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Corporate Governance Reform and Risk-taking: Evidence from an Emerging Market

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1. Motivation

As literature documents risk-taking as important antecedent of growth and innovation, whether corporate governance interventions encourage or deter risk-taking forms an important policy question facing regulators. Whereas regulators in emerging markets are working for improvements in corporate governance environment through more regulations, recent studies from developed markets show that corporate governance reform (CGR) discourages corporate risk-taking behaviour of firms. This view, which is primarily based around the experience of adopting the Sarbanes-Oxley Act (SOX) in the US, suggests that CGR increases compliance costs, shrinks managerial flexibility and discourages managers/insiders from undertaking value-enhancing risky investments. In this context, Bargeron et al. (2010) show a significantly diminished risk-taking appetite of US firms following the introduction of the Sarbanes Oxley Act (SOX). They argue that the increased personal accountability of managers and increased compliance burden reduces insiders' motivation to pursue risky investments.

There is an alternative view which predicts a positive relation between higher corporate governance standards and risk-taking. John et al. (2008) show that corporate risk-taking increases significantly in better governance environments. They argue that better investor protection (a) lowers the magnitude and importance of private benefits to dominant insiders and (b) induces the non-equity stakeholders to invest less conservatively. Both factors lead to growth in risky investments. This view is also supported by the argument that the extraction of corporate resources for private benefits is lower for higher investor protection regimes (Shleifer and Wolfenzon, 2002). Private benefits could be either monetary, such as very high salary for the block-holding insiders or non-monetary,

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such as the amenities that come from controlling establishments such as professional sport clubs, newspapers and other social clubs. Similarly, CGR in emerging markets could substitute for the relatively weaker market forces of corporate control, including corporate raids and takeover threats. The resulting substitutive effect of regulatory reform can therefore encourage risk-taking. The two opposing predictions and empirical evidence motivates our empirical study in a large and important emerging market.

We examine the effect of an important CGR, called Clause-49, on risk-taking behaviour for listed non-financial firms in the context of India. Our focus on an emerging economy to examine CGR and corporate risk taking is driven by the stylized fact that emerging markets, in general, face relatively weaker market forces of corporate scrutiny with the prevalence of ownership concentration further amplifying the agency related problems between dominant insiders and minority outsiders. Finance literature attributes the weaker market forces of corporate scrutiny in emerging markets to various factors:

a) evolving institutions,

b) sparse presence of institutional investors as compared to developed markets to effectively initiate market discipline,

c) higher information and transactions cost of corporate discipline, and

d) the political economy more tolerant towards information opacity.

The higher information and transactions cost to initiate corporate discipline may stem from higher information asymmetry between the dominant insiders and minority outside investors in the wake weaker transparency and information regime . The fact that emerging markets face weaker market forces of corporate scrutiny makes regulatory interventions an important policy tool to improve corporate governance practices.

2. Indian Corporate Governance Context: Clause-49 and Section 23E Amendment

The corporate governance environment in India was largely informal prior to the induction of Clause-49 in 2000. After a few years of groundwork, India implemented a CGR in the year 2000 with the adoption of “Clause-49” which mandated greater disclosure, board independence and transparency. However, following Dharmapala and Khanna (2013), we primarily focus on the amendment of Securities Contracts Act 1956 to introduce Section 23E in 2004 which expanded

personal liabilities of management, board and audit committee and imposed significant financial and criminal penalties for non-compliance. This expansion of personal liability and associated financial and criminal penalties makes the reform comparable with SOX. Likewise, only listed firms that had paid-up equity capital of more than or equal to Indian Rupees (INR) 30 million at any point in their traded history were subject to comply with this regulation. The imposition of Section 23E in 2004 allows us to categorize firms into categories of treated (affected) and control (unaffected) groups providing us a regulatory setup to empirically test following hypotheses relating CGR and corporate risk-taking in the context of emerging market.

3. Hypotheses

We develop four testable hypotheses for our empirical enquiry.

***Hypothesis 1*:** Literature establishes corporate risk-taking is a utility trade-off of dominant insiders between higher returns from risky investments and private benefits at their discretion. Higher expected returns on potentially risky however positive net present value (NPV) investments increase the wealth of insiders and therefore positively affects risk-taking appetite. On the other hand, utility from private benefits encourages these insiders to invest conservatively. To the extent that CGR expands the outside monitoring (through mandatory requirements of board and audit committee independence) and lowers the utility of dominant insiders from private benefits, theory predicts that CGR should lead to higher risk-taking. Our first hypothesis examines the effect of introducing CGR on the risk-taking activities of firms in an emerging market environment.

CGR should increase corporate risk-taking in an emerging market environment.

***Hypothesis 2*:** Economic argument suggests a positive relation between insiders' ownership and investment conservatism. Given the weaker market forces of corporate control and higher ownership concentration in emerging markets, the associated private benefits of controlling insiders favouring investment conservatism should be higher (Bertrand et al., 2002; Gul et al., 2010). Therefore, our second hypothesis examines the moderating role of CGR (Section 23E) in explaining risk-taking across different ownership structures.

Firms with higher ownership concentration undertake higher levels of risk-taking in comparison to those with lower ownership concentration following CGR.

***Hypothesis 3*:** Corporate investment conservatism can stem from creditors' influence in firm's decision. Previous studies have shown that when creditors (banks and bondholders) are more influential in firm's decision, they may demand more investment-related restrictions. Since the

improvement in CGR increases the influence of minority shareholders in firm's decision, the resulting minority empowerment should encourage more risk-taking of otherwise conservative firms because of higher creditors' stake.

Higher creditors' stake firms undertake higher levels of risk-taking in comparison to lower creditors' stake firms following the enforcement of CGR.

***Hypothesis 4*:** Studies show that improvement in CGR has positive effect on firm valuation. Accordingly, our final hypothesis explores the possibility that enhanced risk-taking can be one important channel through which CGR affects firm valuation.

Firms with higher levels of risk-taking are associated with higher valuation following the enforcement of CGR.

4. Research Methodology

As our CGR separates listed firms into affected and unaffected firms based on paid-up equity capital requirement, we employ difference in differences (DiD) estimation method. The DiD estimator is a double difference estimator which measures the difference of the risk-taking proxies after and before a policy intervention (CGR) of the firms affected by the intervention after adjusting to the difference of the risk-taking proxies after and before CGR of those counterparts unaffected by the regulation. Therefore, DiD estimator measures a causal effect of an intervention on the affected firms and is a popular policy evaluation tool.

5. Data and Sample

We use a sample of 3,839 listed non-financial firms from 2000 to 2007 for our investigation. Data is obtained from Prowess database maintained by Centre for Monitoring Indian Economy (CMIE).

To see the effect of CGR on risk-taking of affected firms, we gauge our CGR variable is a time dummy that takes the value of one for years after 2004 and zero otherwise. Following the literature, we use earnings-volatility as our main variable to capture corporate risk-taking in our empirical testing. As riskier projects exhibit higher volatility, earnings-volatility captures the degree of risk-taking in a firm's operations based on the volatility of the operating earnings. We calculate earnings-volatility as the three-year rolling standard deviation of earnings, where earnings is measured using earnings before interest, taxes, depreciation and amortization (EBITDA) expressed as a percentage of total assets.

To gauge the effect of CGR on fixed and innovative investments we also use two other alternative

dependent variables: capital expenditure and R&D expenditure. Capital expenditure captures the size of tangible investments. It is computed as the difference between long-term assets for year 't' and year 't-1' scaled by long-term assets for year 't-1'. R&D expenditure reflects a firm's level of innovative investments (Bargeron at el., 2010; Belloc, 2013). R&D expenditure is measured as the total monetary value of research and development expenditure scaled by total assets. We also control for firm level controls including size (natural logarithm of book value of assets), leverage (debt to equity ratio), liquidity (ratio of total current assets to total current liability), insiders' holding (percentage owned by promoting shareholders) and market to book ratio which may contest in explaining corporate risk-taking.

6. Results

In line with four hypotheses, we group our results in four parts.

i) CGR and corporate risk-taking

We find strong evidence that CGR (introduction of Section E in 2004) is positively related to corporate risk-taking in an evolving regulatory context of an emerging market in magnitude of economic significance. Our findings are robust to additional tests and sensitivity analysis that use different proxies of risk-taking (earnings-volatility, capital expenditure and R&D expenditure) and the use of different subsamples of treated and control groups. As Clause-49 was first applicable to larger firms, risk-taking could be endogenous to size driving our results. For example: compared to their small-sized counterparts, the larger firms face lesser capital constraints and therefore could pursue more investment in profitable projects. Similarly, some firms may already be better governed than others and could be pursuing optimal risk-taking prior to CGR and therefore CGR is expected to have lesser effect on these firms compared to those with weaker corporate governance prior to CGR. We therefore address endogeneity concerns stemming from size effect and pre-enforcement differences by studying subsample of size comparable firms and including cross-listed firms as alternative control group. The results with these subsample tests are consistent with our main findings. Finally, we also address the possibility of self-selection bias by excluding those firms from our estimation whose paid-up equity capital changes post CGR.

ii) Ownership heterogeneity and the effect of CGR on risk-taking

Our examination on the moderating role of CGR in explaining the influence of ownership concentration on corporate risk-taking shows that following the CGR, firms with higher ownership

concentration pursue more value-enhancing risky projects relative to firms with lower ownership concentration.

iii) Heterogeneity of on creditors' stake and the effect of CGR on risk-taking

Our examination of heterogeneity of creditors' stake show that in comparison to the counterparts with lower creditors' stake, firms with higher creditors' stake prior to CGR opt for more risk-taking following CGR. The finding is consistent with the argument that CGR encourages risk-taking of otherwise conservative firms because of higher creditors' influence.

iv) CGR and Value- relevance of risk-taking

Our empirical investigation on the role of CGR on market valuation shows that post CGR implementation in 2004, higher risk-taking is associated with higher market valuation of the treated firms.

7. Contribution

This paper contributes to the following strands of literature. First, we add to the literature on CGR and risk-taking. Previous studies provide evidence of negative effect of CGR on corporate risk-taking in jurisdictions where market based corporate scrutiny is high. However, we show that link between CGR and risk-taking is postive in the context of an emerging market where private benefits of dominant insiders are significant, and market based corporate scrutiny is weaker. Second, given the extensive evidence on the prominent role of ownership concentration and creditors' stake in corporate investment conservatism, particularly significant in the context of emerging markets, we contribute by showing improvement in corporate governance environment reduces investment conservatism stemming from ownership concentration and creditors' stake. Third, we complement studies documenting positive effect of CGR on firm's valuation by showing corporate risk-taking as an important channel through which CGR augments higher firm valuation in an emerging market.

8. Policy Implication

Our study suggests that unlike evidence from developed markets, in an emerging market environment, CGR could substitute missing market-forces of corporate scrutiny and could bring about positive investment outcomes in the form of higher risk-taking. Policy makers in emerging markets can improve positive outcomes of regulatory interventions by expanding the stringency of penalties for non-compliance to improve credibility of enforcement.