Knighthoods, Damehoods, and CEO Behaviour

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Abstract

We study whether and how politicians can influence the behaviour of CEOs and firm performance with prestigious government awards. We present a simple model to develop the hypothesis that government awards have a negative effect on firm performance. The empirical analysis uses two legal reforms in New Zealand for identification: Knighthoods and damehoods were abolished in April 2000 and reinstated in March 2009. The findings are consistent with the predictions of the model. The results suggest that government awards serve as an incentive tool through which politicians influence firms in favour of employees to the detriment of shareholders.

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Keywords: Awards; CEO Incentives; Employment; Stakeholder-oriented Firms

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"An outstanding British business leader and premier airline strategist, Tim Clark has made an enormous contribution to British prosperity. [U]nder his leadership Emirates' aeroplane and engine purchasing strategy has secured thousands of British engineering and aerospace jobs."

Official citation for the award of a knighthood to Tim Clark, CEO of Emirates Airlines, in 2013.

1 Introduction

Governments in many countries reward corporate executives with honours such as knighthoods.[1] These awards typically do not carry any direct material benefits. Rather, their value comes from the accompanying social recognition or status. Extant research suggests that CEOs indeed care about their status: They underperform after winning business press awards (Malmendier and Tate, 2009), and they accept lower compensation to work for more prestigious firms (Focke et al., 2015). In this paper, we study the consequences of government awards for firms. This topic has received little, if any, consideration by finance and economics research. In particular, we attempt to address the following questions: Do government awards affect CEO behaviour and firm performance, and, if so, how? Do CEOs sacrifice profits in pursuit of government awards? Or are awards merely a sideshow without any real effects on corporate practices?

Government awards may affect the behaviour of CEOs through two principal channels: The prospect of receiving an award in the future might alter CEO incentives today (ex ante effect). Or the receipt of an award might subsequently lead to changes in corporate practices (ex post effect). Focusing on the ex ante channel, we propose that government awards are an incentive mechanism through which politicians influence CEOs.

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[1]Examples of government awards are knighthoods (United Kingdom), the Legion of Honour (France), the Order of Orange-Nassau (Netherlands), and the Order of Merit of the Federal Republic of Germany.

Our central hypothesis is that firms underperform when their CEOs are subjected to such influence. We first present a simple model to develop this idea. Then we examine the effects of government awards on firm performance and employment by exploiting two quasi-natural experiments, the abolishment of knighthoods and damehoods in New Zealand in 2000 and their reintroduction in 2009.

The prediction that awards have a negative effect on firm performance is based on the premise that politicians, who bestow the awards, and shareholders have conflicting objectives. This premise is consistent with the two standard economic views about the drivers of political intervention. According to the public interest theory, politicians are benevolent and deal with market failures or externalities (Pigou, 1938). As applied to our setting, this view suggests that politicians use awards to induce managers to maximize the welfare of the firm's various stakeholders. On the other hand, the political economy view holds that politicians are self-interested and influence CEOs to secure their reelection. Either way, it seems plausible that politicians and shareholders have different objectives.[2] Hence, if awards have any effect on firm performance, we would expect it to be negative.

As regards the specific channel, we hypothesize that awards alter firms' employment decisions. This is arguably a natural target variable. For example, a self-interested politician might push a CEO towards hiring too many workers to cater to voters.[3] Along these lines, Shleifer and Vishny (1994) argue that politicians want state-owned firms to maintain excess employment. Recent empir-

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[2]This does not rule out partial congruence between shareholders and politicians. For example, the government may benefit from a profitable firm through higher taxes.

[3]It may also be desirable from a stakeholder perspective to promote employment protection if firms do not bear the full costs of lay-offs. For instance, CEOs may not take into account the financial costs that lay-offs impose on unemployment insurance systems. Blanchard and Tirole (2008) derive conditions under which lay-off taxes on firms can be optimal to correct this externality.

ical evidence suggests that protection of employees is indeed a relevant political objective. Chen et al. (2015) study resource allocation within Chinese state business groups and document that their managers are not only rewarded based on firm performance but are also given strong incentives to avoid mass layoffs.

Based on the premise that shareholders and politicians have conflicting objectives we develop a simple stylized moral hazard model in which the CEO is answerable not only to shareholders but also to the government as a principal: On the one hand, both monetary compensation and implicit career concerns push the manager towards profit maximization. On the other hand, the government award aligns her incentives with the politician. Following Besley and Ghatak (2008), we view the award as part of an implicit contract. The main prediction is that the existence of the government award makes the firm less profitable.

Establishing causal effects of awards on outcomes is challenging because of endogeneity concerns. First, there may be unobserved, omitted variables correlated with both firm behaviour and the award. For example, if a CEO is politically well connected, this may increase both firm performance and the probability of obtaining an award. Second, the causality may run from performance to award decisions rather than the reverse. To overcome the endogeneity concerns our identification strategy revolves around two legal reforms in which New Zealand first abolished, and then reintroduced, the most prestigious award given by the government to corporate executives: Knighthoods and damehoods. Only citizens of New Zealand are eligible for this honour, which allows the recipient to put a Sir or Dame in front of his or her name. We examine the reaction of firms on the A-list of the New Zealand Stock Exchange to the two reforms. Due to the nationality requirement, only CEOs with New Zealand citizenship are affected, whereas foreign CEOs are never eligible for the honour. The unconditional annual probability that a domestic CEO receives an honour is

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approximately 2% during the periods when the award system is in place. This setting naturally lends itself to a difference-in-differences methodology in which we contrast performance and employment policies at firms run by New Zealand CEOs (treatment group) with firms run by foreign CEOs (control group). For this approach to identify causal effects of the two reforms, the outcome variables should follow the same trends for the treatment and control group in the absence of the reforms. We first present evidence in support of this key identifying assumption before proceeding with the analysis.

The main empirical results can be briefly summarized as follows. First, we find significant changes in firm performance around the two reforms. After the first reform, performance, as measured by operating margin, improves at treated firms relative to the control group, whereas the reintroduction of knighthoods leads to declining firm performance. Moreover, event study evidence around the announcement of the two reforms suggests that the stock market places a negative value on government awards. Second, we identify the number of employees as a channel through which awards affect performance: After the first reform, employment decreases at treated firms compared to control firms. In contrast, the reintroduction leads to a significant relative increase in employment. Neither a placebo test nor cross-sectional regressions explain away our results. Furthermore, additional tests address concerns about confounding events.

Our results have several implications. First, the findings suggest that CEOs' concern for status is an important motive that can have significant real effects on firm performance and employment policies. Second, status concerns can have a negative effect on shareholders. From their perspective, awards are a source of moral hazard that may require strengthening of traditional governance mechanisms such as board monitoring or compensation. Finally, from a welfare-economics perspective, our results admit different interpretations. Status concerns allow politicians to use awards as an

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incentive tool to influence firms' in favour of employees. On the one hand, the outcome might be efficient in the sense of maximizing the joint surplus of shareholders and employees. This would be the case if the benefits to employees from fewer dismissals (or more hirings) exceeded the costs to shareholders.[4] On the other hand, a less benign interpretation is that our results reflect catering by politicians to workers at the expense of overall efficiency. We cannot reject either of these theories.

Our paper is most closely related to the small literature on the role of status for CEOs. Malmendier and Tate (2009) consider business press awards as shocks to CEO status. They show that award-winning CEOs underperform and enjoy higher compensation. Like us, they therefore document potential costs to shareholders of (non-monetary) incentives provided by a third party. There are two crucial differences though. First, the awards in their paper are conferred by the news media rather than by the government. This difference is important as the objectives of the government may conflict with those of shareholders. Second, Malmendier and Tate focus on performance changes *after* the awards have been won, while we provide evidence in support of an ex ante effect of awards. In this respect, our findings are complementary to theirs.

Focke et al. (2015) and Siming (2015) provide direct evidence that CEOs attach a positive value to social status. Both studies find that CEOs accept lower pay in return for status. Focke et al. document that CEOs of prestigious firms earn lower compensation. They conclude that the social status associated with working for a prestigious firm allows boards to extract pay concessions from CEOs. Like us, Siming investigates government awards. He studies changes in executive pay around the elimination of awards in Sweden in the 1970s and concludes that they were valued by CEOs.[5] Here, we provide indirect evidence that status concerns matter for CEOs and focus on the

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[4]See Allen and Gale (2000), Tirole (2006), and Allen et al. (2015) for an analysis of the costs and benefits of stakeholder orientation.

[5]A crucial difference between Siming (2015) and the present paper concerns the selection of recipients: In his

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effect on corporate practices and performance.

Regulatory intervention in favour of a firm's stakeholders is widespread. In particular, many governments use regulations to protect employees (Botero et al. 2004; Lazear, 1990). Some countries mandate outright that shareholders share control of the firm with employees. For example, in Germany large firms are required by law to give board representation to their employees. Gorton and Schmid (2004) show that German codetermination has a negative effect on firm performance. Our findings suggest that awards can serve as an alternative policy instrument for the protection of employees.

Our paper is also related to the literature on political connections of CEOs. Bertrand et al. (2007) propose that CEOs whose past professional career involves government service help incumbent politicians to win re-election. They find that politically connected firms are less profitable and have higher rates of job creation than unconnected firms. Like us, they therefore show that political influence hurts shareholders and benefits employees. However, their underlying mechanism differs from ours in that we focus on awards rather than social ties.

The rest of the paper is organized as follows. Section 2 outlines a simple model to study the effect of government awards on firm behaviour and presents the empirical predictions. In Section 3, we discuss the institutional background for our empirical study. We describe the identification strategy and the data in Section 4. Section 5 includes the empirical results. Robustness tests relating to confounding events are presented in Section 6. Section 7 concludes.

study, awards were conferred almost automatically to CEOs, whereas the knighthoods here are bestowed much less frequent (see the discussion in Section 3 below). Around 82% of incumbent Swedish CEOs in the early 1970s were recipients of the award. Hence, his setting is arguably unsuitable to study the role of awards as incentive devices.

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2 Model and Empirical Hypotheses

2.1 Government Awards and Firm Performance

We present a simple moral hazard model with managerial career concerns to study how government awards affect managerial incentives and firm performance. There is one firm with three players: The manager, shareholders and the politician. Everyone is risk neutral. The manager is in charge of determining the firm's strategy. For simplicity, we only consider two possible strategies, "status quo" on the one hand and "innovation/reorganization" on the other. Profits under the status quo are $\pi > 0$, while the innovation strategy is more profitable and delivers $\Pi > \pi$. For example, the manager may raise profits through a labour-saving innovation. The status quo option is always available, whereas the manager cannot a priori access the innovation strategy. Its availability depends on both the manager's ability θ and her effort e. As in Holmström (1982) or Gibbons and Murphy (1992), the ability of the manager, $\theta \in \{\underline{\theta}, \bar{\theta}\}$, is initially unknown to everyone, including the manager. Everyone shares the same prior belief $p \in (0, 1)$ that she is competent ($\theta = \bar{\theta}$). Let $e \in [0, 1]$ denote the manager's unobservable effort which comes at a private cost $\frac{1}{2}ce^2$. If the manager is competent, she discovers the innovation strategy with probability e. An incompetent manager ($\theta = \underline{\theta}$) never succeeds in finding the innovation strategy, irrespective of the level of effort. Figure 1 presents the firm's technology.

Both the strategy decision and the firm's profits are publicly observable. After her strategy choice, the manager may receive two different kinds of payoffs. First, she obtains a reward in the managerial labour market that depends on her perceived ability. Let $u(p') \geq 0$ denote the manager's payoff that is increasing in the posterior belief p' that she is competent. We do not explicitly model the source of this benefit. For example, $u(p')$ could be the present value of all future wage payments,

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with the manager earning higher compensation if she is deemed to be more competent.[6] (For now, we abstract from monetary compensation, which is considered in Section 2.2.) Second, the manager may receive an award from the politician. After observing the strategy choice, the politician decides whether to confer a non-monetary award upon the manager that delivers a private benefit $B > 0$ to her. Following Besley and Ghatak (2008), the marginal cost to the politician of providing the award is zero; granting the honour is governed by an implicit contract between the two parties.

We assume that the politician prefers the firm to stick to the status quo with probability α; with probability $1 - \alpha$, he also prefers the innovation. Hence, α measures the extent to which the shareholders and the politician have opposing objectives. For example, the strategy choice may correspond to a labour-saving innovation that imposes large costs on laid-off employees. A public-spirited politician might oppose such a strategy on efficiency grounds, while a self-interested politician might do so due to reelection concerns

We solve the game backwards, starting with the award decision. The politician optimally rewards the manager if and only if she chooses his preferred strategy. Crucially, he can credibly commit to this policy ex ante. Since the award is costless, he is indifferent ex post and has no incentive to breach the implicit contract. Let p'_I (p'_{SQ}) denote the posterior belief about the manager's ability if she chose innovation (status quo). It can easily be checked that $p'_I = 1$ and $p_{SQ} \leq p$. That is, with the innovation strategy there is no doubt that the manager is competent, whereas choosing the status quo can never improve her reputation. Let $\Delta u \equiv u(p'_I) - u(p'_{SQ}) > 0$. If only the status quo option is available, the manager's decision problem is trivial and she obtains $\alpha B + u(p'_{SQ})$. If the manager discovers the innovation strategy, she compares the expected payoff under this strategy, $(1 - \alpha)B + u(p'_I)$, with the payoff under the status quo, $\alpha B + u(p'_{SQ})$. We assume that

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[6]Alternatively $u(p')$ may capture private benefits associated with running the firm. In this case a better reputation could be valuable because it reduces the risk of being fired and of losing these benefits.

$u(1) > B + u(p)$, that is, the manager's concern about her labour market reputation dominates the benefits from the government award irrespective of the level of α. Hence, the manager always chooses innovation if it is available. Besides being plausible, the assumption is conservative given that our goal is to analyse the distortions induced by government awards.

When choosing her effort, the manager maximizes the following expected payoff:

$$\max_e pe[(1-\alpha)B + u(p'_I)] + (1-pe)[\alpha B + u(p'_{SQ})] - \frac{1}{2}ce^2$$

Recall that the manager does not know her own type when choosing e. The optimal effort level is $e^* = \frac{p(\Delta u + (1-2\alpha)B)}{c}$. It is increasing in the labour market reward Δu. The higher the value of an enhanced market reputation, the greater the incentive to exert effort to signal ones type. Moreover, optimal effort is decreasing in the attractiveness of the government award, B, as long as the preferences of the politician and shareholders are sufficiently incongruent ($\alpha > 1/2$). Shareholders' expected profits are $pe^*\Pi + (1 - pe^*)\pi$. Since the optimal level of effort is increasing in Δu, so are expected profits. Moreover, we obtain the following comparative statics result.

Proposition 1. *If the preferences of the politician and shareholders are sufficiently incongruent ($\alpha > 1/2$), the government award system makes the firm less profitable.*

The negative effect on performance in the case of conflicting objectives arises from reduced managerial effort ex ante and not from a distorted strategy choice ex post. The prospect of receiving an award stifles managerial initiative. In the Appendix, we show that Proposition 1 continues to hold if shareholders can use monetary incentives. Moreover, we endogenize the private benefit B by letting it depend on how scarce the award is. The government award is modeled as a positional good, i.e., the manager enjoys a greater utility if only few of her peers also win the award. We show

that Proposition 1 also obtains in this more general setting.

2.2 Empirical Hypotheses

The remainder of the paper is devoted to testing two major hypotheses that are consistent with the above analysis. The first hypothesis is that government awards have a negative ex ante effect on firm performance. That is, the possibility of winning a government award distorts CEO incentives away from profit-maximisation. The empirical identification of this ex ante effect is difficult due to endogeneity concerns. We are interested in comparing the performance of CEOs that are exposed to award incentives to the counterfactual, that is, performance in the absence of award incentives. We address this challenge by exploiting two legal reforms in New Zealand for identification, the abolition in 2000 of knighthoods and damehoods and their reintroduction in 2009.

The second hypothesis addresses *how* awards destroy value and distort CEOs' operating decisions. We propose that government awards provide incentives to CEOs to protect employees. A politician might particularly care about the protection of employees and reward CEOs contingent on it because it affects voting behaviour.[7] The literature on political interference at state-owned firms suggests that employment is indeed an important target variable for politicians (Shleifer and Vishny, 1994; Chen et al. 2015). In order for changes in the award system to influence employment policies, CEOs must have sufficient regulatory or contractual flexibility. This assumption seems reasonable given the institutional environment. According to different studies, New Zealand has the seventh most flexible labour market and the lowest labour firing costs in the world (Botero et al., 2004; Porter et al., 2008).

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[7]Frey and Schneider (1978) provide evidence that a government's popularity declines as unemployment increases. Similarly, Wolfers (2002) shows that employment conditions affect voting behaviour.

3 Institutional Background to the Empirical Study

3.1 The New Zealand Order of Merit

Government honours have existed in various forms in New Zealand since 1848. Some of these are "titular," giving the right to put the title Sir or Dame in front of one's name. Until April 2000 and then again from March 2009, such titles are awarded as part of the New Zealand Order of Merit. There are five levels of distinction within the Order: Knights and Dames Grand Companion (GNZM), Knights and Dames Companion (KNZM or DNZM), Companions (CNZM), Officers (ONZM) and Members (MNZM). Only recipients of the two highest ranks–GNZM, KNZM and DNZM–become a knight or dame and can use the title Sir or Dame. In addition, they also receive insignia such as golden crosses, which are typically worn on formal occasions. However, the monetary value of these decorations is not more than some hundred dollars.[8]

Any New Zealander can nominate a fellow citizen for a titular honour. The purpose of the award is to recognize those "who in any field of endeavour, have rendered meritorious service to the Crown and the nation or who have become distinguished by their eminence, talents, contributions, or other merits." A Cabinet Committee of Ministers, chaired by the Prime Minister, selects the recipients in accordance with statutory quotas for each honour level.

3.2 Government Awards to CEOs

Fox (2005) documents that a large number of knights were created among business leaders and executives between $1917 - 1999$ in New Zealand: Along with public services and the judiciary, business has consistently been one of the three most frequent areas of work of honour recipients.

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[8]Unlike British life peerages the awards do not entail political power such as the right to sit and vote in the parliament.

Of the 458 knighthoods bestowed in this period, 137 (29.9%) were granted to men whose careers included significant business activities. Only one woman in New Zealand has been honoured with a damehood for services to business during this time period.

We examine the lists of honour recipients in the relevant years from 1997 to 2000, and 2009 to 2014, and find that a total of 36 women and men received dame- and knighthoods for their services to business.[9] Five of these recipients were CEOs of publicly traded firms. Thus, a present or former CEO of a publicly traded firm is knighted about once every two years. Given the small number of CEOs of listed firms in New Zealand this translates to an unconditional annual probability of approximately 2% that a CEO receives an honour.[10]

The small number of recipients does not allow for a formal analysis of the determinants of receiving a titled honour (e.g., a probit model or matching). Instead we carefully study the official award citations. According to them, stakeholder orientation plays a crucial role in the bestowal decisions of the government. For example, the former CEO of steel mill Steel & Tube, Nick Calavrias, was made ONZM for having "contributed to keeping thousands of New Zealanders employed by sourcing locally made products over cheaper international alternatives" (Governor–General, 2010). Furthermore, anecdotal evidence suggests that stakeholder orientation, especially in the form of job protection, matters for award decisions. For example, David Levene, who was knighted for his "services to business and the community" as CEO of the paint and wallpaper manufacturing firm Levene & Co, reflected on the grounds for his award: "Of course, you need to make profit in a

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[9]In addition, a CEO may also get a government honour for activities that are not related to his or her role as a business executive (e.g. charitable activities or voluntary work). In such cases the award citation does not read "for services to business."

[10]Calculated as the proportion of CEOs receiving knighthoods per year (one half) over the product of the average proportion of eligible, i.e. domestic, CEOs (two-thirds) times the average total number of listed firms on the A-list (42.5). This calculation is biased upwards since it does not take into account retired CEOs.

business, but most important for me was security for my people and my family. I'm happy to do anything I can to support the country" (Tapaleao, 2010).

3.3 Major Reforms of Titular Honours

Titular awards have given rise to much political controversy in New Zealand, which has led to the abolishment of titular honours in 2000 and their reintroduction in 2009.

On the one hand, the political left has argued that honours are a manifestation of a class society. Following a victory in the general election in November 1999, a coalition led by the Labour Party discontinued titular honours in April 2000. Prime Minister Helen Clark from the Labour Party commented on the move by stating that titles were "anachronistic" (Laugesen, 2000) and that "we are not the class society of Britain" (Brockett, 2000). While New Zealand citizens could still receive government awards, they were no longer allowed to put a title in front of their name. Instead of being called Sir or Dame, recipients of the two highest levels of the New Zealand Order of Merit were now referred to as Principal Companions and Distinguished Companions.

On the other hand, the political right has welcomed titles as a feature of a meritocratic society. A visible titular honour was regarded as the most appropriate means of celebrating success at the highest levels of national life. It was argued that titles carry both domestic and international recognition and that without them, government awards would seldom be referred to (Fox, 2005). Consequently, following the electoral win of the National Party in November 2008, titular honours were reintroduced in March 2009. At the time, Prime Minister John Key from the National Party remarked that titular honours were "a real celebration of success" (Eames, 2009).

4 Identification Strategy and Data

4.1 Difference-in-differences Methodology

To test our model's prediction that government awards reduce profitability we employ a difference-in-differences methodology. We exploit two quasi-natural experiments, the removal and reintroduction of titular honours. The difference-in-differences methodology compares the behaviour of CEOs affected by each policy change (treatment group) with those that were not affected by it (control group). We focus on the impact on operating performance as measured by operating margin. One could first calculate operating margin after the abolishment (reintroduction, respectively) and subtract from it the operating margin before the abolishment (reintroduction, respectively). This difference gives the effect of the policy change on profitability. But other factors, both observable and unobservable, that potentially impact profitability may have changed as well. We therefore need the control group to properly control for common economic shocks. Hence, we compare the difference in the treated group with the difference in the control group.

We have natural treatment and control groups. Until April 2000 and again from March 2009, only New Zealand citizens could receive a knighthood or damehood, while foreigners were never eligible for these honours.[11] Thus, all CEOs of New Zealand nationality in our sample belong to the treatment group and all CEOs without New Zealand citizenship belong to the control group. For both events we use pre- and post event periods of three years, respectively. That is, when studying the abolition, the pre-treatment period is 1997 to 1999 and the post-treatment period is 2000 to 2002. For the reintroduction, the pre- and post-treatment periods are 2006 to 2008, and 2009 to

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[11]Citizens of Commonwealth realms (i.e., countries of which the British monarch is head of state) are technically also eligible for knighthoods or damehoods. However, the rules of their native countries prohibit them from actually using the titles.

2011, respectively.

We run the following regression:

$$Y_{it} = \beta' X_{it} + \vartheta(T * D^P) + \upsilon_i + \tau_t + \epsilon_{it} \tag{1}$$

In Section 5.1, the dependent variable Y at firm i in year t is operating margin. We examine the effect of the policy changes on employment in Section 5.3 by estimating the above regression with the natural log of employment as the dependent variable Y. The vector of control variables X_{it} includes the natural logarithms of sales as a control for size and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). We include variable pay to control for standard governance mechanisms that align the CEO's incentives with the objectives of shareholders. We include year fixed effects, τ_t, and use firm fixed effects, υ_i, to capture unobserved firm-specific, time-invariant characteristics, that may affect the outcome variables and be correlated with the treatment status.

It is possible that the level of employment in any year is to some extent determined by its past level. Such effects are however not subsumed by the firm fixed effects since time-invariant variables remain constant over time for each firm. As discussed in Angrist and Pischke (2008), one solution to this concern could be to include a lagged variable. We thus add the natural logarithm of the number of employees in the previous year as an additional control variable to the regressions where employment is the outcome variable. The variable T is a dummy that equals one for firms where the CEO is a New Zealander and zero otherwise. D^P is a dummy that equals one for each post-treatment period and zero in each pre-treatment period. The main effects of T and D^P are not included because they are absorbed by the fixed effects. Our main variable of interest is ϑ, which captures the difference-in-differences effect.

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Because of our small sample size and the limited number of individual firms, we do not employ cluster-robust standard errors. Such standard errors perform poorly in small samples in general (see Imbens and Kolsar, 2012 and Wooldridge, 2009) and are almost always incorrect when the number of clusters is very low (Kézdi, 2004). Instead, we employ heteroscedasticity robust standard errors. In addition to using robust standard errors, we also perform cross-sectional regressions to address the potential concern that the statistical significance of the tests is overstated due to persistence in variables and correlation over time (Bertrand et al., 2008).

4.2 Data

The data are from a number of sources. We obtain financial information on all firms listed on the A-list of the New Zealand Stock Exchange between 1997 and 2011 from Datastream. We exclude banks, firms that have their main stock listing outside of New Zealand, firms for which operating margin or number of employees are not provided, and companies that are not present in both the pre- and post-treatment period of either reform. In addition, we only include firms that belong to the same group both before and after a reform. That is to say, observations will be removed if a domestic (foreign) CEO is replaced with a foreign (domestic) CEO during the pre- or post-treatment period. All fiscal years have been converted to calendar years. Our final sample for the first reform (1997 to 2002) contains 25 firms and 138 firm-years and the sample for the second reform (2006 to 2011) contains 34 firms and 198 firm-years, although sample size in the analysis varies due to missing information for some of the variables. Individual data on CEO compensation, nationality, and age are hand-collected from annual reports and news searches. We measure incentives provided by shareholders through variable pay, which is the sum of bonus, options, and stocks. The two dependent variables are operating margin, which is calculated as operating income (EBIT) over

sales, and the number of employees measured by its natural logarithm.

Panel A of Table 1 describes the outcome and control variables for the pre- and the post-treatment periods of the two reforms. The periods for the abolition (reintroduction) are $1997 - 1999$ and $2000 - 2002$ ($2006 - 2008$ and $2009 - 2011$). There are no statistical differences between the two groups neither in sales nor in the number of employees. The table also documents significant differences in operating margins, which is indeed a key result of the analysis. Panel B contains further information about the compensation and age of the CEOs. With the exception of the pre-abolishment period, the diffrence in age is not significant and there are no differences in terms of incentive pay. The control group CEOs are from Australia, Canada, Germany, Greece, Hong Kong, Ireland, Italy, Malaysia, South Africa, the United States, and Zimbabwe. We provide information about the industry composition of the two groups in Panel C. For both the treatment and the control group, manufacturing is the overall most prevalent industry in terms of firm-years followed by the consumer goods industry. All in all, neither treated firms nor control firms appear to concentrate in certain industries.

4.3 Pre-reform Trends

An important assumption for our main regression (1) is that the dependent variables for foreign and domestic CEOs would follow parallel trends in the absence of the two reforms. We test this assumption in Table 2, where we compare the pre-reform trends of employment and operating margin in the treatment and control group by running the following regression:

$$Y_{it} = \beta' X_{it} + \lambda_1 (T * D^{Pre1}) + \lambda_2 (T * D^{Pre2}) + \lambda_3 (T * D^{Pre3}) + \upsilon_i + \tau_t + \epsilon_{it} \qquad (2)$$

Here, X_{it} is the same vector of control variables as in regression (1) above. In addition, we interact the treatment dummy variable, T, with indicators of the three pre-reform years. The coefficients of interest are λ_1, λ_2, and λ_3, which measure changes in the outcome variable Y for the treated firms relative to the control firms in the pre-reform years. If these interactions are insignificant, this is an indication of a legitimate control group. Firm and year fixed effects are included and we employ robust standard errors. In columns 1 and 2 (3 and 4) we use only observations prior to the abolishment (reintroduction). We see from Table 2 that all interactions are statistically insignificant for both outcome variables. In addition, F-tests suggest that the interactions are jointly insignificant. Overall, these results indicate that operating margin and employment in the two groups follow the same general trend before both the abolishment and before the reintroduction of titles.

5   Empirical Results

5.1   Firm Performance

In Table 3 we examine the effect of the abolishment of titles on profitability by running regression (1) with operating margin as the dependent variable. The main coefficient of interest, which measures the effect of the policy change, is the interaction term *T*post 1999*. In column 1, where no control variables are employed, the treatment coefficient is 0.043. The addition of control variables increases the magnitude to 0.048, in columns 2 and 3. All coefficients are significant at least on the 10% level. As we can see from column 3, the positive effect also obtains after controlling for incentive pay. Thus, after the elimination of titles firms run by domestic CEOs experienced an increase in their operating performance of 4.8 percentage points compared to firms run by foreign CEOs. Overall,

the results suggest that the abolition of awards had a positive effect on firm performance.

Table 4 repeats the same analysis using the reintroduction of titles in 2009. The time period is now $2006 - 2011$ and the dummy D^P takes the value of 1 after 2008 and zero otherwise. Consistent with the results in Table 3, the average treatment effect is negative, suggesting that the reintroduction of awards had a negative effect on firm performance. The effect becomes increasingly stronger with the introduction of control variables, including the amount of incentive pay. The coefficients of -0.067 and -0.069 in columns 2 and 3 indicate that the operating margin for treatment firms decreased by almost 7 percentage points compared to control firms. The coefficients are significant at the 10% level. Thus, firms run by domestic CEOs experienced a decrease in their performance compared to firms run by foreign CEOs after the reintroduction. These results further support the hypothesis that government awards reduce CEOs' incentives for profit-maximization.

To address the potential concern that the statistical significance of the tests is overstated due to persistence in variables and correlation over time, we present in Table 5 cross-sectional regressions of the previous tests. As described by Becker and Strömberg (2012), this is a conservative approach since it reduces the number of observations and thereby the power of the tests considerably. For the first policy change, the number of observations falls from 138 to 25; for the reintroduction it falls from 198 to 34. We run the regression:

$$\Delta Y_i = \beta' \Delta X_i + \gamma T + \epsilon_{it} \tag{3}$$

The dependent variable ΔY is now defined as the change in operating margin around the time of the abolishment and reintroduction, respectively. For the regressions presented in columns 1 and 2 (3 and 4) in Table 5, the average value for the years $2000 - 2002$ $(2009 - 2011)$ minus the average value for the years $1997 - 1999$ $(2006 - 2008)$ is calculated for all variables. Since changes are used,

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both observed and unobserved firm characteristics that are constant over time will be differenced out, ruling out the use of fixed effects. The cross-sectional results in columns 1 and 2 confirm the results of Table 3 with positive and significant, at the 5% level, treatment coefficients of 0.046 and 0.054, respectively. The negative coefficients in columns 3 and 4 of -0.070 and -0.069, respectively, are both significant at the 10% level, which confirms the results in Table 4. Thus, the cross-sectional analysis shows that the difference-in-differences effects are not due to persistence in variables.

Overall, the results from Tables 3 to 5 suggest that government awards, far from being a sideshow, have real effects on corporate behaviour. CEOs respond to such non-monetary incentives and the exposure to political influence has a negative effect on firm performance. The above evidence is not consistent with several alternative hypotheses. If CEOs won awards for superior performance, then we should expect the opposite signs for the treatment coefficients. If bribes and personal connections were used to secure awards, we should not find any differential behaviour around the two events. In prior research Malmendier and Tate (2009) have shown that CEOs underperform after winning business press awards. In contrast, we identify an ex ante effect of awards given by a third party. Potential recipients change their behaviour due to the prospect of receiving an award.

5.2 Stock Price Effects of the Reforms

If awards distort CEO incentives away from profit-maximisation, the stock market should react positively (negatively) to the abolition (reintroduction) of awards. To test this hypothesis, we run event-studies on the stock price reaction to the announcements of the reforms. Prime Minister Helen Clark announced the abolition of titles on Thursday, April 10, 2000. The decision received widespread media coverage and was not anticipated according to news accounts (Young, 2015). We

use this date in our event study of the first reform. Finding a suitable event date for the reintroduction in 2009 is challenging. Prime Minister John Key officially announced the reintroduction of titles on March 8, 2009. However, this date is ill-suited for an event study as it was arguably anticipated. Indeed, following his election victory on November 8, 2008, John Key first addressed the issue of knighthoods on November 18, 2008, and announced the intention to reintroduce titles. The announcement was made during an interview on the news network Newstalk ZB. We use this event to assess the stock market effects of the reintroduction of titles.

We estimate abnormal stock returns for firms with domestic CEOs and for firms with foreign CEOs and test whether they differ from zero and whether they differ between the two groups. Because the event affected all firms with domestic CEOs simultaneously, we account for contemporaneous cross-correlation of individual stocks by using a portfolio approach. To estimate abnormal returns we use two different models. First, we consider a mean-return model and run the following regression:

$$r_t^e = \alpha + ARd + \epsilon_t \tag{4}$$

Here, r_t^e is the daily equal-weighted portfolio return on day t and d is a dummy variable that takes on a value of one on the event day and zero otherwise. Our second approach is to estimate a market model with a world market index:

$$r_t^e = \alpha + ARd + \beta W_t + \epsilon_t \tag{5}$$

Here, W_t is the daily return on the Morgan Stanley Capital International (MSCI) world stock market index. We consider a domestic portfolio with all firms in our treatment group and a foreign portfolio with all firms in our control group. To be included in the portfolio, a firm must have

return observations on the event day and at least 100 observations in the estimation period (event day -150 to -1). For the abolition (reintroduction) the domestic portfolio contains 15 (22) firms and the number of firms in the foreign portfolio ranges between 6 and 7 (9).

Table 6 reports in Panel A abnormal stock returns on the day of the announcement of the abolition of titles, April 10, 2000. Panel B reports abnormal stock returns on the day of the announcement of the reintroduction of titles, November 18, 2008. Column 1 of Panel A shows abnormal returns for the portfolio of firms with domestic CEOs. The different specifications consistently yield statistically significant, positive abnormal returns, ranging between 0.8% and 1.0%. The average abnormal returns for the portfolio of firms with foreign CEOs in column 2 are all statistically significant and negative. Finally, column 3 documents that a portfolio, which is long in firms with domestic CEOs and short in firms with foreign CEOs, produces statistically significant positive returns. In all specifications the coefficient is 0.3% and significant at the 1% level. In sum, the results suggest that the stock market reacted favourably to the abolition of awards.

Column 1 of Panel B shows negative abnormal returns for the portfolio of firms with domestic CEOs when the reintroduction of awards is announced. All specifications yield a statistically significant, abnormal return, ranging between -1.0 and -1.5%. These coefficients suggest that the reintroduction decreases equity values. The average abnormal returns for the portfolio of firms with foreign CEOs in column 2 are also negative, but statistically insignificant for all but one specification. In column 3 we see that a portfolio, which is long in firms with domestic CEOs and short in firms with foreign CEOs produces statistically significant negative returns. Overall, the findings of the two event studies further support the hypothesis that awards have a negative effect on firm performance.

5.3 Employment

We now turn our attention to the channel through which awards affect corporate behaviour. As suggested in Section 2.2, employment is arguably a key target variable for politicians and the institutional environment in New Zealand gives CEOs significant freedom to adjust this variable. We first study the effect of the abolishment in Table 7, which presents results of running regression (1) with the natural log of employment as the dependent variable Y. As before, the main coefficient of interest is the interaction term *T*post 1999*. When the independent variable is continuous, the coefficient measures the change in the outcome variable for a 1% change in the independent variable. Since *T*post 1999* is not continuous, the coefficient represents the increase in the log outcome variable for a change in the indicator variable from zero to one. Hence, in column 2 the treatment coefficient translates to a change of $100 * (exp(-0.237) - 1)$, or a decrease of 21% in employment, significant at the 10% level. This decrease remains also after including incentive pay as a control variable. The economic effect of the treatment coefficients in column 3 also corresponds to a decline in employment of 21%, significant at the 10% level. These results imply that firms run by domestic CEOs experienced a decrease in their number of employees compared to firms run by foreign CEOs after the elimination of titles.

Table 8 presents the results of the reintroduction. The average treatment effect is positive and statistically significant at the 1% level in each specification, which is consistent with the prediction that the prospect of receiving a government award leads to a reduced (increased) willingness of the CEO to fire (hire) employees. With all control variables employed, the treatment coefficient is 0.110. In terms of economic magnitude this corresponds to an increase in the number of employees of almost 12%. That is, firms run by domestic CEOs experienced an increase in their number of employees compared to firms run by foreign CEOs after titles were reintroduced.

In Table 9 we run the cross-sectional regression (3) with the change in employment as our dependent variable ΔY. We study the abolishment (reintroduction) in columns 1 and 2 (3 and 4). The results are similar to the difference-in-differences regressions. For the first reform, the treatment coefficients of -0.505 and -0.493, significant at the 10% level. For the reintroduction, we obtain a positive treatment effect. The coefficients of 0.160 and 0.157 are both significant at the 5% level. Overall, the results from Tables 7 to 9 suggest that government awards make CEOs more (less) willing to hire (fire) employees.

6 Confounding Events

6.1 National Elections

We need to be concerned about confounding events since both reforms occurred shortly after national elections that lead to new governments (see Section 3.3). Our difference-in-differences approach naturally nets out any effects of these elections that are common to the treatment and control groups. Still, a concern may remain that the changes in performance and employment, which we document, are driven by the government changes rather than by the reforms of the honour system. This would be the case if the election affected the groups differently and in the same direction as our hypothesised effects. To address this issue we look at abnormal stock returns. If the concern was valid, we should expect our treatment group to react positively (negatively) to the election in 1999 (2008) compared to the control group.

An event study of elections is challenging because uncertainty about the voting outcome might be partially resolved before the election day. With this caveat in mind we follow Goldman et al. (2008) and run an event study on November 29, 1999, which is the first trading day after the national

election in that year. As in Section 5.2, we adopt a portfolio approach and use both a mean-return and a market model. Table 10 presents the post-election returns, which are significant and positive for both the treatment and the control group. Importantly, there is no significant difference in returns between the two groups. This suggests that the positive treatment effect documented in Table 3 was not driven by the government change.

We do not run an event study around the date of the election in 2008 as it does not serve as a meaningful event date. The outcome was arguably widely anticipated and there was little political uncertainty. Indeed, the leading national newspaper, The New Zealand Herald, wrote the day after the election that the result "cannot have come as a great surprise to even the most hard-core supporters of Labour, given the indications provided by the polls over several months." Rather than being closely contested, "the outcome was as clear cut as possible under the country's [...] proportional system" according to Dow Jones International News.

To further mitigate concerns that our results are caused by election outcomes, we use a placebo test. It would be desirable to rerun our difference-in-differences regression around an election where there is a shift in power but where there is no reform related to titled honours. In such a placebo test we should expect to find no differences between the two groups. However, the only elections that resulted in a shift in power and for which data are available took place in 1999 and 2008; the very same elections that preceded the abolishment and reintroduction of titular honours. As a second best approach, we conduct our placebo test around the election in 2005, which resulted in no change in power. Table 11 depicts the results from this placebo test where treatment is assigned to 2006, instead of the true event dates of 2000 and 2009. The pre- and post-placebo periods are now $2003 - 2005$ and $2006 - 2008$, respectively, with unchanged control and treatment groups. Hence, the placebo test does not overlap with the relevant periods of the two reforms. The difference-in-

differences coefficients for operating margin and employment are now all statistically insignificant, which suggest that the previously presented treatment estimates of both the abolishment and reintroduction reforms do reflect the impact of the reforms and not simply differential trends in the treatment and control groups.

6.2   Contemporary Legal Reforms

A related and important issue is whether any other legal reforms could have had an impact on our results. The main changes in New Zealand labour legislation in the period 1997 to 2011 took place in 2000 with the enactment of the Employment Relations Act 2000 (Ministry of Business, Innovation, and Employment, 2015). This legislation provides a structure for employers and unions to negotiate and enter into collective agreements and for employers and employees to negotiate and enter into individual agreements. The key feature of the Act stipulates that employers, employees and unions must deal with each other openly, honestly and constructively in matters concerning: Mediation; recruiting; writing employment agreements; trial and probation periods; union membership; workplace training and development. Minor changes, called legislation reviews, to the Act were made in 2010 and 2011 encompassing: an extension to trial period provisions to cover all employers; new enforcement tools for Labour Inspectors; measures to ensure that employers provide written employment agreements; and measures to improve problem resolution processes in personal grievance cases. Legal scholars interpret the Employment Relations Act 2000 as a restoration of collective bargaining which requires unions to organize and bargain effectively on behalf of individual employees (Anderson, 2014). There is no evidence that any of these legal reform had a differential impact on the two groups. Thus, we have no reason to believe that our results are driven by any labour legislation changes.

7   Conclusion

We use the elimination and reintroduction of knighthoods and damehoods in New Zealand in 2000 and 2009, as quasi-natural experiments to study the effect of government awards on CEO behaviour. CEOs without New Zealand citizenship, who were never eligible for these awards, form our control group. We find significant changes in firm behaviour and performance around the two legal reforms. When titular honours are cancelled in 2000, affected firms reduce employment while their profitability increases. Conversely, the reintroduction of knighthoods and damehoods in 2009 is accompanied by an increase in the number of employees and a decline in profitability. Overall, the results suggest that awards serve as an incentive tool through which politicians influence firms in favour of employees to the detriment of shareholders. Our findings are consistent with the idea that politicians use awards to promote stakeholder orientation.

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Table 1: Key descriptive statistics $1997 - 2002$ and $2006 - 2011$

All monetary amounts in New Zealand Dollar (NZD). The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. The number of observations is given in parentheses, and the t-test statistics relate to differences in the mean between the control and treatment groups. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Period	Control group	Treatment group	t-test
Panel A: Firm Variables				
Operating Margin	$1997 - 1999$	0.194 (19)	0.106 (47)	2.47**
Operating Margin	$2000 - 2002$	0.165 (22)	0.151 (50)	0.39
Operating Margin	$2006 - 2008$	0.187 (20)	0.140 (78)	1.19
Operating Margin	$2009 - 2011$	0.202 (23)	0.123 (77)	2.52**
Employees (in thousands)	$1997 - 1999$	2091 (19)	1798 (46)	0.51
Employees (in thousands)	$2000 - 2002$	2419 (22)	1761 (50)	1.02
Employees (in thousands)	$2006 - 2008$	2266 (20)	3415 (78)	1.31
Employees (in thousands)	$2009 - 2011$	2496 (23)	3492 (77)	1.19
Sales (in million NZD)	$1997 - 1999$	385 (47)	362 (47)	0.19
Sales (in million NZD)	$2000 - 2002$	548 (22)	408 (50)	1.10
Sales (in million NZD)	$2006 - 2008$	645 (20)	802 (78)	0.82
Sales (in million NZD)	$2009 - 2011$	670 (23)	825 (77)	0.82
Panel B: CEO Variables				
Incentive Pay (in million NZD)	$1997 - 1999$	1.104 (19)	1.075 (47)	0.15
Incentive Pay (in million NZD)	$2000 - 2002$	0.940 (22)	0.649 (50)	1.52
Incentive Pay (in million NZD)	$2006 - 2008$	0.750 (20)	0.774 (78)	0.13
Incentive Pay (in million NZD)	$2009 - 2011$	1.059 (23)	0.764 (77)	1.60
CEO Age	$1997 - 1999$	45.6 (19)	49.0 (47)	1.49*
CEO Age	$2000 - 2002$	51.6 (28)	50.6 (55)	0.68
CEO Age	$2006 - 2008$	50.9 (20)	50.6 (78)	0.13
CEO Age	$2009 - 2011$	52.6 (23)	51.7 (77)	0.62
Panel C: Industries				
Consumer Goods	$1997 - 2002$	1 (6)	4 (24)	na
Consumer Goods	$2006 - 2011$	3 (14)	5 (29)	na
Manufacturing	$1997 - 2002$	4 (21)	2 (12)	na
Manufacturing	$2006 - 2011$	2 (5)	8 (44)	na
Hi-Tech	$1997 - 2002$	2 (8)	4 (20)	na
Hi-Tech	$2006 - 2011$	1 (6)	3 (24)	na
Finance, Insurance, Real Estate	$1997 - 2002$	0 (0)	3 (14)	na
Finance, Insurance, Real Estate	$2006 - 2011$	1 (6)	4 (30)	na
Other Industries	$1997 - 2002$	1 (6)	5 (27)	na
Other Industries	$2006 - 2011$	2 (12)	5 (28)	na

Table 2: Test of Pre-reform Differences in Outcome Variables

Columns 1 and 2 (3 and 4) present the coefficient estimates from an OLS regression for $1997-1999$ $(2006-2008)$:

$$Y_{it} = \beta' X_{it} + \lambda_1 (T * D^{Pre1}) + \lambda_2 (T * D^{Pre2}) + \lambda_3 (T * D^{Pre3}) + \upsilon_i + \tau_t + \epsilon_{it}$$

The dummy variable T is one for the treatment group. The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. The treatment dummy variable, T, is interacted with indicators of the three pre-reform years. The vector of control variables X_{it} includes sales, the number of employees in the previous year, and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithm. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Operating Margin (1)	Employees (2)	Operating Margin (3)	Employees (4)
T * 1997	-0.067	0.040		
	(0.045)	(0.211)		
T * 1998	-0.034	0.013		
	(0.027)	(0.168)		
T * 1999	-0.033	0.074		
	(0.021)	(0.101)		
T * 2006			-0.023	0.008
			(0.018)	(0.043)
T * 2007			0.010	0.016
			(0.023)	(0.035)
T * 2008			0.009	-0.043
			(0.025)	(0.048)
Sales	0.017	0.290	0.059**	0.060**
	(0.023)	(0.100)	(0.022)	(0.029)
Employees previous year		0.847		0.344**
		(0.427)		(0.139)
Incentive pay	0.015	-0.009	-0.023	0.111
	(0.018)	(0.108)	(0.035)	(0.076)
Constant	-0.062	-2.552	-0.618**	3.775***
	(0.293)	(3.062)	(0.294)	(1.002)
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
R2 (within)	0.140	0.250	0.253	0.257
F-test	0.656	0.000	0.098	0.000
# Obs	66	65	98	98

Table 3: Effect of Abolition of Titles on Firm Performance

Each column presents the coefficient estimates from an OLS regression:

$$Y_{it} = \beta' X_{it} + \vartheta(T * D^P) + \upsilon_i + \tau_t + \epsilon_{it}$$

over the period $1997 - 2002$, with $1997 - 1999$ and $2000 - 2002$ being the pre- and post-reform periods, respectively. The dependent variable Y at firm i in year t is operating margin. The vector of control variables X_{it} includes sales, and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithm. The dummy variable T is one for the treatment group. The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Operating Margin (1)	Operating Margin (2)	Operating Margin (3)
T * post 1999	0.043*	0.048**	0.048*
	(0.023)	(0.023)	(0.024)
Sales		-0.042	-0.041
		(0.035)	(0.036)
Incentive pay			0.002
			(0.022)
Constant	0.123***	0.635	0.200
	(0.016)	(0.438)	(0.270)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
R2 (within)	0.097	0.143	0.143
# Obs	138	138	138

Table 4: Effect of Reintroduction of Titles on Firm Performance

Each column presents the coefficient estimates from an OLS regression:

$$Y_{it} = \beta' X_{it} + \vartheta(T * D^P) + \upsilon_i + \tau_t + \epsilon_{it}$$

over the period $2006 - 2011$, with $2006 - 2008$ and $2009 - 2011$ being the pre- and post-reform periods, respectively. The dependent variable Y at firm i in year t is operating margin. The vector of control variables X_{it} includes sales and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithm. The dummy variable T is one for the treatment group. The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Operating Margin	Operating Margin	Operating Margin
	(1)	(2)	(3)
T * post 2008	-0.051	-0.067*	-0.069*
	(0.043)	(0.039)	(0.040)
Sales		0.067**	0.069**
		(0.026)	(0.027)
Incentive pay			-0.016
			(0.013)
Constant	0.165***	-0.687**	-0.699**
	(0.037)	(0.330)	(0.332)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
R2 (within)	0.110	0.228	0.231
# Obs	198	197	197

Table 5: Effect of Titles on Firm Performance–Cross-sectional Regressions

Each column presents the coefficient estimates from an OLS regression:

$$\Delta Y_i = \beta' \Delta X_i + \gamma T + \epsilon_{it}$$

Columns 1 and 2 (3 and 4) presents the results for $1997 - 2002$ $(2006 - 2011)$, with $1997 - 1999$ $(2006 - 2008)$ and $2000 - 2002$ $(2009 - 2011)$ being the pre- and post-reform periods, respectively. The dependent variable ΔY is defined as the change in operating margin around the time of the abolishment and reintroduction, respectively. The vector of control variables X_{it} includes sales, and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithm. All variables are measured as differences between the post- and pre-periods. The dummy variable T is one for the treatment group. The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	ΔOperating Margin (1)	ΔOperating Margin (2)	ΔOperating Margin (3)	ΔOperating Margin (4)
T (1997–2002)	0.046**	0.054**		
	(0.022)	(0.024)		
T (2006–2011)			-0.070*	-0.069*
			(0.039)	(0.039)
ΔSales	-0.004	0.000	0.041	0.038
	(0.050)	(0.050)	(0.051)	(0.050)
ΔIncentive pay		0.037		0.015
		(0.027)		(0.028)
Constant	-0.017	-0.016	0.039	0.038
	(0.021)	(0.021)	(0.038)	(0.037)
Firm FE	No	No	No	No
Year FE	No	No	No	No
R2 (adjusted)	0.142	0.198	0.228	0.231
# Obs	25	25	34	34

Table 6: Abnormal Stock Returns at Announcements of Abolition and Reintroduction of Titles

The table reports in Panel A abnormal stock returns on the first trading day after the announcement of the abolition of titles, April 10, 2000. Panel B reports abnormal stock returns on the day of the announcement of the reintroduction of titles, November 18, 2008. Abnormal returns are estimated using the following two return-generating processes: $r_t^e = \alpha + ARd + \epsilon_t$ and $r_t^e = \alpha + ARd + \beta W_t + \epsilon_t$, where r_t^e is the daily equal-weighted portfolio return on day t, d is a dummy variable that takes on a value of one on the event day and zero otherwise, and W_t is the daily return on the Morgan Stanley Capital International (MSCI) World or NZ stock market index. To be included in the portfolio, a firm must have return observations on the event day and at least 100 observations in the estimation period (event day -150 to -1). In Panel A (Panel B), the number of domestic firms is 15 (22), the number of foreign firms ranges between 6 and 7 (9). Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Portfolio of Firms with Domestic CEOs (1)	Portfolio of Firms with Foreign CEOs (2)	Portfolio of Domestic - Foreign (3)
Panel A: Announcement of Abolition			
Mean-Return Model	0.010***	-0.020***	0.030***
	(0.001)	(0.001)	(0.001)
Market Model (MSCI World)	0.010***	-0.020***	0.030***
	(0.001)	(0.001)	(0.001)
Market Model (MSCI NZ)	0.008***	-0.022***	0.030***
	(0.001)	(0.001)	(0.001)
Panel B: Announcement of Reintroduction			
Mean-Return Model	-0.015***	-0.002	-0.013***
	(0.001)	(0.001)	(0.001)
Market Model (MSCI World)	-0.015***	-0.002*	-0.013***
	(0.001)	(0.001)	(0.001)
Market Model (MSCI NZ)	-0.010***	0.002	-0.012***
	(0.001)	(0.001)	(0.001)

Table 7: Effect of Abolition of Titles on Employment

Each column presents the coefficient estimates from an OLS regression:

$$Y_{it} = \beta' X_{it} + \vartheta(T * D^P) + \upsilon_i + \tau_t + \epsilon_{it}$$

over the period $1997 - 2002$, with $1997 - 1999$ and $2000 - 2002$ being the pre- and post-reform periods, respectively. The dependent variable Y at firm i in year t is the natural logarithm of the number of employees. The vector of control variables X_{it} includes sales, the number of employees in the previous year, and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithm. The dummy variable T is one for the treatment group. The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Employees (1)	Employees (2)	Employees (3)
T * post 1999	-0.284	-0.237*	-0.236*
	(0.201)	(0.122)	(0.135)
Sales		0.405***	0.405***
		(0.137)	(0.139)
Employees previous year		0.266	0.266
		(0.188)	(0.189)
Incentive pay			0.007
			(0.099)
Constant	6.833***	-0.072	-0.083
	(0.088)	(1.123)	(1.198)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
R2 (within)	0.045	0.390	0.390
# Obs	137	122	122

Table 8: Effect of Reintroduction of Titles on Employment

Each column presents the coefficient estimates from an OLS regression:

$$Y_{it} = \beta' X_{it} + \vartheta(T * D^P) + \upsilon_i + \tau_t + \epsilon_{it}$$

over the period $2006 - 2011$, with $2006 - 2008$ and $2009 - 2011$ being the pre- and post-reform periods, respectively. The dependent variable Y at firm i in year t is the natural logarithm of the number of employees. The vector of control variables X_{it} includes sales, the number of employees in the previous year, and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithm. The dummy variable T is one for the treatment group. The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Employees (1)	Employees (2)	Employees (3)
T * post 2008	0.191***	0.109**	0.110**
	(0.057)	(0.044)	(0.045)
Sales		0.033	0.032
		(0.049)	(0.048)
Employees previous year		0.563***	0.562***
		(0.093)	(0.093)
Incentive pay			0.014
			(0.031)
Constant	6.851***	2.532***	2.538***
	(0.0238)	(0.902)	(0.893)
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
R2 (within)	0.128	0.467	0.467
# Obs	198	192	192

Table 9: Effect of Titles on Employment–Cross-sectional Regressions

Each column presents the coefficient estimates from an OLS regression:

$$\Delta Y_i = \beta' \Delta X_i + \gamma T + \epsilon_{it}$$

Columns 1 and 2 (3 and 4) presents the results for $1997 - 2002$ ($2006 - 2011$), with $1997 - 1999$ ($2006 - 2008$) and $2000 - 2002$ ($2009 - 2011$) being the pre- and post-reform periods, respectively. The dependent variable ΔY is defined as the change in the natural logarithm of the number of employees around the time of the abolishment and reintroduction, respectively. The vector of control variables X_{it} includes sales and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithms. All variables are measured as differences between the post- and pre-periods. The dummy variable T is one for the treatment group. The control (treatment) group comprises CEOs who are not (are) New Zealand citizens. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	ΔEmployees (1)	ΔEmployees (2)	ΔEmployees (3)	ΔEmployees (4)
T (1997–2002)	-0.505*	-0.493*		
	(0.246)	(0.267)		
T (2006–2011)			0.160**	0.157**
			(0.069)	(0.069)
ΔSales	1.083**	1.090**	0.129	0.139
	(0.436)	(0.448)	(0.156)	(0.161)
ΔIncentive pay		0.060		-0.052
		(0.199)		(0.074)
Constant	-0.060	-0.045	-0.097*	-0.094*
	(0.115)	(0.100)	(0.047)	(0.048)
Firm FE	No	No	No	No
Year FE	No	No	No	No
R2 (adjusted)	0.287	0.288	0.119	0.121
# Obs	25	25	34	34

Table 10: Abnormal Stock Returns after the National Election in 1999

The table reports abnormal stock returns on November 29, 1999, which is the first trading day after the New Zealand general election. Abnormal returns are estimated using the following two return-generating processes: $r_t^e = \alpha + ARd + \epsilon_t$ and $r_t^e = \alpha + ARd + \beta W_t + \epsilon_t$, where r_t^e is the daily equal-weighted portfolio return on day t, d is a dummy variable that takes on a value of one on the event day and zero otherwise, and W_t is the daily return on the Morgan Stanley Capital International (MSCI) World or NZ stock market index. To be included in the portfolio, a firm must have return observations on the event day and at least 100 observations in the estimation period (event day -150 to -1). The number of domestic firms is 15, the number of foreign firms ranges between 6 and 7. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Portfolio of Firms with Domestic CEOs	Portfolio of Firms with Foreign CEOs	Portfolio of Domestic - Foreign
	(1)	(2)	(3)
Mean-Return Model	0.021***	0.022***	-0.001
	(0.001)	(0.001)	(0.001)
Market Model (MSCI World)	0.021***	0.023***	-0.001
	(0.001)	(0.001)	(0.001)
Market Model (MSCI NZ)	0.021***	0.022***	-0.001
	(0.001)	(0.001)	(0.001)

Table 11: Placebo Test of Effect of Titles on Firm Performance and Employment

Each column presents the coefficient estimates from an OLS regression:

$$Y_{it} = \beta' X_{it} + \vartheta(T * D^P) + \upsilon_i + \tau_t + \epsilon_{it}$$

over the period $2003 - 2008$, with $2003 - 2005$ and $2006 - 2008$ being the pre- and post-placebo reform periods, respectively. In columns 1 and 2 (3 and 4), the dependent variable Y at firm i in year t is operating margin (the natural logarithm of the number of employees). The vector of control variables X_{it} includes sales, the number of employees in the previous year, and the amount of the CEO's variable pay (the sum of bonus, options, and stocks). All control variables are measured through the natural logarithm. The control (treatment, labelled T) group comprises CEOs who are not (are) New Zealand citizens. Robust standard errors are in parentheses. The superscripts ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

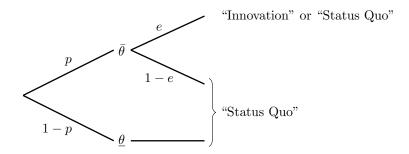|	Operating Margin	Operating Margin	Employees	Employees
	(1)	(2)	(3)	(4)
T * post 2005	0.006	0.006	-0.008	-0.005
	(0.013)	(0.013)	(0.053)	(0.053)
Sales	0.043**	0.042**	0.104*	0.099*
	(0.017)	(0.017)	(0.060)	(0.058)
Previous year employees			0.000	0.000
			(0.000)	(0.000)
Incentive pay		-0.043		0.102
		(0.026)		(0.072)
Constant	-0.395*	-0.365	5.594***	4.338***
	(0.222)	(0.220)	(1.553)	(1.554)
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
R2 (within)	0.118	0.140	0.142	0.155
# Obs	211	211	166	166

Figure 1.

8 Theoretical Appendix

8.1 Awards and Monetary Incentives

We now allow shareholders to counter the effect of the government award through monetary compensation that rewards the manager for maximizing firm value. It can easily be seen that the award system still reduces profitability, even in the presence of monetary incentives. We consider the same setting as in Section 2 with the addition that shareholders offer the manager a compensation scheme $\{\bar{w}, \underline{w}\}$ conditional on final profits Π and π.[12] The wages cannot be negative since the manager is protected by limited liability. For simplicity, we focus on the polar case in which the politician always prefers the status quo (i.e., $\alpha = 1$).

Clearly, shareholders never want to reward the manager when she implements the status quo, i.e., when profits equal π. Hence, $\underline{w}$ is optimally set to zero. Given a wage $\bar{w}$ for high profits, the manager's effort choice solves:

$$\max_e pe(u(p_I') + \bar{w}) + (1 - pe)[B + u(p_{SQ}')] - \frac{1}{2}ce^2$$

Rearranging the first order condition yields $e^*(\bar{w}) = \frac{p(\Delta u + \bar{w} - B)}{c}$. When choosing the optimal wage shareholders maximize expected profits:

$$\max_{\bar{w}} pe^*(\bar{w})(\Pi - \bar{w}) + (1 - pe^*(\bar{w}))\pi$$

Let $\Delta\Pi \equiv \Pi - \pi$ denote the additional profits under the innovation strategy. Then the optimal

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[12]In our setup, contracting on final profits is equivalent to contracting directly on the strategy choice.

wage and effort levels are

$$\bar{w}^* = \frac{\Delta\Pi - \Delta u + B}{2} \text{ and } e^*(\bar{w}*) = \frac{p(\Delta\Pi + \Delta u - B)}{2c}.$$

Intuitively, reputational concerns, as measured by Δu, serve as a substitute for monetary incentives and lower the optimal wage. By contrast, the government award makes it more costly for shareholders to elicit effort and raises compensation. Hence, the prospect of receiving the government award still reduces managerial effort (and expected profits) even in the presence of incentive pay. That is, Proposition 1 continues to hold. The reason is that the manager is protected by limited liability, which prevents shareholders from punishing her when profits are low. Our result mirrors Dixit (1997) who develops a common agency model and shows that competition between different principals may weaken managerial incentives. When setting up an incentive scheme, each principal ignores the negative effect of his scheme on those tasks that are of interest to the other principals.

8.2   Government Awards as Positional Goods

The analysis in Section 2 assumes that the government award generates a constant, exogenous reward for the manager. We now endogenize the private benefit B by letting it depend on how scarce the award is. The government award is modelled as a positional good, i.e., the manager enjoys a greater utility if only few of her peers also win the award.

Consider a continuum of managers of mass one. Managers simultaneously choose the level of effort. (To simplify the exposition we abstract from monetary incentives.) A manager's expected private benefit from receiving the award is

$$B(1 - \gamma\tau),$$

where $\tau \in [0, 1]$ denotes the expected fraction of other managers that obtain the award. The parameter $\gamma \in [0, 1]$ measures the strength of the positionality. The term $(1 - \gamma\tau)$ is the discount from sharing the award with other managers. If no one else receives the award ($\tau = 0$) or if $\gamma = 0$, the expected benefit reduces to B.

As before, in equilibrium a manager receives an award if and only if she chooses the status quo. She only selects the status quo if she fails to discover the innovation. Hence, the fraction τ of award recipients simply equals $1 - \hat{e}p$, where $\hat{e}$ is the level of effort of the representative manager. If a manager expects all others to choose effort $\hat{e}$, she maximizes the following expected payoff:

$$\max_e peu(p'_I) + (1 - pe)[u(p'_{SQ}) + B(1 - \gamma(1 - \hat{e}p))] - \frac{1}{2}ce^2$$

The first order condition, or reaction function, is $p\Delta u - pB(1 - \gamma(1 - \hat{e}p)) = ce$. Thus, effort e is decreasing in the effort $\hat{e}$ of the representative manager. That is, the positionality creates a strategic substitutability between managers' effort choices. If a manager expects her peers to exert high(er) effort, she attaches a greater expected value to the government award since a large fraction of peers will implement the innovation. This, in turn, discourages the manager from exerting effort herself.

We obtain the following unique equilibrium level of effort:

$$e^* = \frac{p(\Delta u - B(1 - \gamma))}{c + \gamma p^2 B}$$

If $\gamma = 0$, managers' payoffs are completely independent and the outcome is the same as in the single firm case above. It can easily be checked that the equilibrium level of effort is increasing in the degree of positionality as measured by γ.