

A Historical Review of Interlocking Directorates in Canada: A Comparison of the 1912 and 2012 Networks

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ABSTRACT

The purpose of this paper is to apply research methods pioneered in the historical analysis of the more extensive American interlock network to a Canadian business context. Specifically, a macro structural approach compares boards of directors of Canadian companies from the years 1912 and 2012. Our findings show that well-connected, multi-boarded directors have lost their influence over the study period. These changes have had important consequences for the aggregate structure of the network. After 100 years the network became more decentralized with the most important companies in 1912 playing a more central role when compared to those in 2012. Finally, finance, insurance and real estate sectors as well as the energy sector became more central to the network over time.

Keywords: *interlocking directorates, geography, Canada, board of directors*

INTRODUCTION

For over a century Canadian companies have connected via interlocking directorates, which occur when a member of a company's boards of directors also serves on another company's board. This practice created a network that remained copiously linked throughout the 1900s. The network served as a way for companies to share corporate procedures while also allowing individuals, from the upper and middle classes, to maintain the hegemony of the ruling elite.

American companies endured similar experiences to their Canadian counterparts. However, research has revealed the dubious decisions of American firms, especially during the 1990s and early 2000s were in part a consequence of these links. Decisions made by prominent companies like the Enron Corporation, and their global social and economic consequences, drew attention to corporate board practices. In response, many corporations altered their selection criteria when electing directors to their boards by the turn of the twenty-first century. The result was the disappearance of what Useem (1984) termed the inner circle in the United States, that is those directors who sit on a large number of corporate boards. The result meant that companies became less connected to each other via interlocking

directorates. Sapinski and Carrol (2017) pointed out that comparative and longitudinal studies have uncovered patterns of interlocking that vary according to country and time period.

The purpose of this paper is to apply research methods pioneered in the historical analysis of the more extensive American interlock network to a Canadian business context. Specifically, we take a macro structural approach to compare boards of directors of Canadian companies from the years 1912 and 2012. The director networks of these two study years, 1912 and 2012, are used to examine the transformation over a period of 100 years with a focus on interlocking directorates. Specifically, we examine the density of the network by firm and industry to determine if there has been a disappearance of 'the inner circle', those well-connected individuals sitting on a large number of boards. Additionally, principal firms within the network are highlighted. We also examine the presence of women on boards as well as those industries that have become more central to the interlocking network.

External Knowledge and Interlocking Directorates

In today's competitive business climate, accessing specialized, external knowledge has become increasingly important to the survival of firms (West et al., 2014). Firms foster knowledge from outside sources in order to compliment internal

research and development departments. It could be argued that inter-organizational relationships are the most important for knowledge transfer today because they introduce radically different knowledge to the firm (Berchicci, 2013; Zhou and Li, 2012). There are a number of ways for a firm to procure external knowledge. Alliances, foreign direct investment, acquisitions, and mergers are examples of possible permanent relationships. Links to suppliers and buyers, interlocking directorates, start-ups by individuals belonging to another local firm, staff movement, and rumors are a few examples of unofficial but very important knowledge networks as well. In this study, we examine one of these informal *less abiding* sources of knowledge, which are interlocking directorates. Obtaining the best knowledge and accurately assessing it is critical to effective management choices. As argued by Connelly and Van Slyke (2012), with the external knowledge directors obtain, directors that serve on the boards of other firms are in a superior position to help management make these decisions.

Corporations are guided by a group of officers known as the board of directors. A board of directors is a group of individuals that are elected to act as representatives of the owners to establish corporate policies and to make decisions on major company issues. By law, the board is the highest ranking decision-making body of a corporation. Today, every public company must have a board of directors with some private and nonprofit companies possessing one as well. The number of members of a board varies in size. In the datasets used in this study, some companies have boards with as many as 33 members or as few as three.

In the early 2000s boards of directors and their practices were placed under intense scrutiny. Due to the economic fiascos such as Enron Corporation's bankruptcy, hiring procedures changed across corporate boards especially with regard to individuals sitting on multiple boards. In addition, the value of being well-connected through peers who served on other boards declined (Ginalski et al., 2015). Directors serving on many boards were vilified after the corporate scandals of the early 2000s. This perception has endured with lingering implications for today's interlocking directorate network.

An interlocking directorate refers to the practice of members of a corporate board of directors serving on the boards of multiple corporations.

The corporate interlocking directorate was first systematically studied in the United States by the Pujo Committee in 1913 (United States, 1913). European research on corporate interlocks can be traced back to the study of the interlocks between German banks and industry by Jeidel (1905). Studies of Canadian networks are far fewer than those dealing with the United States and Europe. Nevertheless, Ornstein (1980) and Berkowitz et al. (1979) were perhaps the first significant contributors to research that focused on Canada. These researchers found results comparable to American research results.

According to the law in the United States corporations that are competitors or potential competitors may not share interlocking directorates. The Clayton Antitrust Act of 1914 (United States, 1914), of the United States, prohibits interlocking directorates of American companies competing in the same industry. As well, corporations would be in violation of antitrust laws if they combined into a single corporation. The concern of antitrust laws has been centered primarily on interlocking of directorates as a potential collusion mechanism. Canada has no such restrictions but does require the director of a corporation to act in the best interest of the firms he/she represents (McDougall and Fogelberg, 1968).

Early research on board interlocks demonstrated the existence of well-connected social elites heading corporations in the United States. Citing the fact that several of these elites sat on more than one large corporation, Mills (1956, 286) states: "We must remember that these men of the power elite now occupy the strategic places in the structure of American society; that they command the dominant institutions of a dominant nation; that, as a set of men, they are in a position to make decisions with terrible consequences for the underlying populations of the world." Mills' words were, in many ways, prophetic.

Research on interlocking directorates has developed extensively over the last 100 years. As the business environment has changed, so too have the paradigms used to describe the environment of the interlocking directorate. This research can be grouped into four main theories: management control; class hegemony; financial control; and, resource dependency.

Management control theory, as developed by Mace (1971), was the dominant explanatory paradigm for characterizing directorates until

the 1980s. Proponents of this theory suggested that interlocking directorates are relatively unimportant to the corporation because board members are appointed by management to act merely as figureheads while others in the corporation wielded actual power. This theory envisioned management as controlling the direction of a company with little or no interference because the management was isolated and independent from external pressures.

Management control theory assumed a random network structure rather than a network of interlocking directorates. Due to that assumption this theory did not consider the existence of networks. The basis for the management control model was undermined by a number of studies that found significant relationships between the interlock structure and firm financial characteristics and performance.

Class hegemony theory, as studied by Sonquist and Koenig (1975), contends that interlocks emphasize the participation of members of society's upper class in business. This theory views interlocks as integrative ties whose main purpose is to support class cohesion. The unity of this class is promoted through common life experience such as belonging to the same social clubs and attending the same private schools. Membership on a corporate board is a natural extension of these experiences. Membership itself, in these activities, supports this perspective. Interlocks are viewed as an end in themselves, as a control mechanism, rather than a means to an end. If members of the upper class are always appointed to the board of directors, they will continually control corporate power. Since the size of this elite class is small, a number of members must fill multiple positions, hence the interlocking directorate.

A third theory is the financial control model, which is centered on the fact that corporations require access to a liquid form of currency (Mintz and Schwartz, 1985). In an environment where financial needs are constantly shifting, a corporation's needs cannot always be maintained through internal resources. Hence, interlocks exist so that a close relationship exists between an industrial firm and a bank. The bank benefits by using a firm's financial dependence to form a long term borrowing and financial services arrangement. Hence, according to the bank control model, financial institutions should be important nodes of an interlocking network.

While these paradigms deserve recognition and are still studied today (for example, see Braun et al., 2018), a fourth view of resource dependency (Pfeffer and Salancik, 1978), has become increasingly significant considering today's knowledge economy. This paradigm contends that interlocks are established to reduce uncertainty. Resource dependency paradigm argues that interlocking directorates provide a corporation with external resources that extend well beyond liquid currency as in the financial control model. The connections that directors form are pipelines for a wide array of resources, not simply capital. These resources better place firms into a position to pursue growth and success.

Through an interlock, a firm creates a relationship with an external firm to ensure access to a resource not produced internally. Singh and Delios (2017) categorize these resources into both tangibles and intangibles. Tangible resources include the flow of money, technology, and personnel. The intangible resources include prestige, preferential treatment in business dealings, and knowledge. Important to the premise of this paper, resource dependency contends that interlocks are established to reduce uncertainty and increase the knowledge of top management decision-makers.

Howard et al. (2017) suggest the external knowledge acquired in the form of interlocking directorates is a key source of competitive advantage and highlights the deficiency of research that assesses knowledge acquisition in the resource dependency literature. Sociologists are at the forefront of this research arguing that interlocks are a mechanism for reducing uncertainty by increasing the knowledge of top management decision-makers (Lorsch and MacIver, 1989; Howard et al., 2017; Pye et al., 2014; Zdziarski and Czerniawska, 2016; Abdollahian et al., 2017; Withers et al., 2018). Shropshire (2010) terms this the diffusion model of interlocking whereby knowledge is circulated from one firm to another.

Research reveals how corporate governance practices quickly spread from one board to the next through common directors, denoting that what directors experienced on one board shaped what they did on other boards (Connely et al., 2011; Mazzola et al., 2016). A real world example is observing the behaviors of peer linked firms towards new market entry and

growth strategies (Haveman, 1993). Baum et al. (2000) analyzed Ontario nursing home chains' acquisition location choices from 1971 to 1999 to show that the decision-makers learned various strategies through linked companies via interlocking directorates, and then imitated them for the location choices to expand their markets. Shropshire (2010) describes this as the diffusion model of interlocking whereby knowledge is disseminated from one firm to another. This knowledge dissemination creates more interlocking over time.

Although this paper does not postulate that the corporate interlock is the only information gathering mechanism used by firms, it is clear that the interlock does provide firms with advantages not obtainable through other mechanisms. Operating under conditions of lessened information, the firm may enter into sub-optimal or incorrect decisions more often, placing the survival of the firm in question. The reverse is true for increased information where the probability of survival and success is enhanced.

Chu and Davis (2016) offer a different perspective. They argue that board recruiting practices changed in the early 2000s with the result that well-connected directors became less desirable as a choice for board membership. These developments followed the embarrassments of Enron Corporation, WorldCom, and the options backdating scandal of 2005–2006, which led to much negative attention in the popular business media. Analysis by The Corporate Library, an organization that specializes in research regarding the governance of corporations, indicated that board composition may have played a role in the spread of options backdating as firms central to the scandal shared board members to a greater extent than might be otherwise expected but had no other identifiable links (Colvin, 2006). Corporations, to distance themselves from these public relations disasters, elected directors who were less connected and who came from under-represented social groups. The result was that the inner circle disappeared and companies became less connected to each other.

While not suggesting diversification of boards was the consequence of these scandals, a segment of research has found a surprisingly fractured board network in the aftermath (Kogut, 2012; Heemskerk et al., 2017; Mizruchi, 2017). It suggests the network relies less on a small number of 'big linkers' —

individuals sitting on numerous boards. As a result the corporate elite is less hierarchical today and depends on a growing number of directors sitting on two or three boards. The heterogeneous network contradicts the class hegemony model and supports the hypothesis presented by Chu and Davis (2016). The decline of the inner circle was driven by a radical shift in the characteristics of directors invited onto additional boards. Directors serving on three or more boards may now be *less* likely to gain a new board seat than those serving on one board. The value of being well-connected through peers serving on other boards has also declined.

Chu and Davis (2016), drawing on the research findings of Mizruchi (1996), suggest these findings render a segment of interlocking research no longer applicable to boards in the United States. Whereas directors were previously sought after because of their legitimating connections, the financial scandals of the early 2000s and the corresponding public outcry reversed this social construction. This is a refutation of the class hegemony model as an increasing number of directors from minority groups were hired instead of members of the well-connected inner circle elite. O'Hagan (2017) and Post and Byron (2015), for example, argue that different types of directors provide diverse resources and greater diversity that, in turn, encourages divergent thinking in the decision-making process resulting, possibly, in generating higher profits. Hence, new board hiring practices actually contradict the class hegemony model and actually support the resource dependency argument.

MATERIALS AND METHODS

To examine interlocks, a thorough director dataset, as identified by the Financial Post's *Directors of Directors* for the years 1912 and 2012, was used. In 1912, every incorporated company in Canada was asked to provide a list of their directors and officers by Houston's Standard Publications. Out of the nearly 10,000 requests for information sheets sent out about 5,000 requests were returned with the majority completely filled out. There are minor issues with the data collection process, which is to be expected considering that the twentieth century approaches to data collection were not as codified as they are today. For example, in rare cases it was impossible to determine if an individual actually sat on more than one board of directors. A second issue, even more

A Historical Review of Interlocking Directorates in Canada: A Comparison of the 1912 and 2012 Networks

infrequent, was that it was impossible to determine the exact name of a company and, therefore, if an interlocking directorate had occurred. As a result, those data points were omitted. Despite these data issues the 1912 database provides a rare look into the past that deserves to be used.

The 2012 register of companies includes both publicly traded and privately owned, with their addresses and the names of their executive officers and directors. Criteria for inclusion of companies for the 2012 sample include: incorporation in Canada; substantial revenue or assets; and Canadian residency for the majority of the directors. Once a company qualifies for inclusion, its officers and directors automatically meet the criteria for a personal listing. So, while bringing together the 1912 and 2012 datasets is imperfect, they are the best available. Additionally, they enable a unique historical perspective that would be almost impossible to assemble otherwise.

Table 1. Differences between collection years 1912 and 2012

Variable	1912	2012
Total number of directors in dataset	6,997	24,163
Total number of interlocks in dataset	5,303	15,620
Total number of companies in dataset	1,741	5,699
Number of Directors per Company	4.02	4.24
Number of Interlocks per Director	0.76	0.65
Number of Interlocks per Company	3.05	2.74
% interlocks where directors on >15 boards	1.36	0.10
% interlocks where directors on >10 boards	2.50	0.85
% interlocks where directors on >5 boards	10.54	11.38
% interlocks where directors on 2 boards	62.38	65.08
% directors sitting on only 1 board	87.22	67.96
Geodesic Distance	5.2	4.2

Table 1 summarizes the differences between the two collection years. The 1912 dataset includes 6,997 businessmen showing the directorships and offices they held for 1,741 companies. The 2012 dataset includes 24,163 businesswomen and businessmen for 5,669 companies. Since 87.22% of all directors only sat on one company board in 1912, this means that 895 directors were part of an interlock in 1912. In 2012, 67.96 directors sat on only one company board while 7,747 were interlocked in 2012. In 1912, there

were 5,303 total interlocks. This amount grew to 15,620 in 2012. If you include all of the directors in the year 1912, the result is that the average number of interlocks per director was 0.76 in 1912. If you include only those directors that were part of an interlock, the average was 5.92 interlocks per director. For 2012 these numbers were much smaller. If you include all of the directors this means that the average number of interlocks per director was 0.65 in 2012. If you include only those directors that were part of an interlock, the average was 2.01 interlocks per director.

RESULTS AND DISCUSSION

Table 1 reveals that in 1912 there were a select few directors, the inner circle, which drastically increased the average number of interlocks per director. To further this argument, Table 1 reveals the number of directors that sat on a large number of boards. In 1912, those directors that sat on more than 10 boards that made up 2.5% of all interlocks. In 2012 this was less than 1%.

Returning to Chu and Davis (2016) the differences between 1912 and 2012 can be explained by the fact that well-connected individuals became less preferred by companies when appointing new directors. For most of the twentieth-century boards were comprised almost exclusively of white men, typically executives with elite pedigrees. This changed somewhat during the 1980s and 1990s, and boards came to contain more non-executives and their composition became modestly more diverse. The greater percentage of directors sitting on only two companies is due to the fact that companies preferred diverse characteristics in the composition of their board of directors. An increasing number of directors from visible minorities were hired instead of members of the well-connected inner circle elite.

Diversity in board appointments now includes characteristics such as: gender, ethnicity, nationality, educational background, as well as diverse work experience. This change has been a subject of debate in the research (Hillman et al., 2002; Terjesen et al., 2015; Perrault, 2015). With the lack of available data for 1912, the only attainable research that can be completed on the diversity of boards would be to examine female directorships. Women's presence on boards and their increased role has been the subject of debate (Halpern and Cheung, 2008;

A Historical Review of Interlocking Directorates in Canada: A Comparison of the 1912 and 2012 Networks

Kakabadse et al., 2015; Seierstad, 2016; Terjesen and Sealy, 2016). It is hypothesized that the large increase in the presence of women on Canadian boards of directors over the past century parallels that of women's progress in the workplace. However, but it is still a worthy exercise to highlight the changes. For example, given that boards' increased preference for diversity, one hypothesis of this new-found preference is that a small handful of women and directors from visible minorities would join a large number of boards. Once such a director joined one board, she would be in a position to be invited to join others.

The literature on gender and corporate boards suggests that corporations secure female leaders with two motives in mind: ethics and economics. Ethics-related arguments operate on the premise that it is immoral to exclude women from corporate boards just because they do not belong to 'the boys' club.' Furthermore, ethics-related arguments hold that knowledgeable and skilled females warrant the opportunity to serve on corporate boards. Carter et al. (2010) suggest that the debate surrounding board diversity is not necessarily about corporate strategy as much as it is about public policy and quota regulations. The economic rationality argument proposes that gender diversity enhances a firm's performance as qualified women have unique characteristics, knowledge, and connections that create value. In turn, firms that fail to hire female directors may harm their financial performance.

Table 2. *Changes to female representation in directorships and the interlock network*

	1912		2012	
	Female	Male	Female	Male
Directors Total	2	4,536	2,648	15,518
Directors %	0.04	99.96	14.57	85.42
Interlocks Total	0	4,019	1,294	14,324
Interlocks %	0	100	8.28	91.71

Table 2 reveals changes to female representation in directorships and the interlock network over time. The results are expected as only two female directors sat on boards in 1912, with neither being part of an interlock. In 2012, 14% of all directors were female and they made up 8% of all interlocks. The smaller number of interlocks could mean that women are not part of the inner circle. This dataset is smaller than that found in other literature wherein women make-up approximately 15% to 20% of

corporate board members in Canada (Catalyst, 2017). This amount is comparable to the United Kingdom and Australia but lower when compared to countries such as Norway, which passed quota laws requiring public companies to fill 40% of corporate board seats with women in 2003 (Rose, 2007). Other countries, such as Spain, have followed suit. On the other hand, this figure drops to 12% for the largest 1,500 Asian companies (Gordon and Inagaki, 2017). Overall, female representation on Canadian boards and in Canadian interlocks suggests a weakening of the inner circle.

CONCLUSION

This article is motivated by previous research regarding the disappearance of the corporate elite regarding interlocking directorates (Kogut, 2012; Chu and Davis, 2017; Heemskerck et al., 2017). Of course, longitudinal studies have uncovered disparate patterns of interlocking that vary according to country and time period (Sapinski and Carrol, 2017). Applying methods from the study of director networks in other countries, this research asks: To what extent has the Canadian interlocking directorate network changed over the past 100 years?

Our research shows an important part of the network of the corporate elite — its interlocking directorates — becoming "thinner" and less centralized. This change had important consequences for the aggregate structure of the network and for Canada's corporate elite in particular. Directors sitting on multiple boards are not coveted as they once were, which calls into question whether a broad-based, cohesive social elite still exists. Chu and Davis (2016) suggests this could now make researching networks less rewarding as networks' have a lessened ability to track power relationships among firms and board members is less robust. We find, however, find the opposite.

Findings show that the inner circle, a durable feature of the Canadian corporate landscape over the twentieth century, has weakened. When breaking down the data, changes to female representation on boards was for the most part predictable. The sheer lack of female directors in 1912 is remarkable (only two). At the same time, gender-based results for 2012 generally fall in line with previous research on women's presence on Canadian boards (O'Hagan, 2017).

These results highlight the value of more analysis of the century-long changes tracked

here. One compelling additional research direction would be to decompose the 1912 and 2012 datasets by location. This would elicit insight into the board practices of firms and industries by major regions in Canada. While the present research provides an overall national profile, the rise of the western provinces in Canada and the relative decline of Quebec over the past century gives a good indication that some regional changes may be of even greater magnitude than what the present research has observed nationally. Overall, the opportunity for a deep and detailed historical perspective on corporate information networks presents a unique window that helps us foster helpful insight into the past development of Canada's firms and industries.

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A Historical Review of Interlocking Directorates in Canada: A Comparison of the 1912 and 2012 Networks

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