

Social norms, social cohesion, and corporate governance

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Social Norms, Social Cohesion, and Corporate Governance

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Social Norms, Social Cohesion, and Corporate Governance

ABSTRACT

Manuscript Type: Empirical

Research Question/Issue: We study the relationship between informal rules (represented by social norms and social cohesion in a community) and corporate governance. A community is a large social unit characterized by a distinct set of informal rules. Specifically, three hypotheses are tested: (1) Communities with stronger social norms will have more open firm-level corporate governance, (2) More socially cohesive communities will have more open firm-level corporate governance, and (3) The relationship between social norms and corporate governance will be mediated by social cohesion.

Research Findings/Insights: Unlike previous studies, we use data from a single, culturally diverse country, Ukraine, in order to isolate the effect of informal rules. The country's provinces are used as proxies for communities. We develop our measures of social norms and social cohesion by performing a factor analysis on the measures commonly used in previous research (social capital, religiosity, total fertility, ethnic homogeneity, linguistic homogeneity, and homicide rate). All three hypotheses are supported, whether using composite or individual measures of social norms and cohesion. The mediation is partial, suggesting that the hypothesized effect of social norms on corporate governance may (i) partly come through cohesion and (ii) partly be direct. The results are highly significant and robust, and they hold very well when controlled for economic development, firm characteristics, and industry.

Theoretical/Academic Implications: We contribute to the large literature on institutional determinants of corporate governance by proposing that informal rules may have a substantial impact on firm-level corporate governance. We also identify specific sources of informal rules: social norms and cohesion. Testing our insights in other countries and in cross-country settings would help to further understand what rules matter for corporate governance and whether informal rules may substitute for formal rules. Another research opportunity, perhaps best exploited through case-based research, is the deeper enquiry into the very mechanism by which informal rules may affect firm-level corporate governance.

Practitioner/Policy Implications: Manipulating informal rules, such as norms and cohesion, is an unlikely option for corporate governance reform. If that is the case, the policy should consist in adjusting the governance system to fit them. As this fit will differ across communities and countries, international convergence of corporate governance appears unlikely.

Keywords: Corporate Governance, Institutions, Informal Rules, Social Norms, Social Cohesion

INTRODUCTION

Research on institutional determinants of corporate governance has been extensive (for overviews, see Bebchuk & Weisbach, 2009; Boytsun, 2009). Following North (1990), such determinants can be classified into three broad categories: (a) informal constraints, (b) formal rules, and (c) enforcement.¹

Perhaps, due to better observability and easier measurement, formal rules have received most attention in the literature. The legal approach led the way by studying the impact of law on corporate governance. Legal families have been shown to affect legal rules protecting investors, and these, in turn, have been shown to have an impact on ownership concentration, shareholding patterns, and the development of debt and equity markets. In particular, common-law countries appear to offer investors better protection, which arguably results in more dispersed ownership, a greater number of widely held companies, and larger and broader capital markets (see, e.g., La Porta, Lopez-de-Silanes, & Shleifer, 1999a, 2006; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997a, 1998, 2000a, 2000b; as well as Beck, Demirgüç-Kunt, & Levine, 2003; Demirgüç-Kunt, Love, & Maksimovic, 2006; Klapper & Love, 2004; and Klapper, Laeven, & Love, 2006). In addition, Pagano and Volpin (2005), Rajan and Zingales (2003), and Roe (2003) have emphasized the role of the political system.

Another stream in the corporate governance research has stressed the role of enforcement, especially in countries with weak institutions, such as transition economies and emerging markets (Berglöf & Pajuste, 2003; Berglöf & von Thadden, 1999; Pistor, 2000; Pistor, Raiser, & Gelfer, 2000). Furthermore, Berkowitz, Pistor, and Richard (2003) have shown that a simple transplantation of the legal rules may not work because they need to be adapted to local societal conditions. Scholars have conjectured that differences between the impact of the legal systems on corporate governance regimes may stem from the complementarities between different institutions, such as enforcement institutions and legal

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rules (Berglöf & von Thadden, 1999), legal systems’ different balance between public and private law (Berkowitz et al., 2003), or between the role of statutory and case law (Berglöf & Claessens, 2004).

However, the relationship between informal institutions and corporate governance has remained largely under-researched and, more importantly, poorly situated in the field. Recently, legal scholars have placed more emphasis on the role of non-legal rules in governing human behavior (Ribstein, 2001). This thinking has resulted in a debate in the legal literature on the interaction between corporate governance and informal rules, as Coffee (2001:2151) boldly proclaimed: “That corporate behavior may be more shaped and determined by social norms than by legal rules seems to be an idea whose time has come.”²

However, despite the contributions of this norms-and-law literature (e.g., Coffee, 2001; Milhaupt, 2001), it provides illustrations rather than a convincing test. Although some other authors have also touched upon the importance of informal rules, their impact on firm-level governance has been largely overlooked. Thus, Licht, Goldschmidt, and Schwartz (2005) argue that, in the long run, legal rules governing investor protection should reflect informal rules, such as cultural orientations in the given society; however, their focus is on country-level investor protections. Li and Filer (2007) argue that different combinations of formal and informal rules lead foreign investors to choose different investment modes (portfolio vs. direct investment); however, the researchers also do this at the country level and do not deal with firm-level governance. Judge, Douglas, and Kutan (2008) use a large cross-section of countries to show that country-level corporate governance is perceived to be more legitimate by nations with a greater extent of law and order, cultures placing more emphasis on global competitiveness, and lower prevalence of corruption. Finally, Guiso, Sapienza, and Zingales (2008, 2009) discuss the effects of trust on country-level trade and investment, as

well as stock market participation by households, but do not enquire into the link between trust and governance in firms.

In this paper, we investigate whether various informal constraints – as manifested in social norms and social cohesion – are related to firm-level corporate governance. Specifically, we use the data from a single country in order to examine the relationship between cross-province variation in social norms and social cohesion and variation in corporate governance by means of regression analysis. We chose Ukraine for our enquiry because this country is culturally and historically diverse; therefore we may expect large enough variance in informal rules.

We find that corporate governance is likely to be more open in communities with stronger social norms and higher cohesion. Our evidence also suggests that social cohesion may be a mechanism which mediates the hypothesized effect of social norms on governance. Our results are highly significant and robust, and they hold very well when controlled for economic development, firm characteristics, and industry. These findings suggest that informal rules have a substantial direct impact on corporate governance, meaning that a corporate governance reform focused solely on legal rules is likely to be limited at best. If informal rules matter, then the policy should take them into account and consist in adapting the corporate governance system to them. Moreover, if informal rules differ internationally, so will the corporate governance systems.

Our study is novel in a number of ways. For one, despite the recent calls for research into this subject (Lubatkin, Lane, Collin, & Very, 2005, 2007; Stafsudd, 2009), to the best of our knowledge, we are the first to systematically relate macro-level informal rules to firm-level corporate governance and to empirically demonstrate the link between them. Secondly, in order to isolate the effect of formal institutions and to achieve a more reliable measurement of informal institutions, we adopt a single-country research design, which is almost never

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used in studies in our field. Previous studies have been guided by the theoretical emphases on formal institutions and enforcement, which invariably required a cross-country approach. Thirdly, our research question dictates a multilevel analysis, a feature also quite uncommon in previous studies. Specifically, because researchers have mostly sought to explain the determinants of corporate governance in cross-country settings, their operationalization of both institutions and corporate governance has typically been at the (convenient) country level. Finally, since no existing data would allow us to pursue our enquiry, we have constructed a unique dataset for this study.

The paper is organized as follows. In the next section, we briefly review the extant literature on the topic and formulate our hypotheses. The third section lays out the method and the data we used, and the fourth presents the results. In the last section, we discuss our findings and reach a conclusion.

THE RESEARCH PROBLEM

The costs and benefits of corporate governance mechanisms are affected by the institutional environment. For example, Doidge, Karolyi, and Stulz (2007) propose that countries’ formal rules matter for corporate governance because they influence the costs and benefits of bonding. We posit that such costs and benefits and the resulting governance choices also may be shaped by informal rules.

A distinction can be made between open and closed corporate governance. Open corporate governance refers to transparency, external monitoring, and more developed bonding between management and shareholders (and is generally consistent with dispersed ownership). Closed corporate governance refers to opaqueness, internal monitoring, and little bonding (and is consistent with concentrated ownership). Open corporate governance would be generally termed “good” in the Anglo-Saxon literature, corporate governance codes, and

best-practice recommendations, while closed corporate governance would be labeled “poor”. The implicit assumption in this literature is that more transparent corporate governance is good for firm performance. We make no such assumption (see Aguilera, Filatotchev, Gospel, & Jackson, 2008; Filatotchev & Boyd, 2009) and prefer the neutral terms “open” and “closed”.

There may be good reasons why the relationship between informal rules and corporate governance has not been much studied. One possibility is the lack of theory (Pedersen & Thomsen, 1997); previous empirical research has mostly relied either on property rights and agency theory or on transaction cost economics. Another is the difficulty of measuring informal rules (North, 1990). Finally, researchers may simply not expect informal rules to affect corporate governance (Kahan, 2001). Yet, it is easy to imagine societies or communities where behavior is governed mostly, or even exclusively, by informal rules (e.g., Posner, 1980). Even though civilization has moved forward by formalizing rules for the sake of better clarity, there is no reason to believe that contemporary societies have *fully* replaced informal institutions with formal ones. Informal institutions may continue to exercise an independent direct influence.

Our conjecture is that shareholders, directors, managers, and other stakeholders may not only be guided by the country’s formal rules and enforcement characteristics in taking corporate governance decisions; they may also act on their personal convictions and basic values inherited from their community. We adhere to the sociological definition of the term “community”. In their debate on this subject, sociologists have generally agreed that community refers to a large social unit sharing the same area and similar interests and values (Hillery, 1955; Poplin, 1979). The seminal study of the definitions of community finds that most of them “are in accord that social interaction, area, and a common tie or ties are commonly found in community life” (Hillery, 1955:118). The Merriam–Webster dictionary

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defines it as (1) “a unified body of individuals as (a) state, commonwealth, (b) the people with common interests living in a particular area; broadly: the area itself... (c) an interacting population of various kinds of individuals (as species) in a common location, (d) a group of people with a common characteristic or interest living together within a larger society...” and (2) “society at large”.

In our terms, whereas a country can be characterized in terms of its formal attributes, a community can be defined as a large social unit characterized by a distinct set of informal rules. Such rules are diverse and could come from various sources. In this paper, we consider two likely candidates: social norms and social cohesion. Another possible candidate is the underlying cultural value orientations, a question we study elsewhere. (See also Li & Harrison, 2008 for a study of the relationship between national culture and characteristics of the board of directors.)

Values are basic societal orientations and attitudes referring to the virtues that people consider important and that are essentially non-prescriptive in nature. Examples include how society deals with the fact that its members are unequal (e.g., hierarchy, uneven distribution of wealth); whether members of society identify themselves as part of a group or as self-dependent individuals; how people handle unknown or uncertain situations; whether society appreciates assertiveness or modesty in its members; and whether people value virtues oriented towards future rewards (e.g., thrift) or the past (e.g., respect for tradition). Values are invisible characteristics of a society (Hofstede, 2001; Schwartz, 1994, 1999).

Social norms are more prescriptive rules that can be understood by reference to visible characteristics of a society/community, such as family structures, religious organization, or participation in the social processes. For example, the norm “thou shalt not steal” may be reflected in higher religiosity; or the norm “responsible citizens must actively participate in the life of our community” may be reflected in higher voter turnout numbers.

These visible characteristics are sometimes viewed as outcomes of the underlying values (e.g., Hofstede & Hofstede, 2005).

Consider existing empirical evidence on the impact of social norms. Stulz and Williamson (2003) use cross-country data to show that religion and openness matter for the development of capital markets. Barro and McCleary (2003) demonstrate that economic growth is positively related to religious beliefs, and Guiso, Sapienza, and Zingales (2003) find that religion, on average, is good for the development of “good” economic attitudes (defined as attitudes that have been shown to positively affect economic growth). In particular, religious people are more prone to cooperation, trust the legal system more, and more often believe that market outcomes are fair.

Guiso, Sapienza, and Zingales (2004b) provide strong evidence that higher social capital leads to better financial development. We could extend their argument as follows: Religion and social capital cause “good” economic attitudes, and these, in turn, cause “good” corporate governance patterns. Again, there may be a costs-and-benefits rationale involved. For instance, if more religious communities are inherently more abiding or transparent than less religious ones, this may make the default, base-level costs of monitoring and bonding in the former lower. Also, more religious or ideologically committed communities may strongly discourage expropriation under the greater threat of a moral sanction.

Management scholars have also repeatedly stressed the role of social capital, defined as the sum of resources available through and derived from the network based on relationships between individuals or between organizations (Burt, 1997; Nahapiet & Ghoshal, 1998). In particular, Kim and Cannella (2008) propose that board-level social capital will be positively associated with board effectiveness because it leads to increased trust and teamwork and because it provides organizations with links to the external environment. Since

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social capital provides access to information and other resources, it should be consistent with more open corporate governance.

There is also some descriptive and narrative international evidence pointing to the role of social norms. Thus, the Scandinavian countries exhibit the world’s highest levels of trust (World Values Survey, 2009), and trust leads to better performance in large organizations (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997b). Denmark, Sweden, Finland, and Norway are also among the world’s least corrupt countries, according to the Corruption Perceptions Indices (Transparency International, 2009). At the same time, La Porta et al. (1998) find that the Scandinavian countries have few formal rules protecting investors. Combined with the observation that Scandinavian companies have the highest levels of corporate governance in the world (e.g., Doidge et al., 2007), this is consistent with the thesis that social norms may be highly important for corporate governance.

Milhaupt (2001) shows how social norms served as a low-cost substitute for legal rules and largely determined corporate governance practices in Japan after World War II. Gomez and Korine (2005) discuss how democratic standards – enfranchisement, separation of powers, and representation with public debate – have gradually penetrated firms’ governance in the historical context of the US, the UK, France, and Germany. Berglöf and Claessens (2004) cite an example of how the compensation package of a newly hired CEO of a Dutch supermarket chain was reduced and the board chairman of the group resigned after fierce protests by the consumers against the size of the package.

Social norms may be stronger when they are clear and are thus more effective in inducing commitment (Berglöf & Claessens, 2004) and cooperation (Guiso et al., 2003); in turn, cooperation is conducive to setting up collective governance mechanisms. In addition, social norms may differ in their compatibility with the principles of corporate governance. For example, such principles will fit democratic norms well because equitable treatment of

shareholders is compatible with democratic norms (Gomez & Korine, 2005), while autocratic norms will favor dominant owners. Therefore, communities with stronger norms will have lower marginal costs of setting up corporate governance mechanisms (Li & Filer, 2007).

An example from a case study may be helpful in developing this point (Boytsun, 2009). *Alpha*, a large device-producing company in eastern Ukraine, was privatized by the employees in the early 1990s who then could sell their shares. The ex-CEO set up a scheme, in which he was able to buy up most shares at an artificially low price and concentrate ownership. This met little or no resistance on the part of the local community who preferred to stay rationally ignorant and exchange their ownership shares for keeping their jobs. The community also had no experience whatsoever with collective ownership of private property, since the long Soviet era had erased it. As a result, the ex-CEO owned more than 80% of the stock in 2008. The company had no board of directors and had a very opaque, perplexed corporate structure based on a large number of legal entities; it also concealed much corporate information including owner identity. Its strategy consisted in lobbying protectionist measures.

Beta, a similar company in the same industry in western Ukraine, was privatized in the same manner and according to the same privatization law in the same period (early 1990s). The local population, however, was more activist and resisted schemes of share repurchase by management; it could also fall back on its memory of pre-Soviet cooperatives experience (the Soviet period in this region was much shorter). As a result, management owned around 10% of the stock in 2008; the majority share was owned by an asset-management company, itself with a relatively dispersed ownership structure with no single majority shareholder. *Beta* had a transparent corporate structure and disclosed essential corporate information. It also had an active board of directors that met regularly and set strategic priorities, which consisted in radical downsizing due to the declining market. Note

that the formal rules are those of the same country, but it is the informal rules that make the difference in this case.

In sum, we expect communities with strong social norms to have more open corporate governance practices than communities with weak norms, in particular due to better ability to commit to external stakeholders and lower marginal costs of governance mechanisms. Specifically, the stronger protection a community's norms provide to shareholders (e.g., by discouraging expropriation or opportunistic behavior, providing different forms of social punishment, etc.), the more open corporate governance we should find in such a community. Formally,

***Hypothesis 1.** Communities with stronger social norms will have more open firm-level corporate governance than communities with weaker social norms, ceteris paribus.*

Social cohesion, reflected in the extent to which social norms are shared in a community, is another possible determinant of corporate governance patterns. This concept is familiar to social scientists and policymakers. To psychologists and sociologists, social cohesion is associated with a shared sense of belonging to a group, bonds and connectedness among community members, and positive social interactions. Thus, “[g]roups are cohesive when group-level conditions are producing positive membership attitudes and behaviors and when group members’ interpersonal interactions are operating to maintain these group-level conditions” (Friedkin, 2004:410). To economists, this concept refers to the “social distance” between individuals in the economy (Gradstein & Justman, 2002); smaller distance is associated with more trust (Fershtman & Gneezy, 2001) and higher productivity and growth (Easterly & Levine, 1997). Finally, policymakers commonly identify (poor) social cohesion in terms of threats manifested in cultural, religious, ethnic, or class tensions. The normative

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3 questions asked in this area include promoting tolerance in the context of demographic
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5 diversity, the quality of interrelationships between community members, and inclusion in the
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7 community (e.g., Council of Europe, 2008; House of Commons, 2004).
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10 Although the definitions of social cohesion may differ in their emphases and nuances,
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12 what they have in common is the sharing of values and norms and community members'
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14 choice to follow norms. Social cohesion is a kind of glue which holds community or society
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16 together and determines the ease with which its members interact with one another. This is
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18 distinct from the norms themselves; thus, individuals may choose to follow weak norms or
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20 not to follow strong norms.
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24 Coffee (2001) argues that less cohesive countries are characterized by high private
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26 benefits of control. He proposes that greater social cohesion produces greater conformity with
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28 social norms, which explains lower expropriation of minority shareholders. This is also
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30 consistent with the aforementioned resource-based view of management scholars. In addition
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32 to the very availability of networks, it is important that information and other resources are
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34 well shared and transmitted within these networks (Hitt, Ireland, Camp, & Sexton, 2001).
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38 Li and Filer (2007) argue that when people choose to follow public rules, this reduces
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40 the marginal costs of governance. Agreements with multiple stakeholders are feasible,
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42 because they are public and verifiable. Alternatively, when people choose to rely on private
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44 means of control and protection of their investment, they have to incur large marginal costs
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46 every time they enter a transaction because their agreements are private and not verifiable.
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49 We can conclude that such control and protection are only feasible when there is a dominant
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51 shareholder/stakeholder, which should lead to less developed corporate governance
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53 mechanisms. Thus, the cost of monitoring in cohesive communities will be lower. For
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56 example, monitoring partly done by the active public lowers the monitoring costs incurred by
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the principal. When the public is passive, all monitoring costs will be borne privately by the principal.

In the above case-study example, it was easier for the ex-CEO of *Alpha* to evade public rules and resort to private agreements (particularly, in setting up the share purchase scheme) than for the ex-CEO of *Beta*. By the same token, it was more effective for *Alpha*'s ex-CEO to stay opaque and keep information disclosure to a minimum; this reduced *Alpha*'s vulnerability to other community members who may also find it easy to ignore public rules and expropriate the company. *Beta*, on the other hand, found it easier to sustain agreements with multiple stakeholders. In sum,

Hypothesis 2. More socially cohesive communities will have more open firm-level corporate governance than less socially cohesive communities, ceteris paribus.

As we just argued above, social norms and social cohesion are conceptually distinct in that norms refer to rules as such, while cohesion reflects how well these rules are shared in a community. At the same time, our discussion suggested that the characteristics of social norms may affect the degree of social cohesion. That is, stronger norms may be more conducive to positive social interaction among community members and their willingness to adhere to norms. Such positive interactions may be expressed in "good" economic attitudes or cooperation (Guiso et al., 2003), commitment (Berglöf & Claessens, 2004), or trust and teamwork (Kim & Cannella, 2008).

One possibility is that community members will choose to adhere to norms if they perceive them as fair or binding, since such norms promote the social well-being and are generally in everyone's interest. This is the view entertained by lawyers (David & Brierley, 1985; Licht, 2008) and economists (Li & Filer, 2007). For example, legal scholars argued that Russians tended to stick to their community norms and evade well-prescribed legal norms

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3 due to the fact that these latter have typically been imposed from above and have not been
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5 perceived as native or fair (David & Brierley, 1985; David & Jauffret-Spinosi, 1997). As
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7 another example, the more binding character of norms may be expressed in the fact that
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9 individuals in communities with higher social capital are more inclined to participate in the
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11 life of the community (Putnam, 1993).
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15 In game-theoretic terms, social cohesion is reflected in the fact that social norms are
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17 self-enforcing (Binmore, 2005), but the nature of the very norms may also determine the
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19 degree of such enforceability. Game theorists' view on fairness is that it is a solution to the
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21 equilibrium selection problem: If norms are fair, one of the multiple equilibria will be easier
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23 to select and sustain. Obeying the rules of the game is part of the behavior required by an
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25 equilibrium of the game. "That is to say, an institution is not treated as a game itself, but as
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27 part of the description of an equilibrium within a larger game of life" (Binmore, 2010:2). In
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29 our terms, if such description is fair (in the interest of the players), then it will be easier or
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31 less costly to sustain.
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35 Another possibility is that norms are easier to adhere to if they are clear in the sense
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37 that they offer an unambiguous framework of reference. For example, norms may be clearer
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39 in more religious communities, as religion offers a more explicit framework of reference
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41 buttressed by certain rituals and customs. The logic here parallels that of legal scholars (e.g.,
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43 Hay, Shleifer, & Vishny, 1996): To be followed and to be enforceable, norms must be easy to
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45 understand, interpret, and transmit.
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51 In our case illustration, it may have been easier for the ex-CEO of *Alpha* to evade
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53 social norms because such norms are vague and less binding in the first place. In the case of
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55 *Beta*, the community had the not-yet-forgotten pre-Soviet experience which was also
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57 transmitted to the following generations. The framework of reference was thus stronger,
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59 which may have made it easier to share and enforce the social norms.
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In sum, stronger norms may lead to higher social cohesion, as they will be easier to share among community members. In a way, the enforceability of social norms may depend on how fair, binding, or clear the very norms are. Therefore, if Hypotheses 1 and 2 are both supported (that is, if stronger norms are associated with more open corporate governance *and* higher social cohesion is associated with more open corporate governance), we expect that the hypothesized effect of social norms on corporate governance will be, at least to some extent, produced via social cohesion. Formally,

Hypothesis 3. The level of social cohesion will mediate the relationship between social norms and corporate governance, ceteris paribus.

METHODOLOGY AND DATA

Institutional Environment

Because formal institutions have been shown to have quantitatively large and varying effects on corporate governance, we would like to hold them fixed in order to draw meaningful conclusions on the impact of informal institutions. One way of doing so is to find countries with similar legal systems, similar legal rules in question, and similar enforcement mechanisms (Coffee, 2001), and then to research the relationship between the variance in their informal institutions and their corporate governance. This approach, however, has a number of drawbacks. Firstly, the legal rules and enforcement of two countries may be similar, but not exactly the same. Secondly, the legal or political explanations might still be valid, if the specific rules which are *actually measured* are similar, but there are some other legal rules or political institutions which exert an influence on corporate governance. Thirdly, the legal rules in two countries may be the same at the time of measurement, but they may

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3 have been different in the past. If there is a time lag before the newly enacted rules are
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6 effectively implemented, then one needs to control for it as well.
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8 Another, more natural way of achieving the same objective is to select one country in
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10 which differences in informal rules are believed to be large. Obviously, the formal
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12 institutions – including *all* nationwide legal rules, political institutions, and the financial
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14 system – are exactly the same in this case, which allows us to assume their effect to be
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16 constant. These institutions will also have come into existence at the very same moment and
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18 will change at the very same pace, which allows us to isolate the time and process effects.
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22 Although this approach is not revolutionary (see Putnam, 1993), it is very rarely
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24 adopted in studies of corporate governance. We are aware of two studies by Guiso, Sapienza,
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26 and Zingales (2004a, 2004b) which pursue this approach in a related research area: financial
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28 development. They show that local financial development and social capital in Italy vary
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30 across regions, which has consequences for market entry, competition, and growth.
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34 In other words, an institutional environment is not tantamount to a country/
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36 jurisdiction. The latter is a conventional, comfortable proxy used by most researchers. It
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38 might be partly responsible for the fact that operationalizations of the institutional
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40 environment have been limited to legal rules and enforcement but have widely ignored
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42 informal rules. Thus, a natural way to test our proposition is to use the same
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44 country/jurisdiction, but different institutional environments. As a consequence, we also
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46 deliberately use the term “community” rather than “country” to refer to social units with a
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48 distinct set of informal rules.
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54 **Research Setting: Ukraine**

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58 Ukraine conforms perfectly to the above requirements. The country has been fully
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60 integrated legally, financially, and politically for the past 70 years. In addition, the whole

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country has undergone the same transition experience starting in 1991. However, there is arguably substantial regional variation in informal rules.³

Thus, the west of the country is clearly more religious than the east or the south, with about four times as many religious organizations per capita in the west as in the east (State Committee for Nationalities and Religions of Ukraine, 2007). In light of the findings by Guiso et al. (2003), one would expect this to be associated with “better” economic attitudes. The demographics also differ considerably across Ukrainian regions. In particular, the west is more ethnically and linguistically homogeneous than the east or the south (State Statistics Committee of Ukraine, 2001). Furthermore, crime rates are much higher in the east and the south than in the west (Ministry of Internal Affairs of Ukraine, 2007). Finally, social capital, as commonly measured by voter turnout in voluntary elections, is higher in the west (Vasylchenko, 2005).

Different parts of Ukraine have different histories. This may be important, since socialism has arguably had an impact on informal rules. For example, Alesina and Fuchs-Schündeln (2007) show how preferences of eastern Germans still differ from those of their western German compatriots. In addition, students of restructuring in transition economies have noted a significant dependency of enterprise restructuring results on the countries’ socialist past (Djankov & Murrell, 2002).

The eastern part of Ukraine had been part of the Soviet Union since 1922 before it collapsed and part of Russia prior to that; this region had undergone some drastic reform measures in the 1930s, such as large-scale industrialization, forced collectivization of agriculture, organized famine, and massive russification. The Crimea, in southern Ukraine, had been part of Russia until 1954 before it was transferred to Ukraine; as a result, the region has a very high proportion of ethnic Russians. These parts of the country are essentially Russian-speaking. Western Ukrainian regions, on the other hand, had been a relatively

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3 autonomous part of Poland or part of the Austro-Hungarian Empire until they were annexed
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6 by the Soviet Union in 1939. Western Ukraine is Ukrainian-speaking (Subtelny, 2000).
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8 In terms of economic organization, all parts of Ukraine were fully and equally
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10 integrated in the Soviet economy, including trade and vertical integration ties, as well as
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12 agriculture, which was also collectivized in western Ukraine after it became part of the Soviet
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14 Union. Finally, mass privatizations in the 1990s were governed by the same political and
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16 legal processes and have undergone the same course of events across the entire country. What
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18 distinguishes the economy of the west from that of the east, however, is the industry
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20 structure. In particular, eastern Ukraine is much more industrialized due to the
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22 industrialization of the 1930s. In addition, businesses are usually much larger, perhaps as a
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24 legacy of the Soviet planning system (see Ukraine, 2007; note also that the history and
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26 industry structure make western Ukraine more similar to Central/Eastern Europe and the
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28 Baltic States; see Estrin, 2002).
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34 We use Ukraine's provinces as proxies for communities characterized by distinct
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36 informal rules. Ukraine has a total of 27 provinces (officially called "administrative-territorial
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38 units"), including 24 *oblasts* (entities comparable to provinces in many European countries),
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40 the Autonomous Republic of Crimea, as well as the cities of Kyiv and Sevastopol having a
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42 province status. For classification purposes, we also group provinces into the following 6
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44 geographic regions: east, west, south, north, center, and the capital city of Kyiv. This
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46 grouping is commonly adopted in *GfK Ukraine's* research; we, therefore, refer to them as the
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48 *GfK* regions. Figure 1 shows the grouping of provinces into these regions.
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Methodology

We use OLS regressions to examine the hypothesized relationships between corporate governance and social norms (Hypothesis 1) and between corporate governance and social cohesion (Hypothesis 2). Corporate governance is the dependent variable, social norms and social cohesion are independent variables. We use several measures of social norms and social cohesion, as well as a number of control variables, as we describe below.

We follow Baron and Kenny (1986) in testing the mediation hypothesis (Hypothesis 3). A mediation model is one that seeks to identify and explicate the mechanism that underlies an observed relationship between an independent variable *X* and a dependent variable *Y* by including a third explanatory variable, known as a mediator variable *M*. That is, the model hypothesizes that the independent variable causes the mediator (path A), and the mediator causes the dependent variable (path B), rather than a direct relationship between the independent and dependent variable (path C). The process of *complete* (also called *perfect* or *full*) mediation is defined as the complete intervention caused by the mediator variable. This results in the initial variable no longer affecting the outcome variable. The process of *partial* mediation is defined as the partial intervention by the mediator variable. In our case, social norm strength is the independent variable, corporate governance openness is the dependent variable, and the level of social cohesion is the mediator.

Baron and Kenny proposed formal criteria for mediation. They define a variable as a mediator, if (1) there is a significant relationship between the independent variable *X* and the dependent variable *Y*, (2) there is a significant relationship between the independent variable *X* and the mediator *M*, (3) the mediator *M* still predicts the dependent variable *Y* after controlling for the independent variable *X*, and (4) the relationship between the independent variable *X* and the dependent variable *Y* is reduced when the mediator is entered into the

equation. Mediation is said to be *complete* when the relationship X and Y is reduced to zero (that is, becomes insignificant), and *partial* when it becomes weaker (i.e. stays significant, but its magnitude and/or significance become lower). For testing the significance of the indirect effect of X on Y (via M), the Sobel test is recommended. The formula for this test is:

$$z = \frac{a \times b}{\sqrt{b^2 \times s_a^2 + a^2 \times s_b^2}},$$

where z is the z -value and follows normal probability distribution, a is the unstandardized regression coefficient for the relationship between X and M ; b is the unstandardized regression coefficient for the relationship between M and Y when X is controlled for; s_a is the standard error of a ; and s_b is the standard error of b .

Variables and Data

We use several measures for each of the major constructs. We obtain the data from seven independent sources to construct our dataset, as we discuss below.

Corporate Governance. We use the corporate governance index as defined and used in IFC (2005) to measure firm-level corporate governance in Ukrainian firms. We refer to it as the IFC index hereinafter. The index had been obtained by means of factor analysis and is based on the following indicators: (1) The shareholders' register is kept by an independent registrar; (2) The firm has a board of directors; (3) The firm's shares can be freely sold in the secondary market; (4) The issue of shares is registered with the State Securities and Stock Market Commission; (5) The corporate charter contains a provision limiting management's right to enter into large contracts; (6) The firm's annual report is available on an information agency's website. The values of the index can vary from 0 to 100, higher values indicating more open corporate governance. (See IFC, 2005 for methodology and detail.)

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Note that these items closely reflect the elements of open governance as defined in the previous section (transparency, external monitoring, and more developed bonding).⁴ This is no coincidence, since the items for the IFC index were selected based on the OECD principles of corporate governance (OECD, 1999), which prescribe best governance practices as ones characterized by transparency and developed monitoring.

The data is from a corporate governance survey of Ukrainian corporations commissioned by the International Finance Corporation (IFC) and conducted by *GfK Ukraine* in September–November 2004. The IFC index is available for all the 803 firms in our sample. The sample was constructed from the national database of enterprises and is appropriately representative of the population of Ukrainian corporations in terms of geographic location, industry, and legal form (IFC, 2005). All the data were collected by *GfK Ukraine* through face-to-face interviews with CEOs (47%), deputy CEOs (21%), members of the management committee (12%), or – in remaining instances – other corporate officials effectively responsible for corporate governance issues at their companies, such as CFOs, legal officers, board chairmen/members, and corporate secretaries (IFC, 2005). Two versions of the questionnaire, Ukrainian and Russian, were used due to language considerations.

IFC’s 2004 corporate governance study offers the most recently available data on firm-level corporate governance in Ukraine (published as IFC, 2005). It was obtained from the second wave of IFC’s survey of corporate governance. We also computed the IFC index using the data from the first wave of the survey, which took place a year earlier on a sample of 800 Ukrainian corporations (published as IFC, 2004). However, the findings in both waves are very similar and the pattern of regional differences is the same, increasing our confidence in the reliability of our corporate governance measure.

Social Norms and Social Cohesion. We use six variables reflecting the strength of social norms and social cohesion. These measures are: (a) social capital, (b) religiosity, (c)

total fertility, (d) ethnic homogeneity, (e) linguistic homogeneity, and (f) homicide rate. They have been commonly used by previous researchers, as reviewed below. We measure these variables at the provincial level. Note that, consistent with the idea that social norms and values change very slowly, all our measures are very stable over time. Let us now briefly discuss them one by one.

Researchers since Putnam (1993) have commonly measured *social capital* by voter turnout in referenda and voluntary elections (as only voluntary participation reflects the degree of development of civic society) to study social outcomes. In particular, economists have used this measure to predict economic development both at the country level (e.g., Knack & Keefer, 1997) and at the provincial level (e.g., Guiso et al., 2004b). Since participation in all elections in Ukraine is voluntary, we defined social capital as the average voter turnout (number of voters participating in an election divided by the number of registered voters) in every province for all years, for which the data were available from the Central Elections Commission of Ukraine, namely 1994 through 2007.

Note, however, that there may be some debate as to which elections in Ukraine can be considered voluntary and for which of them we have reliable turnout numbers. Therefore, as a reliability check, we computed an alternative measure of social capital that is only based on the elections that are free of these concerns.⁵ The resulting measure even slightly amplifies the expected differences (average turnout increases somewhat in the western, northern, and central regions and decreases somewhat in the east, the south, and Kyiv). The pattern of difference stays exactly the same.

Religiosity is also a much used measure in cross-country studies of economic performance (e.g., Barro & McCleary, 2003; Knack & Keefer, 1995), economic attitudes (Guiso et al., 2003), organizational performance (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997b, 1999b), and corporate governance (Stulz & Williamson, 2003). We define it

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as the number of religious organizations per 1 million people as at 1 January 2007, which appears to be the most appropriate measure for our research. Even though different confessions can be found in Ukraine, the Orthodox Christian church is clearly dominant so the researcher needs to focus on the intensity, rather than on the type, of religious participation. (Thus, measures used in cross-country studies, e.g., by Guiso et al., 2003 and Stulz & Williamson, 2003, would not be well-suited in our case.) The data on religious organizations is from the State Committee for Nationalities and Religions of Ukraine (2007); the population data is from the State Statistics Committee of Ukraine.⁶

For reliability purposes, we also examined religiosity data for 2006 and 2008 (we opted for the 2007 data because they offered more detail than the 2006 data, and were available earlier than the 2008 data). The changes in religiosity levels were minimal and the provincial patterns were the same.

Higher levels of *total fertility* denote greater adhesion to traditional values and social norms. This can be interpreted as being consistent with North (1990) in that members of smaller communities depend more on each other for survival and so may rely more on informal rules. Demographics researchers have shown that fertility levels are affected by social norms (Crook, 1978; Munshi & Myaux, 2006; Palivos, 2001) and culture (Cleland & Hobcraft, 1985; Coale & Watkins, 1986). Total fertility may thus be viewed as an outcome of underlying social norms and used as a good proxy. Social norms and fertility in such research are measured at the group/community level (see Licht, 2008; Thomson & Goldman, 1987). Thus, our measure is defined at the provincial level as the average number of children born to date by a woman older than 15 years. The data for this variable come from the State Statistics Committee of Ukraine (2001), available for all the 27 provinces of Ukraine.

As a reliability check, we compared our data with the fertility levels reported in the 1989 census. Although they have decreased somewhat, this tendency applies equally to all regions of Ukraine (see State Statistics Committee of Ukraine, 2001).

Ethnic homogeneity and *linguistic homogeneity* are another two common characteristics of a community used in previous law-and-economics research. For example, Easterly and Levine (1997) call their measure ethno-linguistic diversity, Fershtman and Gneezy (2001) ethnic fragmentation, and La Porta et al. (1997b, 1999b) ethno-linguistic fractionalization. We define ethnic homogeneity as the percentage of Ukrainians in the total population of a given province. Fortunately, we have the ethnicity data which were routinely collected by the State Statistics Committee in the Soviet tradition. (Easterly & Levine, 1997 also use Soviet ethnicity data for Africa, noting that the linguistic and sociology literatures heavily favor the Soviet measure.)

In the same vein, linguistic homogeneity is defined as the percentage of the Ukrainian-speaking population in each province. Note that we focus on homogeneity; thus, higher percentages on these measures indicate higher ethnic and linguistic homogeneity, respectively. Most cross-country researchers typically focus on heterogeneity and therefore use the inverse measure. Our data are from the State Statistics Committee of Ukraine (2001), available for all the provinces.

The 1989 census shows comparable levels of ethnic and linguistic homogeneity and very similar regional patterns (State Statistics Committee of Ukraine, 2001), which assures us that our measures are reliable.

Finally, previous research has used the *homicide rate* to characterize tensions in a community. For example, Coffee (2001) uses this measure to proxy for the lack of law-abidingness, as it is believed to most truly reflect conformity to social order. Homicide rate is formally defined as the average number of homicides per 1 million inhabitants over the years

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2005–2006. We calculate it by dividing the number of homicides in a given province (using the statistics of the Ministry of Internal Affairs of Ukraine, 2007) by the population of that province (using the State Statistics Committee’s population data).⁷

Although the homicide rate is our preferred measure, we also considered other types of crime rate as a reliability check. These include (a) overall crime, (b) organized crime, (c) economic crime, (d) heavy premeditated injury, (e) rape, (f) theft, (g) mugging, (h) robbery, and (i) hooliganism. The pattern is the same as and the magnitude of regional differences is similar to those of the homicide rate, so we are assured that our chosen measure is not coincidental. In addition, homicide and other crime rates recorded by the Ministry of Internal Affairs in 2007–2010 exhibited very similar patterns.

Control Variables. We control for several variables that have been shown to be important in explaining the openness of corporate governance. Firstly, firm-level corporate governance may be related to the level of economic development in the country/region in which the firm operates. Like other researchers (e.g., Doidge et al., 2007; La Porta et al., 1997a, 1998), we use the logarithm of GDP per capita as the common measure of economic development for each province. We use the State Statistics Committee’s data in Ukrainian hryvnia for 2004, the year in which the IFC corporate governance survey was conducted.

Secondly, the firm’s characteristics are also potentially important determinants (Doidge et al., 2007). We use three characteristics, which were considered to be essential for Ukrainian firms (IFC, 2005): (a) firm size, (b) state ownership, and (c) ownership concentration. These data are from the above mentioned IFC corporate governance survey. Firm size was operationalized as the firm’s number of employees, coded as follows: “1” if the firm employs 50 or fewer workers, “2” if it has 51–100 workers, “3” for 101–250 workers, “4” for 251–500 workers, “5” for 501–1,000 workers, and “6” if the firm has more than 1,000 workers. Firm size was available for all 803 firms. State ownership equals 1 if the state is the

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firm's largest shareholder and 0 otherwise (available for all 803 firms). Ownership concentration is defined as the ratio obtained by dividing the number of large shareholders (that is, those each of whom owns at least 5% of the stock) by the total number of shareholders, and then coding the result as follows: "1" if the computed ratio is 0; "2" if it is larger than 0 but smaller than 0.25; "3" if it is equal to or larger than 0.25 but smaller than 0.50; and "4" if the ratio is equal to or larger than 0.50. Higher values indicate higher ownership concentration. These data are available for 309 firms from our sample (IFC, 2005).

Finally, we use industry dummy variables to proxy for the firm's transaction specificity (Williamson, 1975, 1985, 1996). Our sample allows us to distinguish between 20 industries,⁸ and these data are available from IFC (2005) for 726 firms.

As the reader can see, using the ownership concentration variable reduces our sample. Adding industry further reduces it to 287 firms. Therefore, we will first run our regressions with social norms and social cohesion variables, Log (GDP per capita), as well as firm characteristics except ownership concentration. In the next specification, we will add ownership concentration. In the final specification, we will add industry and thus run a specification with all independent variables.

THE RESULTS

Descriptive Statistics

Table 1 offers a description of our sample. Firstly, note that variation in corporate governance is large and statistically significant (Panel A reports the IFC index for provinces and *GfK* regions; Panel B reports significance tests across the *GfK* regions). In general, the picture is clear: the west, the north, and the center have higher corporate governance scores than the east and the south; Kyiv is in the middle.

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Table 1 shows that variation in social norms and social cohesion across Ukraine’s regions and provinces is also very large. Thus, the west is clearly characterized by the highest social capital, followed by the north and the center; lower-than-average scores are found in the east, the south, and Kyiv. Religiosity exhibits exactly the same pattern: The west is the most religious, followed by the north and the center with above-average scores. The south, the east, and Kyiv are much less religious. Total fertility levels are also higher in the west than elsewhere in Ukraine. The west, the north, and the center are definitely more ethnically and linguistically homogeneous than the east and the south, with Kyiv in the middle. Finally, individuals in the west are also noticeably more law-abiding as this region has the lowest homicide rates; again, it is followed by the north and the center, with the east and the south at the bottom of the list.

In sum, the first impressions of the data confirm our expectations. In particular, the regions which are characterized by stronger social norms and are more socially cohesive appear to have more open corporate governance.

Social Norms and Social Cohesion Factors

Although we could assign meanings to our social norm and social cohesion measures based on their use in previous research, such research is scarce and no generally accepted measures exist. In addition, there may be a concern that our social norm and social cohesion proxies partly capture the same underlying characteristics. Specifically, Vasylchenko (2005:16) claims that voter turnout is higher in the west because this region is more politically conscious; however, he also notes that regions that are more rural and have a lower percentage of ethnic minorities are characterized by higher turnout. Even though he does not establish this relationship empirically, our data are consistent with this as the correlations

between these measures are high (see Table 2), which prevents us from using them as independent variables in the same regression specification (Hair, Black, Babin, Anderson, & Tatham, 2006; Tabachnick & Fidell, 2007).

INSERT TABLE 2 ABOUT HERE

Therefore, we performed a principal component analysis to establish interpretable dimensions and to solve multicollinearity issues. Our sample size ($n = 803$) is more than sufficient for such analysis. The value of the Bartlett's test of sphericity was found to be highly significant ($\chi^2_{(15)} = 5524.14, p < 0.001$) and the Kaiser-Meyer-Olkin measure of sampling adequacy was 0.67, both indicating that factor analysis is appropriate. Two factors recorded an eigenvalue above one (3.90 and 1.21) and explained as much as 85.2% of the total variation. A scree test was conducted, also indicating that two factors should be retained. Table 3 presents the rotated component matrix. It shows that all items loaded significantly on their respective components, with the predicted signs; the factor loadings were as high as ± 0.83 to ± 0.93 , far above the generally accepted cut-off value of ± 0.4 (Hair et al., 2006; Tabachnick & Fidell, 2007). There were no significant cross-loadings.

INSERT TABLE 3 ABOUT HERE

We interpret Factor 1 as *social cohesion* and Factor 2 as *social norms*. The social norms factor includes social capital, religiosity, and total fertility. Consistent with theory (see the variable description subsection) and the signs of factor loadings, higher social capital, higher religiosity, and higher total fertility refer to stronger social norms. The social cohesion factor includes ethnic homogeneity, linguistic homogeneity, and homicide rate. Higher ethnic and linguistic homogeneity should be interpreted as being indicative of higher social

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cohesion; and higher homicide rate indicates lower social cohesion (see the variable descriptions and factor loadings).

Reliability of the Social Norms and Social Cohesion Measures

In the variable description section, we discussed the reliability of the individual items comprising our social norms and social cohesion factors. Here, we estimate the reliability of the factors themselves before we use them in regression analysis.

We use the standardized-item Cronbach’s alpha (also called the Spearman-Brown stepped-up reliability coefficient), because our items are measured on different scales. It is a common internal consistency estimate of reliability in this case and indicates the degree to which a set of items measures a single unidimensional latent construct. It is recommended to use a large sample to estimate alpha, which poses no problem in our case. Alpha is most appropriately used when the items measure different substantive areas within a single construct, as they do in our case. Most researchers consider a value of 0.6 to 0.7 as acceptable and 0.8 as good. However, values higher than 0.95 are not necessarily desirable because the items must contribute some unique information about the construct as well (McDonald, 1999; Nunnally & Bernstein, 1994; Zinbarg, Revelle, Yovel, & Li, 2005).

We change the sign for homicide rate (because, unlike all other social cohesion variables, it has a negative factor loading; see also variable descriptions for interpretation) and run the procedure on our data. The value of alpha is 0.905 for the items comprising the social norms factor and 0.913 for the items of the social cohesion factor. We can now more confidently proceed to testing our hypotheses.

Hypotheses Tests

We test our hypotheses using the factor scores as measures of social norms (Hypothesis 1) and social cohesion (Hypothesis 2). We run a regression with social norms, then a regression with social cohesion, and finally a regression with both variables, in each case controlling for Log (GDP per capita), firm size, and state ownership [models (1), (2), and (3) in Table 4]. As mentioned in the methodology section, we then add ownership concentration into our regression specifications [models (4), (5), and (6)]. Finally, we add industry to run a regression with all our independent variables [models (7), (8), and (9)].

INSERT TABLE 4 ABOUT HERE

Consider the first three models. In each of these regressions, the social norms and social cohesion coefficients are highly significant and quantitatively large. As predicted, social norms are significantly positive [$t = 4.89, p < 0.001$ in model (1); $t = 3.62, p < 0.001$ in model (3)]. Social cohesion is also significantly positive [$t = 5.26, p < 0.001$ in model (2); $t = 4.11, p < 0.001$ in model (3)]. Social norms are the largest source of variation in our model (1); increasing this variable by one standard deviation leads to an increase of 0.27 standard deviations in the IFC index. One standard deviation increase in social norms and social cohesion in model (3) increases the IFC index by 0.34 standard deviations (standardized betas are available upon request).

Next, we add ownership concentration into our specifications [see models (4), (5), and (6)]. Both social norms and social cohesion are significant, whether used separately or jointly in the regressions. Thus, social norms are significantly positive ($t = 4.19, p < 0.001$) in model (4) and social cohesion is significantly positive ($t = 5.86, p < 0.001$) in model (5). Our explanatory variables are the largest sources of variation in models (4) and (5), respectively.

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One standard deviation increase in social norms is associated with an increase in corporate governance by 0.36 standard deviations; one standard deviation increase in social cohesion, with an increase in corporate governance by 0.30 standard deviations. In the joint specification [model (6)], these variables are also significantly positive (for social norms, $t = 2.19, p < 0.05$; for social cohesion, $t = 4.56, p < 0.001$). As previously, they are quantitatively large: One standard deviation increase in both variables leads corporate governance to increase by as much as 0.45 standard deviations.

Finally, we run the same three regressions adding another control variable, industry [see models (7), (8), and (9)]. The results are significantly positive and quantitatively large. For social norms, $t = 3.57 (p < 0.001)$ in model (7) and $t = 1.85 (p < 0.10)$ in model (9). For social cohesion, $t = 5.39 (p < 0.001)$ in model (8) and $t = 4.37 (p < 0.001)$ in model (9). Again, social norms and social cohesion are the largest source of variation in their respective models, with marginal effects of a magnitude similar to that in models (4) through (6).

Our conclusion is straightforward: Hypotheses 1 and 2 are supported. There is very compelling and unqualified evidence that stronger social norms and higher social cohesion are associated with more open corporate governance. The results are highly significant and quantitatively large. Note, however, that the significance level in the joint specifications [models (3), (6), and (9)] is somewhat lower for social norms, which indicates that a mediation effect may be at play.

Does Social Cohesion Mediate the Effect of Social Norms?

We have just established that (a) stronger norms are associated with more open corporate governance and (b) higher social cohesion is associated with more open corporate governance. Therefore, we can test Hypothesis 3 which states that the level of social cohesion mediates the hypothesized effect of social norms on corporate governance. That is, we now

ask whether the effect of social norms on corporate governance is direct or produced via social cohesion.

As mentioned earlier, our independent variable is the strength of social norms, our dependent variable is corporate governance openness, and the mediator variable is the level of social cohesion (see Figure 2). We run the four checks proposed by Baron and Kenny (1986) and the Sobel test; as previously, we control for the logarithm of GDP per capita, firm characteristics, and industry dummies.

INSERT FIGURE 2 ABOUT HERE

Firstly, stronger social norms appear to lead to more open corporate governance (path C in Figure 2). The relationship between social norms and the IFC index was found to be positive (unstandardized beta 6.62) and significant ($t = 3.57, p < 0.001$), as reported in model (7). Secondly, stronger social norms are associated with higher social cohesion (path A). The relationship between social norms and social cohesion is positive (unstandardized beta 0.51) and significant ($t = 6.29, p < 0.001$), as model (10) shows. The standard error of social norms is 0.08. Thirdly, higher social cohesion appears to lead to more open corporate governance (path B). Models (9) shows that the relationship between social cohesion and the IFC index, when controlled for social norms, is still positive (unstandardized beta 5.97) and significant ($t = 4.37, p < 0.001$). The standard error of social cohesion is 1.36. Fourthly, the explanatory power of social norms is lower, but still large when we control for social cohesion (path C). When social cohesion entered the equation [model (9)], the relationship between social norms and the IFC index was reduced (unstandardized beta 3.57), but remained significant ($t = 1.85, p < 0.10$).

Therefore, social cohesion indeed appears to mediate the relationship between social norms and corporate governance; the mediation is partial rather than complete. When we run

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the Sobel test, z equals 3.59 ($p < 0.001$), confirming a significant mediating relationship. We also ran the Sobel test and obtained the same results for the other models reported in Table 4 (that is, for the specification without industry dummies: $z = 3.89$, $p < 0.001$; for the specification without ownership concentration or industry dummies: $z = 3.66$, $p < 0.001$; the statistics are available upon request). Hypothesis 3 is thus supported.

This result is important because it makes a step forward in explaining the mechanism by which social norms may affect corporate governance. Specifically, this evidence suggests that: (i) stronger social norms may cause higher social cohesion, which in turn leads to more open corporate governance (that is, social cohesion – reflected in greater conformity to social norms – is a mechanism which partly transforms social norms into corporate governance); and (ii) stronger social norms *themselves* (either directly or through other mediators) may lead to more open corporate governance.

Robustness

The preceding sections have already discussed how we dealt with part of the robustness concerns. We attended to a number of potentially competing explanations in our design by controlling for the level of economic development, firm size, state ownership, ownership concentration, and industry. Our results remain unchanged. Here, we discuss a few additional concerns that we think need to be taken care of.

Analyses with Alternative Measures of Corporate Governance. We used alternative measurements of corporate governance in order to minimize the threat of a mono-measure bias (Cook & Campbell, 1979). Specifically, two variations on the IFC index were constructed: CGI-8 (composed of the same items as the IFC index, plus two other items which are arguably very relevant for Ukraine) and CGI-19 (composed of all IFC’s survey items that could theoretically be considered as possible indicators of corporate governance,

reflecting shareholder rights, board and management practices, disclosure, and audit quality). CGI-8 was available for 611 firms (or 230 firms in regressions using industry dummies and ownership concentration) and CGI-19 for 593 firms (or 220 firms in regressions using industry dummies and ownership concentration).

Analyses with Alternative Measures of Social Norms and Social Cohesion. We used alternative composite measures of social norms and social cohesion. Specifically, we constructed indices of social norms by standardizing social capital, religiosity, and total fertility into z -scores (i.e. variables with a mean of 0 and a standard deviation of 1) and then adding up these scores (Li & Filer, 2007 use the same type of index to measure governance environment). For social cohesion, we standardized ethnic homogeneity, linguistic homogeneity, and homicide rate into z -scores, and then added up these scores (in this process, we changed the sign for homicide rate because it is negatively correlated with the other social cohesion variables; see also variable descriptions). We ran the same regressions as in Table 4, with these indices representing social norms and social cohesion. The results were very similar, with significant mediation effects (in two cases, mediation was complete).

Models with Individual Measures of Social Norms and Social Cohesion. As mentioned earlier, we used three underlying measures of social norms and three measures of social cohesion to obtain our factor scores and indices. In order to further minimize the threat of a mono-measure bias, we also ran the same regressions as in Table 4 with each of the underlying, individual measures used to represent social norms or social cohesion, respectively. In specifications where we are using both social norms and social cohesion, we used all the possible combinations of such social norm and social cohesion measures. (That is, a total of nine combinations. Note from Table 2 that correlations between these measures of social norms and measures of social cohesion are below the acceptable level of ± 0.7 . The VIFs were also well below the cut-off level of 10.)

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Our hypotheses were supported strikingly well in *every* specification, with highly significant and quantitatively large results, irrespective of how social norms or social cohesion are measured. For example, increasing social capital by one standard deviation leads to an increase of 0.37 standard deviations in the IFC index; one-standard deviation increase in religiosity results in a 0.33 standard-deviation increase in the IFC index; and ethnic homogeneity increases the IFC index by 0.33 standard deviations. Social capital, religiosity, ethnic homogeneity, and linguistic homogeneity are the largest source of variation in their respective regressions; total fertility and homicide rate are the second largest.

Finally, mediated effects were present in *every* combination. That is, the social cohesion measures *always* mediated the effect of the social norm measures on corporate governance, and the mediation was always significant. The mediation for social capital was partial in all cases; for total fertility, it was always complete; and for religiosity, mediations by ethnic and linguistic homogeneity were complete and mediation by homicide rate was partial. All results are available upon request.

Of course, these findings should not be interpreted as the impact of the Ukrainian character or the Ukrainian language, but merely as support for the impact of cohesive communities on corporate governance. Researchers interested in replicating our study in other countries may wish to conduct the same analysis for each variable (rather than for the factor scores or indices only). Firstly, this makes the findings more robust and allows more refined conclusions. Secondly, the marginal effects are easier to interpret. Thirdly, it is easier to compare the results and the marginal effects internationally.

Models without Firm Characteristics. We also conducted our regression analyses without firm characteristics in the model. We obtained the same results for every hypothesis as in the models using firm characteristics. In addition, when we *do* control for firm characteristics, the beta coefficients of social norms and social cohesion variables are larger

and their significance levels higher (despite the considerably reduced sample when ownership concentration is included). In other words, informal rules and firm characteristics appear to be complementary rather than competing predictors of corporate governance.

Finally, we ran a regression with firm characteristics only (excluding social norms and social cohesion). The explained variation, adjusted R^2 , in models controlling for all variables (that is, the models in Table 4) is roughly equal to the sum of the R^2 in their corresponding models without firm characteristics and the R^2 of the firm-characteristics-only model. Again, this may mean that the impact of informal rules and firm characteristics on corporate governance appears to be relatively independent of each other. These results are available upon request.

CONCLUSIONS AND DISCUSSION

In this paper, we investigate the impact of the community's informal rules on firm-level corporate governance. This subject has been largely understudied in the comparative corporate governance literature to date, as dominant theories have focused on country-level formal rules and their enforcement.

Specifically, we test three hypotheses. Firstly, we posit that communities with stronger social norms will have more open firm-level corporate governance. Secondly, we predict more open corporate governance practices in more socially cohesive communities. Thirdly, we expect that the effect of social norms on corporate governance will be mediated by social cohesion. We opt for a cross-regional single-country study in order to isolate the effect of formal rules, an approach never found in previous corporate governance literature. Ukraine is a useful laboratory for such a study due to its diverse culture and history.

Before testing the hypotheses, we develop our measures of social norms and social cohesion by performing a factor analysis on the measures commonly used in previous

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research (social capital, religiosity, total fertility, ethnic homogeneity, linguistic homogeneity, and homicide rate), thereby increasing construct validity. Standardized-item Cronbach’s alpha computed for the newly obtained factors tells us that our measures are highly reliable.

The data provide strikingly strong, robust, and unqualified support for our hypotheses, controlling for economic development, firm characteristics, and industry. In particular, communities with higher social capital, higher religiosity, and higher total fertility show more open firm-level corporate governance, however it is measured. Our interpretation is that stronger social norms offer better informal protection of property rights and regulation of corporate governance in that the community provides efficient informal incentives for open governance and punishment for deviant behavior. In economics terms, the costs of open firm-level corporate governance are lower in such communities. In communities with weak norms, the costs of open governance (and the benefits of closed governance) are higher.

For example, more ethical communities may design more just firm-level rules or refuse to cooperate with members deviating from such rules. Our results accord with Guiso et al. (2003) in that religiosity is associated with “better” economic attitudes. They are also consistent with Barro and McCleary (2003), who establish a positive association between economic growth and religious beliefs, and with Stulz and Williamson (2003), who find that more religious countries offer stronger protection to creditors.

Similarly, we find that communities that are more cohesive (characterized by higher ethnic/linguistically homogeneity and lower homicide rates) exhibit significantly more open corporate governance practices. We interpret this as evidence that members of such communities, perhaps implicitly, better share social norms. As they will choose to conform to norms, the costs of firm-level open corporate governance in such communities will be lower. In less cohesive communities, members will tend to deviate from social norms. As a result,

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3 the benefits of private means of control will be higher and closed governance will be the
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5 optimal choice.
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8 This result and interpretation corroborates Coffee's (2001) statement that more
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10 socially cohesive communities should be characterized by lower private benefits of control. It
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12 is also consistent with La Porta et al. (1997b), who show that trust in communities is
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14 positively associated with performance in large organizations. In addition, it would also
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16 explain the observations in Doidge et al. (2007) and Stafsudd (2009) that Scandinavian
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18 countries, characterized by relatively weak formal protection of investors, still appear to have
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20 the world's highest quality of firm-level corporate governance.
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24 Furthermore, we find strong evidence that the hypothesized effect of social norms on
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26 governance is partly mediated by the level of social cohesion. In other words, stronger social
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28 norms may cause higher social cohesion, which in turn may lead to more open corporate
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30 governance; and stronger social norms *themselves* (either directly or through other mediators)
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32 may lead to more open corporate governance. This is consistent with the view of the
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34 community members' decision to conform to norms, which is held by legal scholars (David
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36 & Brierley, 1985; David & Jauffret-Spinosi, 1997; Licht, 2008) and economists (Li & Filer,
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38 2007). If norms are perceived to be fair or in everyone's interest, community members will
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40 share and follow them; if not, members will choose to rely on private agreements, deviate
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42 from public norms and, ultimately, engage in crime. In addition, if norms are clear, they need
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44 not be always explicitly put on paper or otherwise formalized, as they are understood in the
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46 same manner.
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53 Our contribution is threefold. Firstly, previous corporate governance research has only
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55 paid scarce attention to the role of informal rules. To the best of our knowledge, we are the
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57 first to empirically demonstrate the links between social norms, social cohesion, and firm-
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59 level corporate governance. In this way, we show that that informal rules matter. Secondly,
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we adopt a single-country research design, which is almost never used in studies in our field, in order to hold the effect of formal institutions constant and thus to isolate the effect of social norms and social cohesion. We believe it is a powerful way of overcoming the deficiencies of cross-country governance research, as it alleviates a great deal of inference concerns. Third, we construct a unique multilevel dataset to test our hypotheses.

Of course, our research is not free of limitations. Firstly, even though our single-country approach has clear methodological advantages, variation in informal rules *within* a country is likely to be lower than *across* countries (Lubatkin et al., 2005, 2007). On the other hand, this opens an opportunity for further cross-country research on the impact of informal rules on corporate governance. Secondly, we have some knowledge on *what* norms matter for corporate governance, but we only have limited understanding of *how* this happens. Again, this offers an excellent opportunity for case-study research that should come up with clear and rigorous demonstrations of real-life examples of the very mechanism by which social norms may affect corporate governance. Finally, future research should attend to additional explanations (besides the ones we have already discussed), such as regional financial development, firm profitability, and growth opportunities.

There is also one important, related research question that is beyond the present scope. We have discussed informal rules as if they were specific to particular provinces. This is warranted by the methodology we adopt. In reality, informal-rule influences on corporate governance are also, and possibly more, likely to come through individual influences. As Lubatkin et al. (2005, 2007) hypothesize, principals and agents socialize in a specific social context which determines the governance choices they make. However, there is no particular reason to believe why this context should be best described as regional. For example, social context influences can come from family, school, or other sources of socialization. Thus, the

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3 results we offer in this paper probably capture only a fraction of the informal-rule explanation
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5 that is yet to come. There are ample opportunities for future research.
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8 And because this research is far from complete, it would be premature to draw policy
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10 conclusions. However, it is appropriate to note a few implications. It is important to
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12 remember that informal rules persist over time and change extremely slowly, if at all
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14 (Hofstede, 2001; North, 1990; Williamson, 2000). Obviously, our results do not imply that
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16 the benevolent policymaker can improve corporate governance by manipulating our
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18 independent variable measures. For example, it would be naïve to think that corporate
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20 governance can be improved by making elections compulsory, since voter turnout merely
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22 serves as a measure of social capital – a latent characteristic that is far more difficult to
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manipulate.

Thus, Hofstede distinguishes between national cultures (the invisible characteristics of
societies or communities reflected in basic value orientations) and national institutions (the
visible ones, reflected in governments, legal systems, religious communities, family
structures, etc.). “Institutions cannot be understood without considering culture, and
understanding culture presumes insight into institutions. Reducing explanations to either one
or the other is sterile” (Hofstede & Hofstede, 2005:20).

If that is indeed the case, then manipulating these underlying orientations is not a
viable option, and the attempts to rewrite legal rules by importing them from countries with
stronger legal protection of investors, as many proponents of corporate governance reforms
would suggest, would then also be a sterile exercise. For example, Enriques and Volpin
(2007) show that US-style solutions often failed to work after legal reforms in Continental
Europe. Yoshikawa and Rasheed (2009) also suggest that an imposition of imported practices
or standards may not lead to intended policy outcomes because the ideal corporate
governance is likely to be institution- and firm-specific (see also West, 2009). Gorga (2006)

provides evidence from Brazil, which suggests that corporate law reform aimed at strengthening investor protection did not achieve its desired effect – expanding the capital markets. She goes on to demonstrate how Brazil’s patrimonial culture based on personal relationships has persisted over the past centuries into today’s corporate governance. Since Brazil’s written law was transplanted and detached from the social context, the aristocracy guided by the reigning culture would often ignore it.

Combined with these findings, our results suggest that the policy should take informal rules into account and consist in adjusting corporate governance to fit them. As this fit will differ across communities and countries, international convergence of corporate governance appears unlikely.

NOTES

¹ North uses the terms “rules” and “constraints” interchangeably, but does not make an explicit distinction between them (see also Hodgson, 2006). Although he more often uses the terms “informal *constraints*” and “formal *rules*”, the nature of both is rule-like. To North, “[t]he difference between informal and formal constraints is one of degree”, both being located on “a continuum from taboos, customs, and traditions at one end to written constitutions at the other” (North, 1990:46). Based on his examples of informal constraints (codes of conduct, norms of behavior, and conventions), we could just as well call them “informal rules”. We shall henceforth use the term “rules” in order to avoid confusion.

² In this literature, “norms” refer to what we call “informal rules”. For example, Coffee (2001:2171) provides the following simple definition: “Norms are often defined as informal rules of conduct that constrain self-interested behavior but are not enforced by any authoritative body that can impose a sanction.” Hart (2001) uses a similar definition. Kahan (2001) provides an overview and critique of definitions of the term “norm” in the legal literature, as well as calls for a more precise definition for the purposes of analysis of corporate governance. We, too, believe that the concept of informal rules better captures the idea.

³ As we noted at the outset of this paper, dominant theories have emphasized formal rules and enforcement as the major institutional determinants of corporate governance. We have taken care of the effect of formal rules through our research design, by opting for a cross-regional single-country study. However, this approach does not necessarily guarantee that corporate governance is unaffected by enforcement. To test this hypothesis, we need region-level data on the efficiency of the judicial system, dispute resolution, or tax enforcement. Unfortunately, such data are not available. However, in another study using a different dataset, we looked at the impact of the region and enforcement (measured as the number, cost, and duration of commercial disputes) on corporate governance in Ukraine. We found a significant region effect; however, there appeared to be no relationship between enforcement and corporate governance – perhaps, due to little variation in enforcement. This gives us a good reason to believe that the enforcement effect is close to constant *within Ukraine* and the hypothesized differences in corporate governance are due to differing social norms and social cohesion rather than enforcement.

⁴ Bonding as introduced by Jensen and Meckling (1976) refers to the effort that managers incur to reduce the information asymmetry between themselves and the shareholders. Although the concept is theoretically appealing, its measurement almost necessarily comes down to formal attributes of bonding, such as voluntary reporting or provision of information.

⁵ First of all, the presidential elections in the country are held in two rounds. (The 2004 presidential elections effectively had three rounds, since the results of the second were cancelled.) The turnout in the second round may therefore be affected depending on the candidates that proceed to this round. Thus, it usually increased somewhat in the provinces where the candidate enjoying most local support proceeded into the next round (Vasylchenko, 2005). Secondly, recent elections – that is, in 2004 and later – were often alleged to have been rigged. We deal with these concerns by computing an alternative measure of social capital, defined as the average voter turnout in the elections that do not carry the above threats. We compute our average only based on the data from the 1994 and 1999 presidential elections (first rounds only) and 1998 and 2002 parliamentary elections. (That is, we discard the data for the second rounds in the 1994 and 1999 presidential elections, for the 2004 presidential elections, and for the 2006 and 2007 parliamentary elections.)

⁶ In principle, we would prefer to use the percentage of religious population by the province rather than the number of religious organizations because we cannot control for the size of these organizations. Unfortunately, these data are not available for Ukraine and the census questionnaires never contained this question. However, the assumption that the size of religious organizations across Ukraine is more or less the same seems reasonable.

⁷ Measurement of our dependent variable precedes the measurement of two independent variables, religiosity and homicide rate (earlier data for these two variables were not available). However, this poses no problem due to the stability of these measures.

⁸ These industries are: (1) Agriculture, (2) Food industry, (3) Textiles, clothing, and footwear, (4) Timber and woodwork, (5) Publishing, (6) Chemical and petrochemical industry, (7) Construction materials and glasswork, (8) Metallurgy and metal processing, (9) Machines and equipment, (10) Electric and electronic equipment, (11) Transport equipment, (12) Power, gas, and water production and distribution, (13) Construction, (14) Hotels and restaurants, (15) Transport, (16) Communications, (17) Finance, (18) Real estate, (19) Energy materials, and (20) Non-energy materials.

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APPENDIX: ARTWORK AND TABLES

FIGURE 1
The Provinces and Regions of Ukraine



Source: GfK Ukraine

TABLE 1
Sample Description

This table describes our sample. Panel A reports province means for corporate governance (the IFC index), social norms, social cohesion, Log (GDP per capita), and firm characteristics (provinces are classified by *GfK* region). Panel B presents regional means for the IFC index, as well as reports tests of means across the six *GfK* regions. All variables are described in the methodology section.

Panel A. Corporate Governance, Social Norms, Social Cohesion, and Control Variables by Province

Province	No. of obs.	IFC index, avg	Social capital	Religiosity	Total fertility	Ethnic homogeneity	Linguistic homogeneity	Homicide rate	Log (GDP per capita)	Firm size, avg	State ownership, avg	Ownership concentration, avg
Dnipropetrovsk oblast	48	50.74	0.67	323	1.6	0.79	0.67	68.8	3.93	1.92	0.15	2.05
Donetsk oblast	62	58.48	0.71	314	1.6	0.57	0.24	118.6	3.99	2.21	0.02	3.19
Kharkiv oblast	61	55.14	0.66	235	1.6	0.71	0.54	73.4	3.86	1.70	0.00	2.46
Luhansk oblast	33	60.96	0.70	303	1.6	0.58	0.30	87.0	3.78	2.18	0.15	2.50
Zaporizhzhia oblast	33	70.32	0.66	462	1.6	0.71	0.50	82.9	3.91	1.79	0.06	2.60
Total, East	237											
Mean, East		58.05	0.68	318	1.6	0.66	0.43	89.4	3.91	1.96	0.06	2.51
Chernivtsi oblast	8	57.16	0.69	1 187	1.9	0.75	0.76	40.9	3.55	1.62	0.00	2.00
Ivano-Frankivsk oblast	17	74.62	0.80	948	1.9	0.98	0.98	21.3	3.72	1.76	0.06	2.08
Khmelnysky oblast	15	72.82	0.76	1 267	1.8	0.94	0.95	45.3	3.66	1.87	0.00	2.25
Lviv oblast	32	78.12	0.81	1 117	1.9	0.95	0.95	42.1	3.73	2.16	0.03	2.29
Rivne oblast	19	70.81	0.78	1 208	2.1	0.96	0.97	26.4	3.68	1.68	0.05	2.09
Ternopil oblast	13	80.98	0.83	1 530	1.9	0.98	0.98	26.3	3.55	2.08	0.00	2.70
Volyn oblast	9	77.39	0.78	1 315	2.0	0.97	0.97	45.3	3.68	1.44	0.00	2.25
Zakarpattia oblast	12	66.75	0.66	1 292	2.0	0.81	0.81	35.0	3.63	1.75	0.00	1.86
Total, West	125											
Mean, West		73.71	0.77	1 211	1.9	0.92	0.93	35.9	3.67	1.86	0.02	2.22
Chernihiv oblast	21	72.69	0.74	700	1.7	0.93	0.89	75.6	3.71	1.90	0.05	2.00
Kyiv oblast	41	64.27	0.70	857	1.7	0.93	0.92	82.0	3.82	1.83	0.02	2.50
Sumy oblast	18	81.24	0.73	582	1.7	0.89	0.84	68.9	3.70	1.83	0.00	2.22
Zhytomyr oblast	21	72.88	0.73	965	1.8	0.90	0.93	75.5	3.64	2.14	0.00	1.81
Total, North	101											
Mean, North		70.84	0.72	789	1.7	0.91	0.90	76.1	3.73	1.91	0.02	2.10

AR Crimea	29	51.20	0.64	656	1.7	0.24	0.10	96.5	3.69	1.66	0.00	2.00
Kherson oblast	19	71.38	0.66	725	1.8	0.82	0.73	74.6	3.66	1.53	0.05	1.82
Mykolayiv oblast	29	63.68	0.67	555	1.7	0.82	0.69	89.8	3.81	1.69	0.00	2.33
Odesa oblast	36	49.36	0.61	476	1.7	0.63	0.46	90.3	3.85	1.83	0.08	2.40
The city of Sevastopol	4	71.14	0.67	282	1.5	0.22	0.07	83.1	3.77	1.00	0.00	3.50
Total, South	117											
Mean, South		57.69	0.64	569	1.7	0.56	0.42	89.1	3.77	1.68	0.03	2.19
Cherkasy oblast	23	63.93	0.71	838	1.7	0.93	0.93	65.8	3.69	1.87	0.13	2.75
Kirovohrad oblast	18	55.63	0.70	518	1.7	0.90	0.89	92.6	3.71	1.61	0.06	4.00
Poltava oblast	28	59.92	0.73	596	1.7	0.91	0.90	64.9	3.95	1.86	0.00	1.83
Vinnysia oblast	19	86.52	0.74	991	1.8	0.95	0.95	42.6	3.67	2.11	0.00	2.07
Total, Centre	88											
Mean, Centre		65.83	0.72	758	1.7	0.93	0.92	63.6	3.77	1.86	0.05	2.26
The city of Kyiv	135	49.85	0.63	346	1.5	0.82	0.74	49.2	4.36	1.74	0.04	2.74
Total, the city of Kyiv	135											
Mean, the city of Kyiv		49.85	0.63	346	1.5	0.82	0.74	49.2	4.36	1.74	0.04	2.74
TOTAL, UKRAINE	803											
MEAN, UKRAINE		61.52	0.70	672	1.7	0.78	0.68	70.0	3.89	1.85	0.04	2.34

Panel B. Corporate Governance by Region

		Region						Total
		Kyiv ^A	East ^B	West ^C	South ^D	North ^E	Center ^F	
IFC index	Mean	49.85 ^{C, E, F}	58.05 ^{C, E}	73.71 ^{A, B, D}	57.69 ^{C, E}	70.84 ^{A, B, D}	65.83 ^A	61.52
	No. of observations	135	237	125	117	101	88	803

Note: Superscripts ^{A, B, C, D, E, F} indicate significant mean differences at $p < 0.01$.

TABLE 2
Bivariate Correlations (Pearson's *r*)

Descriptive Statistics				Pearson's correlations									
Variables	Mean	Std. Dev.	N	1	2	3	4	5	6	7	8	9	10
1. IFC index	61.52	24.10	803	---									
2. Social capital	0.69	0.05	803	0.35 ***	---								
3. Religiosity	602.40	333.45	803	0.31 ***	0.70 ***	---							
4. Total fertility	1.68	0.14	803	0.30 ***	0.70 ***	0.89 ***	---						
5. Ethnic homogeneity	0.78	0.17	803	0.20 ***	0.49 ***	0.50 ***	0.37 ***	---					
6. Linguistic homogeneity	0.68	0.25	803	0.20 ***	0.47 ***	0.62 ***	0.46 ***	0.96 ***	---				
7. Homicide rate	69.44	23.99	803	-0.11 **	-0.27 ***	-0.50 ***	-0.36 ***	-0.65 ***	-0.72 ***	---			
8. Log (GDP per capita)	3.89	0.24	803	-0.29 ***	-0.58 ***	-0.63 ***	-0.77 ***	-0.06 †	-0.13 ***	-0.09 *	---		
9. Firm size	1.85	1.24	803	0.27 ***	0.07 *	0.01	0.01	0.00	-0.02	0.04	-0.02	---	
10. State ownership	0.04	0.20	803	0.00	-0.04	-0.06 †	-0.05	-0.01	-0.02	0.00	0.02	0.16 ***	---
11. Ownership concentration	2.34	0.85	309	-0.27 ***	-0.07	-0.18 **	-0.23 ***	-0.12 *	-0.18 **	0.14 *	0.23 ***	-0.01	0.07

This table reports bivariate correlations (Pearson's *r* coefficients) among the variables used in this study. All variables are described in the methodology section. Significance: † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed).

TABLE 3
VARIMAX-rotated Component Matrix for Social Norms and Social Cohesion

	<i>Factor 1</i>	<i>Factor 2</i>
Social capital	0.23	0.84
Religiosity	0.37	0.87
Total fertility	0.18	0.93
Ethnic homogeneity	0.91	0.26
Linguistic homogeneity	0.92	0.32
Homicide rate	-0.83	-0.18
Percentage of variance explained	43.1%	42.1%

This table reports the results of principal component analysis on social capital, religiosity, total fertility, ethnic homogeneity, linguistic homogeneity, and homicide rate. All variables are described in the methodology section. Factors with an eigenvalue above 1 are extracted. Bold type indicates significant loadings (above ± 0.4).

TABLE 4
Regression Results for Social Norms, Social Cohesion, and Corporate Governance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Constant	78.40 *** (3.65)	176.02 *** (13.67)	108.76 *** (4.83)	3.73 (0.11)	117.03 *** (6.06)	56.16 † (1.66)	16.86 (0.47)	119.64 *** (5.60)	64.89 † (1.78)	-8.05 *** (-5.11)
Social norms	6.48 *** (4.89)		4.94 *** (3.62)	7.17 *** (4.19)		3.94 * (2.19)	6.62 *** (3.57)		3.57 † (1.85)	0.51 *** (6.29)
Social cohesion		4.14 *** (5.26)	3.34 *** (4.11)		7.03 *** (5.86)	5.92 *** (4.56)		6.89 *** (5.39)	5.97 *** (4.37)	
Log (GDP per capita)	-6.69 (-1.21)	-31.91 *** (-9.70)	-14.56 * (-2.51)	18.03 * (2.11)	-11.96 * (-2.32)	3.80 (0.43)	14.18 (1.52)	-12.72 * (-2.25)	1.40 (0.15)	2.14 *** (5.23)
Firm size	5.01 *** (7.95)	5.29 *** (8.42)	5.14 *** (8.22)	4.55 *** (5.10)	4.49 *** (5.17)	4.54 *** (5.25)	4.47 *** (4.32)	4.44 *** (4.43)	4.55 *** (4.55)	-0.01 (-0.29)
State ownership	-2.86 (-0.73)	-4.43 (-1.14)	-3.28 (-0.85)	-4.01 (-0.85)	-6.32 (-1.38)	-5.21 (-1.14)	-3.65 (-0.73)	-6.35 (-1.31)	-5.55 (-1.15)	0.32 (1.46)
Ownership concentration				-6.33 *** (-4.67)	-5.07 *** (-3.81)	-5.36 *** (-4.03)	-6.42 *** (-4.40)	-5.27 *** (-3.70)	-5.56 *** (-3.90)	-0.14 * (-2.25)
Industry dummies							YES	YES	YES	YES
F-statistic	43.27 ***	44.40 ***	38.68 ***	14.89 ***	18.83 ***	16.68 ***	3.48 ***	4.31 ***	4.31 ***	2.89 ***
Adjusted R ²	0.17	0.18	0.19	0.18	0.22	0.23	0.18	0.22	0.23	0.14
Max. VIF	2.94	1.04	3.28	2.78	1.08	3.23	3.03	1.72	3.39	3.03
No. obs.	803	803	803	309	309	309	287	287	287	287

Ordinary least squares regressions of the cross-section of provinces. The dependent variable in models (1) through (9) is the IFC index. Model (1) reports a regression controlling for social norms; model (2), a regression controlling for social cohesion; and model (3), a regression controlling for both social norms and social cohesion. All regressions include Log (GDP per capita), firm size, and state ownership. Models (4) through (6) repeat models (1) through (3), respectively, but additionally control for ownership concentration. Models (7) through (9) repeat models (4) through (6), respectively, but additionally control for industry. The dependent variable in model (10) is social cohesion; this model reports a regression controlling for social norms, as well as Log (GDP per capita), firm size, state ownership, ownership concentration, and industry. All variables are described in the methodology section. Unstandardized coefficients are reported; *t*-statistics are in parentheses. Coefficients for industry dummy variables are not reported. Significance: † *p* < 0.10, * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001 (two-tailed).

FIGURE 2
Mediated Effect of Social Norms on Corporate Governance

