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The Market for Corporate Control and Risk-taking: Evidence from Global Merger and Acquisition Laws

Santosh Koirala,[1] Sandeep Rao,[2] Hisham Farag[1] and Andrew Marshall[3]
[1]Department of Finance, University of Birmingham, Birmingham, B15 2TT, UK, [2]DCU Business School, Dublin City University, Dublin 09, Ireland, and [3]Department of Accounting and Finance, University of Strathclyde, Glasgow, G4 0QU, UK
Corresponding author email: a.marshall@strath.ac.uk

We examine the effect of international regulations governing the market for corporate control (MCC) on firm risk-taking using the staggered enactment of country-level merger and acquisition (M&A) laws of 34 countries. Consistent with the theoretical argument of deterrence, we show that the MCC leads to unintended consequences by discouraging value-relevant corporate risk-taking. Our investigation of real earnings management suggests that the MCC induces real earnings smoothing and also provides evidence of short-termism. This reduction in corporate risk-taking is associated with a decrease in real investments, an increase in cash-holding, an increase in debt employment, and a propensity to diversify in M&A. Further examination of the heterogeneous effect of the quality of national governance institutions on the relationship between the MCC and risk-taking shows that the country-level investor protection and transparency levels positively moderate the effect of the MCC. Our study highlights that there could be complementary roles played by national institutional features and the MCC in encouraging value-relevant corporate risk-taking.

Introduction

As firm risk-taking is an important driver of private sector growth of an economy (John, Litov and Yeung, 2008; Faccio, Marchica and Mura, 2011), the impact of regulations governing the market for corporate control (MCC, henceforth) on corporate risk-taking behaviour remains a central regulatory policy issue. The concern of the regulators stems from the possibility that the MCC could lead to corporate short-termism that may undermine the long-term intended policy outcomes (OECD, 2015). This issue is also connected to the unresolved academic debate on the (un)intended consequence of international corporate governance laws on corporate finance decisions (Lel and Miller, 2015; Glendening, Khurana and Wang, 2016; Fauver *et al*., 2017). This paper exploits an international setup of the staggered introduction of merger and acquisition (M&A) laws in 34 countries as a plausibly exogenous variation in the MCC to explore the link between the MCC and firm risk-taking.

In the takeover market, alternative management teams contest for the rights to manage corporate resources, which increases the likelihood of underperforming incumbent managers being replaced (Lel and Miller, 2015, Glendening, Khurana and Wang, 2016). Therefore, the MCC should create pressure for corporate managers to perform.[1] In the absence of predictable laws and regulation around mergers and acquisitions (M&A), the MCC in a target domicile would remain

[1]Previous studies show that in many countries the corporate takeover market was largely unregulated or came under the jurisdiction of national stock exchanges before the takeover law enactment (Glendening *et al*., 2016).

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suppressed as the acquirer would be less willing to be involved in the M&A activity until there is more certainty in the M&A rules applicable in that market (Glendening, Khurana and Wang, 2016). By establishing an unambiguous regulatory framework for M&A, the enactment of M&A laws lowers regulatory uncertainty among market participants and therefore should boost M&A activity. Taken together, these arguments suggest that the enactment of M&A laws improves the MCC.

There are differing views on how improvements in the MCC impact corporate risk-taking behaviour. The deterrence view posits that increased takeover threats could lead to managerial myopia (Zhao *et al*., 2012). This could lead to lower risk-taking of firms towards long-term investments (Hayes and Abernathy, 2007; Ladika and Sautner, 2020; Keum, 2021).[2] Alternatively, the MCC as a corporate disciplining tool improves corporate risk-taking through improved monitoring of managerial performance and their propensity to overinvest (John, Litov and Yeung, 2008; Fauver *et al*., 2017; Lu and Wang, 2018; Balachandran *et al*., 2020).[3]

Taking into account these differing views, we examine the impact of international M&A laws (that increase takeover threats) as a source of exogenous variation in the MCC on corporate risk-taking behaviour. Our review of the literature suggests that M&A law enactment in various countries is driven mainly by the regulators' concern to lower uncertainty around M&As and is exogenous to corporate risk-taking attributes (Lel and Miller, 2015; Glendening, Khurana and Wang, 2016). Our diagnostic tests further endorse this assertion that these laws are not endogenously affected by factors relating to corporate risk-taking.

Exploiting international M&A laws from 1993 to 2005 in a DiD (difference-in-differences) set-up, we investigate the impact of regulations governing the MCC on corporate risk-taking. We find that firms in countries where there has been M&A law enactment (treated firms, henceforth) reduce their corporate risk-taking in the post-enactment period. This result is robust to different measures of corporate risk-taking, including forward earnings volatility as an operational risk measure, capital expenditure as a measure of real investment risk, and idiosyncratic volatility as a market-based measure. In terms of economic magnitude, the MCC is associated with a reduction of 6.85% of forward earnings volatility, a 21.37% reduction in capital expenditure, and a 1.6% reduction in idiosyncratic volatility. This reduction in corporate risk-taking supports the view that the MCC deters corporate risk-taking. We concurrently test the effect of the MCC on firm value (Tobin's Q). In line with the deterrence argument of corporate risk-taking, the results show that the MCC is negatively associated with the firm value (14.1% reduction in Tobin's Q). Our findings show that short-term performance pressures created by the MCC could have the unintended consequences of discouraging value-relevant corporate risk-taking, thus reducing firm value.[4,5]

We maintain that MCC-driven reduction in corporate risk-taking manifests mainly in the form of investment conservatism. However, a reduction in real investment (capital expenditure) may not necessarily imply a lowering of value-relevant risk-taking but could suggest a disciplining of managerial indulgence to overinvest in value-destroying projects (Khurana and Wang, 2019). To address this issue, we first examine the impact of the MCC on risk-taking for a sub-sample of firms where

[2]For brevity, henceforth, unless specified, risk-taking means 'value-enhancing risk-taking' as opposed to 'value-destroying risk-raking'.

[3]There is a possibility that decrease in corporate investment is associated with reduction of overinvestment due to managerial discipline (Hope and Thomas, 2008; Balachandran *et al*., 2020). Overinvestment is an agency problem where an agent-manager indulge in decisions like aggressively growing the firm by undertaking inefficient projects that reduce firm long-term performance and is value-destroying.

[4]This argument is consistent with the finding that value-destroying corporate activities follow increased creditor protection (Acharya *et al*., 2011).

[5]Our results on the heterogeneous firm and country characteristics (as reported in Appendix table A1) show this deterrence effect on corporate risk-taking is more pronounced in small firms, firms with low tangibility, and growing firms. We also find firms located in countries with higher purchasing power reduce risk-taking following the MCC enactment, compared to the firms residing in countries with lower purchasing power. In contrast, firms in countries with higher economic growth mitigate, in part, the negative impact of MCC on corporate risk-taking. If economic growth and purchasing power are inversely related, these results suggest that a part of corporate conservatism resulting from the MCC is eliminated by growth prospects facing firms, and therefore economic growth and not credit market development seems to motivate corporate risk-taking (King and Levine, 1993).

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over-investment is not observed and find that the results are consistent (risk-taking reduces) for this sub-sample. Next, we examine if the lowering of capital expenditure reflects investment being more efficiently allocated by managers, and not a reduction of risk-taking. We find that an improvement in investment efficiency does not drive our results (Khurana and Wang, 2019).

To explore further the deterrence argument, we investigate whether the MCC encourages firms to engage in real earnings management. As real earnings smoothing helps managers withhold or delay the reporting of bad news related to their value-destroying engagements, the evidence of an increase in earnings smoothing would suggest that the MCC could initiate corporate short-termism (Khurana, Pereira and Zhang, 2018). Our investigation confirms that the MCC is positively associated with firms engaging in real earnings smoothing to pursue their short-term objectives (Khurana, Pereira and Zhang, 2018). Our finding is also consistent with Zhao *et al*. (2012), who document that takeover protection is associated with lower levels of real earnings management. Taken together, our evidence of earnings smoothing and value-destroying risk-taking implies that the MCC could incentivize managers to pursue managerial myopia, consistent with Stein (1988).

Our paper further explores if national governance institutions moderate the deterrence effect of the MCC on risk-taking. The literature on law and finance maintains that a better quality macro-institutional framework reduces uncertainty in transactions by formulating and enforcing rules, thereby facilitating better corporate outcomes (La Porta *et al.*, 1998; John, Litov and Yeung, 2008). Although recent years have witnessed a convergence in global corporate governance standards, studies document that the quality of institutions (enabling institutions, henceforth) could be an important driver of corporate performance (Klapper and Love, 2004; Claessens and Yurtoglu, 2013). Drawing on the heterogeneities of enabling institutions, we examine whether the effect of the MCC on corporate risk-taking is different based on the strength of the underlying corporate governance environment. Our results show that in the presence of strong enabling institutions, the MCC as a governance tool leads to greater value-enhancing risk-taking.

Next, we run a set of robustness tests. Our main result persists after controlling for the impact of contemporaneous corporate governance reforms (CGRs) and tax reforms (TRs) during our study period (Fauver *et al*., 2017; Hail, Sikes and Wang, 2017). Additionally, based on Nenova (2006), we examine the impact of M&A laws that measure heterogenous variation in investor protection around M&A deals on risk-taking. Consistent with our results on the impact of enabling institutions, we find that the negative effect of the MCC on risk-taking and value-loss is moderated by the investor protection provisions of M&A laws.

Finally, we examine the effect of the MCC on a number of important firm decisions, including cash holding, debt employment, and M&A activities. Consistent with the baseline results of corporate conservatism, we find that the MCC is associated with higher cash-holding. On the other hand, the MCC is also associated with higher debt employment, increasing financial distress risk. Increasing debt employment could also imply a defensive strategy, reducing the benefit of potential acquisitions to the potential bidders due to wealth transfer from equity-holders to debt-holders (Billett, 1996). Finally, we also explore the impact of the MCC on the propensity to engage in diversifying M&A deals compared with focused M&A deals (Acharya, Amihud and Litov, 2011). Our results on M&A activities show that the MCC is associated with firms engaging more in diversifying deals as a potential defensive strategy.

We contribute to the corporate governance literature in three ways. First, we contribute to the literature connecting the MCC and corporate short-termism by showing that MCC laws could trigger short-termism to induce investment conservatism. Ladika and Sautner (2020) show that when their incentives become more short term, managers cut investment. Similarly, Keum (2021) maintains that a takeover threat could discourage innovation. Exploiting international setup, we extend this strand of the literature by showing how the MCC, as a governance tool, might discourage value-enhancing risk-taking by incentivizing managers to focus on short-termism. In arguing so, we maintain that the MCC triggers managerial discipline (Lel and Miller, 2015; Glendening, Khurana and Wang, 2016) and partly corrects the overinvestment problem (Balachandran *et al*., 2020). However, the overall effect of the increased takeover threat leads to managerial indulgence in defensive strategies, real earnings smoothing, and the deterrence of value-relevant risk-taking.

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Second, we contribute to the broader literature on law and finance, which explores firm consequences such as creditor's protection and defensive M&A strategies (Acharya, Amihud and Litov, 2011), dividend policy and the MCC (Glendening, Khurana and Wang, 2016), and the value implication of corporate governance laws (Fauver *et al*., 2017; Koirala *et al*., 2020). In particular, Acharya, Amihud and Litov (2011) show that corporate governance that empowers creditors lowers value-relevant corporate risk-taking. For this strand of literature, we provide new evidence of the unintended effect of international M&A laws governing the MCC in deterring corporate investment and value-relevant risk-taking. Our study highlights the real effects of the MCC as they trigger investment conservatism while maintaining higher cash-holding by employing more debt. This investment conservatism is further supported by our findings that the MCC is associated with an increase in the propensity to engage in diversifying M&A deals as a possible defensive strategy.

Third, our study contributes to the unresolved debate surrounding the complementary versus substitutive effect of different forms of governance. Our findings from the cross-country sample show that national institutions, which implement investor protection and transparent market rules, do not substitute, but rather complement the MCC in producing the intended outcome of regulation on corporate investment and risk-taking, which are important corporate growth drivers (Li *et al*., 2013; Glendening, Khurana and Wang, 2016). We maintain that while the MCC could induce higher managerial discipline (Lel and Miller, 2015; Glendening, Khurana and Wang, 2016), this disciplining alone could trigger corporate conservatism and managerial myopia. However, the quality of the national governance environment acts as an enabling institution to moderate this value-destroying investment conservatism. Finally, Lel and Miller (2015) examine the role that takeover markets play in disciplining poorly performing managers and find that the staggered initiation of M&A laws leads to an increased sensitivity of CEO turnover with respect to weaker firm performance. We extend their work to demonstrate that, when facing the external discipline of the MCC, threatened managers could pursue corporate conservatism to the extent of deterring value-relevant risky investments.

Related literature and hypotheses development

MCC and corporate risk-taking

Economic short-termism that results in managerial biases against making a long-run investment may be due to formal planning tools and regimes for organizational control (Hayes and Abernathy, 2007), managerial incentives to boost short-term earnings and stock prices (Ladika and Sautner, 2020), and the economy-wide high cost of capital (Jacobs, 1991). The basic argument is that short-termism leads firms to undertake risks that will have immediate payoffs (Laverty, 1996). Theory predicts that executives evaluate both the cost and the benefits of engaging in short-termism. Stein (1988) suggests that managers facing takeover pressure tend to focus on short-term profits because of the fear of the firm being bought out at an undervalued price. In a similar vein, both Kuttner (1986) and Auletta (1986) point out that managers who fall prey to takeover fears divert their attention to short-term defensive tactics to support the short-term prices and reduce long-term capital investments. This corporate short-sightedness would incentivize managers to chase short-term targets to the extent of foregoing value-relevant risk-taking (Hayes and Abernathy, 2007; Ladika and Sautner, 2020; Keum, 2021).

Supporting this view, Graham, Harvey and Rajgopal (2005) found that 78% of the managers in their survey sample admitted cutting or delaying long-term value-driving investments to smooth earnings in support of short-term performance targets. In summary, the intertemporal choice of corporate risk-taking favours short-termism to the extent of deterring long-term value-relevant risk-taking. To this end, the MCC could trigger a deterrence response from corporates in their pursuit of value-relevant risk-taking and lower the risk-taking appetite of firms towards long-term investments.

An alternative view posits that the MCC improves corporate risk-taking through corporate disciplining (Fauver *et al*., 2017; Lu and Wang, 2018). This is achieved in two ways. First, the MCC as an effective governance mechanism (Fama and Jensen, 1983; Jensen and Ruback, 1983) can improve corporate monitoring that could lower the magnitude and importance of the private benefits of insiders (John, Litov and Yeung, 2008). A

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takeover threat can increase the propensity for underperforming managers to be replaced and lowers managerial slack (Bertrand and Mullainathan, 2003). Additionally, it can motivate directors to be more careful as corporate monitors of performance, as they face the risk of dismissal when a firm becomes a target (Hirshleifer and Thakor, 1998; Lel and Miller, 2015). Second, the MCC as a disciplining tool reduces the managerial propensity to overinvest (Hope and Thomas, 2008; Balachandran *et al*., 2020). Overinvestment is an agency problem, whereby an agent–manager indulges in aggressive growth strategies by undertaking inefficient projects that reduce the firm's long-term performance, and is value-destroying.

Although monitoring lowers the agency costs of free cash flow, there is a negative aspect to market-based scrutiny, which can lead managers to take a short-term perspective. A takeover threat could encourage managers to indulge in devising defensive strategies and pursuing short-term goals to the extent of avoiding value-relevant risk-taking. For some firms, such as growing and innovative firms, greater external monitoring may be expensive (Coles, Daniel and Naveen, 2008). As the MCC expands board diligence, the increased cost of external monitoring could dampen managers' appetites for long-term risk-taking (Coles, Daniel and Naveen, 2008; Cohen, Dey and Lys, 2013). Facing greater scrutiny, firms would adopt short-termism. To this end, we state our primary hypothesis as follows.[6]

H1: The MCC lowers value-enhancing corporate risk-taking.

The moderating effect of enabling institutions

The institutional regime in an economy is based on the allocation of rights and obligations among the firm's stakeholders, including shareholders (La Porta, 1999). The protection of different stakeholders is defined and enforced to varying degrees, depending on the strengths of institutions of corporate governance in an economy (Capron and Guillén, 2009). As a result of their distinctive historical episodes and events, national corporate governance institutions differ significantly, and therefore so does the degree of protection enjoyed by shareholders and other stakeholders (La Porta, 1999; Djankov *et al*., 2008).

We view the quality of the national corporate governance regimes as enabling institutions, as these institutions enable investors' confidence in the financial market of an economy (Schneper and Guillén, 2004). These institutions protect dispersed shareholders against expropriation by corporate insiders. The national corporate governance rules also improve confidence among the market participants in the rules of society, thus improving the quality of contract enforcement, property rights, the police and the courts, and the likelihood of crime and violence. These institutions enhance the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

There is an unresolved debate in the literature on international corporate governance on the role of national governance and institutions regarding the effect on corporate decisions in general (La Porta, 1999; Fauver *et al*., 2017) and on corporate risk-taking (John, Litov and Yeung, 2008; Acharya, Amihud and Litov, 2011). Jensen (1993) notes that the MCC and other external monitoring mechanisms, such as political, legal and regulatory processes and product markets, work together with the other monitoring mechanisms to control agency costs between shareholders and managers, thus suggesting a potential complementary nature of different forms of governance.

Drawing on these arguments, we suggest that in the presence of a stronger enabling environment, the impact of regulations governing the MCC could encourage corporate risk-taking. We, therefore, hypothesize a positive moderation effect of enabling institutions and the MCC on value-enhancing corporate risk-taking as follows.

H2: Robust national governance mechanisms moderate the effect of the MCC on value-enhancing corporate risk-taking.

In *H2*, we make an implicit assumption that national institutions provide an enabling environment, thus positively moderating the intended outcomes of the MCC. Previous studies also present

[6]Our paper makes a distinction between value-enhancing risk-taking and value-destroying risk-taking. For our central argument in H_1 to hold, the MCC should negatively affect firm value, an unintended consequence, thereby undermining the positive outcome that MCC brings in the form of improved corporate discipline (Lel and Miller, 2015; Glendening *et al*., 2016).

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a contrarian view of the possibility that the MCC would substitute missing national governance in disciplining underperforming managers through the threat of dismissal (Lel and Miller, 2015) or through substituting other forms of costly firm-level governance signals (Glendening, Khurana and Wang, 2016). To the extent that the MCC substitutes a weaker investor protection regime, the negative effect of the MCC on corporate risk-taking should subside in countries with weaker national governance.

Data and variables

Our primary sources of data on worldwide M&A regulations are Lel and Miller (2015) and Glendening, Khurana and Wang (2016). We include M&A law initiation from 1993 to 2005, qualifying 34 of 48 countries for our study sample. Our main independent variable is the MCC, which we estimate using the staggered enactment of these M&A laws (consistent with previous studies, Glendening, Khurana and Wang, 2016; Khurana and Wang, 2019). Appendix Table A2 provides a summary of worldwide M&A laws.

Dependent *v*ariables

The main variable used to measure corporate risk-taking is operational risk. As riskier projects exhibit higher volatility, forward earnings volatility captures the degree of current corporate risk-taking. We compute this variable as return on asset (RoA) volatility, σ(RoA − forward), defined as the 5-year forward rolling standard deviation of RoA. We also use capital expenditure *(Capex)* to measure investment risk. When facing the higher threat of replacement if (risky) investments underperform, managers have an incentive to lower real investment to reduce this investment risk (John, Litov and Yeung, 2008; Koirala *et al*., 2020). Real investment is a growth driver, and therefore value-enhancing risk-taking should be positively associated with real investments (Bargeron, Lehn and Zutter, 2010; Koirala *et al*., 2020). As a robustness test, we also use *idiosyncratic stock volatility* as a proxy of corporate risk-taking. Finally, in conjunction with our dependent variables of corporate risk-taking, we use *Tobin's Q* (defined as the market value of asset scaled by the book value of assets) to test the proposition that corporate risk-taking is value-relevant (John, Litov and Yeung, 2008; Faccio, Marchica and Mura, 2011).[7]

Control *v*ariables

Our DiD estimation eliminates the role of confounding variables not controlled in the models by double differencing (Vig, 2013). However, as treated and control firms may differ from each other in firm characteristics, we additionally control for other important firm-level factors that may compete with our risk-taking explanatory variable in leading to changes in firm risk-taking. Drawing from the literature, these control variables include *Firm size, Operating performance, Tangibility* and *Firm growth*. Studies show that the size of a firm can play a key role in the ability and appetite of the firm to make investment decisions (Whited and Wu, 2006). Similarly, the tangibility of firms increases their collateral and the ability to access external finance to undertake investment (Thapa *et al*., 2020). We control for firm growth, as firm risk-taking could be in response to growth opportunities (Koirala *et al*., 2020). In addition, we also control for market volatility, as the literature suggests that prices move to show informativeness in the market (Frankel, Kothari and Weber, 2006). Therefore, we expect that the risk-taking should be positive to market volatility.

We further control for national characteristics that could affect demand for and supply of investment opportunities and could be associated with corporate risk-taking. Because risk-taking opportunities are attractive in countries with larger market sizes and higher potential growth (Globerman and Shapiro, 2003; Duanmu, 2012), we control for the GDP per capita and annual economic growth. The level of capital market development is another factor that could affect firm risk-taking, as this provides the liquidity and diversification required by investors to support corporate risk-taking (Erel, Liao and Weisbach, 2012). We further control for domestic credit development to measure the difference in domestic access to finance driving investment opportunities. Similarly, to capture labour dynamics, which play a role in corporate risk-taking, we control for the unemployment

[7]We do not use R&D expenses as a measure of corporate risk-taking as the data are noisy and suffer from a serious missing data issue during our sample period, especially as we are using a cross-country sample.

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rate (John, Litov and Yeung, 2008). Table 1 summarizes the definitions of corporate risk-taking measures, the moderating variables, and the control variables.

We present the distribution of samples across countries in Panel A of Table 2, with India (18.49%) and China (10.06%) having the majority of observations. In Panel B, we present the summary descriptive statistic of variables used in this study. We have 89,945 data observations of all the variables.

Empirical results

MCC and *corporate risk-taking*

Our use of the staggered enactment of M&A laws avoids many of the issues caused by endogeneity as is the case with other proxies of the MCC, for example the propensity of takeover and the propensity of hostile takeover, as they could be driven by firm-specific conditions (Lel and Miller, 2015; Glendening, Khurana and Wang, 2016; Khurana and Wang, 2019). We provide further support for this argument in additional tests in the Appendix.[8,9] We use regression equation (1) to estimate the effect of the MCC on corporate risk-taking:

$$Y_{i,t} = \alpha + \beta_1 MCC_{c,t} + \boldsymbol{\lambda_k} \mathbf{X_{i,t}} + \mathbf{FE} + e_{i,t}, \quad (1)$$

where $Y_{i,t}$ is the dependent variable and the coefficient of $MCC_{c,t}$ is the DiD estimate. For all years including the year of enactment of M&A law by a country, $MCC_{c,t}$ takes the value of one for firms domiciled in that country and zero otherwise. In Table 3, we present the baseline regression employing equation (1).[10] For each dependent variable $\sigma(\text{RoA}) - \text{forward} - 5yr$, *Capex*, *Idiosyncratic volatility* and *Tobin's Q*, we present two specifications, first without and then with control variables. Finally, while columns [1] and [2] report industry-adjusted variables, column [3] uses actual variables under each dependent variable. The coefficient of $MCC_{c,t}$ is significantly negative across all models in Table 3. In terms of economic magnitude, the adjusted industry median σ(RoA)-5yr-forward of treated firms decreases by on average 0.24-0.30%. Consistent with the lower forward-looking RoA volatility, the results also indicate a negative effect of the MCC on the firm's capital expenditure (reduction by 29.25%), idiosyncratic volatility (reduction by 1.6%) and Tobin's Q (reduction by 14.1%). The findings are in line with our *H1* on the unintended consequence of the MCC in deterring corporate risk-taking.

To supplement this baseline regression, we plot the time series of the average treatment effect for 3 years before and 3 years after M&A law enactments. As shown in Figure 1, we find that the average treatment effect is indistinguishable from zero in the pre-enactment period.[11] However, for 3 years post the enactment years, the average treatment effect is negative and consistent with our baseline results and *H1*.

Testing overinvestment

The literature shows that a reduction in capital expenditure may not necessarily be value-destroying. It could also suggest a lowering of overinvestment and managerial indulgence in value-destroying empire-building (Balachandran *et al*., 2020). To address whether this possibility drives our results, we follow Balachandran *et al*. (2020) and generate a dummy variable *Overinvestment*, which takes the value of one if, for a firm-year observation, the residual of actual investment and normal investment is positive, and zero otherwise. Normal investment is as defined by the model explained in Table 1. We first run the regression of overin-

[8] For example, the regression results in Appendix Table A3 and Appendix Figure A1 are consistent with the earlier study by Glendening *et al*. (2016).

[9] We design and test three placebo-experiments to address the credibility of our identification strategy. We construct three placebo experiment dummy variables that takes the value of one in the one year, two-year and three years prior to actual M&A law enactment. The insignificant placebo results in Appendix Table A4 provide some credibility for a parallel trend among treated and control firms which allows us to employ and interpret DiD estimation for causal link. Additionally, the insignificant placebo estimates further lower the possibility that results are driven by contemporaneous confounding events around the enactment of these MCC laws.

[10] The post and treatment dummy are not included in the model because they are subsumed by firm and year fixed effects.

[11] The finding further supports the pre-M&A enactment parallel trend assumption required for specification (1) for causal inference.

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Table 1. List of variables: corporate risk-taking measures, moderating variables and controls

Variable	Calculation	Source
Dependent variables		
σ(RoA)-forward	5 yr − rolling forward σ(RoA) minus industry median of 5 yr − rolling forward σ(RoA)	Compustat Global
	3 yr − rolling forward σ(RoA) minus industry median of 3 yr − rolling forward σ(RoA)	Compustat Global
	Debt/Total Assets (Debt/ TA) minus industry median of Debt/TA	Compustat Global
	Capital Expenditure (Capex)/TA minus industry median of Capital expenditure/TA	Compustat Global
	Cash-holding/TA	Compustat Global
Idiosyncratic volatility	It is the variation in stock return not explained by the market model gauged by the ratio of unexplained variation as a percentage of total variation of the market model, i.e. 1 − (Explained Sum of Squares/Total Sum of Squares) variation or $1 - R^2$ of market model	Compustat Global
Tobin's Q	[Total Debt + MV(Equity)]/BV (Total Assets)	Compustat Global
RES-Dexp.	Negative correlation between the managed component of earnings associated with the adjustment of discretionary expenses and pre-managed earnings. The managed component of earnings is attributed to the adjustment of production as abnormal production costs employing Roychowdhury's (2006) model. The pre-managed earnings are computed as earnings minus the managed component of earnings associated with the adjustment of production.	
RES-Prod.	Negative correlation between the managed component of earnings attributed to the adjustment of production and pre-managed earnings. The managed component of earnings is associated with the adjustment of production as abnormal production costs estimated employing Roychowdhury's (2006) model. The pre-managed earnings are computed as earnings minus the managed component of earnings associated with the adjustment of production.	
RES-Total	Sum of RES-Dexp. + RES-Prod.	
Overinvestment	The amount of unexpected investment for firm-years that have positive values of unexpected investment and 0 otherwise.In the spirit of Balachandran *et al*. (2020), unexpected investment is computed as residual estimated from the following normal investment model: $\text{Invest}_{it+1} = \alpha + \beta_1 \text{MB}_{it} + \beta_2 \text{RoA}_{it} + \beta_3 \text{Cash} - \text{Holding}_{it} + \beta_4 \text{Age}_{it} + \beta_5 \text{Leverage}_{it} + \beta_6 \text{LnAsset}_{it} + \beta_7 \text{Invest}_{it} + \text{Industry FE} + \text{Year FE} + \varepsilon_{it+1}$ where *RoA* is as defined before, *MB* is market to book; *Leverage* is the ratio of long-term debt to total assets; *Cash-holding* is cash and cash equivalents divided by lagged total assets; *AGE* is the natural logarithm of the number of years since being added to the Worldscope database; *LnAsset* is the natural log of total assets; *Invest* is the sum of capital expenditures, research and development expense, net assets from acquisitions and deprecation less disposal of fixed assets, divided by lagged total assets	Own calculation
Investment efficiency	Ratio of average operating profit (EBITDA) in three lead years divided by capital expenditure in current year.	Own calculation
Independent variables		
MCC	MCC is a difference-in-difference interaction variable between *Treated* and *Post*. *Treated* takes the value of 1 for firms that belong to countries that have enacted M&A laws, consistent with Glendening, Khurana and Wang (2016) and Khurana and Wang, 2019, and 0 otherwise. *Post* is a dummy variable that takes the value of 1 from the year of M&A law enactment (see Table 2) and 0 for pre-enactment years	Own calculation
Other contemporaneous shocks		
CGR index	The corporate governance index (0–4) from Fauver *et al*. (2017) that takes four components into account: board independence reform; audit committee and audit independence reform; chairman and CEO role reform; and non-board reform	
TR	Tax reform follows Hail, Sikes and Wang (2017). TR-Increase (-Decrease) takes a value of 1 following the year of increase (decrease) in capital gains tax in a country, and 0 otherwise	

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Table 1. (Continued)

Variable	Calculation	Source
M&A heterogeneity		
Fair price to non-tender investor rule	This measure provides the categorical variation in the extent of investor protection. This variable equals 1 if shareholders who did not tender during the period of the offer have the right for a defined period after the offer to be bought out at the same terms, and 0 otherwise	Nenova (2006)
Appraisal right rule	The variable is a categorical dummy that takes the value of 1 if the appraisal right provision exists, and 0 otherwise. This is an important investor protection mechanism that most national legislatures provide for, following major corporate decisions. It allows dissenting holders to sell their shares back to the firm after a major alteration in the major provisions, including a change in control, a merger, a decision to make a firm private, an alteration in the nature of the business etc.	Nenova (2006)
Moderating variables [Enabling Institutions]		
ASDI	Standardized anti-self-dealing index (equal weightage of ex-ante and ex-post anti-self-dealing mechanism in a country)	Djankov *et al*. (2008)
Transparency	Disclosure index related to periodic filings	Djankov *et al*. (2008)
Enforcement quality	Enforcement quality measures the effectiveness of enforcement in terms of ease in proving wrongdoing based on Djankov *et al*. (2008). This is computed as an equally weighted average of five constituting factors that include: (a) equals 1 if a 10% shareholder may sue derivatively the wrongdoers or the approving bodies or both for damages that the firm suffered as a result of the transaction, and 0 otherwise; (b) rescission, which is the index of the ease in rescinding the transaction (ranges from 0 to 1); ease of holding the convict liable for civil damages (ranges from 0 to1); ease of holding the approving body liable. This is an index of the ease in holding members of the approving body liable for civil damages (ranges from 0 to 1) and access to evidence (ranges from 0 to1).	Djankov *et al*. (2008)
Control variables		
Firm control		
Firm size	ln (book-value of total assets)	Compustat Global
Tangibility	Property, plant and equipment / total assets	Compustat Global
Firm growth	Year on year sales growth $[\frac{\text{Total sales}_t - \text{Total sales}_{t-1}}{\text{Total sales}_t}]$	Compustat Global
Market volatility	Annual standard deviation of monthly market index return	Compustat Global
Operating performance	EBITDA/Total assets	Compustat Global
Country controls		
Market size (GDP per capita)	The natural log transformation of per capita GDP in USD	World Bank WDI database
Economic growth	The growth rate of GDP	World Bank WDI database
Capital market development	The total stock market capitalization divided by GDP	World Bank WDI database
Credit market development	The total domestic credit divided by GDP	World Bank WDI database
Unemployment	Captures the essence of labour dynamics. Unemployment rate as a percentage of the active population (14-65)	World Bank WDI database
Industry factors		
Industry	65 unique industries based on SIC-2 digits of non-financial firms	Compustat Global

This table shows the construction of the variables. Explanations are provided in the description of the variables in the text.

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Table 2. Descriptive statistics

Panel A

Country name	Obs.	Freq.	Country name	Obs.	Freq.	Year of enforcement
Argentina	318	0.0035	Austria	572	0.0064	1998
Brazil	1718	0.0191	Chile	1114	0.0124	2000
China	9047	0.1006	Germany	4876	0.0542	2002
Colombia	129	0.0014	India	16,635	0.1849	1997
Czech Rep.	114	0.0013	Indonesia	2061	0.0229	1998
Denmark	1168	0.0130	Ireland-Rep	633	0.0070	1997
France	4889	0.0544	Malaysia	276	0.0031	1998
Greece	587	0.0065	New Zealand	6596	0.0733	2001
Hungary	134	0.0015	Pakistan	895	0.0100	2000
Israel	1119	0.0124	Philippines	1322	0.0147	1998
Japan	18,303	0.2035	Sri Lanka	1124	0.0125	1995
Luxembourg	163	0.0018	Taiwan	5666	0.0630	2002
Mexico	801	0.0089				
Norway	1321	0.0147				
Peru	509	0.0057				
Poland	672	0.0075				
Portugal	398	0.0044				
South Korea	3198	0.0356				
Thailand	2762	0.0307				
Turkey	590	0.0066				
Venezuela	115	0.0013				
Zimbabwe	120	0.0013				
Total	48,175	0.5356		41,770	0.4643949	

Panel B

	Count	Mean	SD	50th pc	25th pc	75th pc
Dependent variables						
σ(RoA) – forward 5yr- Ind. Adj	89,450	0.0157	0.0546	−0.0000	−0.0120	0.0220
σ(RoA) – forward 3yr- Ind. Adj	89,450	0.0147	0.0502	−0.0001	−0.0108	0.0202
Capex – Ind. Adj	89,450	0.0184	0.0615	0.0000	−0.0181	0.0335
Idiosyncratic volatility– Ind. Adj	81,055	−0.0338	0.1187	−0.0721	0.0000	0.0390
Tobin's Q – Ind. Adj	89,450	0.4708	2.3853	0.0124	−0.2240	0.3396
Debt employment – Ind. Adj	89,450	0.0440	0.1410	−0.0506	0.0021	0.1095
Cash-holding – Ind. Adj	89,450	0.0353	0.1232	−0.0012	−0.0421	0.0786
σ(RoA) – forward 5yr	89,450	0.0438	0.0556	0.0140	0.0271	0.0505
σ(RoA) – forward 3yr	89,450	0.0378	0.0511	0.0107	0.0220	0.0438
Capex	89,450	0.0578	0.0636	0.0140	0.0355	0.0730
Idiosyncratic volatility	81,055	0.8688	0.1244	0.8224	0.9144	0.9577
Tobin's Q	89,450	1.3007	2.3973	0.5803	0.8266	1.1862
Debt employment	89,450	0.1293	0.1473	0.0071	0.0803	0.1994
Cash-holding	89,450	0.1241	0.1305	0.0302	0.0812	0.1712
Cash-holding	89,450	0.1241	0.1305	0.0302	0.0812	0.1712
RES_Dexp.	55,160	0.5662	0.4794	0.3466	0.7649	0.9322
RES_Prod.	48,802	0.7014	0.4111	0.6070	0.8860	0.9722
RES_Total	47,087	1.2669	0.7179	0.8799	1.5118	1.8365
Overinvest	67,598	0.1784	0.3829	0.0000	0.0000	0.0000

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Table 2. (Continued)

Panel B

	Count	Mean	SD	50th pc	25th pc	75th pc
Control variables						
Firm size	89,450	7.9087	2.8866	7.4533	5.7984	9.9031
Operating performance	89,450	0.0894	0.0955	0.0873	0.0443	0.1373
Tangibility	89,450	0.6125	0.3731	0.5751	0.3288	0.8435
Firm growth	89,450	0.0810	1.1369	0.0000	0.0000	0.0000
Market volatility	89,450	0.2150	0.5714	0.0746	0.0608	0.1191
GDP per capita (ln)	89,450	8.4701	1.7010	8.4033	6.8663	10.3825
Credit market development	89,450	1.0038	0.5952	1.0978	0.3619	1.4915
Economic growth	89,450	0.0461	0.0360	0.0405	0.0166	0.0786
Capital market development	89,450	0.5827	0.3528	0.5029	0.2883	0.7389
Unemployment	89,450	0.0512	0.0292	0.0430	0.0310	0.0540
Enabling institutions						
Anti-self-dealing index (ASDI)	89,450	0.5600	0.1900	0.56.00	0.4700	0.6500
Transparency index	89,450	0.7731	0.2081	0.8000	0.8000	0.8000
Enforcement quality	89,450	0.5980	0.2233	0.4300	0.6500	0.8000

This table presents the descriptive statistics of the sample and data. Panel A presents the number of observations of the data of 34 countries, with 22 countries without M&A laws and 12 countries with M&A laws during the study period. Panel A also presents a column on the year of enforcement for the subsample of countries with M&A law. Panel B presents summary statistics (count, mean, median and standard deviation) of variables used in this study. Dependent variables include the following: σ(RoA) is the 3-yr- and 5-yr-forward rolling standard deviation of ROA, where ROA is net income after tax (EBITDA) scaled by total assets. Debt Employment is Debt/Total Assets (Debt/TA) minus industry median ofDebt/TA calculated using values as obtained from Compustat. R&D is R&D expenditure scaled by total assets. Capex is capital expenditure as a fraction of total assets. Control variables include firm (size, tangibility and sales growth) and country (GDP per capita, GDP growth, domestic credit (% of GDP), market-capitalization (% of GDP) and unemployment rate) controls. Tobin's Q is the ratio of the book value of total assets to the market value of total assets. Firm Operating Performance is ROA(Return on Assets)/TA. That is net income after tax (EBITDA) scaled by total assets Market volatility is the Standard deviation of the market index for each country for each year, where the index is equally weighted based on constituent stocks. Cash Holding is Cash-holding/TA - calculated using values as obtained from Compustat [cash and cash equivalent].

vestment on the MCC in column [1] of Table 4. We find a significant and negative association between the MCC and overinvestment. The reduction in capital expenditure is, in part, due to addressing the effect of overinvestment. However, the question of whether overinvestment explains the entire reduction in real investment that we find in our sample firms remains. To answer this question, we run the regression for the observations that do not have overinvestment. We report this in column [2] of Table 4. Further, in columns [3]–[4] of Table 4, we use the entire sample for which we have observations for overinvestment and analyse that impact on Capex after controlling for overinvestment using the interaction term [MCC × Overinvestment]. While [3] reports Capex with industry adjustment, [4] reports without industry adjustment. The results show that the reduction in capital expenditure is persistent even after controlling for overinvestment. The results are revealing in two ways. First, consistent with Balachandran *et al*. (2020), we find that the MCC does correct some overinvestment problems. Second, the overall effect is that the MCC makes firms more investment-conservative beyond what is explained by the correction for overinvestment. In terms of economic magnitude, this reduction in Capex by 1.235% translates to 21.37% of average Capex of sample firms in our study period (average Capex being 5.78%), after controlling for the overinvestment problem.

Finally, we examine if this reduction of capital expenditure is explained by improvement in investment efficiency, as defined in Table 1. As shown in column [5] of Table 4, we find that there is no change in investment efficiency of the treated firms in the post-MCC period. Therefore, we maintain that the decline in capital expenditure reflects a reduced risk-taking appetite of firms opting for investment conservatism in light of the MCC and does not stem from an improvement in investment efficiency.

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Table 3. Baseline regression: the market for corporate control and corporate risk-taking

	σ(RoA) – forward			Capex			Idiosyncratic volatility			Tobin′s Q		
	1	2	3	1	2	3	1	2	3	1	2	3
MCC	−0.00284***	−0.00236***	−0.00300***	−0.01934***	−0.01750***	−0.01691***	−0.0106***	−0.0105***	−0.0138***	−0.18309***	−0.18995***	−0.18299***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Firm size		−0.00092***	−0.00089***		0.00383***	0.00394***		0.0004	0.0009***		−0.44051***	−0.43777***
		(0.00)	(0.01)		(0.00)	(0.00)		(0.1939)	(0.0005)		(0.00)	(0.00)
Operating performance		−0.04810***	−0.04745***		0.03751***	0.03790***		−0.0056***	−0.0033***		0.39312***	0.40717***
		(0.00)	(0.00)		(0.00)	(0.00)		(0.0004)	(0.0046)		(0.00)	(0.00)
Tangibility		0.00607***	0.00604***					0.0158***	0.0140***		−0.29991***	−0.30665***
		(0.00)	(0.00)					(0.0000)	(0.0000)		(0.00)	(0.00)
Firm growth		0.00069**	0.00061**		−0.00035	−0.00037		0.0003	0.0002			
		(0.02)	(0.03)		(0.12)	(0.11)		(0.1728)	(0.2431)			
Market volatility		0.00025	0.00045		−0.00012	0.00015		−0.0021***	0.0000		−0.09636***	−0.10025***
		(0.49)	(0.22)		(0.78)	(0.73)		(0.0000)	(0.9466)		(0.00)	(0.00)
GDP per capita		−0.00309**	−0.00294**		0.01299***	0.01482***		0.0143***	0.0076***		0.02052	0.01777
		(0.02)	(0.03)		(0.00)	(0.00)		(0.0000)	(0.0000)		(0.82)	(0.84)
Economic growth		0.01646**	0.02000***		0.07387***	0.08264***		−0.0006	0.0406***		3.31887***	3.28688***
		(0.03)	(0.01)		(0.00)	(0.00)		(0.9547)	(0.0000)		(0.00)	(0.00)
Credit market development		−0.00119	−0.00081		−0.00151	−0.00075		0.0001	0.0008		0.28739***	0.29101***
		(0.19)	(0.37)		(0.21)	(0.53)		(0.9119)	(0.2869)		(0.00)	(0.00)
Capital market development		−0.00239***	−0.00250***		0.00754***	0.00796***		0.0102***	0.0061***		0.31039***	0.30098***
		(0.00)	(0.00)		(0.00)	(0.00)		(0.0000)	(0.0000)		(0.00)	(0.00)

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Table 3. (Continued)

	σ(RoA) − forward			Capex			Idiosyncratic volatility			Tobin′s Q		
	1	2	3	1	2	3	1	2	3	1	2	3
Unemployment		−0.06426***	−0.06639***		−0.09438***	−0.07942***		−0.0040	0.0264*		8.79011***	8.70758***
		(0.00)	(0.00)		(0.00)	(0.00)		(0.8479)	(0.0772)		(0.00)	(0.00)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2 (Adj)	0.671	0.675	0.687	0.378	0.386	0.421	0.92	0.92	0.94	0.637	0.650	0.651
R^2 (Within)	0.00	0.01	0.01	0.01	0.02	0.02	0.00	0.01	0.02	0.00	0.04	0.04
Number of observations	89,450	89,450	89,450	89,450	89,450	89,450	81,055	81,055	81,055	89,450	89,450	89,450

The table reports the results of the regression specification:

$$Y_{i,t} = \alpha + \beta_1 \cdot MCC_{c,t} + \boldsymbol{\lambda_k} \mathbf{X_{i,t}} + \mathbf{FE} + e_{i,t},$$

where $Y_{i,t}$ is the firm-specific dependent variable: (RoA) 5yr − forward, Capex, Idiosyncratic volatility and Tobin′s Q. $MCC_{c,t}$ is a categorical variable that takes the value of 1 if a firm belongs to an M&A law-enacting country following the year of enactment, and 0 otherwise. Dependent variables are industry-adjusted for each year based on 65 unique 2-digit SICs (subtracting industry-medians) [columns 1–2], while column [3] presents the variables without industry adjustment. Firm controls include *Firm size*, *Operating performance, Tangibility, Firm growth*, while country controls include *Market volatility, GDP per capita, Economic growth, Credit market development, Capital market development* and *Unemployment*, as defined in Table 1. **FE** represents a vector of firm and year fixed effects. Standard errors are clustered at firm-year level and respective p-values reported in parenthesis.
*, ** and *** indicate significance levels at 10%, 5% and 1%, respectively. Sample period 1993–2005.

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Table 4. Market for corporate control and corporate risk-taking: overinvestment and earnings management

	1	2	3	4	5	6	7	8
	Overinvestment				Investment efficiency	Earnings management		
Dependent variable	Overinvestment	Capex	Capex	Capex		(RES-Dexp.)	(RES-Prod.)	(RES-Total)
MCC	−0.01489***	−0.01445***	−0.00413***	−0.00450***	1.7963	0.0290*	0.0459***	0.1053***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.89)	(0.07)	(0.00)	(0.00)
MCC × Overinvestment			−0.01377***	−0.01437***				
			(0.00)	(0.00)				
Firm size	0.00341***	0.00326***	0.00327***	0.00340***	−5.1607	0.0060	0.0096*	0.0241***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.36)	(0.27)	(0.07)	(0.01)
Operating performance	0.03075***	0.03100***	0.03191***	0.03129***	125.9096	0.0798**	−0.0449	0.0688
	(0.00)	(0.00)	(0.00)	(0.00)	(0.22)	(0.04)	(0.28)	(0.34)
Tangibility	0.00034	0.00035	0.00015	0.00012	−45.0120*	−0.0825***	−0.0163	−0.0948***
	(0.18)	(0.17)	(0.55)	(0.65)	(0.05)	(0.00)	(0.40)	(0.01)
Firm growth	0.00064	0.00016	0.00037	0.00080*	−3.5750	−0.00130	0.00348	0.00350
	(0.22)	(0.76)	(0.40)	(0.07)	(0.36)	(0.55)	(0.34)	(0.34)
Market volatility	0.01383***	0.01287***	0.00995***	0.01064***	12.4533	−0.0087	−0.0141***	−0.0113
	(0.00)	(0.00)	(0.00)	(0.00)	(0.28)	(0.25)	(0.00)	(0.25)
GDP per capita	0.12253***	0.10855***	0.10387***	0.11825***	20.6973	0.2720***	0.1199***	0.4239***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.19)	(0.00)	(0.00)	(0.00)
Economic growth	−0.00105	−0.00197	−0.00240*	−0.00158	−204.8963	−0.6146***	−0.2325*	−0.9165***
	(0.48)	(0.18)	(0.06)	(0.22)	(0.20)	(0.00)	(0.09)	(0.00)
Credit market development	0.00360***	0.00365***	0.00448***	0.00447***	−13.2434	−0.1056***	−0.0492***	−0.1567***
	(0.01)	(0.01)	(0.00)	(0.00)	(0.23)	(0.00)	(0.00)	(0.00)

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Table 4. (Continued)

	1	2	3	4	5	6	7	8
	Overinvestment				Investment efficiency	Earnings management		
Dependent variable	Overinvestment	Capex	Capex	Capex		(RES-Dexp.)	(RES-Prod.)	(RES-Total)
Capital market development	−0.11040*** (0.00)	−0.11813*** (0.00)	−0.11711*** (0.00)	−0.10929*** (0.00)	40.9267** (0.03)	0.0217** (0.04)	−0.0001 (0.99)	0.0231 (0.19)
Unemployment	0.03197*** (0.00)	0.03434*** (0.00)	−0.00728*** (0.00)	−0.00734*** (0.00)	66.2883 (0.71)	−0.6389* (0.07)	−0.3907 (0.19)	−0.9845 (0.11)
Overinvestment			−0.00413*** (0.00)	−0.00450*** (0.00)				
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2 (Adj.)	0.471	0.429	0.435	0.474	0.04	0.45	0.50	0.52
R^2 (Within)	0.018	0.017	0.023	0.021	0.00	0.00	0.00	0.00
Number of observations	67,598	55,536	67,598	67,598	88,689	42,840	38,117	36,488

The table reports the results of the regression specification:

$$Y_{i,t} = \alpha + \beta_1 . MCC_{c,t} + \boldsymbol{\lambda_k X_{i,t}} + \mathbf{FE} + e_{i,t},$$

where $Y_{i,t}$ is the firm-specific dependent variable: Overinvestment [1], Capex [2-4], Investment efficiency [5] and Real earnings smoothing (RES) [6–8]. $MCC_{c,t}$ is a categorical variable that takes the value of 1 if a firm belongs to an M&A law-enacting country following the year of enactment, and 0 otherwise. Dependent variables are industry-adjusted for each year based on 65 unique 2-digit SICs (subtracting industry-medians). Firm controls include *Firm size*, *Operating performance, Tangibility, Firm growth*, while country controls include *Market volatility, GDP per capita, Economic growth, Credit market development, Capital market development* and *Unemployment*, as defined in Table 1. **FE** represents a vector of firm and year fixed effects. Standard errors are clustered at firm-year level, and respective p-values are reported in parentheses.
*, ** and *** indicate significance levels at 10%, 5% and 1%, respectively. Sample period 1993–2005.

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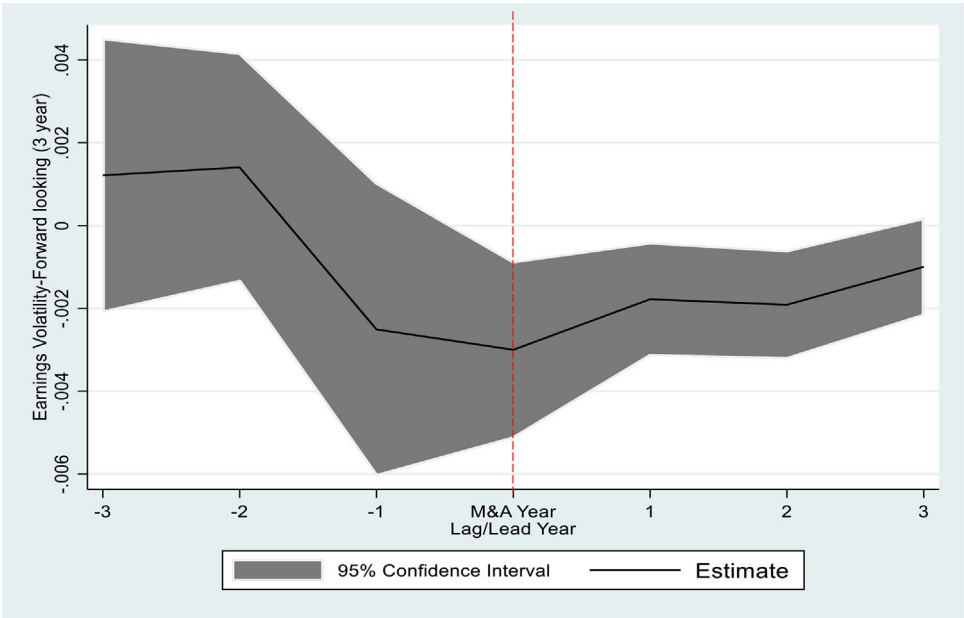

Figure 1. Difference-in-differences plot of earnings volatility. This figure plots the time series of the average treatment effect for 3 years before and 3 years after merger and acquisition law enactments [Colour figure can be viewed at wileyonlinelibrary.com]

Managerial opportunistic earnings management behaviour

The results so far provide evidence that the MCC induces managerial myopia in that managers engage in short-termism to the extent of deterring value-relevant corporate risk-taking. How does a firm operationalize this short-termism in the face of a higher takeover threat? One way is to engage in earnings smoothing to avoid any potential performance shock that may attract takeover interest in the firm (Khurana, Pereira and Zhang, 2018). To measure real earnings smoothing, we follow Khurana, Pereira and Zhang (2018) and focus on real activities to alter discretionary expenses and production. We estimate real smoothing, in the form of discretion over expenses (RES_Dexp.), and discretion over production expenses (RES_Prod.) following Roychowdhury (2006). Higher values of RES_Dexp and RES_Prod indicate more real earnings smoothing. Finally, we also use a total real earnings smoothing measure as the sum of RES_Dexp. and RES_Prod. We report the results of the effect of MCC laws on earnings management in columns [6]–[8] of Table 4. The results show moderate support that MCC triggers firms to engage in earnings management in the form of earnings smoothing adjusting the discretionary expenses [6] at 10% significance level. However, the statistical significance improves (at 1% significance level) for real earnings smoothing adjusting to production expenses [7] and total real earnings smoothing [8]. Taken together, we find increased earnings smoothing associated with the MCC. This is consistent with managerial short-termism.

Moderation by enabling institutions

To examine *H2*, which considers the moderating effect of enabling institutions, we use the following regression in equation (2).

$$Y_{i,t} = \alpha + \beta_1 MCC_{c,t} + [MCC_{c,t} \times Z_c]\vartheta_k + \boldsymbol{\lambda_k} \mathbf{X_{i,t}} + \mathbf{FE} + e_{i,t}, \quad (2)$$

where Z_c is the continuous country-level variable for sample country c to capture differences in a formal national enabling environment. We use three proxies for enabling institutions. Following, Djankov *et al*. (2008), the first proxy for cross-country enabling institutions is the anti-self-dealing index (ASDI), which measures investor protection across countries. The second proxy is the rule of transparency index from Djankov *et al*. (2008), which measures the information

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environment facing an economy. We include a third variable to consider the characteristics of the country's legal environment and how these laws are enforced in practice by using the strength of enforcement based on Djankov *et al*. (2008). The fixed effects subsume the main effects for the ASDI, Transparency and Enforcement to the extent that these variables do not exhibit within-firm, temporal variation in equation (2).

Table 5 presents the results of the moderating effect of formal enabling institutions on the MCC risk-taking nexus. Column [1] shows that countries with a stronger investor protection regime flip the negative relation of the MCC and corporate risk-taking. The positive value effect supports the value relevance of this increased risk-taking [4]. Similarly, findings from columns [2] ([3]) and [5] ([6]) corroborate the findings of columns [1] and [4] when we use a transparency (enforcement) regime. Taken together, the findings show that the MCC, in the presence of strong enabling institutions, can stimulate value-enhancing risk-taking, in support of *H2*. In the ongoing debate of complementarity, vis-à-vis the substitutive nature of different forms of governance, these findings provide novel evidence in favour of the complementarity of different regulations and institutions that translate into positive risk-taking outcomes (Lel and Miller, 2015; Glendening, Khurana and Wang, 2016). We maintain that governance could impact corporate decisions in multiple ways. While the MCC could substitute for national institutions in inducing corporate discipline (Lel and Miller, 2015), this disciplining may unintendedly encourage corporate short-termism. We further show that only when complemented with strong enabling institutions does MCC induce long-term and value-relevant risk-taking (Claessens and Yurtoglu, 2013).

Robustness tests

Contemporaneous *r*eforms

There is a possibility that other contemporaneous reforms or reforms that preceded the M&A laws could have an impact on risk-taking behaviour and firm value. To mitigate this concern, we run additional robustness tests to control for the effect of other contemporaneous reforms during the study period. Specifically, we control for contemporaneous CGRs and TRs in our sample countries, and other potential confounding interventions.

Fauver *et al*. (2017) suggest that this period has seen a number of CGRs across many countries. CGRs have a direct impact on corporate discipline and therefore affect firm risk-taking and investment behaviour (John, Litov and Yeung, 2008; Fauver *et al*., 2017; Koirala *et al*., 2020). To address this issue, following Fauver *et al*. (2017), we construct a CGR index to control for the effect of CGR on our data. We report our results in columns [1]–[3] of Table 6, in which we include CGR as a control variable. Our results show that CGR is positively associated with the risk-taking proxy (Earnings volatility), real investment (Capex) and value (Tobin's Q), consistent with the positive outcome documented by Fauver *et al*. (2017). It is also worth noting that the effect of the MCC on risk-taking remains stable and negative after controlling for the effect of CGR.

We next control for the impact of contemporaneous TR, which could be driving our results. Given that corporate risk-taking is sensitive to TR,[12] we explore the impact of TR on our key dependent variables in our empirical setup following Hail *et al*. (2017). The TR used by Hail, Sikes and Wang (2017) coincides with our study period. We run the estimates by controlling for TR by including both an increase and a decrease in capital gains TR in our empirical model. The results presented in columns [4]–[6] of Table 6 show that a TR that lowers capital gains tax is associated with an increase in Capex, but has no effect on earnings volatility.[13] However, the effect of a TR that increases capital gains tax Capex, at the margin, is indistinguishable from zero. Overall, the impact of MCC is stable, even after controlling for the effect of TRs.

Further, we run a placebo test to rule out the possibility of other confounding interventions

[12]Langenmayr and Lester (2018) show that corporate risk-taking is positively associated with the length of tax loss periods and that the tax rate has a positive effect on risk-taking for certain firms. Similarly, Ljungqvist *et al*. (2017) show that this relation is asymmetric, in the sense that an increase in tax results in reduced risk-taking, but not the other way round. Further, Hail *et al*. (2017) show tax reform could affect the risk-return tradeoff of investors.

[13]In terms of value implications both decrease and increase in tax intervention is associated with increase in firm value, while the magnitude of value improvement associated with reduction in corporate gain tax is almost double the value improvement associated with tax increase.

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Table 5. Market for corporate control and corporate risk-taking: moderating role of country-level governance

	[σ(RoA) − forward]			[Tobin′sQ]		
	1	2	3	4	5	6
MCC × ASDI	0.0067**			0.7708***		
	(0.04)			(0.00)		
MCC × Transparency		0.0179***			0.5392***	
		(0.00)			(0.00)	
MCC × Enforcement			0.0054**			0.6035***
			(0.04)			(0.00)
MCC	−0.0061***	−0.0155***	−0.0056***	−0.6206***	−0.5852***	−0.5570***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Firm size	−0.0010***	−0.0011***	−0.0008***	−0.4493***	−0.4476***	−0.4491***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Operating performance	−0.0480***	−0.0480***	−0.0477***	0.4013***	0.3924***	0.3920***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tangibility	0.0060***	0.0059***	0.0060***	−0.3111***	−0.3042***	−0.3127***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Firm growth	0.0007**	0.0007**	0.00069**	0.0117*	0.0118*	0.01164
	(0.02)	(0.02)	(0.02)	(0.08)	(0.08)	(0.19)
Market volatility	0.0001	−0.0000	0.0002	−0.1165***	−0.1048***	−0.1007***
	(0.83)	(0.96)	(0.55)	(0.00)	(0.00)	(0.00)
GDP per capita	−0.0031**	−0.0040***	−0.0033***	0.0240	−0.0064	−0.0246
	(0.02)	(0.00)	(0.01)	(0.79)	(0.94)	(0.65)
Economic growth	0.0185**	0.0176**	0.0185***	3.5494***	3.3486***	3.3435***
	(0.02)	(0.02)	(0.00)	(0.00)	(0.00)	(0.00)
Credit market development	−0.0009	−0.0004	−0.0009	0.3202***	0.3083***	0.3024***
	(0.33)	(0.63)	(0.23)	(0.00)	(0.00)	(0.00)
Capital market development	−0.0024***	−0.0029***	−0.0026***	0.3078***	0.2968***	0.3073***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Unemployment	−0.0597***	−0.0615***	−0.0565***	9.3081***	8.8734***	9.0240***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R^2 (Adj.)	0.68	0.68	0.67	0.65	0.65	0.65
R^2 (within)	0.012	0.013	0.01	0.036	0.036	0.04
Number of observations	89,450	89,450	89,450	89,450	89,450	89,450

The table reports the results of the regression specification:

$$Y_{i,t} = \alpha + \beta_1 MCC_{c,t} + \beta_2 [MCC_{c,t} \times EI_c] + \boldsymbol{\lambda_k X_{i,t}} + \mathbf{FE} + e_{i,t},$$

where $Y_{i,t}$ is the dependent variable: σ(RoA) 5yr-forward [1–3], Tobin′s Q [4–6]. EI_c are national enabling institutions measured by the *Anti-self-dealing index (ASDI), Transparency* and *Enforcement*. $MCC_{c,t}$ is a categorical variable that takes the value of 1 if a firm belongs to an M&A law-enacting country following the year of enactment, and 0 otherwise. Dependent variables are industry-adjusted for each year based on 65 unique 2-digit SICs (subtracting industry-medians). Firm controls include *Firm size*, *Operating performance, Tangibility, Firm growth*, while country controls include *Market volatility, GDP per capita, Economic growth, Credit market development, Capital market development* and *Unemployment*, as defined in Table 1. **FE** represents a vector of firm and year fixed effects. Standard errors are clustered at firm-year level and the respective p-values are reported in parentheses.
*, ** and *** indicate significance levels at 10%, 5% and 1%, respectively. Sample period 1993–2005.

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Table 6. Market for corporate control and corporate risk-taking: impact of contemporaneous reforms

Dependent variable:	Contemporaneous corporate governance reform			Contemporaneous tax reform		
	1 [σ(RoA) – forward]	2 [Capex]	3 [Tobin′s Q]	1 [σ(RoA) – forward]	2 [Capex]	3 [Tobin′s Q]
MCC	−0.00174**	−0.01356***	−0.29083***	−0.0024***	−0.0143***	−0.1924***
	(0.04)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
CGR	0.00156***	0.00224***	0.34976***			
	(0.01)	(0.01)	(0.00)			
TR-increase				−0.0001	0.0004	0.0441*
				(0.80)	(0.67)	(0.08)
TR-decrease				−0.0001	0.0024***	0.0795***
				(0.73)	(0.00)	(0.00)
Firm size	−0.00090***	0.00550***	−0.43711***	−0.0009***	0.0054***	−0.4417***
	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Operating performance	−0.04810***	0.03347***	0.39242***	−0.0481***	0.0334***	0.3962***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tangibility	0.00613***	0.03430***	−0.28593***	0.0061***	0.0342***	−0.3000***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Firm growth	0.00068**	−0.00024	0.01108*	0.0007**	−0.0002	0.0114*
	(0.02)	(0.30)	(0.09)	(0.02)	(0.33)	(0.09)
Market volatility	0.00043	0.00084*	−0.06191***	0.0003	−0.0002	−0.0958***
	(0.25)	(0.06)	(0.00)	(0.49)	(0.59)	(0.00)
GDP per capita	−0.00236*	0.01356***	0.17697*	−0.0031**	0.0123***	0.0485
	(0.09)	(0.00)	(0.05)	(0.02)	(0.00)	(0.60)
Economic growth	0.01592**	0.07393***	3.14823***	0.0164**	0.0706***	3.3272***
	(0.04)	(0.00)	(0.00)	(0.03)	(0.00)	(0.00)
Credit market development	−0.00074	−0.00023	0.38531***	−0.0012	−0.0019	0.2880***
	(0.42)	(0.85)	(0.00)	(0.20)	(0.11)	(0.00)
Capital market development	−0.00216***	0.00862***	0.36150***	−0.0024***	0.0072***	0.3186***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Unemployment	−0.06369***	−0.11082***	8.85557***	−0.0641***	−0.1243***	8.7501***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Firm FE &	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
R^2 (Adj.)	0.68	0.39	0.65	0.67	0.39	0.65
R^2 (within)	0.01	0.02	0.04	0.01	0.02	0.04
Number of observations	89,450	89,450	89,450	89,450	89,450	89,450

The table reports the results of the regression specification:

$$Y_{i,t} = \alpha + \beta_1 MCC_{c,t} + \beta_2 CR_{c,t} + \boldsymbol{\lambda_k} \mathbf{X_{i,t}} + \mathbf{FE} + e_{i,t},$$

where $Y_{i,t}$ is the dependent variable: σ(RoA) 5yr – forward [1], Capex [2] and Tobin′s Q [3]. $MCC_{c,t}$ is a categorical variable that takes the value of 1 if a firm belongs to an M&A law-enacting country following the year of enactment, and 0 otherwise. $CR_{c,t}$ are contemporaneous reforms in our sample countries. Specifically, we examine the effect of MCC on corporate risk-taking in the existence of corporate governance reform (CGR) following Fauver *et al*. (2017) and tax reform (increase and decrease) (TR) following Hail, Sikes and Wang (2017). Dependent variables are industry-adjusted for each year based on 65 unique 2-digit SICs (subtracting industry-medians). Firm controls include *Firm size*, *Operating performance, Tangibility, Firm growth*, while country controls include *Market volatility, GDP per capita, Economic growth, Credit market development, Capital market development* and *Unemployment*, as defined in Table 1. **FE** represents a vector of firm and year fixed effects. Standard errors are clustered at firm-year level, and respective p-values are reported in parentheses.

*, ** and *** indicate significance levels at 10%, 5% and 1%, respectively. Sample period 1993–2005.

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prior to MCC regulations. We introduce a categorical variable that takes the value of one if a firm belongs to [$t = 1, 2, 3$] years prior to the enactment and up to the actual year of enactment, and zero otherwise. The insignificant placebo coefficients as presented in Appendix Table A4 suggest that contemporaneous shocks before the MCC are not driving the results, which also provides support for the parallel trend assumption to employ the DiD estimation model (Angrist and Pischke, 2008). Finally, consistent with Glendening, Khurana and Wang (2016), in Appendix Table A3 we show that the staggered introduction of M&A laws is associated with increased takeover threat. Therefore, the MCC as a governance instrument could result in unintended corporate risk-taking in an economy, supporting the argument that owing to performance pressures and the threat of dismissal created by the MCC, this could lead to a reduction in corporate risk-taking. The control variables in the tables are generally in line with their theoretical predictions.

The *h*eterogeneity of M&A *l*aws and the *implications for corporate risk-taking*

Although we use the staggered introduction of M&A laws as a plausibly exogenous variation in the MCC, these laws may differ in their provision to investor protection across countries. We employ two sources of heterogeneity across the M&A laws, based on Nenova (2006). The first is the fair price to non-tender investor component, which provides the categorical variation in the extent of investor protection. The second is the appraisal right rule component. This is an important investor protection mechanism that most national legislatures provide, which allows the dissenting holder to sell their shares back to the firm after any major alteration in the main provisions, including a change in control, a merger, a decision to take a firm private, an alteration in the nature of the business etc. We use the following estimation model in equation (3) to measure the heterogenous impact of MCC law on firm risk-taking. While β_1 measures the overall average treatment effect of MCC, β_2 gauges the heterogeneous impact of MCC based on the heterogeneity of M&A laws.

$$Y_{i,t} = \alpha + \beta_1 MCC_{c,t} + \beta_2 [MCC_{c,t} \times MAH_c] + \boldsymbol{\lambda_k} \mathbf{X_{i,t}} + \mathbf{FE} + e_{i,t}. \quad (3)$$

As shown in Table 7, for both M&A heterogeneity (MAH) proxies we employ earnings volatility to gauge risk-taking and Tobin's Q for value implication. The results from fair price to non-tendering investor provision and the appraisal right rule suggest that these investor protection provisions moderate, at least in part, the reduction in value-relevant risk-taking.[14]

The MCC and corporate conservatism – the effects of the MCC on corporate decisions

So far, we have shown that the MCC deters value-enhancing risk-taking and corporate investments. To examine the effect of the MCC on corporate decisions, we explore three major decisions that could be associated with risk-taking: cash-holding, debt employment, and type of M&A activity. The effect of the MCC on these corporate decision variables is presented in Table 8. For cash holdings and debt employment, column [1] presents the results with industry-adjusted variables, and column [2] presents the results without industry adjustment.

Corporate *c*ash-holding

The results in columns [1]–[2] in Table 8 for corporate cash-holding show a significant increase in cash-holding. The precautionary motive for holding cash is dealing with uncertainty, all else being equal; therefore, increased cash-holding reflects a firm's defensive strategy, or a lowered risk-taking consequence of the MCC (Han and Qiu, 2007). In terms of economic magnitude, with an average cash-holding of 12.41% of total assets, an increase in cash-holding of 34 basis points translates to a reduction of 2.74% of average cash-holding during our sample period. Overall, corporate conservatism is associated with firms holding more cash in response to the threat of the MCC.

[14] In addition to the main results in table 3, we present the effect of MCC on corporate risk-taking based on the heterogeneity of firm and country characteristics in Appendix table A5. The results are mostly consistent with the theoretical prediction.

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Table 7. Market for corporate control and corporate risk-taking: heterogeneity in mergers and acquisitions law

	Fair price to non-tender investor provision		Appraisal right rule	
Dependent variable:	1 [σ(RoA) − forward]	2 [Tobin′sQ]	1 [σ(RoA) − forward]	2 [Tobin′sQ]
MCC	−0.00379*** (0.00)	−0.24044*** (0.00)	−0.00399*** (0.00)	−0.25083*** (0.00)
MCC × MAH	0.00594*** (0.00)	0.21134*** (0.00)	0.00639*** (0.00)	0.24075*** (0.00)
Firm size	−0.00094*** (0.00)	−0.44249*** (0.00)	−0.00098*** (0.00)	−0.44391*** (0.00)
Operating performance	−0.04817*** (0.00)	0.38649*** (0.00)	−0.04817*** (0.00)	0.38617*** (0.00)
Tangibility	0.00608*** (0.00)	−0.29785*** (0.00)	0.00599*** (0.00)	−0.30094*** (0.00)
Firm growth	0.00068** (0.02)	0.01132* (0.09)	0.00068** (0.02)	0.01128* (0.09)
Market volatility	0.00041 (0.26)	−0.09091*** (0.00)	0.00045 (0.22)	−0.08902*** (0.00)
GDP per capita	−0.00408*** (0.00)	−0.01553 (0.87)	−0.00410*** (0.00)	−0.01844 (0.84)
Economic growth	0.01403* (0.07)	3.22743*** (0.00)	0.01441* (0.06)	3.23650*** (0.00)
Credit market development	−0.00107 (0.24)	0.28996*** (0.00)	−0.00094 (0.30)	0.29521*** (0.00)
Capital market development	−0.00275*** (0.00)	0.29830*** (0.00)	−0.00271*** (0.00)	0.29901*** (0.00)
Unemployment	−0.06548*** (0.00)	8.74683*** (0.00)	−0.06313*** (0.00)	8.83266*** (0.00)
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
R^2 (Adj.)	0.68	0.65	0.68	0.65
R^2 (within)	0.01	0.04	0.01	0.04
Number of observations	89,450	89,450	89,450	89,450

The table reports the results of the regression specification:

$$Y_{i,t} = \alpha + \beta_1 MCC_{c,t} + \beta_2 [MCC_{c,t} \times MAH_c] + \boldsymbol{\lambda_k X_{i,t}} + \mathbf{FE} + e_{i,t},$$

where $Y_{i,t}$ is the dependent variable: σ(RoA) 5yr − forward) [1] and Tobin′s Q [2]. $MCC_{c,t}$ is a categorical variable that takes the value of 1 if a firm belongs to an M&A law-enacting country following the year of enactment, and 0 otherwise. MAH_c is heterogeneity of M&A Laws (Nenova, 2006), that is Fair price to non−tender investors provision or Appraisal right rule. Firm controls include *Firm size*, *Operating performance, Tangibility, Firm growth*, while country controls include *Market volatility, GDP per capita, Economic growth, Credit market development, Capital market development* and *Unemployment*, as defined in Table 1. **FE** represents a vector of firm and year fixed effects. Standard errors are clustered at firm-year level, and respective p-values reported in parenthesis.
*, ** and *** indicate significance levels at 10%, 5% and 1%, respectively. Sample period 1993–2005.

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Table 8. Market for corporate control and corporate conservatism: effect on other corporate decisions

Dependent variable	Cash holding/TA		Debt employment		Diversify
	1	2	3	4	5
MCC	0.0041***	0.0034**	0.0074***	0.0086***	0.0816**
	(0.01)	(0.03)	(0.00)	(0.00)	(0.04)
Firm size	0.0004	0.0009	0.0115***	0.0118***	−0.1160***
	(0.52)	(0.19)	(0.00)	(0.00)	(0.00)
Operating performance	0.0457***	0.0501***	−0.1045***	−0.1091***	−4.0185**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Tangibility	−0.1319***	−0.1337***	0.0408***	0.0433***	0.3384*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.08)
Firm growth	−0.0011***	−0.0012***	0.0005	0.0006	0.2249***
	(0.00)	(0.00)	(0.16)	(0.14)	(0.00)
Market volatility	0.0026***	0.0026***	0.0027***	0.0032***	−0.0196
	(0.00)	(0.00)	(0.00)	(0.00)	(0.39)
GDP per capita	0.0282***	0.0275***	−0.0026	−0.0073**	−0.1262
	(0.00)	(0.00)	(0.48)	(0.05)	(0.21)
Economic growth	−0.0075	−0.0109	−0.0622***	−0.0499***	0.0451
	(0.61)	(0.47)	(0.00)	(0.01)	(0.94)
Credit market development	−0.0067***	−0.0061***	−0.0044*	−0.0043*	−0.0031
	(0.00)	(0.00)	(0.06)	(0.07)	(0.94)
Capital market development	0.0223***	0.0217***	−0.0122***	−0.0137***	0.0128
	(0.00)	(0.00)	(0.00)	(0.00)	(0.82)
Unemployment	0.2221***	0.2102***	−0.0984**	−0.1384***	−0.4163
	(0.00)	(0.00)	(0.02)	(0.00)	(0.62)
Firm FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	No	No	No	No	Yes
R^2 (Adj.)/pseudo R^2	0.69	0.73	0.68	0.71	0.05
R^2 (Within)	0.06	0.07	0.02	0.02	–
Number of observations	89,450	89,450	89,450	89,450	108,055

The table reports the results of the regression specification:

$$Y_{i,t} = \alpha + \beta_1 MCC_{c,t} + \boldsymbol{\lambda_k X_{i,t}} + \mathbf{FE} + e_{i,t},$$

where $Y_{i,t}$ is the dependent variable: Cash holding/TA [1–2], Debt employment [3–4] and Diversify [5]. $MCC_{c,t}$ is a categorical variable that takes the value of 1 if a firm belongs to an M&A law-enacting country following the year of enactment, and 0 otherwise. Dependent variables are industry-adjusted for each year based on 65 unique 2-digit SICs (subtracting industry-medians) in columns [1, 3] and without industry adjustment in columns [2, 4]. Firm controls include *Firm size*, *Operating performance, Tangibility, Firm growth*, while country controls include *Market volatility, GDP per capita, Economic growth, Credit market development, Capital market development* and *Unemployment*, as defined in Table 1. **FE** represents a vector of firm and year fixed effects. Standard errors are clustered at firm-year level, and respective p-values reported in parentheses.

*, ** and *** indicate significance levels at 10%, 5% and 1%, respectively. Sample period 1993–2005.

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Debt *e*mployment

There are two views of the impact of debt employment in the risk-taking literature. On the one hand, debt increases the financial distress risk of a firm, and therefore is extensively employed as a risk-taking measure (Bargeron *et al*., 2010; Faccio, Marchica and Mura). However, other studies suggest that creditors prefer lower corporate risk-taking owing to the unequal risk-sharing and asset substitution problem, and therefore increased creditor stake may make firms more investment-conservative (Acharya, Amihud and Litov, 2011). Although debt performs a monitoring role by disciplining free cash flow, the use of debt limits a firm's flexibility and ability to pursue risk-taking investments. Further, higher debt could reduce the likelihood of a firm being a takeover target. Alternatively, increasing debt levels could also imply a defensive strategy, reducing the benefit of potential acquisitions to bidders owing to a wealth transfer from equity-holders to debt-holders (Billett, 1996).[15] The results in Table 8 suggest increased debt employment after the MCC. In terms of economic magnitude, with an average debt employment of 12.93% of total assets in our study period, the increase in *Debt employment* of 84 basis points (column [4]) translates to a 6.5% increase in debt.

Two important points are noteworthy when interpreting the positive association between the MCC and debt employment. First, although higher debt increases distress risk, when this result is taken in conjunction with increasing cash-holding and reducing earnings volatility, discussed earlier, we find that there is a compensating effect from higher cash-holding and lower earnings volatility to lower financial distress emanating from higher debt employment. Second, higher creditors' stake may increase their influence in a firm's decision, to pressurize the firm to pursue corporate conservatism, thereby reducing corporate risk-taking (John, Litov and Yeung, 2008; Acharya, Amihud and Litov, 2011).[16]

M&A *a*ctivity

Finally, we examine whether the MCC triggers a defensive corporate M&A strategy. Diversifying M&A deals are defensive managerial strategies that are value-reducing and promote corporate conservatism, a manifestation to protect their undiversified risk of human capital (Acharya, Amihud and Litov, 2011). To do so, we use M&A deals data from SDC platinum and examine if MCC laws in the sample countries are associated with the propensity for firms in M&A deals to diversify. The results in the final column of Table 8 support the argument that the MCC impacts the propensity to engage in diversifying M&A deals.

Conclusion

We have examined the effect of international regulations governing the MCC on corporate risk-taking by exploiting the staggered enactment of M&A laws in 34 countries as a plausible source of exogenous variation in the MCC. Our cross-country panel study shows that the MCC deters value-relevant risk-taking and motivates managers to indulge in earnings smoothing to engage in short-termism. We explained this corporate behaviour within the framework of the deterrence argument, as managers face external pressures to perform through an increased threat of being replaced. We also documented the lowering of overinvestment as a result of the MCC as a positive outcome of disciplining managers; however, the net effect is that the MCC lowers corporate risk-taking beyond what is explained by the reduction in overinvestment. In sum, our results show that the MCC deters corporate risk-taking and investments and is negatively associated with firm value.

We further provide support for the moderating role of enabling institutions and thus contribute to the ongoing debate of the substitutive vis-à-vis complementary role of national governance by showing that one form of governance would complement the other form to support the intended policy outcomes in relation to promoting value-relevant risk-taking. We maintain that increased takeover threat as a governance tool without the

[15]Another strand of literature supports the conjecture that greater debt employment is consistent with greater risk-taking. Coles *et al*. (2006) discuss how higher sensitivity of CEO wealth to stock volatility influences riskier investment policy choices relative to higher debt employment.

[16]In addition, in unreported table, we replicate the empirical strategy adopted in Glendening *et al*. (2016) and arrive at a similar negative relationship between MCC and dividend pay-out.

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necessary enabling environment induces managerial myopia, and incentivizes the firm to engage in higher earnings management and adopt defensive strategies to the extent of deterring value-relevant risky investments. This reduction in corporate risk-taking is associated with a decrease in real investments, an increase in cash-holding, an increase in debt employment, and a propensity to diversify in M&A.

References

Acharya, V. V., Y. Amihud and L. Litov (2011). 'Creditor rights and corporate risk-taking', *Journal of Financial Economics*, **102**, pp. 150–166.

Angrist, J. D. and J.-S. Pischke (2008). *Mostly* Harmless E*conometrics: An* Empiricist's C*ompanion*. Princeton University Press: Princeton and Oxford.

Auletta, K. (1986). *Greed and Glory on Wall Street: The Fall of the House of Lehman*. New York, NY: Random House.

Balachandran, B., H. N. Duong, L. Hoang and L. Nguyen (2020). 'Does takeover activity affect stock price crash risk? Evidence from international M&A laws', *Journal of Corporate Finance*, **64**, p. 101697.

Bargeron, L. L., K. M. Lehn and C. J. Zutter (2010). 'Sarbanes-Oxley and corporate risk-taking', *Journal of Accounting and Economics*, **49**, pp. 34–52.

Billett, M. T. (1996). 'Targeting capital structure: the relationship between risky debt and the firm's likelihood of being acquired', *Journal of Business*, **69**, pp. 173–192.

Bertrand, M. and S. Mullainathan (2003). 'Enjoying the quiet life? Corporate governance and managerial preferences', *Journal of Political Economy*, **111**, pp. 1043–1075.

Capron, L. and M. Guillén (2009). 'National corporate governance institutions and post-acquisition target reorganization', *Strategic Management Journal*, **30**, pp. 803–833.

Claessens, S. and B. B. Yurtoglu (2013). 'Corporate governance in emerging markets: a survey', *Emerging Markets Review*, **15**, pp. 1–33.

Cohen, D. A., A. Dey and T. Z. Lys (2013). 'Corporate governance reform and executive incentives: implications for investments and risk taking', *Contemporary Accounting Research*, **30**, pp. 1296–1332.

Coles, J. L., N. D. Daniel and L. Naveen (2006). 'Managerial incentives and risk-taking', *Journal of Financial Economics*, **79**, pp. 431–468.

Coles, J. L., N. D. Daniel and L. Naveen (2008). 'Boards: does one size fit all?', *Journal of Financial Economics*, **87**, pp. 329–356.

Djankov, S., R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2008). 'The law and economics of self-dealing', *Journal of Financial Economics*, **88**, pp. 430–465.

Duanmu, J. L. (2012). 'Firm heterogeneity and location choice of Chinese multinational enterprises (MNEs)', *Journal of World Business*, **47**, pp. 64–72.

Erel, I., R. C. Liao and M. S. Weisbach (2012). 'Determinants of cross-border mergers and acquisitions', *Journal of Finance*, **67**, pp. 1045–1082.

Faccio, M., M.-T. Marchica and R. Mura (2011). 'Large shareholder diversification and corporate risk-taking', *Review of Financial Studies*, **24**, pp. 3601–3641.

Fama, E. F. and M. C. Jensen (1983). 'Separation of ownership and control', *The Journal of Law and Economics*, **26**, pp. 301–325.

Fauver, L., M. Hung, X. Li and A. G. Taboada (2017). 'Board reforms and firm value: worldwide evidence', *Journal of Financial Economics*, **125**, pp. 120–142.

Frankel, R., S. P. Kothari and J. Weber (2006). 'Determinants of the informativeness of analyst research', *Journal of Accounting and Economics*, **41**, pp. 29–54.

Glendening, M., I. K. Khurana and W. Wang (2016). 'The market for corporate control and dividend policies: cross-country evidence from M&A laws', *Journal of International Business Studies*, **47**, pp. 1106–1134.

Globerman, S. and D. Shapiro (2003). 'Governance infrastructure and US foreign direct investment', *Journal of International Business Studies*, **34**, pp. 19–39.

Graham, J. R., C. R. Harvey and S. Rajgopal (2005). 'The economic implications of corporate financial reporting', *Journal of Accounting and Economics*, **40**, pp. 3–73.

Han, S. and J. Qiu (2007). 'Corporate precautionary cash holdings', *Journal of Corporate Finance*, **13**, pp. 43–57.

Hail, L., S. Sikes and C. Wang (2017). 'Cross-country evidence on the relation between capital gains taxes, risk, and expected returns', *Journal of Public Economics*, **151**, pp. 56–73.

Hayes, R. H. and W. J. Abernathy (2007). 'Managing our way to economic decline', *Harvard Business Review*, **85**, pp. 138–149.

Hirshleifer, D. and A. V. Thakor (1998). 'Corporate control through board dismissals and takeovers', *Journal of Economics and Management Strategy*, **7**, pp. 489–520.

Hope, O. K. and W. B. Thomas (2008). 'Managerial empire building and firm disclosure', *Journal of Accounting Research*, **46**, pp. 591–626.

Jacobs, M. T. (1991). *Short-Term America: The Causes and Cures of Our Business Myopia*. Harvard Business School Press. Boston, Massachusetts, United States.

Jensen, M. C. (1993). 'The modern industrial revolution, exit, and the failure of internal control systems', *The Journal of Finance*, **48**, pp. 831–880.

Jensen, M. C. and R. S. Ruback (1983). 'The market for corporate control', *Journal of Financial Economics*, **11**, pp. 5–50.

John, K., L. Litov and B. Yeung (2008). 'Corporate governance and risk-taking', *The Journal of Finance*, **63**, pp. 1679–1728.

Keum, D. D. (2021). 'Innovation, short-termism, and the cost of strong corporate governance', *Strategic Management Journal*, **42**, pp. 3–29.

Khurana, I. K., Pereira, R. and E. Zhang (2018). 'Is real earnings smoothing harmful? Evidence from firm-specific stock price crash risk', *Contemporary Accounting Research*, **35**, pp. 558–587.

Khurana, I. K. and W. Wang (2019). 'International mergers and acquisitions laws, the market for corporate control, and accounting conservatism', *Journal of Accounting Research*, **57**, pp. 241–290.

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King, R. G. and R. Levine (1993). 'Finance and growth: Schumpeter might be right', *The Quarterly Journal of Economics*, **108**, pp. 717–737.
Klapper L. F. and I. Love (2004). 'Corporate governance, investor protection, and performance in emerging markets', *Journal of Corporate Finance*, **10**, pp. 703–728.
Koirala, S., A. Marshall, S. Neupane and C. Thapa (2020). 'Corporate governance reform and risk-taking: evidence from a quasi-natural experiment in an emerging market', *Journal of Corporate Finance*, **61**, p. 101396.
Kuttner, R. (1986). 'Vultures, fat cats, and the rest of us – the truth about corporate raiders', *New Republic*, **194**, p. 14.
La Porta, R. (1999). 'The quality of government', *Journal of Law, Economics, and Organization*, **15**, pp. 222–279.
La Porta, R., F. Lopez-de-Silanes, A. Shleifer and R. W. Vishny (1998). 'Law and finance', *Journal of Political Economy*, **106**, pp. 1113–1155.
Ladika, T. and Z. Sautner (2020). 'Managerial short-termism and investment: evidence from accelerated option vesting', *Review of Finance*, **24**, pp. 305–344.
Langenmayr, D. and R. Lester (2018). 'Taxation and corporate risk-taking', *Accounting Review*, **93**, pp. 237–266.
Laverty, K. J. (1996). 'Economic "short-termism": the debate, the unresolved issues, and the implications for management practice and research', *Academy of Management Review*, **21**, pp. 825–860.
Lel, U. and D. P. Miller (2015). 'Does takeover activity cause managerial discipline? Evidence from international M&A laws', *The Review of Financial Studies*, **28**, pp. 1588–1622.
Li, K., D. Griffin, H. Yue and L. Zhao (2013). 'How does culture influence corporate risk-taking?' *Journal of Corporate Finance*, **23**, pp. 1–22.
Ljungqvist, A., L. Zhang and L. Zuo (2017). 'Sharing risk with the government: how taxes affect corporate risk taking', *Journal of Accounting Research*, **55**, pp. 669–707.
Lu, J. and W. Wang (2018). 'Managerial conservatism, board independence and corporate innovation', *Journal of Corporate Finance*, **48**, pp. 1–16.
Nenova, T. (2006). *Takeover Laws and Financial Development*. The World Bank. Washington, DC.
OECD (2015). OECD Business and Finance Outlook *2015*. Paris, OECD Publishing.
Roychowdhury, S. (2006). 'Earnings management through real activities manipulation', *Journal of Accounting and Economics*, **42**, pp. 335–370.
Schneper, W. D. and M. F. Guillén (2004). 'Stakeholder rights and corporate governance: a cross-national study of hostile takeovers', *Administrative Science Quarterly*, **49**, pp. 263–295.
Stein, J. C. (1988). 'Takeover threats and managerial myopia', *Journal of Political Economy*, **96**, pp. 61–80.
Thapa, C., S. Rao, H. Farag and S. Koirala (2020). 'Access to internal capital, creditor rights and corporate borrowing: does group affiliation matter?', *Journal of Corporate Finance*, **62**, p. 101585.
Vig, V. (2013). 'Access to collateral and corporate debt structure: evidence from a natural experiment', *The Journal of Finance*, **68**, pp. 881–928.
Whited, T. M. and G. Wu (2006). 'Financial constraints risk'. *Review of Financial Studies*, **19**, pp. 531–559.
Zhao, Y., K. H. Chen, Y. Zhang and M. Davis (2012). 'Takeover protection and managerial myopia: Evidence from real earnings management', *Journal of Accounting and Public Policy*, **31**, pp. 109–135.

Santosh Koirala is an Assistant Professor in Finance at the University of Birmingham. He holds a PhD in Finance from the University of Strathclyde. His research interest lies in corporate risk-taking, investment decisions and M&As, with a focus on law and regulatory interventions. Santosh was a commercial banker and public sector finance specialist, and thus brings 9 years of private and public sector insights to his academic research. He also specializes in emerging market finance.

Sandeep Rao is an Assistant Professor of Finance at DCU Business School, Dublin City University. He has a PhD in Accounting and Finance from the University of Strathclyde, with a Commonwealth Scholarship funded by the Government of the UK. He researches in the area of corporate finance, with a special focus on sustainable finance and climate change impact on corporate strategies. Prior to his academic career, he was the founder and CEO of two technology companies in India and also an award-winning market analyst at Thomson Reuters.

Hisham Farag is a Professor of Finance and Director of Research at the Birmingham Business School, University of Birmingham, UK. His current research areas are corporate finance, corporate governance, board diversity, sustainable finance and FinTech. He holds a PhD in Finance from the University of Birmingham, and has extensive industry experience as a financial consultant and a successful track record in attracting research funding from reputable institutions.

Andrew Marshall is a Professor at the University of Strathclyde. He has researched and published in a number of areas of finance, with his main expertise being in hedging, accounting disclosures, corporate finance, international finance, and asset pricing. He has published in a wide range of international and

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domestic outlets – primarily in finance, but also in accounting, international business, and economics. He has published with 54 different authors from 13 different countries.

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