time tax” on management should lead to higher corruption. Firms that perform well are more likely to attract the attention of predatory officials. Finally, we test for the impact of crony bias at the

⁹ For more on this issue using the first round of BEEPS, see Hellman, Jones and Kaufmann (2000) and World Bank (2000).

firm and country level on the extent and frequency of corruption. The results are reported in Table 4.

[Table 4 about here]

The results are consistent across both regressions. As previous studies have shown, state-owned and large firms consistently pay less of their revenues in unofficial payments and make such payments less frequently than smaller, private firms. Senior management time spent with government is associated with a greater level and frequency of corruption payments. Firm performance has on corruption levels. Firms perceiving a high inequality of influence pay more in corruption as a share of their revenue and pay more frequently. Moreover, in countries where the average level of crony bias is high, firms again pay more bribes, more frequently. The effects at both the firm and the country level are quite substantial. A one standard deviation increase in the crony bias country average increases the mean “bribe tax” on all firms by nearly 15 percent. Similarly, a one standard deviation increase in the firm’s crony bias score increases its mean bribe tax by an additional 12 percent.

The results in Table 4 also suggest that firms which perceive themselves as more influential (i.e. with a negative crony bias score) pay a smaller share of their revenues in corruption and pay less frequently.

There are several possible interpretations for the causal link between the inequality of influence and corruption. One possible interpretation is that predatory officials prey upon

weak firms extracting greater bribes from them, while influential firms can use their power to shield themselves from such demands. Such behavior on the part of officials would then exacerbate the firms' perception of inequalities. Another possible interpretation is that firms choose to bribe on the basis of their perceptions about inequalities in the broader environment. Less influential firms may bribe more because they are seeking to redress these power imbalances rooted in the greater size, employment or personal political connections of influential firms. It is also possible that influential firms are just better bribers, getting more influence with a lower overall investment in corruption.

Surely, the causal relationship goes in both directions. It is important to note, however, that the impact of these perceptions about the inequality of influence have an additional impact on the level and frequency of corruption even beyond such differences in firm characteristics as size and ownership that might be expected to affect the extent to which firms are preyed upon by predatory state officials.

These results suggest that the inequality of influence affects not only the perception and use of courts, but influences more broadly the firm's relationship to the state. At lower levels of the inequality of influence, firms are more willing to invest in supporting state institutions through their tax contributions. At higher levels of inequality, firms are more likely to invest in bribery of individual public officials – either to gain advantages or to protect themselves – rather than in the support of state institutions. Naturally, such behavior further reinforces the weakness of state institutions in highly unequal environments.

Impact on firm performance

If the inequality of influence subverts state institutions, then it should affect the performance of all firms in highly unequal environments. By subverting courts, undermining tax revenues, and weakening the security of contract and property rights, significant inequalities of influence should reduce overall growth performance at the country level, even as it generates concentrated advantages for particular firms with close ties to political authorities. If so, then we need to turn to an examination of the effects of such inequalities at the country level to identify the externalities associated with varying levels of crony bias across countries.

Given the impact on of the inequality of influence on the security of property rights and the quality of public institutions, we would expect this to have a negative impact on the firm's investments in restructuring. Restructuring is a form of investment of financial and human capital that should be quite sensitive not only to the security of property and contract rights, but to distortions in market structure that might limit or otherwise distort competition. Like all other forms of investment, the potential benefits of restructuring will be heavily discounted if there are significant risks that property rights and associated returns are subject to unpredictable expropriation by the state or by other powerful competitors. Moreover, if state institutions intervene in the economy to provide selective advantages to favored firms and to erect all sorts of barriers to market entry and competition, then firms might be wiser to invest in trying to influence or capture state institutions than in restructuring to improve performance. Even influential firms that enjoy considerable rents as a result of their capacity to capture the state are likely to face less substantial market pressures or other incentives to

engage in restructuring. As a result, high levels of inequality of influence at the country level should have a negative impact on restructuring for all firms.

The BEEPS data provide evidence on a wide variety of restructuring activities, such as changing suppliers and customers, developing new products, opening new plants, in-sourcing or out-sourcing production activities, forging new partnerships and exporting to new markets – 14 different activities in all. On the basis of these questions, we can develop an unweighted index of restructuring at the firm level measuring the likelihood that firms have engaged in any of these activities during the period 1998-2001. Then we can test for the impact of the inequality of influence at the country level on restructuring, controlling for a variety of firm level factors.

In addition to the standard firm level characteristics, we expect the propensity to engage in restructuring to be influenced by the pressures of competition as seen by the firm and by their perceptions of the investment climate. The measure of the investment climate is based on the extent to which a wide range of factors in the areas of finance, infrastructure, regulation, macroeconomic instability, and the rule of law are seen by the firm to pose obstacles for the operation and growth of their business. Competition is measured by two variables – price elasticity of demand and competitive pressure. The price elasticity is based on a question assessing the likely response from customers of a 10 percent increase in the price of the firm’s main line of products or services.¹⁰ An index of competitive pressure is based on the firm’s assessment of pressure from a wider range of sources, such as domestic and foreign competitors, customers, creditors, and shareholders on decisions to develop new

¹⁰ Responses could range from continuing to buy from us in the same quantities, at slightly lower quantities, at much lower quantities, or buy from our competitors instead.

products/services and markets as well as to reduce production costs.¹¹ Finally, we also add a variable denoting the age of the firm, since the propensity to engage restructuring might also be related to the lifecycle of firms. The results are presented in Table 5.

[Insert Table 5 about here]

Regarding firm characteristics, it is not surprising that larger firms and those in manufacturing and industry are more likely to engage in restructuring than smaller firms in the retail and trade sectors. That state ownership does not have a statistically significant effect on the propensity to engage in restructuring is particularly interesting, suggesting perhaps that sharper differences with privatized firms in the earlier years of transition are beginning to weaken over time. Older firms are also less likely to restructure, perhaps reflecting the fact that the bulk of their restructuring was accomplished at an earlier stage of the transition. Firms that cite greater pressure from competitors, customers, creditors and shareholders are significantly more likely to restructure.

As expected, firms that cite a higher level of crony bias are less likely to invest in restructuring. An uneven playing field skewed in favor of political cronies creates disincentives for uninfluential firms to make long-term investments in restructuring their business.

Political institutions and the inequality of influence

¹¹ Firms were asked to assess the importance of pressure from each of the actors described above on a 1-4 scale with 1=not at all important to 4=very important on the decisions to introduce new products and to reduce production costs separately. An unweighted average of these components is used to develop the index.

The inequality of influence is clearly generated by and a continuing function of existing political institutions. One could suggest a very long list of specific institutions, laws, regulations, and practices that shape the market for influence across countries.¹² Our understanding of what shapes inequalities of influence in developing countries is at a particularly early stage. Though explaining why countries have different levels of crony bias is beyond the scope of this paper, it is worth pointing out some initial, speculative relationships between broad regime types and the inequality of influence.

In reviewing the country averages for crony bias across the transition countries, an interesting pattern emerges. The lowest crony bias averages are in some of the most democratic and least democratic regimes in the region. Indeed, Chart 3 shows a simple correlation between the average crony bias and a standard measure of democratic political regimes, the Freedom House political liberties index for the period 1998-2001, suggests a bell-shaped curve. We could speculate that political inclusion and participation mitigate severe inequalities of influence in more democratic systems, while political exclusion in personalistic dictatorships ensures that most actors outside the government are equally uninfluential. In general, perceived inequalities of political influence are greatest in those countries with partial political reforms, what some are referring to as “semi-authoritarian regimes” or “managed democracies” (though this gives us some picture of how firms would answer the question “managed by whom?”). Such regimes might be liberal enough to allow some competition for political influence, but the market for influence is still highly segmented and distorted with significant entry barriers and monopolistic practices.

¹² A good starting point to review the many factors that affect special interest politics is Grossman and Helpman (2001). Becker (1983) also takes a very broad and comprehensive approach to this issue.

[Insert Chart 3 here]

This relationship between political regimes and the inequality of influence extends beyond the transition economies. Data from about 5,000 firms from the global Survey of Executives carried out for the Global Competitiveness Report (GCR) for 2002/3, with a much broader coverage of 80 countries, allow us to construct a similar crony bias index and relate it to regime type in a larger sample of countries. Chart 4 plots the crony bias index in the GCS survey with a broad measure of political voice and accountability from the “governance matters” database (Kaufmann and Kray 2002). The same bell-shaped relationship holds across this large group of countries.¹³

[Insert Chart 4 here]

Though these simple correlations are very speculative, they suggest that we need to explore further how different regimes of competition, voice and accountability shape the market for influence in developing countries. It is clear that political competition itself does not prevent the development of severe inequalities of influence. Rather, we need to understand how different rules, regulations and practices generate a robust and reasonably transparent competition for political influence in developing countries.

¹³ The preliminary nature of the exposition of the global results based on the survey for the GCR is due to this data being still under analysis. Initial analysis suggest that, consistent with the results on transition based on the BEEPS survey detailed above, the evidence from global survey for the GCR indicate that where crony bias is more prevalent, the judiciary, property rights protection and tax compliance are significantly more likely to be subverted. For the country average results, Chart 5 is indicative (similarly strong and robust statistical results emerge from firm-level regressions with similar controls as with the BEEPS dataset, not shown here). These and further materials based on this survey will be incorporated in the next version of this paper. For details on this worldwide firm-level dataset and its analysis, see also the Global Competitive Report 2002/3 (forthcoming February 2003).

Conclusions

In this paper, we have tried to explore empirically the mechanisms through which inequality affects growth. Building on recent work on state capture and the subversion of institutions, we have focused on how the inequality can undermine the credibility of institutions that provide critical public goods such as the security of property rights. But instead of using traditional measures of the inequality of income or wealth, we began to explore inequalities of influence which should be of first-order concern in explaining the efforts of powerful firms or groups to manipulate the formation and functioning of institutions. With survey data, we proposed a measure of the skewness of the playing field towards individuals and firms with close ties to political leaders as opposed to business or trade associations representing broader sector or regional interests. Though based on perceptions of firms, such a measure provides an interesting proxy for inequalities of influence that are difficult to observe on the basis of simple firm characteristics.

With BEEPS survey data on the quality of institutions, the security of property rights and key aspects of firm performance, we explored the impact of crony bias on the credibility of courts, the use of courts, tax compliance, corruption and the propensity of firms to restructure. We found that firms who perceive a strong crony bias in the broader political environment relative to their own collective voice have greater doubts about the fairness and impartiality of courts and their ability to enforce decisions on all participants. But the negative impact goes beyond perceptions to affect firm behavior, as less influential firms are less likely to use courts, more likely to evade taxes, and more likely to pay bribes. Moreover,

the additional negative impact of crony bias at the country level suggests that the subversion of institutions associated with this inequality of influence imposes negative externalities on all firms in crony-dominated countries. By weakening the security of property rights for less influential firms, crony bias reduces the incentives for firms to make longer-term investments in a broad range of restructuring activities. Several studies of firm performance in transition economies have emphasized the importance of restructuring to growth (Carlin, Fries, and Schaeffer, 2000; World Bank 2001).

A preliminary analysis of the relationship between political regime types and the inequality of influence suggests that we need to explore further what is driving the structure of the market for influence in developing countries. Though this paper focused mostly on an analysis and data from the transition economies, additional data from a broader survey (for the GCR) survey suggests that there may be similar dynamics in other developing countries as well.

Table 1: The components of influence

Factor	Eigen value	Difference	Proportion	Cumulative			
1	4.40837	3.07033	0.7878	0.7878			
2	1.33804	0.90107	0.2391	1.0269			
3	0.43697	0.17673	0.0781	1.105			
4	0.26024	0.17962	0.0465	1.1515			
5	0.08062	0.04875	0.0144	1.1659			
6	0.03187	0.06691	0.0057	1.1716			
7	-0.03505	0.05475	-0.0063	1.1654			
8	-0.0898	0.02361	-0.016	1.1493			
9	-0.11341	0.02046	-0.0203	1.129			
10	-0.13387	0.04679	-0.0239	1.1051			
11	-0.18066	0.0127	-0.0323	1.0728			
12	-0.19336	0.02087	-0.0346	1.0383			
13	-0.21422	.	-0.0383	1			
Variable	1	2	3	4	5	6	Uniqueness
Your firm	0.17768	0.549	0.0368	0.16592	0.07723	0.07225	0.62696
Your domestic competitors	0.33712	0.64241	0.19405	0.02744	0.03139	0.00986	0.43417
Other domestic firms	0.55908	0.46891	0.16274	-0.10215	-0.0708	-0.04851	0.42327
Foreign Firms	0.64158	0.06815	0.12106	-0.23158	-0.0931	0.0514	0.50414
Your business association	0.53741	0.25213	-0.37583	-0.00001	0.0717	0.00728	0.50117
Other business associations	0.68998	0.11389	-0.34648	-0.07446	-0.00519	-0.04488	0.38332
Dominant firms in other sectors	0.75204	-0.11997	0.02021	-0.17516	0.02056	-0.03467	0.38733
Labor unions	0.60607	-0.07417	-0.14084	0.18842	-0.11482	0.0102	0.55855
Organized crime	0.58656	-0.23932	0.21711	0.10659	-0.00652	-0.04167	0.53839
Regional gov't	0.52194	-0.03947	0.05048	0.22815	0.02768	-0.06775	0.66606
Military	0.53038	-0.16287	0.02344	0.17469	-0.11158	0.04427	0.6467
Individuals/firms with close ties to political leaders	0.6892	-0.3023	0.1581	-0.00983	0.16045	-0.00947	0.38268
Development agencies or foreign gov'ts	0.68441	-0.35533	-0.00658	-0.04617	0.04698	0.09902	0.39114

Table 2: The inequality of influence and the court system

	Fair	Honest	Enforce decisions	Court Use	Security of Property Rights
Crony bias (firm level)	-0.07 (-5.17)***	-0.09 (-6.23)***	-0.06 (-4.54)***	-0.02 (-1.56)*	-0.10 (-7.50)***
Crony bias (country avg)	-0.36 (-2.21)**	-0.70 (-4.17)***	0.03 (0.16)	-1.01 (-6.14)***	0.06 (0.37)
Court exposure	0.15 (1.72)**	0.12 (1.36)	0.11 (1.26)		-0.01 (-0.17)
Crony bias (country avg) *court exp	-0.13 (-1.17)	-0.10 (-0.87)	-0.38 (-3.22)***		-0.18 (-1.62)*
State-owned	0.29 (4.67)***	0.32 (4.91)***	0.26 (3.95)***	0.03 (0.53)	0.25 (3.96)***
Size	0.11 (7.31)**	0.11 (7.29)***	0.08 (5.41)***	0.22 (15.54)***	0.08 (5.37)***
Sector dummies	yes	yes	yes	Yes	yes
Country dummies	yes	yes	yes	Yes	yes
Constant	2.47 (11.36)***	2.52 (11.43)***	2.98 (12.87)***	-0.64 (-3.10)***	3.14 (14.57)***
R-squared	0.10	0.11	0.10	0.13 (pseudo- R2)	0.09
Observations	4340	4281	4306	4692	4483
Model	OLS	OLS	OLS	Probit	OLS

t statistics in parentheses

sig at 10%; **sig at 5%; *sig at 1%*

Table 3: The inequality of influence and tax compliance

	Tax compliance
Crony bias (firm level)	-0.60 (-2.43)***
Crony bias (country avg)	-4.86 (-1.96)**
Tax rates	-1.41 (-2.86)***
Tax administration	-0.34 (-0.71)
Sales growth	0.002 (0.41)
State-owned	5.37 (4.73)***
Size	1.59 (6.17)***
Sector dummies	Yes
Country dummies	Yes
Constant	80.75 (20.59)***
R-squared	0.13
Observations	3981

t statistics in parentheses

sig at 10%; **sig at 5%; *sig at 1%*

Table 4: The inequality of influence and corruption

	Bribe share	Bribe frequency
Management time spent w/ state	0.03 (7.86)***	0.02 (8.35)***
Sales growth	-0.0005 (-0.80)	-0.0002 (-0.48)
Crony bias (firm level)	0.12 (3.82)***	0.14 (9.37)***
Crony bias (country average)	0.58 (1.77)**	0.45 (3.18)***
State-owned	-1.00 (-6.73)***	-0.72 (-10.56)***
Size	-0.17 (-5.03)***	-0.03 (-1.65)*
Sector	Yes	yes
Country dummies	Yes	yes
Constant	2.19 (4.43)***	2.54 (11.16)***
R-squared	0.12	0.15
Observations	4009	4089

t statistics in parentheses

sig at 10%; **sig at 5%; *sig at 1%*

Table 5: The determinants of restructuring

Crony bias (firm level)	-0.05 (-2.04)**
Investment climate (firm level)	0.36 (4.13)***
Price elasticity of demand	-0.16 (-4.89)***
Pressure	0.32 (5.23)***
State-owned	-0.003 (-0.14)
Size	0.22 (8.52)***
Age	0.004 (1.84)*
Sector dummies	yes
Country dummies	yes
Constant	-28.07 (-6.86)***
R-squared	0.17
Observations	2957

t statistics in parentheses

sig at 10%; **sig at 5%; *sig at 1%*

Chart 1: The distribution of crony bias (Source: BEEPS 2)

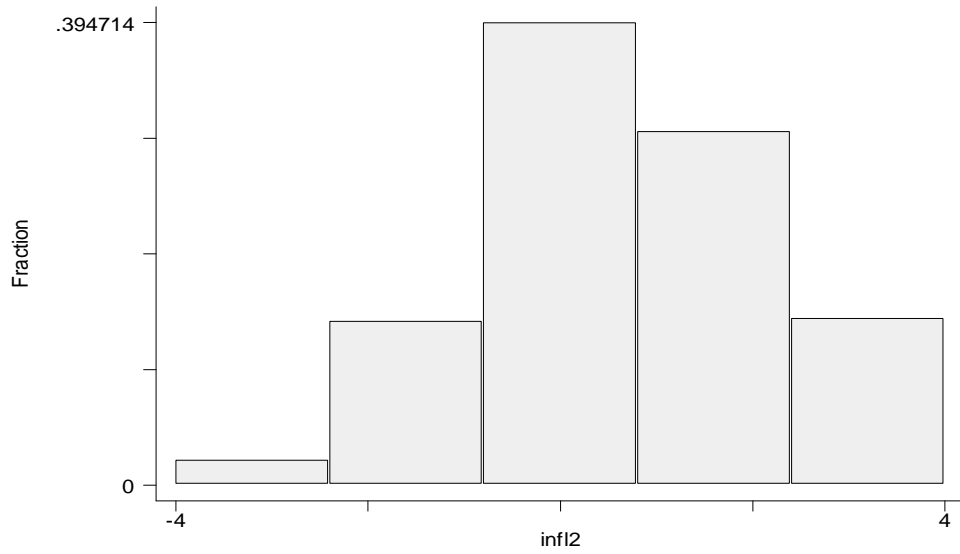


Chart 2: The inequality of influence (Source: BEEPS 2)

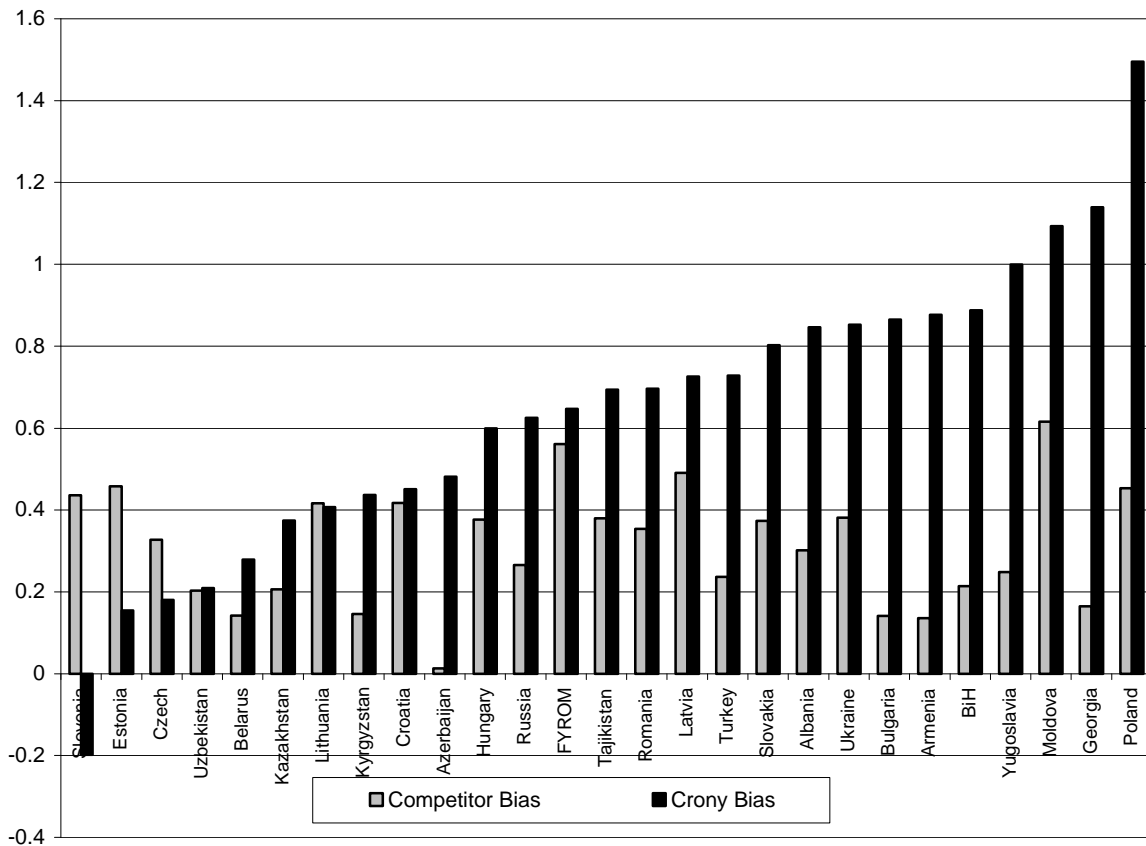


Chart 3: Crony bias and democracy in Transition (source: BEEPS 2)

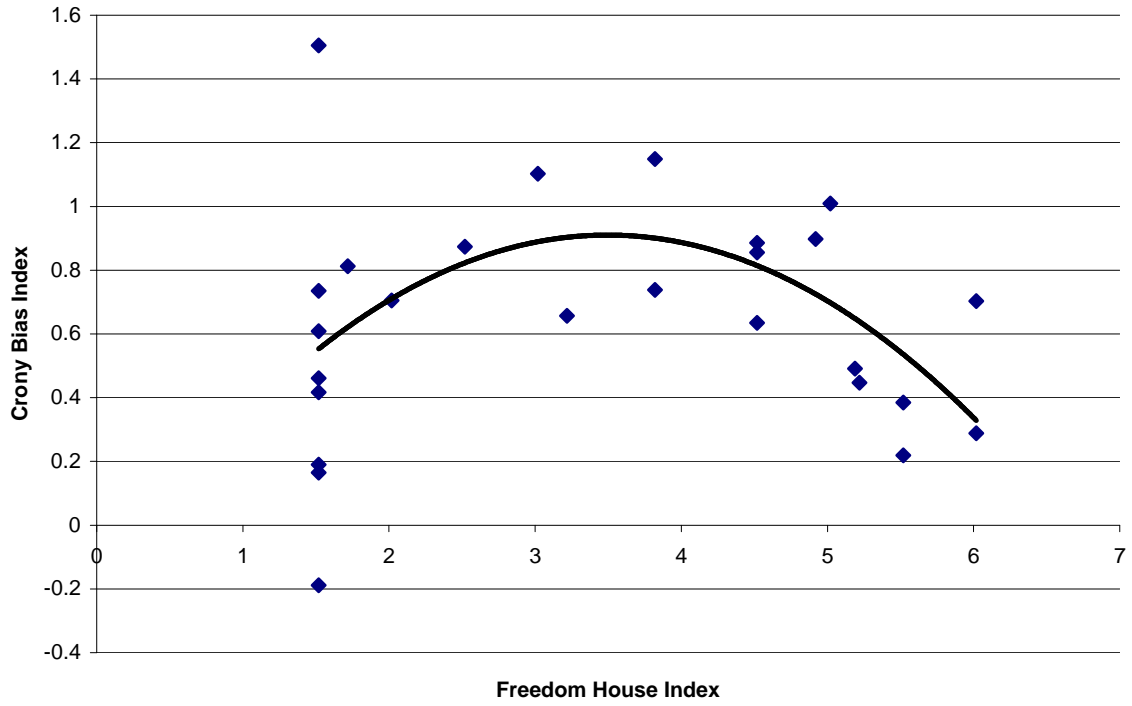


Chart 4: Crony bias vs. democratic voice and accountability
(from Executive Survey for the Global Competitiveness Report, 2002/3, for 80 countries)

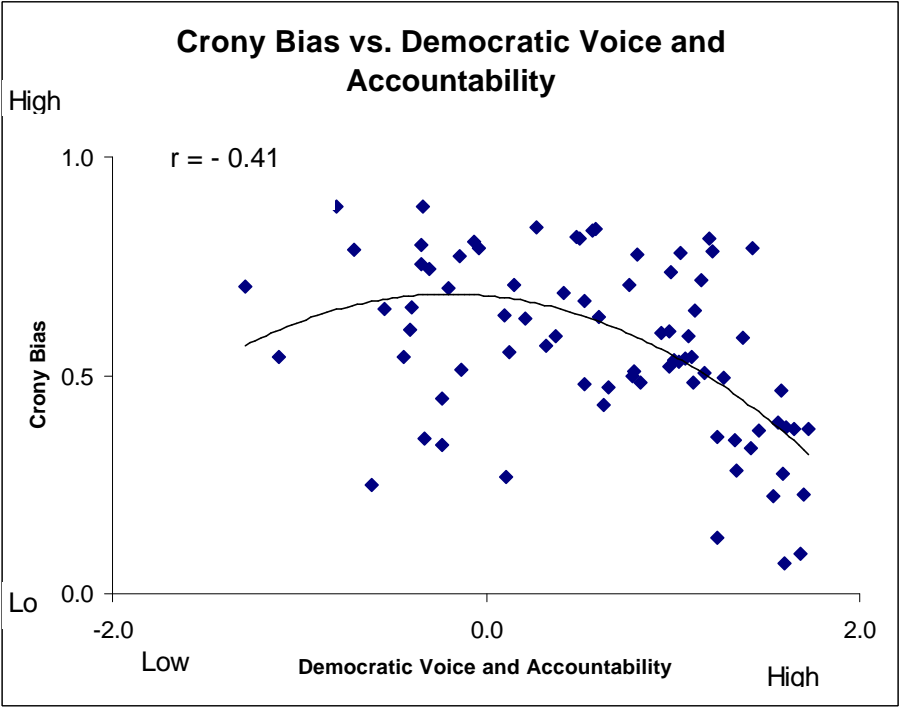


Chart 5: Tax compliance vs. crony bias
(from Executive Survey for the Global Competitiveness Report, 2002/3, for 80 countries)

