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# Does Organisational Strategy Influence the Design of Equity Incentive Plans? Empirical Evidence from Chinese Listed Companies<sup>\*</sup>

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# Abstract

This study examines how organisational strategy influences the design of performance-vested equity incentive plans. Prospectors have diverse product-market portfolios and keep exploring new prospects, while defenders rarely adjust their product-market portfolios and keep exploiting the existing markets. Therefore, compared with defenders, prospectors need to motivate managers to take higher risks and to have longer decision-making horizons. We expect that in order to motivate and supervise employees better, firms with different strategies will have different considerations when designing equity compensation. Specifically, this paper focuses on two parts of the design: the selection of incentive objects and the setting of attached performance targets. Using hand-collected data from performance-based equity incentive plans from Chinese public firms, we find that compared with defenders, prospectors focus more on motivating middle managers through their equity incentive plans. In addition, compared with defenders, prospectors set less difficult profit targets in their equity incentive plans; meanwhile, prospectors are more likely to set revenue targets for the purpose of emphasising market share. Our results are consistent with optimal contract theory: that is, an equity incentive plan is designed to be compatible with organisational strategy.

*Keywords*: Organisational Strategy, Equity Incentives, Incentive Objects, Performance Targets

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# I. Introduction

The congruence between strategy and management control system is one of the most permanent concerns in management accounting research. Abundant studies in this area follow a contingency approach to establish systematic associations between strategy and particular management control practices (Langfield-Smith, 1997; Henri, 2006; Cooper, 2015; Bedford et al., 2016). There is a stream of management control research that argues that management control systems should direct and motivate employees to act in accordance with organisational strategy (Langfield-Smith, 1997; Henri, 2006; Cooper, 2015; Bedford et al., 2016) so that the implementation of the organisational strategy can be ensured and then organisational competitiveness and performance improved (Samson et al., 1991; Langfield-Smith, 1997). As a part of management control systems, equity incentive plans should also be adapted to organisational strategies to ensure that the strategies are implemented effectively. Although the relevant research has largely focused on organisational strategies (Miles and Snow, 1978; Gupta and Govindarajan, 1984; Porter, 1985; March, 1991; Treacy and Wiersema, 1995) and the theoretical framework on the relationship between organisational strategies and management control systems is mature, few empirical studies have systematically analysed the relationship between organisational strategies and the design of the equity incentive plans.

Nowadays, as more and more firms are linking their performance evaluations with equity incentives, performance-based equity incentive plans have become an increasingly important research topic in management accounting (Gerakos et al., 2007; Kuang and Qin, 2009; Abernethy et al., 2015). As a form of long-term incentive contract, an equity incentive plan sets performance targets as the conditions for the implementation of equities, which could strengthen the association between employees' compensation and firm performance, maintain the congruence between the interests of employees and firms, and improve employees' efforts (Gerakos et al., 2007). Since more and more listed companies are implementing equity incentive plans, the effectiveness of these incentives has become an increasingly important issue in both the theoretical and practical worlds. In particular, the effectiveness of incentives has been challenged continuously (Lu et al., 2009; Chen et al., 2016); for example, Lu et al. (2009) find that the equity incentive plans of Chinese listed companies play a welfare role due to defects in corporate governance. Moreover, many equity incentive plans have easily achievable performance targets and lack incentive effects. On the basis of optimal contract theory, we propose that, despite some defects in incentive effects, the design of equity incentive plans, including the selection of incentive objects and the setting of attached performance targets, is still aimed at motivating employees to act in line with organisational strategy. In this paper, we empirically investigate the influence of organisational strategy on the design of equity incentive plans.

On the basis of Miles and Snow's (1978) classification of organisational strategies, we

classify organisational strategies into two types: defender and prospector. Specifically, firms that adopt a prospector strategy (hereinafter, prospectors) rapidly expand their growth opportunities through exploring new and changing product-market prospects and enhance the speed of their organisations' response to environmental changes to establish competitive advantages. In contrast, firms that adopt a defender strategy (hereinafter, defenders) rarely adjust their product-market portfolios, focus on stability in their existing product lines, and maintain market share through fully exploiting the existing markets to improve competitive advantages (Miles and Snow, 1978). Therefore, compared with defenders, prospectors require managers to have a longer decision-making horizon and firms to give managers more discretion. However, giving managers more discretion also means that they may have greater opportunities to engage in myopic and opportunistic behaviour. Thus, there is a need to devise equity incentive plans that are in line with firms' organisational strategies in order to motivate and constrain employees, which will ultimately be beneficial to firms' performance (Rajagopalan, 1997).

In this paper, we propose that because an equity incentive plan is an important incentive mechanism to attract and retain employees (Xiao and Fu, 2016), firms will design their equity incentive plans on the basis of their strategic needs in order to direct and motivate employees to pursue organisational goals. We are concerned with two important components of the design of equity incentive plans. First, we divide incentive objects into top management and middle managers and focus on the influence of firm strategy on the selection of incentive objects. Earlier studies pay much attention to senior management controls and their alignment with strategy (Simons, 1987; Langfield-Smith, 1997). Gradually, research about the contingent relationship between management controls and strategy has begun to trickle down to middle management (Hopper and Armstrong, 1991) and even lower levels of organisational hierarchies (e.g. Davila et al., 2009; Adler and Chen, 2011). We propose that to actualise their own strategies, organisations need to grant equity incentives to employees at different levels. Prospectors have diverse product-market portfolios and continuously explore markets, which means they face more uncertainties and risks compared with defenders. As a result, how to motivate risk-averse managers, especially middle managers, to engage in risky and unpredictable activities to create value for the firm is an important issue for prospectors. Besides, different organisational strategies require managers, especially at middle levels, to have different discretion and decision horizons. In order to keep a diverse product-market mix and guarantee that managers respond rapidly to environmental changes, prospectors will give more discretion to middle managers. This will lead to a higher degree of information asymmetry between top and middle managers. Therefore, it is necessary to give middle managers sufficient motivation and to alleviate the agency problem between top and middle managers. Second, we are interested in how these employees are motivated to improve firms' performance. The

direction and degree of the efforts that managers must take to obtain the incentive benefits are determined by the performance evaluation attached to the equity incentive plans, including performance target type and target difficulty. Managers in prospectors are faced with greater risks and uncertainties during the process of achieving performance targets. We propose that in order to prevent risk-averse managers from adopting myopic behaviour, organisations will reduce the difficulty of profit performance targets. In addition, the high level of uncertainty in prospectors leads to greater noise in using profit target as a performance measure. To reduce the profit target's noise, prospectors are more likely to use a revenue target which reflects their market share and future financial performance. In summary, in order to motivate managers and implement organisational strategies effectively, firms will give thorough consideration to granting equity incentives to middle managers and set suitable performance targets when designing equity incentive plans based on their particular organisational strategy.

We use Chinese A-share listed firms from 2009 to 2018 as our research sample and manually collect the performance evaluation information of all equity incentive plans during this period. Based on the classification of organisational strategies from Miles and Snow (1978), our main results show that prospectors are inclined to decrease the amount of equity granted to top management as a proportion of the total amount of equity in incentive plans. Moreover, prospectors reduce the difficulty of a profit target attached to equity incentive plans and improve the possibility of incorporating a revenue target into equity incentive plans for the purpose of emphasising market share and future financial performance.

Our paper makes several contributions to the literature. First, prior literature shows that the equity incentive plans of Chinese listed companies lack incentive effects because of the easily achievable performance targets attached to them (Lu et al., 2009; Wu and Wu, 2010; Xiao and Chen, 2013). Our research proposes that the design of equity incentive plans, including the selection of incentive objects and performance target setting, should retain an "incentive orientation" and reflect the needs of organisational strategies. Second, few studies have examined the differences in performance evaluation measures and performance target setting in firms with different strategies. Compensation and performance evaluation are important parts of a management control system (Merchant and Van der Stede, 2007). Although some studies have examined these elements of control systems (Banker and Datar, 1989; Holmstrom and Milgrom, 1991; Feltham and Xie, 1994), the empirical findings are often limited due to the difficulty in obtaining data (Kim and Shin, 2017). The normative disclosure and archival data of the equity incentive plans of Chinese listed companies provide valuable research opportunities for testing the effects of organisational strategy on firms' performance evaluation systems. Furthermore, equity incentive plans are a form of long-term incentive contracts which could lead employees to think from the perspective of owners. The relationship between organisational strategy and long-term incentive contracts

is different from the relationship between organisational strategy and short-term incentive contracts; thus, long-term incentive contracts need to be studied on their own. Different from prior literature using general executive compensation data (Balsam *et al.*, 2011), we manually collect the data from equity incentives plans and directly investigate the influence of organisational strategy on important components of equity compensation contracts. Overall, our research enriches the literature on the relationship between organisational strategy and long-term incentive contracts, especially equity compensation design.

The remainder of our paper is organised as follows. In section II, we review the literature and develop our hypotheses. Section III introduces the research design, including the sample selection, data sources, variables, and empirical models. Sections IV and V present the results and robustness tests. Section VI concludes the paper.

# II. Literature Review and Hypothesis Development

### 2.1 Equity Incentive Plans

The primary function of equity compensation is to encourage employees to act in keeping with the long-term interests of the firm (Merchant and Van der Stede, 2007). In addition, equity compensation should serve to attract and retain employees and strengthen their loyalty to the firm. Research has shown that equity compensation binds the interests of managers and shareholders (Ross, 1973) and thus reduces the supervision costs of shareholders (Baker and Hall, 2004) and increases the risk preferences of managers (Coles *et al.*, 2006). Moreover, firms with cash flow constraints can alleviate financial stresses by replacing cash compensation with equity compensation.

A large body of management accounting research has examined equity incentive plans as a form of equity compensation (Gerakos *et al.*, 2007; Abernethy *et al.*, 2015). In China, firms began to formally implement equity incentive plans after the China Securities Regulatory Commission (CSRC) issued the "Equity Incentive Measures for the Administration of Listed Companies (Trial Implementation)" in 2006. The CSRC explicitly requires listed companies to set performance targets as a vesting condition of exercising options or unlocking restricted stock. Although the CSRC has not stipulated the specific performance measures to be used in target setting, almost all of the listed companies in China use accounting-based indicators.<sup>5</sup> Companies that implement performance-based equity incentive plans aim to strengthen the incentive effects while limiting managers" "lucky" income (Merchant and Van der Stede, 2007). Compared with the traditional equity incentives, performance-based equity incentive plans can enhance the congruence of interests between managers and shareholders, provide managers with stronger incentives, and thus enable firms to outperform their competitors (Gerakos *et al.*, 2007; Kuang and Qin,

<sup>&</sup>lt;sup>5</sup> Including net profit, net profit growth rate, net profit target value, return on equity, revenue, and revenue growth rate.

2009).

In recent years, numerous studies have criticised the equity incentive plans of Chinese listed companies on the basis that most of the performance evaluation clauses are mere formalities that lack substantial incentive and restriction effects (Lu *et al.*, 2009; Wu and Wu, 2010; Xiao and Chen, 2013). Lu *et al.* (2009, 2011) classify equity incentive plans into two types, incentive types vs. welfare types, based on the difficulty of performance targets and the vesting period. They point out that the different types of equity incentive plans originate from the corporate governance structure and that the welfare plans are the results of the agency problem rather than firms' attempts to resolve the agency problem. Xiao and Chen (2013) also support the view that equity incentive plans lack sufficient incentive effects. They find that the main performance evaluation measure (net profit growth rate) of equity incentive plans is significantly lower than the historical average level, which more likely occurs in firms with weak corporate governance.

Although many researchers have argued that the regulatory authorities should strengthen (1) the regulation of the selection of equity incentive objects and (2) the performance evaluation, including the design of types of performance targets and target difficulty, to ensure that they provide sufficient incentive and restriction effects (Lu et al., 2009; Wu and Wu, 2010; Xiao and Chen, 2013), the new version of "Measures for the Administration of Equity Incentives of Listed Companies" issued by the CSRC on 13 July 2016 relaxed the mandatory requirements regarding the design of performance targets. Listed firms are no longer required to set performance targets that are positive and not lower than the firm's historical average level; instead, they only need to disclose the rationality analysis for the performance targets. This deregulation gives firms more discretion in setting compatible performance targets. However, in practice, some listed firms were still forced to cancel their equity incentive plans because they set unachievable performance targets, and some listed firms turned to employee stock ownership plans (ESOPs) without performance appraisals. As a prominent form of equity compensation contract, equity incentive plans have been issued by more and more firms in recent years. Therefore, how to design equity incentive plans, and especially set compatible performance targets, to strengthen incentive effectiveness has become an important research question. We propose that an organisational factor that fundamentally affects the design and implementation of equity incentives has been neglected, namely, organisational strategy, which is the cornerstone of a management control system (Langfield-Smith, 1997). Thus, we analyse the effects of organisational strategy on the design of performance-based equity incentive plans.

### 2.2 Organisational Strategy

Organisational strategy focuses on how an organisation competes within its particular industries and the ways in which each organisation positions itself in relation to its competitors (Langfield-Smith, 1997). The design of a management control system should be

guided by the organisation's strategy and aim to improve the firm's competitiveness and operating performance (Langfield-Smith, 1997). Miles and Snow (1978) propose three strategic types of organisations: defenders, analysers, and prospectors. Porter (1985) divides organisational strategies into overall cost leadership, differentiation, and focus. Gupta and Govindarajan (1984) argue that organisational strategies should be divided into build, hold, harvest, divest, and others. March (1991) divides organisational strategies into exploration and exploitation strategies, whereas Treacy and Wiersema (1995) classify organisational strategies as customer intimacy, product leadership, and operational excellence.

Despite the various definitions of organisational strategies, the strategies have similar effects on management control systems (Dent, 1990; Langfield-Smith, 1997; Bentley et al., 2013). For example, in terms of compensation and performance evaluation, firms that use defence-oriented strategies (defenders, overall cost leadership, hold or harvest, exploitation, operational excellence) tend to use short-term and objective performance evaluation and compensation systems. In contrast, firms with prospect-oriented strategies (prospectors, differentiation, build, exploration, product leadership) are more likely to use long-term subjective performance evaluation and compensation systems (Govindarajan, 1988; Singh and Agarwal, 2002). Prior studies have pointed out that the classification methods of Miles and Snow (1978) are more suited to archival data research, while the other classification methods are more suitable for interviews and survey research (Ittner et al., 1997; Bentley et al., 2013). In this paper, we examine the effect of organisational strategy on the design of equity incentive plans on the basis of Miles and Snow's (1978) typology of prospectors, defenders, and analysers. Prospectors and defenders are at different ends of a continuum, while analysers are situated in the middle and share the attributes of prospectors and defenders (Miles and Snow, 1978). Consistent with the literature (e.g. Ittner, et al., 1997; Bentley et al., 2013), we focus on the two distinct types of firms: prospectors and defenders.

### 2.3 Hypothesis Development

### 2.3.1 Does organisational strategy influence the selection of incentive objects?

As the instigators of change in their respective industries, prospectors tend to be in a state of continuous development. Prospectors quickly respond to environmental changes and seek to develop new products and marketing campaigns to rapidly expand their market share, and thus they constitute the leading edge of their particular industry (Miles and Snow, 1978). However, because prospectors continually change their product-market portfolios and explore new opportunities in different market domains (Bentley *et al.*, 2017), they have a high degree of uncertainty and their future outcomes are risky and unpredictable (Shi, 2003). These organisational characteristics bring about two concerns for prospectors when motivating employees. First, prospectors have a higher degree of uncertainty than defenders; thus, prospectors need to put more effort into persuading their managers to engage in risky

and unpredictable activities to create value for the firm, especially focusing on motivating middle managers. Middle managers play vital roles in strategy implementation because they are often the ones who see new opportunities in the environment and use these to initiate and champion new initiatives (Dutton and Ashford, 1993; Floyd and Lane, 2000; Martin and Eisenhardt, 2010). However, when they perceive that new initiatives are risky and will not bring them certain benefits, they may also be resistant to such initiatives and work for their own self-interest (Raes et al., 2011). Therefore, when designing equity incentive plans, prospectors should focus more on motivating middle managers to better persuade them to take risks and to align their interests with those of the firm. Second, in order to keep a diverse product-market mix and guarantee that managers respond rapidly to environmental changes, prospectors give more discretion to managers, especially managers at lower levels of the hierarchy (e.g. middle managers) because lower-level managers often have more market, technology, and other specialised knowledge than top managers. From this perspective, prospectors have more information asymmetry between top and middle managers due to middle managers' greater discretion and expert information advantages, whereas information asymmetry is less of a concern for defenders (Aghion and Tirole, 1997; Bentley et al., 2013). The difference in information asymmetry gives rise to different levels of agency problem on the part of middle management, which can be mitigated by using equity compensation to align the interests of top and middle managers. Furthermore, the success of seeking new products or other innovation activities depends on collaboration among employees, which means that the design of the management control system should not only be oriented toward top management but should also consider cooperation and knowledge sharing among middle managers.

In contrast, unlike prospectors that pursue exploration, defenders tend to follow an exploitation strategy (Menguc and Auh, 2008). Defenders rarely adjust their product-market portfolios; instead, they pay more attention to improving production efficiency in a narrowly defined, stable product set and optimising distribution channels (Bentley *et al.*, 2017). Defenders put more effort into exploiting existing products and markets and experience more gradual and stable growth patterns (Miles and Snow, 1978). The strategic focus of defenders is to improve operational efficiency through streamlined production and distribution (Menguc and Auh, 2008), which are typically experience-oriented, clear-causality, and highly certain activities. These organisational characteristics mean that in defenders, the tasks of employees at all levels are usually unambiguous and less discretionary than they are in prospectors. Compared with exploration activities in prospectors, cost control and other business activities in defenders have a higher degree of certainty and clearer causal relationships and could produce achievements within shorter terms. From this perspective, compared with prospectors, defenders can directly regulate the

behaviour of managers at a lower cost. Furthermore, the top-down control system of an organisation can be used to effectively implement cost control within the organisation. Therefore, the issues relating to motivating and constraining middle managers are relatively less severe for defenders.

In summary, we propose that prospectors' equity incentive plans should focus on motivating and constraining middle managers, aligning middle managers' interests with those of the organisation, and encouraging cooperation and knowledge sharing among employees across different levels of the hierarchy so as to increase the output of exploration activities. In contrast, to carry out steady exploitation activities and control their operating costs, defenders should mainly focus on motivating their top management team. Our hypothesis is as follows:

# H1: Ceteris paribus, compared with defenders, prospectors focus more on motivating middle managers through their equity incentive plans.

2.3.2 Does organisational strategy influence the setting of performance targets attached to equity incentive plans?

Organisational strategies can also influence the types and difficulty of the targets that firms attach to their equity incentive contracts (Langfield-Smith, 1997; Rajagopalan, 1997; Zhu and Gan, 2015).

The CSRC requires listed companies to disclose the performance targets for exercising stock options or unlocking restricted stocks. As shown in Figure 1, the exercising process includes two kinds of performance targets: firm-level performance targets and individual performance targets. We only focus on firm-level performance targets because those targets play an essential role in the process of exercising stock options or unlocking restricted stocks. If a firm fails to reach its firm-level performance targets, the equity incentive plan objects will lose the right to exercise the stock options or unlock the restricted stocks. Moreover, firm-level performance target data are highly structured and are suitable for comparing different equity incentive plans. As of 31 December 2018, 89.99% of the equity incentive plans of Chinese firms have used performance targets based on accounting profits (either alone or in combination with other measures), including net profit, net profit growth rate, and return on equity.<sup>6</sup> In addition, 28.08% of the equity incentive plans have used performance targets based on revenue (either alone or in combination with other measures), including net profit, net profit growth performance targets based on revenue (either alone or in combination with other measures), including net profit, net profit growth performance targets based on revenue (either alone or in combination with other measures), including net profit.

<sup>&</sup>lt;sup>6</sup> Although the CSRC does not specify the types of performance targets, in practice, most firms use profit targets in their equity incentive plans, which means that there is no difference between prospectors and defenders in terms of setting performance targets for equity incentive plans. Profit target has almost become a necessary element of equity incentive plans, possibly due to the importance of earnings and external supervision. For example, when designing equity incentive plans, firms want to avoid being different from other firms to reduce the risk of supervision. Therefore, regardless of whether the profit targets favour the implementation of the strategy, companies will include profit targets in their equity incentive plans.

including revenue and the revenue growth rate. In this paper, considering external validity, we focus on the difficulty of achieving profit-based performance targets; with regard to revenue performance targets, we only discuss whether they are included in the equity incentive plans and do not discuss their difficulty.<sup>7</sup>

### Figure 1 Process for Executing Performance-Based Equity Incentive Plans

This figure illustrates the process to be executed before workers can exercise stock options or unlock restricted stocks granted through performance-based incentive plans. The process consists of two steps. In the first step, the firm needs to meet firm-level performance targets so that workers can enter the second step. In the second step, workers are required to meet individual-level performance targets, which finally decide the amount of benefits that workers can obtained from performance-based incentive plans.



Compared with defenders, prospectors have broader product-market portfolios and their emphasis on rapid new product and market development means they often confront a high degree of complexity and uncertainty in their operations (Ruekert and Walker, 1987). As a result, prospectors' future outcomes are often riskier and more unpredictable (Shi, 2003), which means managers may not get respectable compensation within a short term. Managers are usually risk averse and short-sighted. In order to motivate managers in prospectors to bear risks and work for the owners' interests, prospectors should try to extend managers' decision-making horizon and increase their compensation.

Bushman and Indjejikian (1993) pointed out that profit-based performance targets have a short-term orientation. Merchant and Van der Stede (2007) argued that there are two ways

<sup>&</sup>lt;sup>7</sup> In addition to considering external validity, another important reason why we do not study the revenue target difficulty is that there is a mechanical correlation between revenue and the organisational strategy indicators. The historical growth rate of revenue is a constituent element in the organisational strategy indicators (Bentley *et al.*, 2013; Sun *et al.*, 2016). Specifically, the higher the revenue growth rate, the more the organisational strategy will be prospector oriented. On the other hand, the historical growth rate of revenue is the benchmark of revenue-based performance targets: that is, the higher the historical growth rate is a mechanical negative correlation between organisational strategy and the difficulty of the revenue-based performance target.

to reduce managers' myopic tendency: one is to reduce the weight of the profit-based performance measures and increase the weight of the long-term performance measures in performance evaluation systems, such as market share and customer satisfaction; the other is to reduce the difficulty of the profit targets to provide space for managers to engage in long-term activities, such as finding potential markets and developing new products. Prospectors face more risks and are more eager to reduce managers' myopic tendency than defenders; therefore, following Merchant and Van der Stede (2007), we propose that prospectors are inclined to use less difficult profit performance targets to ease managers' short-term pressure and extend their decision-making horizon.

In addition, since prospectors face greater risks and uncertainties than defenders, the performance of prospectors is less stable than that of defenders. In equity incentive plans, managers' compensation is tied to firm performance directly, which means that during the process of firm-level performance evaluation stipulated in equity incentive plans, managers in prospectors will confront more uncertainties and bear more compensation risks than managers in defenders. Moreover, the fact that prospectors face greater risks also means that managers' efforts are subject to greater noise in firm performance, which further increases the compensation risks for managers in prospectors. According to agency theory, managers are risk averse, and they may not be willing to take on risks that the owners feel are optimal for their firms (Ma and Wang, 2014). Target difficulty plays a key role in determining whether managers can accomplish their performance evaluation targets and get compensation; therefore, reducing target difficulty in the performance evaluation process is a direct and effective way to lower the compensation risks contained in the contracts, which in turn reduces the compensation cost for the firm. From this perspective, we also predict that in order to design more efficient compensation contracts and motivate managers to take risks for firms, prospectors will be inclined to set less difficult profit performance targets in their equity incentive plans compared with defenders. In summary, we propose the following hypothesis:

# H2: Ceteris paribus, compared with defenders, prospectors set less difficult profit performance targets in their equity incentive plans.

Although most equity incentive plans use profit-based performance targets as assessment criteria, 28.08% include revenue-based performance targets<sup>8</sup> and 10.65% use revenue-based performance targets alone. Langfield-Smith (1997) argue that the choice of organisational strategy involves a trade-off between market share growth and short-term profit maximisation. While accounting profit reflects short-term earnings, revenue can partially represent market share. Merchant and Van der Stede (2007) propose that improving the weight of the market share measures in performance appraisals can effectively alleviate

<sup>&</sup>lt;sup>8</sup> Expected revenue or expected revenue growth rate.

managers' short-sightedness. While defenders focus on steady market share and current profits, prospectors form the leading edge of an industry and face many uncertainties; as a result, prospectors' pursuit of current profits is not as strong as that of defenders. Prospectors pay more attention to seizing a new market share, maintaining high growth, and acquiring future profits. Revenue-based performance targets can better reflect the implementation of a prospector strategy. In addition, prospectors face greater risks and uncertainties due to their diverse product-market portfolios. As a result, their accounting profits are subject to greater noise in evaluating employees' effort. Since any additional information about agents' actions, however imperfect, can be used to improve the effectiveness of contracts (Holmstrom, 1979), revenue which reflects market share is more likely to be added into performance evaluations to evaluate the effort of employees. Therefore, we propose that equity incentive plans with less difficult profit targets are not necessarily a form of welfare because prospectors will include revenue targets in their equity incentive plans as supplements to ensure the implementation of the organisational strategy. In conclusion, we propose the following hypothesis:

# H3: Ceteris paribus, compared with defenders, prospectors are more likely to use revenue performance targets in their equity incentive plans.

However, there is an alternative explanation for H3. According to life cycle theory, there are great differences in the characteristics of enterprises in each life-cycle stage. Since prospectors continually change their product-market portfolios and explore new opportunities in different market domains, they are more likely to be in the introduction and growth stages. Firms in the introduction and growth stages often have not formed stable profit-making methods, and their main task is to seize market share and increase their competitiveness (Huang *et al.*, 2016). Therefore, performance targets representing market share (e.g. revenue-based performance targets) are more likely to be used by prospectors. Defenders, on the other hand, have narrowly defined, stable product sets and are thus more likely to be in the mature stage. Firms in the mature stage have stable profit-making methods (Huang *et al.*, 2016) and are capable of paying more attention to increasing profit levels. From this point of view, profit-based performance targets are more likely to be used by defenders. Overall, our prediction in H3 may also be explained by the life cycle theory. To eliminate this alternative explanation, we control for the life cycle effect in the research design.

# III. Sample Selection and Research Design

### 3.1 Sample Selection

Listed companies in China were formally required to disclose their equity incentive plans after the CSRC issued "Equity Incentive Measures for the Administration of Listed Companies (Trial Implementation)" in 2006. Due to the poor information disclosure during the first few years, we use A-share listed companies (including small and medium enterprises) from 2009 to 2018 as our research sample. The data come from several sources: the CSMAR provides information on corporate governance and financial data, Wind provides R&D expenditure information, and the NERI INDEX of Marketization of China's Provinces<sup>9</sup> provides information on the degree of regional marketisation. We manually collect the data on the types of incentive objects, performance evaluation measures, and targets from firms' publicly disclosed equity incentive plans. All of the publicly disclosed equity incentive plans are obtained from Wind. After eliminating items with missing variables, our sample comprises 1,371 firm-year observations on firms' equity incentive plans.<sup>10</sup> Table 1 shows the year and industry distributions of the sample. We can see that over the years, the number of firms implementing equity incentive plans has increased. Industry groups are based on the Guidelines for the Classification of Listed Companies (2001) issued by the CSRC, where two-digit codes are used for the manufacturing industry and one-digit codes for other industries. Overall, the manufacturing industry occupies a representative position.

### Table 1 Sample Distribution by Year and Industry

This table reports the distribution of years and industries in our sample. We list the number of observations and the percentage for each category. The sample is drawn from A-share listed firms (including small and medium enterprises) in China from 2009 to 2018. We finally get 1,371 firm-year observations. Our industry classification is based on the Guidelines for the Classification of Listed Companies (2001) issued by the CSRC, where two-digit codes are used for the manufacturing industry and one-digit codes for other industries.

Year	Obs	Percentage
2009	21	1.5371%
2010	36	2.6258%
2011	69	5.0328%
2012	86	6.2728%
2013	136	9.9198%
2014	144	10.5033%
2015	153	11.1679%
2016	183	13.3479%
2017	248	18.0890%
2018	295	21.5171%
Total	1371	100%

<sup>&</sup>lt;sup>9</sup> Including the NERI INDEX of Marketization of China's Provinces 2011 Report, Marketization INDEX of China's Provinces: NERI Report 2016.

<sup>&</sup>lt;sup>10</sup> Some listed firms cancelled their equity incentive plans after implementation. Because we do not focus on the follow-up implementation of the equity incentive plans, the 1,371 observations do not exclude the firms that subsequently cancelled their equity incentive plans. The unreported results show that the empirical results of this paper remain unchanged even after excluding the firms that cancelled their equity incentive plans.

Industry Code	Industry Name	Obs	Percentage
A	Agriculture, Forestry, Husbandry and Fishery	13	0.9482%
В	Extractive Industry	10	0.7294%
C0	Food and Beverage Industry	40	2.9176%
C1	Textile, Clothing and Fur Industry	37	2.6988%
C2	Wood Processing Industry, Furniture Manufacture	17	1.2400%
C3	Paper and Printing Industry	23	1.6776%
C4	Oil Industry	125	9.1174%
C5	Electronic Industry	66	4.8140%
C6	Metal and Nonmetal Industry	65	4.7411%
C7	Machinery, Equipment and Instrument Industry	341	24.8724%
C8	Pharmaceutical and Biological Products Industry	92	6.7104%
С9	Other Manufacturing Industries	3	0.2188%
D	Production and Supply of Electricity, Gas and Water	10	0.7294%
Ε	Construction Industry	22	1.6047%
F	Transportation and Warehousing Industry	7	0.5106%
G	Information Technology Industry	320	23.3406%
Н	Retail Trade Industry	37	2.6988%
J	Real Estate Industry	41	2.9905%
K	Social Service Industry	73	5.3246%
L	Communication and Cultural Industry	24	1.7505%
Μ	Comprehensive Category	5	0.3647%
	Total	1371	100%

### 3.2 Measures and Models

### 3.2.1 Dependent variables

To measure the selection of the equity incentive targets, we follow Xiao *et al.* (2013) and calculate the proportion of the top management's granted equity relative to the total amount of equity in the incentive plans to obtain the measure MQP.

Since net profit, growth rate of net profit, and expected ROE can all be used as profit targets in equity incentive plans,<sup>11</sup> following Abernethy *et al.*'s (2015) measurement of the difficulty of profit targets, we first calculate the average annual net profit growth rate of the firm in the 3 years before the announcement of the equity incentive plan and use it as the expected annual net profit growth rate. Then, for the firms that use net profit growth rate as a profit target, we use (1) the net profit growth rate target for the first exercise of options or

<sup>&</sup>lt;sup>11</sup> In our paper, net profit refers to the net profit after deducting the non-recurring profit and loss.

unlocking of restricted stocks and (2) the average annual net profit growth rate target for the first three exercises of options or unlockings of restricted stocks, after deducting the expected annual net profit growth rate, to obtain the difficulty of achieving (1) the net profit growth rate for the first exercise of options or unlocking of restricted stocks and (2) the average net profit growth rate for the first three exercises of options or unlockings of restricted stocks, respectively. For the firms that use net profit as a profit target, we use the net profit in the current announcement period as a benchmark. Then, we use the benchmark to calculate the net profit growth rate target for the first exercise of options or unlocking of restricted stocks and the average annual net profit growth rate target for first three exercises of options or unlocking of restricted stocks, and the average annual net profit growth rate target for first three exercises of options or unlockings of restricted stocks, and then perform the same calculations as above to obtain the difficulty of the net profit growth rate target for the first exercise of options or unlocking of restricted stocks, and  $DifficultA_3$  measures the difficulty of the average net profit growth rate target for first three exercises of options or unlockings are as follows:

DifficultA\_1 = Net Profit Growth Rate Target for First Exercise of Options or Unlocking of Restricted Stocks – Expected Annual Net Profit Growth Rate

DifficultA\_3= Average Annual Net Profit Growth Rate Target for the First Three Exercises of Options or Unlockings of Restricted Stocks – Expected Annual Net Profit Growth Rate

*Expected Annual Net Profit Growth Rate = Average Annual Net Profit Growth Rate of the Firm in 3 Years Before the Announcement of the Equity Incentive Plan.* 

For firms that use ROE as a performance target, we first calculate the average ROE of the firm in the 3 years before the announcement of the equity incentive plan, which is regarded as the expected level of ROE. Then, we use the target ROE for the first exercise of options or unlocking of restricted stocks and the average target ROE for the first three exercises of options or unlockings of restricted stocks, deducting the expected level of ROE, to obtain *DifficultB\_1* and *DifficultB\_3*, respectively. The calculation formulas are as follows:

Difficult B\_1 = Target ROE for First Exercise of Options or Unlocking of Restricted Stocks – Expected ROE

Difficult  $B_3$  = Average Target ROE for the First Three Exercises of Options or Unlockings of Restricted Stocks – Expected ROE

*Expected* ROE = Average Annual ROE of the Firm in the 3 Years Before the Announcement of the Equity Incentive Plan.

In addition, we set two dummy variables, *Revdummy* and *Revrevise*, to capture the use of revenue targets by the listed firms. Specifically, *Revdummy* equals 1 when a firm includes

revenue performance targets in its equity incentive plans and 0 otherwise, and *Revrevise* equals 1 when a firm only includes revenue targets in its equity incentive plans or adds revenue targets to profit targets which are set below the expected level, and 0 otherwise.<sup>12</sup>

### 3.2.2 Independent variables

We use Miles and Snow's (1978) classification of organisational strategy and the measurement methods from Ittner *et al.* (1997) and Bentley *et al.* (2013). Specifically, we use the following features as proxies for firms' organisational strategies:

- 1. The ratio of R&D spending to sales (*Rdrev*), because prospectors invest more money in developing new products than defenders and therefore have higher R&D expenditure (Hambrick, 1983).
- The ratio of marketing (SG&A) expenditure to sales (*Feerev*), because prospectors invest more in product market expansion than defenders and therefore have higher SG&A expenses (Hambrick, 1983).
- 3. The ratio of employees to sales (*Emrev*), which equals the ratio of the natural logarithm of the number of employees to the natural logarithm of revenue; because the productivity of prospectors is often lower than that of defenders, more employees are needed to generate a unit of revenue (Thomas, 1991).
- 4. A measure of employee variance (*Emcv*), which equals the standard deviation of the logarithmic total employees over the past 3 years. The organisational structure of prospectors is more unstable than that of defenders, and the average tenure of employees is shorter in prospectors; thus, the total number of employees will fluctuate more in prospectors than in defenders (Miles and Snow, 1978).
- 5. A historical revenue growth measure (*Salesgrowth*). Prospectors have higher growth prospects than defenders; thus, the growth rate of revenue is higher in prospectors than in defenders (Bentley *et al.*, 2013).
- 6. A measure of capital intensity, which equals net PPE scaled by total assets. Because prospectors tend to display a high density of human capital and defenders mostly display a high density of capital (Hambrick, 1983), fixed assets account for a smaller proportion of the total assets of prospectors compared with defenders. To maintain consistency with the previous five variables in terms of the direction of interpretation, we take the negative sign of net PPE scaled by total assets and name this variable *Ppeass*.

Each of the six individual variables above is ranked by forming five equal-sized groups within each industry-year. Within each industry-year, observations with variables in the highest, second-highest, third-highest, fourth-highest, and lowest groups are given a score of

<sup>&</sup>lt;sup>12</sup> We propose that setting revenue targets indicates a firm's purpose to motivate and restrain employees, especially when profit targets are set below the expected level.

5, 4, 3, 2, and 1, respectively. Then, for each firm-year, we sum the scores across the six variables and get a variable named *STRA\_1*, such that a firm can receive a score between 6 and 30. The larger the score, the more likely the firm's organisational strategy will display a prospector tendency; the smaller the score, the more likely the organisational strategy will display defender characteristics.<sup>13</sup> In addition, a strategic variable *STRA\_3* is constructed on the basis of robustness considerations. Specifically, the six variables *Rdrev*, *Feerev*, *Emrev*, *Emcv*, *Salesgrowth*, and *Ppeass* are calculated on the basis of the average value over the past 3 years, and then the calculation definition is the same as that for *STRA\_1*.

### 3.2.3 Control variables

First, we control for the effect of a firm's life cycle. The literature shows that the life cycle of a firm has an effect on the motivation to implement equity incentives (Gong, 2016). In addition, firms in different life cycle stages tend to use different types of performance targets, which interfere with the validity of our theoretical development for H3. In order to eliminate the influence of life cycle on our results, we use the cash flow portfolio method to measure firms' life cycles (Cao *et al.*, 2010; Dickinson, 2011; Huang *et al.*, 2016) and control for life cycle variables in our regressions. The characteristics of the cash flow distribution at each stage are shown in Table 2. We construct two variables, *Life1* and *Life2*,

### Table 2 Cash Flow Patterns in Different Stages of the Firm Life Cycle

This table presents the cash flow pattern proxy for the firm life cycle. The combination of a firm's net operating, investing, and financing cash flows provides a firm's life cycle mapping at each financial statement date. Varying the sign (positive or negative) of the three types of net cash flows results in eight possible cash flow pattern combinations. Prior literature has demonstrated that the eight cash flow pattern combinations form the five theoretical stages of the firm life cycle: introduction, growth, mature, shake-out, and decline (Dickinson, 2011). Considering the features of listed firms in China and our limited sample size, we follow Cao *et al.* (2010) and Huang *et al.* (2016) and merge (1) the introduction stage with the growth stage and (2) the decline stage with the shake-out stage. Finally, we get three life cycle stages: growth, mature, and shake-out.

	Growt	h	Mature		S	Shake-out		
Cash flow type	Introduction	Growth	Mature	Shake-out	t Shake-out	Shake-out	Decline	Decline
Cash flows from operating activities	-	+	+	_	+	+	_	-
Cash flows from investing activities	-	_	_	_	+	+	+	+
Cash flows from financing activities	+	+	_	_	+	_	+	-

<sup>&</sup>lt;sup>13</sup> Many firms implement equity incentive plans within 2 years of listing. If we follow Bentley *et al.* (2013) and calculate the average value of each strategic variable over the past 5 years, a large number of data will be missing. Therefore, we test and report the 1-year and 3-year average strategic variables.

to control for the influence of life cycle. Specifically, *Life1* equals 1 if a firm is in the growth stage of the life cycle and 0 otherwise, while *Life2* equals 1 if a firm is in the mature stage of the life cycle and 0 otherwise.

Second, we control for the effect of industry competition, including competition intensity and competition type. As an important environmental factor, industry competition has wide effects on firms' organisational strategies, compensation, and performance evaluations (Krishnan, 2005; Chen *et al.*, 2015). We use the Herfindahl-Hirschman Index (HHI) to describe the competitiveness of an industry: that is, we calculate the sum of the squared revenue share of each firm in the same industry. Because the HHI is negatively correlated with the degree of industry competition, we construct a variable *CI* equal to 1-HHI (Krishnan, 2005). *CI* is positively correlated with the degree of industry competition. We use the ratio of R&D costs and advertising costs in a certain industry to the total revenue of the industry to measure the type of industry competition (*CT*) (Chen *et al.*, 2015). The larger the *CT*, the more the industry is characterised by non-price competition.

We also control for the degree of marketisation of the area in which the firm is located (*MI*), whether the industry is regulated (*Regulation*), the type of the firm ownership (*SOE*), the natural logarithm of total assets (*Lnassets*), the asset-liability ratio (*Debt*), the ratio of operating cash flow to total assets (*OCF*), the ratio of market value to book value (*MTB*), the standard deviation of ROE in the past 3 years (*ROEvolatility*), the standard deviation of daily stock returns in one accounting year (*RETvolatility*), whether the firm's chairman is also the CEO (*CEOduality*), board size (*GOVsize*), the proportion of managerial ownership (*GOVshare*), the proportion of the largest shareholder (*GOVconcen*), and the proportion of the institutional shareholders (*GOVinst*). The variable definitions are presented in Table 3.<sup>14</sup>

### Table 3Variable Descriptions

This table provides descriptions of the variables. To describe the selection of incentive objects, we construct the variable *MQP*. To construct the profit target difficulty, we first calculate the average annual net profit growth rate and average ROE of the firm 3 years before the announcement of the equity incentive plan and use it as the expected annual net profit growth rate and expected ROE, respectively. For firms that use net profit as a profit target, we use the net profit in the current announcement period as the benchmark and use this benchmark to calculate the net profit growth rate target. Then, we use (a) the net profit growth rate (ROE) target for the first exercise of options or unlocking of restricted stocks and (b) the average net profit growth rate (ROE) target for the first three exercises of options or unlockings of restricted stocks, after deducting the expected net profit growth rate (ROE), to obtain the target difficulty. To describe the use of the revenue target, we construct two dummy variables, *Revdummy* and *Revrevise*. To construct organisational strategy, we use six individual variables to proxy for firms' organisational strategies: (a) the ratio of R&D spending to sales (Rdrev); (b) the ratio of the marketing (SG&A) expenditure to sales (Feerev); (c) the ratio of employees to sales (Emrev); (d) employee fluctuation (Emcv); (e) historical revenue growth measure (Salesgrowth); and (f) capital intensity, which equals net PPE scaled by total assets.

<sup>&</sup>lt;sup>14</sup> Considering that the type II agency problem is a great concern of researchers in China, we try to add the separation of the control rights and cash flow rights of actual controllers (*Separation*) into the model to control for the effect of the type II agency problem of listed companies on our results. We find that the variable *Separation* is very insignificant and has little effect on the coefficients of the other variables. In addition, *Separation* has a large number of missing observations. Therefore, we do not include *Separation* in our model.

To maintain consistency with the previous five variables in terms of the direction of interpretation, we take the negative sign of net PPE scaled by total assets and name this variable Ppeass. Each of the six individual variables above is ranked by forming five equal-sized groups within each industry-year. Within each firm-year, the observations with variables in the highest, second-highest, third-highest, fourth-highest, and lowest group are given a score of 5, 4, 3, 2, and 1, respectively. Then, for each firm-year, we sum the scores across the six variables and get a variable named  $STRA_1$  such that a firm can receive a score between 6 and 30. The larger (smaller) the score, the more likely the firm's organisational strategy will display prospector (defender) characteristics.  $STRA_3$  is constructed on the basis of robustness considerations. First, the six variables Rdrev, Feerev, Emrev, Emcv, Salesgrowth, and Ppeass are calculated on the basis of the average value over the past 3 years, and the calculation process is the same as that for  $STRA_1$ .

Variable	Description
Dependent variable	· · · ·
MQP	The proportion of equity granted to top management relative to the total amount of equity in incentive plans.
DifficultA_1/ DifficultA_3	Difficulty of the net profit growth rate target for the first exercise of options or unlocking of restricted stocks / the average net profit growth rate target for the first three exercises of options or unlockings of restricted stocks.
DifficultB_1/ DifficultB_3	Difficulty of the ROE target for the first exercise of options or unlocking of restricted stocks / the average ROE target for the first three exercises of options or unlockings of restricted stocks.
Revdummy	Indicator variable that equals 1 if the performance evaluation in the equity incentive plans includes revenue performance targets and 0 otherwise.
Revrevise	incentive plans only includes revenue performance targets or includes revenue performance targets when the profit targets are lower than the expected level, and 0 otherwise.
Independent variable	
STRA_1/STRA_3	Discrete score with values ranging from 6 to 30, where high (low) values indicate prospector (defender) firms.
Control variable	
Lifel	Indicator variable that equals 1 if a firm is in the growth stage of the life cycle and 0 otherwise.
Life2	Indicator variable that equals 1 if a firm is in the mature stage of the life cycle and 0 otherwise.
CI	Industry competition intensity, which is positively correlated with industry competition.
CT	Industry competition type, where high (low) values indicate non-price (price) competition.
MI	The degree of marketisation in the province where the firm is located. Indicator variable that equals 1 if a firm is located in the following industries: extractive industry: oil industry: metal and nonmetal industry: production and
Regulation	supply of electricity, gas and water construction industry; production and warehousing industry; information technology industry; and 0 otherwise.
SOE	central government, local government, national asset management committee, or collective and 0 otherwise.
Lnassets	Natural logarithm of total assets.
Debt	Asset-liability ratio.
OCF	The ratio of operating cash flow to total assets.
MTB	The ratio of market value to book value.
ROEvolatility	The volatility of ROE, equal to the standard deviation of ROE in the past 3 years.
RETvolatility	The volatility of RET, equal to the standard deviation of daily stock returns in one accounting year.
CEOduality	Indicator variable that equals 1 if the firm's chairman is also the CEO and 0 otherwise.
GOVsize	The number of directors on the board.
GOVshare	The proportion of managerial ownership.
GOVconcen	The proportion of the largest shareholder.
GOVinst	The proportion of the institutional shareholders.

### 3.2.4 Model design

The OLS regression model (1) used to test H1 is shown below. Following Gerakos *et al.* (2007), all of our independent variables have a one-period lag. The annual fixed effect is controlled for in the model. To avoid the multiple collinearity of competition intensity *CI* and competition type *CT*, we do not control for the industry fixed effect in the model (Chen *et al.*, 2014).<sup>15</sup> We conduct the clustering process at both the firm and year level in the regression (Petersen, 2009; Gow *et al.*, 2010). In addition, all of the continuous variables are winsorised at 1%.

$$MQP_{i,t} = \alpha_0 + \alpha_1 STRA\_1_{i,t-1}/STRA\_3_{i,t-1} + \alpha_2 Life1_{i,t-1} + \alpha_3 Life2_{i,t-1} + \alpha_4 CI_{i,t-1} + \alpha_5 CT_{i,t-1} + \sum_j \alpha_j Control Variables_{i,t-1} + Year Dummy + \varepsilon$$
(1)

The OLS regression model (2) used to test H2 and the logit regression model (3) used to test H3 are as follows. The dependent variables *DifficultA\_1*, *DifficultA\_3*, *DifficultB\_1*, and *DifficultB\_3* are used to test the difficulty of the profit targets. The dependent variables *Revdummy* and *Revrevise* are used to capture the use of revenue targets. We conduct the clustering process at both the firm and year level in the regression (Petersen, 2009; Gow *et al.*, 2010). All of the continuous variables are winsorised at 1%.

$$\begin{aligned} Difficult A_{i,t} / Difficult B_{i,t} = \alpha_0 + \alpha_1 STRA\_1_{i,t-1} / STRA\_3_{i,t-1} + \alpha_2 Life 1_{i,t-1} + \alpha_3 Life 2_{i,t-1} \\ &+ \alpha_4 CI_{i,t-1} + \alpha_5 CT_{i,t-1} + \sum_j \alpha_j Control Variables_{i,t-1} \\ &+ Year Dummy + \varepsilon \end{aligned}$$

$$\begin{aligned} (2) \\ Revdummy_{i,t} / Revrevise_{i,t} = \alpha_0 + \alpha_1 STRA\_1_{i,t-1} / STRA\_3_{i,t-1} + \alpha_2 Life 1_{i,t-1} + \alpha_3 Life 2_{i,t-1} \\ &+ \alpha_4 CI_{i,t-1} + \alpha_5 CT_{i,t-1} + \sum_j \alpha_j Control Variables_{i,t-1} \\ &+ Year Dummy + \varepsilon \end{aligned}$$

$$\begin{aligned} (3) \end{aligned}$$

### IV. Empirical Results

### 4.1 Descriptive Statistics and Bivariate Correlations

Table 4 shows the descriptive statistical results for the relevant variables. The mean of MQP is 0.2128, which shows that the average proportion of equity granted to top management accounts for 21.28% of the total equity in an incentive plan. The mean of *Regulation* is 0.3917, indicating that 39.17% of the sample firms are in regulated industries, and the mean of *SOE* is 0.0919, indicating that 9.19% of the sample firms are state-owned.

Table 5 reports the results of the correlation analysis, from which we can see that organisational strategy ( $STRA_1$  and  $STRA_3$ ) is negatively correlated with the focus of the equity incentive (MQP), negatively correlated with the difficulty of the profit objectives

<sup>&</sup>lt;sup>15</sup> Unreported results show that the results remain unchanged after controlling for the fixed effects of the industry.

(*DifficultA\_1*, *DifficultA\_3*, *DifficultB\_1*, *DifficultB\_3*), and positively correlated with the use of revenue indicators (*Revdummy* and *Revrevise*), all of which are consistent with our predictions.

### Table 4Descriptive Statistics

This table presents the summary statistics of the key variables used over the period 2009 to 2018. MQP is the proportion of equity granted to top management relative to the total amount of equity in incentive plans. Revdummy equals 1 if the performance evaluation in the equity incentive plans includes revenue performance targets and 0 otherwise. Revrevise equals 1 if the performance evaluation in the equity incentive plans only includes revenue performance targets or includes revenue performance targets when the profit targets are lower than the expected level, and 0 otherwise. DifficultA\_1 / DifficultA\_3 is the difficulty of the net profit growth rate target for the first exercise of options or unlocking of restricted stocks / the average net profit growth rate target for the first three exercises of options or unlockings of restricted stocks. DifficultB 1 / DifficultB 3 is the difficulty of the ROE target for the first exercise of options or unlocking of restricted stocks / the average ROE target for the first three exercises of options or unlockings of restricted stocks. STRA 1 and STRA 3 are discrete scores with values ranging from 6 to 30 and represent organisation strategy. Lifel equals 1 if a firm is in the introduction or growth stage of the life cycle and 0 otherwise. Life2 equals 1 if a firm is in the mature stage of the life cycle and 0 otherwise. CI represents industry competition intensity and is equal to 1-HHI. CT represents industry competition type, where high (low) values indicate non-price (price) competition. MI is the degree of marketisation in the province where the firm is located. Regulation equals 1 if a firm is located in the following industries: extractive industry; oil industry; metal and nonmetal industry; production and supply of electricity, gas and water construction industry; transportation and warehousing industry; information technology industry; and 0 otherwise. SOE equals 1 if the actual controller of the listed firm is the central government, local government, national asset management committee, or collective, and 0 otherwise. Lnassets is the natural logarithm of total assets. Debt is the asset-liability ratio. OCF is the ratio of operating cash flow to total assets. MTB is the ratio of market value to book value. ROEvolatility equals the standard deviation of ROE in the past 3 years. RETvolatility equals the standard deviation of daily stock returns in one accounting year. CEOduality equals 1 if the firm's chairman is also the CEO and 0 otherwise. GOVsize is the number of directors on the board. GOVshare is the proportion of managerial ownership. GOV concen is the proportion of the largest shareholder. GOV inst is the proportion of the institutional shareholders.

Variable	Obs	Mean	Std.	Min	Q1	Median	Q3	Max
			Deviation					
MQP	1353	0.2128	0.2056	0	0.0658	0.1564	0.2964	1
Revdummy	1371	0.2808	0.4496	0	0	0	1	1
Revrevise	1371	0.1780	0.3826	0	0	0	1	1
DifficultA_1	1192	0.8204	9.7607	-36.3969	-0.2271	0.0204	0.3320	262.1935
DifficultA_3	1192	0.3169	5.6031	-36.3803	-0.2245	0.0125	0.2956	98.8704
DifficultB 1	379	-0.0673	0.1187	-0.6272	-0.5184	-0.0388	0.0029	0.2077
DifficultB_3	379	-0.0591	0.1155	-0.6172	-0.1060	-0.0339	0.0075	0.2087
STRA_1	1371	19.2888	3.7964	7	17	19	22	29
STRA_3	901	19.4884	3.8136	8	17	20	22	28
Lifel	1371	0.5770	0.4942	0	0	1	1	1
Life2	1371	0.3027	0.4596	0	0	0	1	1
CI	1371	0.9175	0.0528	0.6457	0.9103	0.9306	0.9524	0.9700
CT	1371	0.0354	0.0242	0.0003	0.0154	0.0347	0.0487	0.1471
MI	1371	8.8769	1.5937	2.3719	7.9300	9.3500	9.7700	11.1093
Regulation	1371	0.3917	0.4883	0	0	0	1	1
SOE	1371	0.0919	0.2890	0	0	0	0	1
Lnassets	1371	21.7147	1.1052	19.0778	20.9105	21.5659	22.3029	26.2371
Debt	1371	0.3488	0.1915	0.0174	0.1914	0.3240	0.4812	1.1031
OCF	1371	0.0211	0.0871	-0.3394	-0.0228	0.0229	0.0708	0.3592
MTB	1371	0.0032	0.0024	0.0002	0.0015	0.0025	0.0041	0.0152
ROEvolatility	1371	0.0762	0.1419	0.0004	0.0211	0.0411	0.0858	2.4882
RETvolatility	1371	0.0358	0.0183	0.0090	0.0247	0.0310	0.0422	0.2405
CEOduality	1371	0.3844	0.4866	0	0	0	1	1
GOVsize	1371	8.3363	1.5984	5	7	9	9	17
GOVshare	1371	0.1917	0.2129	0	0.0027	0.0908	0.3654	0.7351
GOVconcen	1371	20.2877	19.7173	0.0442	0.3435	19.4029	34.7226	75.0045
GOVinst	1371	3.8925	5.8473	0	0.1781	0.77290	6.1420	55.4900

	MQP	Revdummy	Revrevise	DifficultA_1	DifficultA_3	DifficultB_1	DifficultB_3	$STRA_1$	$STRA_3$	Lifel	Life2
$d\tilde{O}W$	1										
Revdummy	-0.0218	1									
Revrevise	-0.0403	$0.7446^{***}$	1								
$DifficultA_1$	0.0125	-0.0076	-0.0389	1							
$DifficultA_3$	0.0260	-0.0024	-0.0398	$0.8884^{***}$	1						
$DifficultB_1$	0.0477	0.0695	0.0552	$0.1876^{***}$	$0.2022^{***}$	1					
$DifficultB_3$	0.0343	0.0557	0.0479	$0.1972^{***}$	$0.2196^{***}$	$0.9470^{***}$	1				
$STRA_1$	-0.1489***	0.0046	0.0194	$-0.1003^{***}$	-0.0985***	-0.2063***	-0.1834***	1			
$STRA_3$	-0.1459***	$0.0591^{*}$	$0.0836^{**}$	-0.1232***	$-0.1144^{***}$	$-0.2150^{***}$	-0.2329***	$0.8402^{***}$	1		
Life1	-0.0608**	-0.0004	0.0317	-0.0337	-0.0273	-0.0397	-0.0259	$0.0461^{*}$	$0.1006^{***}$	1	
Life2	0.0263	-0.0019	-0.0409	0.0150	0.0019	0.0179	0.0032	-0.0267	-0.0462	-0.7694***	1
CI	$0.0621^{**}$	0.0393	$0.0808^{***}$	-0.0018	0.0016	0.0250	0.0172	-0.0579**	$-0.0611^{*}$	-0.0225	0.0432
CT	-0.1305 ***	$0.1132^{***}$	$0.1290^{***}$	0.0177	0.0130	0.0084	0.0127	$-0.1187^{***}$	$-0.1150^{***}$	0.0111	-0.0086
IW	-0.1578***	$0.0639^{**}$	$0.1040^{***}$	-0.0404	-0.0304	0.0127	0.0013	-0.0683**	-0.0141	0.0415	-0.0799***
Regulation	-0.1000 ***	-0.0392	-0.0100	0.0280	0.0112	-0.0388	-0.0463	0.0141	0.0900	$0.0641^{**}$	-0.0506*
SOE	-0.0124	-0.0527*	-0.0490*	-0.0385	-0.0458	0.2472***	$0.2314^{***}$	-0.0016	-0.0746**	-0.0342	0.0377
Lnassets	-0.0507*	-0.0347	-0.0005	$-0.0817^{***}$	-0.0907***	$0.1466^{***}$	$0.1265^{**}$	$0.1103^{***}$	0.0999***	$0.1029^{***}$	-0.0994***
Debt	0.0859***	-0.0779***	-0.0444	-0.0382	-0.0363	$0.3622^{***}$	$0.3130^{***}$	-0.0596**	-0.0494	$0.1709^{***}$	-0.1519***
OCF	$-0.1011^{***}$	0.0449*	$0.1039^{***}$	-0.0226	-0.0347	-0.0748	-0.0623	0.0260	$0.0691^{**}$	$-0.1383^{***}$	0.2329***
MTB	-0.0980***	0.0189	$0.0851^{***}$	0.0374	0.0180	$-0.1830^{***}$	-0.1494***	0.0279	0.0532	0.0186	-0.0150
ROEvolatility	$0.0610^{**}$	-0.0446*	-0.0624**	-0.0044	-0.0489*	-0.4625***	-0.4671***	-0.0009	-0.0606*	-0.0680**	0.0577**
RETvolatility	-0.0713***	-0.0044	$0.0698^{***}$	0.0280	0.0245	0.0254	0.0548	-0.0892***	0.0285	$0.2184^{***}$	$-0.1886^{***}$
CEOduality	-0.0949***	$0.0668^{**}$	0.0675**	0.0005	-0.0064	$-0.1601^{***}$	-0.1376***	0.0039	0.0169	-0.0002	0.0048
GOVsize	0.0165	-0.0279	-0.0430	-0.0574**	-0.0774***	0.0776	0.0842	$0.0560^{**}$	0.0792**	-0.0185	$0.0561^{**}$
GOVshare	-0.0921***	0.0193	0.0112	-0.0259	-0.0098	-0.3556***	-0.3327***	0.0990***	$0.1801^{***}$	-0.0083	0.0257
GOV concen	$0.1468^{***}$	-0.0686**	-0.1728***	-0.0343	-0.0429	-0.1192**	$-0.1310^{**}$	$0.1061^{***}$	0.0875***	-0.0909***	0.1318***
<i>GOVinst</i>	$0.0671^{**}$	-0.0508*	-0.0589**	-0.0323	-0.0542*	0.0577	0.0215	$0.1363^{***}$	$0.0976^{***}$	-0.0222	$0.0540^{**}$

Table 5 Pearson Correlation Coefficients

	÷	-			1 0 0	,		500			11 1 mm		
	CI	CT	IW	Regulation	SOE	Lnassets	Debt	OCF	MIB	ROEvolatility	<b>KET</b> volatility	CEOduality	GUVsize
CI	1												
CT	0.0011	1											
IW	0.0174	$0.2571^{***}$	1										
Regulation	-0.2249***	$0.0838^{***}$	$0.0838^{***}$	1									
SOE	-0.0112	-0.0606**	-0.1415***	-0.0018	1								
Lnassets	$0.1144^{***}$	-0.0738***	-0.0305	-0.0878***	0.2848***	1							
Debt	0.0518*	-0.2200***	-0.1097 * * *	$-0.1039^{***}$	0.2457***	$0.5849^{***}$	1						
OCF	0.0729***	$0.1171^{***}$	$0.1429^{***}$	$0.0591^{**}$	0.0218	0.0207	$-0.1614^{***}$	1					
MTB	-0.0833***	0.2321***	$0.1176^{***}$	$0.1027^{***}$	-0.1725***	-0.4756*** .	-0.4303 ***	0.1537***	1				
ROEvolatility	-0.0546**	-0.0778***	$-0.1232^{***}$	0.0355	-0.0395	-0.0591**	0.0181 -	0.0756***	0.0597**	1			
RETvolatility	-0.0589**	0.0527*	$0.1270^{***}$	0.0722***	$-0.0918^{***}$	-0.2647***	$-0.1064^{***}$	0.0745***	0.3707***	-0.0272	1		
CEOduality	-0.0166	0.0715***	$0.0887^{***}$	-0.0412	$-0.1216^{***}$	-0.1013*** .	$-0.1340^{***}$	$0.0504^{*}$	0.1042***	-0.00820	$0.0626^{**}$	1	
GOVsize	0.0347	-0.1263***	$-0.1732^{***}$	-0.0454*	0.1859***	0.2039***	0.1551*** -	0.0340	0.1579***	0.0140	-0.0756***	-0.1428***	1
GOVshare	-0.1552***	-0.00240	0.0327	0.0175	-0.2539***	-0.3430*** .	-0.2845*** -	0.0126	0.2161***	0.0183	0.1424***	0.2652***	$-0.1036^{***}$
GOVconcen	$-0.1360^{***}$	-0.3224***	-0.3425***	-0.1271***	$0.1004^{***}$	0.0181	0.0911*** -	0.2018*** -	0.1114***	$0.1856^{***}$	-0.1438***	-0.0422	0.0851***
GOVinst	-0.1255***	-0.1828***	-0.2616***	-0.0470*	$0.1640^{***}$	$0.0680^{**}$	0.0771*** -	0.0750*** -	0.00210	0.0750***	-0.1098***	-0.0790***	$0.1302^{***}$
					GOVsha	re		109	'concen			GOVinst	
GOVshare					1								
GOV concen					$0.0734^{*}$	**		1					
GOVinst					-0.0279			0.3	724***		1		

	spectively. See I able 3 for variable definitions.
	, 5%, and 10% levels, re
ζοτ. τ ξ	indicate significance at the 1%
** ***	, , and
	Note:

# 4.2 The Influence of Organisational Strategy on the Selection of Incentive Objects

H1 predicts that compared with defenders, prospectors focus more on motivating middle managers. Table 6 reports the regression results of model (1).

### Table 6 Effect of Organisational Strategy on the Selection of Equity Incentive Objects

This table reports the results of the regression analysis for the effect of organisational strategy on the selection of equity incentive objects. MQP is the dependent variable. MQP is the proportion of equity granted to top management relative to the total amount of equity in incentive plans. The key independent variables are  $STRA_1$  and  $STRA_3$ .  $STRA_1$  and  $STRA_3$  are discrete scores with values ranging from 6 to 30, where high (low) values indicate prospector (defender) firms. All of our independent variables have a one-period lag. To avoid the multiple collinearity of competition intensity CI and competition type CT, we do not control for the industry fixed effect in the model. t statistics are presented in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively (two-tailed test).

	(1)	(2)
	MQP	MQP
STRA 1	-0.0078***	*
_	(-5.4309)	
STRA 3		-0.0071***
—		(-3.3359)
Lifel	-0.0336**	-0.0534**
·	(-2.4303)	(-2.5664)
Life2	-0.0332*	-0.0547*
0	(-1.9464)	(-1.9159)
CI	0.2451	0.2940
	(1.5299)	(1.4338)
CT	-0.4424*	-0.4788
	(-1.6646)	(-1.4249)
MI	-0.0102***	-0.0127***
	(-2.6353)	(-3.0796)
Regulation	-0.0232***	-0.0328***
.8	(-2.7405)	(-2.9529)
SOE	-0.0403***	-0.0401**
	(-2.7821)	(-2,4272)
Lnassets	-0.0256***	-0.0274**
	(-2.6403)	(-2.4115)
Debt	0.0858***	0.0478**
	(3.2686)	(2.1922)
OCF	-0.0378	-0.0985
	(-0.4739)	(-1.1295)
MTB	-3.3142	-4.6048
	(-0.9611)	(-1.4195)
ROEvolatility	0.0198	0.0467
	(0.4453)	(1.0046)
RETvolatilitv	-0.3145	-1.3148
2	(-1.6062)	(-1.1646)
CEOduality	-0.0244*	-0.0200
,	(-1.7184)	(-1.5010)
GOVsize	-0.0025	-0.0072
	(-0.6792)	(-1.4291)

GOVshare	-0.0950***	-0.0964**	
	(-3.2391)	(-2.1692)	
GOVconcen	0.0003	0.0003	
	(0.8467)	(0.5780)	
GOVinst	0.0002	-0.0026*	
	(0.2277)	(-1.9383)	
_cons	0.8431**	0.9448**	
	(2.4150)	(2.1148)	
Year Dummy	Yes	Yes	
Ν	1353	888	
adj. R <sup>2</sup>	0.1006	0.1204	

Does Organisational Strategy Influence the Design of Equity Incentive Plans?

From the results in the first and second columns, we can see that the coefficients of *STRA\_1* and *STRA\_3* (Coefficient=-0.0078, -0.0071) are both negative and significant at the 1% level. This shows that the proportion of equity granted to top management relative to the total amount of equity in the incentive plans is lower among prospectors than among defenders, which means that the proportion of equity granted to middle managers relative to the total amount of equity is higher in the incentive plans of prospectors than in the incentive plans of defenders. This result supports the prediction of H1, namely that compared with defenders, prospectors focus more on motivating middle managers through their equity incentive plans.

Regarding the control variables, the coefficients of *GOVshare* (Coefficient=-0.0950, -0.0964) are negative and significant at the 1% and 5% levels, respectively, which indicates that the higher the level of managerial ownership, the more willing firms are to grant their equity incentive plans to middle managers who have fewer shares.

### 4.3 The Effect of Organisational Strategy on the Setting of Performance Targets

We propose that organisational strategy not only affects the selection of the objects of incentive contracts but also the performance targets included in such contracts. H2 predicts that prospectors are more inclined than defenders to design easier profit performance targets. H3 predicts that prospectors are more likely to incorporate revenue performance targets into their performance evaluations for granting equity incentives.

Table 7 reports the results of the regression analysis of model (2). The results in the first and second columns show that the coefficients of  $STRA_1$  and  $STRA_3$  (Coefficient=-0.2060, -0.3155) are negative and significant at the 10% and 5% levels, respectively, indicating that the greater the prospector tendency of the organisational strategy, the less difficult (*Difficult A\_1*) the profit performance target. In the third and fourth columns, the dependent variable is *Difficult A\_3*, and the coefficients of  $STRA_1$  and  $STRA_3$  (Coefficient=-0.1009, -0.1427) are negative and significant at the 5% level. Considering that the dependent variables are *Difficult B\_1* and *Difficult B\_3*, the results of  $STRA_1$  are negative but not significant (Coefficient=-0.0007, -0.0006), as shown in

target for the firn key independent (defender) firms control for the in tailed test).	variables are <i>STRA</i> . . All of our independentry fixed effect in	s or unlocking of re- 1 and $STRA_3$ . $ST$ dent variables have n the model. t statist	stricted stocks / the $7RA_1$ and $STRA_3$ a one-period lag. T ics are presented in	average ROE targe are discrete scores o avoid the multipli- parentheses. ***, **	t for the first three with values ranging e collinearity of coi *, and * indicate sig	exercises of options from 6 to 30, when mpetition intensity 6 gnificance at the 1%	or unlockings of re- e high (low) values <i>CI</i> and competition , 5%, and 10% leve	stricted stocks. The indicate prospector type $CT$ , we do not type transpectively (two-
	(1) Difficult 4 1	(2) $Difficult 4 1$	(3) Difficult 4-3	(4) Difficult 4-3	(5) $Difficult R = 1$	(6) Difficult 1	(7) DifficultR 3	(8) DifficultR 3
STRA_I	-0.2060*	1 - CHINN (GA	-0.1009**	C UNING	-0.0007	1 _ minutha	-0.0006	C mmnllin
STRA 3	(1700.1-)	-0.3155**	(++-70.7-)	-0.1427**	(6070.0-)	-0.0029*		-0.0038**
		(-2.1070)		(-2.1825)		(-1.9509)		(-2.5474)
Life1	-0.9071	-1.2929	-0.5649	-0.8859	-0.0376*	-0.0131	-0.0338	-0.0125
	(-1.0758)	(-1.1663)	(-1.1909)	(-1.3230)	(-1.8900)	(-1.1058)	(-1.5680)	(-1.1101)
Life2	-0.4231	-0.1612	-0.4074	-0.4394	0.0028	0.0145	-0.0019	0.0132
	(-0.3048)	(-0.0772)	(-0.7039)	(-0.4881)	(0.1851)	(1.2371)	(-0.1425)	(1.1315)
CI	0.2840	4.6342	0.2801	1.9405	0.0919	0.0034	0.0556	-0.0296
	(0.0925)	(0.6874)	(0.1505)	(0.7541)	(0.8580)	(0.0238)	(0.6000)	(-0.2076)
CT	-1.8964	-3.1402	-2.2918	-2.5945	0.1896	0.0531	0.0873	-0.0156
	(-0.2032)	(-0.1745)	(-0.4287)	(-0.2622)	(0.3660)	(0.1764)	(0.1700)	(-0.0532)
IW	-0.3632**	-0.4932*	-0.1899**	$-0.2601^{**}$	0.0005	-0.0032	-0.0002	-0.0042
	(-1.9890)	(-1.7639)	(-2.2173)	(-2.3776)	(0.1017)	(-0.5313)	(-0.0466)	(-0.6904)
Regulation	0.5375	0.4983	0.1152	0.0411	$0.0142^{*}$	0.0183	0.0078	0.0158
	(1.1569)	(1.4211)	(0.5013)	(0.0985)	(1.6651)	(1.3740)	(1.0075)	(1.2419)
SOE	-0.9394***	-1.4595***	-0.5413**	-0.7868***	0.0139	0.0095	0.0121	0.0034
	(-3.4951)	(-3.7156)	(-2.0731)	(-2.5880)	(0.7815)	(0.4797)	(0.7264)	(0.1862)

# Table 7 Effect of Organisational Strategy on the Setting of Profit Performance Targets

This table reports the regression analysis results for the effect of organisational strategy on the setting of profit performance targets. *DifficultA\_1 / DifficultA\_3* and *DifficultB\_1 / DifficultB\_3* are dependent variables. *DifficultA\_1 / DifficultA\_3* is the difficulty of the net profit growth rate target for the first exercise of options or unlocking of restricted stocks / the average net profit growth rate target for the first three exercises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencises of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of options or unlocking of the ROE to the first three evencies of the ROE to the ROE to the first three evencies of to the ROE to the ROE

Lnassets	-0.7243***	-0.6709*	$-0.6048^{***}$	$-0.7056^{***}$	$-0.0300^{***}$	$-0.0287^{***}$	-0.0241***	$-0.0238^{***}$
	(-4.6131)	(-1.8810)	(-3.9093)	(-4.8382)	(-3.4120)	(-4.2294)	(-3.2942)	(-3.7829)
Debt	0.0829	-0.1391	0.1241	0.7842	0.2317***	$0.1344^{**}$	0.1856***	0.0910
	(0.0649)	(-0.0936)	(0.1033)	(0.5534)	(6.5845)	(2.3588)	(4.3360)	(1.4068)
OCF	-2.6106	-2.0643	-1.9451	-2.0838	$-0.1177^{**}$	-0.0079	-0.0954	-0.0305
	(-0.6514)	(-0.4231)	(-0.7935)	(-0.7087)	(-2.4594)	(-0.1608)	(-1.5624)	(-0.4866)
MTB	-41.7759	-117.4728	-134.3728	-192.7901	-1.8501	-5.9235	-0.5040	-6.6050*
	(-0.2780)	(-0.4709)	(-1.4602)	(-1.2741)	(-0.7036)	(-1.5980)	(-0.2046)	(-1.8086)
ROEvolatility	-0.1292	-0.1284	-1.6879	-1.8791	-0.3416***	-0.2637***	-0.3368***	-0.2745***
	(-0.1100)	(-0.0809)	(-0.9556)	(-1.2768)	(-7.2483)	(-4.0812)	(-7.6738)	(-4.5351)
RETvolatility	-1.7118	252.6600	-6.5651***	85.5050	-0.9631	2.2726	-0.4713	2.4580
	(-0.2461)	(1.0618)	(-6.0029)	(0.8937)	(-0.5973)	(1.1652)	(-0.3253)	(1.3238)
CEOduality	0.1074	0.2687	-0.0923	-0.1229	-0.0123**	0.0000	-0.0085	-0.0004
	(0.1562)	(0.2623)	(-0.4950)	(-0.5706)	(-2.0848)	(0.0018)	(-0.8970)	(-0.0364)
GOVsize	-0.2555*	-0.3579**	-0.2027	-0.2925**	0.0018	0.0028	0.0029	0.0021
	(-1.6661)	(-2.1335)	(-1.6139)	(-1.9957)	(0.5935)	(0.9878)	(1.0998)	(0.7557)
GOVshare	-2.7986*	-4.0466	-1.0164	-1.4911	-0.1099***	-0.0603***	$-0.1086^{***}$	-0.0616***
	(-1.7681)	(-1.3566)	(-1.4413)	(-1.0799)	(-6.5187)	(-10.0907)	(-6.2928)	(-8.1768)
GOV concen	-0.0294**	-0.0219	-0.0138	-0.0101	-0.0005	-0.0004	-0.0005	-0.0003
	(-1.9771)	(-1.1756)	(-1.2609)	(-0.7260)	(-1.1840)	(-1.2910)	(-1.1115)	(-1.0504)
<i>GOVinst</i>	-0.0137	-0.0574	-0.0175	-0.0433	0.0005	-0.0005	-0.0004	-0.0008
	(-0.3164)	(-0.9926)	(-0.7478)	(-1.2583)	(0.6308)	(-0.3517)	(-0.3722)	(-0.6492)
cons	$26.3417^{***}$	20.4206	$19.7337^{***}$	$20.8044^{***}$	0.5095*	$0.6194^{**}$	0.4205*	$0.6079^{**}$
	(5.0858)	(1.5346)	(3.6343)	(5.7179)	(1.6913)	(2.1644)	(1.7957)	(2.0539)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Z	1192	LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL	1192	777	379	226	379	226
adj. R <sup>2</sup>	0.0100	0.0243	0.0192	0.0238	0.4445	0.3385	0.3878	0.3357

columns 5 and 7. The results for *STRA\_3* are significant at the 10% and 5% levels (Coefficient=-0.0029, Coefficient=-0.0038, respectively), as shown in columns 6 and 8.

The above results provide strong support for H2, which predicts that prospectors set less difficult profit performance targets than defenders. However, it is noteworthy that Abernethy *et al.* (2015) found that the weaker the corporate governance, the easier the profit targets (measured by EPS growth rate) that self-interested CEOs set for equity incentive plans. Although we control for corporate governance variables in our analyses, to further illustrate that the difficulty of the profit target is affected by the type of strategy, we alleviate the alternative explanation of the agency problem in the supplementary analysis.

Table 8 reports the results of the regression analysis of model (3). Two dummy variables are used to reflect the use of revenue performance targets. First, we use *Revdummy* to measure whether a firm includes revenue performance targets in its equity incentive plan. To better reflect the importance of revenue measures to a firm, we construct a variable *Revrevise*, which equals 1 when the firm uses the revenue target alone or when the profit target is loose (i.e. *DifficultA* or *DifficultB* is less than 0) and the firm uses the revenue target as a supplementary measure, and 0 otherwise. The first and second columns report the results of the *Revdummy* test. The coefficient of *STRA\_1* in the first column is positive but not significant (Coefficient=0.0165), while the coefficient of *STRA\_3* (Coefficient = 0.0397) is significant and positive at the 1% level. The third and fourth columns report the test results for *Revrevise*. The coefficients of *STRA\_1* and *STRA\_3* are significant and positive at the 10% and 1% levels, respectively (Coefficient = 0.0390, 0.0813).

These results support H3, which predicts that compared with defenders, prospectors are more likely to include revenue performance targets in their equity incentive plans, especially when the profit performance target is easily achievable. Therefore, the equity incentive plans with easily achievable profit performance targets are not entirely welfare oriented because they also want to encourage employees to improve their performance. Regarding the control variables, industry competition intensity *CT* is significantly positive in the first and second columns (Coefficient= 6.3128, P<0.01; Coefficient= 3.0781, P<0.1), indicating that the more non-price competition there is in the market, the more attention the firm pays to revenue targets, whereas when price competition is high, firms are more willing to pursue current profits and tend to pay more attention to profit targets.

### Table 8 Effect of Organisational Strategy on the Setting of Revenue Performance Targets

This table reports the regression analysis results for the effect of organisational strategy on the setting of revenue performance targets. *Revdummy* and *Revrevise* are the dependent variables. *Revdummy* equals 1 if the performance evaluation in the equity incentive plans includes revenue targets and 0 otherwise. *Revrevise* equals 1 if the performance evaluation in the equity incentive plans only includes revenue targets or includes revenue targets when the profit targets are lower than the expected level, and 0 otherwise. The key independent variables are *STRA\_1* and *STRA\_3*. *STRA\_1* and *STRA\_3* are discrete scores with values ranging from 6 to 30, where high (low) values indicate prospector (defender) firms. All of our independent variables have a one-period lag. To avoid the multiple collinearity of competition intensity *CI* and competition type *CT*, we do not control for the industry fixed effect in the model. z statistics are presented

	(1)	(2)	(3)	(4)
	Revdummy	Revdummy	Revrevise	Revrevise
STRA_1	0.0165		0.0390*	
	(0.9352)		(1.7171)	
STRA_3		0.0397***		0.0813***
_		(2.6814)		(3.1280)
Lifel	-0.0499	-0.3015**	-0.1303	-0.3828***
·	(-0.2519)	(-2.3207)	(-1.1897)	(-2.8720)
Life2	-0.1196	-0.1596	-0.2449	-0.3070
	(-0.4586)	(-0.7422)	(-1.1072)	(-1.6011)
CI	0.8428	1.0483	3.4914	5.1988**
	(0.4316)	(0.5944)	(1.4281)	(2.1206)
CT	6.3128***	3.0781*	4.6689	2.4822
	(4.6207)	(1.7010)	(1.5848)	(0.8505)
MI	-0.0178	-0.0264	-0.0271	-0.0393
	(-0.3580)	(-0.4464)	(-0.5432)	(-0.6504)
Regulation	-0.2410**	-0.2426	-0.1703*	-0.2443**
0	(-1.9865)	(-1.3815)	(-1.7382)	(-1.9699)
SOE	-0.2469	-0.1821	-0.3110	-0.0945
	(-0.7892)	(-0.5431)	(-0.8691)	(-0.2263)
Lnassets	-0.0033	0.0273	0.0118	-0.0354
	(-0.0353)	(0.2112)	(0.0949)	(-0.1962)
Debt	-0.6661	-0.7329	0.1345	0.1220
	(-1.5231)	(-0.9680)	(0.3255)	(0.1353)
OCF	0.5228	0.6423	1.9570**	1.4971
	(0.3947)	(0.4024)	(2.0623)	(1.0642)
MTB	-6.0317	-6.5189	39.3365	16.9459
	(-0.2398)	(-0.1422)	(1.4185)	(0.2870)
ROEvolatility	-0.7724**	-1.7991*	-1.1388	-1.9492
2	(-2.0564)	(-1.9281)	(-1.4605)	(-1.4423)
RETvolatility	1.5197	-4.5411	4.0915	6.7368
2	(0.5454)	(-0.3410)	(0.9346)	(0.5656)
CEOduality	0.1831	0.0378	0.2050	0.1457
2	(1.2479)	(0.2077)	(0.8681)	(0.5262)
GOVsize	0.0078	-0.0065	-0.0062	-0.0055
	(0.2253)	(-0.1341)	(-0.2135)	(-0.1421)
GOVshare	0.0684	0.1820	0.3546	0.5756
	(0.2327)	(0.5423)	(0.9282)	(1.2417)
GOVconcen	0.0032	0.0058	-0.0051	-0.0022
	(0.4824)	(1.0117)	(-0.5982)	(-0.2093)
GOVinst	-0.0017	-0.0035	0.0318***	0.0348***
	(-0.2514)	(-0.2783)	(3.8218)	(3.0973)
cons	-1.5091	-2.2633	-5.4043	-6.5598
_	(-0.4473)	(-0.5895)	(-1.1765)	(-1.1893)
Year Dummy	Yes	Yes	Yes	Yes
N	1371	901	1350	901
pseudo R <sup>2</sup>	0.0452	0.0459	0.0729	0.0819

in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively (two-tailed test).

# V. Supplementary Analysis and Robustness Test

### 5.1 Tests on the Alternative Explanation of CEO Power Theory

A previous study showed that firms with a serious agency problem that implement equity incentive plans are more likely to do so for welfare reasons (Lu et al., 2011). In China, where the imperfect governance structure makes it difficult to supervise managers, managers use equity incentives to seek benefits. Thus, the equity incentives are affected by the agency problem, which is consistent with CEO power theory (Lu et al., 2011; Xiao et al., 2013). Bebchuk and Fried (2005) find that powerful CEOs exert pressure on boards of directors to set easily achievable performance targets. Abernethy et al. (2015) find that the greater the power of a CEO, the lower the difficulty of the profit performance targets included in the equity incentive plans. A previous study shows that prospectors tend to attract CEOs who are well connected and have greater social capital (Abernethy et al., 2019), which means that CEOs in prospectors could have more power when making decisions than CEOs in defenders. From this perspective, compared with managers in defenders, managers in prospectors could have a greater impact on the performance target setting process, and they could set lower profit targets to reduce their own risks more easily. Thus, the empirical finding in our paper which show that prospectors are more likely to set lower profit performance targets could also be driven by the agency problem arising from prospector-characterised organisational strategies rather than by the need to implement organisational strategy. To alleviate the alternative explanation of CEO power theory and prove the importance of organisational strategy in designing the difficulty of performance targets, we conduct three supplementary tests.

### 5.1.1 Subsample test of high CEO power vs. low CEO power

If the effect of organisational strategy on the design of equity incentive plans is due to the agency problem, then the negative effect of organisational strategy on the difficulty of the profit target should be more salient in the subsample with weak corporate governance and high-power managers. Following Abernethy *et al.* (2015), we employ principle component analysis (PCA) to create a comprehensive managerial power variable *CEOpower*. Specifically, we combine the corporate governance variables *CEOduality*, *GOVsize*, *GOVshare*, *GOVconcen*, and *GOVinst* into a one-dimensional index, which is named as *CEOpower*.<sup>16</sup> The larger the *CEOpower*, the worse the corporate governance and the more power the managers have. The sample is divided into two groups according to the degree of

<sup>&</sup>lt;sup>16</sup> Prior literature shows that CEO's power is usually positively correlated with *CEOduality* and *GOVshare* and negatively correlated with *GOVsize*, *GOVconcen*, and *GOVinst* (e.g. see Abernethy *et al.*, 2015). To maintain consistency with CEO's power and the five attributes in terms of the direction of interpretation, we take the negative value of *GOVsize*, *GOVconcen*, and *GOVinst* and combine them with *CEOduality* and *GOVshare* to get the first principal component, that is, the variable *CEOpower*.

the managers' power. Model (2) is used for this test, and on the basis of the sample size consideration, we use *Difficult A* 1 and *Difficult A* 3 as the profit target difficulty variables. Table 9 shows the results of the subsample tests. The results show that in all four combinations of firm target difficulty (Difficult A 1/Difficult A 3) and firm strategy (STRA 1/STRA 3), the coefficients of strategy in the Low CEOpower group are negative and significant, while in the High *CEOpower* group, the coefficients of strategy are negative but not significant. The first, third, fifth, and seventh columns report the regression results using the Low *CEOpower* sample. The coefficients of *STRA* 1 in the first and fifth columns (Coefficient=-0.2048, -0.1166) and the coefficients of STRA 3 in the third and seventh columns (Coefficient= -0.2613, -0.1537) are all significantly negative at the 5% level. The second, fourth, sixth, and eighth columns report the regression results using the High CEOpower sample. The coefficients of strategy (Coefficient= -0.2329, -0.3385, -0.0954, -0.0982, respectively) in these four columns are negative but not significant. The combined results indicate that the negative effect of prospector-characterised organisational strategies on the difficulty of the profit target mainly occurs in firms with low CEO power and weak governance, which is inconsistent with the alternative explanation of CEO power theory.

### 5.1.2 Subsample test of before deregulation vs. after deregulation

On 13 July 2016, the CSRC issued a new version of "Measures for the Administration of Equity Incentives of Listed Companies". In this new version, the CSRC relaxed the mandatory requirements regarding the design of performance targets. Specifically, listed firms are no longer required to set performance targets that must be positive and not lower than the firm's historical average level; instead, they only need to disclose the rationality analysis for the performance targets. This deregulation of performance targets gives powerful CEOs more discretion in setting performance targets. Thus, if the CEO power theory holds, compared to the pre-deregulation period, CEOs should have more possibilities to set achievable performance targets to seek their own benefits in the post-deregulation period, which means the negative relationship between organisational strategy and target difficulty should be stronger after the deregulation. In Table 10, we use Model (2) to analyse the relationship between organisational strategy and target difficulty before and after deregulation, respectively.

We divide the sample into two groups: In the *Before Deregulation* group, we use the sample from 2009 to 2016; in the *After Deregulation* group, we use the sample from 2017 to 2018. Considering the sample size, we use *Difficult*  $A_1$  and *Difficult*  $A_3$  as the profit target difficulty variables. The results in Table 10 show that in all four combinations of firm target difficulty (*Difficult*  $A_1/Difficult$   $A_3$ ) and firm strategy (*STRA\_1/STRA\_3*), the coefficients of strategy in the *Before Deregulation* group are negative and significant, while in the *After Deregulation* group, the coefficients of strategy are also negative but not significant. The first, third, fifth, and seventh columns report the regression results for the pre-deregulation

the setting of profit performance targets in different subsamples where CEO power $GOV concen$ , and $GOV inst$ to construct a comprehensive managerial power variable power the managers have. The sample is divided into two groups according to the iables. We do not use $DifficultB_I$ and $DifficultB_J$ as dependent variables because (3), (5), and (7) present the regression results under Low $CEOpower$ , while columns dependent variables have a one-period lag. To avoid the multiple collinearity of effect in the model. t statistics are presented in parentheses. ***, **, and * indicate	Difficult4_3 Difficult4_3	(5) (6) (7) (8)	ver Low CEOpower High CEOpower Low CEOpower High CEOpower	-0.1166** -0.0954	(-2.1284) (-1.1753)	-0.1537** -0.0982	(-2.4263) (-0.7229)	-0.8502 -0.0785 -1.4236** -0.0606	(-1.4811) (-0.1204) (-2.1675) (-0.0612)	-0.8998 0.2172 -1.1833* 0.7243	(-1.6057) (0.2426) (-1.7486) (0.5193)	-1.8511 3.6241 -0.6779 6.3936	(-0.7194) (1.0178) (-0.1967) (0.9133)	-11.0202 0.7428 -8.7885 7.7394	(-1.1657) (0.1102) (-0.8321) (0.5248)	-0.1784* -0.1717 -0.2650** -0.0642	(-1.7430) (-0.7141) (-2.1008) (-0.1724)	-0.2533 0.3136 -0.2447 -0.0234	(-0.6448) (0.4819) (-0.4996) (-0.0182)	-0.3876 -1.2767 -0.5196 -1.5554	(-0.8870) (-0.8319) (-1.0231) (-0.8879)
n different subsample comprehensive manag divided into two gro $ifficultB_3$ as depende alts under Low <i>CEOp</i> , ag. To avoid the mu ag. To avoid the mu ted in parentheses. **	Diffic	(2)	er Low CEOpower			-0.1537**	(-2.4263)	-1.4236**	(-2.1675)	-1.1833*	(-1.7486)	-0.6779	(-0.1967)	-8.7885	(-0.8321)	-0.2650**	(-2.1008)	-0.2447	(-0.4996)	-0.5196	(-1.0231)
formance targets i <i>inst</i> to construct a ove. The sample is $viffcultB_I$ and $D_i$ the regression resu the regression result vive a one-period 1 atistics are present	ultA_3	(9)	High CEOpowe	-0.0954	(-1.1753)			-0.0785	(-0.1204)	0.2172	(0.2426)	3.6241	(1.0178)	0.7428	(0.1102)	-0.1717	(-0.7141)	0.3136	(0.4819)	-1.2767	(-0.8319)
setting of profit per <i>concen</i> , and $GOVi$ er the managers ha es. We do not use $L$ (5), and (7) present andent variables ha et in the model. t st	Diffic	(5)	Low CEOpower	-0.1166**	(-2.1284)			-0.8502	(-1.4811)	-0.8998	(-1.6057)	-1.8511	(-0.7194)	-11.0202	(-1.1657)	-0.1784*	(-1.7430)	-0.2533	(-0.6448)	-0.3876	(-0.8870)
lysis results for the effect of organisational strategy on the overmance variables $CEOduality$ , $GOVsize$ , $GOVshare$ , $GO$ ver, the worse the corporate govermance and the more power, the worse the corporate govermance and the more power. So $DifficultA_I$ and $DifficultA_3$ as the dependent variab beamples is not enough for data analysis. Columns (1), (3), gression results under High $CEOpower$ . All of our indepintion type $CT$ , we do not control for the industry fixed efficients, respectively (two-tailed test).	cultA_1	(4)	High CEOpower			-0.3385	(-1.1670)	-0.1974	(-0.1541)	2.5254	(0.7964)	13.3758	(1.0314)	9.2353	(0.5156)	-0.1827	(-0.3488)	1.1492	(0.7010)	-2.1571	(-1.1235)
	Difficu	(3)	· Low CEOpower			-0.2613**	(-2.5514)	-2.0736	(-1.5707)	-2.0067	(-1.4530)	-4.3567	(-0.6686)	-18.2928	(-0.8960)	$-0.5016^{*}$	(-1.6940)	-0.6739	(-0.8738)	-0.9391	(-1.4484)
	$ultA_1$	(2)	High CEOpower	-0.2329	(-1.2339)			-0.0406	(-0.0530)	1.3118	(0.6445)	5.5590	(1.0650)	1.8255	(0.2214)	-0.3449	(-0.8438)	1.3148	(1.1161)	-1.8441	(-1.0835)
ts the regression and z use the corporate g e larger the <i>CEOpon</i> nanagers' power. W( b) b) present the re- ensity <i>CI</i> and compe- the 1%, 5%, and 10%	Diffic	(1)	Low CEOpower	-0.2048**	(-2.1339)			-1.3644	(-1.2267)	-1.7087	(-1.5416)	-5.2135	(-1.1231)	-17.6988	(-1.0117)	-0.3529	(-1.4731)	-0.6082	(-0.9687)	-0.6953	(-1.2540)
This table repoil has valence. We <i>CEOpower</i> . The valence of the n valence of the n (2), (4), (6), an competition inter- significance at t				STRA_I		STRA_3		Life1		Life2		CI		CT		IW		Regulation		SOE	

Table 9 Moderating Role of CEO Power in the Effect of Organisational Strategy on the Setting of Profit Performance Targets

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Lnassets	-0.6372**	$-0.8516^{**}$	-0.8027**	-0.6102	$-0.5196^{**}$	-0.8002**	-0.6571**	-1.1451	
	(-2.0821)	(-2.2034)	(-1.9878)	(-0.4600)	(-2.1965)	(-2.3252)	(-2.1251)	(-1.4014)	
Debt	-2.8113	2.3232	-2.7372	2.4715	-1.9665	2.1451	-1.3038	3.3991	
	(-1.3593)	(1.0632)	(-1.0624)	(0.6087)	(-1.3677)	(1.2745)	(-0.7277)	(1.2224)	
OCF	1.3810	-7.9153	2.2483	-11.3830	0.0912	-5.0183	0.2937	-9.8694	
	(0.4952)	(-1.4601)	(0.5853)	(-1.2587)	(0.0514)	(-1.5893)	(0.1204)	(-1.4695)	
MTB	-199.3177	52.3300	-317.9818	70.5122	-210.4208*	-123.9333	-290.4611*	-210.0974	
	(-1.0447)	(0.1246)	(-1.2527)	(0.0897)	(-1.6600)	(-0.6114)	(-1.7000)	(-0.4538)	
ROEvolatility	0.0201	2.9466	0.4657	5.8015	-2.6630*	7.4357	-2.6920*	12.9740	
	(0.0064)	(0.2670)	(0.1383)	(0.3041)	(-1.7292)	(0.9862)	(-1.6500)	(0.9452)	
RETvolatility	25.8441	-3.5681	46.8946	565.8848	4.9047	-10.9345	6.3299	192.9622	
	(0.9640)	(-0.2025)	(0.7957)	(0.9615)	(0.3245)	(-1.1886)	(0.1709)	(0.7834)	
CEOduality	-0.6328	1.3323	-0.5807	2.4439	-0.1308	0.2694	-0.0794	0.5845	
	(-1.4350)	(0.8174)	(-1.0946)	(0.8906)	(-0.4451)	(0.3571)	(-0.2105)	(0.4656)	
GOVsize	-0.0863	-0.5498**	-0.2026	-1.0922	-0.0503	-0.4046**	-0.1173	-0.6469*	
	(-0.6097)	(-2.0420)	(-1.0970)	(-1.4940)	(-0.5528)	(-2.0358)	(-0.9942)	(-1.6598)	
GOVshare	-1.6881	-4.8552	-0.9234	-6.0012	-0.2762	-2.2594	0.3688	-3.0843	
	(-1.2348)	(-1.3618)	(-0.4374)	(-1.3545)	(-0.3220)	(-1.5209)	(0.2693)	(-1.4221)	
GOV concen	-0.0502**	0.0434	-0.0466*	0.0707	-0.0247**	0.0227	-0.0219	0.0495	
	(-2.5754)	(1.5604)	(-1.8198)	(1.0669)	(-2.0780)	(1.3143)	(-1.4281)	(1.3835)	
GOVinst	-0.0434	0.0138	-0.0838	-0.2141	-0.0416	0.0557	-0.0700*	0.0836	
	(-1.1741)	(0.1035)	(-1.5261)	(-0.4249)	(-1.5536)	(0.6355)	(-1.7959)	(0.3556)	
cons	30.8975***	24.1168**	37.6637***	2.9109	20.2062***	20.6127**	24.4051***	21.5082	
	(3.1018)	(2.4590)	(2.7296)	(0.0796)	(3.2428)	(2.4498)	(2.8939)	(1.0748)	I
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Z	630	562	448	329	630	562	448	329	
adj. R <sup>2</sup>	0.0502	-0.0128	0.0616	0.0050	0.0711	-0.0049	0.0848	-0.0072	I
0									

Does Organisational Strategy Influence the Design of Equity Incentive Plans?

period. The coefficients of *STRA\_1* in the first and fifth columns (Coefficient=-0.1714, -0.1097) are significantly negative at the 5% and 1% levels, respectively, and the coefficients of *STRA\_3* in the third and seventh columns (Coefficient= -0.2682, -0.1693) are both significantly negative at the 1% level. The second, fourth, sixth, and eighth columns report the regression results for the post-deregulation period. The coefficients of strategy (Coefficient=-0.3045, -0.4286, -0.1072, -0.1093, respectively) in these four columns are negative but not significant. The combined results indicate that the negative effects of prospector-characterised organisational strategies on target difficulty are stronger before the deregulation of performance target difficulty rather than after the deregulation, which is inconsistent with the alternative explanation of the CEO power theory.

### 5.1.3 The effect of implementing an equity incentive plan on firm performance

On the basis of optimal contract theory, we propose that the design of equity incentive plans should be guided by organisational strategy. In other words, implementing an appropriate equity incentive plan could support organisational strategy and increase firm performance. According to optimal contract theory, before the CSRC's deregulation of performance target requirements in equity incentive plans in 2016, the mandatory requirements of performance targets could have made firms deviate from their optimal operation status and resulted in inferior firm performance. However, after the deregulation, without the mandatory requirements stipulated by the CSRC, firms could set optimal performance targets to implement an organisational strategy based on efficiency, thereby achieving superior firm performance. Therefore, in order to further prove that our main results are driven by optimal contract theory rather than CEO power theory, we use the deregulation introduced by the CSRC in 2016 as an exogenous shock to examine whether implementing equity incentive plans has different effects on firm performance before and after the deregulation. Specifically, we are interested in whether, compared with implementing equity incentive plans before the deregulation, implementing equity incentive plans after the deregulation leads to higher firm performance. To examine this issue, we adopt the difference-in-differences (DID) model and provide data analyses below.

Since a policy shock is exogenous and impacted firms are limited, when a policy shock comes, some firms are affected by the policy (treatment group) and some are not (control group). The DID model can control for systematic differences between a treatment group and a control group through comparing average changes in outcomes between the two groups over time and test the implementation effect of a policy.

In our paper, the treatment (control) group contains firms who implemented (did not implement) equity incentive plans during the period 2009 to 2018. In order to ensure the comparability between the treatment group and the control group, we follow Rosenbaum and Rubin (1983), use the PSM method to calculate the propensity score of each sample, take the treatment group as the benchmark, and match firms who implemented equity

This table repor of performance group, we use th variables becaus	targets in 2016. The targets in 2016. The is sample from 201 is the number of of	Ilysis results for the e sample is divided in 7 to 2018. We use <i>I</i> 2000 Secrations in the su	effect of organisatio ito two groups: In t <i>DifficultA</i> and <i>Dif</i> bsamples is not en	nal strategy on the he before deregulat <i>fficultA_3</i> as the de ough for data analy	setting of profit per ion group, we use th pendent variables. /sis. Columns (1),	formance targets being a sample from 2005 We do not use $Diffi$ (3), (5), and (7) pr	fore and after the C 1 to 2016, and in th <i>cultB_1</i> and <i>Difficu</i> esent the regressio	SRC's deregulation e after deregulation <i>dtB_3</i> as dependent n results for before
deregulation, wi multiple colline: ***, **, and * ir	arity of competition $(z)$ , (4 arity of competition dicate significance	), (0), and (8) preser intensity <i>CI</i> and corr at the 1%, 5%, and 1	nt the regression resuperation type CT, w 0% level, respective	suits for after dereg /e do not control foi ely (two-tailed test)	utation. All of our little industry fixed of .	independent variable effect in the model. 1	es nave a one-perio statistics are prese	d lag. I o avoid the nted in parenthese.
	Diffic	$ultA_{-}1$	Difficı	$ultA_{-}1$	Diffict	ultA_3	Diffici	ultA_3
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)
	Before	After	Before	After	Before	After	Before	After
	Deregulation	Deregulation	Deregulation	Deregulation	Deregulation	Deregulation	Deregulation	Deregulation
STRA_I	-0.1714**	-0.3045			-0.1097***	-0.1072		
	(-2.3754)	(-1.1701)			(-2.6142)	(-0.9691)		
$STRA_3$			-0.2682***	-0.4286			-0.1693***	-0.1093
			(-3.1250)	(-1.1355)			(-3.0879)	(-0.6460)
Life1	-1.0759	0.1152	-1.9325	-0.4863	-0.6586	-0.0811	-1.3552**	-0.3779
	(-1.0889)	(0.1159)	(-1.5019)	(-0.3614)	(-1.2530)	(-0.1076)	(-2.0644)	(-0.4199)
Life2	-1.6118*	1.9252	-2.3458*	3.1611	-0.9390*	0.4372	-1.5428**	1.0539
	(-1.6877)	(0.6849)	(-1.7807)	(0.8430)	(-1.8798)	(0.3730)	(-2.3409)	(0.6633)
CI	-3.4251	1.0986	-2.7480	5.1787	-0.3529	6.4930	0.8187	8.3072
	(-0.7582)	(0.0896)	(-0.4503)	(0.3634)	(-0.1529)	(0.8974)	(0.2686)	(0.7767)
CT	-25.1015	0.4444	-27.7093	23.8441	-9.1142	-2.4423	-4.6683	8.1456
	(-1.2636)	(0.0479)	(-1.0847)	(1.0124)	(-0.8870)	(-0.3493)	(-0.3678)	(0.5237)
IW	-0.1909	-0.5674	-0.2612	-0.5429	-0.0741	-0.3550	-0.1050	-0.3091
	(-0.8621)	(-1.3300)	(-0.9048)	(-0.9427)	(-0.7865)	(-1.1869)	(-0.8623)	(-0.7146)
Regulation	-0.1825	1.4236	-0.0081	0.8342	0.0059	0.0406	0.1715	-0.4038
	(-0.2867)	(0.6976)	(-0.0095)	(0.3665)	(0.0168)	(0.0392)	(0.3621)	(-0.2403)
SOE	-0.9496*	-1.4067	-1.2594*	-1.5959	-0.5009	-1.0595	-0.6710	-1.2626
	(-1.8127)	(-0.8185)	(-1.9393)	(-0.8593)	(-1.2506)	(-0.7210)	(-1.3701)	(-0.7890)

Table 10 Effect of Organisational Strategy on the Setting of Profit Performance Targets Before and After Deregulation

Does Organisational Strategy Influence the Design of Equity Incentive Plans?

Lnassets	-0.6169**	-1.3234**	-0.7519**	0.0558	-0.3858**	-1.2442**	-0.4628*	-1.1967
	(-2.2742)	(-2.4518)	(-2.0119)	(0.0278)	(-2.1622)	(-2.4829)	(-1.8985)	(-1.0847)
Debt	-1.9351	3.0188	-2.0625	2.7667	-1.5894	3.3631	-0.9363	4.4076
	(-1.0203)	(1.1441)	(-0.8260)	(0.5788)	(-1.2660)	(1.5443)	(-0.5755)	(1.3307)
OCF	1.0546	-16.7819*	2.8026	-30.8864*	0.1036	-10.8922**	0.8757	-20.7601*
	(0.4413)	(-1.7539)	(0.7903)	(-1.7493)	(0.0676)	(-2.0137)	(0.3888)	(-1.9069)
MTB	-199.1423	225.0893	-291.1936	1093.3151	-199.1554*	-70.1694	-256.9085*	73.9529
	(-1.2713)	(0.3996)	(-1.3662)	(0.6046)	(-1.8862)	(-0.2689)	(-1.7833)	(0.0861)
ROEvolatility	-0.0561	6.2212	0.3840	6.5227	-2.5158	12.7419	-2.6544	15.7593
	(-0.0176)	(0.3842)	(0.1072)	(0.3002)	(-1.6300)	(1.0495)	(-1.5423)	(0.9397)
RETvolatility	0.6399	18.8154	18.4432	740.5319	-9.6376	-0.1700	-5.0140	270.9462
	(0.0236)	(0.5902)	(0.3379)	(1.1230)	(-0.5807)	(-0.0126)	(-0.1440)	(0.9367)
CEOduality	-0.5988	1.8746	-0.6359	2.5179	-0.1453	0.3483	-0.0935	0.3972
	(-1.3678)	(0.7900)	(-1.0814)	(0.7951)	(-0.5557)	(0.3349)	(-0.2629)	(0.2751)
GOVsize	-0.0324	-0.5161**	-0.1237	-0.7910**	-0.0122	-0.4671**	-0.0601	-0.6284**
	(-0.2478)	(-2.2488)	(-0.6814)	(-2.0327)	(-0.1482)	(-2.2832)	(-0.5236)	(-2.3686)
GOVshare	-1.4425	-7.3706	-1.1470	-8.3261	-0.1806	-2.9616	0.2563	-3.5478
	(-1.4494)	(-1.1020)	(-0.7037)	(-1.0653)	(-0.3034)	(-1.1168)	(0.2527)	(-1.0149)
GOV concen	-0.0269*	0.9113	-0.0254	-0.8472	-0.0118	-0.9368	-0.0114	-1.9098
	(-1.8866)	(0.2079)	(-1.2771)	(-0.1227)	(-1.3071)	(-0.2866)	(-0.9320)	(-0.3268)
GOVinst	-0.0133	7.6221	-0.0442	8.6434	-0.0198	3.8252	-0.0416	4.7284
	(-0.3971)	(1.2674)	(-0.9025)	(1.3165)	(-0.8260)	(1.4745)	(-1.2014)	(1.4114)
cons	24.6227***	$38.5401^{**}$	32.7460***	-9.5273	13.7542***	28.9893**	17.1529***	20.4897
	(2.9014)	(2.1117)	(2.6263)	(-0.1942)	(2.9575)	(2.3999)	(2.6044)	(0.8063)
Year Dummy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Z	774	418	513	264	774	418	513	264
adj. R <sup>2</sup>	0.0291	0.0084	0.0361	0.0557	0.0527	0.0167	0.0602	0.0317

incentive plans with firms who did not one by one to form the control group according to propensity scores. When choosing variables for calculating the propensity scores, we first consider variables which could represent firms' financial characteristics. We include the natural logarithm of total assets (*Lnassets*); the asset-liability ratio (*Debt*); cash paid for the acquisition and construction of fixed assets, intangible assets, and other long-term assets divided by total assets (*Invt*); the growth rate of revenue (*Growth*); and a year dummy. Second, we consider corporate governance variables, which include the type of firm ownership (*SOE*), whether the firm's chairman is also the CEO (*CEOduality*), and board size (*GOVsize*). Considering that equity incentive plans may be implemented at any time during the year, we use variables with a one-period lag to complete the matching process. We conduct the propensity score matching process using one-to-one matching without replacement and get 1,323 observations in the treatment group and 1,323 observations in the control group, respectively. After dropping observations with missing variables, the total number of samples is 2,465. The DID model is shown below.

Tobin's 
$$Q_{i,t} = \alpha_0 + \alpha_1 Deregulation_{i,t} + \alpha_2 Treat_{i,t} + \alpha_3 Deregulation_{i,t} \times Treat_{i,t}$$
  
+  $\sum_j \alpha_j Control Variables_{i,t-1} + Year Dummy$   
+ Industry Dummy +  $\varepsilon$  (4)

We use *Tobin's Q* as the dependent variable to measure firm performance. We use *Deregulation*, a dummy variable, to identify whether firms implemented equity incentive plans after the deregulation: Specifically, if the firm year is 2017 or 2018, *Deregulation* equals 1; otherwise *Deregulation* equals 0. *Treat* is a dummy variable for identifying the treatment group and the control group; specifically, *Treat* equals 1 if the samples are in the treatment group and 0 otherwise. All of our control variables have a one-period lag. We control for the natural logarithm of total assets (*Lnassets*); the asset-liability ratio (*Debt*); cash paid for the acquisition and construction of fixed assets, intangible assets, and other long-term assets divided by total assets (*Invt*); the growth rate of revenue (*Growth*); the degree of marketisation of the area in which the firm is located (*MI*); the ratio of market value to book value (*MTB*); the type of firm ownership (*SOE*); whether the firm's chairman is also the CEO (*CEOduality*); and board size (*GOVsize*). The annual fixed effect and the industry fixed effect are controlled for in the model.

Table 11 reports the results of the regression analysis of model (4). In the first column, the coefficient of *Treat* (Coefficient=0.0929) is positive and significant at the 10% level, indicating that implementing equity incentive plans has a positive impact on firm performance. In the second column, the coefficient of *Deregulation*×*Treat* (Coefficient=0.1488) is significant and positive at the 10% level, which indicates that after the deregulation, implementing equity incentive plans has a stronger positive effect on firm performance compared with before the deregulation. In summary, these findings further

prove that our empirical results are consistent with optimal contract theory: that is, the design of the management control system aims to ensure the implementation of the organisational strategy.

### Table 11 Effect of Implementing Equity Incentive Plans on Firm Performance

This table reports the regression analysis results for the effect of implementing equity incentive plans on firm performance. *Tobin's Q is* the dependent variable. *Deregulation* equals 1 if the firm year is 2017 or 2018, and 0 otherwise. Treat equals 1 if the samples are in the treatment group and 0 otherwise. *Lnassets* is the natural logarithm of total assets. *Debt* is the asset-liability ratio. *Invt* is cash paid for the acquisition and construction of fixed assets, intangible assets, and other long-term assets divided by total assets. *Growth* is the growth rate of revenue. *MI* is the degree of marketisation of the area in which the firm is located. *MTB* is the ratio of market value to book value. *SOE* is the type of firm ownership. *CEOduality* indicates whether the firm's chairman is also the CEO. *GOVsize* represents board size (*GOVsize*). All of our control variables have a one-period lag. t statistics are presented in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively (two-tailed test).

	(1)	(2)
	Tobin's Q	Tobin's Q
Treat	0.0929*	0.0227
	(1.6601)	(0.2865)
Deregulation		-0.2072***
		(-2.6960)
<i>Treat</i> × <i>Deregulation</i>		0.1488*
-		(1.7131)
Lnassets	-0.1958***	-0.1959***
	(-3.9898)	(-3.9756)
Debt	0.8230*	0.8178*
	(1.8272)	(1.7992)
Invt	-0.3008	-0.3190
	(-0.7090)	(-0.7539)
Growth	0.0436***	0.0435***
	(2.9465)	(2.8678)
MI	-0.0473*	-0.0383
	(-1.8265)	(-1.4080)
MTB	795.2162***	794.8871***
	(14.2609)	(14.2704)
SOE	0.0646	0.0526
	(1.1779)	(0.9588)
CEOduality	-0.0092	-0.0163
	(-0.1783)	(-0.3167)
GOVsize	0.0015	-0.0006
	(0.0835)	(-0.0331)
_cons	5.1356***	5.1923***
	(4.6491)	(4.7070)
Year Dummy	Yes	Yes
Industry Dummy	Yes	Yes
Ν	2465	2465
adj. R <sup>2</sup>	0.7887	0.7874

### 5.2 Dealing with Endogeneity

All of the above results alleviate the alternative explanation of CEO power theory. However, it is still not enough to demonstrate that the design of equity incentive plans is driven by the need to implement organisational strategy. Although we control for some variables which could capture observable confounds, there could be other unobservable confounding factors that relate to both firm strategy and the design of equity incentive plans (e.g. CEO traits; Van den Steen, 2018) that bias the results.

To control for endogeneity and selection bias, we follow Maddala (1983) by using the treatment effect model. This model is appropriate in our setting because it corrects for biased estimates that result from a non-random treatment effect. In the first stage, we model the selection of prospectors versus defenders by estimating a probit selection model using variables that reflect observable characteristics related to strategy type. Specifically, *Prospector\_1* and *Prospector\_3* are dependent variables. *Prospector\_1* (*Prospector\_3*) equals 1 if a firm's strategy variable *STRA\_1* (*STRA\_3*) is higher than the mean of the industry and 0 otherwise. Independent variables include the degree of marketisation in the province where the firm is located (*MI*), the natural logarithm of total assets (*Liassets*), firm's listed years (*Listyear*), industry competition intensity (*CI*), life cycle variables (*Life1* and *Life2*), CEO's tenure (*Tenure*), CEO's age (*Age*), and CEO's education level (*Degree*). Following Lian and He (2015), *Degree* is measured on the basis of the highest education level obtained by the CEO (1 = Technical secondary school degree, 2 = College degree, 3 = Bachelor's degree, 4 = Master's degree, 5 = Doctoral degree).

In the second stage, we impose exclusion restrictions on MI, Lnassets, Listyear, CI, Lifel, Life, Tenure, Age, and Degree, which are shown in the first-stage model. Instead of influencing the design of equity incentive plans directly, prior studies show that MI has a more direct impact on firm strategy: that is, firms in provinces with higher MI often tend to adopt a defender strategy (Higgins et al., 2015; Meng et al., 2018). Specifically, in provinces with higher MI, the market economic system is established earlier, the support from national policy is stronger, and market maturity is higher. In such a market environment, listed companies often go through a long period of development, so that their business patterns are relatively stable. Market development and product development need to break through original business patterns and will lead to high-level opportunity costs for these firms. Therefore, firms in provinces with higher MI often tend to adopt a defender strategy. On the contrary, in provinces with lower MI, the market economic system is established late, the support from national policy is weaker, and market maturity is lower. In such a market environment, companies need to constantly seek new products and market opportunities to adapt to the rapidly changing market environment (Meng et al., 2018), and as a result, firms in provinces with lower MI often tend to adopt a prospector strategy. The reason why Lnassets, Listyear, Life1, and Life are excluded from the second-stage model is similar to the reason for excluding *MI*, namely, all these variables have more direct impacts on firm strategy. Specifically, on the basis of prior discussions, larger scale firms often have more resources and are not afraid of bearing opportunity costs to seek diverse product-market portfolios; therefore, they are more likely to adopt a prospector strategy. In addition, the longer the period of development firms have gone through or the more mature the firms' life cycle stages are, the less willing these firms are to break through original business patterns, which means they are more likely to adopt a defender strategy. The reason why *CI* is excluded from the second-stage model is that *CI* represents the degree of industry competition and prior literature shows that instead of influencing the design of equity incentive plans directly, *CI* has a more direct impact on firm strategy (Zhu and Gan, 2015). The reason why CEO's characteristics, including *Tenure*, *Age*, and *Degree*, are excluded from the second-stage model is that CEO's characteristics have direct impacts on firm strategy (Lian and He, 2015) rather than the design of equity incentive plans.

In the second stage, we include the inverse Mills ratio (*Lamda*) in all of our regressions testing the effects of firm strategy on the design of equity incentive plans, and we control for industry competition type (*CT*), regulated industry (*Regulation*), nature of firm (*SOE*), the asset-liability ratio (*Debt*), the ratio of operating cash flow to total assets (*OCF*), the ratio of market value to book value (*MTB*), the standard deviation of ROE in the past 3 years (*ROEvolatility*), the standard deviation of daily stock returns in one accounting year (*RETvolatility*), CEO duality (*CEOduality*), the number of directors on the board (*GOVsize*), the proportion of managerial ownership (*GOVshare*), the proportion of the largest shareholder (*GOVconcen*), and the proportion of institutional shareholders (*GOVinst*). All of our independent variables have a one-period lag.

To avoid the multiple collinearity of competition intensity CI and competition type CT, we do not control for the industry fixed effect in models 5 and 6. The first probit model is shown as model (5), and the general form of the second-stage model is shown as model (6):

$$Prospector\_1_{i,t} / Prospector\_3_{i,t} = \alpha_0 + \alpha_1 MI_{i,t} + \alpha_2 Lnassets_{i,t} + \alpha_3 Listyear_{i,t} + \alpha_4 CI_{i,t} + \alpha_5 Life 1_{i,t} + \alpha_6 Life 2_{i,t} + \alpha_7 Tenure_{i,t} + \alpha_8 Age_{i,t} + \alpha_9 Degree_{i,t} + Year Dummy + \varepsilon$$
(5)  
$$Dependent Variables_{i,t} = \alpha_0 + \alpha_2 Prospector\_1_{i,t-1} / Prospector\_3_{i,t-1} + \alpha_2 Lamda + \sum_i \alpha_i Control Variables_{i,t-1} + Year Dummy + \varepsilon$$
(6)

Table 12 shows the results of the regression analysis of model (5). The results in both columns indicate that the higher the level of *Lnasset*, *Tenure*, or *Degree* or the lower the level of *Age*, the more likely firms are to adopt prospector strategies. The influences of the other independent variables are not significant. We then use the parameters from the first-stage selection model to compute an inverse Mills ratio.

### Table 12 Probit Results from Estimation of the First-Stage Model

This table reports the probit results from the estimation of the first-stage model. *Prospector*\_1 and *Prospector*\_3 are the dependent variables. *Prospector*\_1 (*Prospector*\_3) equals 1 if the firm strategy variable *STRA*\_1 (*STRA*\_3) is higher than the mean of the industry and 0 otherwise. *MI* is the degree of marketisation in the province where the firm is located. *Lnassets* is the natural logarithm of total assets. *Listyear* is the firm's listed years. *CI* represents industry competition intensity and equals 1- HHI. *Life1* equals 1 if a firm is in the introduction or growth stage of the life cycle and 0 otherwise. *Life2* equals 1 if a firm is in the mature stage of the life cycle and 0 otherwise. *Tenure*, *Age*, and *Degree* represent CEO's tenure, age, and education level, respectively. Specifically, *Degree* is measured on the basis of the highest education level obtained by the CEO, where 1 = Technical secondary school degree, 2 = College degree, 3 = Bachelor's degree, 4 = Master's degree, and 5 = Doctoral degree. To avoid the multiple collinearity of competition intensity *CI*, we do not control for the industry fixed effect in the model. z statistics are presented in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

	(1)	(2)
	Prospector_1	Prospector_3
MI	0.0473	0.0442
	(1.6304)	(1.2693)
Lnassets	0.1610***	0.1270**
	(3.7117)	(2.4913)
Listyear	-0.0148	-0.0238**
	(-1.6249)	(-2.2459)
CI	-0.8317	-1.5838
	(-1.1201)	(-1.6443)
Lifel	0.1621	0.2106
	(1.3618)	(1.4878)
Life2	-0.0534	0.0790
	(-0.4173)	(0.5197)
Tenure	0.0024**	0.0020
	(2.0871)	(1.6034)
Age	-0.0101*	-0.0220***
	(-1.6857)	(-2.8528)
Degree	0.1601***	0.1736***
	(3.8080)	(3.2961)
_cons	-3.4121***	-1.2682
	(-2.8818)	(-0.8773)
Year Dummy	Yes	Yes
Ν	1239	798
pseudo R <sup>2</sup>	0.0589	0.0591

Table 13 shows the results of the regression analysis of model (6). Panel A reports the effect of organisational strategy on the selection of incentive objects. It shows that the coefficients of *Lamda* in both columns are significant, indicating the existence of selection bias. Moreover, after controlling for selection bias, the coefficients of *Prospector\_1* (Coefficient=-0.3517) and *Prospector\_3* (Coefficient=-0.3747) are both negative and still

significant at the 1% level. Panel B reports the effect of organisational strategy on the setting of profit performance targets. The results in Panel B show that the coefficients of *Lamda* in all eight columns are significant. Moreover, after controlling for selection bias, the coefficients of *Prospector\_1* and *Prospector\_3* are all negative and significant at least at the 5% level. Panel C reports the effect of organisational strategy on the setting of revenue performance targets. The results in Panel C show that the coefficients of *Lamda* in all columns are not significant and neither are the coefficients of *Prospector\_1* and *Prospector\_3*. In summary, these findings further prove that our empirical results are relatively robust after controlling for selection bias.

### Table 13 Regression Results from the Estimation of the Second-Stage Model

This table reports the results from the estimation of the second-stage treatment effect model. MOP in Panel A, DifficultA 1 / DifficultA 3 and DifficultB 1 / DifficultB 3 in Panel B, and Revdummy and Revrevise in Panel C are the dependent variables. MOP is the proportion of equity granted to top management relative to the total amount of equity in incentive plans. DifficultA 1 / DifficultA 3 is the difficulty of the net profit growth rate target for the first exercise of options or unlocking of restricted stocks / the average net profit growth rate target for the first three exercises of options or unlockings of restricted stocks. Difficult B 1 / DifficultB 3 is the difficulty of the ROE target for the first exercise of options or unlocking of restricted stocks / the average ROE target for the first three exercises of options or unlockings of restricted stocks. Revdummy equals 1 if the performance evaluation in the equity incentive plans includes revenue targets and 0 otherwise. Revrevise equals 1 if the performance evaluation in the equity incentive plans only includes revenue targets or includes revenue targets when the profit targets are lower than the expected level, and 0 otherwise. The key independent variables are Prospector 1 and Prospector 3. Prospector 1 (Prospector 3) equals 1 if the firm's strategy variable  $STRA_1$  ( $STRA_3$ ) is higher than the mean of the industry, and 0 otherwise. Landa is the inverse Mills ratio computed from the first stage. All of our independent variables have a one-period lag. To avoid the multiple collinearity of competition intensity CT, we do not control for the industry fixed effect in the model. t statistics are presented in parentheses in Panel A and Panel B, while z statistics are presented in parentheses in Panel C. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% levels, respectively (two-tailed test).

	(1)	(2)	
	М́Q́Р	М́QР	
Prospector 1	-0.3517***		
1 _	(-5.7914)		
Prospector 3		-0.3747***	
		(-5.7009)	
Lamda	0.1951***	0.2121***	
	(5.0970)	(5.1268)	
CT	-0.4048	-0.4568	
	(-1.5772)	(-1.3778)	
Regulation	-0.0234**	-0.0333**	
	(-2.0681)	(-2.1935)	
SOE	-0.0395*	-0.0392	
	(-1.8605)	(-1.5787)	
Debt	0.0515	-0.0125	
	(1.3811)	(-0.2559)	
OCF	-0.1180*	-0.1802**	
	(-1.7601)	(-2.0884)	
MTB	-2.5096	-3.0679	
	(-0.8433)	(-0.7077)	
ROEvolatility	-0.0138	0.0099	
-	(-0.2830)	(0.1670)	

-1 and $11$ - Entry of Orzanisational Stratezy on the Schennen of Equity incentive Objection	Panel A	Effect of Organisational Strateg	y on the Selection of Equi	v Incentive Obi	iects
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Does Organisational Strategy Influence the Design of Equity Incentive Plans?

RETvolatility	-0.0601	-0.1027
-	(-0.1802)	(-0.0789)
CEOduality	-0.0260**	-0.0244
	(-2.2030)	(-1.5585)
GOVsize	-0.0024	-0.0076
	(-0.6656)	(-1.6403)
GOVshare	-0.0809***	-0.0680
	(-2.7736)	(-1.5712)
GOVconcen	0.0005	0.0003
	(1.0359)	(0.5254)
GOVinst	-0.0004	-0.0030**
	(-0.3490)	(-2.0257)
cons	0.4114***	0.5071***
_	(8.5870)	(7.8299)
Year Dummy	Yes	Yes
N	1223	787
adj. R <sup>2</sup>	0.0822	0.0993

# Panel B Effect of Organisational Strategy on the Setting of Profit Performance Targets

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	DifficultA_1	DifficultA_1	DifficultA_3	DifficultA_3	DifficultB_1	DifficultB_1	DifficultB_3	DifficultB_3
Prospector_1	-11.3344***		-6.4368***		-0.2411***		-0.1909***	
	(-3.2570)		(-3.2567)		(-3.9027)		(-3.0444)	
Prospector_3		-15.4837***		-8.1708***		-0.1694***		-0.1441**
		(-3.5288)		(-3.2715)		(-3.0223)		(-2.5572)
Lamda	6.5918***	9.1630***	3.7473***	4.9962***	0.1489***	0.0860**	0.1173***	0.0658*
	(3.0085)	(3.3203)	(3.0112)	(3.1806)	(3.9305)	(2.4841)	(3.0515)	(1.8925)
CT	-0.5813	-3.7769	-2.3987	-3.0429	-0.1225	-0.1902	-0.1253	-0.1756
	(-0.0386)	(-0.1664)	(-0.2807)	(-0.2355)	(-0.3207)	(-0.4710)	(-0.3230)	(-0.4326)
Regulation	0.5275	0.3834	0.0779	-0.0429	0.0127	0.0258**	0.0079	0.0232*
	(0.8133)	(0.3747)	(0.2115)	(-0.0737)	(1.1431)	(2.0179)	(0.6990)	(1.8039)
SOE	-1.4231	-1.9016	-0.7997	-1.0410	0.0112	0.0136	0.0111	0.0076
	(-1.1743)	(-1.1510)	(-1.1618)	(-1.1070)	(0.7427)	(0.9435)	(0.7309)	(0.5220)
Debt	1.2023	1.4160	0.6983	1.2837	0.1837***	0.1032***	0.1489***	0.0676*
	(0.5566)	(0.4308)	(0.5691)	(0.6862)	(5.5055)	(2.8038)	(4.3976)	(1.8282)
OCF	-5.2127	-4.3698	-4.2787**	-4.6685	-0.1311**	-0.0655	-0.1148**	-0.0930
	(-1.3793)	(-0.7609)	(-1.9934)	(-1.4280)	(-2.3992)	(-1.0854)	(-2.0691)	(-1.5336)
MTB	14.9634	12.8346	-61.7402	-54.7095	2.6016	2.1592	3.3697	0.4884
	(0.0865)	(0.0435)	(-0.6286)	(-0.3259)	(0.6769)	(0.4800)	(0.8637)	(0.1081)
ROEvolatility	-1.9341	-4.8270	-0.7456	-2.7081	-0.3194***	-0.1580***	-0.3142***	-0.1717***
	(-0.5767)	(-0.9375)	(-0.3914)	(-0.9241)	(-7.3730)	(-3.4466)	(-7.1444)	(-3.7265)
RETvolatility	1.3094	277.6153***	-3.3530	99.5701**	-0.6587	2.7871**	-0.1853	2.8715**
	(0.0676)	(3.1464)	(-0.3049)	(1.9826)	(-0.7477)	(2.4751)	(-0.2072)	(2.5377)
CEOduality	0.2140	0.3681	-0.0531	-0.0871	-0.0166	-0.0051	-0.0119	-0.0055
	(0.3187)	(0.3517)	(-0.1392)	(-0.1463)	(-1.4968)	(-0.3983)	(-1.0568)	(-0.4220)
GOVsize	-0.3529*	-0.4738	-0.2842**	-0.4096**	-0.0009	-0.0005	0.0007	-0.0009
	(-1.7269)	(-1.5492)	(-2.4487)	(-2.3528)	(-0.2881)	(-0.1405)	(0.2241)	(-0.2509)
GOVshare	-3.0997*	-4.8917*	-1.0835	-1.7293	-0.0973***	-0.0231	-0.1005***	-0.0360
	(-1.8919)	(-1.7108)	(-1.1644)	(-1.0626)	(-3.8332)	(-0.6416)	(-3.9025)	(-0.9959)
GOVconcen	-0.0246	-0.0177	-0.0140	-0.0134	-0.0003	-0.0005	-0.0004	-0.0004
	(-0.8937)	(-0.4078)	(-0.8963)	(-0.5415)	(-0.8459)	(-1.1462)	(-1.1898)	(-1.0401)
GOVinst	-0.0240	-0.0691	-0.0306	-0.0652	-0.0001	-0.0016*	-0.0010	-0.0019**
	(-0.3865)	(-0.7029)	(-0.8691)	(-1.1645)	(-0.1169)	(-1.6660)	(-1.1056)	(-2.0661)
_cons	8.4198***	6.4781	5.9202***	5.8026**	0.0576	-0.0133	0.0238	0.0118
	(3.1183)	(1.5283)	(3.8604)	(2.4050)	(0.8940)	(-0.2094)	(0.3639)	(0.1849)
Year Dummy	Yes							
N	1076	685	1076	685	340	192	340	192
adj. R <sup>2</sup>	0.0089	0.0258	0.0154	0.0218	0.3979	0.1962	0.3438	0.2019

	(1)	(2)	(3)	(4)
	Revdummy	Revdummy	Revrevise	Revrevise
Prospector_1	0.3153	-	0.1094	
	(0.4325)		(0.1285)	
Prospector_3	· · · · ·	0.2540	· /	0.1684
		(0.3248)		(0.1827)
Lamda	-0.1180	0.0480	0.1867	0.2703
	(-0.2560)	(0.0974)	(0.3438)	(0.4631)
CT	4.7330	0.9822	3.1468	0.0707
	(1.6255)	(0.2639)	(0.9897)	(0.0170)
Regulation	-0.2574*	-0.2992*	-0.2199	-0.3601*
-	(-1.8884)	(-1.6596)	(-1.3798)	(-1.7083)
SOE	-0.1547	0.0189	-0.0705	0.1736
	(-0.5613)	(0.0626)	(-0.2164)	(0.4881)
Debt	-0.7061	-0.9164	0.2078	-0.2040
	(-1.5424)	(-1.5571)	(0.3804)	(-0.2912)
OCF	-0.0055	0.4736	1.6728*	1.3648
	(-0.0066)	(0.4427)	(1.6572)	(1.0604)
MTB	-13.5014	-24.2528	30.7487	16.2156
	(-0.3792)	(-0.4493)	(0.7902)	(0.2674)
ROEvolatility	-0.4914	-1.5391	-1.2245	-2.0750
	(-0.6312)	(-1.2260)	(-1.0813)	(-1.2517)
RETvolatility	1.6172	-3.9344	2.9110	4.2856
-	(0.4267)	(-0.2538)	(0.7351)	(0.2396)
<b>CEOduality</b>	0.1929	0.0434	0.2111	0.1026
	(1.3879)	(0.2403)	(1.2833)	(0.4878)
GOVsize	-0.0053	-0.0282	-0.0146	-0.0292
	(-0.1219)	(-0.5160)	(-0.2873)	(-0.4622)
GOVshare	0.2346	0.3837	0.3569	0.5961
	(0.6758)	(0.7717)	(0.8457)	(1.0092)
GOVconcen	0.0024	0.0075	-0.0037	0.0000
	(0.3793)	(0.9329)	(-0.4460)	(0.0011)
GOVinst	-0.0023	-0.0048	0.0314*	0.0281
	(-0.1627)	(-0.2568)	(1.9472)	(1.3443)
cons	-0.6831	-0.2161	-1.3887**	-1.1375
	(-1.1991)	(-0.2828)	(-2.1093)	(-1.2841)
Year Dummy	Yes	Yes	Yes	Yes
N	1221	798	1221	798
pseudo R <sup>2</sup>	0.0362	0.0381	0.0677	0.0730

Panel C Effect of Organisational Strategy on the Setting of Revenue Performance Targets

# 5.3 The Effect of Organisational Strategy on the Scale of Equity Incentive Plans

The main empirical results of this paper relate to the design of equity incentive plans. However, according to our hypothesis, prospectors demand more equity incentives, whereas defenders only regard equity incentives as a preventive mechanism to balance managers' long-term and short-term decision-making horizons. Thus, prospectors tend to offer more equity incentives than defenders. We construct a variable *Cost* to measure the scale of equity incentives offered by firms. For equity incentive plans that only contain stock options, the value of each option is calculated using the European option pricing model and then multiplied by the total number of stock options granted for the first time and taken as the

### Table 14 Effect of Organisational Strategies on the Scale of the Equity Incentive Plans

This table reports the regression analysis results for the effect of organisational strategy on the scale of equity incentive plans. We construct a variable *Cost* to measure the scale of equity incentives offered by firms. For equity incentive plans that only contain stock options, the value of each option is calculated using the European option pricing model and then multiplied by the total number of stock options granted for the first time and taken as the natural logarithm to obtain the scale of the equity incentive plans. For equity incentive plans that only contain restricted stocks, the value of each restricted stock equals the closing price of the listed firm on the grant date minus the first grant price, and this is then multiplied by the number of restricted stocks awarded for the first time and taken as the natural logarithm to calculate the scale of the equity incentive plans. For equity incentive plans that contain both stock options and restricted stocks, the above two methods are used to obtain the total value of the stock options and the total value of the restricted stocks, and the scale of the equity incentive plans is then obtained by adding the two values and taking the natural logarithm. We use *Cost* as the dependent variable and *STRA\_1* and *STRA\_3* as the key independent variables. All of our independent variables have a one-period lag. To avoid the multiple collinearity of competition intensity *CI* and competition type *CT*, we do not control for the industry fixed effect in the model. t statistics are presented in parentheses. \*\*\*, \*\*, and \* indicate significance at the 1%, 5%, and 10% level, respectively (two-tailed test).

$\begin{array}{c cccc} \hline Cost & Cost \\ \hline STRA\_1 & 0.0291^{***} \\ (4.2069) \\ STRA\_3 & 0.0267^{***} \\ (2.5974) \\ Life1 & -0.1909^{***} & -0.1668^{**} \\ (-3.8782) & (-2.0704) \\ Life2 & -0.1712^{***} & -0.1990^{***} \\ \end{array}$	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
$\begin{array}{cccc} (4.2069) & & & & & & & & & & & & & & & & & & &$	
STRA_3       0.0267***         Life1       -0.1909***       -0.1668**         (-3.8782)       (-2.0704)         Life2       -0.1712***       -0.1990***	
$\begin{array}{cccc} & & & & & & & & \\ Life1 & & -0.1909^{***} & & -0.1668^{**} \\ & & & (-3.8782) & & (-2.0704) \\ Life2 & & -0.1712^{***} & & -0.1990^{***} \end{array}$	
Life1 -0.1909*** -0.1668** (-3.8782) (-2.0704) Life2 -0.1712*** -0.1990***	
Life2 (-3.8782) (-2.0704) -0.1712*** -0.1990***	
<i>Life2</i> -0.1712*** -0.1990***	
(-4.5328) (-2.7251)	
<i>CI</i> 0.3204 0.7784	
(0.7954) (1.5863)	
CT 2.8656** 2.9406**	
(1.9964) (1.9654)	
<i>MI</i> -0.0213 -0.0026	
(-1.4762) (-0.1502)	
<i>Regulation</i> 0.1001* 0.1367**	
(1.7189) (2.3900)	
SOE -0.2889*** -0.2202**	
(-3.5959) (-2.5131)	
<i>Lnassets</i> 0.5984*** 0.6117***	
(9.6586) (9.5345)	
<i>Debt</i> 0.1958 0.0450	
(0.7622) $(0.3062)$	
OCF 0.4341** 0.7520***	
(2.1335) (3.9476)	
MTB 84.7808*** 120.3527***	
(6.0640) (8.0055)	
<i>ROEvolatility</i> 0.0333 0.1143	
(0.2053) (0.9307)	
<i>RETvolatility</i> -1.0990 -0.8316	
(-0.4024) (-0.0971)	
<i>CEOduality</i> 0.0864 0.1680**	
(1.3718) (2.2037)	
GOVsize 0.0281** 0.0226*	
(2.3295) (1.7787)	
<i>GOVshare</i> -0.0527 -0.2810***	
(-0.2903) (-2.7120)	
<i>GOVconcen</i> 0.0002 -0.0057**	
(0.0357) (-2.4389)	
<i>GOVinst</i> 0.0097 0.0004	
(1.2519) (0.0573)	
_cons -6.1730*** -7.0462***	
(-4.3121) (-4.4283)	
Year Dummy Yes Yes	
N 1354 891	
adj. R <sup>2</sup> 0.9653 0.9694	

natural logarithm to obtain the scale of the equity incentive plans. For equity incentive plans that only contain restricted stocks, the value of each restricted stock is calculated as the closing price of the listed firm on the grant date minus the first grant price and then multiplied by the number of restricted stocks awarded for the first time and taken as the natural logarithm to calculate the scale of the equity incentive plans. For equity incentive plans that contain both stock options and restricted stocks, the above two methods are used to obtain the total value of the stock options and the total value of the restricted stocks, and the scale of equity incentive plans is then obtained by adding the two values and taking the natural logarithm.

The results of the regression analysis are shown in Table 14. The coefficient of *STRA\_1* (Coefficient=0.0291) in the first column and the coefficient of *STRA\_3* (Coefficient=0.0267) in the second column are both significantly positive at the 1% level, indicating that the more "prospector-characterised" the organisational strategy is, the larger the scale of the equity incentive plans. These results support our prediction that there is a positive relationship between organisational strategy and the scale of equity incentive plans.

### 5.4 Alternative Measurement of Organisational Strategy

Following Bentley *et al.* (2013), we construct another two organisational strategy variables, *Strategy\_1* and *Strategy\_3*. *Strategy\_1* equals -1 when *STRA\_1* is less than or equal to 12, which means that the firm adopts a defender organisational strategy. *Strategy\_1* equals 0 when *STRA\_1* is greater than 12 and less than 24, which means that the firm adopts an "analyser" organisational strategy. Finally, *Strategy\_1* equals 1 when *STRA\_1* is greater than or equal to 24, which means that the firm adopts a prospector organisational strategy. The reference value of *Strategy\_3* is *STRA\_3*, and the calculation process is the same as that for *Strategy\_1*. Unreported results show that when the organisational strategy variable is *Strategy\_1* or *Strategy\_3*, the main hypotheses of this paper still hold and the significance of the statistics remains basically unchanged.

### VI. Research Conclusions and Limitations

Organisational strategy is the cornerstone of a management control system (Langfield-Smith, 1997). According to the organisational strategy classification system of Miles and Snow (1978), prospectors seek to develop new products and rapidly respond to the market to build competitive advantage, whereas defenders form a competitive advantage through cost control and fully exploiting the existing market. During the strategy implementation process, prospectors place greater emphasis on the long-term nature of business than defenders, which leads to obvious differences in the design of their respective management control systems. We investigate the effect of organisational strategy on the design of performance-based equity incentive plans, which is one important component of a

management control system. Our empirical results show that compared with defenders, prospectors are more inclined to motivate middle managers through their equity incentive plans. In addition, prospectors set less difficult profit performance targets in their equity incentive plans and are more likely to incorporate revenue performance targets into their performance evaluation. The main results of this paper show that organisational strategy is a key factor affecting the design of performance-based equity incentives. Specifically, prospectors pay greater attention than defenders to the role of performance-based equity incentives in motivating employees' long-term behaviour and encouraging cooperation and knowledge sharing among employees.

To mitigate the alternative explanation of the agency problem based on CEO power theory, we first conduct a subsample test based on variation in the degree of CEO power (low vs. high CEO power) and find that the negative effect of organisational strategy on the difficulty of the profit target mainly appears in the low CEO power group rather than the high CEO power group, which is inconsistent with CEO power theory. In addition, the CSRC relaxed the mandatory requirements regarding performance target design in 2016. This deregulation gives us a great opportunity to examine the logical paths behind our main findings. We then conduct another subsample test based on the variation in the implementation time of equity incentive plans (before vs. after the deregulation), and we find that the negative effects of organisational strategy on target difficulty are stronger before the deregulation rather than after the deregulation, which is also inconsistent with CEO power theory. Finally, we use the CSRC's deregulation in 2016 as an exogenous shock and adopt the DID model to investigate whether implementing equity incentive plans has different effects on firm performance before and after the deregulation. We find that the results are consistent with optimal contract theory. To control for endogeneity and selection bias, we follow Maddala (1983) by using the treatment effect model. After controlling for selection bias, our main results still hold. In conclusion, the results of this paper conform with the optimal contract theory, which states that the design of incentive compensation is oriented towards organisational strategy.

This paper has several potential limitations. First, although we consider the alternative explanation of management power and use statistical methods to mitigate its effects on our conclusions, we could not completely eliminate its influence. Second, other methods can be used to measure organisational strategy. However, due to data limitations, we could not use other classifications of strategies in this paper. Future studies could use other measures to construct organisational strategy. Third, as proposed by Merchant and Van der Stede (2007), there are two ways to reduce managers' short-termism: one is replacing some weights of financial performance measures with non-financial performance measures; the other is reducing the difficulty of the targets. We have examined the influence of firm strategies on target difficulty; however, due to the data limitations of the non-financial performance

measures, we were unable to examine the effect of firm strategies on the use of non-financial performance measures. Fourth, the investigations of the performance evaluation processes and incentives of top management and middle management in this paper are both based on firm-level performance targets, which constitute the first requirement for managers seeking to execute equity incentive plans. However, individual-level performance targets, which constitute the second requirement for managers seeking to execute equity incentive plans, may better reflect the incentives of managers, especially those of middle managers whose compensation is not completely tied to their firms. Future studies could conduct more explorations in this area.

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