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BUSINESS GROUPS IN CANADA:
THEIR RISE AND FALL, AND RISE AND FALL AGAIN

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ABSTRACT

Family-controlled pyramidal business groups were important in Canada early in the 20th century, amid rapid catch-up industrialization, but largely gave way to widely held free-standing firms by mid-century. In the 1970s and early 1980s – an era of high inflation, financial reversal, unprecedented state intervention, and explicit emulation of continental European institutions – pyramidal groups abruptly regained prominence. The largest of these were politically well-connected and highly leveraged. The two largest collapsed in the early 1990s in a recession characterized by very high real interest rates. The smaller groups that survived were more vertically integrated and less diversified at the time. Widely held freestanding firms and Anglo-Saxon concepts of the role of the state soon regained predominance.

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1. Introduction

Canada is a large (G7) open economy that industrialized rapidly around the turn of the 20th century behind high tariff barriers that subsequently fell away. A French colony for a century and a half and a British colony for over a century thereafter, Canada mixes French and British institutions. Its government is a Westminster-style parliamentary democracy; but its industrial, social, and labor policies have emulated continental models, especially after Quebec's Quiet Revolution brought French Canadian ideals to prominence. Its legal system is a civil code in Quebec, but common law elsewhere; and a single Supreme Court oversees both systems. Other institutions are similarly hybridized – largely Anglo-Saxon, but with an occasionally heavy French accent.

The importance of diversified and pyramidal business groups (hereafter, business groups) has varied considerably over the decades. In 1910, business group firms were roughly as important as free-standing widely held firms. By mid-century, freestanding widely held firms predominated. In the 1970s, business groups abruptly resurged in importance, regaining their 1910 prominence within a few years and then fading away again in the 1990s so that, by 2010, Canada's large firms were once again predominantly widely held and freestanding.

The predominance of business groups early in the 20th century accords with their playing a role in rapid catch-up industrialization by substituting for dysfunctional markets (Khanna and Yafeh 2007) or centrally coordinating massive capital investment across multiple sectors (Morck and Nakamura 2007). The business groups of 1910 were diversified across many industries, and some contained important instances of vertical integration. For example, the group controlled by Max Aitken contained the Steel Company of Canada and Canada Cement Lafarge, both of which provided inputs to its construction projects. A group built around the Canadian Pacific Railway (and the Bank of Montreal) contained Sun Life, Consolidated Mining & Smelting, Ogilvie Flour Mills, Lake of the Woods, Montreal Loan & Mortgage, and CP Hotels. These groups appear to have been organized as pyramids; however ownership data were not disclosed so this inference rests on narrative historical records, news archives, and lists of directors. Most groups were controlled by wealthy tycoons or their heirs, though the Canadian Pacific Railway was apparently a widely held apex firm. Unfortunately, this era predates the advent of modern corporate disclosure practices, so available firm-level data are cursory and perhaps unreliable. After the catch-up phase of development ended, these business groups slowly faded away until, at the century's midpoint, about 80% of market cap was freestanding widely held firms (Morck, Percy, Tian and Yeung 2005).

The resurgence of business groups in the 1970s coincides with a succession of governments led by Prime Minister Pierre Trudeau that countered a surge of Quebecois nationalism with federal bilingualism and biculturalism policies designed to make Canada "more French". French economic policy at the time was *dirigisme*: interventionist industrial policies allocating subsidies to select firms and intensely regulating whole industries, all of which became Canadian policies too. "Canadian control" of natural resources also became politically salient, and regulations and subsidies favored Canadian controlled firms in those sectors. Business groups expanded by acquiring control blocks in major natural resources firms as these policies were rolled out, but their expansion was not confined to that sector. Their ownership structures, since mid-1970s, are fully documented in Statistics Canada's *Directories of Inter-Corporate Ownership (ICO)*, and reveal pyramidal structures similar to those of Japanese pre-war zaibatsu and member firms spread across many seemingly unrelated sectors.

The final decline of business groups, from the late-1980s on, coincides with a succession of governments backing away from dirigiste economics. The Canadian Pacific Railway group reorganized itself into several freestanding one-industry firms. Member firms of the Edward and Peter (Edper) Bronfman group, one of the largest pyramids of this era became significantly more highly leveraged than other firms in their industries (Daniels et al. 1995). This group, along with another controlled by the Reichmann family, collapsed when their key firms failed to make interest payments in the 1990s, amid a recession that featured an unprecedented interest rate spike, in which the prime lending rate for businesses reached 14% and the real rate exceeded 10%. Another large group, Bell Canada Enterprises, broke up amid the failure of Nortel, one of its major member firms. Yet another, the Hollinger group, collapsed at the turn of the millennium, its controlling shareholder, Conrad Black, having been sentenced to federal prison in the United States for obstruction of justice. Two family-controlled pyramidal groups survive, and the divested debris of the failed groups and several privatized state-owned enterprises expanded the ranks of freestanding firms.

2. The changing importance of business groups

To assess the economic importance of business groups, we classify each of the largest 100 publicly traded companies in Canada as belonging to a business group or not at intervals from 1900 to 2010, the most recent data available at the time of writing. These lists are from Morck, Percy, Tian and Yeung (2005) for 1900 through 1998, and from the electronic versions of annual Financial Post (FP) 500 rankings for subsequent years. Because of the ultimate data sources Morck et al. (2005) use, firms are ranked by assets until 1965, and thereafter by revenue. Revenues include dividend income from subsidiaries as well as sales, and assets also include shareholdings in subsidiaries.

Firms that belong to business groups are further partitioned into those belonging to business groups controlled by a tycoon or business family and those with widely held apex firms. Firms not in Canadian business groups are partitioned into freestanding widely held firms, freestanding family-controlled or tycoon-controlled firms, state-controlled firms, and foreign-controlled firms.

Data for assigning firms to these categories are readily available in successive volumes of *Directories of Inter-Corporate Ownership (ICO)*, by Statistics Canada, from 1965 onward. These ICO volumes, especially of 1975 and thereafter, let us diagram the detailed structures of all business groups, assigning control to the shareholder with the largest voting block over 10% or having power to appoint a majority of the board through director constituencies or other control mechanisms. The ICO volumes trace control upwards through successive layers of inter-corporate ownership to identify an ultimate controlling shareholder, if one exists. The FP listings provide the name and stake of controlling shareholders of free-standing firms from 1970s on. For earlier years, Morck et al. (2005) rely on historical descriptions of business groups provided by Francis (1986), Naylor (1975), Bliss (1987), and Taylor and Baskerville (1994) and searches of historical news archives. We recognize that our classifications for earlier years may be rough, so we focus on the second half of the sample window more intensely.

The large business groups of the mid-20th century are all pyramidal in form, and resemble Japan's prewar zaibatsu. None are held together by multiple small crossholdings, as Japanese post-war horizontal keiretsu are. This is perhaps because inter-corporate dividend income on stakes smaller than 20% is subject to full double taxation, while that on stakes of 20% or more is exempt. The tax law thus favors large control blocks of the sort that hold pyramidal business groups together, but discourages multiple small crossholdings. Several large business groups of the early 20th century were likely also controlled via pyramiding, but further research is needed in this area.

Figure 1 summarizes this pattern by highlighting changes in the control of domestic private-sector firms only. Figure 2 adds context by including state-owned enterprises and foreign controlled firms as well as a small number of observations for the earliest years in the sample window for firms whose controlling shareholders are uncertain. The major stylized fact – clearest in Figure 1, but readily evident in Figure 2 as well, is that widely held freestanding firms were relatively unimportant at the beginning of the 20th century, became very prominent by mid-century, declined abruptly in importance from 1975 through 1980s, and again gained steadily in importance from 1990 through 2010. The importance of diversified business groups with pyramidal structures controlled by tycoons or business families follows precisely the opposite pattern, gaining in prominence whenever freestanding widely held firms decline, losing ground whenever freestanding widely held firms grow in importance.

Free-standing firms controlled by tycoons or families, much less important, at least among the top 100 firms in a given year, than either of the above categories, appear to wax and wane in importance in roughly the same periods as freestanding widely held firms. Inspection of the data shows that the gain in this category's importance in later decades reflects the rise of many relatively new firms with controlling shareholders. These include new high technology firms, such as Blackberry (RIM).

A handful of business groups with widely held firms at their apexes become noticeable in the data in the mid decades of the 20th century, but these are also far less prominent than either family and tycoon-controlled pyramidal groups or freestanding widely held firms. The most important among these are a business group controlled by Bell Canada Enterprises, built around a firm initially founded by Alexander Graham Bell in the 19th century, that precipitously declined with the collapse of Nortel, one of its major member firms; and the Canadian Pacific group, which contained railroad, airline, hotel, and shipping firms, all associated with the country's first transcontinental railroad, built in the 1870s and 1880s.

Figure 2 shows foreign-controlled and state-controlled firms similarly rising in importance in the middle of the 20th century and before falling back in prominence. The major state-controlled groups include Canadian National Railways, formed early in the 20th century from the bankruptcies of the country's second and third transcontinental railways; Air Canada, an airline; Petro-Canada, an oil company, various public utilities, and several depression era state-run monopoly marketing companies for various agricultural products. These state-owned enterprises were almost all privatized in the later 20th century, and all the marketing boards were dismantled – except those for chickens and dairy products, which survived because of intensive lobbying. State-owned French and English radio and television networks survived the privatization era. Foreign capital surged into the country in the 1920s to develop a series of major minerals finds, and again in the mid-20th century to develop the oil and gas sector, expanding the ranks of foreign-controlled firms. In the 1970s, and especially the early 1980s, a series of nationalist measures precipitated the takeovers of previously foreign controlled firms by Canadian firms.

3. Brief histories of some major business groups

Figure 1 shows the resurgence of family-controlled business groups cresting just prior to 1990. The largest family-controlled business groups Statistics Canada's 1990 ICO identifies are the Edper Bronfman, Desmarais, Reichmann, and Weston groups. This section describes their development prior to this point in time, their structures around 1990, and their subsequent demise or prosperity.

3.1 The Edper Bronfman Group

The Bronfman dynasty was founded by Sam Bronfman (1889 – 1971), a Jewish refugee from Tsarist Russia who settled in Saskatchewan. After trying tobacco farming, the family moved to

Manitoba and acquired a hotel. Appreciating that much of their profits came from their bar, Sam became a liquor distributor. When the United States illegalized alcohol (1920 – 1933), he began producing whiskey on a large scale, later buying the Seagram's brand and expanding into a broad range of liquor products. The family sold liquor legally in Canada; however, his buyers, Americans who smuggled into the United States were considered criminals in that country.[1] After Sam Bronfman's death, the family empire was divided between Sam's sons, Charles and Edgar Bronfman, and his nephews, Edward and Peter Bronfman.

Charles dabbled in professional sports teams and ultimately emigrated to the United States. Edgar bought into MGM, a Hollywood studio, and then moved his inheritance out of Canada in 1991, under an initially secret and subsequently highly controversial tax ruling waiving the capital gains taxes normally due on estates.[2] When his son, Edgar Jr. took over in 1994, the business group controlled by this fraction of the family was largely outside Canada. Two major investments were Warner Music (USA) and Viviendi (France). Edgar Jr., convicted of insider trading in the shares of Vivendi, fined €5 million, and given a suspended 15-month sentence, has been a vocal critic of online music piracy. Edgar Jr.'s sisters, Sara and Clare Bronfman, have reportedly invested much of their wealth in NXIVM, an American multilevel marketing and personal development organization that some allege to be a "cult".[3]

Sam's nephews Edward and Peter remained in Canada to head the country's largest late 20th century business group – the Edper Bronfman group. A huge pyramidal structure, by the late 1980s the group contained twenty-two listed firms and hundreds of private firms, all organized into sixteen tiers of firms controlling firms controlling firms. Its scale and scope are widely accredited to Jack Cockwell, a South African immigrant the brothers hired to manage their businesses. Cockwell reportedly built up the Edper group along the lines of South African business groups familiar to him.

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1 See Marrus (2000) for a detailed biography.

2 See "Angry taxpayer takes on the Bronfmans: Revenue Canada says $2-billion tax loophole is none of his business", by Janice Tibbetts, *Ottawa Citizen*, March 6, 2000.

3 See "The Heiresses and the Cult" *Vanity Fair* (U.K. edition), November 2010.

Figure 3 shows the group's pyramidal structure in the early 1990s, at its maximum size. Only major member firms operating in Canada are shown. The layout of Figure 3 is also used in the diagrams describing the other three family-controlled pyramidal groups discussed in this section.

In Figure 3, the alphanumeric beginning with "c" below each firm's name indicates its main industrial sector. The details of this industry classification, based on an input-output system from the World Input-Output Database (WIOD), is listed in Table 1. For Edper Bronfman in the early 1990s, the firm nearest the bottom of the figure is MacMillan-Bloedel, whose most important line of business is forestry. This puts it in industry category "c1", which Table 1 describes as "Agriculture, Forestry and Fishing".

The ownership and control rights of each firm's immediate parent are indicated by two numbers above and to the left of its name. The number flagged with an "O" is its immediate parent's cash flow rights and that flagged with a "C" is its immediate parent firm's control rights. Both are calculated as in La Porta et al. (1999). Figure 3 shows MacMillan-Bloedel was 49.9% owned by Noranda Forests, which controlled 51% of the votes in its shareholders meetings.

The final number, above and to the right of each firm, flagged with "VI", is a measure of its vertical integration with its immediate parent firm. We follow Fan and Lang (2000) in developing a method to assess how vertically integrated the companies in a business group are. The first step makes use of Canada's input-output tables (Leontieff 1986). The annual input-output (IO) table is a 35 by 35 matrix whose rows and columns are labeled with industry names. Each entry in the table is the value of the inputs used by one industry (the one labeling its row) that come from another industry (the one labeling its column). For example, consider the basic & fabricated metals industry (IO industry code = c12) and the transport equipment industry (c15). In 2010, total transport equipment industry produced output worth $152.164 billion and used $9.810 billion of basic and fabricated metals products as one of its inputs. That is, the transport equipment industry used $0.0645 of basic & fabricated metals per dollar of its output. In the same year, basic metals & fabricated metal industry generated output worth $201.834 billion using, among its many inputs, $234 million of transport equipment industry products. On a per dollar basis, \$0.0012 of transport equipment went into each dollar of basic & fabricated metals output. The 2010 vertical integration (VI) coefficient of this pair of industries is the average of 0.0645 and 0.0012, or 0.0328.

The WIOD database provides annual Canadian IO tables over the period of 1995 through 2010, based on which we compute the VI coefficients of every possible pair of the 36 industries in Table 1.[4] The number above and to the right of each firm's name is the VI coefficient of its main industry with the main industry of its immediate parent firm. Thus, MacMillan-Bloedel's parent firm, Noranda Forests Inc., is another forestry firm, also flagged "c1", so the two firms are in the same industry category and MacMillan-Bloedel's VI coefficient is 1.00. However, Noranda Forest's parent firm, Noranda Inc., is primarily a mining company, so Noranda Forest's vertical integration with its parent is only 0.0020, reflecting the fact that mining and forestry use relatively little of each other's products as inputs. For comparison, across the entire economy and all years, mean VI coefficient is 0.0179 and the median vertical integration is 0.0055.

The Edper Bronfman group collapsed in the early 1990s. By then, it had aggressively expanded its operations in commercial real estate. Much of this expansion was debt-financed. This left the group's listed member firms far more leveraged on average than they had been in previous decades (Daniels et al. 1994). In the early 1990s, Canada experienced a brief but severe recession. The prime commercial borrowing rate spiked to 14% in 1990, the real rate reaching an unprecedented 10%, all while real GDP growth dropped to minus two percent in 1992. After two of its highly levered group real estate member firms, Bramalea and Trizec, failed, the group was dismantled. Many of its member firms remain in business. Peter died in 1996 and Edward died in 2005.

[4] Annual Canadian data are retrieved from the World Input-Output Database (WIOD) at www.wiod.org/new_site/database/niots.htm. Some firms are conglomerates (single firms with divisions or fully-owned subsidiaries operating in more than one industry). In such cases, Canadian financial reporting standards consolidate fully owned subsidiaries into the accounts of the parent firm, and thus consider such structures single firms, not business groups. There is no single industry in the input-output tables for conglomerates, so we create industry category c0 = diversified conglomerate.

3.2 The Reichmann Group

A second largest late 20th century business group was the work of Paul Reichmann, who came to Canada by way of France and Morocco as a refugee from Nazi Austria. Paul's brother, Edward, opened Olympia Flooring and Tile in Montreal and sent Paul to Toronto to open a branch there. Paul began organizing tradesmen and soon ran a construction firm, Olympia and York, which became the apex firm of a large and, by the 1980s, highly diversified pyramidal group. The group's major diversification efforts into natural resources included Abitibi-Price Inc. (pulp & paper) and Gulf Canada Resources (petroleum). Controversy surrounded the family's Gulf Canada Resources acquisition because Deputy Finance Minister Marshall Cohen quit the government to manage the acquisition, allegedly structured around a peculiarity in the tax code to sidestep a billion dollar tax liability. Commercial real estate remained the Reichmann's core competence, but like the Edper group, it expanded into many industries. Also like the Edper Bronfman group, the Reichman group reached is maximum scale and scope around 1990. This is shown in Figure 4.

One of the group's core firms, Olympia and York, had borrowed heavily to transform London's docklands area with its huge Canary Warf redevelopment project. A persistently high vacancy rate in the development left Olympia and York unable to meet its interest costs and in 1992 the Reichmann group followed the Edper Bronfman group into bankruptcy.[5]

Their fortune greatly reduced, the family reentered the fray and succeeded in regaining a stake in the ultimately highly profitable Canary Warf development. Paul Reichmann died in 2013. The Reichmann heirs remain active in some of the group's core businesses – ceramic tiles and real estate.

3.3 The Desmarais Group

Paul Desmarais (1927 – 2013) brought his venerable French Canadian family to prominence when he bought a near bankrupt bus company from his grandfather for one dollar. Paul rapidly rebuilt the company into a group of profitable transportation firms. An equity swap in 1968

[5] See "Cohen broke conflict guidelines: opposition", Montreal Gazette, Oct. 23 1985, p. B4.

gave him control of Power Corporation, the apex firm of a business group begun in the 1920s by A.J. Nesbitt and P.A. Thomson, whose member firms were primarily in electric power generation. After many of these were nationalized in the 1960s, the Nesbitt and Thomson heirs had diversified the group into finance, manufacturing, and real estate. After he gained control, Paul Desmarais diversified the group into yet more sectors – acquiring control blocks in Canada Steamship Lines (transportation); Consolidated-Bathurst (paper products); Investors Group, Great-West Life, and Montreal Trusto (all financial firms); and Gesca and La Presse (both in newspapers). Under Desmarais, the group also expanded into Europe, acquiring control of Pargesa (Switzerland), the non-French assets of Paribas, Imétal (France), Totalfina Elf (France), Compagnie Luxembourgeoise de Télédiffusion (Luxembourg), and Suez Lyonnaise des Eaux (France).

In 1996, Paul retired, bequeathing control to his sons Paul Jr. and André. The Desmarais group has attracted considerable attention for its political connections. André's wife France is the daughter of Prime Minister Jean Chretien. Prime Minister Paul Martin worked for the Desmarais as CEO of Canada Steamship Lines. Other prominent federal and provincial politicians also served in various capacities at certain group firms.

Panel A of Figure 5 shows the group's structure in the early 1990s, for comparison with the Edper Bronfman and Reichman groups at their maximums; Panel B shows the group in 2010. The Desmarais group remains a major player in Canada and internationally.

3.4 The Weston Group

The Anglo-Canadian Weston family controls the fourth major business group we consider in detail. Garfield Weston (1898 – 1978) built his father's Toronto bakery into a huge food processing, distribution and retail empire without running up large debts. This let him assemble a large business group by acquiring troubled firms during the Great Depression of the 1930s. By the 1940s, the group had member firms in Canada, Britain and the United States; and Garfield had a Tory seat in the British parliament. During World War II, the group bought E.B. Eddy, a match company, from former Prime Minister R.B. Bennett. After the war, the group continued expanding in Canada, the United Kingdom and other Commonwealth countries.

The group's most publicly prominent firms in the postwar decades were Twinings Tea, the Fine Fare supermarket chain, and Aerated Bread Company in Britain; National Tea in the US; and the Loblaw's supermarket chain in Canada. By 1971, the group was overextended and highly levered. Garfield abdicated in favor of his son W. Galen, who began downsizing the group rapidly. With the group still teetering on bankruptcy, Galen brought in his university classmate Eric Nicol, who imposed yet more downsizing and began a major rationalization and reorganization.

Restored to financial health, the group survived the early 1990s recession and interest rate spike, and began expanding again, notably with the acquisition of a control block in Selfridges, a British department store chain. In 2006, W. Galen stepped aside at Loblaw Companies in favor of his son, Galen G. Weston, while still retaining the executive chair at George Weston Limited. The Weston family remains a major presence in the Canadian economy. Figure 6 sketches out the major components of the group in 1990 and 2010.

3.5 Other Major Business Groups

The Thomson Group expanded internationally, and is arguably no longer primarily Canadian. Its founder, Roy Thomson, built a small town Ontario newspaper into a large international business group, whose major members include Thomson Reuters, Thomson Financial, Thomson Healthcare, Thomson Legal, Thomson Scientific, and Thomson Tax & Accounting. The group owns EndNote, MedStat, the Web of Science, Westlaw, and other prominent information technology ventures. Thomson merged with Reuters Group in 2008, and moved its operating headquarter out of Canada. Its Canadian operations, now a minor part of its overall operations, include the Globe and Mail, Toronto's largest circulation newspaper, and CTV, the country's largest private-sector over-the-air television network. The group is currently headed by David and Peter Thomson, Roy Thomson's grandsons. David Thomson, 3rd Baron Thomson of Fleet, inherited the British peerage obtained in 1964 by his grandfather, who then controlled the Scotsman, the Sunday Times, and the Times of London. Like his father and grandfather, David surrendered his Canadian citizenship to accept the foreign title. Roy Thomson locked the family's wealth into a legal structure that necessitates family succession, explaining: "David, my grandson, will have to take his part in the running of the organization and David's son, too … With the fortune that we will leave to them go also responsibilities. These Thomson boys that come after Ken are not going to be able, even if they want to, to shrug off these responsibilities" (Francis 2008).

A second family-controlled group whose expansion was largely outside Canada was that of Conrad Black. George Black died in 1976, leaving his sons Conrad and Montegu 22% of Ravelston, the apex company of the Argus group, the largest business group in Canada in the mid-20th century. Argus operating companies included Dominion Stores, Domtar, Hollinger Mines, Labrador Mining, Massey-Ferguson, Noranda Mines, and Standard Broadcasting. Black acquired full control of the group in 1978 by buying up the Ravelston stock his father's partners left to their widows. In a rapidfire series of spin-offs and acquisitions, Conrad transformed the Argus group into a new Hollinger Group. Ravelston remained its apex firm, but now controlled a worldwide constellation of newspapers at the base of a pyramid of intermediate holding companies controlled with super-voting shares. The newspapers included the London Telegraph, Chicago Sun-Times, Jerusalem Post, National Post, and numerous others. In 1999 and 2000, Hollinger International, a lower-level holding company sold newspapers, whose buyers also made side-payments to Black and other Ravelston insiders in the form of "non-compete agreements". Hollinger International's independent directors viewed these side payments as the rightful property of the firm, and their payment to others as a corporate governance problem. Black was convicted of fraud, SEC violations and obstruction of justice in the US and sentenced to 6.5 years in federal prison. On appeal, Black overturned many of these convictions and had his sentence reduced. Although Black surrendered his Canadian citizenship to accept a British peerage, he returned to Canada after his release. He was charged with Ontario securities law violations in 2013 and convicted of tax evasion in 2014. Black maintains his complete innocence, and likens the American justice system to that of North Korea.[6]

Another family-run business group merits mention: that of the Irving family. Kenneth Colin (K.C.) Irving (1899 – 1992) took over a New Brunswick saw mill his father had owned, and

6 See "Conrad Black gets nasty with British interviewers over his U.S. criminal convictions" by Steve Mertl, Daily Brew Oct. 23rd 2012.

expanded it into a large diversified business group with operating companies in forest products, oil refining, trucking, and heavy industry. In 1972, amid charges of tax evasion, he emigrated to the Bahamas. Shortly before his death, he oversaw the division the business group's firms amongst his sons, James (forest products), Arthur (oil refining), and Jack (heavily industry). Irving companies remain dominant throughout the New Brunswick provincial economy, but have little presence elsewhere in the country.

The late 20th century also saw the dismantling of two large diversified business groups whose apex firms were widely held: Canadian Pacific and BCE. The Canadian Pacific, founded in 1881 as a widely held firm, built the country's first transcontinental railroad. Over the subsequent century, Canadian Pacific expanded into hotels, airlines, and numerous other sectors. The group sold its CP Air in 1986 and spun off CP Hotels in 2001 as Fairmont Hotels, an independent company. Canadian Pacific is now a focused railway company. The BCE group was founded by Alexander Graham Bell in 1876. Bell moved to the United States to build a second Bell Telephones in that country, leaving Bell Canada in his father's hands. By the 1990s, the widely held Bell Canada Enterprises (BCE) controlled a large business group that included legacy land-line telephone infrastructure as well as Northern Telecom (Nortel), a cell phone company that controlled several other firms in related areas. Bell Canada spun Nortel off in 2000, but remains a major cell phone and internet service provider, and has also expanded into cable television and media content production.

4. The economics of business groups in Canada

Why does the importance of business groups change so extensively over time? Did fundamental economic advantages from the business group structure vary? Or did political, legislative, or regulatory changes drive these changes?

4.1 Business Groups as Instruments for Rapid Industrialization?

The business groups that dominate today's successful emerging market economies are typically controlled by powerful families and are very broadly diversified (Khanna and Yafeh 2007). Likewise, the major zaibatsu business groups that drove the rapid industrialization of Taishō

Japan in the late 19th and early 20th century, like the major chaebol business groups that powered South Korea's rapid ascent to First World status in the 20th century, were characterized by "full set" diversification – each business group contained at least one firm in every major industry. Khanna and Yafeh argue that these highly diversified business groups serve as a substitute for weak markets and dysfunctional institutions in developing economies. Thus, a group member firm can rely on intragroup transactions, rather than arm's-length market transactions, to source inputs and financing, hire workers, and place outputs. While market transactions may be impeded by fraud, corruption, or unverifiable quality control; one group firms do not cheat each other because all are controlled by the same powerful family.

Rosenstein-Rodan (1947) prescribed that state run industrial policies to coordinate rapid economic development, which he correctly characterized as requiring the coordinated and synchronized formation and growth of numerous firms in many different sectors. However, Easterly (2013) notes the near universal government-failure problems associated with state-driven development strategies and disparages Rosenstein-Rodan's ideas and disciples. Morck and Nakamura (2007), drawing on Japanese economic history, suggest that Rosenstein-Rodan was right about the problem but wrong about the solution. They suggest that highly diversified business groups under centralized control, rather than centrally planned economies under bureaucratic control, can best choreograph the allocation of capital and resources to coordinate the synchronized expansion of existing firms and formation of new ones across diverse industries. Competing rival groups, operating under a laissez faire government that minimizes the returns to political rent-seeking, might then earn higher group-level profits by following more efficient development paths.

Figure 7 explores the importance of business groups at different stages of the country's industrialization. More specifically, Panel A addresses the question of how important these business groups are in various industry sectors, and Panel B evaluates the importance of each industry sector to these business groups. We create 12 industry groups, augmented using the United Nation's International Standard Industrial Classification (ISIC) codes, and then aggregate these industry groups into four broadly defined industry sectors: primary, secondary, tertiary, and mixed. In each year of roughly every two decades – 1910, 1930, 1950, 1969, 1990, and

2010 – we manually check the industry affiliations of the top 100 companies and classify them into different industry sectors.

Consistent with the business groups of the early 20th century playing a key role in industrialization, family-controlled business groups in 1910 comprise over 60% of secondary industry by assets. The presence of these groups in the secondary sector steadily declined over the century. The importance of the natural resources (primary sector) in family-controlled business groups also declined over time, except a surge in 1990. This spike is attributable to the Edper Bronfman group, which expanded aggressively throughout 1970s and 1980s.

Family-controlled pyramidal groups towards the end of the 20th century and in the early 21st century are more prominent in the mixed industry sector. This is mainly due to the likes of Brascan Corporation of the Edper Bronfman group and Power Corporation of the Desmarais group, both of which are diversified firms, and investment companies such as Onex Corporation of the Schwartz family group. It is also noteworthy that oil and gas industry (O&G), for this part of the analysis, has been grouped into mixed industry sector. The O&G industry was by and large unimportant until the 1970s, largely ignored by old families and left to small entrepreneurs and foreign companies. The 1981 National Energy Program (NEP) was a response to intensive nationalist pressure to "reassert" Canadian control over natural resources, especially oil and gas. After the NEP was repealed in the mid-1980s, many oil and gas firms integrated downstream. As such, the modern O&G industry includes companies or groups that spread across primary, secondary, as well as tertiary sectors. An example of business groups operating in O&G is the Irving family group, in particular the branch of companies controlled by Arthur Irving, one of the three sons of the group's founder K.C. Irving. Irving Oil Limited operates refineries, a fleet of oil tanks, marine ports, and a network of gasoline stations.

Canada transformed itself from an agricultural to an industrialized economy in a "high growth" period that lasted from the mid-1890s to World War I. During that period, which roughly corresponds to successive governments led by Prime Minster Wilfred Laurier (1896 – 1911), the economy grew at unprecedented rates year after year as a flood of primarily British capital financed rapidly expanding business groups' expansions into coal mining, steel, cement, insurance, ship building, manufacturing, and other sectors (Bliss 1986). The larger early 20th century business groups were thus very highly diversified, and Laurier governments were untainted by corruption, at least in contrast to many preceding ones.

The largest of the business groups in 1910 was controlled by Max Aitkin (Lord Beaverbrook), and by then already contained firms in publishing, investment banking, precision engineering, steel, cement, and hydroelectric power, among others. Vertical linkages are evident: for example, steel and concrete are both needed in major engineering construction projects, such as power dams. Unfortunately, detailed firm-level financial records from the era are sparse, so precisely how these groups formed, how their member firms financed, co-insured, or otherwise interacted with each other, and even how their pyramidal structures formed and changed over time can only be inferred from archival materials, biographies, and other historical accounts. Aitkin borrowed money in London to take over numerous small independent firms in each sector, and then applied the era's high technologies – the Bessemer steel process, the Portland cement processes, and so on – to the resulting larger scale operations. Criticized for building monopolies, Aitkin moved to England in 1910 to build a vast publishing empire.

How crucial Canada's first-generation business groups were to coordinating capital allocation so as to bring about successful development is unclear. Certainly, their resemblance to Japanese zaibatsu and Korean chaebol is obvious: before their rise Canada was an agrarian economy; after their rise Canada was an industrial economy. That they played analogous roles in early industrialization seems plausible.

If business groups promote rapid industrialization of an agrarian economy by coordinating investment through central (i.e. group headquarters) planning in an economy whose market institutions are not yet well developed, their success renders them superfluous (Morck, Wolfenzon and Yeung 2005). Once the whole spectrum of firms, industries, and institutions of a modern economy come into existence, the cost of market transactions plausibly falls, making intragroup central planning a relatively costly way of allocating capital. This fits with the decline of business groups by the 1940s evident in Figure 1, but leaves their 1970s resurgence somewhat of a mystery. Using pyramiding to magnify control and the political influence that goes with it is one possibility (Morck and Yeung 2004; Morck 2010).

4.2 Business Groups as Efficient Capital Allocators?

The major Japanese business groups all contained banks as prominent affiliates (Morck and Nakamura 2007), and Khanna and Yafeh (2007) posit that these served as private equity investors in funding projects throughout their business groups, and that groups therefore remain important in countries where arm's-length financing is costly or unavailable. In Canada, securities law is delegated to provincial governments, so the country subjects listed firms to a patchwork of regulations. This attracts much criticism for making compliance unnecessarily expensive (Puri 2010) and for permitting numerous high profile frauds because provincial governments lack resources to appropriately police listed firms (Armstrong 2015).

The resurgence of business groups does correspond to unusually high-profile scandals in Canadian capital markets, though these were concentrated on the Vancouver Stock Exchange, which Forbes dubbed the "scam capital of the world" (Cruise and Griffiths 1991).[7] However, the business groups' resurgence was mainly a phenomenon of the Toronto Stock Exchange, which retained a better reputation through this era. Still, the hypothesis that business groups returned because external capital grew less available is not prima facia unreasonable. Rajan and Zingales (2003) document a "reversal" in Canadian financial development in the mid-20th century: bank deposits fell from 22% of GDP in 1913 to only 13% in 1960 and then rose monotonically thereafter to 66% in 1999. Stock market capitalization, 74% of GDP in 1913 rose to 175% of GDP by 1970, but then plummeted to only 46% of GDP in 1980 as the pyramidal groups resurged. As the groups fell away, stock market capitalization rose again – to 111% of GDP by 2012. The timing is not quite tight though: Figure 1 shows the resurgence of business groups cresting around 1990, while Rajan and Zingales (2003) show Canada's financial development reaching its lowest ebb a decade or more earlier.

Canadian business groups did not contain banks after the early 1920s, when a recession precipitated government bailouts of several large banks via subsidized forced mergers with healthier banks. Among these was the Molson Bank, an affiliate of the Molson family's business group. Concerns about related-party lending destabilizing banks led to a proscription against

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[7] See "Scam Capital of the World" by Joe Queenan, *Forbes Magazine*, May 29 1989 pp. 132-140.

banks having controlling shareholders. Canada's surviving large banks are all freestanding and widely held, with voting caps guaranteeing that status in perpetuity.[8] No major Canadian bank has failed since, though most came closer than is generally appreciated (Kryzanowski and Roberts. 1993), and inept industrial policy triggered the collapse of several smaller banks in the 1980s (Fossum 1997). After the 1990s, the banks were allowed to control insurance and investment firms, but the barriers against banks controlling nonfinancial firms remain.

Over the next decades, the major banks took over many of the country's most important insurance, investment banking, and financial analysis firms. In every case, the targets were taken private, and became divisions of the banks. The financial sector is now dominated by a small number of large universal banks, each organized as a financial conglomerate. Thus, the commercial bank TD Canada Trust, the investment bank and brokerage firm TD Waterhouse, and the insurance provider TD Insurance are all part of the Toronto Dominion (TD) Bank Group, as are TD operations in foreign countries. The Royal Bank of Canada (RBC), Bank of Montreal (BMO), Canadian Imperial Bank of Commerce (CIBC) and Bank of Nova Scotia (Scotiabank) likewise developed into financial conglomerates, each operating across many parts of the finance sector, but none with any operations at all outside of finance. The term conglomerate is appropriate because each appears to investors as one unified corporate entity.

However, many major business groups contain important "non-bank" financial institutions. Two examples are Power Financial Corporation of Desmarais group and PC Financial Holdings of Weston group. Power Financial, a diversified management and holding company, controls several large nonbank financial firms (including insurance) in Canada, the United States, and other parts of the world. Today, the holdings of Power Financial are central to the Desmarais group. PC Financial is wholly owned by Loblaw Companies, a Weston group member firm. PC Financial lets customers of Loblaw's supermarkets access credit card and banking services provided by the back offices of CIBC, a widely-held bank. The Bronfman and Reichmann groups also contained nonbank financial institutions.

[8] A voting cap is a takeover defense that limits the voting power of any shareholder, or group of shareholders acting in concert, to a fixed percentage regardless of their ownership stake. Thus, a 4% voting cap would limit a shareholder's voting power to 4% regardless of how many shares she actually owned. If more than 4% of the firm's stock is in "friendly" hands, the firm cannot be taken over.

Khanna and Palepu (2005) argue that India’s Tata business groups served as a venture capital provider and was critical to developing that country’s information technology sector. None of the four groups discussed in detail above was active in such a capacity in Canada. The most prominent high-tech business group firm in Canada was Nortel, a member of the widely held BCE business group. The BCE group was centered around legacy landline telephone networks, and which broke itself up into free-standing firms upon Nortel’s collapse amid alleged (but never proven) mismanagement problems (Hunter 2002; Bagnal 2013). Other Canadian high tech firms, such as Corel and Blackberry, were not group affiliates. The Thomson group has expanded aggressively into information technology, but mostly outside of Canada.

Canada’s remaining pyramidal business groups are not prominent in venture capital. A nascent 1980s venture capital industry was crowded out by government subsidies to labor union-run venture capital funds, whose dismal performance tarred the sector for over a decade (Cumming and MacIntosh 2006, 2007). Government investment funds, often cast as venture capital providers, can morph into politically-driven industrial policy tools. For example, the Caisse de Dépôt et Placements du Québec, a provincial government investment fund, acquired asbestos mines to protect Quebec workers from mine closures, as litigation fears began forcing the industry to downsize (Arbour 1993). More generally, federal and provincial government-sponsored venture capital funds systematically underperform (Brander et al. 2010).

Leveraged buy-out (LBO) funds, which buy listed firms, restructure them to improve productivity, and then sell them back to public shareholders at higher prices, have long been present. More recently, federal and provincial government social security programs and public sector pension plans, having boosted contributions to become “substantially funded”, are joining private equity deals in a new wave of LBOs. Some of these public sector investment funds also show signs of becoming corporate governance activists in listed firms (Doidge et al. 2015). Conceivably, these funds might develop into state-run business groups along the lines of Italy’s Istituto per la Ricostruzione Industriale (Aganin and Volpin 2005).

4.3 Business Groups as Market Internalization?

Khana and Yafeh (2007) argue that business groups' key advantage is that they "internalize" markets. If intermediate goods markets function poorly – for example, if firms routinely try to cheat each other – control by a common shareholder can force both firms to deal honestly with each other. Membership in the same group lets firms rely on its well-functioning "internal" market, rather than the dysfunctional external markets. If this motivates group formation, group member firms would be highly vertically integrated. As described in detail above in the explanation of Figure 3, we follow Fan and Lang (2000) in quantifying the degree of vertically integration of every possible pair of industries in the economy. In Figures 3, 4, 5 and 6, the number flagged with "VI" above the name of each firm is the degree of vertical integration of its primary industry with its immediate parent firm's primary industry.

The first step in our assessment of the vertical integration of an entire group used annual WIOD data on Canadian IO tables for 1995 through 2010. From these, we compute VI coefficients each year for all possible pairs of the industry categories in Table 1.

The second step applies these average pairwise VI coefficients to business groups. If a group operates in N different industries, there are $\frac{1}{2}N(N-1)$ ways of organizing them into pairs. For each year in question, we list all the industries in which the group operates and produce an input-output sub-matrix for those sectors only. The elements of this submatrix, the VI coefficients of all the industry pairs in which group firms operates, record the pattern of vertical integration within that group. The distribution of these VI coefficients measures the scope for vertical integration in the group.[9] We characterize the distributions of each group's VI coefficients in terms of their means, medians, and other descriptive statistics.

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[9] The method is imperfect for several reasons. First, these calculations are based on all relevant pairs of industries in each group – we do not consider whether a group firm is publicly listed or unlisted, the size of each firm, or how many firms are in a same industry. While an advantage of using listed firms only is that we know these are important firms, the number of unlisted entities in each major group is far more than that of listed firms and, ideally, we would like to take both types of firms into consideration. Unfortunately, unlisted firms in Canada provide little information to the public, so we have no readily available and comparable information about their primary industries or their sizes. Second, as aforementioned, some firms are conglomerates and they do not belong to any industry as classified by the input-output tables. This is obviously problematic. Third, some firms are larger than others, and some groups contain multiple firms in a given industry. A more precise approach would weight VI coefficients by the importance of each sector to each group. More technical

If business groups were randomly selected collections of firms, the firms in them would be no more or less vertically integrated than are firms in the overall economy in general. As discussed previously, the mean and median VI coefficients for the entire economy over all years are 0.0179 and 0.0055, respectively. Neither figure varies much over time.

Figure 8 presents the distributional characteristics of each of the four most important family groups' vertical integration in 1980, 1990, 2000 and 2010. All four groups do operate in pairs of highly vertically integrated sectors, and the mean and median levels of vertical integration in all four groups are higher than would be expected if their member firms were drawn randomly from different industries. However, the groups appear to follow somewhat different diversification strategies. Immediately before the early 1990s recession and interest rate spike, the average degrees of vertical integration were relatively low for Edper Bronfman and Reichmann compared to those for Desmarais and Weston. In more recent years, the two surviving groups – Desmarais and Weston – have both thrived on the back of focused-diversification strategy.

The Edper Bronfman and Reichmann groups were both relatively unintegrated vertically, and both collapsed in the early 1990s. Figure 3 shows the Edper Bronfman group spread out across unrelated industries in 1990. Through Hees International Bancorp, Edper controlled a large network of companies headed by Brascan (diversified) which formed Trilon Financial (financial), and acquired controlling interests in Noranda Inc. (mining) and John Labatt (liquor). Noranda, in turn, controlled Kerr Addison Mines (mining), Norcen Energy (petroleum), and MacMillan Bloedel (forestry). Through Carena Holdings, Edper Bronfman group also controlled several real estate companies in particular Carena Properties, Trizec Corporation, and Bramalea Limited. Figure 4 shows a similarly broad diversification in the Reichmann group at the same time. Commercial real estate remained the core business, but the group also contained Abitibi-Price Inc. (pulp & paper), Gulf Canada Resources (petroleum), and Consumer's Gas (utilities). While cement-making industry is highly vertically integrated with

econometric analysis capable of coping with these complications, at least to an extent, is beyond the scope of this article.

real estate development (VI = 0.1445) and pipeline transportation arguably supports the petroleum industry (VI = 0.0633), real estate and natural resources sectors are unrelated.

After gaining control of Power Corporation of Canada, Paul Desmarais extended his business group into ocean shipping, pulp and paper, and communications. The group's industrial configuration changed markedly after Paul's retirement in 1996. Figure 5 shows that the group becoming more sharply focused on the financial sector between the early 1990s and 2010, most notably with the acquisitions of Canada Life Assurance in 2003 and Mackenzie Investments in 2001. Throughout, the core companies remain Power Corporation and Power Financial Corp and the number of industrial categories remains fairly stable, though their distribution in Figure 8 shifts towards less vertical integration in later decades.

Figure 6 shows the Weston group, after its 1970s divestitures and consolidations, comparatively focused on its core business: retailing. Successive generations preserved the group's key companies – George Weston Limited and Loblaw Companies Limited – and their focus. Like the Desmarais group, the Weston group kept to a roughly stable number of industries. The sole notable change is the group's expansion into commercial real estate (Super Centre Development) and financial services (PC Financial Holdings), both of which are arguably relevant to retail. Also like the Desmarais group, the Weston group is shown to be have become less vertically integrated in more recent decades.

4.4 Business Groups as Financial Stabilizers?

Hoshi, Kashyap and Scharfstein (1990) posit that business group member firms co-insure each other against bankruptcy, letting group member firms carry higher debt loads than otherwise comparable independent firms could while still comfortably surviving cyclical ups and downs.

The 1920s and 1930s were decades of exceptional economic volatility, in which stability might well have been a major advantage. Several major business groups that dominated the 1920s Canada were indeed quite highly leveraged. BESCO, a large business group organized by Roy M. Wolvin with member firms in coal mining, steel, railways, and port operations. Another, Canadian General Investments, controlled by Prime Minister Arthur Meighan, was a multi-tiered pyramid assembled with transactions that Bliss (1987) describes, essentially correctly, as leveraged buyouts. The 1920s was a period of generally loose credit, so arguments about business group member firms coinsuring each other may not have been necessary to justify their high leverage.

In any case, both collapsed – BESCO just before the Crash of 1929 and CGI just after. Their member firms were bought up by other groups – for example, many of the former member firms of BESCO ended up as member firms of another business group, DOSCO, controlled by the industrialist C.B. McNaught. Their business group structures were apparently not up to the task of seeing them through such volatile times.

The Crash of 1929 and subsequent Great Depression were huge economy-wide shocks – the unemployment rate peaked at 27% in 1933. The epic of BESCO and DOSCO is not unique: other major business groups imploded, while yet other groups expanded by acquiring their debris. It seems likely that high leverage played a role these implosions, though data needed to formally test this are unavailable. The Bronfman group grew rapidly during these decades with little need for debt financing: its sales of liquor to anonymous buyers at its distilleries near the U.S. border during that country's Prohibition Era provided ample earnings.

In the 1960s, highly diversified pyramidal business groups – the Argus, BCE, and Canadian Pacific groups, for example – were commonly referred to as conglomerates. However, this is not strictly true because, unlike US conglomerates of the era, their individual member firms were usually quite focused. Massey Harris, though a member of the Argus pyramid, was a farm equipment manufacturer and nothing else. Public shareholders were offered the shares of undiversified Argus operating companies. Pyramidal groups with widely held apex firms, such as BCE and Canadian Pacific, also let public shareholders invest in their apex firms, whose assets were relatively undiversified physical assets plus relatively diversified intercorporate control chains. Neither Canadian organizational structure resembled a 1960s US public conglomerate – that is, with multiple operations in diverse industries organized as divisions or fully-owned subsidiaries of a single listed entity.

The 1970s and 1980s were turbulent decades too, with oil price hikes bringing successive booms in the 1970s and an oil price collapse wreaking havoc in the late 1980s. However, in recent decades, when comparable financial data are readily available, many of group member firms became remarkably more highly leveraged than comparable freestanding firms. For example, using 1980s data, Daniels et al. (1994) report a 32.6% median debt-to-assets ratio for firms in the Edper Bronfman group, and contrast this to an 18.5% debt-to-assets ratio for a size and industry matched set of free-standing firms.

Canada's early 1990s recession featured high nominal interest rates and unprecedentedly high real interest rates, illustrated in Figure 9. Unable to sustain its debt load, the Edpre Bronfman group collapsed in the 1990s. Another large business group, ultimately controlled by the Reichmann family, also collapsed under an unsustainable debt load in the 1990s, though the family later restored its standing by making good on its debts.

The Report on Business Corporate database (ROB), from which we source firm-level financial leverage information, contains both text and numeric data on Canadian companies (Tian, 2009). These data are reliable for Canadian companies included in the TSX Composite Index from January 1985 onward. The most proximate ICO directory to 1985 is for 1987, and the largest family-controlled groups identified in the ICO 1987 were Edper Bronfman group, Desmarais group, Reichmann group, and Weston group. For firms in each of these four groups that we are able to identify in ROB, we retrieve their financial leverage data of roughly every 4 years over the period of 1987 to 2010. Financial leverage is defined as the ratio of total debt over total asset. With regard to industries, similar to the analysis of corporate diversification described previously, we use an input-output based industry classification system.

Figure 10 shows that business group affiliates were more levered than the median firms for their industries. Panels A and B contrast the very high leverage levels for the Edper Bronfman group affiliates (except for a pivotal listed holding company) with the far less levered firms of the Desmarais pyramid. Edper Bronfman group expanded very quickly in 1970s and 1980s, diversifying into both real estate and natural resources. The economic downturn in the early 1990s hit both sectors pretty hard. Two unsustainably highly levered group firms in real estate failed - Bramalea in 1992 and its immediate parent company, Trizec, shortly thereafter. The once almighty Edper empire collapsed by the end of the 20th century, and the Bronfman brothers and their heirs lost control of the group. Desmarais group was also extensively diversified during the 1980s, involved in transportation, pulp and paper, communication, and financial industries. However, prior to the early 1990s recession and is interest rate spike, Paul Desmarais had sold Consolidated Bathurst and Montreal Trustco. Power Corporation of Canada was thus almost debt-free and sailed unscathed past the floundering Edper Branfman group.

Panel C plots the mean excess leverage – firm leverage minus median leverage for its industry – of listed group affiliates for the four major family-controlled groups. Those whose firms had more debt – Edper and Reichmann – perished, while those whose firms avoided over-leverage – Desmarais and Weston – survived.

The logic that healthy group member firms can help out their troubled sibling firms holds if bankruptcies are independent random events. Unfortunately, bankruptcies are highly correlated and countercyclical – they come in waves during recessions, especially recession with very high interest rates such as Canada's early 1990s downturn.

An economy-wide downturn hits many firms and sectors at once, and coinsurance offers no help when the whole group is afflicted. If group firms, deeming themselves immunized against bankruptcy, take on exceptionally high debt loads; the group's collapse is all the more spectacular when it comes. The Edper Bronfman and Reichmann groups were both highly diversified, and a belief that this allowed their higher leverage levels was obviously misplaced. Remarkably, Figure 10 shows both the Desmarais and Weston groups exhibiting markedly higher leverage in later years, even as Figure 8 shows their industrial conformations becoming less integrated, strategies reminiscent of the Edper Bronfman and Reichmann groups in the 1980s.

4.5 Political Economy and Business Groups?

The Great Depression generated a remarkable popular backlash against business elites in the 1930s United States. That backlash let President Franklin Delano Roosevelt enact, as part of his New Deal, sweeping reforms that curtailed the power of business elites. Prominent among these reforms were measures explicitly designed to break up business groups: the taxation of dividends paid by one firm to another, restrictions on regulated utilities belonging to business groups, and the regulation of firms that owned shares in other firms as mutual funds (Morck 1994). While the relative importance of these reforms is debated (Banks and Cheffin 2010), pyramidal business groups in the United States rapidly faded away as the reforms took hold and became permanent fixtures of the institutional environment (Kandel et al. 2015).

Canada, in contrast, had no New Deal. Inter-corporate dividends remained untaxed, public utilities remained prominent in business groups, accounting and disclosure standards changed little until the 1960s, and firms whose assets were largely shares in other firms were not subject to significant additional regulation. Porter (1965) attributes these differences to Canadians' greater subservience to elites.

This may reflect Canada's unique status as a former colony of both France (1608 – 1759) and Britain (1759 – 1867). Canada is usually counted an Anglo-Saxon country. However, one in five Canadians speaks French as their first language; a French civil code is used in Quebec and in the Supreme Court of Canada; and senior government officials are influenced by French political and economic ideas.

French Canada was an inward-looking devotedly Roman Catholic "solitude" until the 1960s, when the Quiet Revolution abruptly transformed the region into a skeptical, secular society with an elite intent on restoring ties with France and asserting its influence in Canada (Behiels 1985). [10] Throughout the 1960s, successive governments worked to bring French Canadians into ever more senior government positions. In 1968, Pierre Trudeau swept to power on a nation-wide wave of support for bilingualism – the state-sanctioned restoration of the French language to national prominence. Until 1969, the language of government and business was English. After 1969, the Official Languages Act required the federal parliament, government departments, courts, and state-owned enterprises to provide services in both French and English everywhere. The Act further mandates that French and English have equal status as working languages in government offices in the national capital region and all regions with substantial French and English speaking populations, that French be their working language where the predominant language is French, and that English be their working language where the predominant language is English. English and French were also given equal status as languages of work within the federal public service in regions designated as bilingual,

[10] Hugh MacLennan's 1945 novel *Two Solitudes* coined the term.

including the national capital region, Montreal and New Brunswick, as well as in government offices abroad and in regions with sufficient demand for services in both official languages

The need for fluent French speakers in government thus rose abruptly, but proficiency in French increased only gradually among Anglophones. This necessitated the active recruitment of French Canadians, the great majority of whom were already bilingual, in the civil service. Anew generation of civil servants read French newspapers, magazines, and books on political economy issues as students, and accepted French ideas about the role of the state in society (Nemni and Nemni 2010).

The result was the transformation in the 1960s, 1970s and early 1980s of an Anglo-Saxon liberal democracy into a European social democracy – with all the requisite taxes, business subsidy programs, state-owned enterprises, and industrial policy (Bliss 1987; English 2010; Cohen and Granatstein 2011). Figure 11 plots the changing extent of state intervention in the economy, and shows a clear peak in these years, followed by a retreat of the state as the initial enthusiasm for French and European ideas gave way to a renewed confidence in free markets under Trudeau's successors. Figure 2 shows a similar pattern, with state-owned enterprises attaining maximal importance in the late 1970s.

European-influenced policies were ascendant for a substantial period. One industrial policy initiative, the National Energy Program (MacDonald 2004), expropriated foreign-owned oilfields and provided substantial subsidies to oil companies that were certifiably Canadian owned. This forced remaining foreign controlling shareholders to sell their stakes in oil companies, and the largest of these that were not nationalized ended up as cash cows in abruptly swelling family business groups - notably those of the Reichmanns and Edper Bronfmans, discussed below. These transactions are evident in Figure 2 as an abrupt drop in foreign-owned firms in the early to mid-1980s.

Morck and Yeung (2004) develop a series of arguments suggesting that the families controlling large business groups are uniquely advantaged in political rent-seeking, the term Krueger (1974) coins for legally investing in political connections. Overt favor trading, where a politician favors a firm that does her a favor in return, is illegal in Canada. However, business groups let the favor-receiving firm and the favor-returning firm be entirely different. Moreover, the longstanding wealth of the controlling families lets politicians wait for their return-favor with a high degree of confidence that it will in fact be returned. Though she does not highlight business groups, Krueger (1976) argues that such favor-trading is legal in many contexts, and is part of normal business practices to varying degrees in every country. That the old-moneyed families in charge of the country's largest business groups might have been uniquely well-positioned to profit from this abrupt intrusion of the state into the economy seems a reasonable explanation for the equally abrupt increase in the importance of business groups in precisely these years. That business groups did not regain prominence after the collapse of the Bronfman and Reichmann groups is also consistent with politicians downgrading their confidence in controlling families being able to return favors.

Prime Minister Pierre Trudeau, heir to a minor Quebec business group, also abolished the federal inheritance tax in 1972, replacing it with an estate tax (capital gains tax realization on death). After 1974, these became deferrable for a generation or more via expensive and complicated family trust arrangements. In contrast, U.S. inheritance taxes remained high and largely unavoidable throughout these decades, though President George W. Bush suspended them briefly. Accounts of Canadian business family successions suggest that the inheritance tax played a major role in the downsizing of early 20th century business groups (Morck et al. 2005). Moreover, the abolition of the inheritance tax roughly coincides with the beginning of the resurgence of business groups in Figures 1 and 2. In one case, a branch of the Bronfman family obtained an unprecedented, and never repeated, waiver of all capital gains taxes due on such a family trust.

The extent and distribution of subsidies to businesses are carefully guarded state secrets, so the reliance of business group firms, or any other firms, on political connections is difficult to assess. However, successive governments, especially those led by Prime Ministers Jean Chretien and Stephen Harper, adopted much more liberal economic policies. That political connections decayed in value during this period is certainly plausible. If business groups relied on such connections, their ebbing in these years is also explained.

5. Conclusions

The business groups that dominated the economy at the beginning of the 20th century may well have resembled those in successfully emerging economies, such as South Korea and Taiwan, at the century's end. Data sufficiently detailed to confirm this empirically are unavailable, but the structure and industrial portfolio composition of group firms is consistent with their allocating capital across mutually interdependent firms in related newly forming industries. These business groups faded away by the middle of the century, consistent with the completion of the country's industrialization having rendered them obsolete.

The second wave of business groups that arose in the 1970s and 1980s contained firms that were not especially vertically integrated, nor did they allocate capital to new high technology firms to any great degree. Rather, these groups' industrial portfolio seems more consistent with broad industrial diversification to reduce risk. Risk reduction via diversification is more effective in more developed economies (Morck et al. 2000; 2013), but pyramiding, especially highly leveraged pyramiding, magnifies risk. The two largest such groups, the Edper Bronfman and Reichmann groups, became increasingly highly leveraged in these years, perhaps theorizing that such wide-ranging diversification reduces risk enough to make higher debt loads sustainable. In fact, both groups collapsed in a brief recession in the early 1990s that featured very high interest rates. The two groups that survived this episode, the Desmarais and Weston groups, were substantially less levered and their member firms were more integrated vertically. However, both groups subsequently grew less vertically integrated and took on higher debt after the 1990s.

The second wave of business groups corresponds to an abrupt change in political economy: Canada's transformation from a liberal democracy into a social democracy. The 1970s and early 1980s saw a rapid and far-reaching expansion of state-intervention, the adoption of European-styled industrial policies with high taxes and complicated systems of business subsidies, and the introduction of French notions about the role of the state into the country's political discourses by newly assertive French Canadian politicians. We posit that this made political connections more valuable for a time, and that business groups were uniquely well-positioned to flourish in this political economy environment. From the 1990s on, Anglo-

Saxon concepts of the role of the state regained standing, industrial policies were scrapped, and more liberal economic policies took their place. We posit that business groups' advantages faded in this environment.

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Table 1. Industry codes

Industry	Code
Agriculture, Forestry and Fishing	c1
Mining and Quarrying (excluding Crude Oil)	c2
Food, Beverages and Tobacco	c3
Textiles and Textile Products	c4
Leather, Leather and Footwear	c5
Wood and Products of Wood and Cork	c6
Pulp, Paper, Paper Products, Printing and Publishing	c7
Coke, Crude Oil, Refined Petroleum and Nuclear Fuel	c8
Chemicals and Chemical Products	c9
Rubber and Plastics	c10
Other Non-Metallic Mineral	c11
Basic Metals and Fabricated Metal	c12
Machinery (not elsewhere classified)	c13
Electrical and Optical Equipment	c14
Transport Equipment	c15
Manufacturing (not elsewhere classified); Recycling	c16
Electricity, Gas and Water Supply	c17
Construction	c18
Sale, Maintenance and Repair of Motor Vehicles and Motorcycles; Retail Sale of Fuel	c19
Wholesale Trade and Commission Trade, Except of Motor Vehicles and Motorcycles	c20
Retail Trade, Except of Motor Vehicles and Motorcycles; Repair of Household Goods	c21
Hotels and Restaurants	c22
Inland Transport	c23

Water Transport	c24
Air Transport	c25
Other Supporting and Auxiliary Transport Activities; Activities of Travel Agencies	c26
Post and Telecommunications	c27
Financial Intermediation	c28
Real Estate Activities	c29
Renting of Machines & Equipment, and Other Business Activities	c30
Public Administration and Defense; Compulsory Social Security	c31
Education	c32
Health and Social Work	c33
Other Community, Social and Personal Services	c34
Private Households with Employed Persons	c35
Diversified Conglomerate	c0

Figure 1. Business group member firms versus freestanding firms, domestically controlled private-sector firms among the top 100 firms in Canada in each period, 1910 to 2010

The relative importance (by assets until 1965, by revenues thereafter) of domestically controlled firms ranked among the top 100 that are in business groups versus free-standing firms is measured at intervals from 1900 to 2010. Business groups are partitioned into those controlled by a tycoon or business family and those controlled by a widely held firm. Freestanding firms are partitioned into widely held firms versus firms controlled by a tycoon or business family. State controlled firms, foreign controlled firms, and a small number of early years observations for firms whose control structure is unknown are excluded.

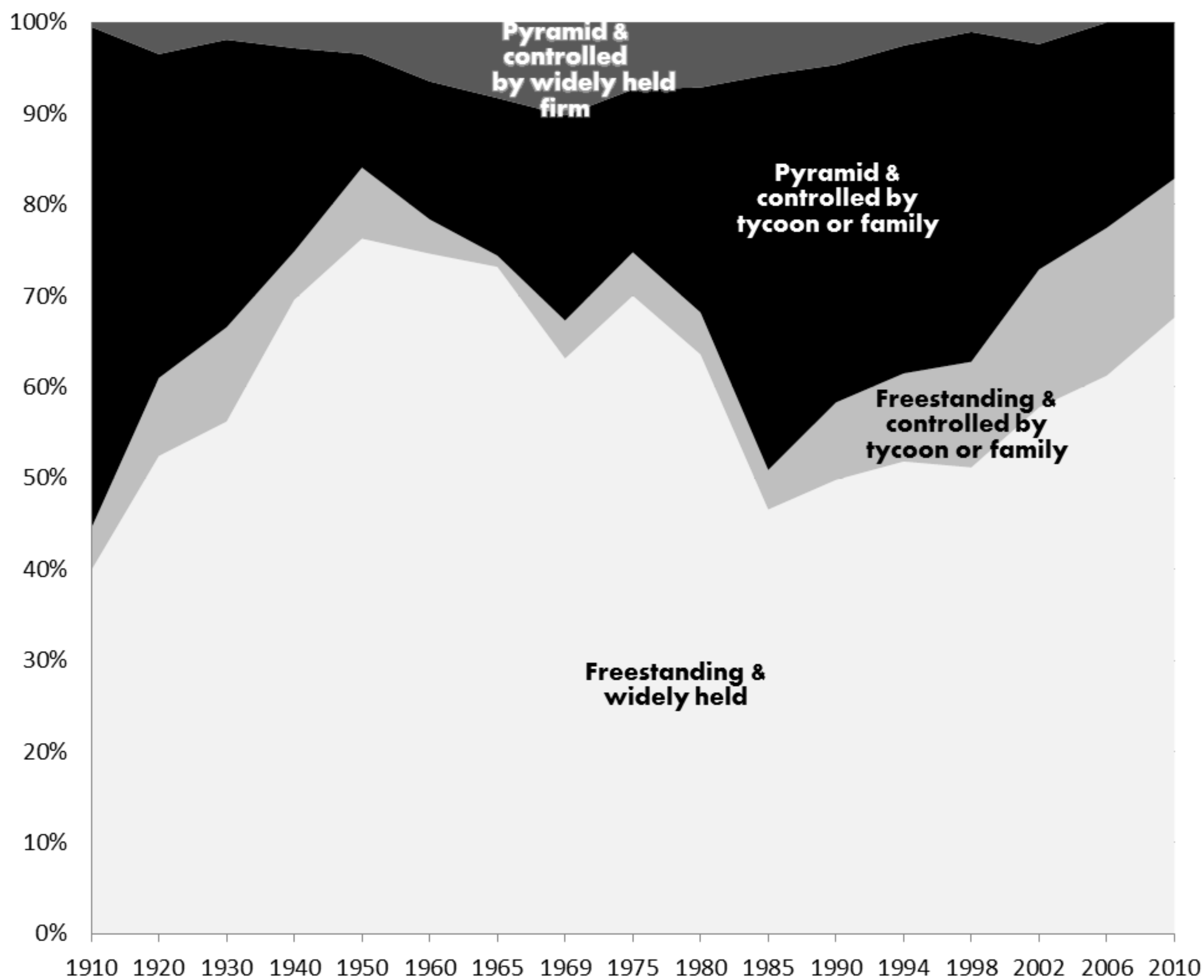


Figure 2. Business group member firms versus freestanding firms in Canada, all top 100 firms each period, 1910 to 2010.

The relative importance (by assets until 1965, by revenues thereafter) of the top 100 firms of firms in business groups versus free-standing firms is measured at intervals from 1900 to 2010. Firms with Canadian federal or provincial governments and with foreign individuals or firms as controlling shareholders are distinguished as state-controlled and foreign-controlled, respectively. Business groups are partitioned into those controlled by a Canadian tycoon or business family and those controlled by a Canadian widely held firm. Freestanding firms are partitioned into widely held firms versus firms controlled by a Canadian tycoon or business family. A small number of early years observations for firms whose control structure is unknown are also included. Foreign controlled firms are not separated into foreign group member firms and foreign independent firms.

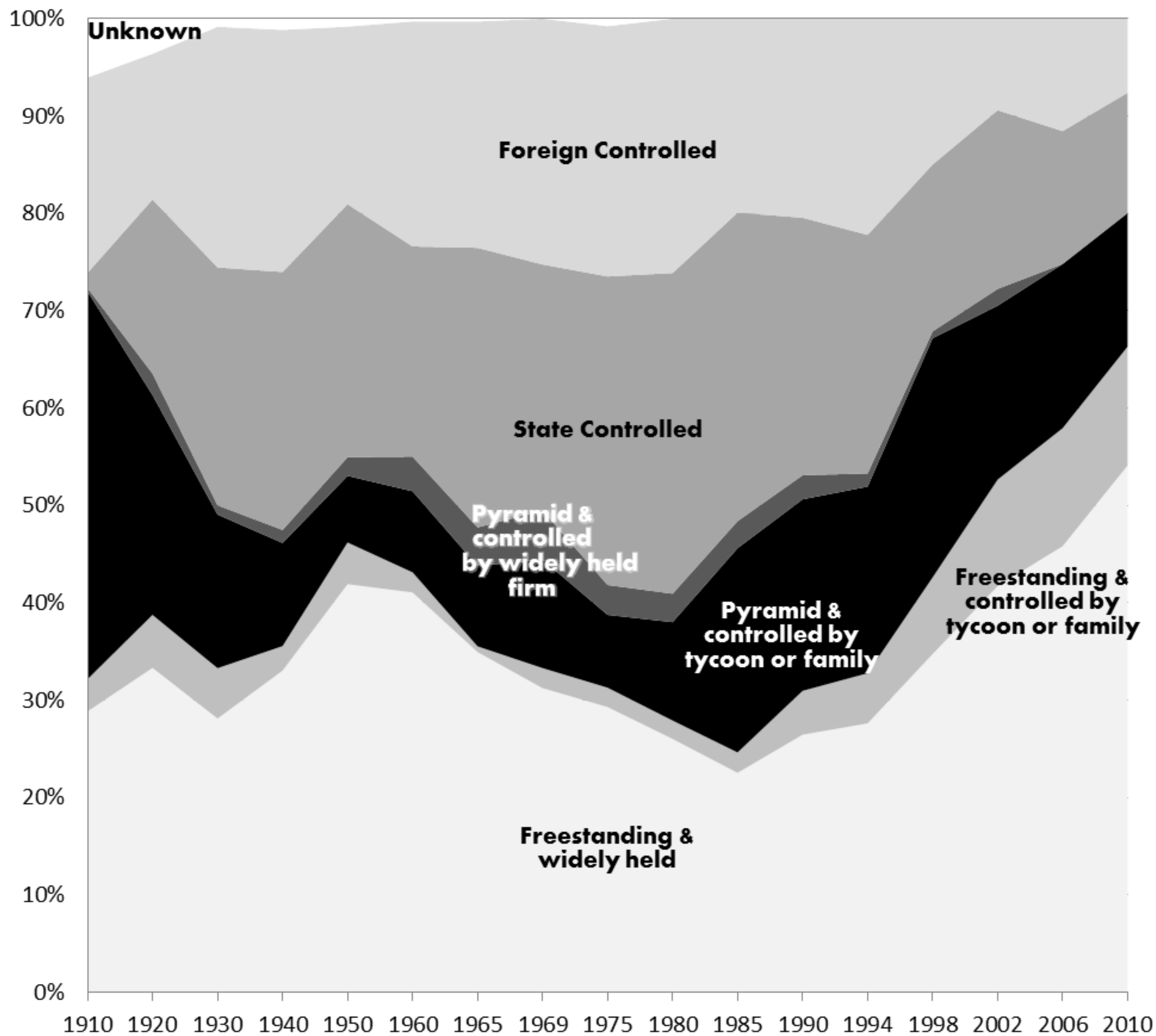


Figure 3. The Edward & Peter (Edper) Bronfman Group in Early 1990s, at its Maximum Extent

The main industry of each firm is indicated by the alphanumeric beginning with "c" below its name (see Table 1). The ownership structure of each firm is indicated by the two numbers above it, with 'O" and "C" indicating the cash flow rights and control rights, respectively, of its controlling shareholder. Only major Canadian member firms are shown.

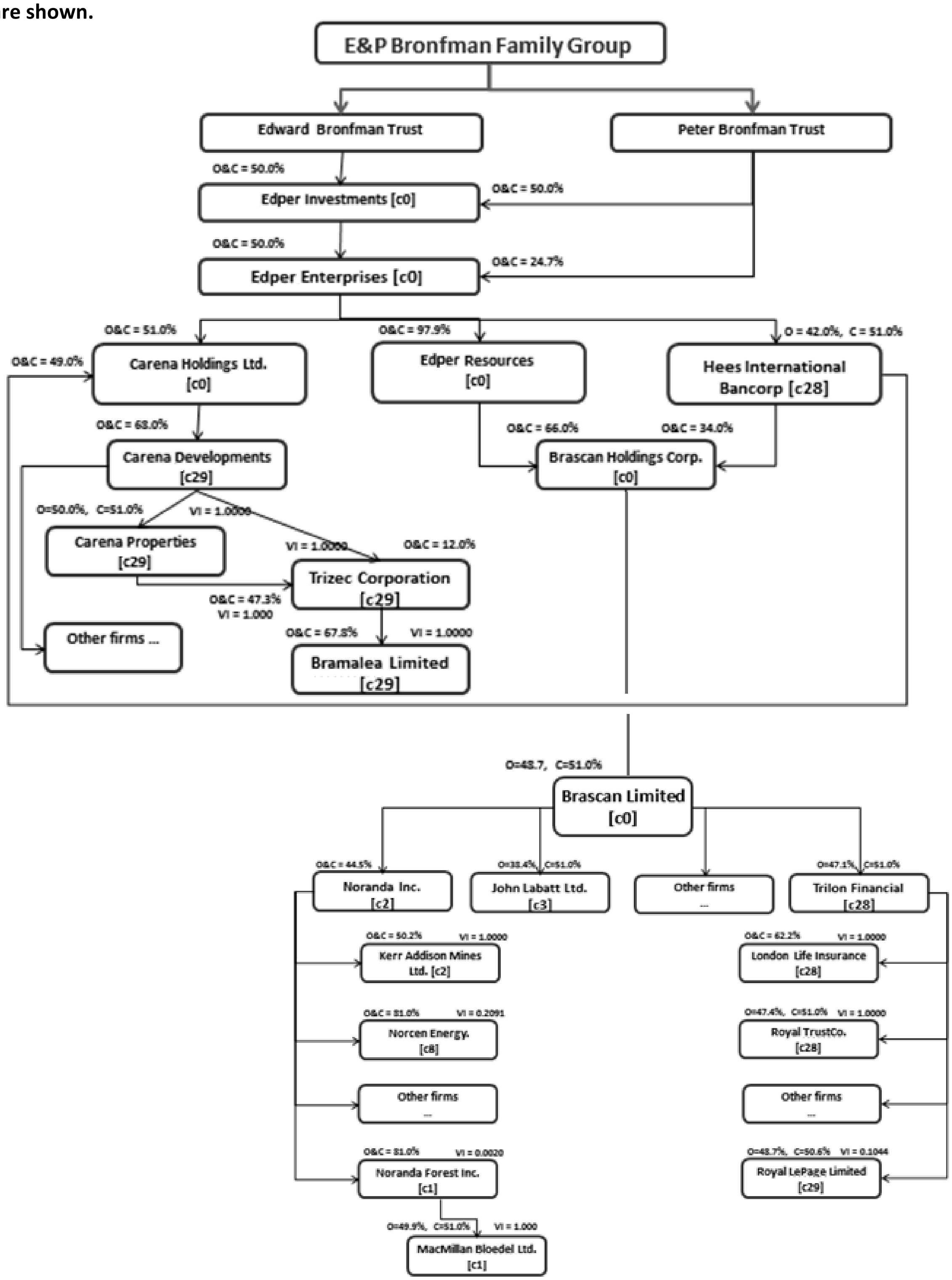


Figure 4. The Reichmann Group, in Early 1990s, at its Largest Extent

The main industry of each firm is indicated by the alphanumeric beginning with "c" below its name (see Table 1). The ownership structure of each firm is indicated by the two numbers above it, with 'O" and "C" indicating the cash flow rights and control rights, respectively, of its controlling shareholder. Only major Canadian member firms are shown.

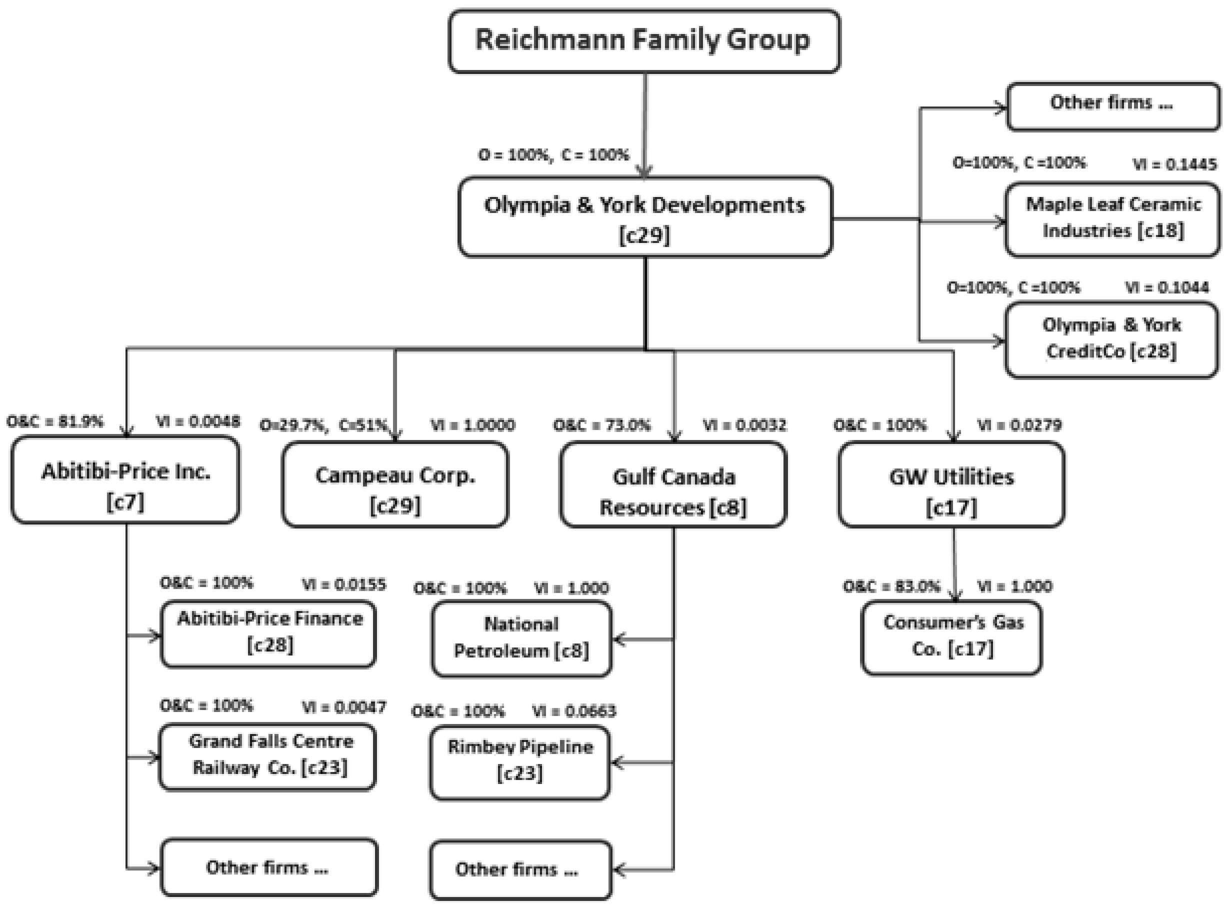
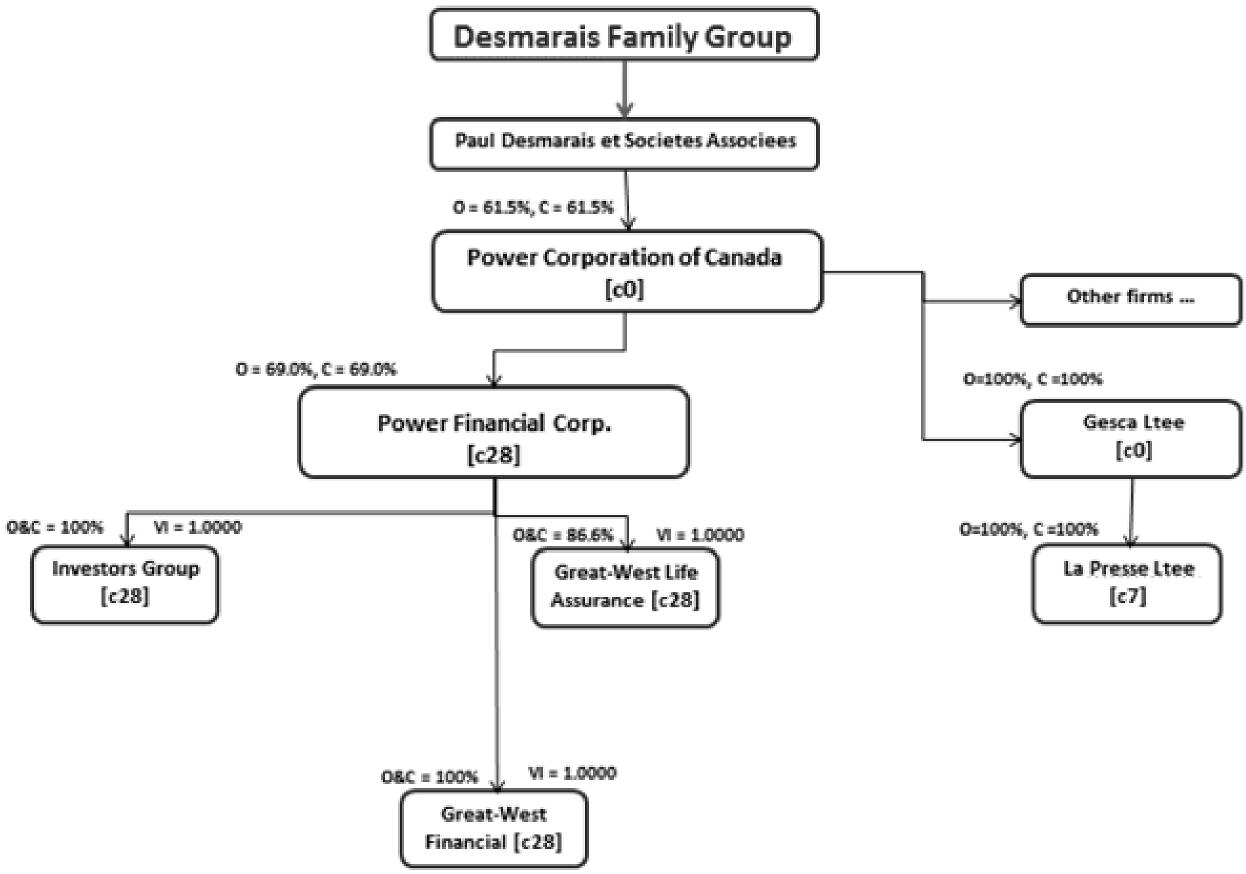


Figure 5. The Desmarais Group

The main industry of each firm is indicated by the alphanumeric beginning with "c" below its name (see Table 1). The ownership structure of each firm is indicated by the two numbers above it, with 'O" and "C" indicating the cash flow rights and control rights, respectively, of its controlling shareholder. Only major Canadian member firms are shown.

Panel A. In Early 1990s



Panel B. In 2010

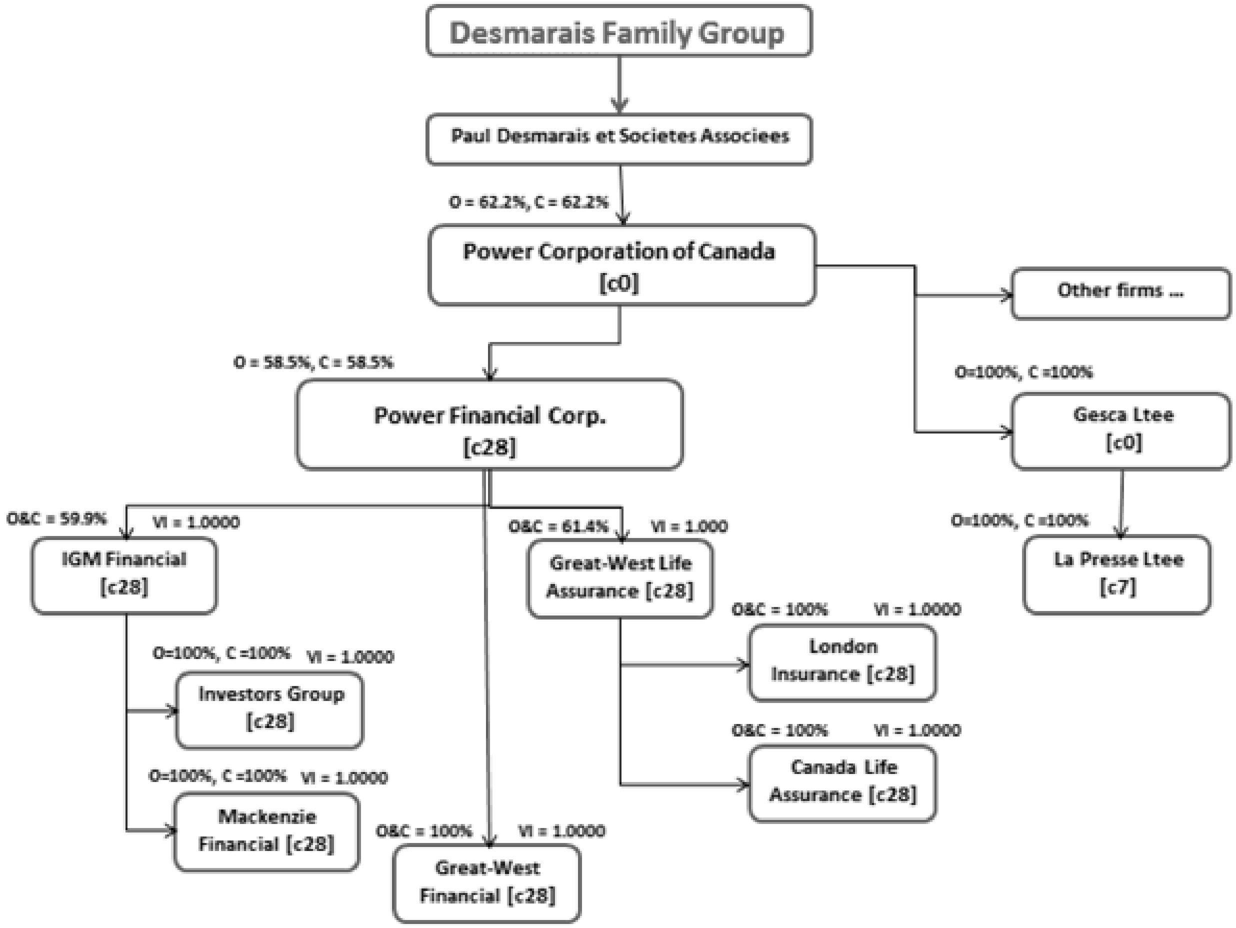
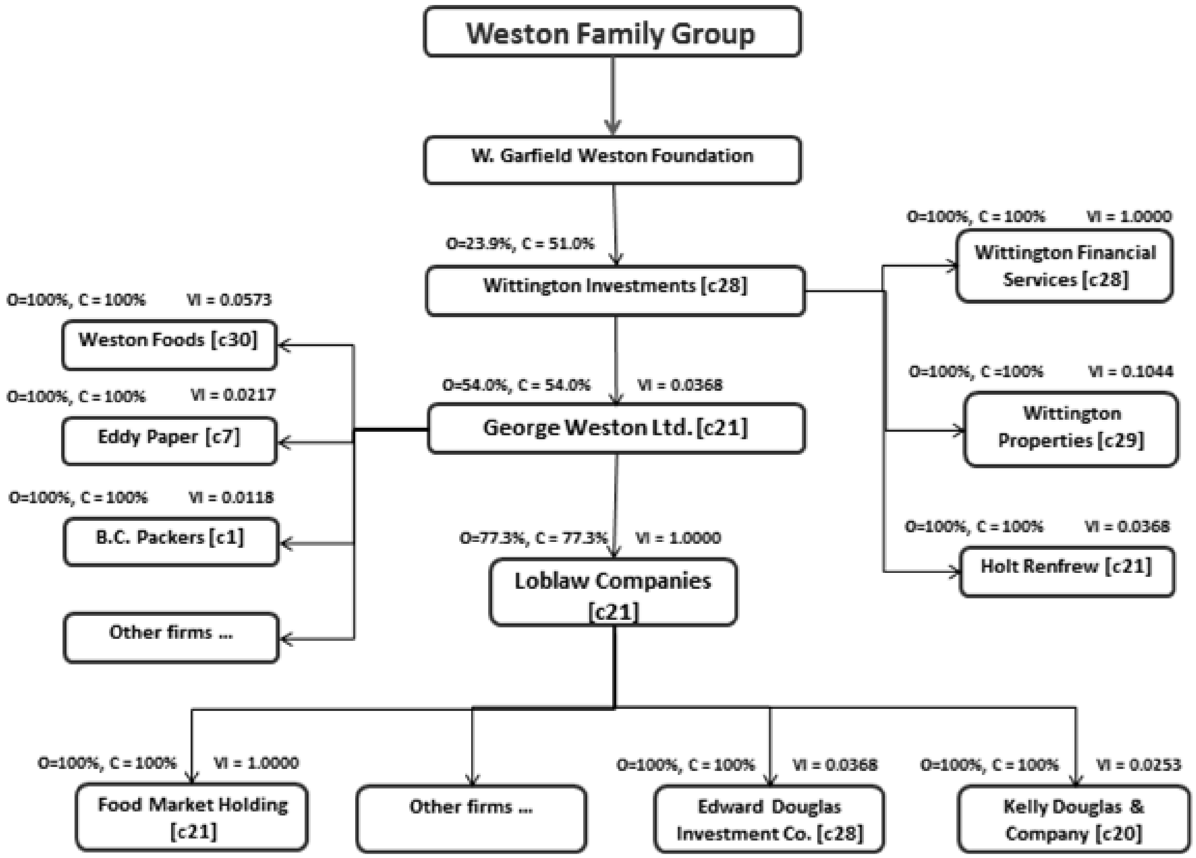


Figure 6. The Weston Group

The main industry of each firm is indicated by the alphanumeric beginning with "c" below its name (see Table 1). The ownership structure of each firm is indicated by the two numbers above it, with 'O" and "C" indicating the cash flow rights and control rights, respectively, of its controlling shareholder. Only major Canadian member firms are shown.

Panel A. In Early 1990s



Panel B. In 2010

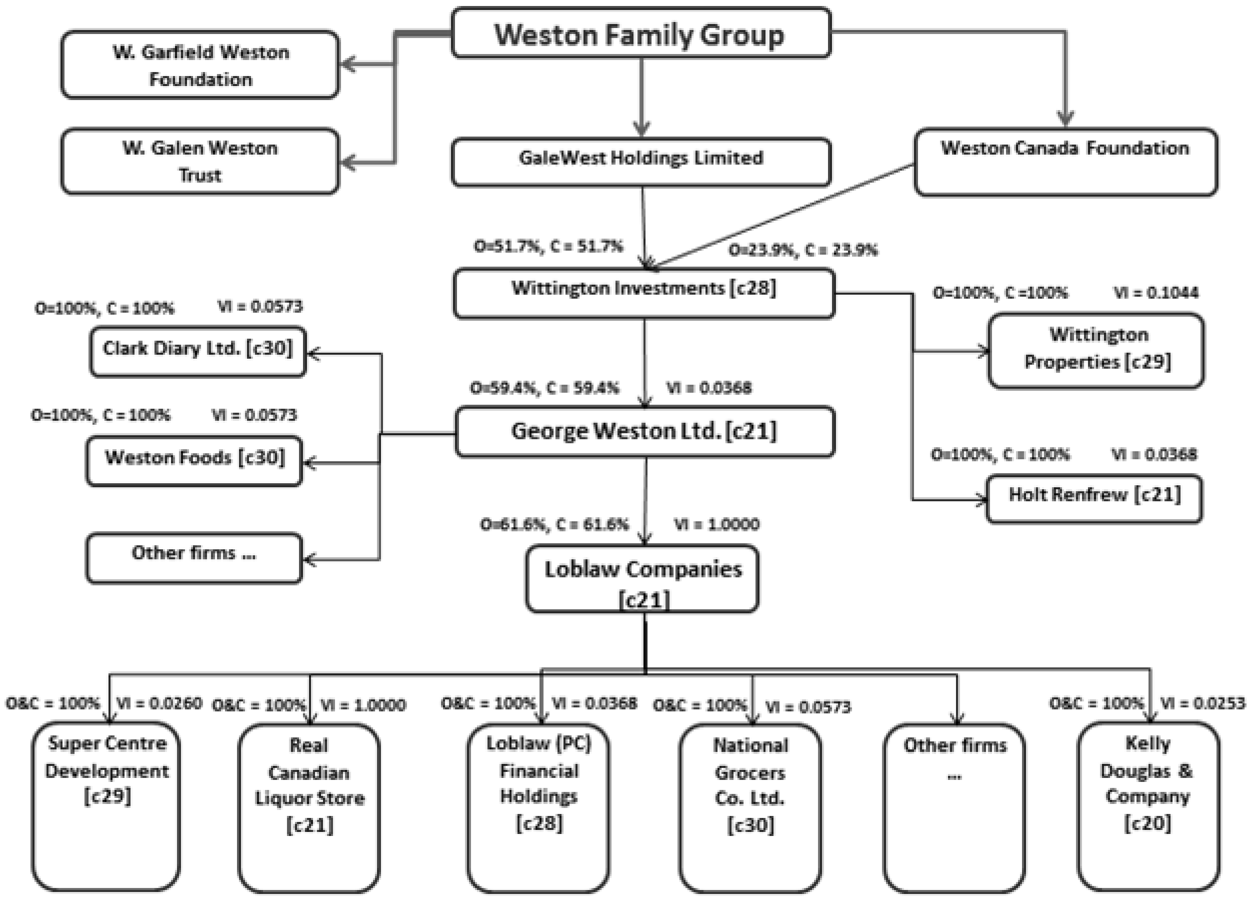
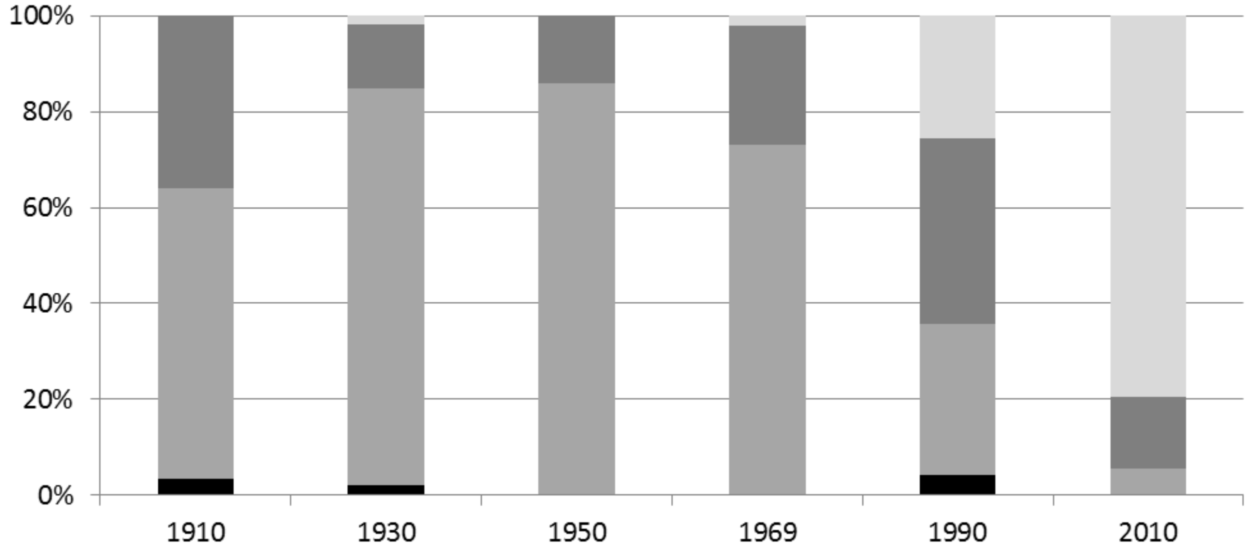


Figure 7. Industrial Configuration of Business Groups

Panel A. The Importance of Different Industrial Sectors in Business Groups



Panel B. The Importance of Business Groups in Different Industrial Sectors

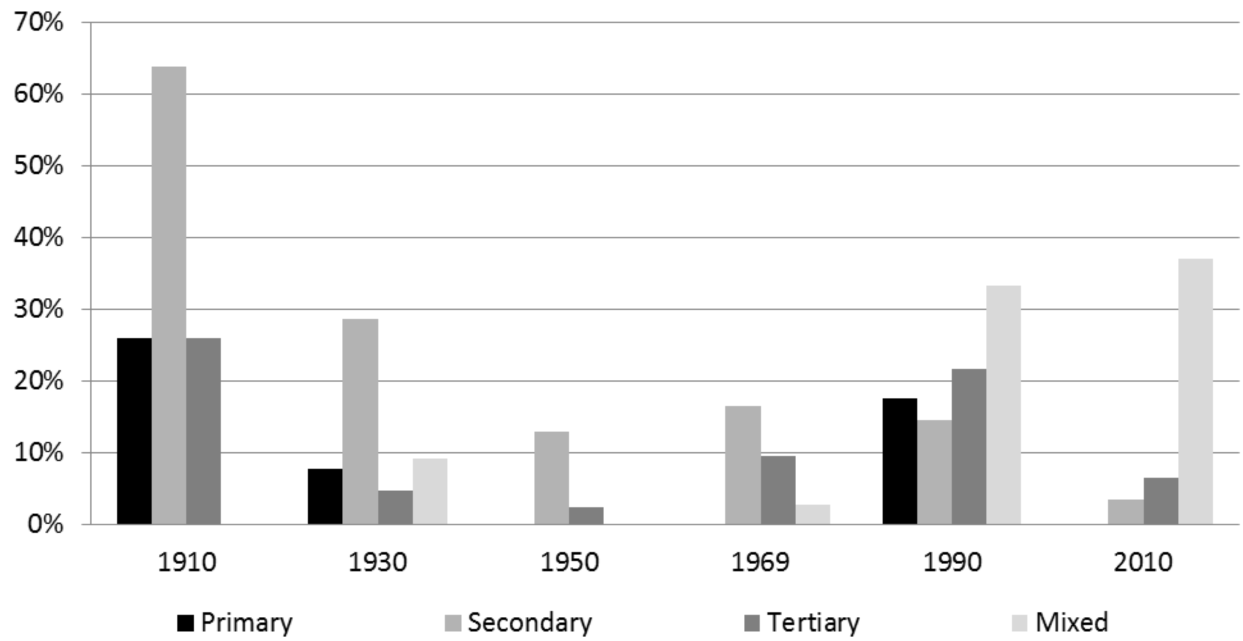


Figure 8. Vertical Integration of Major Business Groups

The vertical integration of each pair of firms is the average of share of the first firm's inputs that come from the second firm's industry and the share of the second firm's inputs that come from the first firm's industry. Vertical integration is measured for each possible pair of firms in each business group each year. The graph shows the distributional characteristics of these pairwise vertical integration measures within each group each year. The rightmost entry is the benchmark distribution of vertical integration between all industry pairs in the entire economy.

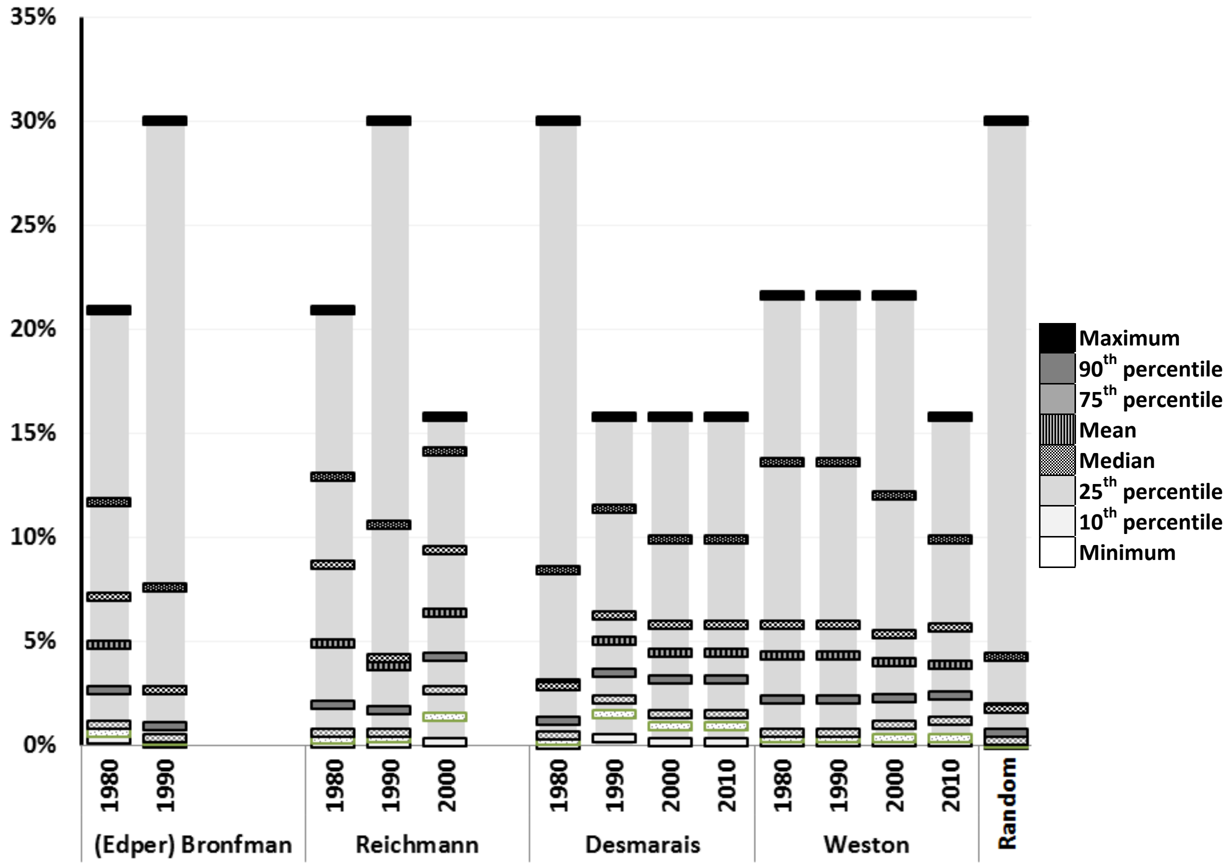


Figure 9. Interest rates and real GDP growth in Canada

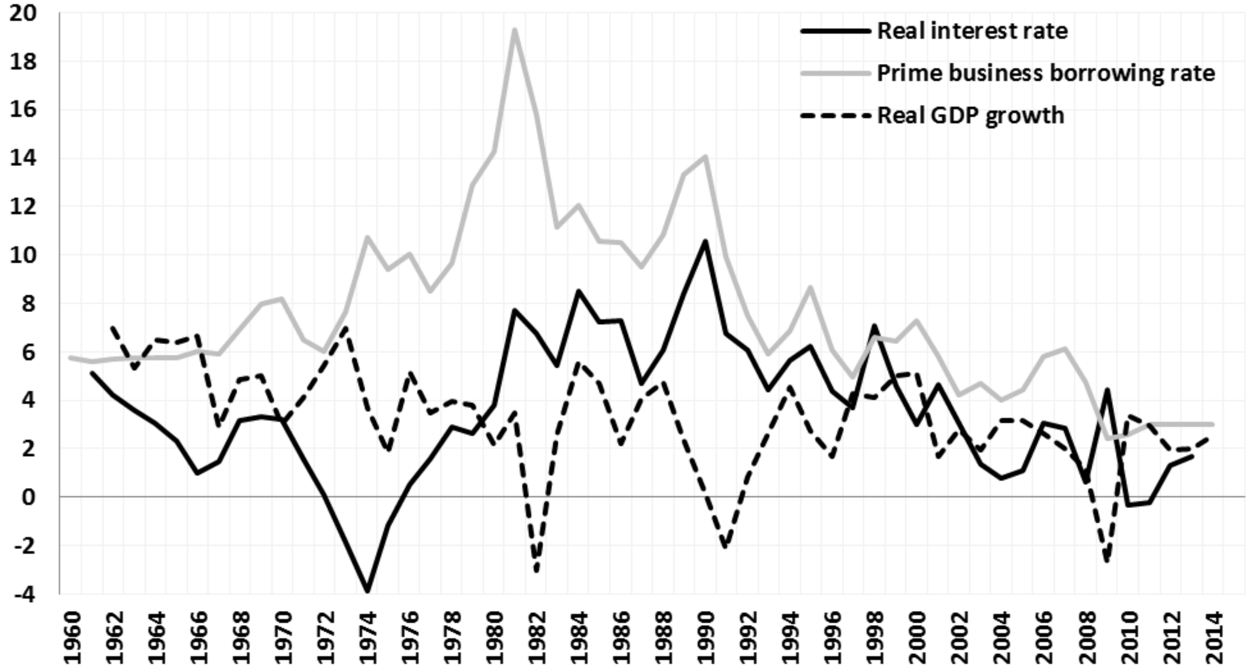


Figure 10. Group affiliate leverage: firm debt-to-assets ratio minus industry median

Debt-to-assets is total debt divided by total assets. Industry medians are based on listed firms, each assigned to one of 36 input-output industries.

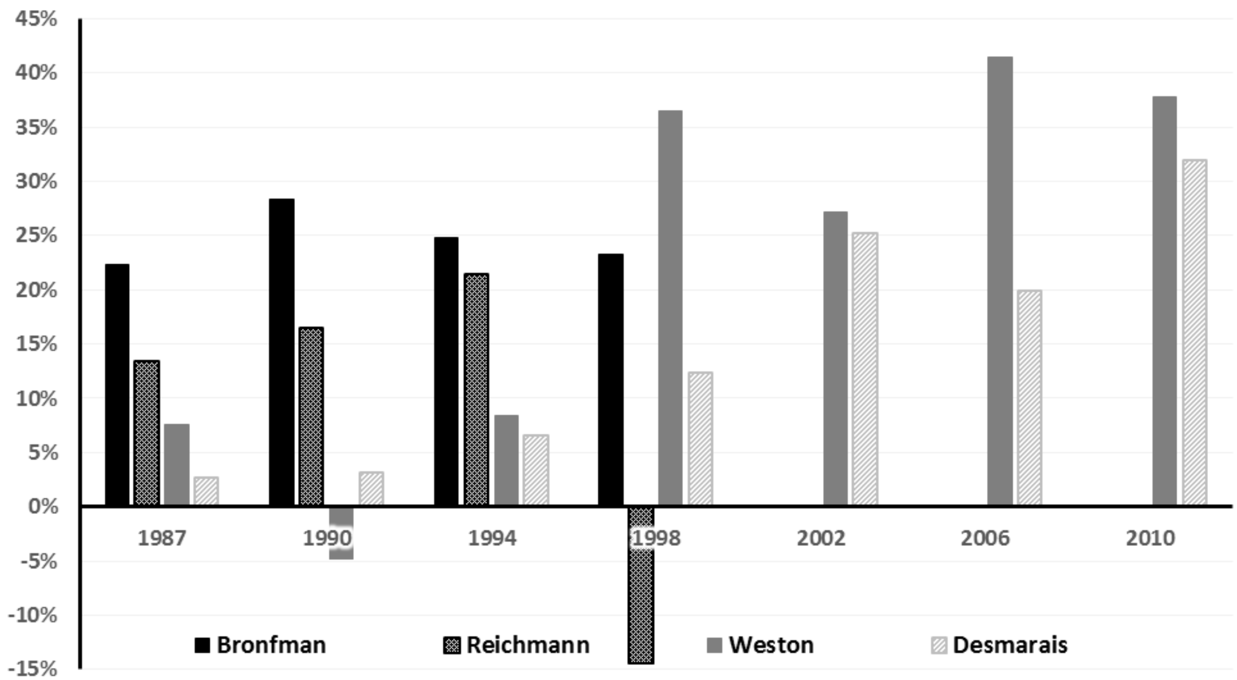
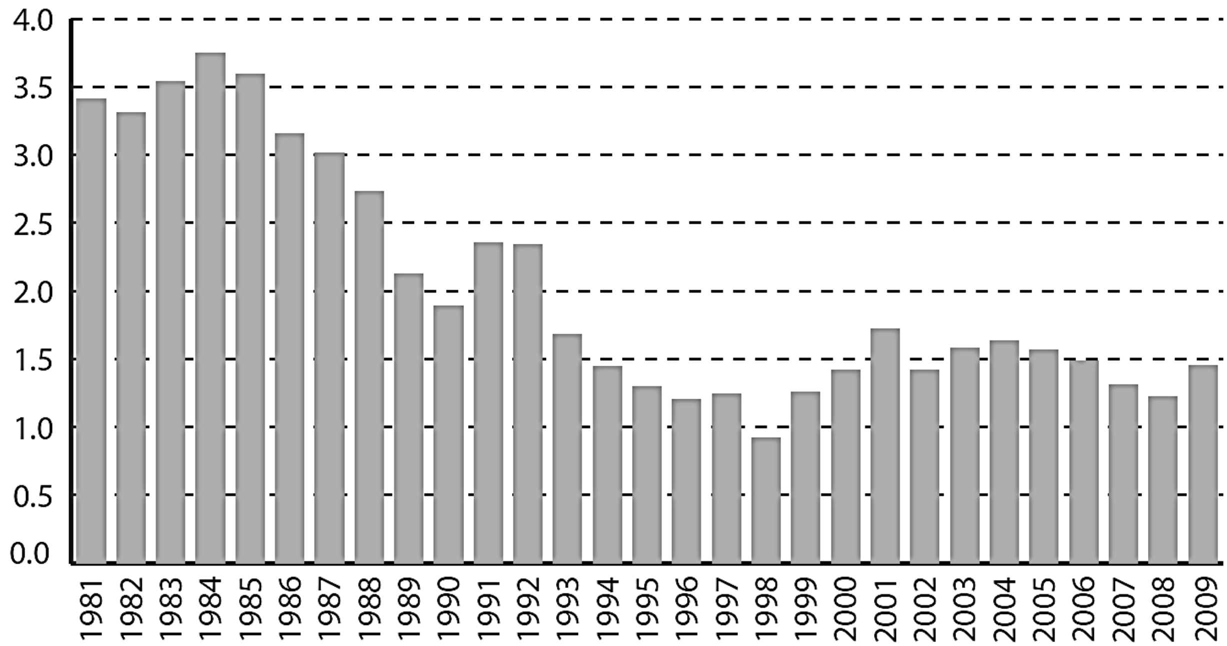


Figure 11. Government Subsidies to Private Sector Businesses, State-owned Enterprises and Consumers as Percent of GDP in Canada



Source: Statistics Canada as reported in Milke (2014).