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The impact of political directors on corporate strategy for government-owned utilities: Evidence from Ontario's electricity distribution sector

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A B S T R A C T

We contribute to research on governance of state-owned electric utilities by examining the implications of oversight by independent versus 'political' directors for corporate strategy. While policy think-tanks often recommend that governments appoint independent professional directors to boards of state-owned corporations, governments sometimes select politicians who bring a politically-oriented perspective to their oversight duties. To examine the potential strategic consequences, we draw on a novel survey of 384 directors of municipally-owned local electricity distribution companies in Canada, of which about a third were elected municipal councillors and the remaining were independent business professionals. The survey solicited individual director views about strategic priorities, including mergers and acquisitions, business diversification, and corporate financing options. Our statistical analysis of the survey response data finds that political directors, after controlling for prior executive experience and organizational context, were *more* risk-tolerant on average than independent directors, as evidenced by a greater willingness to diversify into unregulated business activities and to acquire equity stakes in other utilities; but at the same time, they prioritized enhanced dividend payments to the municipal government over re-investment in the corporation, a potential constraint on future business growth.

1. Introduction

Boards of directors play a central role in corporate governance of state-owned utilities in many countries, providing oversight of senior management, long-term strategic planning processes, and organizational performance. In the absence of competitive market pressures and capital market discipline, boards of state-owned utilities are an important governance mechanism for monitoring management and incentivizing efficient performance (Irwin and Yamamoto, 2004; Beecher, 2013). In order to establish effective boards, policy think-tanks often recommend that governments use merit-based, open, transparent procedures to appoint professional directors who are independent of both government and management, and who are able to freely exercise their judgment when making decisions in the interests of the corporation (OECD, 2015). In practice, however, governments sometimes appoint 'political' directors – such as elected officials or politically-connected individuals – who may bring a politically-oriented perspective to their oversight duties. While independent directors may be expected to consider both commercial and policy objectives of state-owned enterprises in their approach to stewardship, political directors may weigh these goals differently or even pursue specific political party objectives (Aucoin, 2007).

While there has been considerable empirical research on the impact of boards of directors of private corporations on organizational performance and strategy (Bebchuk and Weisbach, 2010; Duchin et al., 2010) – with much attention focused on the effect of director independence – there has been little consideration of the consequences of director types and board composition for state-owned enterprises. In this paper, we contribute to existing research on corporate governance of state-owned enterprises by drawing on the results of a novel survey of directors of local electricity distribution companies (referred to as LDCs) in Ontario, Canada, which are owned by municipal governments. Ontario's LDCs are structured as independent legal corporations with boards of directors who have a fiduciary duty to act in the interests of the corporation, and who are appointed by shareholders (municipalities). Municipalities have typically appointed political directors – elected municipal councilors – as well as independent directors to serve on LDC boards, creating the possibility that boards will incorporate political as

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well as commercial goals in their decision-making.

We examine the impact of political directors on utility strategy by directly surveying all directors of LDCs in Ontario to gather data on individual views about strategic priorities, including mergers and acquisitions, business diversification, and corporate financing options. Our statistical analysis of the survey response data finds that political directors, after controlling for prior executive experience and professional qualifications, appear to be *more* risk-tolerant on average than independent directors, as evidenced by a greater willingness to diversify into unregulated business activities and to acquire equity stakes in other LDCs; but at the same time, they prioritized enhanced dividend payments to the municipality over increased investment in the corporation – an apparent contradiction with their business expansion preferences. Diverting cash to the municipality supports the pursuit of social policy objectives but it restricts the corporation's own growth potential.

While our empirical analysis is specific to Ontario, our findings and conclusions have broader applicability to other jurisdictions with government-owned utilities, which are commonplace in both developed and developing countries. Even in the U.S. electricity sector, the number of publicly-owned utilities (primarily municipal electric distribution entities) significantly outweighs the number of investor-owned utilities by a factor of eleven (1,958 versus 168), with the Los Angeles Department of Water and Power being one of the most visible.[1] Governance issues and the role of government owners have also been studied extensively in the European public utility context (Garrone et al., 2013) as well as in emerging markets (Mahadevan, 2019).

The next section discusses corporate governance of state-owned enterprises. Section 3 introduces the empirical methodology and presents the findings from statistical analysis of the survey data. Section 4 concludes and offers policy implications.

2. Corporate governance of state-owned utilities

Government-owned corporations are often expected to operate in a manner akin to private sector commercial businesses, yet government ownership presents a number of well-known challenges and constraints that can affect efficient performance (Megginson and Netter, 2001). First, since the potential for bankruptcy or hostile takeover is absent for government-owned enterprises, the incentives for management to operate as efficiently as possible can be dulled relative to their private-sector counterparts. It is also more difficult for stakeholders to monitor performance since market-based indicators such as stock prices are not available. Second, political factors can impact efficient operation and investment. For example, political sensitivities around public sector compensation levels may restrict the ability of government-owned corporations to attract and retain suitably qualified management. Or government appointments of senior executives or directors may reflect patronage motivations rather than the specific needs of the corporation. Uncertainty about future political elections and government priorities can cause management to shorten their planning horizons at the expense of long-term performance.[2]

[1] See the U.S. Energy Information Administration, Annual Electric Power Industry Report, for data on ownership of electric utilities.

[2] There is a large literature that explores how government ownership affects enterprise performance (see Hausman and Neufeld, 1991; Laffont and Tirole, 1991; Villalonga, 2000; Kwoka, 2002, 2005; Wolf, 2009; Fiorio and Florio, 2013; Polemis, 2016). Under weaker incentives and monitoring, management may exert less effort to control or reduce operating costs than they would under private sector ownership, or they may pursue strategies with inefficiently high capital expansion and growth plans, contributing to increased long-run costs – senior management may regard larger organizations and budgets as a source of enhanced prestige, perks and career benefits. Managers of government-owned corporations may also propose and pursue more risky projects and strategies than would otherwise be supported in the private sector where there is the risk of bankruptcy.

Although government-owned corporations operate under different incentive and ownership constraints than privately-owned enterprises, corporate governance arrangements play an important role in shaping performance outcomes in the same way that corporate governance affects the performance of private enterprises (Cheffins, 2013). Corporate governance consists of the set of organizational processes and structures for overseeing a corporation's strategic direction and management to ensure that it meets its mandate and performance objectives. In fact, governments have commonly used reforms to corporate governance as a method of improving organizational performance of state-owned enterprises in situations where privatization is not politically feasible.

Boards of directors, which are responsible for stewarding corporations, are the key institution through which governance operates. Legislation and common law often specify that the duties of directors are (i) to act in the interests of the corporation (fiduciary duty), and (ii) to use diligence, skill and prudence in their actions (duty of care). Directors of government-owned utilities are appointed by the relevant government authority and they generally exercise their stewardship role in three main ways:

1. Establishing an organizational strategy that enables the corporation to successfully achieve its objectives. The board determines the approach for assessing business opportunities and risks, and it sets the tolerance level for the corporation in accepting risk.
2. Monitoring performance of the corporation against financial and operational goals, and setting internal control and reporting systems.
3. Appointing the CEO and monitoring performance, setting CEO compensation, and establishing succession plans and processes.

The function of boards is thus to monitor and guide organizational operations and performance, rather than to actively manage, which is the delegated responsibility of the CEO and executive team. Directors have discretion to exercise their powers and judgment, and are expected to act independently of the shareholder (i.e. the government in the case of state-owned utilities). Independent directors should be free of material interests or relationships with the enterprise, its management or major shareholders that could jeopardise the exercise of objective judgment (OECD, 2015).

In Ontario, the corporate governance arrangements of local electricity distribution companies (LDCs) underwent significant reform in 1999 when the government implemented wide-ranging restructuring of the provincial electricity sector, which consisted of more than 300 municipal LDCs and a dominant generation and transmission entity, Ontario Hydro, serving the province (Gregory et al., 2003; Trebilcock and Hrab, 2005). While the government eschewed privatization, it converted LDCs from municipally-run departments into legal for-profit business corporations, wholly owned by municipal governments and regulated by the Ontario Energy Board (OEB). This change reduced the discretion that municipal owners had in prescribing LDC operations and altered the benefit of local ownership to that of being an investor-owner. Annual dividend payments by LDCs to municipal governments have since become important sources of municipal revenue, enabling municipalities to expand their operations and social services or else to restrain local taxation growth.

As shareholders, municipal councils were required to appoint boards of directors, who had a legal obligation to adopt private sector standards of corporate governance in overseeing LDC management and performance. Councils varied in their selection of LDC directors, with some appointing a majority of independent, professional directors and others appointing a majority of elected municipal councilors. In 2016, approximately 25% of all LDC directors were elected councilors (Fremeth and Holburn, 2018). The prevalence of municipal councilors on LDC boards has contributed to increased scrutiny by the OEB of LDC corporate governance practices as well as the impact on strategic issues such as dividend payment and infrastructure investment levels (Ontario Energy Board, 2006) and LDC consolidation (Ontario Energy Board, 2018; KPMG, 2015; Mowat Centre, 2016).

There are several corporate governance issues that arise from the appointment of political directors. First, some scholars have suggested that corporate political connections to government – through large shareholders and directors, who act as boundary-spanning agents – can augment firm performance by accessing critical resources (Faccio, 2006; Hillman, 2005; Agrawal and Knoeber, 2001). Firms with stronger political connections may benefit from easier access to debt, lower taxation, and improved knowledge about government policies and priorities. On the other hand, scholars have also argued that political ties can be detrimental: for instance, political directors may be less effective at monitoring and advising managers than directors with extensive corporate experience (Pascual-Fuster and Crespi-Cladera, 2018; Kang and Zhang, 2018), and they may prioritize political considerations in their board decisions at the expense of commercial objectives and performance (Baysinger and Butler, 1985; Shleifer, 1998). A further consequence of appointing elected politicians, such as municipal councillors, as directors is that since the number of directors on a board is fixed in the short-term as specified in corporate articles, independent directors are effectively 'crowded out'. Appointing a politician to the board means forgoing an alternative independent director. For small boards (e.g. with less than 10 directors), the overall mix of skills and experience can shift substantially with the choice of a politician or independent director. In mature industries where there is little or gradual change in competitive forces, and the need to continuously adapt organizational strategy is reduced, the mix of political and independent directors may have less consequence for the performance of government-owned enterprises. However, in industries that are subject to disruptive external forces, as in the electricity distribution sector, there is a more urgent requirement for boards to review and establish new strategies that enable the organization to compete and survive in a changing environment. Appointing board members with skills and experience that match the needs of the organization—that is, board members with experience in assessing changing business risks and opportunities and in strategic planning – becomes more critical during periods of industry turbulence.

While there has been growing attention to the performance implications of political involvement in the governance of government-owned corporations, as far as we are aware, there is no systematic empirical research that examines differences between political and independent directors and the implications for strategic decision-making. In the next section, we discuss the construction of a survey instrument designed to assemble a novel dataset on Ontario LDC directors, leading to statistical analysis of factors affecting directors' stated strategic priorities.

3. Survey analysis of directors of government-owned utilities in Ontario

We designed and implemented a survey to assess the individual views of LDC directors on three core strategic topics, namely corporate diversification into unregulated activities, mergers and acquisitions within the electricity sector, and financial priorities (see the Appendix for the survey questions). The survey also collected information on directors' demographics and professional experience. After pretesting, the survey was distributed by postal mail and/or email to all (384) directors of the 68 LDCs in Ontario.[3] Responses were received from 166 directors (43% response rate) at 61 LDCs.

3.1. Descriptive statistics

On average, LDC directors had extensive senior executive experience and as directors at other organizations (see Table 1). Two thirds of respondents had experience as a CEO, CFO, COO, Vice-President or Managing Director, with an average of 16 years of experience in these positions. One third of the respondents had professional experience in regulated utilities, including electricity, gas or telecommunications sectors. The average tenure of LDC directors at the time of the survey was just over 8 years, with some directors having spent over 20 years in the position.

Approximately one third of directors who responded to the survey were political directors (elected councilors or mayors). The typical LDC in Ontario had six board members, of which one or two would be a mayor or councilor. Naturally, there was variation among LDCs in the mix of political and independent directors: some LDCs had high shares of independent directors (e.g. Oshawa PUC at 100%), while others had a majority of councilors and mayors represented on the board (e.g. Veridian Connections at 64%).

The professional experience profiles of political directors were quite

Table 1
Director characteristics (n = 166).

Variable	Units	Mean	Std. Dev.	Min	Max
Years as LDC Director	Years	8.121	6.195	0	26
Chair	0 or 1	0.253	0.436	0	1
Vice chair	0 or 1	0.181	0.386	0	1
Committee chair	0 or 1	0.367	0.483	0	1
Experience as director at other organization	0 or 1	0.855	0.352	0	1
# of board positions at other organizations (n = 142)	Count	4.809	3.964	1	20
Engineer	0 or 1	0.127	0.333	0	1
Accountant	0 or 1	0.175	0.381	0	1
Lawyer	0 or 1	0.084	0.279	0	1
Director designation	0 or 1	0.145	0.353	0	1
Professional qualification (any of above)	0 or 1	0.482	0.501	0	1
Regulated industry experience	0 or 1	0.325	0.469	0	1
Years of regulated industry experience (n = 54)	Category	16-20 years		1–5 years	30+ years
Top management experience	0 or 1	0.659	0.476	0	1
Years of management experience (n = 110)	Years	16.205	9.395	1	46
Political director (mayor or municipal councilor)	0 or 1	0.378	0.486	0	1
Years in public office (n = 64)	Years	13.398	9.926	1	36

[3] Director names and addresses for each utility, which have to be officially registered by LDCs, were obtained from Corporate Profiles that are available from ServiceOntario, which manages the database of organizations incorporated in Ontario.

Table 2
Characteristics of independent and political directors.

Variable	Political Directors (n = 64)		Independent Directors (n = 102)		T-Test
	Mean	SD	Mean	SD	
Experience as a director at other organizations	0.901	0.271	0.824	0.383	
Professional qualifications	0.188	0.393	0.667	0.474	***
Regulated industry experience	0.078	0.270	0.480	0.502	***
Top management experience	0.438	0.500	0.803	0.399	***

, * indicates statistical significance at 5%, 1% level.

different from independent directors (see Table 2). While a large majority (80%) of independent directors had senior executive experience, less than half (44%) of political directors did. There were also significant differences in the extent of experience in regulated sectors (48% for independent directors versus 8% for political directors) and in professional qualifications (67% versus 19%).

We also examined director characteristics of small and large LDCs, categorizing LDCs by the number of customers relative to the median (20,000 customers) (see Table 3). Small LDCs, which are predominantly in rural areas, have more restricted local populations and workforce pools to draw on in selecting directors, implying smaller numbers of potential qualified candidates. Consistent with this supposition, directors of small LDCs tended to have less senior executive experience compared to directors of large LDCs (56% versus 72%), were less likely to have professional qualifications (35% versus 56%), and held fewer board positions at other organizations (3.6 versus 5.4 positions). There was no statistically significant difference, however, in the share of political directors of small and large LDCs or in prior experience in regulated industries. We did not find a statistically significant difference either in the financial performance (return on assets) of large and small LDCs in our sample. The average asset base of large LDCs in our sample is valued at $2.7 billion (which is skewed by two particularly large LDCs) while that for small LDCs is $0.02 billion.

3.2. Directors' attitudes towards strategic priorities for the corporation

Directors were asked to rank order their strategic priorities for the allocation of additional corporate resources in the hypothetical scenario that LDC profits increased in the following year. The four options presented were: a) Increase expenditures (capital or operating) on the core regulated business, b) Increase expenditures (capital or operating) on unregulated business activities, c) Reduce debt, or d) Increase dividends to the shareholder (municipal government). 32% of survey respondents selected option (a), 18% option (b), 16% option (c) and 34% option (d). The first three options are consistent with supporting a utility's commercial objectives, albeit with varying risk profiles. The fourth option, increased dividend payments to the municipality, represents a political benefit through the indirect funding of municipal government programs – which may impact the re-election prospects of municipal councillors.

In order to assess the impact of director type on strategic preferences among the four options, we employed a multinomial logistic regression in which the outcome measure was a categorical variable that identified at director's top-ranked choice among the four options. We included a series of binary independent variables that identified whether the respondent (i) was a political director, (ii) had top management experience, (iii) had regulated industry experience, (iv) had prior experience as a director at another organization and (v) held a professional qualification. We controlled for LDC size (total assets) and performance (return on assets) in all the empirical models since larger and more successful LDCs are likely to have different strategic opportunities and financial constraints than smaller or weaker LDCs. Financial data were obtained from the 2016 edition of the OEB's Yearbook of Electricity Distributors. Table 4 presents the estimated results of the multinomial logit model where the omitted baseline category is the option to reduce debt.[4] Coefficient estimates in non-linear models do not represent the simple magnitude of independent variable impacts, so we include in our discussion the percentage point change in the predicted probability of

Table 3
Characteristics of directors of large and small LDCs.

Variable	Large LDC (n = 109)		Small LDC (n = 57)		T-Test Sig.
	Mean	SD	Mean	SD	
Experience as a director at other organizations	0.907	0.291	0.759	0.432	***
Professional qualifications	0.556	0.499	0.345	0.479	***
Regulated industry experience	0.361	0.483	0.259	0.442	
Top management experience	0.722	0.449	0.557	0.502	**
Political director	0.370	0.485	0.414	0.497	
LDC total assets ($ billions)	2.691	8.464	0.019	0.014	***
LDC return on assets	0.022	0.026	0.017	0.009	

, * indicates statistical significance at 5%, 1% level.

Table 4
Multinomial logistic regression of directors' selection of top strategic priority for LDC.

	(Option 1) Increase Dividends to Government	(Option 2) Increase Regulated Business Expenditures	(Option 3) Increase Unregulated Business Expenditures
Political director	1.635** (0.749)	0.445 (0.770)	0.283 (0.733)
Top management experience	0.521 (0.554)	0.663 (0.582)	0.638 (0.617)
Regulated industry experience	−0.296 (0.651)	−0.012 (0.617)	0.293 (0.644)
Experience as a director at other organizations	0.137 (0.639)	−0.045 (0.646)	1.077 (0.938)
Professional qualification	0.467 (0.607)	0.632 (0.602)	0.515 (0.589)
LDC total assets	0.085 (0.088)	0.085 (0.088)	0.077 (0.093)
LDC return on assets	−66.192*** (24.162)	−43.482* (24.219)	−6.958 (26.076)
Constant	1.105 (0.984)	0.885 (0.939)	−1.592 (1.297)
Observations		156	
Pseudo R-Squared		0.078	
Log Likelihood		−192.304	

Robust standard errors in parentheses.
*, **, *** indicates statistical significance at 10%, 5%, 1% level.

[4] We find similar results on the core variables of interest in models throughout the analyses that exclude the two LDC control variables. The number of observations in this analysis, as in others below, decreases slightly from the 166 total survey responses due to incomplete responses to some survey questions. We found no systematic difference in profile characteristics between respondents that completed the survey in its entirety and those that partially completed it.

the outcome variable while holding all other variables at their mean values.

The primary finding of the multinomial logistic analysis is that political directors are statistically significantly more likely to prioritize increasing dividend payments to the government shareholder (municipality) than are independent directors, while controlling for other director characteristics such as professional experience as well as LDC characteristics. The economic significance of this coefficient is meaningful: political directors are 28 percentage points more likely to rank higher dividends as their top priority than their non-political peers, all else equal. It is notable that the coefficient estimate is statistically significant at the 5% confidence level, even with a small sample, which suggests this is a reliable finding.

The negative and statistically significant coefficient on the return on assets variable indicates that directors are less likely to prioritize higher dividends and higher expenditures on regulated business activities when the LDC has stronger financial performance. Increasing the value of ROA by half a standard deviation (0.7 percentage points) from its mean value reduces the probability of a director prioritizing higher dividends by 12 percentage points and higher regulated business expenditures by 3 percentage points. In unreported analyses we split the sample into large and small LDCs (as defined above) and re-estimated the same empirical model, finding that the preference of political directors for increased dividends is statistically significant for large LDCs but not for smaller LDCs (though the small sample size for the latter leads us to be cautious about inferring definitive distinctions between LDCs based on size).

In a related survey question, directors were asked about their preferred dividend policy should LDC profits remain the same as in the prior year – whether to increase dividends, decrease dividends or the keep them the same as in the past. This offered a further test of how directors prioritized financial needs of the utility relative to those of the municipal government. 16% of survey respondents preferred an increase in dividends, 8% preferred a reduction, and 76% preferred no change. We again estimated this relationship using a multinomial logistic regression with the omitted baseline category being no change to the level of dividends and using the same set of independent variables as above (see Table 5). Consistent with the findings presented in Table 4, we found that political directors, after controlling for professional experience and other attributes, were 12.5 percentage points more likely to favor increasing dividends than were independent directors. Estimating the same model separately for large and small LDCs yielded a similar pattern of results albeit with some nuances: political directors of large LDCs were associated statistically with an increased preference for increasing dividends while political directors of small LDCs were associated with an increased preference for not decreasing dividends. Again, some caution is warranted due to the limited number of directors from small LDCs in the survey response data sample.

Table 5
Multinomial logistic regression of directors' preferences over LDC dividends.

	(Option 1)	(Option 2)
	Increase Dividends	Decrease Dividends
Political director	1.025** (0.487)	−1.268 (1.455)
Top management experience	0.583 (0.607)	14.833*** (0.544)
Regulated industry experience	−0.825 (0.649)	−1.766* (1.041)
Experience as a director at other organizations	−1.720*** (0.647)	0.175 (1.100)
Professional qualification	−0.421 (0.606)	0.483 (0.763)
LDC total assets	0.073*** (0.027)	−1.610 (2.546)
LDC return on assets	3.048 (15.779)	52.556 (38.109)
Constant	−1.027 (0.814)	−18.287 (1.368)
Observations	163	
Pseudo R-Squared	0.155	
Log Likelihood	−79.857	

Robust standard errors in parentheses.
*, **, *** indicates statistical significance at 10%, 5%, 1% level.

Directors at larger LDCs were also more likely to indicate a preference for increasing dividends: increasing the value of assets by half a standard deviation raised the probability of a director selecting the option of higher dividends by 5 percentage points, holding other factors constant. While directors with board experience at other organizations were 26 percentage points less likely to support an increase in dividends and those with top management experience were five percentage points more likely to support a decrease in dividends payments, all else equal. By contrast, directors with regulated industry experience were 4 percentage points less likely to support such a decrease.

3.3. *Directors' attitudes towards corporate diversification into unregulated sectors*

Diversification into unregulated business sectors is one means for utilities to grow their overall revenue, profit and dividend streams, though expanding into non-core and competitive markets can also increase the overall risk profile of the corporation. Government, as shareholder, may be reluctant to support business diversification that could put at risk future dividends that indirectly support government social programs, but at the same time it may lack sufficient expertise to scrutinize and challenge proposals from management that involve new investment. These competing tensions may make political directors more or less risk-tolerant than independent directors. Given the risk and performance consequences for corporations, directors have a central role in shaping diversification strategies, assessing proposals for the development of new businesses, and in approving management investment recommendations. As a result, the survey asked directors their views on whether the corporation should significantly change its level of investment in unregulated business activities and, if so, in which specific sectors out of a listed set of 18 – including power generation, water/sewage billing, fibre optic networking, and engineering services (see the Appendix for the full list).

We analyzed responses using a probit model to estimate the probability that directors preferred a significant change in unregulated investment, and a negative binomial model to estimate the number of business sectors in which the corporation should increase or decrease investment. 71% of survey respondents preferred a change in their LDC's unregulated investments, identifying on average 3.1 sectors for increased investment and 0.2 sectors for decreased investment. The set of independent variables is the same as for the previous analyses, and we also considered further analyses where the sample was split between large and small LDCs. The results of these models (see Table 6) demonstrate that political directors, after controlling for professional experience and qualifications, were more likely than independent directors to support diversification into unregulated activities, with the most commonly preferred sectors being solar power generation, fibre optic networking, and business consulting and support services. Political directors were 16 percentage points more likely than independent directors to support changing LDC investment in unregulated sectors (Model 1), identifying an additional 1.2 unregulated sectors on average for increased investment (Model 2). Directors with top management experience also demonstrated a similar expansionary preference, perhaps reflecting greater confidence in identifying profitable opportunities or managing the downside risks of new investments and ventures. They were 28 percentage points more likely to favor a renewed level of engagement in unregulated activities (Model 1), supporting new investment in an additional 0.9 sectors on average (Model 2). Directors of LDCs with larger asset bases also leaned towards expansion: increasing LDC asset size by half a standard deviation from the mean increased the likelihood of supporting unregulated expansion by 13 percentage points (Model 1). On the other hand, directors with greater board experience at other organizations preferred a marginally lower

Table 6
Regression models of directors' attitudes towards LDC investment in unregulated sectors.

	Model 1	Model 2	Model 3
	Change in Investment in Unregulated Business Sectors (Probit model)	Number of Business Sectors for Increased Investment (Negative Binomial model)	Number of Business Sectors for Decreased Investment (Negative Binomial model)
Political director	0.531** (0.233)	0.379** (0.187)	−1.001 (0.729)
Top management experience	0.825*** (0.257)	0.329* (0.198)	1.045 (0.813)
Regulated industry experience	0.069 (0.259)	−0.019 (0.173)	−0.799 (0.873)
Experience as a director at other organizations	0.540* (0.293)	0.369 (0.272)	14.498*** (0.508)
Professional qualification	−0.103 (0.256)	−0.394** (0.162)	−1.861** (0.749)
LDC total assets	0.059** (0.028)	0.013 (0.012)	−0.018 (0.031)
LDC return on assets	2.967 (8.914)	4.539 (7.262)	−6.967 (28.075)
Constant	−0.714* (0.409)	0.466 (0.359)	−16.635*** (0.782)
Observations	163	163	163
Pseudo R-Squared	0.108	0.019	0.124
Log Likelihood	−87.323	−366.038	−58.101

Robust standard errors in parentheses.
*, **, *** indicates statistical significance at 10%, 5%, 1% level.

level of investment in unregulated sectors (reducing the scope of activities by 0.09 sectors on average). When estimating separate models based on LDC size, we again found that these results remained statistically significant for large LDCs but not for small LDCs.

3.4. Directors' attitudes towards corporate mergers and acquisitions

The fragmented structure of the electricity distribution sector in Ontario has led to some consolidation since 1999, though the number and pace of mergers and acquisitions has been limited despite periodic government tax incentives designed to improve the financial attractiveness of restructuring. Consolidation through merger, acquisition or sale can allow local utilities to benefit from enhanced economies of scale and scope that yield operational efficiency improvements. But mergers and sales also imply a reduction in or loss of local municipal government control over utility strategy and operations, as well as future dividends, and local communities and labor unions have often vigorously resisted utility restructuring proposals involving mergers or dispositions. Political pressures can thus conflict with economic motivations for consolidation. LDC directors play an important role in evaluating, recommending and approving any change in organizational ownership or structure so the survey included questions about directors' views on different shareholder ownership options, including selling an equity stake in their LDC (majority or minority), acquiring an equity stake in another LDC (majority or minority), merging with another LDC, or remaining with the status quo. In the survey, respondents were able to select more than one option. 50% of respondents supported merger with another LDC, 38% supported maintaining the status quo, 37% favored acquiring an equity stake in another LDC, while only 15% supported selling an equity stake. Using the same independent variables as above, we examined the respondents' choices for LDC consolidation in a series of probit regressions (see Table 7).

Model 1 presents results for maintaining the status quo: the two statistically significant results in this model have negative coefficients for directors with experience in a regulated industry or in a top management position. Both were about 15 percentage points less likely to support the status quo than respondents without such experience, all else equal.

The results in Model 2 provide statistical evidence that, after controlling for professional experience and qualifications and LDC characteristics, political directors were more likely to support acquisition of another LDC than were independent directors, similar to directors with top management experience. The estimated coefficients for political directors and those with top management experience were positive and statistically significant, and also economically meaningful: political directors were 19 percentage points more likely to support LDC acquisition and those with management experience were 17 percentage points more likely. In unreported analyses, we found that the support for LDC acquisition by political directors and those with top management experience was statistically significant for large LDCs but not for small LDCs.

Finally, we did not find many statistically robust results supporting divestiture of LDC equity stakes (Model 3) or for merger with other LDCs (Model 4). The only statistically significant relationship amongst these

Table 7
Probit regression model of directors' attitudes towards LDC mergers and acquisitions.

	Model 1	Model 2	Model 3	Model 4
	Maintain the Status Quo	Acquire Equity Stake in another LDC	Sell Equity Stake	Merge with another LDC
Political director	−0.020 (0.267)	0.513** (0.218)	−0.224 (0.328)	0.094 (0.262)
Top Management experience	−0.496** (0.241)	0.455** (0.173)	−0.077 (0.299)	0.317 (0.236)
Regulated industry experience	−0.447* (0.253)	0.211 (0.247)	0.106 (0.273)	0.149 (0.241)
Experience as a director at other organizations	0.046 (0.293)	0.342 (0.321)	0.818 (0.579)	0.062 (0.311)
Professional qualification	−0.300 (0.242)	−0.018 (0.234)	0.245 (0.280)	0.537** (0.229)
LDC total assets	−0.286 (0.204)	0.013 (0.016)	0.024 (0.015)	−0.038** (0.017)
LDC return on assets	−3.393 (8.496)	−8.362 (8.250)	16.162* (9.504)	6.683 (7.994)
Constant	0.461 (0.417)	−1.014** (0.418)	−2.293*** (0.541)	−0.699 (0.431)
Observations	163	163	163	163
Pseudo R-Squared	0.123	0.048	0.061	0.072
Log Likelihood	−95.345	−102.569	−63.933	−104.813

Robust standard errors in parentheses.
*, **, *** indicates statistical significance at 10%, 5%, 1% level.

Table 8
Summary of marginal effects of independent variables (percentage point change).

Director Characteristic	Strategic Priorities		Dividend Strategy		Investment in Unregulated Sectors			Mergers and Acquisitions			
	Table 4		Table 5		Table 6			Table 7			
	Increase Dividends (Option 1)	Increase Regulated Business Expenditures (Option 2)	Increase (Option 1)	Decrease (Option 2)	Change in Investment (Model 1)	Increase (Model 2)	Decrease (Model 3)	Status Quo (Model 1)	Acquire Stake (Model 2)	Sell Stake (Model 3)	Merger (Model 4)
Political director	+28.1	–	+12.5	–	+16.3	+1.2 sectors	–	–	+19.4	–	–
Top management experience	–	–	–	+5.4	+28.0	+0.9 sectors	–	−15.4	+16.5	–	–
Regulated industry experience	–	–	–	- 4.7	–	–	–	−15.0	–	–	–
Experience as a director at other organizations	–	–	−26.0	–	+19.2	–	+0.09 sectors	–	–	–	–
Professional qualifications	–	–	–	–	–	−1.2 sectors	−0.03 sectors	–	–	–	+8.8
LDC assets (+½ s.d.)	–	–	+5.4		+13.0	–	–	–	–	–	−0.11
LDC return on assets (+½ s. d.)	−12.4	−2.3			–	–	–	–	–	+4.4	–

two options was for directors with professional qualifications, who were 9 percentage points more likely to support merger than directors without such qualifications. These findings did not change when we estimated separate models for large and small LDCs.

4. Conclusion and policy implications

In this paper, we provide some of the first statistical evidence, based on a novel survey, about how political and independent directors of government-owned electric utilities differ in their views about core dimensions of corporate strategy. After controlling for directors' prior professional experience and organizational context, we find that political directors – who are also elected municipal politicians – prefer more aggressive corporate growth strategies, either through broader business diversification or through acquisition of other electric utilities, than do independent directors. In this sense, they exhibit similar preferences to directors with more extensive prior senior management experience. Diversification and acquisition strategies typically confer higher levels of performance risk on corporations, requiring careful evaluation by management, directors and shareholders. Support by political directors for such high-risk strategies may reflect several factors: first, they may simply have greater risk-tolerance thresholds than their independent director peers. Second, political directors may exhibit greater levels of optimism bias – namely that the expected benefits of major strategic change will outweigh the risks. Third, in the absence of prior private sector business experience, they may be less adept at independently scrutinizing managerial proposals for risky initiatives, which may tend to emphasize the upside opportunities at the expense of associated risks – leading political directors to lean more towards approving managerial recommendations than would independent directors who bring a more sceptical lens.

We also found that political directors are more likely to prioritize dividend payments to the shareholder (the municipal government) over re-investment in the corporation than are independent directors, an apparent contradiction with the espoused preference for corporate growth. Such a tension is consistent with political directors trading off commercial for political or public policy objectives. In Table 8 we summarize the marginal effects for the statistically significant findings in all the prior models.

Given the significant differences in preferences between independent and political directors around various elements of corporate strategy, government decisions about whom to appoint as directors of government-owned enterprises are likely to have notable consequences for strategic direction. Electric utilities in many countries are under increasing pressures to seek new sources of growth as their traditional business models and financial performance are being challenged by multiple technological innovations, falling consumer demand for electricity, and regulatory downward pressure on rates. In Ontario, the government has enacted legislation that relaxes constraints on electric utilities for diversifying into unregulated business activities, creating new opportunities to expand beyond historic geographic markets and businesses. But undertaking major organizational change is risky, particularly for regulated firms that have minimal experience of operating in competitive environments where customers, competitors and unexpected innovations present continuously changing demands. For municipal owners, these challenges in the electricity distribution sector make it an appropriate time to actively review corporate governance structures and practices in light of the OECD's governance principles. Municipal governments should appoint the most qualified directors possible and constitute boards with the necessary mix of skills, experience and diversity to guide utilities through a period of transition.

The survey results presented here find that political and independent directors, after controlling for other characteristics, tend to hold different views on corporate strategy and priorities, which may reflect tension between social and commercial goals. One risk is that mixed boards may not be able to reach consensus on future corporate strategy, stymieing organizational adaptation to a changing environment. As new utility director positions come available, municipal councils should thus pay careful attention to the composition of the existing board, skill or experience gaps, and the specific needs of the organization when appointing new members. Increasing the number of qualified independent directors would align with OECD governance recommendations and help utilities adapt to a rapidly evolving electricity sector.

Appointing only independent directors to LDC boards is likely to create a more commercial orientation to utility decision-making, though government owners may still wish to inject consideration of social policy objectives. One option for governments is to institute periodic formal mandate letters or shareholder declarations that provide written guidance on specific policy issues for boards to incorporate in their decisions, for instance around mergers and acquisitions or dividend levels. Such mandate letters, which are often used for Crown corporations in Canada, have the advantage of clarifying government priorities in a structured approach while delegating implementation to the board and corporation. Another option for balancing utility policy-responsiveness with operational autonomy is for governments to select directors who are former politicians or bureaucrats. Former policy-makers are likely to understand the nuances of the policy environment and the ways in which a utility can contribute to the government's social objectives, yet be unencumbered by short-term political considerations and electoral concerns.

While our empirical findings provide new insights on governance challenges for government-owned entities within the electricity distribution sector, we are limited by our focus on a single jurisdiction that has some unique characteristics. As a result, our ability to generalize the conclusions more broadly is limited, and future research in other jurisdictions may yield new findings about the preferences of political and independent directors and governance models of government-owned corporations.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

CRediT authorship contribution statement

Adam R. Fremeth: Conceptualization, Formal analysis, Writing - original draft, Writing - review & editing. **Guy L.F. Holburn:** Conceptualization, Formal analysis, Writing - original draft, Writing - review & editing.

Appendix A. Supplementary data

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