Corporate Governance of Publicly-Owned Electric Utilities: Survey Evidence from Ontario's Municipally Owned Distribution Companies

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May 30, 2018

Abstract
Boards of directors play a central role in the governance of local electricity distribution companies (LDCs), monitoring organizational performance and risk, and guiding long-term strategy. This article presents an assessment of corporate governance of publicly-owned electric utilities to examine whether board members are able better align interests with the public owners and limit political motivations.

Highlights

- Novel survey of corporate governance at publicly-owned electric utilities.
- Assesses how governance can be used to align publicly owned utility with its public owners.
- Finds that councilor directors (politicians) hold very distinct priorities from independent directors with respect to dividends, operational footprint, and mergers and acquisition.
- Directors with top management experience, prior governance experience, or a professional designation provided a counter-balance to the councilor director's stated preference.

Key words
Corporate Governance, Electric Utilities, Local Distribution Companies, Ontario

1. Introduction

The value of public ownership of electric utilities has been debated for decades with little resolution as to whether government ownership or intervention leads to better or worst outcomes. The literature in this area is replete with empirical studies that have oscillated back and forth on this issue (e.g. Villalonga, 2000; Wolf, 2009; Polemis, 2016). This has left policy makers with conflicting guidance for the degree of involvement that they should have in the sector. The result has been spurts of privatization followed by creeping public intervention and even re-municipilization, in some cases.

The theoretical arguments that underlie the benefits of one form of ownership of electric utilities over another tend to rely on the corporate governance advantage of private ownership. It is predicted that private ownership better allows for the introduction of alignment mechanisms that incent or discipline managers to act in the best interest of the owners (Cuervo and Villalonga, 2000). Similarly, private ownership eliminates political interference that can occur when politicians are involved in the governance of public utilities (Buchanan, 1972).

Despite the predicted advantages of private ownership, publicly-owned electric utilities can also mimic the benefits of private ownership with its own organizational structures. One approach is the composition and independence of the board of directors—a central element of corporate governance. The board of a publicly-owned utility is responsible to oversee management and has a fiduciary duty to be loyal to the public owners and not to politicians. Despite the value of a strong and independent board to offer the same benefits as private ownership, no study that we are aware of has attempted to assess the corporate governance of publicly-owned electric utilities to examine whether board members are able better align interests with the public owners and limit political motivations.

This study assesses the composition of boards of directors of local electricity distribution companies (LDCs) in the Canadian province of Ontario and examines how composition can shape LDC strategy and performance. This study is timely as the province's economic regulator, the Ontario Energy Board (OEB), has recently begun to study governance structures and practices of LDCs, noting that effective governance is an important factor in the development of organizational strategy and long-term performance. Implementing governance best practices is in fact becoming increasingly urgent for LDCs: a wave of technological disruptions in the electric utility sector in the form of distributed generation, virtual net- metering, remote telecommunications, transactive energy (block chain), energy storage, electric vehicles, and data management, are creating significant business challenges for LDCs, requiring management and boards to critically review traditional business models and to set new strategic paths. LDC boards with the appropriate mix of skills and experience among their directors will be better able to successfully guide their organizations and to ensure future growth.

The analysis is based on a unique data set from a survey of Ontario LDC directors. The data set contains information on director demographics and director views on LDC strategy, including mergers and acquisitions, diversification, and financial priorities. We find that LDC boards differ significantly in the extent of professional experience amongst their directors and in the mix of independent and political (local councillor) appointees, and that these attributes lead to quite different director perspectives on LDC strategic priorities. In particular, the priorities of councilor directors (i.e. municipal politicians) are dissimilar from their non-political peers with respect to their preference for increasing the dividend paid to the municipality, support for the expansion into unregulated activities, and the desire to acquire a neighboring utility. The next section discusses corporate governance in the Ontario municipal electric sector and best practices that have been established for publicly owned enterprises. Section 3 introduces the methodology and survey instrument used. Section 4 analyzes the survey data and assesses the extent to which boards of LDCs in Ontario exhibit characteristics that are consistent with these governance best practice principles. Section 5 concludes and offers policy implications.

2. Corporate governance in the municipal electric utility sector

Corporate governance is the set of organizational processes and structures for overseeing a corporation's strategic direction and management to ensure that it meets its mandate and objectives. In Ontario, LDCs have been incorporated as private corporations since 1998, requiring municipal owners to treat them as commercial entities and to implement appropriate standards of corporate governance. The reorganization of the province's electricity sector in 1998 also put LDCs under direct regulatory control of the OEB so that they operate in the same manner as private sector gas utilities. This change reduced the discretion that municipal owners have in prescribing the operation of the LDC and altered the benefit of local ownership to that of being an investor-owner. In this context, the OEB has recently reinforced the requirement for LDCs to adopt effective governance mechanisms, noting that governance practices will be scrutinized in future LDC rate review applications, though it has as yet refrained from prescribing specific standards.

Boards of directors, which are responsible for stewarding corporations, are the key institution through which governance operates. Legislation and common law 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).[1] Directors are appointed by shareholders, but their mandate is to act on behalf of the corporation rather than to pursue shareholders' specific interests in the case that these are not aligned with the corporation's interests.

Boards generally exercise their stewardship role in three major 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 operations 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

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[1] Directors' duties in Ontario are established in the Ontario Business Corporations Act (see section 134) as well as in case law (for a discussion of the latter, see report by Elenchus, "Corporate Governance for Regulated Natural Gas and Electricity Utilities", June 22, 2016, available at https://www.oeb.ca/sites/default/files/uploads/Elenchus_Draft_Report_Corp_Governance_20160622.pdf).

team. Directors have full discretion to exercise their powers and judgment, and are expected to act independently of shareholders. Shareholders, who have a financial investment in the corporation, do not generally intervene directly in corporate operations, except for some fundamental transactions or changes. Instead, shareholders exercise their rights primarily by electing directors.

For government-owned corporations such as municipal LDCs, tension can exist between the profit-seeking goal of a commercial enterprise and politically-determined social objectives.[2] Because of this tension and the need to sometimes make operating and strategic compromises, government-owned corporations can perform less efficiently than their privately-owned counterparts (Megginson and Netter, 2001). Corporate governance structures, however, have the potential to mitigate these conflicts and to improve organizational performance, even in situations where privatization is not feasible for political or practical reasons.

The OECD has published best practice guidelines for corporate governance of "state-owned enterprises (SOEs)", meaning corporations and entities that are owned by municipal, provincial or federal governments (OECD, 2015). Broadly, these guidelines recommend that governments should clearly establish the public policy rationale for government ownership and the objectives of the enterprise, while delegating operational autonomy to SOE management and independence to SOE boards. Specific OECD recommendations include:

Rationale for Government Ownership

- The government should develop an ownership policy that clearly and transparently defines the overall rationale for public ownership, SOE objectives, and the government's role in governance of the SOE.

The Government's Role as an Owner

- The government should act as an informed and active owner, and should exercise its ownership rights according to the legal structure of each enterprise.
- The government should allow SOEs full operational autonomy to achieve their defined objectives and refrain from intervening in management.
- The government should allow SOE boards to exercise their responsibilities and to act independently.

Responsibilities of Boards of SOEs

- The boards of SOEs should be assigned clear mandates and ultimate responsibility for the enterprise's performance. The board should act in the best interests of the enterprise and be fully accountable to the owners.
- SOE boards should effectively carry out their functions of setting strategy and supervising management, based on broad mandates and objectives set by the government. They should have the power to appoint and remove the CEO, and to set executive compensation at a level consistent with the long-term interests of the enterprise.

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[2] For examples of tensions that can arise in municipally-owned LDCs, see Warren and Ferguson (2016), "Corporate Governance for Municipally-Owned Local Electricity Distribution Utilities", available at http://www.weirfoulds.com/ LDCs.

• SOE board composition should allow the exercise of objective and independent judgment. Board members should be appointed based on qualifications and in accordance with best practices in achieving diversity.
• Mechanisms should be implemented to avoid conflicts of interest that prevent board members from objectively carrying out their board duties and to limit political interference in board processes.
• Independent board members should be free of material interests or relationships with the enterprise, its management or major shareholders that could jeopardise exercise of objective judgment.

An expert panel in Ontario made similar recommendations on LDC governance as the OECD guidelines, emphasizing LDC board independence from political control and the need for professional qualifications and training of board directors. As the Ontario Distribution Sector Review panel noted in its 2012 report to the government:

> *"...it would be preferable to have 100% independent board membership...Boards should be adequately sized to have directors with an appropriate range of skills and experience, and be populated on the basis of directors' qualifications to meet the management and oversight requirements of an electric distribution utility...Boards [should] have a range of 7 to 11 directors. Regional distributors should also encourage their Board members to acquire proper training in the areas of governance and the roles of Boards."*

This growing attention on corporate governance in Ontario's electric utility sector comes at a time of considerable consolidation and even some privatization in the province. This has positioned the board members as key decision makers who are responsible for approving any merger or acquisition activity that a utility's management may pursue. In fact, since the sectors reorganization in 1998 the number of LDCs has declined from approximately 300 utilities to 70 by 2018. Significant variation, however, persists across LDCs from Chapleau Public Utilties with just over 1,000 residential customers in Northern Ontario to the partially privatized Hydro One Networks that services 1.3 million residential ratepayers and over 121,000 commercial and industrial firms throughout many rural and some urban areas of the province. Such disparities will create further incentive for consolidation as utilities to seek economies of scale and reduce costs. These pressures provide strong motivation for our study in order pursue a better understanding of the backgrounds and preferences of the directors across Ontario's LDCs.

3. Data

Despite the relevance of LDC governance in Ontario to the broader topic of the public ownership of electric utilities, no academic study that we are aware of has examined this issue. The existing studies have been published by consulting firms or think tanks that typically relied on in-depth case studies of selected LDCs (see KPMG, 2015; Mowat Centre, 2016). These studies have yielded important qualitative insights into the operation of governance in practice, but they have had limited ability to draw general conclusions about patterns of behavior in the sector as a whole. An alternative would be to develop a survey with a reasonably high response rate that would offer opportunity for statistical analysis. We chose to pursue the latter in order to draw quantitative insights that would be generalizable to the population of directors.

The survey that we developed included questions on two broad sets of topics: the first set covered director characteristics, such as work experience, professional qualifications, and LDC board service. The second set of questions asked about directors' views on aspects of LDC strategy, namely diversification, mergers and acquisitions, and financial priorities. The specific issues that the survey questions addressed are as follows (see the appendix for the survey instrument):

i. Director Characteristics
- Year of appointment to LDC board
- Position on LDC board (Chair, Vice Chair, Committee Chair)
- Directorships of other organizations
- Professional qualifications (Engineer, Accountant, Lawyer, Director designation)
- Employment in electricity, gas or telecommunications sectors
- Senior executive experience (CEO, CFO, COO, President, VP)
- Experience in elected public office as a councillor or mayor

ii. Director Views on LDC Strategy
- Diversification into affiliate or unregulated business activities such as renewable power generation, municipal water operations, powerline contracting, construction and engineering services
- Mergers, acquisitions and divestiture
- Dividend strategy
- Financial priorities around investment in regulated or unregulated business activities, dividends, and debt levels

The survey was first pretested on a small number of directors to evaluate the questions, highlight potential issues, and ensure the survey accurately reflects the objectives of the study. In addition, as the questions delved into perspectives on LDC strategy it was important to ensure that directors would be willing to complete the survey. The survey was then sent by postal mail and/or email to the 384 directors of all LDCs in Ontario.[3] Responses were received from 166 directors (43% response rate) at 61 of the province's LDCs. The high response rate to the survey, in terms of both directors and LDCs, permits a greater level of confidence in drawing conclusions that are generalizable to the LDC sector overall.

4. Results

The analysis of the survey data results is divided between the two sets of questions that were posed to the LDC directors. We consider the summary statistics and differences of means tests for the director characteristics and then multivariate regression for the analyzing the director's positions on LDC strategy.

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[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.

4.1 Directors Characteristics
We begin our analysis of the survey results with a consideration of the characteristics of the directors who responded. On average, LDC directors appear to be quite experienced in senior executive management, regulated utilities, and in board work for other organizations (see Table 1). Two thirds of respondents have 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 respondents have professional experience in regulated utilities, including electricity, gas or telecommunications sectors. Almost 40% have a professional qualification as an engineer, accountant or lawyer. Respondents have been LDC directors for an average of just over eight years. A large fraction (86%) are directors at other for-profit or non-profit organizations. However, only a small minority (15%) have an official director designation (e.g. Institute of Corporate Directors).

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 a Director at other organization	0 or 1	0.855	0.352	0	1
# of other Board Positions at other organizaitons (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 (any of the 4 professional designations)	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	4.129 *(16-20 yrs)*	1.716	1	6
Top Management Experience	0 or 1	0.659	0.476	0	1
Years of Executive Position (n=110)	Years	16.205	9.395	1	46
Mayor or City Councilor	0 or 1	0.378	0.486	0	1
Years in Public Office (n=64)	Years	13.398	9.926	1	36

Approximately one third of directors who responded to the survey are elected councillors or mayors. This is broadly consistent with our analysis of publicly available information gathered from regulatory filings and LDC websites that indicated that a quarter of LDC directors are mayors or councillors. The typical LDC in Ontario has six board members, of which two would be a mayor or councillor. Naturally, there is variation among LDCs in the mix of councillor and independent directors: some LDCs have high shares of independent directors (e.g. Oshawa PUC at 100%), while others have a majority of councillors and mayors represented on the board (e.g. Veridian Connections at 64%).

Interestingly, the professional experience profiles of councillor directors are quite different from independent directors. While a large majority (80%) of independent directors have senior executive experience, less than half (44%) of councillor directors do so. There are also significant differences in the extent of experience in regulated sectors (48% for independent directors versus 8% for councillor directors) and in professional qualifications or formal director designations (67% versus 19%). Independent directors also are more likely to have governance experience at other organizations (90% versus 82%). Hence, as might be expected, while councillor directors bring local political and policy experience to LDC boards, independent directors have a comparative strength in private sector management and leadership. These differences and their statistical significance are depicted in Table 2.

Table 2
Independent and Councillor Directors

	Mayors or City Councilors (n=64)		Not Mayors or City Councilors (n=102)		T-Test Sig.
Variable	**Mean**	**SD**	**Mean**	**SD**	
Experience as a Director at other organization	0.906	0.293	0.823	0.383	*
Professional (any of the 4 professional designations)	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 significant at 10% level.
** Indicates significant at 5% level.
*** Indications significant at 1% level.

A further consideration given the vast number of LDCs in Ontario is an examination of the key differences between directors at utilities of different size. To consider these differences, we contrasted the characteristics of directors at LDCs above and below the median number of customers across all LDCs—'small' LDCs had fewer than 20,000 customers, 'large' LDCs had 20,000 or more customers.

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, directors of small LDCs tend to have less senior executive experience on average compared to directors of large LDCs (56% versus 72%), are less likely to have professional or director designation qualifications (35% versus 56%), and have fewer board positions at other organizations (3.6 versus 5.4 positions). There is no significant difference, however, in the share of mayors or councillors on boards of small and large LDCs or prior experience in regulated industries based on the set of survey respondents.

Table 3
Large and Small LDC Directors

	Large LDC (n=109)	Small LDC (n=57)	**T-Test Sig.**

Variable	Mean	SD	Mean	SD	
Experience as a Director at other organization	0.907	0.291	0.759	0.432	***
Professional (any of the 4 professional designations)	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	**
Mayor or City Councilor	0.370	0.485	0.414	0.497	

* Indicates significant at 10% level.
** Indicates significant at 5% level.
*** Indications significant at 1% level.

There are several corporate governance issues that arise from this descriptive profile of LDC directors. First, the relatively high representation of elected councillors and mayors increases the potential for political considerations to shape board decisions at the expense of commercial objectives and performance of the LDC. Councillor-directors can provide a valuable communication channel between the board and the broader municipal council, but their inclusion on the board can reduce actual or perceived independence from the municipal shareholder—counter to the core 'independence' governance best practice as recommended by the OECD. This may be less of a concern for LDCs where a minority of directors are elected councillors, though councillor-directors who are board committee chairs can have particular influence on LDC policy and strategy.

A second consequence of appointing 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 councillor to the board means forgoing an alternative independent director. With relatively small boards of six directors, the overall mix of skills and experience can shift substantially with the choice of a councillor or independent director given the large differences, as documented above, in private sector experience and professional qualifications of each type of 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 councillor and independent directors may have less consequence for the performance of municipally-owned enterprises. However, in industries that are subject to disruptive external forces, as in the current 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 rapidly changing business risks and opportunities and in strategic planning – becomes more critical during periods of industry turbulence. This concern can be exacerbated during a consolidation wave, such as that facing Ontario, where municipally owned utilities merge with one another and politicians from both participating municipalities want representation on the newly formed board of directors. For instance, the recently established Alectra Utilities in the Greater Toronto Area is an amalgamation of several municipally owned utilities and five of its thirteen board members are mayors from the legacy utilities. This composition is very different from that of municipal utilities that had been acquired by non-municipal, private interests, such as FortisOntaro, who is not bound to the remaining municipal shareholders.

4.2 Director Views on LDC Strategy

The second part of the survey analysis provides evidence on directors' views about various aspects of LDC strategy, and how attitudes differ according to director characteristics. We apply multivariate regression techniques to consider whether we may identify statistically significant correlations between characteristics of the board members and various strategic options available to their electric utility.

First, we consider the strategic priorities of the directions using the question that asked them to rank order their strategic priorities for the allocation of additional resources in the hypothetical scenario that LDC profits increased in the next year. The four options were: a) Increase LDC expenditures (capital or operating), b) Increase affiliate/unregulated business expenditures (capital or operating), c) Increase dividends to shareholders, or d) Reduce debt.[4] These four options were chosen as they represent very different strategic directions for an electric utility. Increasing expenditures would support the utility's ongoing operations to ensure reliability and longer-term gains. Expanding into unregulated activities would involve diversification with greater risk and potential returns than their traditional, regulated operations. Increasing dividends to the shareholders, which in most cases is the municipality, would provide a steady source of revenue to be used by the city councillors. Finally, reducing debt would ensure financial stability and improve a utility's financial capacity to undertake costly projects in the future.

We employ a multinomial logistic regression to assess the relationship between these various strategic priorities and the director's characteristics. We include a series of indicator variables set to one to identify whether the respondent was a (i) Councillor director, (ii) has top management experience, (iii) has regulated industry experience, (iv) has prior experience as a Director and (v) holds a professional designation as defined above. These five variables are set to zero when the respondent does not hold one of these characteristics. We also include the total assets (in billions) at their electric utility as a control variable to capture variation in LDC size and the return on assets (ROA) to control for the financial performance. The source for these two control variables was the 2016 edition of the OEB's Yearbook of Electricity Distributors. Table 4 presents the results for the respondents' top strategic priority with the option to reduce debt used as the baseline category.[5]

Table 4

Multinomial Logistic Regression on Strategic Priorities

	Increase Dividend as Top Priority	**Increase LDC Expenditure as Top Priority**	**Increase affiliate/unregulated**

[4] Some municipalities in fact provide guidance to LDC boards on dividend policy in shareholder agreements that stipulate the percentage of net income (e.g. 50%) that should be paid to the municipality as a dividend.

[5] The number of observations in this analysis, as in others below, decrease slightly from the 166 total survey responses as a result of directors selectively choosing to not respond to some of the survey questions. We statistically assessed this non-response and found no systematic difference between those respondents that completed the survey in its entirety and those that selectively chose to not respond to some questions.

			Expenditures as Top Priority
Mayor or City Councilor	1.635** (0.749)	0.445 (0.770)	0.283 (0.733)
Experience as a Director at other organization	0.137 (0.639)	-0.045 (0.646)	1.077 (0.938)
Professional (any of the 4 professional designations)	0.467 (0.607)	0.632 (0.602)	0.515 (0.589)
Regulated Industry Experience	-0.296 (0.651)	-0.012 (0.617)	0.293 (0.644)
Top Management Experience	0.521 (0.554)	0.663 (0.582)	0.638 (0.617)
Total Assets	0.085 (0.088)	0.085 (0.088)	0.077 (0.093)
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 significant at 10% level.
** Indicates significant at 5% level.
*** Indications significant at 1% level.

The results depicted in Table 4 demonstrate that the councilor-director characteristic in the case of a preference for increasing dividends is the only one that is correlated at a statistically significant level. The economic significance of this coefficient is meaningful as councilor-directors are 83% more likely to identify increasing the dividend as their top priority than their non-political peers. This finding is consistent with the prediction that governance of publicly-owned utilities by politically motivated directors would be led in very different strategic directions.

Interestingly, the only other statistically significant variable is the negative coefficient on ROA in the case of both prioritizing an increase to dividends and LDC expenditures relative to paying down debt. This suggests that directors at higher performing utilities are more likely to take the fiscally responsible choice of lowering debt levels that may improve a utilities' returns in the long run. In unreported analyses (available from the authors), we tested whether this relationship between the ROA of a director's utility and their strategic priorities was related to whether the respondent was a councilor-director. By splitting the sample between politician and non-politician directors, we found this statistically significant negative relationship to persist only in the case of non-politician directors but its statistical significance would disappear in the case of councilor-director respondents. This suggests that the priorities of directors at higher performing publicly owned electric utilities is conditional on the councilor-director characteristic.

In a related question, we asked the respondents about their preferred dividend policy should their utility's profits remain the same as in the past. This question is less prospective than the previous query that investigated multiple strategic priorities but rather considers the importance of the utility as a source of revenue for the public treasury. Respondents were given the option to increase dividends, decrease dividends or the keep them the same as in the past. We again estimate this relationship using a multinomial logistic regression with the base category as no change to the level of dividends and using the same set of variables as above. The results presented in Table 5 provide a consistent picture to the previous results as the councillor directors are again much more in favor in increasing dividends even when profits are expected to remain the same. The magnitude of this effect is even greater than above as the councillor directors are more than twice as likely to support increasing dividends than their non-politician peers. In addition, those directors with previous board experience prefer the status quo while those with prior top management experience are much more likely to support a decrease to the dividends at their utility. These two latter findings offer an interesting counterweight to the councillor director's tendency to seek an increase in dividends even when profits remain the same.

Table 5
Multinomial Logistic Regression on Dividend Strategy

	Increase Dividends	**Decrease Dividends**
Mayor or City Councilor	1.025** (0.487)	-1.268 (1.455)
Experience as a Director at other organization	-1.720*** (0.647)	0.175 (1.100)
Professional (any of the 4 professional designations)	-0.421 (0.606)	0.483 (0.763)
Regulated Industry Experience	-0.825 (0.649)	-1.766* (1.041)
Top Management Experience	0.583 (0.607)	14.833*** (0.544)
Total Assets	0.073*** (0.027)	-1.610 (2.546)
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 significant at 10% level.
** Indicates significant at 5% level.
*** Indications significant at 1% level.

The opportunity for a publicly owned utility to diversify into other business lines presents the potential for the state to expand its reach into commercial activities that may otherwise be provided by the private sector. A publicly-owned utility may benefit from cheaper sources of capital while able to rely on the support of the revenue from the regulated lines of business leading some directors to consider supporting the expansion of the utilities operational footprint. The survey asked respondents to identify whether their utility should significantly modify its level of investment in affiliate or unregulated business activities in the future. It then followed that query with a question that asked respondents to specifically identify which affiliate or unregulated activities they would consider significantly increasing or decreasing their investment. The list included eighteen choices, including power generation, water/sewage billing, fibre optic networking, and engineering services.

Using the same set of variables as above, we consider the respondents choice to support a significant change to their affiliate/unregulated activities using a probit model and a negative binomial model to estimate the count of increases or decreases that the respondent would support. The results of these models are presented in Table 6 and again highlight the marked difference between councillor directors and their non-political peers. Councillor directors are supportive of significantly changing the unregulated activities of their utility and this would involve an increase to those activities. The top categories that the councillor directors supported significantly increasing investment in were solar power generation, fibre optic networking, and business consulting and support services. Those respondents with top management experience demonstrated a similar profile to the councillor directors. On the other hand, respondents with prior governance experience offered a counter balance as they were in support a decreased level of investment in unregulated activities and those with professional designations seemed to prefer the status quo.

Table 6

Regressions on the Changes to Investment in Affiliate or Unregulated Activities

	Change to Affiliate/Unregulated Activities (Probit)	**Count of Increased Investment Categories (Negative Binomial)**	**Count of Decreased Investment Categories (Negative Binomial)**
Mayor or City Councilor	0.531** (0.233)	0.379** (0.187)	-1.001 (0.729)
Experience as a Director at other organization	0.540* (0.293)	0.369 (0.272)	14.498*** (0.508)
Professional (any of the 4 professional designations)	-0.103 (0.256)	-0.394** (0.162)	-1.861** (0.749)
Regulated Industry Experience	0.069 (0.259)	-0.019 (0.173)	-0.799 (0.873)
Top Management Experience	0.825*** (0.257)	0.329* (0.198)	1.045 (0.813)
Total Assets	0.059** (0.028)	0.013 (0.012)	-0.018 (0.031)
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 significant at 10% level.
** Indicates significant at 5% level.
*** Indications significant at 1% level.

The fragmented structure of the distribution sector in Ontario has led to some consolidation in recent years, though the number of mergers and acquisitions has been small despite government policies (e.g. tax breaks) that were designed to improve the financial attractiveness of LDC consolidation. LDC directors play an important role in recommending and approving any change in organizational ownership or structure, so the survey included questions about directors' views on different ownership options, including selling majority or minority stakes, acquiring majority or minority stakes in another LDC, merger, or remaining with the status quo. We examine the respondents choices for LDC consolidation in a series of probit regressions in Table 7.

Using the same variables as above we consider the respondents preference to maintain the status quo, acquire a stake in another utility, or sell a stake of its own. First, we find that the regression results demonstrate very little support for maintaining the status quo; the two statistically significant results in this model have negative coefficients for those respondents with experience in a regulated industry or in a top management position. Second, the results suggest that there is more support for the acquisition of another utility than in the sale of a stake of an LDC. The coefficients for councillor directors and those with top management experience are positive and statistically significant. Finally, none of the director characteristics are significant for the case of selling a stake of an LDC. In unreported analyses (available from the authors), we see that the support for an acquisition by councillor directors and those with top management experience is limited to larger LDCs (as defined above) and these coefficients are not statistically significant for those directors at smaller LDCs. Together, these results may help explain the lack of consolidation activity in Ontario as the directors have a preference to change the status quo but are less willing to sell an equity stake in their utility.

Table 7
Probit Regression on Preferences for LDC Consolidation

	Maintain the Status Quo	**Acquire Stake**	**Sell Stake**
Mayor or City Councilor	-0.020 (0.267)	0.513** (0.218)	-0.224 (0.328)
Experience as a Director at other organization	0.046 (0.293)	0.342 (0.321)	0.818 (0.579)
Professional (any of the 4 professional designations)	-0.300 (0.242)	-0.018 (0.234)	0.245 (0.280)
Regulated Industry Experience	-0.447* (0.253)	0.211 (0.247)	0.106 (0.273)
Top Management Experience	-0.496** (0.241)	0.455** (0.173)	-0.077 (0.299)
Total Assets	-0.286 (0.204)	0.013 (0.016)	0.024 (0.015)
Return on Assets	-3.393 (8.496)	-8.362 (8.250)	16.162* (9.504)
Constant	0.461 (0.417)	-1.014** (0.418)	-2.293*** (0.541)
Observations	163	163	163
Pseudo R-Squared	0.123	0.048	0.061
Log Likelihood	-95.345	-102.569	-63.933

Robust standard errors in parentheses.
* Indicates significant at 10% level.
** Indicates significant at 5% level.
*** Indications significant at 1% level.

5. Conclusion and Policy Implications

In this paper, we have undertaken one of the first assessments of corporate governance at publicly-owned electric utilities to consider how the composition of the board of directors is used to better align the interests of the utility with its public owners and limit political interference. The results offer novel insights into the preferences of directors and how a mix of training and experience can shape the priorities in the governance of publicly-owned utilities. The stark distinction between the preferences of councilor and independent directors highlight the necessity to recruit a diverse set of highly-skilled individuals to populate the board of directors.

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 technological innovations, falling consumer demand for electricity, and regulatory downward pressure on rates. In Ontario, the government has enacted legislation that not only relaxes constraints on the consolidation of the sector but also LDC affiliates for diversifying into unregulated business activities, creating new opportunities for LDCs to expand beyond their 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 public owners, these challenges in the LDC sector make it an appropriate time to actively review corporate governance structures and practices in light of the OECD's governance principles. Municipalities should appoint the most qualified directors possible and constitute boards with the necessary mix of skills, experience and diversity to guide LDCs through a period of transition. Our analysis of the survey results presented here find that councillors and independent directors on average tend to hold different views on LDC strategy and priorities, which may reflect tension between social and commercial priorities as well as differences in professional backgrounds. One risk is that mixed boards may not be able to reach consensus on future LDC strategy, stymieing organizational adaptation to a changing environment. As new LDC 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 LDCs adapt to a rapidly evolving electricity sector.

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