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**Loving the Rules but Hating the Rule Maker: Exploring the Divergence between Expert and Industry Assessments of Regulatory Quality[[1]](#footnote-1)**

*Abstract:* Disagreement remains regarding the best way to evaluate the quality of regulatory institutions. This task is made especially difficult when the assessments of legal experts diverge from the assessments of industry actors. Using survey data from annual World Economic Forum executive surveys and the World Bank's *Doing Business Project*, this paper explores the sources of this divergence with regard to a key determinate of capital market development: minority shareholder protection (MSP). The political independence of regulatory organizations emerges as a key factor in explaining the divergence between expert and executive opinion. Senior managers downgrade their evaluations of MPS strength as regulatory agencies gain greater insulation from political interference and this downgrading is more pronounced in countries were executives express greater confidence in MSP than do experts. More negative executive assessments likely result from independent regulators’ more consistent and impartial implementation of MSP. However, the importance of regulatory independence in shaping managerial opinion diminishes as stock markets become more developed suggesting that financial market discipline can be at least a partial substitute for public enforcement of MSP.

Minority shareholder rights and protections (MSP) stand at the center of the financial politics literature. Regardless of discipline or methodological approach, scholars agree that the effectiveness of investor protections is a key determinate of stock market development both overtime and across countries. Where minority shareholders (i.e. non-controlling) and retail investors (i.e. small) are confident that they will be protected from the greed, incompetence, and malfeasance of corporate managers and controlling shareholders, stock markets will be larger and more liquid. Both academics and practitioners have developed numerous formal measures and indices of MSP. Well known examples include La Porta et. al (1997,1998, 1999), Djankov et. al (2005), and Gourevitch and Shinn (2005). Nearly all include information about transparency issues such as accounting, auditing, and the disclosure of related party transactions; rules that shape the acquisition and loss of corporate control such as shareholder voting rights and antitakeover devices; and legal standards regarding director and executive liability. While invaluable, most measures are constructed by actors who are nominally neutral experts (legal academics) or are predisposed to favor greater over lesser MSP (institutional investors).[[2]](#footnote-2) However, there is a notable exception to this trend: the World Economic Forum’s (WEF) Annual Executive Survey. As part of their Global Competitiveness Reports, the WEF asks senior executives to rate on a scale of one to seven the degree to which the interests of minority shareholders are protected in their country. This approach is distinct in that it asks the potential losers of MSP to rate the strength of investor rights rather than academic experts or those who stand to benefit. Unsurprisingly, there are noticeable differences between executive and expert assessments. The goal of this paper is to explore these differences.

I argue that the key to understanding the differences between executives’ and experts’ views of MSP lies is the political independence of those who do the actual protecting (i.e. regulatory organizations). I assume that MSP is largely a valence issue among business elites. Even though stronger MSP can create costs for senior managers and blockholders, they may also create benefits in the form of a greater supply of equity capital. Therefore, they will often join minority shareholders and express a general support for investor protection. However, much of this executive support may be dependent upon MSPs remaining abstract rather than realized. Stated differently, corporate elites’ support of investor protections will be strongest when investor protections are implemented in ways that do not directly interfere with their financial interests or freedom of decision making. I argue that this will most often be the case when financial regulators enjoy less rather than more political independence. Since corporate insiders enjoy considerable advantages in political mobilization vis-à-vis minority shareholders, politicized regulators will be more likely to implement MSPs in ways that go largely unopposed by corporate insiders. In contrast, political independence gives regulatory actors wider latitude to consistently and impartially enforce MSPs in ways that are sure to grab the attention (both negative and positive) of business elites. As senior managers and blockholders become more aware of minority investor protections and the ways in which particular rules impinge upon their interests, their evaluations of MSP will become less abstract and less likely to be overly optimistic relative to expert evaluations. Results indicate that regulatory independence is associated with lower average executive assessments of MSP and this association is not equally strong in all countries. Findings suggest it is primarily associated with countries where executives express overconfidence in investor protection relative to the experts and in countries where stock markets are not highly developed in terms of size or liquidity. When stock markets are highly developed or where executive assessments of MSP are more pessimistic than the experts, regulatory independence has small to negligible effects. These results hold across a variety of estimators and survive the inclusion of a numerous alternative political economic controls. The remainder of this paper will proceed as follows. First, I will briefly review the literature on financial development with a special focus upon the preferences of corporate insiders and minority shareholders. Then I will outline how regulatory independence may change MSP implementation in ways that lead to lower executive ratings of MSP that are also closer to the experts. After presenting my hypotheses, I will describe my variables including my original measure of regulatory independence. I will outline my methodological approach, present my findings, and describe their overall robustness. The final discussion and conclusion will summarize my findings and their implications for future research.

**Conflicting Interests and Biased Mobilization**

Previous theoretical approaches almost universally identify larger and more liquid stock markets with the interests of minority shareholders (La Porta et. al 1997,1998, 1999; Roe 2003; Gourevitch and Shinn 2005; Pagano and Volpin 2005). They are characterized by their diversified rather than concentrated holdings in companies, their lack of control over management, and their willingness to rapidly alter their investment portfolios in hopes of capturing the largest financial returns. While diversification requires large stock markets with a plethora of listed companies, actually realizing and protecting capital gains over time depends upon a sufficient level of MSPs. If minority shareholders lack protection from the fraud, mismanagement, insider dealing, and market manipulations of senior managers and controlling shareholders, potential investors will sell their shares in offending companies or shun stock markets altogether. Minority shareholders have another quality: a lack of power both within the firm and in the political arena. Their large numbers and small and diverse financial holdings create significant collective action problems with regards to monitoring and sanctioning poorly performing board directors and senior managers*.* Coordination costs are significant; the potential benefits of monitoring are small; and freeriding on the efforts of other shareholders is always a temptation. There are ways to alter corporate governance regulations and financial law so that the costs of monitoring and sanctioning management is less prohibitive, but similar collective action problems emerge within the political and regulatory arena as well. Furthermore, most retail investors lack the legal sophistication and lobbying resources to become full participants in politically charged yet highly technical debates over corporate governance. When they do, it is most likely in the aftermath of crisis or scandal and involves angry calls for politicians or regulators to “do something.” This outrage at corporate elites is rarely sustained and collective action problems reassert themselves as the economy recovers or the memory of scandal fades (McDonnell 2013). At least in normal times, politicians’ regulatory agenda will rarely be driven by the concerns of everyday retail investors. Unlike these small investors, institutional investors and investment intermediaries have the wealth and the incentives to be consistently influential actors in private interactions with corporate executives and in regulatory debates. Their sophistication, smaller number, and larger but still minority shareholdings all boost their capacity and propensity to mobilize around issues of MSP. However, the interests of institutional investors and investment intermediaries are highly diverse and this diversity often prevents them from speaking with one unified voice over many regulatory issues.[[3]](#footnote-3) Competitive pressures may also push them to look out primarily for their own particularistic interests rather than the broader long-term interests of the investing public. The managers of investment funds often depend upon the good will of corporate insiders in order to grow their assets under management and in turn their fees. As a result, they may lobby on behalf of certain investor protections, but not those that could erode their earnings, alienate potential customers among the corporate elite, or place them under greater shareholder scrutiny. In short, retail investors have potential elite allies in their struggle to influence politicians, but these allies share only some of their interests.

In contrast to minority shareholders, corporate executives and block shareholders often benefit from weaker or partially implemented MSPs. The former are primarily management professionals who view themselves as highly paid executive employees. While they often own stock in the companies they manage as part of their compensation package, this creates incentives to increase the stock price of their individual firm rather than boost the integrity of the market as a whole. Blockholders are investors, but differ from minority shareholders due to their concentrated and often controlling stake in individual companies.[[4]](#footnote-4) Despite being small in number, both executives and blockholders wield outsized political influence due to their wealth, expertise, social connections, and large political contributions (Windolf 2002; Culpepper 2011: Burris & Staples 2012). In contrast to the division and collective inaction of pro-MSP constituencies, managers and blockholders share an essential value around which they consistently mobilize: their managerial autonomy within the firm. Concentrated owners and executives are hostile to any attempt by minority shareholders or the state to interfere with their decision making authority. This may not make them opposed to stock market development per se and they generally support basic investor protections. However, they remain deeply skeptical of any minority shareholder right or accounting practice that could even potentially erode the private benefits (both fraudulent and legal) they derive from their position atop the business hierarchy (Dyck and Zingales 2004). When managers and/or blockholders enjoy the rents associated with less than competitive industries, their opposition to MSPs may intensify since equity markets serve as important sources of financing for market entrants (Morck et. al 2003; Pinto et. al. 2010). To the degree that they also facilitate hostile takeovers and active markets for corporate control, stock markets can directly threaten what is most important to many senior managers: their lucrative executive employment. If forced to choose between the full and consistent implementation of MSP on the one hand, and their own autonomy and economic privilege on the other, managers and blockholders in many countries choose the latter.[[5]](#footnote-5) In summation, corporate insiders and the financial industry enjoy formidable lobbying advantages over minority shareholders and retail investors. As a result, politicians face asymmetrical pressure to lessen rather than strengthen MSP and to prefer inaction to action in the face of financial innovation. Politicians may make public commitments to protect investors and strengthen market integrity in the aftermath of crisis or scandal, but these commitments may fade as regulatory issues lose their political salience, corporate insiders reassert their lobbying and political contribution advantages, or anti-MSP parties assume political office. If this pessimistic account is viewed only in isolation, there would be little reason to believe that MSP would ever be diligently enforced. However, these interest group struggles do not occur in an institutional vacuum: political and regulatory institutions may go some way toward mitigating these inequalities.

**Political and Regulatory Institutions**

One of the most prominent institutions cited in the financial literature is legal family. La Porta et al.(1998) argue that in comparison to civil law systems, common law’s less formalized and more adaptable nature make securities contracts more enforceable, investor rights more secure, and private remedies more potent. While acknowledging the importance of common law, Keefer (2008) forcefully argues in favor of the primacy of both formal and informal political institutions in explaining financial development. Other scholars have followed suit. Checks and balances, competitive elections, press freedom, legislative veto players, degrees of economic coordination, and the proportionality of electoral institutions are all highlighted as factors that may increase politicians responsiveness to minority shareholders and retail investors (Pagano and Volpin 2005; Gourevitch and Shinn 2007; Keefer 2007). Many of these are undoubtedly important, but this literature begins with political institutions and ends with regulations that protect various financial interests to greater or lesser degrees. Unfortunately, many of these approaches bypass a key actor that in many countries plays an indispensable role in protecting minority shareholders even after politicians have lost interest in doing so: regulatory organizations.

**The Sobering Influence of Regulatory Independence**

Given the asymmetries in mobilizations outlined above and the short-termism created by electoral cycles, politicians may find it difficult to make the sorts of technically sound corporate governance policies that could ensure MSP and market integrity over the long run. This tension between short-term political expediency and long-term policy consistency is similar to the tensions that emerge with regard to central bank autonomy, monetary policy stability, and the governance of public utilities (Kydland and Prescott 1977; Rogoff 1985; Spiller and Tommasi 2005). While ordinary political institutions may go some way toward relieving these tensions, politicians’ commitments to MSP may still lack credibility. In light of this credibility problem and what has become international best practice, politicians increasingly delegate at least some power over financial regulation to nominally apolitical regulatory organizations that they can only partially control (Majone1996b; Levy-Spiller 1997; Bendor et. al 2001). This trend can be found across countries and economic sectors and its implications have been extensively discussed under the conceptual framework of the regulatory state (Majone 1994; Moran 2010) and more broadly regulatory capitalism (Levi-Faur 2005; Braithwaite 2008;). The broad expectation of this research is that policy becomes more consistent, stable, and impartial when it made and implemented by unelected experts rather than politicians. When these experts are insulated from the day-to-day din of partisan politics, regulatory consistency and impartiality should increase even further. Obviously, this does not make regulators immune from industry pressure, but it at least makes them more immune to industry pressures as exercised through politicians.

If regulators lack protection from political interference, they also lack protection from the asymmetries in campaign contributions and lobbying pressures experienced by politicians. The indirect nature of this form of capture does not make it any less insidious. It is politicians who nominate and initiate the dismissal of regulatory officials, conduct oversight hearings, and decide agency budgets. If their hostility is sufficiently strong and broadly shared, they may override, reorganize, or eliminate regulators through legislative change. When politicians can easily influence regulators, their rulemaking and enforcement may become consumed with preempting industry criticism and forestalling political interference. Greater political independence should reduce this strategic behavior and allow securities market agencies to more effectively implement MSP in spite of industry interests’ capture of politicians. *To the degree that this more effective policy implementation brings executives and blockholders face to face with the realities of investor protection, it may reduce their valence based approval of investor protection in the abstract. Forced to confront the costs of more stringently enforced corporate governance regulation, executives’ assessment of MSP may be less optimistic and more likely to fall in line with the views of the legal experts.*

This leads me to my first two hypotheses:

H1: As regulatory independence increases, average executive evaluations of the strength of minority shareholder protection will decrease.

H2: As regulatory independence increases, the difference between expert and executive evaluations should decrease.

However, direct regulatory intervention by public actors is not the only way that executives can become more aware of the true nature of shareholder power. Large and liquid stock markets can embolden shareholders by lowering the costs of exit from firm ownership (i.e. selling) and by providing easy to understand and up-to-date information on corporate insiders managerial performance. More developed stock markets also increase the credibility of hostile takeover threats, diffuse pro-investor business norms, and encourage equity based executive compensation schemes that can align the preferences of senior executives with those of short-term investors. If stock market development does in fact produce these results, the role of regulatory interventions in reducing differences between executive and expert opinion may be reduced. Rather than regulators, financial markets themselves may educate business elites with regards to the true level of shareholder power in their countries. This leads to my third hypothesis:

H3: The effects of regulatory independence on the difference between expert and executive assessments should be smaller in countries with more highly developed stock markets.

**MSP Assessments**

In order to test these hypotheses, I need accurate measures of both expert and executive assessments of minority shareholder rights. For my expert measure, I draw upon the World Bank Doing Business Project’s *Strength of Minority Investor Protection Index*. According to the Doing Business project’s website, the index is constructed from a “questionnaire administered to corporate and securities lawyers and are based on securities regulations, company laws, civil procedure codes and court rules of evidence.” The index itself is actually a composite of several others and is constructed in the following way:

The indicator measures the *protection of minority investors from conflicts of interest* through one set of indices (combined in the extent of conflict of interest regulation index) and *shareholders’ rights in corporate governance* through another (combined in the extent of shareholder governance index).The extent of conflict of interest regulation index focuses on one of the most serious breaches of good corporate governance around the world: the related-party transaction. The index measures the protection of shareholders against directors’ misuse of corporate assets for personal gain by distinguishing 3 dimensions of regulation that address conflicts of interest: transparency of related-party transactions (captured by the extent of disclosure index), shareholders’ ability to sue and hold directors liable for self-dealing (extent of director liability index) and access to evidence and allocation of legal expenses in shareholder litigation (ease of shareholder suits index). The extent of shareholder governance index measures shareholders’ rights in corporate governance by distinguishing 3 dimensions of good governance: shareholders’ rights and role in major corporate decisions (captured by the extent of shareholder rights index), governance safeguards protecting shareholders from undue board control and entrenchment (extent of ownership and control index) and corporate transparency on ownership stakes, compensation, audits and financial prospects (extent of corporate transparency index). (Doing Business Project)

The resulting composite *Strength of Investor Protection Index* takes on values between 0 to 10 with 0 indicating the complete absence of investor protection and 10 indicating maximum investor protection. My measure of executive opinion is taken from The World Economic Forum’s *Executive Opinion Survey* which began a systematic survey of corporate governance issues in 2005. Although there is variation year to year, the survey typically collects the opinions of well over 12,000 senior managers with the average number of respondents per country being over 90. A majority of survey respondents are randomly selected, but the World Economic Forum insists that their country partners include some repeat respondents in order to aid in comparability overtime. Once the data is cleaned of outliers and missing responses, individual answers are aggregated at the country level and weighted by economic sector. Each yearly country average is actually a weighted average of the most recent year’s survey results combined with a discounted average of the previous year.[[6]](#footnote-6) This step is performed in order to make country averages less sensitive to the specific point in time in which survey responses were collected and to increase sample size. Given my dependence upon these WEF surveys, empirical analyses will utilize annual data from 2005 to 2012 and include just over 100 countries. The question formats are identical for all indicators and loosely resemble Likert scales. They consist of a 1 to 7 scale with 1 corresponding to “you agree completely with the answer on the left-hand side; 3 corresponding to “your opinion is indifferent between the two answers;” and 7 corresponding to “you agree completely with the answer on the right-hand side.” The most important indicator for my purposes is the “protection of minority shareholders’ interests” with 7 corresponding to the strongest protection (see Global Competitiveness Report 2013-2014 pgs 83-92 for more detail of survey methodology and score construction). Obviously this is a far more crude measure than the index created by the Doing Business project, but this is precisely the point. The latter expert measure is specifically designed to be objective assessment of the legal environment. In contrast, the simplicity of the executive survey question leaves room for more affective components of policy evaluations. Rather than a purely disinterested assessment of what executives consider to be the “objective” level of MSP, the Likert-styled WEF measure provides executives’ with ample opportunity to draw upon any feelings of contentment or frustration that their personal experiences of MSP engender. Overall, the Pearson product-moment pairwise correlation between the two MSP evaluations is positive and weakly moderate at ρ≈.35 (see appendix I). Both measures of MSP were max-min normalized onto a [0,1] interval to ease interpretation and cross-measure comparison. In order to measure the divergence between executive and expert assessments, the normalized WEF executive assessments were subtracted from the Doing Business Project’s normalized shareholder index score. I label this difference “Executive Bias” (Executive Bias = Expert Assessment - Average Executive Opinion) and it describes the differences in how experts and executives place their country on two MSP scales relative to other countries. Executive bias ranges from [-.59, .59] with a mean of zero and an overall standard deviation of .22. When *executive bias* takes on negative values, this means that the executive assessments of MSP where more optimistic than expert assessments. When it takes on positive values, it suggests that expert assessments are more sanguine with regard to MSP than executives. An executive bias of zero means both executives and experts placed their countries’ regulatory regime in identical positions relative to other countries on their respective MSP scales. According to my framework, *executive bias* should become more negative (i.e. executives more optimistic as compared to experts) as executives’ face less confrontational implementation of MSP by less than fully independent regulators. Correlations provide some support for my theoretical intuitions: regulatory independence has a weak negative pairwise correlation with executive assessments (ρ≈-.26) and an even weaker positive correlation with expert assessments of MSP (ρ≈0.13).

**Figure 1**

***Executive Bias*** = **Expert Assessment - Average Executive Opinion**

**0 Bias**

Optimistic countries: Switzerland, Sweden, Qatar, Germany, Jordan, Greece, Tunisia, Austria, Netherlands, Luxembourg, Finland, Iceland

Pessimistic Countries: Bangladesh, Mongolia, Columbia, Kyrgyzstan, Bulgaria, Slovenia, Italy, Serbia, Trinidad, Israel, USA

**Executive > Expert**

**Executive < Expert**

e.g. Croatia, South Africa, New Zealand, Mexico, Kuwait, Ecuador

**Regulatory Independence**

**Regulatory Independence**

In order to test the connection between regulatory independence and executive bias, I constructed a new dataset of securities market regulatory organizations in over 120 countries from 1988 until 2012.[[7]](#footnote-7) Drawing from financial legislation, agency statutes, and executive orders and decrees, the dataset features 25 indicators of political independence. Indicator selection was guided by a close review of the central banking literature as well as previous studies of regulatory agency formal independence (Cukierman et. al. 1992; Elgie, R. and McMenamin 2005; Gilardi 2005). Typically, independence indicators are ordinal with the lowest scores corresponding to political dependence upon ministries of finance and/or executive cabinets; middling scores indicating independence from the executive, but not legislatures; and the highest scores reserved for instances in which the regulator is independent of both executive and legislative actors. In other instances, higher scores reflect requirements that multiple veto players must agree before a particular action can be taken vis-à-vis a regulatory agency or its personnel (e.g. legislative confirmation of executive nominees to an agency board). A complete list and coding for all independence indicators can be found in the appendix. De jure independence indicators include but are not limited to appointment and dismissal procedures of regulators’ supervisory boards and executives; restrictions on appointment renewal; term lengths and the staggering of board terms; the presence of political officials and other regulators as ex-officio members of agency boards; agencies’ budgetary and organizational autonomy; the ability of political officials to issue binding instructions to agency personnel; the rights of political actors to veto agency rules and regulations; and the ability of political actors to issue rules and regulations independent of agencies. Functional, institutional, financial, and organizational independence were all represented by indicators. Of these “secondary-level” features of independence, personnel and functional independence were particularly emphasized. Countries where the ministry of finance or executive cabinet is in charge of regulation almost always received the lowest scores possible for each item indicator.[[8]](#footnote-8)

I assume a “family resemblance” approach to the concept of independence. As a result, my coding scheme does not attempt to express necessary and sufficient conditions for independence (Goertz 2006). Instead, I treat independence as a quality that a regulator can possess to a greater or lesser degree. However, my measure does not arbitrarily assume that all indicators are equally important for independence. Rather than rely solely upon theoretical assertion to weigh some indicators more than others, I follow Hanretty and Koop (2012) and look to a group of measurement models associated with Item Response Theory (IRT). These measurement models assume that the trait being measured is latent rather than directly observed. Given the structure of my indicators, I estimated a two parameter unidimensional graded response model using the Expectation-Maximization approach outlined by Bock and Aitkin (1981). This produced a unique “factor score” that represents regulators’ latent political independence. This modelling approach was particularly useful in maintaining concept-measure consistency because it specifically estimates the ability of particular indicators to discriminate between regulators with higher and lower levels of independence. If an indicator is especially discriminatory, it receives greater “weight” when latent independence scores are estimated. For ease of interpretation, latent independence scores were normalized onto a [0,1] scale with 0 indicating regulation conducted completely by political actors and 1 indicating the maximum level of formal independence found in the sample. Overall, the independence measure is rarely changing and strongly trended; 84% of all changes were in the direction of greater independence and independence granted was rarely taken away. Descriptive statistics and a more detailed discussion of my scaling procedure can be found in appendix III.

In addition to my original measure of regulatory independence, I will also include a series of alternative political and institutional controls. Main models will feature three variables derived from Beck and Keefer’s Database of Political Institutions (DPI): electoral competitiveness, electoral proportionality, and a measure of partisanship. Electoral competitiveness is additive combination of the Legislative and Executive Indices of Electoral Competitiveness rescaled onto a [0,12] interval with 12 indicating a maximum level of electoral competition.[[9]](#footnote-9) I follow Pagano and Volpin (2005) and use Beck et. al.’s *PR*, *Plurality*, and *Housesys* variables to make a zero to three proportionality scale where three corresponds to maximum proportionality.[[10]](#footnote-10) The partisanship measure is a dummy variable of center-right government that takes on a value of one if the chief executive in a presidential system or the largest governing party in a parliamentary system is centrist or right-wing. In order to account for the legal environment, I also include a dummy variable control for common law legal family and Freedom House’s Rule of Law measure. The latter ranges from [0,16] with 16 corresponding to maximum levels of judicial independence, procedural fairness in criminal and civil trials, and equal rights under the law. For added robustness, I utilize Witold Henisz’s Political Constraints III index (polcon3) to measure the presence of veto players in policy making and the World Banks’ Worldwide Governance Indicators’ Regulatory Quality measure in supplemental models. The Regulatory Quality indicator takes on values between [-2.21, 2.25] and is a broad measures of the “incidence of market-unfriendly policies such as price controls or inadequate bank supervision, as well as perceptions of the burdens imposed by excessive regulation in areas such as foreign trade and business development” (World Bank). Higher score indicate a more “market-friendly” and less burdensome regulatory environment. Featured macroeconomic controls include GDP per Capita in current US. Dollars (ln), GDP annual percentage growth, industry value added as a percentage of GDP, services valued added as a percentage of GDP, Chinn-Ito’s index of capital account openness (normalized), trade (sum of exports and imports of goods and services) as a percentage of GDP (ln), and value of stock traded as a percentage of GDP (ln) as a measure of stock market liquidity and development.[[11]](#footnote-11) In supplementary models, a dummy variable for banking crises, stock index price volatility, and inflation (ln) are also included. All macroeconomic variables, with the exception of the Chin-Ito index, come from the World Banks’ Development Indicators or their Database on Financial Development and Structure.

**Methods:**

The short nature of the panel (2005-2012) and the slow moving nature of both my independent and dependent variables create important modelling challenges. “Within” fixed effects estimators are increasingly seen as the standard for cross-national panel data and an effective way to limit concerns regarding time invariant omitted variable bias. Despite it appeal, this solution would involve throwing away cross-national variation and depending primarily upon within country variation for hypothesis testing. Given the limited amount of within country variation in my key variables, this is unlikely to yield informative results. The most straightforward alternative is to estimate multi-level models, but this would involve making the dubious assumption that idiosyncratic error terms are uncorrelated with the explanatory variables. Haussmann specification tests suggest that this correlation does indeed significantly alter results between fixed and random effects models (Baltagi 2008). As a result, I face the following dilemma: fully utilize cross-national variation but suffer the biases caused by correlations between errors and independent variables, or correct this bias with country fixed effects and throw away potentially revealing cross-national variation. I choose the former path with full awareness of its costs. Main models utilize random effects estimations supplemented by pooled Prais-Winsten models with panel corrected standard errors. The slow moving nature of the key dependent and independent variable raises another issue, serial correlation. With this in mind, random effects estimations will be estimated with Huber-White standard errors clustered by country (Stock and Watson 2008).[[12]](#footnote-12) But to further assure that inferences are not biased by autocorrelation, alternative Cochrane-Orcutt and Prais-Winsten estimators will also be utilized.[[13]](#footnote-13) Despite the many caveats just discussed, main models will utilize a random effects estimator with Huber/White “cluster-robust” standard errors. As a result, most models will take the following form:

Yit = α+ βXit + uit + εit

Yit represents either normalized executive assessments of MSP in country i. in year t, or the *executive bias* measure in country i. year t. Xit represents regulatory independence and the full battery of political economic controls in country i. year t. uit represents between-country errors and εit represents within country errors. β is a vector of coefficients for my explanatory variables and controls. A third set of models will feature an interaction term between regulatory independence and value traded as a percentage of GDP. These models will be nearly identical to the model above with the exception of the interaction effect:

Yit = α+ β1Xit +β2(Independenceit x ValueTradedit) + uit + εit

**Analysis**

Results largely support H1. Regulatory independence has a negative association with executive assessments of investor protection. In contrast, stronger formal MSP (as measured by World Bank expert surveys) has a positive association (see below). The effects of independence and expert MSP are almost identical in size. A maximum zero to one increase in either variable is associated with a half overall standard deviation (≈.20) and at least a full within standard deviation (≈.07) change in executive assessments. This suggests that a simultaneous and equally sized increase in formal MSP and formal independence could have largely offsetting effects in terms of executive opinion. Of the two variables, regulatory independence was far more robust to the inclusion of a dummy for common law legal origin while the expert MSP measure shrank in terms of both magnitude and significance.

**TABLE 1.0 (DV: Executive Assessments)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| VARIABLES | Random Effects | Random Effects | Random Effects | Random Effects | GLS Cochrane– Orcutt | Random Effects | GLS Cochrane– Orcutt |
|  |  |  |  |  |  |  |  |
| Regulatory Independence | -0.113\*\*\* | -0.102\*\*\* | -0.0840\*\*\* | -0.0803\*\*\* | -0.107\*\*\* | -0.0817\*\* | -0.0412 |
|  | (0.0305) | (0.0300) | (0.0277) | (0.0269) | (0.0402) | (0.0357) | (0.0284) |
| Investor Protection (Expert) | 0.105\*  (0.0564) | 0.112\*  (0.0577) | 0.112\*\*  (0.0568) | 0.0593  (0.0563) | 0.00788  (0.0641) | 0.0726  (0.0595) | 0.0412  (0.0442) |
|  |  |  |  |  |  |  |  |
| Electoral Competition |  | -0.00873\*\*\* | -0.00978\*\*\* | -0.00924\*\*\* | -0.00928\*\* | -0.00837\*\*\* | -0.00449\* |
|  |  | (0.00251) | (0.00344) | (0.00338) | (0.00408) | (0.00318) | (0.00254) |
| Rule of Law |  | 0.00921\*\* | 0.0102\*\* | 0.00957\*\* | 0.00824\*\* | 0.0106\*\* | 0.00622\*\* |
|  |  | (0.00377) | (0.00399) | (0.00385) | (0.00385) | (0.00438) | (0.00302) |
| Common Law |  |  |  | 0.125\*\*\* | 0.180\*\*\* | 0.130\*\*\* | 0.150\*\*\* |
|  |  |  |  | (0.0295) | (0.0390) | (0.0312) | (0.0305) |
| Political Constraint |  |  | -0.0614 | -0.0659 | -0.0342 | -0.0512 | -0.0407 |
|  |  |  | (0.0553) | (0.0551) | (0.0402) | (0.0562) | (0.0301) |
| Electoral Proportionality |  |  | -0.00706 | 0.00142 | 0.00913 | -0.00005 | 0.000227 |
|  |  |  | (0.00606) | (0.00606) | (0.00850) | (0.00636) | (0.00726) |
| Center-Right Government |  |  | 0.0250 | 0.0250 | 0.00935 | 0.0272\* | 0.00761 |
|  |  |  | (0.0165) | (0.0165) | (0.0115) | (0.0165) | (0.00942) |
| ln(GDPperCapita) | 0.0313\*\*\* | 0.0222\* | 0.0164 | 0.0234\* | 0.0483\*\*\* | 0.00926 | 0.0310\*\*\* |
|  | (0.0114) | (0.0124) | (0.0133) | (0.0131) | (0.0128) | (0.0159) | (0.0113) |
| GDP Growth | 0.00418\*\*\* | 0.00405\*\*\* | 0.00420\*\*\* | 0.00413\*\*\* | 0.00139\* | 0.00374\*\*\* | 0.00263\*\*\* |
|  | (0.00111) | (0.00112) | (0.00110) | (0.00110) | (0.000810) | (0.00114) | (0.000581) |
| Capital Account Openness | 0.107\*\* | 0.0969\*\* | 0.115\*\*\* | 0.119\*\*\* | 0.0990\*\* | 0.0998\*\* | 0.0567\*\* |
|  | (0.0425) | (0.0438) | (0.0443) | (0.0432) | (0.0397) | (0.0428) | (0.0260) |
| ln(Trade) | -0.0459 | -0.0558\* | -0.0674\*\* | -0.0634\*\* | -0.0256 | -0.0731\*\* | -0.0222 |
|  | (0.0315) | (0.0330) | (0.0327) | (0.0310) | (0.0245) | (0.0307) | (0.0189) |
| ln(Inflation) |  |  |  |  | 0.000198 |  |  |
|  |  |  |  |  | (0.00475) |  |  |
| Bank Crisis |  |  |  |  | -0.0950\*\*\* |  |  |
|  |  |  |  |  | (0.0127) |  |  |
| Stock Index Volatility |  |  |  |  | -0.000988\*\* |  |  |
|  |  |  |  |  | (0.000437) |  |  |
| Industry (%GDP) |  |  |  |  |  | 0.00477\*\* | 0.00264\* |
|  |  |  |  |  |  | (0.00187) | (0.00156) |
| Services (%GDP) |  |  |  |  |  | 0.00322\* | 0.00331\*\* |
|  |  |  |  |  |  | (0.00183) | (0.00152) |
| Constant | 0.352\*\* | 0.480\*\*\* | 0.581\*\*\* | 0.471\*\*\* | 0.182 | 0.285 | -0.0588 |
|  | (0.145) | (0.158) | (0.159) | (0.154) | (0.157) | (0.180) | (0.131) |
|  |  |  |  |  |  |  |  |
| Observations | 860 | 848 | 796 | 796 | 455 | 766 | 766 |
| Overall R2 | 0.0384 | 0.0479 | 0.079 | 0.078 | 0.312 | 0.094 | 0.038 |
| Within R2 | 0.320 | 0.339 | 0.317 | 0.396 | 0.487 | 0.367 | 0.416 |
| Number of countries | 121 | 119 | 114 | 114 | 73 | 112 | 112 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

This is unsurprising given the non-negligible positive correlation between the two variables (ρ≈.34) and the work of La Porta et. al. (1998) who suggest that legal tradition fundamentally shapes the strength of MSP. Like independence and expert MSP, rule of law and electoral competition have opposite effects on executive assessments. This mirrors the findings of Li and Resnick (2003) who suggest that distinctions must be made between the property rights enhancing aspects of democracy (e.g. rule of law) versus those aspects that could frighten investors (open electoral competition that could empower anti-investor interests). Political constraint, electoral proportionality, and government partisanship all lacked meaningful relationships to executive opinion. Economic growth and economic development (GDP per capita, service and industry value added) all improved executive evaluations while instability in stock markets and the banking sector had opposite effects. Effects for my two measures of globalization (capital account openness and trade) were mixed though consistently significant at conventional levels. Overall, hypothesis I is supported, regulators’ formal insulation from politics does appear to depress executive assessments of investor protection even after controlling for the formal level of MSP as measured by experts. *Executives may like the rules, but they seem to have less appreciation for politically independent rule makers and enforcers.*

**Executive Bias**  The previous section demonstrated that countries with more independent regulators have lower average executive assessments of investor protection. But given that executives are not neutral players in struggles over corporate governance and may benefit from less stringent investor protections, how should this lower level of confidence be understood? Is it simply the losers of regulatory independence expressing their frustration or does it represent a genuine reappraisal of MSP in light of its more consistent and impartial implementation? By analyzing executive opinions alongside those of the experts and isolating the role of regulatory institutions in explaining gaps between the two (i.e. executive bias), we should have a better idea of the answer. Results in Table 2.0 suggest that regulatory independence is in fact a strongly associated with executive bias (see next page).

**Table 2.0 (DV: Executive Bias)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | Random Effects  GLS | Random Effects  GLS | Cochrane- Orcutt(AR1) | Prais-Winsten w/PCSE |
|  |  |  |  |  |
| Regulatory Independence | 0.127\*\*\* | 0.0819\*\* | 0.0757\*\* | 0.116\*\* |
|  | (0.0428) | (0.0402) | (0.0383) | (0.0459) |
| Electoral Competition | 0.00840\*\* | 0.00257 | 0.00679\*\* | 0.00859\*\*\* |
|  | (0.00394) | (0.00309) | (0.00275) | (0.00318) |
| Rule of Law | -0.00795 | 0.00602 | -0.00356 | -0.00337 |
|  | (0.00610) | (0.00591) | (0.00374) | (0.00310) |
| Common Law | 0.0698 | 0.00636 | 0.0474 | 0.0397 |
|  | (0.0478) | (0.0474) | (0.0405) | (0.0294) |
| Center-Right Partisanship | -0.0207 | -0.0115 | -0.00529 | -0.00205 |
|  | (0.0186) | (0.0159) | (0.0115) | (0.00975) |
| ln(GDPperCapita) | 0.0411\*\* | -0.0667\*\*\* | 0.0124 | -0.00553 |
|  | (0.0164) | (0.0203) | (0.0117) | (0.0107) |
| GDP growth (annual %) | -0.00477\*\*\* | -0.00162 | -0.00279\*\*\* | -0.00222\* |
|  | (0.00109) | (0.00124) | (0.000696) | (0.00127) |
| Capital Account Openness | -0.105\* | -0.0505 | -0.0682\* | -0.0329 |
|  | (0.0575) | (0.0597) | (0.0348) | (0.0335) |
| ln(Trade) | 0.0790\*\* | 0.0571 | 0.0266 | -0.00193 |
|  | (0.0387) | (0.0420) | (0.0248) | (0.0238) |
| ln(Stocks Traded) | -0.0381\*\*\* | -0.000514 | -0.0336\*\*\* | -0.0271\*\*\* |
|  | (0.00944) | (0.0118) | (0.00617) | (0.00849) |
| Constant | -0.688\*\*\* | 0.147 | -0.228 | -0.0329 |
|  | (0.226) | (0.236) | (0.145) | (0.147) |
|  |  |  |  |  |
| Observations | 733 | 733 | 733 | 733 |
| Within R2 | 0.21 | 0.378 | 0.183 | -- |
| Overall R2 | 0.08 | 0.128 | 0.136 | 0.10 |
| Year FE | NO | YES | NO | NO |
| Number of countries | 101 | 101 | 101 | 101 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

Although the magnitude of the association shrinks by almost half with the inclusion of year dummies or the use of a Cochrane Orcutt AR(1) transformation, regulatory independence is statistically significant at conventional levels in all models. This positive coefficient is in line with hypothesis II; as regulatory independence increases, executive bias becomes more positive (or less negative) suggesting a decrease in executive optimism relative to the experts. In the random effects models, a maximum zero to one change in regulatory independence should produce positive changes that range from a third to a half of the overall standard deviation of executive bias. Prais-Winsten models with a common AR(1) disturbance suggest effects would equal roughly a half of an overall standard deviation in executive bias (.12).

**Figure 2**

****

To reiterate, the positive coefficient on regulatory independence variable should not be interpreted as an increase in the absolute size of the gap between expert and executive assessments. Instead, it can be described as a move away from negative levels of executive bias (expert < executive) and a reduction in executives’ valence based overconfidence in MSP. Figure 2 features a linear prediction of bias across regulatory independence and should clarify the meaning of the positive coefficients. The red reference line on the y axis designates the point at which experts and executives’ relative ratings of MSP are identical. Since all controls are held at their mean, the predictions above represent the effects of regulatory independence on the average country in an average year. When predictions are generated with actual values, results are nearly identical. Despite differences in slope, all models suggest that regulatory organizations with below average formal independence (<.71) should be associated with executive assessments of MSP that *are more optimistic than the experts (i.e. negative executive bias)*. Beyond mean levels independence, differences are not distinguishable from zero at 95% level of confidence. When financial regulation is conducted within the executive bureaucracy (independence =0), executive bias becomes the most negative and reflects the highest levels of executive satisfaction and/or overconfidence relative to the experts. More exactly, expert assessments of MSP are between 12 to 20 percent lower than the assessments of their executive counterparts. Of the political control variables, only electoral competition produced consistent results in terms of both sign and significance. Interestingly, electoral competition has very similar effects to regulatory independence. As electoral competition increases, executives’ opinions become less optimistic relative to the experts and the executive bias variable approaches zero. In short, electoral competition and executives MSP realism appear to go hand in hand. Of the macroeconomic controls, only economic growth, capital account openness, and stock market liquidity maintain consistent signs. All three are negative and their linear predictions suggest that brisk economic growth, greater capital account openness, and increased stock market development, can all increase executive evaluations of MSP beyond those of the experts. Although further research would be required, the higher MSP ratings (relative to experts) created by economic growth may be a reflection of a more general optimism experienced by executives during periods of high economic growth. Similarly, the over optimism in MSP that results from higher levels of capital account openness may be due to the added financial activity that emerges in the wake of financial liberalization.[[14]](#footnote-14) A similar logic may explain the highly significant and largely negative effect of stock market liquidity on executive bias. Executives, even in privately held companies, may see greater stock market activity and then infer that this must be due, at least in part, to formal investor protection. They may also be conflating formal investor protections with the added economic power that flows to shareholders as a result of market liquidity. As stock markets become more developed, minority shareholders gain added leverage over corporate insiders: markets for corporate control become more active; information about managerial performance is more readily available; and shareholders can more easily divest themselves of poorly performing companies. Furthermore, as trading activity becomes a larger part of the economy, executives are more often exposed to pro-investor norms and may even internalize these norms through equity based compensation. Any or all of these factors may lead executives to over-estimate minority shareholder protection relative to the experts. Figure 4 based upon Model 1 of Table 2.0 provide perspective on the magnitude of the association.

**Figure 4 Stock Market Effects on Executive Bias**

****

When stock markets are at below average levels of development as measured by value traded (<2.3), differences between executive and expert evaluations are statistically indistinguishable at conventional levels of significance (p<.05). However, as value traded levels exceed post-2004 median levels (>2.5), executives become overconfident in the strength of minority shareholder protection as compared to the experts. Overall, regulatory independence, electoral competition, economic growth, capital account openness and stock market development have a statistically significant association with executive bias. Higher levels of the first two reduce executives’ overconfidence in MSP relative to the experts while higher levels of growth, capital account openness, and stock market development may do the opposite. Given the profound role that stock markets can have of business culture and therefore executive’s preferences and behavior, the question arises as to whether the sobering effects of regulatory independence remain the same as economies transition from bank based to market based corporate governance. As the findings below indicate, the answer is clearly no.

**Table 2.1 Regulatory Independence-Market Depth Interaction on Executive Bias**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | Random Effects | Random Effects | GLS Cochrane-Orcutt | Prais-Winsten w/PCSE |
|  |  |  |  |  |
| Regulatory Independence | 0.297\*\*\* | 0.204\*\*\* | 0.204\*\*\* | 0.262\*\*\* |
|  | (0.0717) | (0.0587) | (0.0648) | (0.0756) |
| ln(StockTraded) | 0.00697 | 0.0312\*\* | 0.00173 | 0.0149 |
|  | (0.0151) | (0.0133) | (0.0157) | (0.0177) |
| Regulatory Independence x ln(StockTraded) | -0.0651\*\*\*  (0.0213) | -0.0464\*\*  (0.0182) | -0.0516\*\*  (0.0212) | -0.0597\*\*\*  (0.0227) |
| Electoral Competition | 0.00806\*\* | 0.00239 | 0.00666\*\* | 0.00863\*\*\* |
|  | (0.00405) | (0.00319) | (0.00274) | (0.00324) |
| Rule of Law | -0.00746 | 0.00612 | -0.00347 | -0.00339 |
|  | (0.00608) | (0.00589) | (0.00372) | (0.00298) |
| Common Law | 0.0809\* | 0.0153 | 0.0568 | 0.0516\* |
|  | (0.0477) | (0.0474) | (0.0403) | (0.0296) |
| Center Right Government | -0.0200 | -0.0113 | -0.00507 | -0.00131 |
|  | (0.0188) | (0.0160) | (0.0115) | (0.00992) |
| ln(GDPperCapita) | 0.0405\*\* | -0.0654\*\*\* | 0.0129 | -0.00484 |
|  | (0.0164) | (0.0204) | (0.0116) | (0.0102) |
| GDP Growth | -0.00448\*\*\* | -0.00146 | -0.00267\*\*\* | -0.00211\* |
|  | (0.00110) | (0.00126) | (0.000697) | (0.00128) |
| Capital Account Openness | -0.111\* | -0.0560 | -0.0694\*\* | -0.0344 |
|  | (0.0572) | (0.0596) | (0.0347) | (0.0323) |
| ln(Trade) | 0.0750\* | 0.0551 | 0.0246 | -0.00535 |
|  | (0.0388) | (0.0417) | (0.0247) | (0.0224) |
| Constant | -0.788\*\*\* | 0.0606 | -0.315\*\* | -0.133 |
|  | (0.223) | (0.236) | (0.149) | (0.153) |
|  |  |  |  |  |
| Observations | 733 | 733 | 733 | 733 |
| Overall R2 | 0.101 | 0.145 | 0.152 | 0.110 |
| Within R2 | 0.216 | 0.381 | 0.192 | -- |
| Year FE | NO | YES | NO | NO |
| Number of countries | 101 | 101 | 101 | 101 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

The marginal effects of regulatory independence diminish as stock market trading activity becomes a larger portion of the economy. This result is clearly robust to the inclusion of year fixed effects and alternative Cochrane-Orcutt and Prais-Winsten estimations. As figure 5 demonstrates, increases in regulatory independence diminish levels of executive overconfidence in MSP in a most countries. Only once value traded exceeds the 75 percentile of the sample (3.5) do the sobering effects of regulatory independence become indistinguishable from 0. At the highest levels of stock market development, the marginal effects of regulatory institutions may even switch direction: greater independence would then be associated with increases rather than decreases in executive overconfidence.

**Figure 5 (Independence-Market Depth Interaction on Bias)**

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To summarize, higher levels of regulatory independence reduce executive assessments of investor protection. When executive and expert assessments are placed on similar relative [0,1] scales, findings reveal that this reduction also corresponds to lower levels of executive overconfidence relative to formal expert measures of MSP. While regulatory independence has these effects on executive bias in most countries, countries with the most highly developed stock markets seem largely unaffected. The section below will investigate the robustness of these results.

**Robustness and Sensitivity**

In terms of the relationship between regulatory independence and formal (expert) MSP on the one hand and executive assessments on the other, neither are robust to the inclusion of country fixed effects (not shown) and only the expert measure is robust to the inclusion of year fixed effects. In contrast, when the same relationship is evaluated with a pooled Prais-Winsten estimator and panel corrected standard errors, results resemble those in Table 1.0: both expert MSP and regulatory independence are statistically significant, oppositely signed, and have associations with executive assessments of roughly equal magnitude (see Table 3.1). Regardless of estimator type, the inclusion of controls for financial instability does not diminish the strength of regulatory independence’s coefficient. The opposite is true of controls for industry and services value added (see Tables 3.0 and 3.1) The relationship between regulatory independence and executive bias found in Table 2.1 is also fairly robust. A statistically meaningful association survives the inclusion of a further set of controls including overall regulatory quality (Table 3.2), political constraint, and financial instability (Table 3.3). It also survives the exclusion of value traded (results nearly identical to table 2.1). Furthermore, findings weaken but typically remain significant with the inclusion of country and year fixed effects both together and separately (Table 3.3 and Table 3.4). Table 3.5 demonstrates that reduced differences between experts and executive assessments is in fact driven by the independence of regulators and not their mere existence. When the regulatory independence variable is replaced with a dummy variable that takes on a value of one if a specialized regulatory organization separate from the executive bureaucracy merely exists, coefficients are cut in half and fail to reach conventional levels of significance. Robustness tests also provide further support for the assertion that the effects of regulatory independence on executive bias are smaller as stock markets become better developed. The interaction effect is left largely unaffected by the inclusion of country fixed effects, year fixed effects, or both (Table 3.6). Furthermore, it survives the addition of controls for political constraint and financial instability (Table 3.7) and substantially weakens when the independence measure is replaced by the “regulator in existence” dummy(Table 3.8). If the size of stock markets is substituted for liquidity, results remain largely unchanged across all model types (not shown).

**Conclusion**

The strength of minority shareholder protection is widely believed to be an essential contributor to financial development. As a result, scholars continue to focus upon developing accurate measures of how various rules and regulations protect non-controlling shareholders from the fraud, greed, incompetence, and self-dealing of corporate insiders. While most measures attempt to develop an objective account of MSP strength, other measures, like the survey evidence provided by the World Economic Forum, allow for more subjective evaluations. Unsurprisingly, the differences between the “objective” legal expert based approaches and those that utilize the opinions of the potential losers of MSP (i.e. corporate insiders) are substantial in many countries. Findings indicate that regulatory independence is a key driver of the size and nature of these differences. In countries where regulators are freed of the most blatant forms of political interference, average executive assessments of MSP are actually lower than countries with more politicized regulators. While it is possible that regulatory independence systematically weakens investor protection, this is likely not the case. Not only would such a conclusion be contrary to the expectations of nearly all the past literature on the regulatory politics and the regulatory state, it also ignores the fact that executives’ pay costs as well as enjoy benefits from MSP. What seems more likely is that the added policy consistency that accompanies independence may raise executives’ awareness of formal MSP including how current levels of MSP fall short or impinge upon their interests. Rather than a genuine sign of weaker investor protection, the inverse relationship between independence and executive confidence likely reflects a higher level of realism among latter. Furthermore, these results provide clear guidance as to where independent regulatory organizations may generate the most opposition from corporate elites: countries where corporate insiders are overconfident (relative to the experts) in the current regime of investor protection and are relatively isolated from the financial pressures that come from having larger and more liquid equity markets. In these contexts, the consistent and impartial implementation of formal MSP may come as a rude awakening for corporate insiders unaccustomed to the discipline of financial markets or the effective enforcement of corporate governance regulation. These findings have several implications. First, these results suggest that regulatory organizations cannot be subsumed under the broader concept of regulation. The strength and content of the latter may be highly dependent upon the political independence of the former. As a result, developing accurate measures of regulatory organization may be just as important as measuring regulations themselves. Second, independent regulators play an important part in spreading pro-shareholder norms among business elites. Their consistent implementation of MSP may help to shift executive assessments of investor protection away from being naïve, abstract, and valence based toward something more concrete, meaningful, and possibly pessimistic. Third, these findings highlight the importance of preventing capture that operates indirectly *through* politicians via processes of appointment, appropriation, and oversight. Had findings indicated that formal political independence is unrelated to executive assessments of MSP, it would suggest that the indirect pressure corporate insiders exercise through the political process plays a mostly minor role in shaping regulatory practice. This study’s results suggest the opposite. Political independence matters and may be essential to transforming formal investor protections from empty words upon which everyone can agree into something that inspires considerable conflict among powerful economic elites.

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Appendix I

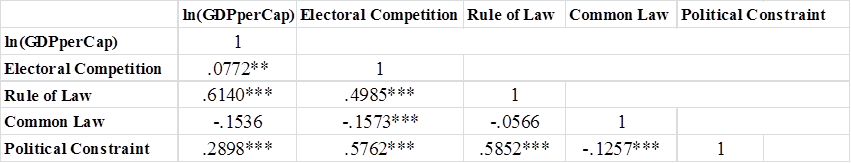
Variable Summary



Correlation Matrix



Correlation Matrix Continued



**Expert and Executive Assessments Compared (2012)**

*dashed lines indicates 0 Executive Bias*

**Executive Bias and Market Development**

Liquidity Size

****

**Executive Bias and Regulatory Independence (2012)**

****

**Appendix II**

**Table 3.0 (DV: Executive Assessments w/year fixed effects)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) |
| VARIABLES | Random Effects GLS | Random Effects GLS | Random Effects GLS | Random Effects GLS | Random Effects GLS |
|  |  |  |  |  |  |
| Regulatory Independence | -0.0546 | -0.0505 | -0.0236 | -0.100\*\*\* | -0.0409 |
|  | (0.0344) | (0.0346) | (0.0329) | (0.0370) | (0.0419) |
| Investor Protection (Expert) | 0.198\*\*\* | 0.204\*\*\* | 0.161\*\*\* | 0.0132 | 0.159\*\*\* |
|  | (0.0509) | (0.0499) | (0.0513) | (0.0645) | (0.0507) |
| Electoral Competition |  | -0.00296 | -0.00489\* | -0.00844 | -0.00538\* |
|  |  | (0.00193) | (0.00260) | (0.00620) | (0.00284) |
| Rule of Law |  | -0.00292 | -0.00454 | 0.000459 | -0.00454 |
|  |  | (0.00391) | (0.00412) | (0.00533) | (0.00460) |
| Common Law |  |  | 0.141\*\*\* | 0.175\*\*\* | 0.140\*\*\* |
|  |  |  | (0.0311) | (0.0350) | (0.0329) |
| Political Constraint |  |  | -0.0431 | -0.0944\*\* | -0.0466 |
|  |  |  | (0.0490) | (0.0445) | (0.0493) |
| Electoral Proportionality |  |  | 0.00178 | 0.00493 | 0.00197 |
|  |  |  | (0.00892) | (0.00987) | (0.00898) |
| Center-Right Government |  |  | 0.0140 | 0.0218 | 0.0126 |
|  |  |  | (0.0133) | (0.0137) | (0.0139) |
| ln(GDPperCapita) | 0.0736\*\*\* | 0.0773\*\*\* | 0.0863\*\*\* | 0.0904\*\*\* | 0.0953\*\*\* |
|  | (0.0123) | (0.0144) | (0.0150) | (0.0205) | (0.0184) |
| GDP Growth | 0.000487 | 0.000541 | 0.000525 | -0.000183 | 0.000705 |
|  | (0.00102) | (0.00102) | (0.000969) | (0.00118) | (0.00101) |
| Capital Account Openness | 0.0245 | 0.0306 | 0.0459 | 0.0417 | 0.0432 |
|  | (0.0440) | (0.0441) | (0.0439) | (0.0605) | (0.0441) |
| ln(Trade) | -0.0380 | -0.0389 | -0.0405 | -0.0173 | -0.0340 |
|  | (0.0315) | (0.0323) | (0.0319) | (0.0373) | (0.0303) |
| ln(Inflation) |  |  |  | -0.00208 |  |
|  |  |  |  | (0.00823) |  |
| Bank Crisis |  |  |  | -0.0679\*\*\* |  |
|  |  |  |  | (0.0180) |  |
| Stock Index Volatility |  |  |  | -0.00136\*\* |  |
|  |  |  |  | (0.000636) |  |
| Industry(%GDP) |  |  |  |  | -0.00226 |
|  |  |  |  |  | (0.00190) |
| Services(%GDP) |  |  |  |  | -0.00109 |
|  |  |  |  |  | (0.00202) |
| Constant | -0.0242 | -0.00133 | -0.0754 | -0.0680 | -0.0236 |
|  | (0.155) | (0.165) | (0.175) | (0.229) | (0.187) |
|  |  |  |  |  |  |
| Observations | 860 | 848 | 796 | 455 | 766 |
| Overall R2 | 0.364 | 0.356 | 0.434 | 0.488 | 0.444 |
| Within R2 | 0.253 | 0.262 | 0.333 | 0.490 | 0.325 |
| Year FE | YES | YES | YES | YES | YES |
| Number of countries | 121 | 119 | 114 | 73 | 112 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.1 (DV: Executive Assessments)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VARIABLES | Prais-Winsten | Prais-Winsten | Prais-Winsten | Prais-Winsten | Prais-Winsten | Prais-Winsten |
|  | Common AR(1) | Common AR(1) | Common AR(1) | Common AR(1) | Common AR(1) | Common AR(1) |
|  |  |  |  |  |  |  |
| Regulatory Independence | -0.123\*\*\* | -0.118\*\*\* | -0.109\*\*\* | -0.0925\*\*\* | -0.173\*\*\* | -0.111\*\*\* |
|  | (0.0357) | (0.0361) | (0.0350) | (0.0331) | (0.0568) | (0.0398) |
| Investor Protection (Expert) | 0.175\*\*\* | 0.176\*\*\* | 0.177\*\*\* | 0.0715\*\* | 0.0421 | 0.0774\*\*\* |
|  | (0.0414) | (0.0401) | (0.0385) | (0.0282) | (0.0342) | (0.0283) |
| Electoral Competition |  | -0.00693\*\*\* | -0.00600\*\* | -0.00516\* | -0.00880\*\*\* | -0.00540\* |
|  |  | (0.00225) | (0.00240) | (0.00271) | (0.00285) | (0.00293) |
| Rule of Law |  | 0.00724\*\*\* | 0.00940\*\*\* | 0.00786\*\*\* | 0.0103\*\*\* | 0.00678\*\* |
|  |  | (0.00276) | (0.00248) | (0.00247) | (0.00371) | (0.00292) |
| Common Law |  |  |  | 0.146\*\*\* | 0.172\*\*\* | 0.145\*\*\* |
|  |  |  |  | (0.0138) | (0.0227) | (0.0144) |
| Political Constraints |  |  | -0.0427 | -0.0481 | -0.0498 | -0.0474 |
|  |  |  | (0.0333) | (0.0329) | (0.0592) | (0.0315) |
| Electoral Proportionality |  |  | -0.0163\*\*\* | 0.000347 | 0.00962\* | -0.000286 |
|  |  |  | (0.00608) | (0.00516) | (0.00560) | (0.00579) |
| Center-Right |  |  | 0.00295 | 0.00263 | 0.00363 | 0.000826 |
|  |  |  | (0.00849) | (0.00811) | (0.0100) | (0.00879) |
| ln(GDPperCapita) | 0.0626\*\*\* | 0.0513\*\*\* | 0.0483\*\*\* | 0.0573\*\*\* | 0.0586\*\*\* | 0.0508\*\*\* |
|  | (0.00813) | (0.00793) | (0.00890) | (0.00969) | (0.0106) | (0.0150) |
| GDP growth | 0.00194 | 0.00198 | 0.00211 | 0.00213\* | 0.00113 | 0.00241\* |
|  | (0.00143) | (0.00139) | (0.00133) | (0.00127) | (0.00159) | (0.00127) |
| Capital Account Openness | 0.0204  (0.0236) | 0.0161  (0.0243) | 0.0190  (0.0256) | 0.0318  (0.0259) | 0.0697\*  (0.0364) | 0.0267  (0.0261) |
| ln(Trade) | -0.00276 | -0.00770 | -0.0145 | -0.0149 | -0.0209 | -0.0134 |
|  | (0.0181) | (0.0186) | (0.0192) | (0.0197) | (0.0165) | (0.0201) |
| ln(1+Inflation) |  |  |  |  | -0.00452 |  |
|  |  |  |  |  | (0.00829) |  |
| Banking crisis |  |  |  |  | -0.0891\*\*\* |  |
|  |  |  |  |  | (0.0154) |  |
| Stock price volatility |  |  |  |  | -0.00125\* |  |
|  |  |  |  |  | (0.000690) |  |
| Industry (%GDP) |  |  |  |  |  | 0.000554 |
|  |  |  |  |  |  | (0.00174) |
| Services (%GDP) |  |  |  |  |  | 0.00210\* |
|  |  |  |  |  |  | (0.00127) |
| Constant | -0.0776 | 0.0497 | 0.104 | -0.00772 | 0.112 | -0.0699 |
|  | (0.0962) | (0.108) | (0.101) | (0.0979) | (0.110) | (0.100) |
|  |  |  |  |  |  |  |
| Observations | 860 | 848 | 796 | 796 | 455 | 766 |
| R-squared | 0.566 | 0.570 | 0.589 | 0.613 | 0.699 | 0.612 |
| Number of countries | 121 | 119 | 114 | 114 | 73 | 112 |

Panel Corrected Standard errors in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.2 (DV: Executive Bias w/Control for Regulatory Quality)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (1) |
| VARIABLES | Random Effects GLS | Random Effects GLS | Cochrane-Orcutt Random Effects GLS | Prais-Winsten w/PCSE |
|  |  |  |  |  |
| Regulator Independence | 0.142\*\*\* | 0.0841\*\* | 0.0784\*\* | 0.117\*\* |
|  | (0.0371) | (0.0373) | (0.0388) | (0.0496) |
| Regulatory Quality | -0.0380 | -0.00512 | -0.0151 | 0.0133 |
|  | (0.0452) | (0.0429) | (0.0263) | (0.0239) |
| Electoral Competition | 0.00797\* | 0.00291 | 0.00700\*\* | 0.00867\*\*\* |
|  | (0.00425) | (0.00344) | (0.00280) | (0.00334) |
| Rule of Law | -0.00594 | 0.00650 | -0.00264 | -0.00425 |
|  | (0.00725) | (0.00696) | (0.00425) | (0.00317) |
| Common Law | 0.0701 | 0.00614 | 0.0452 | 0.0340 |
|  | (0.0501) | (0.0495) | (0.0413) | (0.0337) |
| Center-Right Government | -0.0180 | -0.00780 | -0.00530 | -0.00581 |
|  | (0.0175) | (0.0150) | (0.0122) | (0.00996) |
| ln(GDPperCapita) | 0.0551\*\*\* | -0.0591\*\*\* | 0.0220 | -0.00674 |
|  | (0.0209) | (0.0229) | (0.0140) | (0.0151) |
| GDP growth (annual %) | -0.00475\*\*\* | -0.00136 | -0.00299\*\*\* | -0.00213 |
|  | (0.00109) | (0.00115) | (0.000740) | (0.00144) |
| Capital Account Openness | -0.131\*\* | -0.0842 | -0.105\*\*\* | -0.0563 |
|  | (0.0578) | (0.0567) | (0.0390) | (0.0377) |
| ln(Trade) | 0.0737\* | 0.0668 | 0.0335 | -0.000813 |
|  | (0.0389) | (0.0439) | (0.0261) | (0.0258) |
| ln(Stock Traded) | -0.0342\*\*\* | -0.000018 | -0.0315\*\*\* | -0.0273\*\*\* |
|  | (0.0103) | (0.0120) | (0.00646) | (0.00884) |
| Constant | -0.793\*\*\* | 0.0523 | -0.331\*\* | -0.00867 |
|  | (0.291) | (0.296) | (0.169) | (0.208) |
|  |  |  |  |  |
| Observations | 640 | 640 | 640 | 640 |
| Within R2 | 0.217 | 0.405 | 0.194 | -- |
| Overall R2 | 0.088 | 0.117 | 0.128 | 0.105 |
| Year FE | NO | YES | NO | NO |
| Number of countries | 100 | 100 | 100 | 100 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.3 (DV: Executive Bias w/Additional Controls and Country Fixed Effects)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| VARIABLES | Random Effects GLS | Random Effects GLS | GLS Cochrane- Orcutt | Prais- Winsten w/PCSE | Fixed  Effects | Fixed Effects | Fixed Effects Cochrane- Orcutt |
|  |  |  |  |  |  |  |  |
| Regulatory Independence | 0.144\*\*\* | 0.124\*\* | 0.102\*\* | 0.129\*\* | 0.125\*\*\* | 0.106\*\* | 0.0478 |
|  | (0.0485) | (0.0562) | (0.0492) | (0.0612) | (0.0380) | (0.0469) | (0.0528) |
| Regulatory Quality | -0.0977 | -0.0658 | -0.0677\*\* | -0.0602\*\* | -0.0727 | -0.0542 | -0.0600 |
|  | (0.0635) | (0.0573) | (0.0325) | (0.0279) | (0.0732) | (0.0694) | (0.0452) |
| Electoral Competition | 0.0221\*\*\* | 0.0155\*\*\* | 0.0156\*\*\* | 0.0171\*\*\* | 0.0189\*\*\* | 0.0134\*\*\* | 0.0114\*\*\* |
|  | (0.00469) | (0.00349) | (0.00428) | (0.00421) | (0.00580) | (0.00502) | (0.00438) |
| Rule of Law | -0.000119 | 0.00857 | 0.00372 | 0.00406 | 0.00413 | 0.00997 | 0.0137 |
|  | (0.00915) | (0.00872) | (0.00521) | (0.00416) | (0.0132) | (0.0119) | (0.00869) |
| Political Constraints | 0.106 | 0.105\* | 0.0432 | 0.0353 | 0.111 | 0.119\* | 0.0543 |
|  | (0.0705) | (0.0628) | (0.0485) | (0.0588) | (0.0730) | (0.0671) | (0.0507) |
| Common Law | 0.121\*\* | 0.0800 | 0.0960\*\* | 0.0973\*\*\* |  |  |  |
|  | (0.0497) | (0.0498) | (0.0461) | (0.0366) |  |  |  |
| Center-Right Government | -0.0129 | -0.0155 | -0.00103 | 0.00007 | -0.0110 | -0.0182 | -0.00998 |
|  | (0.0166) | (0.0170) | (0.0140) | (0.0129) | (0.0178) | (0.0175) | (0.0161) |
| ln(GDPperCapita) | 0.0465 | -0.0440 | 0.0239 | 0.00946 | 0.0813\* | -0.0944 | 0.00823 |
|  | (0.0306) | (0.0316) | (0.0175) | (0.0119) | (0.0427) | (0.0640) | (0.0259) |
| GDP growth (annual %) | -0.00112 | -0.000529 | -0.00154 | -0.000747 | -0.00207 | -0.000775 | -0.00160\* |
|  | (0.00134) | (0.00134) | (0.000954) | (0.00149) | (0.00151) | (0.00139) | (0.000946) |
| Capital Account Openness | -0.0914 | -0.0344 | -0.0989\*\* | -0.0789 | -0.106 | -0.0501 | -0.0342 |
|  | (0.0755) | (0.0725) | (0.0488) | (0.0483) | (0.114) | (0.0931) | (0.0647) |
| log(Trade) | 0.0605 | 0.0577 | 0.0385 | 0.0173 | 0.133\* | 0.0460 | -0.00355 |
|  | (0.0422) | (0.0471) | (0.0312) | (0.0254) | (0.0709) | (0.0945) | (0.0393) |
| ln(Inflation) | -0.00949 | -0.00495 | -0.00397 | -0.00229 | -0.0157\*\* | -0.00532 | -0.00216 |
|  | (0.00626) | (0.00763) | (0.00529) | (0.00645) | (0.00671) | (0.00776) | (0.00509) |
| Banking Crisis | 0.0950\*\*\* | 0.0615\*\*\* | 0.0766\*\*\* | 0.0658\*\*\* | 0.0902\*\*\* | 0.0608\*\*\* | 0.0529\*\*\* |
|  | (0.0165) | (0.0207) | (0.0156) | (0.0208) | (0.0190) | (0.0227) | (0.0175) |
| Stock Index volatility | 0.00148\*\* | 0.000910 | 0.00102\*\* | 0.00130\* | 0.00130\* | 0.000492 | 0.000230 |
|  | (0.000748) | (0.000955) | (0.000507) | (0.000667) | (0.000758) | (0.00105) | (0.000520) |
| ln(Stock Traded) | -0.0218\*\* | 0.0117 | -0.0242\*\*\* | -0.0257\*\*\* | -0.0196 | 0.0194 | -0.0375\*\*\* |
|  | (0.0104) | (0.0130) | (0.00755) | (0.00865) | (0.0128) | (0.0156) | (0.00934) |
| Constant | -0.991\*\* | -0.314 | -0.596\*\*\* | -0.424\*\* | -1.588\*\*\* | 0.225 | -0.217\*\* |
|  | (0.397) | (0.389) | (0.222) | (0.207) | (0.570) | (0.842) | (0.0843) |
|  |  |  |  |  |  |  |  |
| Observations | 480 | 480 | 480 | 480 | 480 | 480 | 404 |
| Overall R2 | 0.217 | 0.184 | 0.218 | 0.209 | 0.032 | 0.114 | 0.105 |
| Within R2 | 0.312 | 0.442 | 0.299 | -- | 0.321 | 0.446 | 0.187 |
| Year FE | NO | YES | NO | NO | NO | YES | NO |
| Number of countries | 76 | 76 | 76 | 76 | 76 | 76 | 76 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.4**

**(DV: Executive Bias w/ County Fixed Effects)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| VARIABLES | Fixed Effects | Fixed Effects | Fixed Effects Cochrane- Orcutt(AR1) | Fixed Effects | Fixed Effects | Fixed Effects Cochrane- Orcutt(AR1) |
|  |  |  |  |  |  |  |
| Regulatory Independence | 0.0866\*\* | 0.0640\* | -0.00832 | 0.104\*\*\* | 0.0630\* | -0.00439 |
|  | (0.0383) | (0.0381) | (0.0413) | (0.0326) | (0.0333) | (0.0417) |
| Regulatory Quality |  |  |  | -0.0218 | -0.0118 | -0.0497 |
|  |  |  |  | (0.0458) | (0.0485) | (0.0364) |
| Electoral Competition | 0.00408 | 0.00134 | 0.00637\*\* | 0.00466 | 0.00182 | 0.00685\*\* |
|  | (0.00381) | (0.00327) | (0.00264) | (0.00407) | (0.00348) | (0.00268) |
| Rule of Law | -0.000852 | 0.00359 | 0.00191 | 0.00122 | 0.00566 | 0.00538 |
|  | (0.0100) | (0.00888) | (0.00552) | (0.00961) | (0.00878) | (0.00618) |
| Center-Right Government | -0.0142 | -0.0114 | -0.00491 | -0.00869 | -0.00558 | -0.00284 |
|  | (0.0191) | (0.0160) | (0.0121) | (0.0178) | (0.0151) | (0.0133) |
| ln(GDPperCapita) | 0.0875\*\*\* | -0.118\*\* | -0.0135 | 0.101\*\*\* | -0.108\*\* | -0.00831 |
|  | (0.0277) | (0.0492) | (0.0180) | (0.0296) | (0.0485) | (0.0185) |
| GDP growth (annual %) | -0.00544\*\*\* | -0.00100 | -0.00170\*\*\* | -0.00553\*\*\* | -0.000833 | -0.00183\*\*\* |
|  | (0.00128) | (0.00130) | (0.000651) | (0.00125) | (0.00110) | (0.000689) |
| Capital Account Openness | -0.100 | -0.0843 | -0.0359 | -0.157\*\* | -0.134\*\* | -0.0975\* |
|  | (0.0764) | (0.0675) | (0.0421) | (0.0739) | (0.0615) | (0.0504) |
| ln(Trade) | 0.171\*\*\* | 0.0638 | -0.0159 | 0.164\*\*\* | 0.0818 | -0.0119 |
|  | (0.0583) | (0.0693) | (0.0288) | (0.0563) | (0.0673) | (0.0308) |
| ln(Stocks Traded) | -0.0383\*\*\* | 0.00124 | -0.0460\*\*\* | -0.0353\*\*\* | 0.00291 | -0.0441\*\*\* |
|  | (0.0114) | (0.0132) | (0.00695) | (0.0118) | (0.0134) | (0.00742) |
| Constant | -1.469\*\*\* | 0.643 | 0.280\*\*\* | -1.561\*\*\* | 0.487 | 0.232\*\*\* |
|  | (0.413) | (0.616) | (0.0464) | (0.407) | (0.573) | (0.0504) |
|  |  |  |  |  |  |  |
| Observations | 733 | 733 | 632 | 640 | 640 | 540 |
| Overall R2 | 0.0013 | 0.101 | 0.120 | 0.001 | 0.092 | 0.117 |
| Within-R2 | 0.229 | 0.384 | 0.128 | 0.237 | 0.412 | 0.151 |
| Year FE | NO | YES | NO | NO | YES | NO |
| Number of countries | 101 | 101 | 99 | 100 | 100 | 97 |

Huber/White Robust standard errors clustered by country in parentheses(\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.5 (DV: Executive Bias/ Regulator Established Dummy)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (1) |
| VARIABLES | Random GLS | Random GLS | Cochrane- Orcutt(AR1) | Prais-Winsten w/PCSE |
|  |  |  |  |  |
| Regulator Established | 0.0465 | 0.0274 | 0.0150 | 0.0251 |
|  | (0.0403) | (0.0303) | (0.0293) | (0.0362) |
| Electoral Competition | 0.00867\*\* | 0.00268 | 0.00687\*\* | 0.00850\*\*\* |
|  | (0.00400) | (0.00312) | (0.00275) | (0.00316) |
| Rule of Law | -0.00730 | 0.00676 | -0.00283 | -0.00236 |
|  | (0.00620) | (0.00589) | (0.00377) | (0.00320) |
| Common Law | 0.0614 | -0.000143 | 0.0415 | 0.0309 |
|  | (0.0494) | (0.0480) | (0.0415) | (0.0273) |
| Center-Right Government | -0.0241 | -0.0129 | -0.00652 | -0.00337 |
|  | (0.0184) | (0.0154) | (0.0114) | (0.0102) |
| ln(GDPperCapita) | 0.0448\*\* | -0.0673\*\*\* | 0.0145 | -0.00397 |
|  | (0.0174) | (0.0208) | (0.0118) | (0.0112) |
| GDP growth (annual %) | -0.00463\*\*\* | -0.00145 | -0.00278\*\*\* | -0.00223\* |
|  | (0.00109) | (0.00122) | (0.000697) | (0.00127) |
| Capital Account Openness | -0.110\* | -0.0512 | -0.0759\*\* | -0.0410 |
|  | (0.0592) | (0.0600) | (0.0349) | (0.0351) |
| ln(Trade) | 0.0805\*\* | 0.0551 | 0.0259 | -0.000909 |
|  | (0.0392) | (0.0421) | (0.0250) | (0.0249) |
| ln(Stocks Traded) | -0.0399\*\*\* | -0.000719 | -0.0346\*\*\* | -0.0285\*\*\* |
|  | (0.00938) | (0.0117) | (0.00621) | (0.00867) |
| Constant | -0.679\*\*\* | 0.187 | -0.201 | 0.00985 |
|  | (0.227) | (0.237) | (0.147) | (0.150) |
|  |  |  |  |  |
| Observations | 739 | 739 | 739 | 739 |
| Overall R2 | 0.204 | 0.377 | 0.176 | 0.083 |
| Within R2 | 0.052 | 0.111 | 0.109 | -- |
| Year FE | NO | YES | NO | NO |
| Number of countries | 101 | 101 | 101 | 101 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.6 (DV: Executive Bias/ Independence-Market Depth Interaction)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| VARIABLES | Country FE | Country FE | Country FE w/ Cochrane– Orcutt | Country FE | Country FE | Country FE w/ Cochrane– Orcutt |
|  |  |  |  |  |  |  |
| Regulatory Independence | 0.227\*\*\* | 0.171\*\*\* | 0.0287 | 0.369\*\*\* | 0.323\*\*\* | 0.241\*\* |
|  | (0.0722) | (0.0605) | (0.0752) | (0.112) | (0.108) | (0.120) |
| ln(StockTraded) | -0.00272 | 0.0282\*\* | -0.0369\*\* | 0.0278 | 0.0611\*\*\* | -7.31e-05 |
|  | (0.0153) | (0.0135) | (0.0170) | (0.0172) | (0.0164) | (0.0229) |
| Regulatory Independence x ln(StockTraded) | -0.0525\*\*  (0.0214) | -0.0400\*\*  (0.0180) | -0.0134  (0.0229) | -0.0703\*\*  (0.0291) | -0.0624\*\*  (0.0279) | -0.0563\*  (0.0316) |
| Electoral Competition | 0.00398 | 0.00126 | 0.00634\*\* | 0.0190\*\*\* | 0.0134\*\*\* | 0.0110\*\* |
|  | (0.00394) | (0.00335) | (0.00264) | (0.00579) | (0.00494) | (0.00437) |
| Rule of Law | -0.000863 | 0.00354 | 0.00172 | 0.00390 | 0.00988 | 0.0135 |
|  | (0.0100) | (0.00887) | (0.00553) | (0.0134) | (0.0120) | (0.00866) |
| Center-Right Government | -0.0140 | -0.0113 | -0.00496 | -0.0114 | -0.0186 | -0.00963 |
|  | (0.0192) | (0.0161) | (0.0121) | (0.0180) | (0.0176) | (0.0160) |
| Regulatory Quality |  |  |  | -0.0766 | -0.0581 | -0.0610 |
|  |  |  |  | (0.0729) | (0.0690) | (0.0451) |
| Political Constraint |  |  |  | 0.114 | 0.121\* | 0.0554 |
|  |  |  |  | (0.0729) | (0.0669) | (0.0505) |
| ln(GDPperCapita) | 0.0843\*\*\* | -0.119\*\* | -0.0151 | 0.0719\* | -0.108 | 0.00175 |
|  | (0.0272) | (0.0489) | (0.0182) | (0.0420) | (0.0650) | (0.0261) |
| GDP Growth | -0.00517\*\*\* | -0.000837 | -0.00165\*\* | -0.00181 | -0.000469 | -0.00160\* |
|  | (0.00129) | (0.00131) | (0.000658) | (0.00153) | (0.00142) | (0.000943) |
| Capital Account Openness | -0.107 | -0.0901 | -0.0340 | -0.111 | -0.0544 | -0.0173 |
|  | (0.0760) | (0.0675) | (0.0422) | (0.113) | (0.0924) | (0.0651) |
| ln(Trade) | 0.168\*\*\* | 0.0625 | -0.0167 | 0.131\* | 0.0384 | -0.0114 |
|  | (0.0581) | (0.0688) | (0.0288) | (0.0708) | (0.0947) | (0.0394) |
| ln(Inflation) |  |  |  | -0.0149\*\* | -0.00503 | -0.000977 |
|  |  |  |  | (0.00662) | (0.00765) | (0.00511) |
| Bank Crisis |  |  |  | 0.0905\*\*\* | 0.0605\*\*\* | 0.0504\*\*\* |
|  |  |  |  | (0.0192) | (0.0225) | (0.0175) |
| Stock Index Volatility |  |  |  | 0.00121 | 0.000370 | 0.0001 |
|  |  |  |  | (0.000765) | (0.00106) | (0.000523) |
| Constant | -1.520\*\*\* | 0.585 | 0.273\*\*\* | -1.656\*\*\* | 0.237 | -0.258\*\*\* |
|  | (0.407) | (0.612) | (0.0466) | (0.545) | (0.827) | (0.0845) |
|  |  |  |  |  |  |  |
| Observations | 733 | 733 | 632 | 480 | 480 | 404 |
| Overall R2 | 0 | 0.108 | 0.124 | 0.0615 | 0.1307 | 0.123 |
| Within R2 | 0.224 | .373 | 0.129 | .307 | .4273 | 0.196 |
| Year FE | NO | YES | NO | NO | YES | NO |
| Number of countries | 101 | 101 | 99 | 76 | 76 | 76 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.7 (DV: Executive Bias: Independence-Market Interaction with Volatility Control)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | Random Effects | Random Effects | GLS Cochrane– Orcutt | Prais-Winsten w/ PCSE |
|  |  |  |  |  |
| Regulatory Independence | 0.419\*\*\* | 0.354\*\*\* | 0.327\*\*\* | 0.395\*\*\* |
|  | (0.0912) | (0.0826) | (0.0964) | (0.0987) |
| ln(StockTraded) | 0.0365\*\* | 0.0589\*\*\* | 0.0251 | 0.0394\*\* |
|  | (0.0161) | (0.0146) | (0.0198) | (0.0187) |
| Regulatory Independence x Stock Traded | -0.0839\*\*\*  (0.0242) | -0.0693\*\*\*  (0.0228) | -0.0722\*\*\*  (0.0268) | -0.0926\*\*\*  (0.0257) |
| Electoral Competition | 0.0215\*\*\* | 0.0153\*\*\* | 0.0152\*\*\* | 0.0167\*\*\* |
|  | (0.00462) | (0.00343) | (0.00425) | (0.00430) |
| Regulatory Quality | -0.0969 | -0.0667 | -0.0683\*\* | -0.0597\*\* |
|  | (0.0619) | (0.0567) | (0.0323) | (0.0289) |
| Rule of Law | -8.66e-05 | 0.00841 | 0.00341 | 0.00332 |
|  | (0.00916) | (0.00865) | (0.00516) | (0.00417) |
| Political Constraint | 0.106 | 0.105\* | 0.0424 | 0.0285 |
|  | (0.0705) | (0.0625) | (0.0482) | (0.0587) |
| Common Law | 0.130\*\*\* | 0.0892\* | 0.105\*\* | 0.107\*\*\* |
|  | (0.0492) | (0.0493) | (0.0455) | (0.0349) |
| Center0Right Government | -0.0128 | -0.0153 | -0.000561 | 0.00167 |
|  | (0.0170) | (0.0172) | (0.0139) | (0.0130) |
| ln(GDPperCapita) | 0.0413 | -0.0458 | 0.0217 | 0.00832 |
|  | (0.0296) | (0.0311) | (0.0174) | (0.0115) |
| GDP Growth | -0.000818 | -0.000263 | -0.00141 | -0.000555 |
|  | (0.00136) | (0.00136) | (0.000950) | (0.00148) |
| Capital Account Openness | -0.0931 | -0.0367 | -0.0936\* | -0.0752 |
|  | (0.0738) | (0.0711) | (0.0484) | (0.0476) |
| ln(Trade) | 0.0559 | 0.0542 | 0.0344 | 0.0101 |
|  | (0.0423) | (0.0470) | (0.0309) | (0.0237) |
| ln(Inflation) | -0.00942 | -0.00512 | -0.00365 | -0.00189 |
|  | (0.00616) | (0.00749) | (0.00526) | (0.00657) |
| Bank Crisis | 0.0955\*\*\* | 0.0621\*\*\* | 0.0755\*\*\* | 0.0656\*\*\* |
|  | (0.0167) | (0.0206) | (0.0155) | (0.0199) |
| Stock Index Volatility | 0.00135\* | 0.000829 | 0.000899\* | 0.00117\* |
|  | (0.000750) | (0.000960) | (0.000507) | (0.000656) |
| Constant | -1.112\*\*\* | -0.436 | -0.709\*\*\* | -0.563\*\*\* |
|  | (0.374) | (0.371) | (0.224) | (0.214) |
|  |  |  |  |  |
| Observations | 480 | 480 | 480 | 480 |
| Overall R2 | 0.321 | 0.218 | 0.248 | 0.232 |
| Within R2 | 0.249 | 0.447 | 0.308 | -- |
| Year FE | NO | YES | NO | NO |
| Number of countries | 76 | 76 | 76 | 76 |

Huber/White Robust standard errors clustered by country in parentheses (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Table 3.8**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| VARIABLES | Random Effects | Country FE | Random Effects | Country FE | GLS Cochrane– Orcutt | Prais-Winsten w/ PCSE |
|  |  |  |  |  |  |  |
| Regulator Established | 0.122\* | 0.104 | 0.0690 | 0.0506 | 0.0653 | 0.0745 |
|  | (0.0647) | (0.0652) | (0.0518) | (0.0612) | (0.0470) | (0.0627) |
| ln(Stock Traded) | -0.0111 | -0.0121 | 0.0149 | 0.0127 | -0.0131 | -0.00696 |
|  | (0.0127) | (0.0135) | (0.0136) | (0.0152) | (0.0169) | (0.0213) |
| Regulator Established x ln(Stock Traded) | -0.0305\*\*  (0.0135) | -0.0290\*\*  (0.0142) | -0.0168  (0.0139) | -0.0122  (0.0151) | -0.0233  (0.0170) | -0.0229  (0.0217) |
| Electoral Competition | 0.00859\*\* | 0.00404 | 0.00265 | 0.00128 | 0.00682\*\* | 0.00866\*\*\* |
|  | (0.00401) | (0.00385) | (0.00313) | (0.00328) | (0.00275) | (0.00322) |
| Rule of Law | -0.00703 | 0.00103 | 0.00682 | 0.00466 | -0.00273 | -0.00236 |
|  | (0.00620) | (0.0101) | (0.00589) | (0.00884) | (0.00377) | (0.00315) |
| Common Law | 0.0627 |  | 0.00108 |  | 0.0432 | 0.0328 |
|  | (0.0495) |  | (0.0479) |  | (0.0414) | (0.0268) |
| Center-Right Government | -0.0238 | -0.0171 | -0.0128 | -0.0124 | -0.00641 | -0.00326 |
|  | (0.0184) | (0.0187) | (0.0154) | (0.0155) | (0.0113) | (0.0103) |
| logGDPcapCur | 0.0452\*\*  (0.0176) | 0.0916\*\*\*  (0.0284) | -0.0662\*\*\*  (0.0208) | -0.117\*\*  (0.0488) | 0.0154  (0.0118) | -0.00323  (0.0111) |
| GDP Growth | -0.00452\*\*\* | -0.0053\*\*\* | -0.00141 | -0.000836 | -0.00273\*\*\* | -0.00220\* |
|  | (0.00109) | (0.00128) | (0.00122) | (0.00129) | (0.000697) | (0.00128) |
| Capital Account Openness | -0.111\*  (0.0593) | -0.110  (0.0768) | -0.0519  (0.0602) | -0.0873  (0.0680) | -0.0758\*\*  (0.0349) | -0.0406  (0.0347) |
| ln (Trade) | 0.0789\*\* | 0.170\*\*\* | 0.0545 | 0.0615 | 0.0252 | -0.00161 |
|  | (0.0391) | (0.0588) | (0.0419) | (0.0692) | (0.0250) | (0.0242) |
| Constant | -0.749\*\*\* | -1.546\*\*\* | 0.141 | 0.636 | -0.254\* | -0.0429 |
|  | (0.227) | (0.409) | (0.240) | (0.601) | (0.152) | (0.161) |
|  |  |  |  |  |  |  |
| Observations | 739 | 739 | 739 | 739 | 739 | 708 |
| Overall R2 | 0.056 | 0.003 | 0.1139 | 0.0944 | 0.1103 | 0.086 |
| Within R2 | 0.207 | 0.227 | 0.378 | 0.360 | 0.178 | -- |
| Year FE | NO | NO | YES | YES | NO | NO |
| Number of countries | 101 | 101 | 101 | 101 | 101 | 100 |

Huber/White Robust standard errors in parentheses clustered by country (\*\*\* p<0.01, \*\* p<0.05, \* p<0.1)

**Appendix III**

**II. Independence Variable Measurement Model**

Item-response models are analogous to factor analysis models with item-discrimination parameters resembling factor loadings. However, factor analysis models do a poor job with ordinal data since they assume that conditional on the latent scores the indicators have a multivariate normal distribution (Jackman and Treier 2008). This is not true of my ordinal and categorical indicators. The IRT toolkit is substantial and offers a variety of models fit for different kinds of question and response formats. My data collection involved gauging whether financial legislation did or did not confer particular powers or structures upon regulatory organizations as well as whether they gave RAs greater or lesser formal protection from political interference. Using the terminology of IRT, my statutory “tests” of formal independence contained both dichotomous (yes/no) and polytomous (>2 ordered categories) response items. A graded response model was selected for several reasons. First, it can accept both polytomous items with differing numbers of response options (unlike a rating scale model) and dichotomous items making it preferable to a standard latent trait model, Rasch Model, or a Mokken scaling procedures. Second, unlike a partial credit model, it does not assume that the difference between response options is identical for different items. Finally, a graded response model is a two parameter model that produces values that are analogous to item difficulties (extremity parameters) as well as discrimination parameters for each item. The latter indicate the degree to which a particular indicator discriminates between regulatory organizations with greater or lesser independence. As a result, my measure of independence is “weighted” with more discriminatory item indicators having a larger impact on the final latent independence “factor” score.

Using the R package *mirt*, I fit an unconditional maximum likelihood factor analysis model for graded responses using both the Expectation-Maximization and Metropolis-Hastings Robbins-Monro algorithms (results nearly identical). Since I am analyzing only one concept, independence, I selected a two parameter unidimensional model and estimate parameters using the Expectation-Maximization approach outlined by Bock and Aitkin (1981). All indicators were highly discriminatory on the 1 dimension. Once country level latent independence scores were produced, I normalized them onto a [0,1] scale for ease of interpretation. 0 indicates regulation conducted completely by political actors and 1 indicates the maximum level of independence found in the sample. All of my independence indicators and their discrimination parameters can be found below:

**Regulatory IndependenceItem Indicators w/Discrimination Parameters**

1) *Agency Head Term Length*

**Discrimination Parameter**: **5.120**

0 – No fixed term or term length at discretion of appointer 1 -- < 4 year term 2-- 4 or 5 year term 3-- 6 years or greater

2) *Board Term Length*

**Discrimination Parameter:** **4.924** 0 -- No fixed term or term length at discretion of appointer 1-- < 4 year term 2 -- 4 or 5 year term 3 -- 6 years or greater

3) *Board Appointments Staggered*

**Discrimination Parameter**: **2.079**  0—No 1 – Yes

4) *Agency Head Appointment Procedure*

**Discrimination Parameter**: **5.272** 0 -- Executive Officials alone or executive official with non-binding consultation with actors outside of the executive 1 -- Parliament/Legislative Body Alone 2 -- More than one veto player must agree or more than one actor has appointment power (e.g. nominated by executive branch and confirmed by legislative branch, majority decision of agency board which must then be approved by another actor, executive must select from a list provided by outside group and cannot ignore or demand a new list) 2—Selection by another regulator that is separate from the executive bureaucracy or selection by Central Bank 3- Board selects agency head and the selection was not subject to prior approval by a political actor

5) *Board Appointment Procedure*

**Discrimination Parameter**: **3.638** 0 -- Executive Officials alone or executive official with non-binding consultation with actors outside of the executive 1 -- Parliament/Legislative Body Alone 2 -- More than one veto player must agree or more than one actor has appointment power (e.g. nominated by executive branch and confirmed by legislative branch, majority decision of agency board which must then be approved by another actor, executive must select from a list provided by outside group and cannot ignore or demand a new list) 2—Selection by another regulator that is separate from the executive bureaucracy or selection by Central Bank 3—Agency Head selects board and the selection was not subject to prior approval by a political actor

6) *Agency Head Removal*

**Discrimination Parameter**: **5.827**  0 -- Executive Officials alone or executive official with non-binding consultation with actors outside of the executive 1 -- Parliament/Legislative Body Alone 2 -- More than one veto player must agree 2—Removal by another regulator that is separate from the executive bureaucracy or removal by Central Bank 3 – Decision of the Agency Board or Judiciary Alone

7) *Board Member Removal Procedure*

**Discrimination Parameter**: **3.780**  0 -- Executive Officials alone or executive official with non-binding consultation with actors outside of the executive 1 -- Parliament/Legislative Body Alone 2 -- More than one veto player must agree 2—Removal another regulator that is separate from the executive bureaucracy or removal by Central Bank 3 – Decision of the Agency Board or Judiciary Alone

8) *Chief Executive or Management Board Appointment Procedure*

**Discrimination Parameter: 4.862** 0 -- Executive Officials alone or executive official with non-binding consultation with actors outside of the executive 1 -- Parliament/Legislative Body Alone 2 -- More than one veto player must agree or more than one actor has appointment power (e.g. nominated by executive branch and confirmed by legislative branch, nominated by agency and confirmed by executive or legislative branch, selection from a list provided by outside group and political appointer cannot ignore or demand a new list) 2—Selection by another regulator that is separate from the executive bureaucracy or selection by Central Bank 3 – Agency Alone

9) *Chief Executive/Management Board Removal Procedure*

**Discrimination Parameter**: **5.001**  0 – Executive or Legislative Officials alone or executive/legislature with non-binding consultation with actors outside of the executive 1 -- More than one veto player must agree

1—Removal by another regulator that is separate from the executive bureaucracy or removal by Central Bank 2 --Decision of the Agency Board or Judiciary Alone

10) *Chief Executive or Management Board Term Length*

**Discrimination Parameter**: **4.964**   *If appointed by actors outside of agency* 0 – <3 years or no term length. 1 – 3 or 4 years 2—4 or 5 years years 3-- ≥6 years If appointed by agency  3 -- At agency’s discretion alone

11) *Government Ex-Officio Membership*

**Discrimination Parameter**: **4.930**  0 – More than 1 elected/government officials are ex-officio members of agency supervisory/executive board 1 – 1 elected/government official sits on agency supervisory/executive board 2 – No elected/government officials are ex-officio members of agency supervisory/executive board

Note: Observers are not considered Ex-Officio Members, only those with voting, that ability to require second deliberations, or formal agenda setting power are counted as Ex-Officio members

12) *Outside Regulator Ex-Officio Membership*

**Discrimination Parameter**: **5.293** 0 – More than 1 outside regulatory official is ex-officio member of agency supervisory/executive board (includes central bankers) 1 – 1 outside regulatory official sits on agency supervisory/executive board 2 – No outside regulatory officials are ex-officio members of agency supervisory/executive board

Note: Observers are not considered Ex-Officio Members, only those with voting, that ability to require second deliberations, or formal agenda setting power are counted as Ex-Officio members

13) *Budgetary Independence*

**Discrimination Parameter**: **2.108**

0 – Agency is partially or completely dependent upon government 1 – Agency has complete budgetary independence from government and (%>90) of funding comes from industry fees, levies, tariffs, penalties, and grants from NGOs.

14) *Budget Allocation Approval*

**Discrimination Parameter**: **2.006** 0 – Planned agency budget expenditures and/or allocations must be approved by elected officials 1 – Planned agency budget expenditure and allocations are not subject to ex ante approval of elected officials

15) *Rule Approval*

**Discrimination Parameter**: **3.552**

0 – Ministers/executive/legislative officials are the dominant issuers of regulations or write a majority of rules. 1 – Regulatory agency makes rules and issues regulations, but ***all*** regulations and rules must be approved or can be vetoed by executive officials, ministers of finance, or legislative committees

2-- Regulatory agency is a significant rule maker, but executive officials retain rulemaking power over select areas of substantive importance

3 – Regulatory agency is the dominant regulatory rule maker; executive officials do NOT have veto power over issued regulations and retain a minor to nonexistent role in rulemaking.

16) *Government Directions*

**Discrimination Parameter**: **5.675**

0 – Government can issue binding directions to agency about SPECIFIC policies, rules, and cases of enforcement 1 – Government can issue binding directions to agency about GENERAL policy issues and priorities 2 – Government CANNOT issue binding directions of any form to agency

17) *Statement of Independence*

**Discrimination Parameter**: **3.413** 0 -- No explicit statement of agency independence or autonomy from government officials/ministries within agency statute 1 – Explicit statement of agency independence or autonomy from government officials/ministries within agency statute

18) *Ban on Political/Partisan Officials*

**Discrimination Parameter**: **3.015** 0 -- No explicit ban on agency officials holding other positions/membership within government, political, or partisan organizations 1 – Explicit ban on agency officials holding other positions/membership within government, political, or partisan organizations

19) *Agency Head Term Renewal*

**Discrimination Parameter**: **2.439** 0 – No limits on term renewal 1 – Agency head term can only be renewed once 2 – Agency head can serve for only one term

20) *Board Member Term Renewal*

**Discrimination Parameter**: **2.504**  0 – No limits on term renewal 1 – Board member term can only be renewed once 2 – Board member can serve for only one term

21) *Chief Executive/Management Board Term Renewal*

**Discrimination Parameter**: **1.707** 0 – No limits on term renewal 1 – Management member term can only be renewed once 2 – Management member can serve for only one term

22) *Political Dismissal Language*

**Discrimination Parameter**: **3.037** 0—Serve at will of appointer or no policy specified 1—Language is broader and does NOT indicate that dismissal involves ONLY gross incompetence, criminal guilt, or financial insolvency; language does not rule out dismissal on grounds of policy disagreement 2 – Language indicates dismissal can ONLY be based upon gross incompetence or negligence, criminal guilt, or financial insolvency

23) *Annual Report Reception*

**Discrimination Parameter**: **3.270** 0 – Report sent to minister or executive branch alone 1 – Report sent to both minister/executive branch AND a legislative body 2 – Report sent to parliament/legislature only 3 -- Report sent to a specialized government auditing body, comptroller, Central Bank, or no specific requirement

24) *Fee Approval*

**Discrimination Parameter**: **2.342**

0 – Fees and levies of agency are either decided or must be approved by an executive official 1 – Fees and levies of agency determined by legislative statute or must be approved by legislative committees 2 – Agency can has full autonomy to decide its own fee schedule, tariff levels, and penalties

25) *Organizational Approval*

**Discrimination Parameter**: **2.634**

0 – Organizational structure of agency is either decided or must be approved by an executive official 1 – Organizational structure of agency determined by legislative statute or must be approved by legislative committee 2 – Agency can has full formal autonomy to decide its own organizational structure

Transformed Item Parameters\*



\*transformed into traditional factor analysis loadings metric according to procedure outlined by Bock et al. 1988.

Coding Notes:

**General Rules:** If a regulatory organization is headed by only one individual such as a superintendent, s/he is coded as both the agency head and board unless that organization remains within the executive bureaucracy (see Guatemala). Assistant and/or deputy superintendents are coded as executive managers/non-supervisory management boards. If a particular regulatory organization was a part of a larger regulatory organization, they were coded together if their structures of governance overlapped AND the larger umbrella organization has substantive day-to-day regulatory responsibilities over industry actors. Umbrella organizations whose only responsibilities are overseeing other regulators, coordinating regulatory policy, deciding appeals, or adjudicating jurisdictional disputes are not coded as stock market regulators.

**Austria**: Securities Supervision Law (Wertpapieraufsichtsgesetz) No 753 of 1996 established the Austrian Securities Authority (Bundes-Wertpapieraufsicht). The Authority was headed by a director and the director can then select a senior deputy. Their selection had to be approved by the finance minister. The director was coded as the agency head and board, but the deputy is treated as an executive manager. There is a financial advisory board to which the Authority must submit financial information due to the Authority’s dependence upon funding from the financial industry. However, I do not code them as an agency board due to their “advisory” capacity regarding only Authority finances and their lack of participation in substantive regulatory issues.

**Bahrain:** Central Bank becomes regulator in 2006. (Monetary Authority had limited regulatory authority as of 2002). Governor is treated as executive board, because the supervisory board has a chairman with tie breaking power. Language explicitly states that the governor is accountable to the board and the board decides his remuneration. Coding the regulator as of 2006 instead of 2002 does not alter the results.

**Bolivia**: The original Securities Commission was integrated into the Financial Regulation System (SIREFI) in 1996. SIREFI was overseen by a head Superintendent (appointed for 10 years) who played a coordinating, judicial (appeal), and oversight role over several sector based financial regulatory organizations. The securities commission retained its powers over stock markets so it was coded separately from SIREFI just like any other regulator. A Superintedency of Pensions, Securities and Insurance (SPVS) is established in 1998 and is a melding of three previous sectoral regulators and replaces the Securities Commission. The head superintendent is appointed by the president for a term of 6 years. The superintendent then appoints section heads of insurance, securities, and pensions and they enjoy no fixed terms. I treat these section heads as executive/management board members. The SPVS became a part of a larger Superintendencia de Recursos Jerárquicos (SERESI) in 1998, but this organization served only as a final venue of administrative repeal. In 2002, the Bonsol act was passed. This restored the SIREFI’s supervisory power particularly over the budget of the SPVS and created a Superintendent of Companies in charge company registration, competition, and corporate governance. Despite their partially overlapping jurisdiction, both the Superintendent of Companies and the SPVS enjoy identical levels of independence. In 2005, there was a slight amendment that altered reporting requirements for both Superintendents. In all cases the Superintendencies were coded as separate from both SIREFI and SERESI because neither of the latter have day to day responsibilities over securities regulation.

**Chile**: Only one Superintendent.

**China:** The Regulator is coded from 1999 on, because they didn’t receive the mandate to act as a regulator until December 28th 1998. They existed in 1992, but shared regulatory authority with the executive and were considered the executive arm of the Securities Committee of the State Council. Quote “the securities operators at that time were still under the management of People’s Bank of China and the stock exchange in Shanghai and Shenzhen still administratively belonged to the regional government, while its operations were still under the management of CSRC. These two governing bodies frequently contradicted each other. Moreover, there were some offices under the Securities Committee which did almost the same job as the CSRC. The supervisory rights of the People's Bank of China in this area were handed over to CSRC in 1997. In 1998, the Securities Committee merged with the CSRC, and the Stock Exchanges in both Shanghai and Shenzhen both fell under the regulation of the CSRC. After six years of changes and adjustments, the new securities regulation structure was officially established in October 1998” (ASLI Working Paper No. 005, pg 5-6). Securities Law 1999 was adopted at the 6th Session of the Standing Committee of the 9th National People's Congress in December 29th 1998, and was brought into force in July 1st 1999

**Colombia**: Only one superintendent. There is a presidentially appointed advisory board. However, their opinions are not binding upon the superintendent. Due to their lack of power, they are not coded as a board.

**Costa Rica**: I code CONASIFF as the regulator and treat the board and chairman as the supervisory board and agency head respectively. The Superintendent of Securities is coded as the executive manager/executive board because of their operation role, the fact that they have only a voice rather than a formal vote in CONASIFF deliberations, and his/her subordination to CONASIFF and the Central Bank of Costa Rica.

**Cyprus::** Securities and Cyprus Stock Exchange Law No 14(I) of 1993 established a Securities Commission, but it remained a body of the Ministry of Finance, was operationally subordinated to the MoF, and it was headed by a senior official of the MoF

**Dominican Republic**. According to the 2000 Securities Law, there is both a Superintendency of Securities and a National Council on Securities. Given the close administrative connection between the two organizations, I treat them as one organization. The Superintendent and senior director of the Superintendency (mayor) are coded as the executive management board because they are subordinated to the National Council of Securities and the Superintendent is on the board of the NCS. The National Council of securities is treated as the board. The NCS is presided over by an Executive (Governor or Lieutenant Governor) of the Central Bank so s/he is treated as the agency head. The Dominican Republic has no data on the dependent variable, so separate coding of the organizations does not affect the results.

**Ecuador**: Ecuador had both a Superintendent of Companies with authority over stock markets as well as a National Council of Securities made up of both public and private members. Since the Superintendent Presides over the council, I treated the Council as the regulatory body with the Superintendent treated as the agency head and the other members of the council as the board.

**El Salvador**: Has a Superintendent with a board. The Superintendent is treated as the agency head because s/he presides over board meetings and is the legal representative of the regulator.

**France**: From 1988 until 2002, the coded regulator is the Commission des Opérations de Bourse (COB). For robustness, I substituted the Conseil des marchés financiers (CMF) for the COB from 1996 until 2002. Although the COB remained a regulator of stock exchanges, the CMF had a wider mandate regulating all financial service providers (with the exception of collective investment funds). The COB and CMF had very similar independence scores ( .737 vs. .728) and replacing the COB with the CMF did not alter the results.

**Guatemala:** Although apart of the Ministry of Economic Affairs, the Securities and Commodities Markets Registry (Registro del Mercado de Valores y Mercancías) was given non-0 minimum scores because it was explicitly granted technical and functional autonomy (“gozará de plena autonomía técnica y functional”). Its president is appointed by multiple veto players, serves a six year term, and enjoys some protection from policy based dismissal. See articles 8-17 Decreto 34-96 (Ley Del Mercado de Valores Y Mercancias). However, it received all minimum scores for categories regarding the board and chief executive personnel, because only the head of the registrar enjoys any protections from dismissal and the registry remains within an executive ministry. For robustness, I reran the analyses in which the Securities Registrar was treated as simply another part of the Ministry of finance (i.e. all minimum scores). This did not alter the results.

Kazakstan:: As of 2003 (with Amendments in 2005) I coded Financial Market and Financial Organizations of the Republic of Kazakhstan on Regulation and Supervision Agency until 2010. The authority was subordinated to the Central Bank of Kazakstan. However, in 2007 a new Agency that had jurisdiction over the Regional Financial Centre 0f Almaty was established. Since the KASE was reregistered within the Financial Centre in 2007, both regulatory organizations had regulatory jurisdiction over the exchange. For instance, the statute states that the Centre regulator should “determine the conditions and procedure of listing and de-listing of financial instruments with the trade organizer of the special trading floor of the Financial Center by agreement with the Agency for Regulation and Supervision of the Financial Market and Financial Organizations.” Coding the Almaty Financial authority does not alter the results.

**Papua New Guinea**: The Securities Commission consists of only 1 individual (i.e. chairman) and staff. The Commission is housed within the Papua New Guinea Investment Promotion Authority (IPA). I code the IPA as the main regulatory body and the Securities Commissioner as the Chief Executive (and not the agency head) of the Authority with regard to the securities markets.

**Venezuela**: In 2010 a new securities law was passed and it reorganized the National Securities Superintendency under the direction of the National Superintendent of Securities who is appointed by the president. The Superintendent could then select a deputy superintendent to whom they could delegate power and this deputy does not face a formal approval procedure. The deputy is coded as the executive manager and the Superintendent is coded as both the agency head and board. The Superintendency is under the direct supervision of and under subordination to Órgano Superior del Sistema Financiero Nacional (OSFIN). OSFIN is a part of the executive bureaucracy although it has members with finite terms and some protection from dismissal. Since the Superintendency plays no part in the governance of OSFIN and has no say over OSFIN policies, OSFIN and the Superintendency are not coded together. For robustness, I reran the analyses with OSFIN as the coded regulator and results remained virtually identical.

1. Paper presented at Western Political Science Association Annual Conference on Saturday, March 26 in San Diego, CA [↑](#footnote-ref-1)
2. For example, one of the most widely cited MSP measures features an “Anti-Director” index (La Porta et. al (1997,1998). [↑](#footnote-ref-2)
3. The diversity of institutional shareholders includes banks, insurance companies, private equity, hedge, mutual, and pension funds. They vary considerably in terms of the concentration of their ownership stakes in individual companies, their investment time-horizons, and their greater or lesser willingness to confront rather than cooperate with executive managers over social issues and business decisions. It must be reiterated, the managers of institutional investment firms are themselves corporate insiders. [↑](#footnote-ref-3)
4. In some countries, blockholders can also be the state. As the large literature of SOEs makes clear, minority shareholders are particularly vulnerable to state blockholders due to their privileged access to other government officials (Cheung et. al. 2005; Berkman et. al 2010, 2014).In addition to fraud and wealth expropriation, minority shareholders in partially state owned companies face the risk that business decisions will be made with the goal of maximizing political payoffs rather than shareholder value. [↑](#footnote-ref-4)
5. It is important not to completely discount the divisions between managers and controlling owners because the control that controlling owners exercise is largely over management. Managements’ ideal situation would be one in which there are enough MSPs to weaken blockholders influence over their autonomy, but not so much MSPs that blockholders dilute their ownership stake for the benefits of diversification. This could expose management to the threat of hostile takeover and the costly nuisance of minority shareholder activism. [↑](#footnote-ref-5)
6. Care must be taken to match yearly control variables with the correct yearly average. For example, the dependent variables for 2012 are a combination of assessments collected in the first quarter of 2012 and the first quarter of 2013 with greater weight placed on 2013 assessments. These observations are then matched to controls from 2012. This approach had to be taken in order to ensure that independent variables in 2012 were not explaining variation 2011-2012 assessments. Instead, independent variables in 2012 explain variation in the combined weighted average of 2012 and 2013 assessments. [↑](#footnote-ref-6)
7. Countries that lacked a public securities market were excluded from the sample. [↑](#footnote-ref-7)
8. In most instances, regulatory organizations which remained within the Ministry of Finance were not treated as regulatory agencies. Instead they are treated as administrative sub-divisions of the Finance Ministry and receive minimum scores. However, I do not treat institutional independence from government ministries as a necessary condition. When a regulatory organization remained within a government ministry, but its personnel enjoyed finite term limits, protections from dismissal, and/or explicit statutory guarantees of operational autonomy in certain areas, that ministerial subdivision received non-minimum scores on personnel and functional indicators (see appendix). [↑](#footnote-ref-8)
9. The index of executive competitiveness takes on the following values: 1,2--no executive or executive is unelected; 3—elected executive but there is only 1 candidate; 4—single party multiple candidates;5—Multiple legal political parties but only 1 candidate received votes in executive elections; 6—Multiple candidates and legal parties but winning candidate received more than 75% of the vote; 7—winning executive candidate received less than 75% of the vote. The legislative index is same as the executive index, but coded for legislatures. The two indices were added together and then anchored at 0. [↑](#footnote-ref-9)
10. Electoral proportionality is calculated in the following way: PR-Pluralty-Housesys+2 = Electoral Proportionality. PR=1 if any government officials are elected using PR. Plurality =1 if any officials are elected under majoritarian rules. Housesys =1 if the majority of house seats are assigned by a non-PR rule and .5 if there is a bicameral legislature and majority of house seats are assigned by a non-PR rule in one house, but not the other. [↑](#footnote-ref-10)
11. The inclusion of value traded raises concerns with reverse causality. It will not be included as a control in models where the dependent variable is the level measure of executive confidence in MSP, but will be included in models evaluating the gap between expert and executive assessments. Although this may introduce some endogeniety bias, the exclusion of value traded does not substantively alter the results in Table 2.0. The analysis of the interaction effect between independence and value traded is not meant to definitively establish the direction of causality. Instead it is included in order to find out if the effects of regulatory independence are the same in countries which have greater or lesser degrees of stock market development. [↑](#footnote-ref-11)
12. Following King and Roberts (2014), I directly compared the conventional and robust standard errors for my models. They appear nearly identical. At no point did they alter my substantive findings. [↑](#footnote-ref-12)
13. Another common solution to serial correlation is the inclusion of lagged dependent variables. I avoid this approach for 2 reasons: 1) coefficients for LDVs were .88 or higher absorbing much of the effects of the independent variables, and 2) the briefness of the panel (T ≤ 8) means the combination of random effects and an LDV would result in considerable short panel bias. [↑](#footnote-ref-13)
14. Fortunately, Chinn and Ito’s measure of capital account openness has a pairwise correlation of 0.60 with Abiad Detragiache, and Tressel’s index of banking sector and credit market liberalization. [↑](#footnote-ref-14)