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**PROMOTION, FINANCE AND MERGERS IN
CANADIAN MANUFACTURING INDUSTRY, 1885-1918**

by

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A Thesis

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ABSTRACT OF THESIS

The existing research on the first merger waves in the United States, Britain, and to a lesser extent in Germany, has produced valuable information on the rise of the modern industrial enterprise. These studies reveal important similarities as well as a few significant differences in the nature of the economic development of these nations. A new merger series for Canadian manufacturing industry was generated to provide a further comparison. In addition, a large pool of information was gathered concerning the workings of promotional syndicates, corporate flotations, and secondary financial markets. This aggregate data, in conjunction with a case study of the most prominent Canadian promoter of the era and the companies he consolidated, is used to determine the relationship between security financing and the evolution of manufacturing industry in Canada.

An explanation of the cause of the first Canadian merger wave, 1909-1912, is based on individual case evidence and the results of causality tests using aggregate data. The necessary pre-condition to a merger wave was the emergence of a broad market for Canadian industrial securities. Although high stock prices stimulated merger waves in Britain and the United States at the turn of the century, the first Canadian merger wave had to wait another decade until the expansion of the Canadian market and the tapping of the British market for Canadian "industrials".

permitted large-scale flotations. The potential profits which were available through corporate reorganisation, rationalisation of manufacturing and distribution networks, and monopolisation, were reflected in the higher rates of return which British investors sought en masse in the new Canadian securities. This flood of British capital in turn accelerated the industrial transformation taking place in Canada and encouraged further mergers. High stock prices triggered the first merger movement as they had in Britain and the United States. Corporate financiers became merger promoters as they catapulted propositions into consolidations large enough to be listed on public stock exchanges and to be of interest to prospective investors. High-risk financial methods provided the incentive to financial intermediaries to broaden this market as quickly as possible and, therefore, to deliver the maximum amount of cash to the new industrial consolidations.

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LIST OF ABBREVIATIONS

Journals, Periodicals and Government Reports

AER:	American Economic Review
AFR:	Annual Financial Review
BH:	Business History
BHR:	Business History Review
CHR:	Canadian Historical Review
CJE:	Canadian Journal of Economics
CJEPS:	Canadian Journal of Economics and Political Science
EEH:	Explorations in Economic History
EHR:	Economic History Review
HCD:	House of Commons Debates
JEEH:	Journal of European Economic History
JEH:	Journal of Economic History
JPE:	Journal of Political Economy
MT:	Monetary Times
MTAR:	Monetary Times Annual Review
QJE:	Quarterly Journal of Economics

Archives

AONT:	Archives of Ontario
BBK:	Beaverbrook Papers
DAL:	Dalhousie University Archives
LSE:	London Stock Exchange Records
NAC:	National Archives of Canada
PANS:	Public Archives of Nova Scotia

Others

MSE:	Montreal Stock Exchange
SIC:	Standard Industrial Classification
TSE:	Toronto Stock Exchange

\$ or dollar: Canadian dollars
£ or pounds: British pounds sterling
(£ 1 = \$4.867)

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CHAPTER ONE

THE LAURIER BOOM, MERGERS AND THE RISE OF THE MODERN INDUSTRIAL ENTERPRISE

1.1 Integrating history and theory

This thesis attempts to determine the relationship between developments in finance and merger activity; this will then be related to the emergence of the modern industrial enterprise¹ in Canada. To achieve this objective, the following inquiry will be divided into a qualitative and a quantitative examination. Chapters Two through Five deal with the former while Chapters Six through Eight grapple with the latter. The final chapter is an attempt to integrate both forms of analyses -- the micro-qualitative and the macro-quantitative -- to produce a richer and hopefully more accurate explanation of the relationship between mergers, financial change, and the second industrial revolution in Canada. Both parts necessarily employ different methodologies. The first, uses an inductive case-study methodology commonly employed in analytical business history

¹This concept is based on A.D. Chandler's distinction between the traditional firm -- a personally-owned, single-unit enterprise, generally producing a single product and operating within one geographic area -- and the modern business enterprise. The latter is multi-unit, carries out a number of economic activities over a number of geographic areas with decisions monitored and coordinated by a managerial hierarchy. A.D. Chandler, The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass., 1977).

while, the second, relies on an aggregate, statistical approach.

Evidence in the first part of the thesis is mainly drawn from the records of the most significant merger promoter of the first Canadian merger wave: Max Aitken, later to become Lord Beaverbrook. Aitken's operations and his main promotional vehicle, the Royal Securities Corporation, provide a particularly illuminating study of the finance of manufacturing industry because of the relative comprehensiveness of the existing documentation.² Since the methods used by Aitken to finance manufacturing industry were substantially the same as those used by the other promoters and financial intermediaries of the day, the case study can support certain general conclusions.

The evidence generated will also be used to analyse the causes of the first Canadian merger wave of 1909-1912 and to provide answers about merger causation generally. The Canadian evidence can be used as a check on theories which have been developed based on the experiences of Britain, Germany, and the United States. Attention is also directed to the fact that the

²To the best of my knowledge the records of other Canadian industrial promoters and the issue houses and trust companies that handled merger issuances in the early twentieth century are no longer in existence. For example, the records of the Dominion Securities Corporation and its general manager, E.R. Wood, cannot be located, nor the records of A.J. Nesbitt (an ex-employee of Aitken and the Royal Securities Corporation) and the International Trust Company. After Aitken, Wood and Nesbitt and the companies they represented were among the most important promoter-financiers of the first Canadian merger movement.

Canadian merger wave occurred one full decade after similar waves in Britain and the United States, and eight years after the German merger wave. The following analysis of these issues -- the importance of mergers as well as their causation and timing -- is based upon a new series of Canadian merger statistics covering the years from 1885 to 1918. These statistics were generated according to a structure and methodology described in Chapter Seven while the results are presented in Chapter Eight.

1.2 Mergers, finance capitalism and the second industrial revolution

Mergers appear to be an integral part of the economic history of those nations which experienced a second industrial revolution during the last third of the nineteenth century. Although much debate surrounds what is precisely meant by a phrase like "industrial revolution" it is a convenient device to describe a basic shift in the long-run trajectory of an economy -- a fundamental (if not always rapid) transformation of the means of production as well as the organisation of production.³

³I will bypass the dispute that is currently raging over the existence of an "industrial revolution" in terms of a quantitative takeoff or discontinuity in growth by submitting that it is still useful as a qualitative concept. J. Komlos, "Thinking about the Industrial Revolution", JEEH, vol. 18, no. 1 (Spring 1989); R. Cameron, "A New View of European Industrialization", EHR, 2nd ser., vol XXXVIII, no. 1 (February 1985); P. Mathias, "The Industrial Revolution -- Concept or Reality", The Race for Modernisation: Britain and Germany since the Industrial Revolution, eds. A.M. Birke and L. Kettenacker (Munich, 1988); N.F.R. Crafts, British Economic Growth during

The first industrial revolution was based on the textile, iron, and heavy chemicals industries, using coal as fuel and steam-engineering as the energy-convertor. Ushered in by advances in the chemical and electrical sciences, the second industrial revolution can be distinguished from the first by new long-term investment in steel, precision machinery, synthetic chemicals, and electrical power generation.⁴ Although not generally done, portland cement should be added to the list of new industries as it comprised the essential component in the new building and construction methods of the late nineteenth century.⁵

In the last three decades of the nineteenth century and the first decade of the twentieth these new industries increasingly supplanted the sectors upon which the first industrial revolution was based. The cluster of technological innovations in the latter part of the nineteenth century necessitated different

the Industrial Revolution (Oxford, 1985).

⁴The works employing this concept are too numerous to mention but the standard reference is D.S. Landes, The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present (Cambridge, 1969).

⁵C.W. Condit, "The First Reinforced-Concrete Skyscraper", Technology and Culture, vol. 9, no. 1 (January 1961); P. Cusack, "Agents of Change: Hennebique, Mouchel and ferro-concrete in Britain, 1897-1908", Construction History, vol. 3 (1987); R. Lesley, "The Cement Industry of the World", Cement Age (January 1907), and History of the Portland Cement Industry in the United States (Chicago, 1924); A.J. Francis, The Cement Industry 1796-1914: A History (London, 1977).

organisational structures as well as fundamental changes in finance. Unlike the manufacturing enterprises of the first industrial revolution, where fixed costs were low relative to working capital, the new industries required enormous fixed capital investments.⁶ The public flotation of securities became one of the main instruments for delivering large amounts of money to industry for long-term investment.

Organisational changes took the form of the progressive replacement of the single-unit family firm by the multi-unit, publicly held corporation administered by a hierarchy of professional managers -- a transformation experienced by all advanced industrial nations. To be sure, the precise form of this evolution and its timing differed from nation to nation but the similarities remain more striking than the differences. This permanent and qualitative transition to a "corporate economy" has been explored mainly by business historians employing the concepts pioneered by Alfred Chandler.⁷

⁶ Between 1782 and 1832, for example, the proportion of fixed capital to total assets ranged between approximately 9 per cent and 33 per cent: S. Pollard, "Fixed Capital in the Industrial Revolution", JEH, vol. XXIV, no. 3 (September 1964).

⁷ A.D. Chandler, Strategy and Structure: Chapters in the History of the American Industrial Enterprise (Cambridge, Mass., 1962), The Visible Hand, op.cit., and "The Emergence of Managerial Capitalism", BHR, vol. LVIII, no. 4 (Winter 1984). The literature based on the Chandlerian paradigm is now quite voluminous but the following references are representative of this category of work: L. Hannah, The Rise of the Corporate Economy (London, 2nd ed., 1983); Managerial Hierarchies: Comparative Perspectives on the Rise of the Modern Industrial Enterprise, eds. A.D. Chandler and H. Daems (Cambridge, Mass.,

The industrial nations undergoing this shift from atavistic to managerial capitalism also experienced merger movements in the two decades preceding the Great War, mainly concentrated around the turn of the century. Such movements first struck in the United States and Britain. They were followed a few years later by similar movements in Germany, France, Japan, and Canada. Even if they were more of a symptom than a "cause" of the modern corporate economy, mergers were intimately linked with its transformation. The multi-firm consolidation waves of the turn of the century signalled the brief domination of finance capitalism forming a bridge between family and managerial capitalism.⁸

This intermediate or "bridging" stage of capitalist development was marked by the development of an international market in industrial securities, the rapid growth and linking of organised exchanges for the trading of securities, and the predominance of promoter-financiers in manufacturing industry. This period also witnessed the apparent supremacy of "financial"

1980); J. Kocka, "The Rise of the Modern Industrial Enterprise in Germany", Law and the Formation of the Big Enterprise in the 19th and Early 20th Centuries, eds. N. Horn and J. Kocka (Gottingen, 1979); T. Yui, "Development of Industrial Enterprises in Japan, 1880-1915", Business and Economic History, 2nd ser., vol. 17 (1988).

⁸I am drawing on Chandler's concept of financial capitalism which is surprisingly consistent with Hilferding's concept of finance capitalism. See R. Hilferding, Finance Capital: A Study of the Latest Phase of Capitalist Development (London, 1981, translation of 1910 German publication).

over "industrial" objectives during the years in which the new enterprises remained dependent on such promoters for raising capital. In the process, the second industrial revolution spawned new forms of financial institutions or changed the nature of existing financial intermediaries to make them more responsive to the large capital requirements of industrial enterprises.

The precise path this took varied from one industrial nation to the other depending on the existing institutional configuration upon which the changes were grafted. In Germany and Japan, for example, the rise of joint-stock mixed banks which were willing to promote and float industrial securities and which developed strong links to the stock exchanges appear to have dominated this stage of finance capitalism.⁹ Although some

⁹See R. Tilly, "German Banking, 1850-1914: Development Assistance for the Strong", JEEH, vol. 15, no. 1 (Spring 1986), "Mergers, External Growth, and Finance in the Development of Large-Scale Enterprise in Germany, 1880-1913", JEH, vol. XLII, no. 3 (September 1982), and "Banking Institutions in Historical and Comparative Perspective: Germany, Great Britain and the United States in the Nineteenth and Early Twentieth Centuries", Journal of Institutional and Theoretical Economics, vol. 145, no. 1 (March 1989); W. Feldenkirchen, "Capital Raised and its Use by German Mechanical Engineering Firms in the 19th and Early 20th Centuries", German Yearbook on Business History (1983); C.P. Kindleberger, "Financial Institutions and Economic Development: A Comparison of Great Britain and France in the Eighteenth and Nineteenth Centuries", EEH, vol. XXI, no. 2 (April 1984). Also see J. Hirschmeier and T. Yui, The Development of Japanese Business, 1600-1980 (London, 2nd ed., 1981), pp. 193-96, where they describe the establishment of certain government banks such as the Hypothek Bank (1897) and the Industrial Bank (1902) as well as the operations of Japan's commercial banks and the so-called Instrumental Banks, which had a close relationship with one specific industrial firm, all of which served to provide long-term capital to manufacturing industry.

eventually became involved as underwriters in security issues, British investment banks were not major participants in providing finance to domestic or foreign manufacturing industry. Morgan Grenfell & Co., the first major British merchant bank to become involved in financing industry, did not do so until the 1920s. Instead, an entirely new and very personal institution sprang up to supply this need -- the corporate promoter. H. Osborn O'Hagan, the premier financier of the period, as well as infamous promoters like Ernest T. Hooley and Horatio Bottomley dominated the British financial scene during the 1880s and 1890s.¹⁰ In the United States, investment banks were not so reticent about raising capital for manufacturing enterprises through security issues, although J.P. Morgan & Co., the first major house to become so involved, waited until 1901 when the way had already been cleared by corporate promoters like John R. Dos Passos, Charles Flint, and John W. Gates. Some promoters used trust companies rather than banks as their institutional vehicle for raising capital because of their less restrictive legal environment. Although calling themselves trust companies, these

¹⁰S. Chapman, The Rise of Merchant Banking (London, 1984), pp. 98-103; P.L. Cottrell, Industrial Finance 1830-1914: The Finance and Organization of English Manufacturing Industry (London, 1980), pp. 210-44; H.O. O'Hagan, Leaves from my Life, 2 vols. (London, 1929); S.F. Van Oss, "In Hooley Land", The Journal of Finance, vol. V (January 1899); J. Armstrong, "Hooley and the Bovril Company", BH, vol. XXVII, no. 1 (January 1986); A.E. Harrison, "Joint-stock company flotation in the cycle, motor-vehicle and related industries, 1882-1914", BH, vol. XXII, no. 2 (July 1981); Dictionary of Business Biography, eds. D.J. Jeremy and C. Shaw (London, 1985).

issue houses little resembled similarly called financial intermediaries performing traditional trust services.¹¹ In Canada, promoters often used financial intermediaries known as bond houses as their institutional vehicle to promote the flotation of corporate securities.¹² A few followed the American example of using trust companies but this practice was much more limited in Canada.¹³ Whatever institutional vehicle was chosen, however, corporate promotion and security underwriting remained very personal activities in Canada, Britain and the United States relative to the continental European nations and Japan where they

¹¹T.R. Navin and M.V. Sears, "The Rise of a Market for Industrial Securities, 1887-1902", BHR, vol. XXIX, no. 2 (June 1955); V.P. Carosso, The Morgans: Private International Bankers, 1854-1913 (Cambridge, Mass., 1987), and Investment Banking in America (Cambridge, Mass., 1970); J.M. McFadden, "Monopoly in Barbed Wire: The Formation of The American Steel and Wire Company", BHR, vol. LII, no. 4 (Winter 1978); L. Neal, "Trust Companies and Financial Innovation, 1897-1914", BHR, vol. XLV, no. 1 (Spring 1971).

¹²The Royal Securities Corporation and the Dominion Securities Corporation were the first and most prominent bond houses in Canada.

¹³Through his management of the Montreal Trust Company, Max Aitken pioneered the use of the trust company as a vehicle for promotional activities but felt rather restricted in its use. In reply to a request for information on the rapid growth of trust companies in Canada from the publisher of Trust Companies, a monthly magazine "devoted to trust company, banking and financial interests of the United States", Aitken blamed the limitations imposed by the large Canadian banks: "If I were to write my views on the Trust Company situation in Canada, I do not think they would be at all satisfactory. I think Trust Companies are doing about as impecunious and uninteresting a class of business as can possibly be transacted, and in addition thereto, that these Trust Companies will never improve their class of business, because the Banks will not allow them." BBK, letter, Aitken to Luhnow, 10 November 1909, A/41/misc T.

were institutionalised within joint-stock financial intermediaries.¹⁴

In Canada, both the first and second industrial revolutions lagged a few years behind similar developments in other newly industrialising nations like the United States and Germany but proceeded ahead of nations like Australia and Argentina.¹⁵ The first industrial revolution came in the form of textile, brewery, flour milling, iron, rolling stock and farm implement manufacturing. In the 1850s and 1860s, factories gradually began to spring up along the Lachine Canal in Montreal and the small communities surrounding Lake Ontario.¹⁶ This development, however, was not accompanied by significant changes in corporate

¹⁴See R. Tilly, "Banking Institutions in Historical and Comparative Perspective: Germany, Great Britain and the United States in the Nineteenth and Early Twentieth Centuries", op. cit..

¹⁵The steel industry, for example was not established in Canada until the first decade of the twentieth century. W. Armstrong, "Thinking About 'Prime Movers': The Nature of Early Industrialization in Australia, Canada and Argentina, 1870 to 1930", Australian-Canadian Studies, vol. 1 (January 1983); Argentina, Australia and Canada: Studies in Comparative Development, 1870-1965, eds. D.C.M. Platt and G. di Tella (New York, 1985).

¹⁶G. Tulchinsky, The River Barons: Montreal Businessmen and the Growth of Industry and Transportation, 1837-1853 (Toronto, 1977); J. McCallum, Unequal Beginnings: Agriculture and Economic Development in Quebec and Ontario until 1870 (Toronto, 1980); P. Craven and T. Traves, "Canadian Railways as Manufacturers, 1850-1880", Perspectives on Canadian Economic History, ed. D. McCalla (Toronto, 1987); M. Denison, Harvest Triumphant: The Story of Massey-Harris (London, 1949); J.M. Gilmour, Spatial Evolution of Manufacturing: Southern Ontario, 1851-1891 (Toronto, 1972).

organisation or industry financing . Industrial needs were such that no sophisticated hierarchy of management was established. Moreover, retained earnings and the occasional loan from family, friends, or financial intermediaries were generally sufficient for the relatively modest requirements of single-plant operations manufacturing for local needs.

The second industrial revolution in Canada, however, did produce fundamental changes in corporate organisation and management as well as in industrial financing. Security issues became a critical source of capital, as retained earnings and family wealth were found inadequate to meet the very large capital needs of the new multi-unit enterprises springing up in the new manufacturing sectors such as steel and electric-power generation. As firms became multi-unit operations the need for security financing became much more pronounced. During the peak of manufacturing growth, Canada experienced its first sustained merger wave. Multi-firm consolidations became the main method employed to ensure that firms had the requisite size and national stature to obtain finance directly through public security issues.

In the decade immediately preceding the Great War, Canadian industry found itself in the bridging stage between family and managerial capitalism. As in other advanced industrial nations, this period of finance capitalism was relatively short-lived but

it left a lasting impression on the observers of the day, as it had a decade before in Britain and the United States. Talk of mergers and trusts dominated the contemporary press. Most citizens were bewildered by the new forms of high-risk security financing, with "stock-watering" as its obvious characteristic. The corporate promoters of the day became the most envied, feared and despised characters. Their methods were little understood by the general public and even by many businessmen steeped in the simpler financial practices of the past. High-risk financing is dimly understood even today by business and financial historians.

Mark Twain and Charles Dudley Warner originally wrote a novel entitled The Gilded Age to satirize the "all-pervading speculativeness", optimism, materialism, and flexible ethical standards that seemed to become part of the "American character" after the hard years of the Civil War.¹⁷ It was also a description of the wealth which flowed so easily to those engaged in what appeared to be non-productive pursuits, particularly high-finance. Of course, the living embodiment of all these qualities was the corporate promoter. The term will be used here to describe this same psychological state of optimism and skewed distribution of wealth which was prevalent to a greater or lesser degree in all the industrial nations. However, it could better be applied to a later period. The 1870s and 1880s were largely

¹⁷J.A. Garraty, The New Commonwealth, 1877-1890 (New York, 1968), pp. 1-4.

years of severe deflation for the industrialised world. Not until the latter half of the 1890s did a long cycle of inflationary growth set in. It was accompanied by precisely the optimism and speculativeness that Twain described in the 1870s only now it had spread beyond the United States and was on a level never before witnessed. The years after 1896, until the crushing depression of 1913 and the horrors of the First World War, were similarly experienced throughout the industrial world. The era was recalled affectionately and variously as "la belle époque", the Edwardian years, and the Laurier boom. It was truly the gilded age for the industrial world.

1.3 The Laurier boom and manufacturing in Canada

The second industrial revolution in Canada coincided roughly with the period of economic prosperity which began in 1896 and ended with the recession of 1913. As the majority of the years happen to fall within the time that Wilfred Laurier was Prime Minister of Canada, this period is referred to by historians as the Laurier boom. A statistical outline of the nature of this boom is necessary to provide the backdrop for the stage of finance capitalism in Canada. During the early 1960s, the existence of the Laurier boom was brought into question by economic historians in a series of revisionist articles. Using newly generated national accounting statistics, these scholars concluded that economic growth, particularly industrial growth,

had been relatively continuous from 1870 to the 1930s; the evidence could not support the traditional notion of a sharp upward surge beginning in 1896.¹⁸

More recent research, however, supports the traditional view. A completely reworked series of national income estimates reveals the singular nature of the remarkable growth experienced by Canada between 1896 and 1913. This work resurrects the original conclusion that a sharp upward expansion of investment had begun to take place by 1896 after years of relative stagnation and even depression during the 1870s, 1880s and early 1890s.¹⁹ The new estimates, particularly when revised using an appropriate deflator, also support the traditional view of a tremendous increase in manufacturing which pushed the Canadian economy forward for the next 18 years. The relevant figures for extensive growth (real Canadian GNP) and intensive growth (output

¹⁸For statistics on manufacturing output in particular see G.W. Bertram, "Economic Growth in Canadian Industry, 1870-1915: The Staple Model and the Take-off Hypothesis", CJEPS, vol. 29, no. 2 (May 1963), and "Historical Statistics on Growth and Structure of Manufacturing in Canada, 1870-1957", Conference on Statistics 1962 & 1963, eds. J. Henripin and A. Asimakopoulos (Toronto, 1964).

¹⁹On the initiative and under the direction of Professor M.C. Urquhart, a team of seven scholars spent a decade preparing a new set of National Accounts covering the period 1870 to 1926. The main body of these results is contained in M.C. Urquhart, "New Estimates of Gross National Product, Canada, 1870-1926: Some Implications for Canadian Development", Long-Term Factors in Economic Growth, eds. S.L. Engerman and R.E. Gallman (Chicago, 1986).

per capita) are displayed in Table 1 below while the relevant figures for annual growth by industrial sector can be found in Appendix A.²⁰

Table 1

ANNUAL PERCENTAGE GROWTH RATES OF REAL CANADIAN GNP
SELECTED PERIODS, 1870-1928

<u>Period</u>	<u>Real GNP</u>	<u>Real Output Per Capita</u>
1870-1877	2.48%	0.84%
1877-1896	2.73%	1.55%
1896-1913*	7.26%	4.83%
1913-1928	2.23%	1.46%

* The years of the Laurier boom

SOURCE: M. Altman, "Revised Estimates of Real Canadian GNP and Growth and Pre and Post World War Two Volatility of the Canadian Business Cycle with Some Comparison to the American Record", unpublished paper, Department of Economics, University of Saskatchewan, 1989, p. 45.

This prosperity was naturally enough reflected in the population figures in which immigration was the stimulus. Word of the country's unlimited future spread and Europeans finally began to look upon the northern fringe as a desirable new home. For the first time in its history, Canada became favoured over the United States as a locus of immigration. In addition, fewer

²⁰ M. Altman, "A Revision of Canadian Economic Growth: 1870-1910 (a challenge to the gradualist interpretation)", CJE, vol. XX, no. 1 (February 1987).

Canadians were emigrating to the United States than in the decades preceding 1896. Although Canada's population growth rate was considerably lower than the American rate for the last decades of the nineteenth century, it substantially exceeded the American rate during the years of the Laurier boom.²¹ Canadian population growth statistics are summarised by census decade in Table 2.

Table 2

POPULATION AND RATES OF GROWTH BY DECADE
 CANADA, 1871-1941
 (population in millions at beginning of decade)

<u>Decade</u>	<u>Population</u>	<u>Rate of Increase</u>	<u>Net Immigration</u>
1871-81	3.7	17.2	-1.5
1881-91	4.3	11.7	-3.4
1891-01	4.8	11.1	-2.7
1901-11	5.4	34.2	15.1
1911-21	7.2	21.9	4.3
1921-31	8.8	18.1	2.6
1931-41	10.4	10.9	-0.9

SOURCE: M.C. Urquhart, "Canadian Economic Growth 1870-1980", Discussion Paper no. 734, Institute for Economic Research, Queen's University, 1988, p. 6.

While population increase served to boost absolute growth in the economy, novel organisational methods and technological

²¹M.C. Urquhart, "Canadian Economic Growth 1870-1980", Discussion Paper no. 734, Institute for Economic Research, Queen's University, 1988, p. 52.

advances, often imported from Europe and the United States but sometimes developed in Canada, served to boost labour productivity and per capita growth. Economic growth during the Laurier boom exhibited three main features: a very high rate of gross fixed capital formation, a significant rate of domestic savings and, possibly the most significant attribute, an enormous net capital inflow mainly from Britain in the form of portfolio investment and, secondarily, in the form of American direct investment in manufacturing plants.

The level of investment in infrastructure, transportation, agriculture, and industry was on such a large scale that even a relatively high level of domestic savings was insufficient to pay for it and the Laurier boom witnessed a veritable deluge of foreign investment. In the decade preceding the First World War, Canada received almost all the capital flowing from Britain to the Empire. Taking the period 1884-1914 as a whole, the only nation which received more investment from Britain was the United States.²² For the period 1902-1914, "Canada was the largest borrower in the last great surge of British lending", according to Edelstein, "absorbing perhaps a third of British lending in

²²L. E. Davis and R.A. Huttenback, "The Export of British Finance, 1865-1914", Journal of Imperial and Commonwealth History, vol. XIII, no. 3 (May 1985).

the years before World War I."²³

Capital formation rose dramatically in 1905-06 reaching a peak about 1912. No single year in the interwar period, including the most prosperous year of 1929, exceeded the ratio of capital formation to GNP achieved in any of the years between 1904-14. It would take until the mid-1950s before a comparable level of capital formation could be attained. Investment in fixed capital formation was "clearly the engine of growth" during the Laurier boom, according to M.C. Urquhart, the chief architect of the new series of National Accounts for Canada.²⁴ This coincided, not incidentally, with the first major wave of industrial mergers in Canada. According to M. Altman's revised estimates of Canadian manufacturing growth based on the statistics generated by Urquhart²⁵, the expansion of the domestic manufacturing sector played a critical, and until now, largely ignored role in the spurt of growth. In the space of a few short years a fundamental transformation took place -- from a country

²³M. Edelstein, Overseas Investment in the Age of High Imperialism: The United Kingdom, 1850-1914 (New York, 1982), p. 287.

²⁴M.C. Urquhart, op.cit., p. 28.

²⁵M. Altman, "Revised Estimates of Real Canadian GNP and Growth and Pre and Post World War Two Volatility of the Canadian Business Cycle with Some Comparison to the American Record", unpublished paper, Department of Economics, University of Saskatchewan, 1989.

heavily dependent on the export of staple resources a modern industrial power emerged. Most of this thesis examines the manner in which this tremendous process was financed and how mergers themselves were a conduit for investment.

CHAPTER TWO

FINANCE AND MANUFACTURING

2.1 The inadequacy of existing forms of finance

In terms of how manufacturing was financed, there is little evidence that the experience of Canada during its first industrial revolution differed markedly from that of the older industrialised nations of Europe. Almost all of the money invested in the establishment and expansion of manufacturing activities came from retained earnings supplemented by the personal savings of the families and the relatives and friends of those who owned the means of production. The capital requirements of the textile, iron and other industries of the first industrial revolution were "usually within reach of a single person or family, and the successful enterprise could build the growth of each period on the profits of the one before."¹ In addition, a limited amount of money was advanced to manufacturing enterprises by banks and similar financial intermediaries.² By the late nineteenth century and early twentieth century, however, larger enterprises began to raise

¹D.S. Landes, The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present (Cambridge, 1969), p. 78.

²Capital Formation in the Industrial Revolution, ed. F. Crouzet (London, 1972); P.L. Cottrell, Industrial Finance 1830-1914: The Finance and Organization of English Manufacturing Industry (London, 1980).

money through direct capital issues as traditional sources of finance became inadequate.³ In doing so, industrial companies followed a pattern first set by governments in the early eighteenth century and eventually adopted by banks, insurance companies, railways and utilities in the latter half of the century.

The transition to security financing was gradual or sudden -- incremental or discrete -- depending on whether it took place in an older industrialised nation or a newly industrialising nation. Where the span of time between the first and the second industrial revolution was large, as in Britain and France,

³Although there is little evidence for this period, most scholars assume that retained earnings remained the single most important source of corporate finance from the first industrial revolution to the present. Based on this case study of the Canadian merger movement of 1909-1912, I think there is a possibility that security financing was temporarily more important than retained earnings as a source of corporate finance during such financially buoyant periods. This will remain speculation, however, until a detailed study is undertaken on the relative importance of profit retention, bank advances and security issuances for the period in question. Evidence on the level of profit retention is scattered: Capital Formation in the Industrial Revolution, ed. F. Crouzet, op. cit.; T.S. Ashton, Iron and Steel in the Industrial Revolution (Manchester, 1951); P.L Cottrell, op. cit.. More systematic studies on the sources of corporate finance for twentieth century British business indicate that retained earnings form the largest percentage of new funding to industrial companies. Capital issues are second in importance, generally one-third the level of retained earnings. Bank credit is the least important source of finance. P.E. Hart, Studies in Profit, Business Saving and Investment in the United Kingdom, 1920-62 (London, 1962); A.W. Goudie and G. Meeks, Company Finance and Performance: Aggregated Financial Accounts for Individual British Industries, 1948-1982 (Cambridge, 1986).

technological, organisational, and financial changes occurred in a gentler and more evolutionary manner. Families were able to accumulate the wealth necessary for gradual expansion through the profits obtained from industrial operations which extended over generations. Consequently, there was not the same degree of urgency for an infusion of investment from a large body of outside investors. In addition, existing financial institutions had the breathing space to slowly adapt to changing capital requirements and supply the more limited needs of industry without radically altering their form.⁴

In the new industrialisers, however, relatively undeveloped capital markets went through revolutionary changes to keep pace with equally revolutionary technological and organisational transformations. This applies to capital markets in the United States and Germany but the process was even more abrupt in nations such as Canada and Japan where the first and second industrial revolutions were further compressed. All four nations saw the rapid adoption of financial innovations, and by the First World War, these same nations were not only leading the way in the technology, organisation, and management of new industries but were providing the initiative in financial change. Indeed,

⁴L. Hannah, The Rise of the Corporate Economy (London, 2nd ed., 1983); M. Levy-Leboyer, "The Large Corporation in Modern France", Managerial Hierarchies: Comparative Perspectives in the Rise of the Modern Industrial Enterprise, eds. A.D. Chandler and H. Daems (Cambridge, Mass., 1980);

the two developments were intimately connected.⁵

2.2 Development of a market for industrial securities

The notion that a well-developed market for industrial securities is a prerequisite for any sustained merger wave was first advanced by G. Stigler, T. Navin and M. Sears.⁶ Their evidence was restricted to the evolution of the American market for industrial securities and its relationship with the Great Merger Wave. The securities of domestic manufacturing companies became an accepted form of investment after the progressive entrenchment of government, municipal, railroad, bank and public utilities securities.

Security financing was central to American industrial expansion for a number of reasons, including a rapidly expanding domestic economy, a compressed industrialisation, an absence of large amounts of inter-generational family wealth, and a

⁵R. Tilly, "Mergers, External Growth, and Finance in the Development of Large-Scale Enterprise in Germany, 1880-1913", JEH, vol. XLII, no. 3 (September 1982); A.D. Chandler, "The Emergence of Managerial Capitalism", BHR, vol. LVIII, no. 4 (Winter 1984); J. Hirschmeier and T. Yui, The Development of Japanese Business, 1600-1980 (London, 2nd ed., 1981); E.P. Neufeld, The Financial System of Canada: Its Growth and Development (Toronto, 1972).

⁶G. Stigler, "Monopoly and Oligopoly by Merger", AER, vol. XL, no. 2 (May 1950); T.R. Navin and M.V. Sears, "The Rise of a Market for Industrial Securities, 1887-1902", BHR, vol. XXIX, no. 2 (June 1955).

relatively weak and undeveloped banking system.⁷ During the Great Merger Wave, new industrial promoters like John W. Gates, Charles Flint, John R. Dos Passos, and the Moore brothers of Chicago, began to regularly use a new form of financing industrial enterprises which involved stock-watering.⁸

This type of financing had first been pioneered during the trust consolidation wave of the early 1890s. It received a temporary setback with the financial panic of 1893 itself caused by a crash of newly listed industrial stocks which nevertheless slowly regained their value during the next four years. By 1898, industrial securities had found a sizeable niche among a general investing public now prepared to digest enormous doses of new

⁷L.E. Davis, "The Capital Markets and Industrial Concentration: The U.S. and U.K., A Comparative Study", EHR, 2nd ser., vol. XIX, no. 2 (May 1966), and "Capital Immobilities and Finance Capitalism: A Study of Economic Evolution in the United States 1820-1920", Explorations in Entrepreneurial History, vol. 1, no. 1 (Fall 1963); L. Neal, "Trust Companies and Financial Innovation, 1897-1914", BHR, vol. XLV, no. 1 (Spring 1971); G. Smiley, "The Expansion of the New York Securities Market at the Turn of the Century", BHR, vol. LV, no. 1 (Spring 1981); J.B. Baskin, "The Development of Corporate Financial Markets in Britain and the United States, 1600-1914: Overcoming Asymmetric Information", BHR, vol. LXII, no. 2 (Summer 1988).

⁸Although it is difficult to ascertain precisely what was meant by stock-watering during the years in question, I propose the following working definition: the issuing by a joint stock company of more securities than can be justified by the existing assets and the proven earning power of the company. This is slightly less restrictive than the more conservative definition of watered stock endorsed by the Monetary Times: the creation by a joint company of liabilities to shareholders against which there are no tangible assets; MT, 16 September 1911, p. 1215.

industrial security issues.⁹ The innovations introduced by the new industrial promoters were eventually adopted by more traditional railroad financiers like J.P. Morgan Jr. Although reluctant to do so at first, in 1901 Morgan began using high-risk methods of finance. Morgan's United States Steel Corporation became one of the most visible high-risk flotations of the merger wave, in large part because of its enormous capitalisation of \$1,404 million dollars -- an amount substantially in excess of the value of the company's existing assets.¹⁰

Before high-risk financing was introduced, securities were issued only on the existing value of an enterprise. Two classes of securities existed -- bonds (debt capital) and common shares (equity capital). Bonds were issued against the value of the most stable property owned by the enterprise, generally land and buildings.¹¹ Common shares were issued on the value of the

⁹T. R. Navin and M. V. Sears, op.cit.

¹⁰The United States Bureau of Corporations alleged that US Steel's capitalisation was 47 per cent in excess of the capitalised value of its component parts, some \$986 million. V.P. Carosso, The Morgans: Private International Bankers, 1854-1913 (Cambridge, Mass., 1987), pp. 466-74 and 487-91. For a general discussion of the acceptance and role of high-risk financing in American investment banking, see V.P. Carosso, Investment Banking in America (Cambridge, Mass., 1970).

¹¹The North American term "bond" can easily be confused with the British term "debenture". The two terms actually refer to a range of instruments with one common characteristic: "they are documents which either create or acknowledge a debt" without creating any ownership interest in the corporation. J.H. Farrar, Company Law (London, 1985).

remaining property of the firm (all the property if there was no outstanding bond issue) as well as the firm's proven earning power. As less tangible items such as goodwill, trademarks, patents, and future earning power began to be recognised as valuable assets, a new concept was introduced in corporate finance. These intangible and more speculative items were hived off from the more tangible assets of the firm, each group being represented by a different class of security. Common shares began to be used to embody the value of these intangibles while a new class of security, the preference share, was created to represent the firm's existing asset value and proven earning power.¹²

High-risk financing was based on this division between the securities representing the "real assets" of a firm and the securities intended to capture the potential of an enterprise; common shares were now free to perform this later function. In actual North American practice, this potential value was more often than not the anticipated benefits which a promoter hoped would flow from a physical consolidation or a financial reorganisation. He himself accepted common shares rather than cash as payment for his services and he, in turn, paid for the services of underwriters and brokers in common shares rather than

¹²G. Evans, "The Early History of Preferred Stock in the United States", AER, vol. XIX, no. 1 (March 1929), and "Preferred Stock in the United States 1850-1878", AER, vol. XXI, no. 1 (March 1931).

cash. All were willing to take their profit in this more speculative form because the potential reward was so much greater than a simple commission payment. The common share became a speculative "kicker" used, in effect, to lubricate the whole issue process.

To the extent that common stock was issued at all it was water; and it often made up between 30 and 60 per cent of the total debt and equity security issues of the vast majority of industrial flotations in the United States and Canada after 1898. In this sense, stock-watering was a constituent part of North American industrial finance until security practices changed decades later through legislation and the use of shares without par value.¹³

In high-risk financing, only the senior securities -- bonds and preference shares -- would be directly used to raise money and, ultimately, these were the only securities on which the company itself would realise. The share issue would generally be sold to the promoter-investment bank as a whole, thus

¹³J.C. Bonbright, "Non-Par Stock: Its Economic and Legal Aspects", QJE, vol. 38, no. 2 (May 1924); J.M. Landis, "The Legislative History of the Securities Act of 1933", George Washington Law Review, vol. 28 (1959); D.S. Levin, "Regulating the Securities Industry: The Evolution of a Government Policy", unpublished Ph.D. thesis, Columbia University, 1969; G.D. Nash, "Government and Business: A Case Study of State Regulation of Corporate Securities, 1850-1933", BHR, vol. XXXVIII, no. 2 (Summer 1964); L. Loss, Securities Regulation (Boston, 1961).

guaranteeing the sale as far as the industrial enterprise was concerned. For taking on this degree of risk, bonus common stock was "given" to the promoter. The promoter would form an underwriting syndicate and release part of this bonus common stock to the underwriters for sharing the risk of issuance with him. If a substantial block of securities was involved, then an even larger group would sub-underwrite the issue taking a smaller percentage of bonus common stock as payment. These underwriters and sub-underwriters would distribute the securities among a wide group of brokers who would receive a further but still smaller percentage of bonus common stock. Finally, these brokers would sell the senior securities to investors occasionally releasing some of their bonus common stock as an incentive to investors to purchase when this was necessary.¹⁴

By including a bonus common stock percentage to small investors, a speculative element was added to the purchase of any industrial bond or preference share. The North American investor found these common stock bonuses more appealing than his European counterpart. One financial periodical of the day speculated that

¹⁴See C. Armstrong and H.V. Nelles, Monopoly's Moment: The Organization and Regulation of Canadian Utilities, 1830-1930 (Philadelphia, 1986), pp. 118-124, for an excellent discussion of high-risk, or what these authors term "new-style", financing. Also see, A.S. Dewing, Corporate Promotions and Reorganizations (Cambridge, Mass., 1914) and Corporate Finance (New York, rev. ed., 1931); as well as L.H. Haney, Business Organization and Combination (New York, 1934); J.T. Flynn, Security Speculation: Its Economic Effects (New York, 1934).

this was due to the more risk-loving nature of North Americans:

Investment offerings with a common stock bonus have found favor in Canada and the United States. It may be because the American thoroughly enjoys the speculative element...In his own words he is fond of taking a long chance. The British investor...is more conservative and may lose something thereby...One thing assured is better to him than two things doubtful.¹⁵

Whatever the reason for this preference, the system as a whole was designed to provide the maximum incentive to get an issue sold. High-risk financing could (and did) produce immense profits for the promoters involved, but it could also result in disastrous failures for promoters and companies. Syndicate promoters, underwriters, and brokers put their livelihood and reputations on the line each time they contracted into a major flotation. Moreover, the danger of high-risk financing was not limited to promoters, investment banks, underwriters, investors, and the companies being provided with capital in this manner. The volatility and extremely cyclical nature of high-risk finance could shake the financial system itself to its feet as it did in 1893 and 1903. Although the crash of American industrial stocks first triggered a financial panic on the New York Stock Exchange on these occasions, the interconnectedness of the industrialised world's capital markets meant that financial centers from Montreal and London to Berlin and Paris also suffered a steep

¹⁵MT, 22 November 1909, p. 2211.

decline in share prices. This was followed by a drop in industrial investment and economic recession.¹⁶

2.3 The evolution of finance for Canadian manufacturing industry

It was natural for Canadian financiers during the Laurier boom to employ high-risk methods of finance first developed in the United States. Like the organisational and technological changes made by Canadian manufacturers, however, this was not a passive process of imitation but an active process of adaptation which involved domestic innovations as well as modifications to suit Canadian conditions.¹⁷ Such conditions included a smaller and more geographically dispersed domestic market, a shallower pool of investment capital and a politically dependent

¹⁶The industrial or "real" side of this process was described in the business cycle (United States) and trade cycle (Europe) literature of the early twentieth century and later by econometricians and economists attempting to explain the cyclical nature of the industrial economies. These include W.C. Mitchell, Business Cycles (New York, 1913); J.A. Schumpeter, Business Cycles (New York, 1939); R.G. Hawtrey, Trade and Credit (London, 1928); A.C. Pigou, Industrial Fluctuations (London, 2nd ed., 1929); R. Fels, American Business Cycles 1865-1897 (Chapel Hill, N.C., 1959).

¹⁷This is briefly reviewed in the company case studies of Chapter Four. In "Technological Adaptation in Canadian Manufacturing, 1900-1929", JEH, vol. XLIX, no. 3 (September 1989), P.J. Wylie established that Canadian industry greatly adapted and transformed American technology for Canadian use. This may be accurate but employing D.S. Landes' concept of challenge and response, it must be admitted that although the Canadian response went beyond mere imitation, the challenges, whether they were in the form of organisational changes or major technological advances, were from outside of Canada.

relationship with Britain.

The market for Canadian industrial securities did not evolve as early as the American market for a number of reasons. On the supply side, the capital requirements of most Canadian manufacturing enterprises could be satisfied in the traditional manner. Before the early twentieth century, only a few manufacturing enterprises had enough of a "national" presence to be well-known to investors throughout the country and thus for their securities to have been easily traded. The vast majority of Canadian manufacturers in the late nineteenth century remained small; their reputations did not extend beyond the regions or even the towns in which they were located. Their capital requirements could be met by a combination of retained earnings, family savings, and the occasional bank advance to pay for a major extension or change in plant or equipment or to cover expenses during a temporary slump.

To these sources of finance we can add the direct investment of community members in such manufacturing enterprises. This last source took the form of security issues restricted to the local community or region. These local subscriptions for industrial securities were likely more important to the finance of manufacturing in North America than in Europe because of the relative lack of large pools of intergenerational family wealth. Such securities were often issued upon the transformation of a

sole proprietorship, partnership, or family-firm into a joint-stock company, a process which was accelerating during the 1880s and 1890s in Canada. Shares were sold to family members and the prominent citizens of the community.¹⁸ Announcements in financial periodicals like the Monetary Times reflected the community nature of such industrial enterprises:

Incorporation has been granted by Ontario letters patent to the Simcoe Peat Fuel Company, Ltd; capital \$20,000: head office, Barrie. The parties are all of Barrie, viz: William Reiner, clergyman, Andrew Hay, school teacher; John George Scott, coal merchant; William Douglas MacLaren, dentist; David Henry MacLaren; druggist; William Alves Boyes, barrister-at-law, and Sophia Boyes, his wife.¹⁹

Such stocks and bonds, once purchased, were rarely traded, even in the community where the enterprise was located. The securities sold by these local manufacturers reflected the value of their existing plant, equipment, stock, and past profitability: an asset value relatively easy to corroborate by

¹⁸ Examples of such small local issues abound in the Monetary Times such as the \$80,000 issue of the Facer Solid Steel Car Wheel Co. of Perth, Ontario, MT, 13 September 1895, p. 333; the Canon Stove and Oven Company, Ltd., incorporated by Charles Cannon of London, Ontario, with a capital of \$20,000; and the Peterboro Underwear Company, Ltd., incorporated by some manufacturers and merchants in Peterborough, Ontario, with a capital of \$40,000, MT, 3 February 1899, p. 1029; or the incorporation of the Thomas Bell & Son Manufacturing Company of Wingham, Ontario, by Thomas Bell, Harry O. Bell, Fred Johnson, Jessie Bell and Nellie Bell, with a capital of \$95,000, MT, 17 February 1899, p. 1083.

¹⁹ MT, 31 March 1899, p. 1281.

community members. Although preference shares were used by the largest Canadian companies beginning to be listed on the London Stock Exchange, local manufacturing issues were restricted to common shares representing the actual present value of the enterprise.

Although different in many important respects, the origins of the large national and international industrial flotations of Canadian manufacturing enterprises can be found in such community stock subscriptions. Moreover, they provide one reason why so many Canadians with relatively modest incomes bought securities in the later flotations; they were already accustomed to investing in the securities of local manufacturing firms. Thus, when these same concerns were eventually swallowed up in multi-firm consolidations to form "national" enterprises in the 1909-1912 merger wave, these investors were less hesitant than they might have been in purchasing the new securities.²⁰

Until the regular appearance of such consolidations and

²⁰The Canadian Car and Foundry flotation, a merger of two Montreal concerns with an Amherst, Nova Scotia manufacturer, provides some evidence of this. A disproportionate number of the Canadian shares distributed by Canadian Car were purchased by residents of Amherst, a small manufacturing town with a population of less than 10,000, and the residents of Nova Scotia who had previously been large investors in Rhodes-Curry. LSE, MS 18000/145B/759, application to grant a quotation for \$3.5 million common stock and \$5.0 million seven per cent cumulative preferred stock of Canadian Car and Foundry Company, Limited dated 4 March 1910, and general list of shareholders of Canadian Car and Foundry Company, Limited as of 30 June 1910.

national issues, however, the facilities for the public trading of industrial securities in Canada would necessarily remain primitive relative to developments in New York and London.²¹ Before the twentieth century, even some of the largest manufacturing enterprises in Canada did not publicly list their shares. The farm implement manufacturer, Massey-Harris, for example, remained a closely-held corporation until 1927 when control passed to the senior partner of a major Canadian investment house. With a total of \$3.5 million worth of shares distributed among the officers and the Massey and Harris families in 1893 it was certainly large enough to exploit effectively a public flotation. Moreover, in an industry of rapid technological and organisational changes, it could have greatly benefitted from the occasional large inflow of capital which such flotations generate. Nevertheless, the company chose not to raise capital in this manner and relied almost entirely on family savings and profit retention for its long-term growth, a prudent strategy perhaps but one which resulted in slower growth.

Within a short time after the formation of the International Harvester Company by J.P. Morgan & Co. in 1902, Massey-Harris was no longer in the forefront of the agricultural implement

²¹R.C. Michie, "The Canadian Securities Market, 1850-1914", BHR, vol. LXII, no. 1 (Spring 1988); J.F. Whiteside, "The Toronto Stock Exchange and the Development of the Share Market to 1885", Journal of Canadian Studies, vol. 20, no. 3 (Fall 1985); E.A. Collard, Chalk to Computers: The Story of The Montreal Stock Exchange (Toronto, 1974).

industry. Massey-Harris was not as vigorous as its largest competitors in setting up branch plant subsidiaries throughout the world and it only began manufacturing tractors years after other major implement companies. The company did not appoint a professional general manager from outside the Massey-Harris "family" until 1920. Although Massey-Harris (later to become Massey-Ferguson) would eventually emerge as one of the world's largest tractor and farm implement multinationals, it did so only after the separation of ownership from control was effected, after a professional hierarchy was put into place, and after it was reorganised administratively along the same lines as its major competitors such as International Harvester and John Deere & Co.²²

Like the agricultural machinery industry growing up around Lake Ontario, the textile industry emerging in and around Montreal produced some very large enterprises.²³ Unlike Massey-

²²M. Denison, Harvest Triumphant: The Story of Massey-Harris (London, 1949), pp. 119-245; E.P. Neufeld, A Global Corporation: A History of the International Development of Massey-Ferguson Limited (Toronto, 1969), pp. 1-23; W.G. Phillips, The Agricultural Implement Industry in Canada: A Study of Competition (Toronto, 1956), pp. 25-34; H. Kramer, "Harvesters and High Finance: Formation of the International Harvester Company", BHR, vol. XXXVIII, no. 3 (Autumn 1964); V.P. Carosso, The Morgans: Private International Bankers, 1854-1913, op.cit., pp. 479-81 and 490-91.

²³The earliest mention which I could find of a Canadian manufacturing company with its shares listed on a Canadian exchange was a textile company in 1885. The Canada Cotton Company with an issued capital of \$2.0 million was listed on the Toronto Stock Exchange. Its \$100 par value shares had a market value of \$30. MT, 2 January 1885, p. 758. This company was

Harris, however, the textile companies resorted to security issues very early on and were the first Canadian enterprises to be quoted on public stock exchanges. The two largest were the Dominion Cotton Mills and Canadian Colored Cotton Mills companies. Each had an authorised capital of \$5 million by the early 1890s. These companies had a national presence and both had their stock listed on Canadian exchanges in 1894. In spite of this, trading activity seems to have been quite limited and both companies did not become modern industrial enterprises with professional management until late in the twentieth century. The early development of Dominion Cotton (which became Dominion Textile in 1905) and Canadian Colored Cotton more resembled the British textile firms where families remained a powerful force until the interwar period and where loose alliances with other companies often took the place of real integration.²⁴

The few large enterprises willing and able to sell their securities to a national body of investors were an inadequate foundation upon which to build a sophisticated Canadian

eventually swallowed up in the 1892 Canadian Colored Cotton Mills amalgamation. It is important to note that cotton manufacturing was the foremost industry in terms of men employed, capital invested, value of output and rate of growth during the first industrial revolution: D.S. Landes, op.cit., p. 89.

²⁴B.J. Austin, "Life Cycles and Strategy of a Canadian Company: Dominion Textile, 1873-1973", unpublished Ph.D. thesis, Concordia University, 1985. These British companies are described by L. Hannah in the Rise of the Corporate Economy, op.cit.

securities market or develop further the secondary trading markets in Montreal and Toronto. And when the first Canadian industrial giants did seek capital through direct security issues they went directly to Britain, bypassing the Canadian capital market. Moreover, these companies did so without the services of a professional promoter. In 1895, when Dominion Cotton sold £ 308,200 (\$1,500,000) worth of securities in London, the sale of the issue to a British investment house was personally handled by David Morrice, the major shareholder and chief executive of the company.²⁵

The political and social connection with Britain encouraged Canadian manufacturers of the requisite size and credentials to use the London market. This was both a cause and consequence of the substantial British ownership in these early industrials. The Acadian Sugar Refinery Company of Halifax, for example, was quoted on the London Stock Exchange in 1893 but not on the Canadian exchanges until many years later. The exposure to new British financial methods likely led to the gradual adoption of preference shares but there is no evidence that such Canadian companies utilised high-risk forms of finance during the early 1890s or that common stock played the role of speculative

²⁵MT, 1 November 1895, p. 556; 15 November 1895, p. 623; 22 November 1895, p. 654.

lubricant.²⁵

2.4 Expansion of the Canadian capital market

The first truly modern flotation in Canada employing the principles of high-risk financing was the infamous Canadian Cycle and Motor Company issue of September, 1899. None of the constituent five companies that made up the Canada Cycle merger would have been large enough to effect a public flotation but together they inflated themselves up to an authorised capital of \$6 million issuing \$2 million worth of preference shares to the

²⁵The capital stock of the Nova Scotia Steel Co., Ltd., the predecessor of the Nova Scotia Steel & Coal Co., was made up of both preference and ordinary shares likely in addition to some bonds and debentures. MT, 13 September 1895, pp. 333-34. A systematic examination of the Monetary Times from 1885 forward discloses only one example of the use of preference shares by industrial companies before that time: The Acadia Sugar Refinery Company which was a consolidation of the Nova Scotia, Halifax and Moncton sugar refineries in 1893. The shares of the old companies appear to have been restricted to common stock and capitalisation was expressed in Canadian dollars, whereas the new company's equity capital was divided between common and preference shares and expressed in pounds sterling. MT, 23 January 1891, p. 897; 4 August 1893, p. 131. Acadia was likely influenced by British practice which had established the use of the preference share for industrials by the early 1890s. This is reflected in a English free-standing company with operations in Canada -- the Anglo-British Columbia Packing Company, Limited -- which was a merger of nine salmon canneries on the Pacific coast of Canada in 1891. Its share capital of 200,000 pounds was divided between preference shares and common shares. MT, 22 May 1891, p. 1429.

public.²⁷ Bonus common stock was not offered to the public as an incentive to purchase Canada Cycle's preference shares nor was it used to pay for the properties entering the consolidation. Instead, all of it was used to lubricate the issue by paying off the promoting syndicate, underwriters and brokers.

Greed, inexperience in high-risk financing, and bad luck combined to ensure the failure of the new company. Very generously rewarding themselves with common stock (which soon became valueless), the promoters dangerously overcapitalised Canada Cycle. As the promoters then began to squabble over profits, the market for bicycles became saturated. The company was insolvent within two years but its final demise was deferred a few more years through financial reorganisations which considerably deflated its original capital stock.²⁸ The most widely read Canadian business weekly of the age, the Toronto-based Monetary Times, was, at least initially, decidedly negative about the importation of high-risk financial methods to Canada and criticised stock-watering as a danger to the economic system

²⁷In The Financial System of Canada: Its Growth and Development, op. cit., p. 476, E.P. Neufeld states that preference shares were not allowed under federal legislation until 1899.

²⁸MT, 1 September 1899, p. 278-79; 13 December 1901, pp. 753-53; 4 April 1902, p. 1296; 8 July 1904, p. 36; H.G. Stapells, "The Recent Consolidation Movement in Canadian Industry", unpublished M.A. thesis, University of Toronto, 1922; M. Bliss, A Canadian Millionaire: The Life and Business Times of Sir Joseph Flavelle, Bart. 1858-1939 (Toronto, 1978), pp. 67-74.

as a whole. Reporting in full length on the financial failure of Canada Cycle, it campaigned for a return to more conservative methods of finance.²⁹

Despite the bad publicity, the new methods immediately caught on and a series of successful and very profitable company flotations followed on the heels of the Canada Cycle fiasco. Many of these related to utility enterprises but a significant number of new manufacturing companies were also floated between 1899 and 1901. These included Canada Furniture Manufacturers³⁰, Canada Foundry³¹, Dominion Iron and Steel³², and United Factories. The last issue differed from its predecessors in offering

²⁹ MT, 13 December 1901, pp. 752-53; 3 January 1902, p. 850; 4 April 1902, p. 1296; 8 July 1904, p. 36.

³⁰ This was a merger of 17 Ontario furniture manufacturers consummated in January 1901. The company issued \$775,000 of its preference stock at par to the general public while \$1 million par value common stock along with \$525,000 preference stock was used to purchase the assets of the companies entering the merger. MT, 11 January 1901, pp. 898-899, prospectus of Canada Furniture Manufacturers', Limited; AFR, vol. I (July 1901), p. 78.

³¹ Canada Foundry's share capital of \$500,000 was divided equally into preference and common shares. In May, 1900, the 7 per cent cumulative preference shares were issued to the public with the promise that they would soon be listed on the Toronto Stock Exchange. No bonus common stock was offered to investors, this presumably kept by the original owners and promoters of the company. MT, 4 May 1900, p. 1457, prospectus of The Canada Foundry Company, Limited.

³² Dominion Iron and Steel issued \$3 million 7 per cent cumulative preference stock to the public in March 1901. This was out of a total capital of \$5 million preferred stock, \$15 million common stock and \$8 million first mortgage bonds. Each \$100 nominal share was offered at \$85 without a common stock bonus. MT, 18 March 1901, p. 1176.

investors bonus common stock with the purchase of every preference share, a technique already being employed in Canadian utility promotions such as Mexican Light and Power and Sao Paulo Tramway, Light and Power.³³ This practice soon became institutionalised to the extent that the majority of share issues during the Canadian merger wave of 1909-1912 offered investors bonus common stock.³⁴

Nevertheless, the success of other industrial flotations and, perhaps more importantly, the profitability of the numerous utility flotations of the period encouraged the continuing use of high-risk financing in spite of broadside attacks in the press on the dangers of overcapitalisation. The stock market downturn in 1903 damaged the financial viability of some high-risk industrial promotions, in particular, Dominion Iron and Steel, resulting in a two-year lull during which promoters and investors temporarily avoided large high-risk issues. By 1905, however, aided by a rising stock market, more industrial promotions were advanced.³⁵

³³MT, 4 October 1901, pp. 438-39, prospectus of United Factories Limited, (a merger of three major woodenware manufacturing companies in Ontario and Montreal); C. Armstrong and H.V. Nelles, Southern Exposure: Canadian Promoters in Latin America and the Caribbean, 1896-1930 (Toronto, 1988); D. McDowall, The Light: Brazilian Traction, Light and Power Company Limited, 1899-1945 (Toronto, 1988).

³⁴See Appendix D, Table 25.

³⁵See MT, 5 June 1903, p. 1641, for a list of Canadian industrials and a comparison of their common and preferred stock prices in 1902 and 1903. Although the Canadian market suffered less than the American, Dominion Iron and Steel's common stock dropped 85 per cent in value and the value of its preferred stock

The formal security markets reflected these changes. From only a couple of manufacturing companies with shares listed on the Toronto and Montreal stock exchanges in 1898, "industrial" listings climbed to 35 by 1905.³⁶ Fueled by the Canadian merger wave of 1909-1912, this number would more than double during the next five years.³⁷

2.5 The British capital market and Canadian manufacturing

Despite its expansion, the Canadian market for industrial securities could not keep pace with the rapid growth of manufacturing in Canada and its enormous demand for capital. The Canadian investing community and the pool of savings available was simply too small to finance the tremendous expansion of capital stock taking place during the latter half of the Laurier

declined by approximately 82 per cent.

³⁶The term "industrial" was used by financial manuals and the press of the day to embrace the securities of manufacturing companies, but they also included the occasional corporate security which could not easily fit into the other well-designated categories of insurance, bank, land, loan, mortgage and saving, trust, light and power, mining, navigation, steam railway, electric railway, telegraph, telephone and cable company securities. For example, of the 35 industrials listed by the Annual Financial Review for 1905, only three would not properly fall into the 1948 Canadian Standard Industrial Classification of manufacturing industry: the Hudson's Bay Company, the Terminal Warehouse and Cartage Company, and the Windsor Hotel Company. AFR, vol. VI (July 1905), p. 5.

³⁷AFR, vol. XI (April 1911); vol. XI (November 1911).

boom.³⁸ In the years preceding the Laurier boom, being part of the British empire meant that Canadian government and railway securities were classified as colonial securities. Consequently, British investors treated Canadian securities more like a domestic, and therefore intrinsically safer, investment relative to many "foreign" securities. British investment had, in fact, fueled the large influx of British portfolio capital into Canada during the 1880s when the Canadian Pacific Railway and the Canadian government first began borrowing heavily in the British market.³⁹ This was followed by a lull until the Laurier boom when British investment once again began to flow into Canada. This flow turned into a flood after 1907 as can be seen in Table 3 below.⁴⁰ The merger boom, as it affected mainly industry, served to increase dramatically the amount of capital entering this sector relative to other categories of investment.

³⁸At p. 48 of "The Canadian Securities Market, 1850-1914", BHR, vol. 62, no. 1 (Spring 1988), R.C. Michie makes a rough calculation of the number of Canadian investors in 1913: 144,125 individual investors which amounts to 1.35 per cent of the total population.

³⁹M. Edelstein, Overseas Investment in the Age of High Imperialism: The United Kingdom, 1850-1914 (New York, 1982); W.P. Kennedy, "Foreign Investment, Trade and Growth in the United Kingdom, 1870-1913", EEH, vol. II, no. 4 (Summer 1974); The Export of Capital from Britain 1870-1914, ed. A.R. Hall (London, 1968); L.E. Davis and R.A. Huttenback, Mammon and the Pursuit of Empire: The Political Economy of British Imperialism, 1860-1912 (Cambridge, 1986).

⁴⁰Table 3 is expressed in nominal value. Table 21 in Appendix B contains a list of Canadian manufacturing company issues floated in London between 1905 and 1913 and includes the nominal (par) and the actual (market) value of the issues.

Table 3

CANADIAN CAPITAL RAISED IN LONDON MARKET, 1905-1914
(in millions of pounds sterling - nominal value)

<u>Year</u>	<u>total</u>	<u>manufacturing</u>	<u>Manufacturing as a % of total</u>
1905	13.53	0.59	4.3%
1906	6.43	0.30	4.7%
1907	11.20	0.54	4.8%
1908	29.35	1.06	3.6%
1909	37.41	3.98	10.6%
1910	38.45	5.62	14.6%
1911	39.86	4.96	12.4%
1912	32.96	3.44	10.4%
1913	47.36	3.43	7.2%

SOURCE: Appendix B.

Since the London capital market acted as a conduit for world investment, particularly investment from continental Europe, it is difficult to say with precision how much of this investment in Canadian manufacturing industry originated in Britain.⁴¹ Nevertheless, the evidence collected at the time, as well as the case studies examined here, indicate that between 1908 and the Great War, the British were the single most significant group of investors in the larger Canadian manufacturing promotions. In addition, British investment almost equalled the Canadian contribution to total investment in Canadian industrial securities. Although Canadians invested less in the large

⁴¹ See D.C.M. Platt, Britain's Investment Overseas on the Eve of the First World War: The Use and Abuse of Numbers (London, 1986), for a discussion of such problems.

concerns floated on the London market than the British, they invested correspondingly more in the smaller ventures floated only or mainly on the Canadian market.

Table 4 below provides a snapshot of the origin of ownership in industrial securities of 22 Canadian corporations in 1914. According to this sample, approximately 57 per cent of total shares were held in Canada, while about 37 per cent were held in Britain. An insignificant amount was held in continental Europe while slightly less than 3 per cent was held in the United States. In very general terms, the results in Table 4 conform to the individual case studies discussed below. These figures may even underestimate the level of British ownership during the height of the Canadian merger movement as many British investors were already divesting themselves of foreign and colonial stock holdings because of the exigencies of the First World War.

A perusal of the shareholder lists submitted to the London Stock Exchange after the public flotations of three industrial companies promoted by Max Aitken reveals that the vast majority of the sterling bonds and shares were purchased by British investors. Only a negligible number of continental Europeans purchased the shares of these particular Canadian industrial firms. A more detailed study of ownership in Canadian Car and Foundry revealed that a mere 1.6 per cent of the sterling preference shares were purchased by Europeans from the continent

Table 4

NATIONAL HOLDINGS IN 22 CANADIAN INDUSTRIALS, 1914
(Number of shareholders and value of shares)

<u>Country Held in</u>	<u>common S/holders</u>	<u>\$ mil Value*</u>	<u>preference S/holders</u>	<u>\$ mil Value*</u>
Canada	4,365	47.178	5,274	15.551
Britain	2,305	12.433	4,534	14.336
USA	238	1.459	275	1.684
France	319	1.037	126	0.399
Germany	19	0.039	5	0.041
Belgium	10	0.030	10	0.015
Holland	8	0.470	6	0.017
Other	116	0.470	57	0.380

* Although not specified, it is likely that share value was expressed in nominal rather than market value thus vastly over-weighting the market value of the common shares.

SOURCE: Derived from the MTAR (January 1915), p. 33.

whereas 98.4 per cent of close to 37,000 shares were purchased by residents of Britain and Ireland.⁴²

The figures for the common shares sold (or passed on to British underwriters and brokers as promotional profit) are even more extreme. Of the \$2,830,000 par value common shares issued on the London market, 99.6 per cent were in the hands of British

⁴²LSE, MS 18,000/168B/936, application to grant a quotation for \$6,496,300 of seven per cent cumulative preference stock of The Steel Company of Canada, Limited dated 22 April 1912; LSE, MS 18,000/153B/335, application to grant a quotation for \$19,000,000 ordinary shares of Canada Cement Company, Limited dated 24 May 1911; LSE, MS 18,000/145B/759, application to grant a quotation for \$3,500,000 common stock and \$5,000,000 seven per cent cumulative preferred stock of Canadian Car and Foundry, Limited dated 4 March 1910.

residents. Canadians held the largest number of shares issued in North America. Americans owned 16.1 per cent of Canadian Car's stock, a not insignificant amount, but held less than one per cent of the common stock. Table 5 below summarises the results aggregating the total number of common and preferred shares issued in pounds sterling and Canadian dollars.

Table 5

DISTRIBUTION OF SHARES IN
CANADIAN CAR AND FOUNDRY COMPANY, LIMITED
(as of 30 June 1910)

<u>Held in</u>	<u>Common</u>	<u>Percent</u>	<u>Preferred</u>	<u>Percent</u>
Britain	28,189	80.5%	36,165	72.3%
Canada	6,680	19.1%	11,126	22.3%
USA	20	-	2,130	4.3%
France	74	0.2%	419	0.8%
Germany	-	-	100	0.2%
Holland	15	-	-	-
Norway	-	-	40	-
Belgium	22	-	-	-
New Zealand	-	-	20	-
Switzerland	-	-	<u>10</u>	-
TOTAL	<u>35,000</u>		<u>50,000</u>	

SOURCE: LSE, MS 18,000/145B/759, general list of shareholders of Canadian Car and Foundry Company, Limited as of 30 June 1910, enclosed in an application for quotation.

Unquestionably, the growth of a market for Canadian industrial securities in Canada before the First World War was directly connected to the evolution of a market for Canadian industrial securities in Britain. This relationship can be analysed within the context of a case study of the most

significant Canadian securities corporation specialising in industrial flotations and the merger promoter who guided its operations.

CHAPTER THREE

MAX AITKEN: INVESTMENT BANKER AND MERGER PROMOTER

3.1 Max Aitken and the creation of the Royal Securities Corporation

William Maxwell Aitken, later known as Lord Beaverbrook, was the most significant promoter of Canadian industrial consolidations before the Great War. Relative to the attention lavished on Beaverbrook's role as British politician and minister, newspaper baron and the intimate of Winston Churchill, his career as a financier and company promoter has been largely overlooked.¹ Aitken and his investment firm, the Royal Securities Corporation, played a role similar to the dominant industrial financiers of Britain and the United States during the gilded age. In terms of per capita size and national importance, his merger flotations in the Canadian steel, cement, and rolling stock industries find their counterpart in H. Osborne O'Hagan's cement and brewery merger financings in Britain and J.P. Morgan & Co's financing of mergers in the American steel and agricultural

¹F.A. Mackenzie, Lord Beaverbrook: An Authentic Biography (London, 1931); E. Middleton, Beaverbrook: The Statesman and the Man (London, 1934); T. Driberg, Beaverbrook: A Study in Power and Frustration (London, 1956); P. Howard, Beaverbrook: A Study of Max the Unknown (London, 1964); A. Wood, The True History of Lord Beaverbrook (London, 1965); K. Young, Churchill and Beaverbrook: A Study in Friendship and Politics (London, 1966); A.J.P. Taylor, Beaverbrook (London, 1972).

implement industries.²

Born in 1879 and raised in a small community in the province of New Brunswick, Max Aitken began his working life as a clerk and apprentice in a law office. His restless nature and his inattention to legal detail, however, cut short his legal career and, at the age of eighteen, Aitken moved to Western Canada where he set up some small businesses including a bowling alley in Calgary. With nothing much to show for his efforts except more debt, Aitken moved back to Eastern Canada around 1900 and tried to peddle insurance policies. Things improved but slightly when he switched to selling corporate bonds from door to door. It was at this time, however, he met Nova Scotia's most influential capitalist, John F. Stairs, possibly while trying to sell him some securities.³

Impressed by the young man's aggressive but captivating temperament, Stairs took Aitken under his wing. By 1902, Aitken

²V.P. Carosso, The Morgans: Private International Bankers, 1854-1913 (Cambridge, Mass., 1987), pp. 390-96, 465-98; H.O. O'Hagan, Leaves from my Life, 2 vols. (London, 1929). Out of all Beaverbrook's biographers, A.J.P. Taylor, op.cit., best covers his Canadian promotional and financial activities but much was necessarily neglected in a book which concentrated on British politics and society.

³BBK, letter, Brock to Aitken, 11 May 1906, A/8/misc B. Beaverbrook describes this part of his early career in My Early Life (Fredericton, N.B., 1964), and Friends: Sixty Years of Intimate Personal Relations with Richard Bedford Bennett (London, 1959). John F. Stairs obituary in MT, 30 September 1904, p.421.

found himself handling the finances of Stairs' numerous and far-flung enterprises. President of the Nova Scotia Steel & Coal Company (Scotia), the Eastern Trust Company, the Consumers Cordage Company and the Trinidad Electric Company, as well as a large investor in many of the Canadian tramway and utility operations then being established in the Caribbean and Latin America, Stairs was able to provide Aitken with an excellent base from which to develop the range of financial skills central to company promotion and investment banking. Aitken became involved in the purchase and sale of bonds and shares in companies like Acadia Pulp and Paper, Demerara Electric, Mexican Light and Power, and Sao Paulo Traction, Light and Power. He worked directly in financing Nova Scotia industrials such as Robb Engineering and its American subsidiary Robb-Mumford, the Munro Iron Works, and Scotia.⁴

In 1903, Stairs decided to centralise the financial management of his various enterprises by establishing the Royal Securities Corporation (RSC). The company was created, in part, because of the refusal of local Halifax brokers to sell Scotia

⁴BBK, A series, various correspondence, 1903-1905; G/1/1902 letter-book; G/19/misc business dealings, various correspondence. T.W. Acheson, "The National Policy and the Industrialization of the Maritimes, 1880-1910", Acadiensis, vol. 1, no. 2 (Spring 1972), p. 24.

bonds.⁵ Stairs' closest Halifax associates, including the lawyer-promoters Robert E. Harris and Charles Cahan, came together to provide the capital for the RSC. Stairs became President and made his young protégé the Secretary and manager of the RSC. The corporation was to be the bond and share issuing house for the group's ventures as well as the chief conduit through which new capital would be sought for Scotia, the largest of the group's interests.⁶ The vehicle chosen, a securities corporation, was the second of its type to appear in Canada although, in less than a decade, dozens more like it from Halifax to Victoria would be created.⁷

The creation of the RSC gave Stairs and his colleagues a nucleus for all their future investments in manufacturing and financial services in Nova Scotia and utility ventures in the

⁵Although I could not find documentation on the precise reasons for the formation of RSC at the time, Aitken stated the following a few years later: "Five or six years ago Mackintosh and McCurdy [two major Halifax stock brokers] would not or could not sell Scotia Land Bonds. We started the organization for the purpose." BBK, letter, Aitken to Cahan, 11 February 1908, A/20/Cahan.

⁶BBK, Certificate of first meeting of the RSC held on 28 May 1903; letter, Aitken to Harris, 4 November 1903, A/1/misc H; letter, Aitken to Cahan, 4 June 1903, A/1/misc C.

⁷The first was the Dominion Securities Corporation created in 1901 by George Cox and a group of Toronto financiers who were involved in his various enterprises. E.R. Wood was the manager of Dominion Securities but the history of the company is little known despite its importance. For a brief discussion of Dominion Securities see M. Bliss, A Canadian Millionaire: The Life and Business Times of Sir Joseph Flavelle, Bart. 1858-1939 (Toronto, 1978), pp. 60-69.

West Indies. Although they were more financiers than industrialists, the RSC group -- Stairs, Harris, Cahan and Aitken -- exercised enormous power over manufacturing enterprises in Atlantic Canada. This was most obviously reflected in the stewardship of Scotia itself, one of the largest enterprises in the Maritimes. Stairs, himself president of the steel company for many years, was, after his death in 1904, succeeded by Robert Harris. Harris then held the presidency for the following decade.⁸ The RSC group also had directors placed on the boards of Robb Engineering, Robb-Mumford, Acadia Sugar Refining, the Eastern Trust Company and other Nova Scotia corporations.⁹

In the first years of the RSC, Aitken lived up to Stairs's expectations and made a handsome profit for the RSC's major shareholders, including himself. Even while devoting a large amount of his time to servicing the considerable capital needs of Scotia, Aitken was able to build up a large clientele in the retail end of the securities business. More importantly, Aitken was encouraged by the RSC's major shareholders to purchase the

⁸Cantley Papers, PANS, M.G. 1, vol. 169, letterbook, 1903-1907, various letters, Thomas Cantley, general manager of Scotia to Harris and Stairs. BBK, letter, Aitken to Cahan, 9 March 1905, A/5/misc; letter, Aitken to Ross, 29 August 1905, A/7/W.D. Ross, July-December.

⁹Robb Engineering Company Papers, Dalhousie University Archives, miscellaneous papers box, historical employees file, "Memo on Robb Engineering Works Limited, Chronologically Compiled by F.F. Mackenzie", and letter, J.A. Mumford and D.W. Robb to G.W. Cole, 17 March 1903. MT, 30 September 1904, p. 421.

control of enterprises in order to reorganise and amalgamate them into more profitable ventures.¹⁰

Aitken, like many of the contemporary promoters, was essentially a securities salesman who made a living from the difference in price at which he bought an issue or part-issue of securities and the price at which he sold them to brokers and investors. Looked at from this angle, the difference between the RSC and a stock-brokerage firm was only a matter of degree. As a retailer of securities the RSC would compete with such firms and for many years RSC's salesmen travelled throughout the Maritimes and central Canada selling stocks and bonds from door to door.¹¹ From the beginning, however, the RSC emphasized the wholesale end of the securities business. It differed from the brokerage firms in the number of new flotations which it sponsored and the amount of underwriting activity it engaged in.¹² Although required to carry a broad range of securities to satisfy its retail

¹⁰BBK, letters, Harris to Aitken, 17 August 1905 and 26 August 1905, G/19/misc business dealings.

¹¹The RSC's retail activity was described by C. Armstrong in "Making a Market: Selling Securities in Atlantic Canada before World War I", CJE, vol. XIII, no. 3 (August 1980).

¹²This was always a matter of degree as most brokerage firms also engaged in the buying of entire issues, often municipal securities, but they were more engaged in the "retailing" end than RSC. On the other hand, some so-called brokerage firms like McCuaig Bros. & Co. of Montreal were much closer to wholesale securities corporations like the RSC and Dominion Securities in that its wholesale purchasing and underwriting operations were likely more significant than its retail business.

customers, the RSC made most of its profit in floating, underwriting and selling its own specialties -- the securities of the companies created by Aitken -- and the RSC's salesmen were instructed to push these stocks and bonds. With time, as the RSC's specialties became increasingly popular with a broad section of the Canadian (and eventually, British) investing public, brokerage houses began to carry the RSC's lines as a matter of course. This allowed the RSC to reduce its retail selling department and concentrate on its far more profitable wholesale, underwriting and promotional activities.¹³ From 1905 on, Aitken concentrated on amalgamating existing companies, achieving the size and degree of market power necessary to make the new organisation's securities attractive to brokers and investors. Aitken first put together utility enterprises in which monopoly power was guaranteed by concessionary agreements. He subsequently used his experience in utilities to negotiate industrial mergers with monopoly power or, at any rate, that had the appearance of monopoly.¹⁴

¹³When Aitken temporarily sold out control of the RSC in 1908 he confidentially confided to Charles Cahan that: "We have lost money for the past two years on the selling department in Montreal and Halifax. Were it not for the money we made in promotions, we would have lost our capital long ago... we have eliminated the selling organization, which has now become unnecessary because the brokers are all anxious to deal in our securities." BBK, letter, Aitken to Cahan, 11 February 1908, A/20/Cahan. For the next 18 months while he repurchased control of the RSC, Aitken used the Montreal Trust Company as his main vehicle for company promotion. BBK, A/15/Montreal Trust, A/40/Royal Securities.

¹⁴BBK, A series, various correspondence, 1903-1909.

3.2 Electric lighting and tramway financing

Aitken's first experience was with the Trinidad Electric Company, a thermal electric, street lighting and tramway operation established at the turn of the century by Cahan on behalf of Stairs, Harris and some other financiers from Halifax and Montreal. In 1903, Aitken engineered the flotation of a \$450,000 issue, approximately \$200,000 of which was offered to the public. He then had the \$1.2 million common stock of Trinidad listed on the Montreal Stock Exchange to enhance the value of the shares to future purchasers. To broaden the market, Aitken sold securities in Trinidad to the island's business elite as well as to the company's own salaried employees in Port-of-Spain. The flotation was a success and the RSC turned a handsome profit.¹⁵

During the next three years Aitken through the RSC would purchase control of other antiquated street railway operations in the Caribbean. He reinvigorated a thermal electric and tramway operation in British Guiana and set up a holding company in Cuba

¹⁵BBK, letter, Aitken to Ames, 28 May 1903, A/1/misc A; letter, Aitken to F. Clarke, 21 August 1903, A/1/misc C; letters, Aitken and Ross, 28 September 1903, 17 November 1903, 3 December 1903, 8 December 1903, 11 December 1903, A/2/W.D. Ross; letters and telegrams, Aitken and Pitblado, 5 December 1903, 7 December 1903, 10 December 1903, 11 December 1903, 14 December 1903, A/1/misc O,P; letters, Smith to Aitken, 19 December 1903, 21 December 1903, 24 December 1903, A/2/R. Wilson Smith, Meldrum & Co.

to manage the RSC's diverse interests in electric generation and distribution, tramway operations and real estate speculation. In each case, the RSC would make an initial flotation on the potential of an operation with more modern equipment. Proprietary interests were protected by monopoly concessionary agreements negotiated with the pertinent government authorities ensuring the absence of competition in providing electric lighting and trolley services.¹⁶

Aitken used high-risk financial methods in all of his utility flotations. Common stock was used as promotional profit, rewarding the underwriting syndicate, sub-underwriters and brokers. Some bonus common shares were released to investors to "sweeten" the purchase of preference stock and bonds. Investors' money was channelled into constructing new power plants, replacing mule-drawn trolley lines with new electric tramway lines and obtaining new rolling stock.¹⁷ Aitken soon established the Montreal Engineering Company, a spinoff of the RSC, to supply engineering goods and services more cheaply and more quickly to the RSC's family of utility companies and began to move his base of operations from Halifax to the financial capital of Canada,

¹⁶BBK, A series, various correspondence, 1903-1906.

¹⁷BBK, prospectuses of Camaguey Company, Limited, Trinidad Electric Company, Limited, and Demerara Electric Company, Limited, G/19/early financial circulars. AFR, vol. VIII (April, 1908), pp. 487-88. BBK, A series, various correspondence.

Montreal.¹⁸

In 1906, Aitken incorporated The Porto Rico Railways Company, Limited, up to that time the largest utility promotion undertaken by the RSC. Investors were attracted to the company's securities because of Puerto Rico's status as a "stable colony" of the United States, and Aitken was able to successfully float three consecutive issues of securities, the second two batches of which were purchased in the midst of the 1907 financial depression.¹⁹ With funds in hand, the utility company constructed a hydro-electric plant at Comerio Falls as well as a steam railway connecting the tramway line in the capital city of San Juan with another community 25 miles from the capital. Relying almost entirely on security issues to finance construction and extensions, the company had a total issued capital of \$5.8 million by 1907. Originally incorporated under the laws of Canada, the company reincorporated as Puerto Rico Railway, Light and Power Company in 1911 in accordance with a new law requiring all companies which intended to continue doing

¹⁸BBK, letter, Aitken to Teele, 2 October 1906, A/10/Teele; 1907 correspondence, Aitken and R.T.D. Aitken, A/11/misc A; 1907 correspondence, Aitken and F. Clarke, A/13/F.C. Clarke.

¹⁹Porto Rico's 1912 British bond issue prospectus called the investor's attention to the fact that: "Puerto Rico is a Colony of the United States of America, and its products have free access to the United States markets, thus giving Puerto Rico decided commercial advantages over other West India islands, as evidenced by the trade statistics in this prospectus." BBK, G/19/early financial circulars.

business on the Island to file their articles of incorporation in Puerto Rico. One of the largest industrial operations in Puerto Rico, it continued to be run from Canada by the RSC and its affiliates until its expropriation by the Island authorities in 1944.²⁰

With the Puerto Rico Railways flotation, however, Aitken found himself cornered in two ways. First, he and other Canadian promoters were exhausting the possibilities for profitable utility ventures in the Caribbean and Latin America.²¹ Aitken had carefully investigated tramway and electric lighting propositions in Colombia, Ecuador, Panama and Venezuela but none of them met his exacting standards for profitability, stability of national currency and safety of capital.²² American

²⁰BBK, A series, various correspondence, 1906, 1907, in particular 1906 correspondence between Aitken and Teele (the RSC's chief engineer), A/10/Teele; Porto Rico prospectus, G/19/early financial circulars; AFR, vol. VIII (April 1908), pp. 450-54; S.J. Randall, "The Development of Canadian Business in Puerto Rico", Revista/Review Interamericana, vol. 7 (1977).

²¹These promoters, including Aitken and the Halifax financiers, are the subject of C. Armstrong and H.V. Nelles, Southern Exposure: Canadian Promoters in Latin America and the Caribbean, 1896-1930 (Toronto, 1988). D. McDowall's The Light: Brazilian Traction, Light and Power Company Limited, 1899-1945 (Toronto, 1988) is a case study of the largest of the Canadian utility promotions.

²²BBK, letters, Aitken to G. F. Pearson, 14 August 1905, A/6/misc N-P; letter, Aitken to T.G. McMullen, 29 August 1905, A/6/misc M; letter, Harding to Aitken, 26 December 1906, A/5/G-H; letter, Aitken to Teele, A/10/Teele; Aitken to Gossler, 11 January 1906, A/9/misc G; letter, Aitken to Plummer, 16 January 1906, A/9/misc O-Q; letter, Bruce to Aitken, 31 January 1906, A/8/misc B.

propositions came forward at this time but they were too marginal to be profitable. In addition, Canadian and American utility investments were beginning to be threatened by public ownership.²³ When one such proposition was offered to him in 1907, Aitken declined, stating: "In view of the Municipal Ownership wave which is sweeping the country I decided some time ago not to increase my present interest in public utilities."²⁴ Porto Rico was to be Aitken's last electric lighting and tramway promotion.

3.3 Breaking into the British capital market

The other limitation Aitken encountered was the narrowness of the Canadian market for his electric lighting and street railway securities. This was evident in the three Porto Rico security flotations of 1906-07. Already facing stiff competition from rival utility offerings from larger Canadian operations in Mexico and Brazil, Aitken realised that he had to find a market outside Canada for the Porto Rico securities. To start with he brought a New York firm into the underwriting syndicate which was expected to sell approximately one-fifth of Porto Rico's bonds in

²³BBK, letter, Aitken to Gunn, 3 May 1906, A/10/misc T, (concerning the Tacoma, Washington, proposition); letter, Patterson to Aitken, 24 September 1906, A/9/misc O-Q, (concerning the Hamilton-Galt interurban railway).

²⁴BBK, letter, Aitken to H.G. Blair, 26 October 1907, A/11/misc B.

the United States.²⁵ Although Aitken was one of the first Canadian promoters to tap into American capital markets -- he raised most of the finance for the Robb Engineering reorganisation in Boston for example -- he understood that this market was too shallow for Canadian utility companies and that greater opportunities lay in Britain where Canadian government and business had consistently been able to borrow very large sums of money.²⁶ Consequently, like all the major Canadian financiers of the day, Aitken looked to the immense capital market of London to sell millions of dollars of Porto Rico securities.

In 1906, Aitken sent an agent to set up an office in London as a base to sell Porto Rico bonds and other securities issued through the RSC. At this point Aitken was unsure of the reaction his offerings would receive in Britain and expenses were kept to a minimum. The trial failed miserably in part because of the London agent's initial lack of knowledge of British financial practices. The agent did manage to contact some of the largest brokerage firms in London and Glasgow, including Foster & Braithwaite, Fielding & McLeod, and Fergusson, Guthrie & Co, but after examining the RSC's utility prospectuses, all politely declined the business. The British brokers were unwilling to

²⁵J.G. White & Co. of New York were responsible for the distribution of Porto Rico bonds among American brokers. BBK, 1907 correspondence, A/11/Ames.

²⁶BBK, letter, Farrell to Aitken, 12 October 1906, A/8/Farrell.

take a chance on the relatively small and unknown companies being promoted by the RSC. Moreover, they were unhappy with being offered only a small part of the issue -- Aitken was still reserving the lion's share for the Canadian market -- an unprofitable affair relative to selling a whole issue. Aitken's British office was closed down permanently at the end of December, 1906, and a firm of London stockbrokers, H. Vigne and Sons, was temporarily selected to act as the RSC's correspondents. Aitken's agent concluded that there was "nothing to prevent this work being taken up again in the future, but it would have to be on somewhat different lines."²⁷ In particular, Aitken was told that, in future, he should reserve whole issues for the British market because of the reluctance of British brokers and investment bankers to deal with small lots.²⁸

The financial crisis of 1907, however, emphasized the urgency of making a new market. Arthur Nesbitt, the manager of the RSC's new Montreal office, was sent to Britain and spent the next 12 months trying to make a market for RSC's in-house line of securities. While concentrating on placing a large issue of Porto Rico bonds with a major investment house, Nesbitt also attempted to unload on various British and European bankers and

²⁷BBK, letter, J. S. Harding to Aitken, 29 December 1906, A/9/misc H.

²⁸BBK, 1906 correspondence, J.S. Harding and Aitken, A/9/misc H.

brokers miscellaneous RSC securities no longer selling on the Canadian market. Displaying tremendous energy, Nesbitt successfully obtained interviews with some of the largest investment bankers of Britain including Chaplin, Milne & Co., C.J. Hambro & Son and Arburthnot Latham, as well as the London houses of Robert Fleming & Co., Dunn, Fischer & Co. and Sperling & Co., which specialised in Canadian issues.²⁹ Following the tracks of another young salesman who had, the previous year, sold \$600,000 worth of "Rio and Mexican bonds" to the Swiss banks for Dunn, Fischer & Co., Nesbitt travelled to Geneva and Zurich.³⁰ Nesbitt then tried his luck in Belgium and Germany where he attempted to sell his Porto Rico bonds to the Banque Centrale Anversoise, J. Brunner (a private Belgian banker) and the Deutsche Bank. Nesbitt failed in all these attempts but upon his return to Britain he got a few nibbles. He then made a temporary partnership agreement with Dunn, Fischer & Co. to use their contacts and made further sales. By the time the agreement was terminated in late 1907 and early 1908, Nesbitt was selling

²⁹I found the Appendix 1 and 2, pp. 200-204, of S. Chapman's The Rise of Merchant Banking (London, 1984) to be very useful on the relative importance and spheres of influence of London investment banks. In the BBK, A series, there is continual reference to Sperling as an underwriter of Canadian issues in competition with the RSC's promotions.

³⁰BBK, letter, Nesbitt to Aitken, 24 July 1907, A/16/Nesbitt. The salesman estimated that there were about \$3 million Rio de Janeiro Tramway, Light and Power bonds held in Switzerland by 1907.

substantial blocks of RSC securities on his own.³¹

In fact, it was British capital that saved the two Porto Rico flotations of 1907. The North American market shut down completely as the financial crisis deepened in October. The meagre sales in Canada and the United States were incapable of supporting the Porto Rico promotion. As a consequence, Aitken realized the advantage, if not the necessity, of making a market in Britain for all future promotions. He heeded Nesbitt's advice concerning the arranging of dividend payments through a London-based bank, of issuing regular reports on RSC properties to European investors and of listing future promotions on the London Stock Exchange. Based on the efforts of its tenacious Montreal manager, the RSC finally gained the expertise to tap into the British capital market.³²

3.4 The transition to industrial promoter and investment banker

From the RSC's experience in London, Aitken realised that "industrials" were becoming as acceptable to investors as utility promotions, particularly in situations where companies had, or were perceived to have, monopoly power. The appearance of monopoly power could be more easily achieved in a country such as

³¹BBK, 1907 correspondence, Aitken and Nesbitt, A/16/Nesbitt.

³²Ibid.

Canada with its small domestic economy protected by high tariffs. Aitken would also face less competition from his fellow promoters in industrial issues. Even while the largest Canadian utility promotions -- the Mexican, Sao Paulo and Rio de Janeiro issues -- were already beginning to saturate the British demand for this class of security, investors were clamouring for the securities of large industrials such as the United States Steel Corporation.

Aitken began to look around at Canadian industries which appeared to have a future of rapid growth as well as a corporate configuration amenable to reorganisation always with his eye on what would be acceptable to British investors. He examined primary and secondary steel, rolling stock, portland cement manufacturing, and flour milling; industries centrally involved in the immense investment in transportation, urban infrastructure and wheat production then taking place in Canada.³³ By early 1909, he was ready. In a twelve month period, Aitken would promote the three largest and most significant mergers in Canadian manufacturing industry. In August, 1909, an amalgamation of 10 cement companies called the Canada Cement Company, with a total authorised capital of \$38 million, was incorporated. Two months later, the Canadian Car and Foundry Company, a merger of the three largest rolling stock manufacturers capitalised at \$16 million, was floated on the

³³BBK, 1909 and 1910 various correspondence, A series, G/19/Stelco, G/19/Canada Cement, G/3/C.H. Cahan.

British capital markets. The following June, The Steel Company of Canada (Stelco) was incorporated with a total authorised capital of \$35 million.³⁴

Although he had previously been involved in industrial flotations, Aitken had been dismissive of their inherent profitability preferring the utility business until 1908. What caused him to change his mind was likely the same factors that made other promoters begin to concentrate on Canadian industrial ventures at the same time. No doubt the exhaustion of utility promotions in foreign countries as well as the threat of public ownership of utilities in Canada played an important role but the rapid growth of Canadian manufacturing itself was the most crucial factor.

Using Morris Altman's revised annual estimates for manufacturing output illustrated in Figure 4 of Appendix A, we can see real value added in manufacturing began a rapid climb upward from 1897-98 to 1913 interrupted only by intermittent financial panics which disturbed the market for industrial securities and lowered industrial output in the subsequent calendar years.³⁵ Perhaps the best way to illustrate this growth

³⁴BBK, prospectuses of Canada Cement Company, Canadian Car & Foundry Company, and Stelco, G/19/early financial circulars.

³⁵M. Altman, "Revised Estimates of Real Canadian GNP and Growth and the Pre and Post World War Two Volatility of the Canadian Business Cycle with Some Comparison to the American Record", unpublished paper, Department of Economics, University

and the impact of these periodic financial depressions on the expansion of manufacturing is by examining the year to year change in real value added in manufacturing from 1895 to 1914 as shown in Table 6.

Table 6

ANNUAL CHANGE IN REAL VALUE ADDED
IN CANADIAN MANUFACTURING, 1895-1904
(1900 = \$100 million)

<u>Year</u>	<u>Change</u>	<u>Year</u>	<u>Change</u>
1895	-5.9	1905	51.7
1896	3.8	1906	40.1
1897	19.8	1907	20.4
1898	22.8	1908	-38.0
1899	-7.2	1909	57.5
1900	6.6	1910	32.9
1901	7.0	1911	9.9
1902	37.2	1912	33.9
1903	8.9	1913	-9.6
1904	-7.5	1914	-69.2

SOURCE: Derived from M. Altman, "Revised Estimates of Real Canadian GNP and Growth and the Pre and Post World War Two Volatility of the Canadian Business Cycle with Some Comparison to the American Record", unpublished paper, Department of Economics, University of Saskatchewan, 1989, Table 9, pp. 52-53.

Steel, portland cement, and rolling stock were among the growth sectors of manufacturing in absolute and relative terms. The capital goods industries provided the main inputs for the finished product industries as well as the foundation for the transportation and urban infrastructure investment which formed

of Saskatchewan, 1989.

such a large part of fixed capital formation during this period.³⁶ When selecting mergers, Aitken concentrated precisely on the most rapidly growing manufacturing sectors of the economy.

3.5 The nature of profits in merger promoting

The mergers produced during the gilded age engendered widespread hostility largely because of the common belief that unscrupulous promoters and uncaring owners were sacrificing the future viability of business in Canada for short-term windfall profits. The occasional well-publicised case of fraudulent company promotion seemed to legitimate such charges. By the time the leading Canadian financial periodical joined the chorus of daily papers in attacking the shenanigans of these confidence men, there was little question that the majority of Canadians had a generally bad impression of the promoter sui generis. The average Canadian was repeatedly warned of the danger such men posed:

In the wake of the great prosperity...came an army of financial fakirs, possibly the most big, bold and bad in the history of Canadian finance. Not only did they march into mining investment fields, the most famous of their spheres of action, but also into general commerce, and even into the conservative banking world. It was proved again and again that, shrewd and cautious as is the Canadian, he was led away from the paths of conservatism into the backwoods of

³⁶M.C. Urquhart, "Canadian Economic Growth 1870-1980", Discussion Paper no. 734, Institute for Economic Research, Queen's University, 1988.

wild gambling and sorry company promotion.³⁷

In fact, these fraudulent promotions were the exception rather than the rule and the majority of promoters generally acted within the accepted bounds of financial practice.³⁸ The more common charge levied against promoters was profiteering. The difficulty in analysing the validity of this more general indictment lies in the paradoxical nature of high-risk financing itself. On the one hand, high-risk flotations invariably involved "stock-watering". This resulted in most merged firms starting their lives highly overcapitalised, threatened by large fixed-debt loads and by the generous dividend expectations of the common shareholders. On the other hand, given that promotional profit came in the form of bonus common stock rather than commissions, the value of this profit was entirely contingent on the long-term success of the enterprise being formed.

³⁷MT, 11 January 1908, p. 1113.

³⁸The fall of infamous British promoter Ernest T. Hooley was the major story of the day in the Canadian financial press. MT, 8 July 1898, p. 55; 12 August 1898, pp. 209-10. There were a few financial confidence men promoting Canadian mining and timber companies with fictitious assets. I could find only one example of a fraudulent promoter of mergers in manufacturing industry -- F.H. Malcolm's Western Canneries Company, Limited, promotion -- although many were conducted in a reckless manner. MT, 5 December 1908, p. 917. See MT, 18 April 1908, p. 1753, for J. Gordon Leslie's fraudulent promotion of the Canada Consolidated Cobalt Company on the London market.

If the purpose of the consolidation was a mere promotional gimmick not based on economic rationalisation or pursued without a strategy of vertical integration as well as technological and organisational modifications, then, barring sufficient monopoly power, the new enterprise would fail; this would force down the value of its common shares from an already low initial price to zero. Any attempt by a promoter to sell out during such a decline -- in fact underwriting contracts obliged promoters to buy heavily at such times in order to support the price -- could only result in a more precipitous decline in prices. In this sense, high-risk financing ensured that promoters had a stake in the future viability of the operation and often learned "their industry" inside out before purchasing options on properties. Before a block of common stock could be traded in for a large cash profit, the company had to succeed in real economic terms or, in the case of a monopoly, continue to exert market power by blocking the entry of potential competitors. In this sense, the reward of high-risk finance was a long-term profit connected to the efficiency and profitability (or monopoly power) of the new corporation.

The only manner in which a promoter could make a quick short-term profit in high-risk financing without resorting to fraud was by "flipping" properties. He could purchase an interest in a property and then sell this interest at a highly-inflated value to his own promotional syndicate. As a member of

the syndicate, however, he was stuck with any damage this might do to the financial viability of the new enterprise. If the amount was paid in cash, then the company would be short of money for working capital in its first year or two. If the syndicate made a stock payment for the property interest, this would add to the overcapitalisation of the company. Since the promoter's profit was most dependent on the eventual value of the company's common stock and this, in turn, was dependent on the company's actual performance, this type of short-term profit could harm the promoter's long-term profits.

In the Stelco promotion Aitken obtained a short-term profit in precisely this manner. Aitken purchased a steel finishing company for \$4 million and then demanded approximately the same amount in the stock of the consolidation being put together by a syndicate he formed. The other members of the syndicate refused to pay out this amount suspicious that Aitken had paid far less for the property. Aitken then proposed that the property be assessed and he agreed to put in or take out cash according to the results of the independent appraisal. The appraisal came in at just over \$5 million and Aitken took out \$1 million in cash in addition to the \$4 million in common stock. Although Aitken's action did no irreparable long-term damage to the new company, it ultimately paid for Aitken's quick profit. To cover the \$1 million cash shortage, Stelco had to make do with less working capital and within months was issuing additional securities.

Aitken's profit was justified by contract but this was not always the case with promoters. The desire to make a quick profit by "flipping" a property at a highly inflated value damaged both the new company and the reputation of the promoter himself. Promoters could get away with such short-term profiteering only if they desired a very short career. Even in Aitken's case, the transaction created suspicions that Aitken had given a misleadingly low valuation for the steel finishing firm only to purposely entice the other members of the syndicate into an agreement where he could extract a large amount of cash. The result created so much animosity that it is unlikely that Aitken could have continued his career as promoter in Canada. In fact, after the Stelco deal, he moved to England.³⁹

Obviously, the profits derived from successful high-risk flotations were the main motive behind merger-making for Aitken and his fellow promoters, but the owners of existing manufacturing enterprises had similarly powerful incentives to give up their ownership interests in the enterprises forming the new mergers. Unlike promoters, however, owners could choose whether or not to have a stake in the success of the new operation by demanding a cash pay-out or agreeing (in some cases

³⁹BBK, letter, Wilcox to Aitken, 15 June 1910, and telegram, Aitken to L. Harris, 22 June 1910, G/19/Stelco; letters, Mosher and Aitken, 26 June 1910, 30 June 1910, A/49/misc M. This incident is well-covered in W. Kilbourn, The Elements Combined: A History of The Steel Company of Canada (Toronto, 1960), pp. 76-77.

insisting) to an exchange of securities in the new enterprise for their existing shares. When the amount offered by promoters exceeded what they considered the inherent worth of the enterprise or the prevailing value represented by existing share prices, controlling shareholders sold out to capture this excess amount as a profit to themselves. They could also benefit by participating in the promotional syndicate floating the new enterprise, if invited to do so, and thereby take a share of the common stock profits.

In all of Aitken's three largest industrial promotions, most of the owners accepted stock in the new consolidation rather than cash for their old shares. At times they were encouraged to take cash, such as in the first stage of the Canada Cement merger when Aitken felt that cash settlements were less expensive relative to stock settlements. At other times, Aitken insisted on a stock settlement such as that forced on the International Portland Cement Company in the final stages of the Canada Cement merger negotiations. In other cases, such as the Canadian Car consolidation, two firms agreed to accept a stock settlement, while a third would only accept a cash payout. The aggregate result, however it was achieved, was that the majority of old owners had a direct stake in the long-term viability of the new enterprise and generally acted in these long-term interests during the promotional stage.

Motives are based on perceptions of an uncertain future which may be erroneous and motives alone cannot explain the ultimate success or failure of an enterprise but they can be used as a reference point. This is not to deny the possibility that, despite the prevalence of short-term profit motives, an enterprise might still succeed, or that the most well-planned and integrated consolidation might still fail in spite of the best long-term objectives of the promotional syndicate. Nevertheless, it can hardly be disputed that the short-run profit motive acted against the best interests of the new company while the long-run profit motive worked for the success of the corporation. The only way we can determine whether promoters and owners had short-run or long-run motivations is by examining case studies such as those provided in the following Chapter. Each case varied in the profit motivations of owners and promoters but also in the other motives which may have led to merger. These other motives include the attempts to deal with industry over-capacity caused by rapid technological change, the efficiencies to be gained from instantaneous vertical integration, and the procuring of monopoly rents. No general statement can be made concerning the presence or absence of these motives; each case must be examined within its appropriate technological and organisational context.

CHAPTER FOUR
COMPANY CASE STUDIES

4.1 The impact of capital structure on corporate evolution

Raising money through security issues has always been an expensive proposition relative to the cost of borrowing money from financial intermediaries or the opportunity cost of relying on retained earnings. The Macmillan Committee in Britain, for example, estimated that, even as late as the 1920s, the fixed costs of a small issue could amount to 20 per cent of the final amount raised; and this in what was still the most sophisticated, well-functioning and likely least expensive capital market in the world.¹ These costs -- the preparation of prospectuses, the purchase of advertising, the professional fees of appraisers, lawyers, accountants, and the commission fees of brokers -- do not include the non-commission "fees" of promoters and underwriters which varied with the success of the issue.²

¹L. Hannah, The Rise of the Corporate Economy (London, 2nd ed., 1983), pp. 66, 220.

²Evidence of the non-commission costs of security issues is difficult to find because of the form in which they were paid (promotional stock) and the promotional syndicate's concealment of these payments from outsiders, including the controlling shareholders of the companies being purchased, as well as potential shareholders and the press. These costs were almost never stated in prospectuses during the gilded age. The Steel Company of Canada, Limited, Annual Report, 1914, however, revealed a cash payment of \$104,475 for the underwriting of \$850,000 bonds issued in 1914. This amounts to an outlay of 12.3 per cent of the issue -- a large fee considering that this occurred four years after the original "high-risk" flotation

Corporations that choose to raise capital in this manner do so because they prefer to receive a large block of capital in the present rather than rely on a more incremental strategy of profit retention.³

Because of the nature of high-risk financing, determining the cost of raising capital in this manner is a difficult task. By accepting a common stock bonus instead of cash commissions, promoters like Max Aitken ensured that an enterprise received the maximum amount of cash possible, but the very heavy price exacted in common stock led to stock-watering. Moreover, by distributing too many of the corporation's bonds and preference shares in payment for the properties entering the consolidation promoters could create an even larger fixed debt load.

The dividend expectations of the common shareholders added to this debt. Although most owners of common shares accepted that they would receive very little in the way of dividends in the first year or two after a high-risk flotation, they did expect substantial repayments in the form of dividends once the

establishing the company and, therefore, was not burdened by considerable high-risk profits being extracted by the promotional syndicate.

³Although there is virtually no research comparing the costs of security financing over time, it is suggested that high-risk financing raised the costs of issues relative to both the pre-gilded age period of security financing, when commission payments were in vogue, and the post-Crash period, when security financing became more regulated.

corporation was on its feet. Naturally, the more earnings were distributed in this manner, the less could be made available for corporate expansion. In this sense, the expectations of common shareholders conflicted with the long-term needs of the corporation. During the age of high-risk financing, there were in fact many examples of corporations paying dividends to this class of shareholders in the first fragile period of their existence thus sacrificing the long-term needs of the corporation to the short-term desire to meet such expectations and thereby maintain the market price of the corporations' securities.⁴

Before examining the long-term performance of the three largest companies promoted by Aitken it is necessary to have some idea of their initial financial strengths or weaknesses. A framework can be devised which will reveal the direct and indirect price paid by Canada Cement, Canadian Car and Stelco for their initial security issues.

A perusal of the capitalisation, earnings and assets of Canadian merger flotations between 1899 and 1918 indicates that Aitken's industrial consolidations were in the mid-range of a

⁴The Monetary Times, for example, criticised the payment of dividends before the company had emerged out of this stage. The most notorious examples were the Canadian Cycle and Motor and the Amalgamated Asbestos companies which passed common dividends in their first two years of operation only to find themselves facing bankruptcy immediately afterwards. MT, 13 December 1901, p. 752; 4 April 1902, p. 1296; 8 October 1910, p. 1524; 7 January 1911, p. 150.

spectrum that extended from the most conservatively financed concerns to the most reckless and speculative flotations such as the Canadian Cycle flotation discussed in Chapter Two.⁵ A closer examination of the very few mergers in which figures for past earnings and assets were disclosed in prospectuses reveals a remarkably similar pattern of overcapitalisation; that is, the par value of issued securities exceeded total assets by between 65 per cent and 90 per cent.⁶ This "over-issue" was almost entirely represented by common stock.⁷ If common stock is removed from the equation, then we find that the real and nominal value of the preference shares and bonds issued hovered around the real asset value of the properties forming the consolidation.

⁵The 1909 bond flotation of Moirs, Ltd, is one of the rare conservative financings of the era. The property of this integrated Nova Scotia candy manufacturer was worth several times the value of the bond flotation and the company's average past earning power was six times greater than the entire bond interest. Moreover, the company had no outstanding dividend payments and, except for the salaries of company officials, turned all of its profits back into its surplus account. MT, 17 April 1909, p. 1874.

⁶All cases without exception involved substantial "stock-watering" based on the ratio of assets to total issued capital. In the most conservative of these, almost all of the senior securities issue would be covered by assets and the annual average of the past earnings would more than cover the new fixed debt in the form of bond interest and preference dividends.

⁷This is based upon a comparison of the following mergers: Canadian Consolidated Rubber (1906), MT, 4 October 1901, pp. 438-39; Carriage Factories Limited (1909), MT, 30 October 1909, p. 1831; and F.N. Burt Company, Limited (1909), BBK, letter, with enclosures (including company prospectus), Ames to Aitken, 11 September 1909, A/30/Ames.

This is, in fact, what investors and most industrialists during the gilded age expected; everyone understood that common stock was speculative paper of negligible present value but believed that preference stock and bonds should be fully supported by the company's existing property. To insinuate that a promotional syndicate would issue senior securities in excess of this property value was to question the bona fides of a consolidation. The attitude of the day is revealed in the following extract of a letter sent to Aitken by the general manager of Belleville Portland Cement Company while trying to convince the shareholders of his company of the benefits of entering the Canada Cement consolidation:

One of our largest shareholders who is evidently well acquainted with the organization of companies, asked the very impertinent question, if I knew how much of the Preference stock of the Merger Company was water. I was of course astonished at the question, as from our interview with you both Mr. Forbes and I were fully satisfied that all of the water in the Merger concern was the Common stock, and that there was no water in the Preference stock, and that every share of Preference stock represented actual value in your concern.

⁸BBK, letter, General Manager, Belleville Portland Cement Company, Limited, to Aitken, 11 September 1909, A/32/Canada Cement, Belleville Portland Cement Co.

A company was not censured as long as its senior securities reflected its real asset base.⁹ In addition, the issue of promotional stock was kept within a reasonable limit according to the norms of the day -- in other words, an issue of promotional stock that in aggregate par value was less than the aggregate par value of senior securities. There were variations, however, among the Canada Cement, Canadian Car and Stelco mergers themselves and their capitalisation, earnings, and asset structure provide a more solid basis for comparison. We can use such a comparison to try and discover signs of potential financial weaknesses which may have acted to restrict unduly the performance of these companies in their early years.

Table 7 below contains data on the capitalisation structure and asset values of Canada Cement, Canadian Car and Stelco in the first few months of their corporate existence. Total issued capital (TIC) represents the aggregate par value of equity and debt capital issued by the corporation in its first months while total senior securities (TSS) subtracts out the par value of the issued common stock, which in high-risk financing was not intended to represent existing asset value.

⁹One company so censured was the Dominion Canners merger of 1910 which was alleged to have issued \$4,200,000 worth of securities, one-half of which was common stock, on an actual asset value of \$1,200,000. The company received adverse publicity in the press as well as a political attack in the Ontario Legislature. MT, 5 March 1910, p. 1040; 25 February 1911, p. 823.

Table 7

ISSUED CAPITAL, ASSETS AND EARNINGS IN THE
CANADA CEMENT, CANADIAN CAR AND STELCO MERGERS
(\$ millions)

	<u>Canada Cement</u>	<u>Canadian Car</u>	<u>Stelco</u>
Bonds	5.00	3.50	6.85
Preferred	10.50	5.00	6.50
Common	<u>13.50</u>	<u>3.50</u>	<u>11.50</u>
TIC (total issued capital)	29.00	12.50	24.85
TSS (total senior securities)	15.50	8.50	13.35
TA (total assets)	17.00	7.50	13.35
PE (proven earnings)	N/A	1.03	1.29
EE (estimated earnings)	1.90	1.55	N/A
AE (actual earnings)	1.18	0.83	1.09
Preferred Dividends	0.74	0.35	0.46
Bond Interest	<u>0.30</u>	<u>0.21</u>	<u>0.41</u>
FD (fixed debt burden)	1.04	0.56	0.87
PE-FD	N/A	0.47	0.47
EE-FD	0.86	0.94	N/A
AE-FD	0.14	0.27	0.22

Note: N/A means not available.

SOURCES: BBK, company prospectuses, G/19/early financial
circulars; MT, 2 December 1911, p. 2313; Canada Cement
Company, Limited, Annual Report, 1909; The Steel Company
of Canada, Limited, Annual Report, 1910.

Given the mechanics of financial accounting during the
gilded age, it is futile to use total asset value (TA), as
provided in the first year's balance sheet of the companies, as a

proxy for the actual property value of the consolidation.¹⁰ In the first years of the consolidation's operation, this figure was invariably inflated to offset the stock and bond liabilities of the company -- particularly the common stock liabilities. Robert Meighen, the President of one of the largest and most successful flour milling companies in the country, was one of the few industrialists to criticise this new form of creative financial accounting:

The many companies of recent birth that have offered and are offering a bonus of common stock as a bait for the sale of preferred stock are starting business in an atmosphere of deceit... It would be interesting to get a list of the names of the fictitious accounts which they use to make the debits against the credits to capital stock account of this bonus issue, debits which the science of double entry bookkeeping requires.¹¹

The independent appraisals conducted during merger negotiations represent the only reasonably reliable assessment of asset value and even these must be treated with the greatest of care. Appraisal information was provided in the Stelco

¹⁰For a general discussion of the difficulties associated with financial statements, see S. Marriner, "Company Financial Statements as Source Material for Business Historians", BH, vol. XXII, no. 2 (July 1980).

¹¹Robert Meighen, who had recently died, was quoted in MT, 16 September 1911, p. 1215, in a lead article devoted to financial accounting and the growth of the accounting profession in Canada.

prospectus.¹² Unfortunately, the only information revealed in the Canadian Car prospectus was a general statement by the company's President that the replacement value of the properties of the three consolidated companies was in excess of \$7,500,000.¹³ This figure combines liquid assets with fixed assets but we cannot tell whether this sum is inclusive or exclusive of liabilities.¹⁴

The Canada Cement prospectus was even more uninformative; it provided no information whatsoever on asset value, an aspect of the promotion that was attacked in the financial press.¹⁵ In fact, appraisals were not ordered before the merger. Aitken and

¹²The American Appraisal and Canadian American Appraisal companies assessed the value of the assets of all five companies entering the merger. The combined fixed assets came to \$10 million, and the combined net liquid assets amounted to \$3.35 million. BBK, prospectus of Stelco, G/19/early financial circulars.

¹³BBK, preference stock and bond issue prospectuses of Canadian Car, November 1909 and February 1910, G/19/early financial circulars.

¹⁴Ion Hamilton Benn, the leading British underwriter of the Canadian Car issue complained to Aitken about the value of both fixed and liquid assets being lumped together: "I am...sorry that we can get no authoritative statement with respect to the assets, because people here lay great stress upon this point. We are all rather surprised to learn that...the replacement value of \$7,500,000 includes the \$2,200,000 liquid assets; I did not understand this from the memorandum you gave me in New York, because replacement value is always understood here to refer to plant and fixed assets! However, we must do the best we can, and I am convinced that the business is intrinsically good." BBK, letter, Benn to Aitken, 23 October 1909, A/39/Benn; G/19/early financial circulars.

¹⁵MT, 18 September 1909, pp. 1210-11.

the promotional syndicate used ad hoc sources of information upon which to base their estimates of what each company should "come in at." His syndicate partner, E.R. Wood of Dominion Securities, said that his firm preferred not to be associated with the coming bond prospectus unless it included the results of independent appraisals.¹⁶

Originally, Aitken had been very negative about having appraisals done in the Canada Cement merger. If they turned out higher than his own estimates, the companies would demand more for their properties. If they turned out substantially less than his estimates, he was open to public attack on the ground of excessive capitalisation to cover the inflated amount paid for the merger assets. This was more of an issue in the Canada Cement merger because most of the controlling shareholders of the old companies were outside the promotional syndicate. When industry insiders were members of the syndicate, as in the cases of the Canadian Car and Stelco mergers, the objective evidence of appraisals served to curtail argument. In the Canada Cement

¹⁶BBK, letter, Wood to Aitken, 29 October 1909, A/42/E.R. Wood: "From the standpoint of the Dominion Securities Corporation it is of vital importance that there should be an appraisal and valuation of the properties and a proper audit of accounts, as it has always been its policy to insist on having, for the purposes of its circulars, such independent information concerning the properties covered by the bonds as can only be secured by an independent audit and appraisal." Wood finally agreed to "work out a prospectus with such information as we have that will be satisfactory to both your Company and mine, although it seems to me this will be a fairly difficult job."

merger, agreements were conducted separately because of each company's overly-generous perception of its own value and low opinion of the value of competitors. Negotiations invariably became more difficult when information concerning the price paid for one concern leaked to the others.¹⁷

When Aitken finally ordered appraisals of the two cement companies which most disagreed with the promotional syndicate's assessment of their asset value, he was so pleased with the results that he ordered appraisals of all the other properties. The results indicated a total asset value of approximately \$17 million as indicated in Table 7.¹⁸

As can be seen by the total issued capital to total assets ratio (TIC/TA) in Table 8 below, the asset base of Canadian Car and Stelco could not support the total issued securities nor were they expected to. In a classic example of "acceptable" stock-

¹⁷For a vivid illustration of this, see BBK, letter, General Manager, Belleville Portland Cement Company, Limited, to Aitken, 12 October 1909, A/32/Canada Cement, Belleville Portland Cement Co.: "I have...a number of communications from our shareholders sending me a clipping from the Montreal Star, asking me as to why [International Portland Cement] got such a big price for their plant and property and we so very little, and everybody knows that we have a plant that has as large a manufacturing capacity as the International, and a much better location for the distribution of our product... This will make it very difficult for us to gather in all our stock certificates, as the shareholders who were sore enough at the first are now ten times worse."

¹⁸BBK, letter, Aitken to Wood, 10 December 1909, and telegram, Aitken to Wood, 15 December 1909, A/42/E.R. Wood.

watering, the par value of the securities issued by all three companies ranged between 65 per cent and 90 per cent greater than total asset value. The most conservative of the three financings, Canadian Car, issued comparatively less common stock and therefore its ratio of total issued capital to total assets is at the lower end of the spectrum.

Table 8

FINANCIAL RATIOS IN THE CANADA CEMENT,
CANADIAN CAR AND STELCO MERGERS

<u>Ratios</u>	<u>Canada Cement</u>	<u>Canadian Car</u>	<u>Stelco</u>
TIC/TA	1.71	1.67	1.87
TSS/TA	0.91	1.13	1.00
PE/FD	N/A	1.83	1.48
EE/FD	1.83	2.68	N/A
AE/FD	1.13	1.48	1.25
PE % left for com. div.	N/A	13.43	3.65
EE % left for com. div.	6.37	26.86	N/A
AE % left for com. div.	1.04	7.71	1.91

SOURCE: Derived from Table 7.

A more accurate gauge of whether capitalisation exceeded an acceptable level is the ratio of the total par value of senior securities to total assets (TSS/TA). According to this measure, Stelco's issue was restricted to its asset base while Canadian Car issued senior securities of a value slightly in excess of its asset base. Canada Cement ostensibly issued less than its asset base but it should be noted that, unlike Canadian Car and Stelco

securities, Canada Cement bonds and preference shares were accompanied by common stock bonuses. If this common stock is included as part of the senior securities issue at even one-quarter of its par value, then Canada Cement issued more stock than its asset base.

The fixed debt load (FD) immediately assumed by these companies is calculated by adding annual preference dividend payment obligations to the annual interest payable to bondholders. In order to calculate the amount left over for common stock dividends, the FD figures are subtracted from earnings, which in turn are calculated in three different ways. Proven earnings (PE) are based on the past earnings of the companies forming the merger. Estimated (or expected) earnings (EE) are the projections, if any, of the first year earnings made by Aitken and the promotional syndicate in the published text of the prospectuses. Actual earnings (AE) represent the undistributed surplus of the respective corporations' first full year of operation as disclosed in their balance sheets. A measure of surplus in absolute terms -- the total funds available for profit plough back and common stock dividends after FD is subtracted -- is provided in the last three rows of Table 7. A relative measure of surplus is provided by the ratio of earnings to FD as displayed in Table 8.

The proven earnings to fixed debt ratio (PE/FD) indicates

the extent to which the debt obligations of the corporation are covered by the proven earning power of the firms which make up the amalgamation; ceterus paribus, the higher the ratio the more likely the corporation will be able to meet its obligations. The estimated earnings to fixed debt ratio (EE/FD) is a proxy for the safety margin "perceived" by the promoter at the time of the flotation. He calculates the earnings based on his estimate of the merger's gains from integration, monopolisation and rationalisation. He then assesses the amount of fixed debt that the consolidation is capable of carrying. Aitken was considerably over-optimistic in his calculation of estimated earnings for Canada Cement and Canadian Car. Realising the gap between his expectations and reality in his first two promotions of 1909, Aitken refrained from making an estimate of earnings in the Stelco prospectus of 1910.

The actual earnings to fixed debt ratio (AE/FD) measures the realised margin of safety; the higher the ratio the more surplus is available to be partitioned between dividends for the common shareholders and corporate plough back. The last row of figures in Table 8 measures the maximum per cent dividend left to common shareholders after bond interest and preference dividends have been paid out of the first full year of actual earnings. This figure assumes that all profits are used for interest and dividend payments. After its first year of operations, Canada Cement had less surplus available for common stock dividends than

Stelco while Canadian Car was in a significantly stronger position than both companies.

The preceding two rows of figures measure what the promoter originally expected would be left over for dividends and what should have been left over based on past earning power. Although past earning figures were not available in the Canada Cement case, the gap between expected performance and actual performance was largest for Canada Cement. Since it was largely capitalised on these overly-optimistic expectations, it is not surprising that Canada's Cement actual margin of safety measure by its actual earnings to fixed debt ratio (AE/FD) is the lowest of the group. In both absolute and relative terms, Canada Cement's subsequent performance was less satisfactory than that of Canadian Car and Stelco. Moreover, the company was financially structured in such a way as to have less margin for surplus in absolute (EE-FD) and relative (EE/FD) terms.

From this analysis, it appears that Canada Cement had the weakest financial structure of the three companies, something which is reflected in the fact that its common shares remained at a lower value than the common shares of Canadian Car and Stelco until 1913.¹⁹ Stelco was only slightly stronger. Both companies.

¹⁹ Between 1910 and 1914, Canadian Car's common share prices were at least double those of Canada Cement and Stelco. Stelco common stock was, in turn, valued approximately 5 per cent more than Canada Cement until the depression of 1913 when Stelco's common stock prices dipped below those of Canada Cement perhaps

apparently suffered from enormous issues of common stock, a problem not faced by Canadian Car. Moreover, as described in Chapter Three, Stelco had to issue additional securities to cover an unexpected \$1 million cash payment for the Montreal Rolling Mills plant.

Canadian Car also had the highest margin of safety as measured by its actual earnings to fixed debt ratio (AE/FD), although its earnings fell substantially below Aitken's expectations. Certainly, Canadian Car had the largest surplus in relative and absolute terms for distribution among common shareholders and for corporate plough back, and this meant it had the most flexibility concerning its future strategy and structure. On the contrary, Canada Cement was likely impeded in its first few years by its heavy debt load and the relatively small amount of capital it could draw upon for reinvestment. With these short-term strengths and weaknesses in mind we can now turn to the more long-term evolution of these companies.

because of that company's inability to rationalize production in an industry which remained substantially competitive. By March 1913, Stelco's high was 25.5 (TSE) compared to 28.25 (MSE) for Canada Cement, and 81 (MSE) for Canadian Car. Montreal and Toronto stock exchange prices for Canadian securities, AFR, vol. XI (April 1911) to vol. XV (May 1915). At any rate, the pattern of share prices conforms to the above analysis demonstrating the more stable character of Canadian Car's financing.

4.2 The Canada Cement Company

The Canada Cement consolidation fundamentally transformed the Canadian portland cement industry. At the time of its incorporation, there were at least 23 active cement manufacturing firms in the country. The merger brought together the ten largest and technologically most advanced of these enterprises. Although Canada Cement would continue to face competition from some of the firms which remained outside the merger and from the entrance of foreign branch plants, it retained enormous control over the Canadian market in terms of potential capacity and actual output until the 1960s. Protected from import competition by a tariff on cement (which served, however, to encourage foreign manufacturers to set up branch plants in Canada), it had sufficient power to impose a pricing policy on the Canadian market from the date of its formation.²⁰ As Aitken publicly announced, Canada Cement controlled "all the rock cement plants [in Canada] east of the Rocky Mountains."²¹

²⁰BBK, 1909 correspondence, Aitken and the owners and managers of International Portland Cement, Lakefield Portland Cement, Lehigh Portland Cement, Vulcan Portland Cement, Canadian Portland Cement, and Belleville Portland Cement, A/32. A set of national prices drawn up by Aitken and the owners was in force by at least 8 September 1909. BBK, telegram, Aitken to Canadian Portland Cement enclosing agreed-upon price-fixing schedule, 6 September 1909, and telegrams, Aitken and Allan, 9 September 1909, A/32/Canada Cement, Canadian Portland Cement.

²¹Aitken quoted in the MT, 18 September 1909, p. 1213.

Aitken, in fact, had cleverly tried to give British investors the impression that Canada Cement had eliminated all competitors to increase the perceived value of the company's securities. Although Canada Cement included the largest and most modern plants in the Dominion, more than a dozen medium to small cement companies remained outside the consolidation. When the British members of the promotional syndicate discovered that some competition would remain in the Canadian cement industry they felt they had been deceived.²²

The cement industry had enjoyed considerable growth during the housing, factory, and public works construction boom of the first decade of the twentieth century.²³ During this period, a large number of portland cement manufacturing plants were hastily constructed -- mainly in Ontario where demand was greatest and

²²Some of the British underwriters were dismayed to discover that some of the companies which remained outside the merger were considering forming "The Independent Cement Company" to defend themselves against Canada Cement. A member of the British investment house principally responsible for the London flotation complained to Aitken that it was "understood at the time that the merger formed by you included all the principal Companies in the Cement business, and that the object of the merger was to eliminate outside competition." BBK, letter, Samborne to Aitken, 23 October 1909, A/32/Canada Cement, Kilbourn.

²³See Figure 3 in Appendix A. The construction industry experienced its most rapid rate of real growth between 1908 and 1912 although the period 1900-1907 also witnessed substantial growth.

raw materials most plentiful.²⁴ None of the companies were national in scope but some, like the International Portland Cement Company of Ottawa, with its plant across the Ottawa River at Hull, Quebec, employed large and modern factory systems which were among the most advanced in the world.²⁵ As can be seen in Table 9 below, Canadian companies expanded output at a remarkable pace to meet the domestic demand for cement.

Imports were concentrated in the Western prairie region. Westerners paid considerably higher prices than the average Canadian prices displayed in Table 9, which explains their vocal opposition to the Canada Cement "monopoly" and their desire to have the tariff on American cement eliminated.²⁶ There is certainly some evidence that, at least until the formation of Canada Cement, Canadian portland cement was relatively more expensive than the American product, and this price difference was amplified in the Canadian west because of transportation costs.²⁷

²⁴In 1900, there were only two portland cement manufacturing plants in Ontario while there were approximately five natural rock cement works. Within a few years, however, dozens of new plants were established. MT, 12 October 1900, p. 472.

²⁵MT, 10 April 1903, p. 1382; 22 September 1905, p. 389. The cost of erecting the Lehigh cement mill was almost \$2 million. Aside from the International's operation, this was likely the most advanced portland cement factory in the country. BBK, letter, Aitken to Wood, 10 December 1909, A/32/E.R. Wood.

²⁶See Chapter Five.

²⁷For example, in 1905, after much acrimonious debate, the Hamilton City Council gave a large portland cement contract to a company from Ithaca, N.Y., instead of the Owen Sound Portland Cement Co., one of the firms that eventually joined the Canada

Table 9

THE CANADIAN PORTLAND CEMENT INDUSTRY, 1900-1914
(quantity in thousands of barrels)

<u>Year</u>	<u>Consumption</u>	<u>Production</u>	<u>Imports</u>	\$ <u>p/barrel</u>
1900	753	292	461	\$1.92
1901	880	317	563	1.78
1902	1,257	595	662	1.73
1903	1,335	628	708	1.84
1904	1,833	910	922	1.41
1905	2,160	1,347	814	1.42
1906	2,582	2,139	443	1.48
1907	3,130	2,436	694	1.54
1908	3,082	2,665	417	1.39
1909	4,150	4,010	140	1.31
1910	5,121	4,754	367	1.34
1911	6,433	5,693	741	1.34
1912	8,550	7,133	1,417	1.28
1913	8,861	8,659	203	1.28
1914	7,255	7,172	82	1.23

SOURCE: A.E. Epp, "Cooperation Among Capitalists: The Canadian Merger Movement", unpublished Ph.D. thesis, The Johns Hopkins University, 1973, pp. 459, 462.

With the financial panic in 1907, however, industrial and infrastructure expansion suffered a temporary but savage downturn

Cement merger. The decision was based strictly on cost in that the Ithaca Company had put in the low bid in spite of the tariff. MT, 31 March 1905, p. 1334. Cheaper American cement was enough of an enticement that members in the House of Commons agreed that all future government projects should be restricted to using Canadian-made cement. Perhaps this is the main reason that one of the more efficient producers in the United States began constructing a branch plant at Belleville, Ontario, approximately two months after the announcement. MT, 23 June 1905, p. 1731; 22 September 1905, p. 389. As discussed below, however, Canada Cement was competitive enough to begin exporting outside of Canada by 1918.

which had a very negative impact on the cement industry.²⁸ By 1908, consumption dropped for the first time and the price of cement plummeted. Canadian companies found themselves producing too much cement and selling below the price of production. Their plants were capable of producing 9,500,000 barrels a year which was over three times the consumption of the country in 1908.²⁹

Cement industrialists entered agreements attempting to restrict production and raise prices but these proved to be unenforceable and short-lived as individual owners broke rank to gain some short-term advantage at the expense of the other cartel members.³⁰ Some companies sought to keep costs down through internal reorganisation. During the spring of 1909, Aitken was called upon by Sir Sandford Fleming, a majority shareholder in three Canadian cement enterprises, including the International Portland Cement Company. Fleming wanted his interests consolidated into a more efficient organisation thereby lowering the costs of production and financing. Aitken responded by proposing his own far more ambitious scheme which Fleming and his associates, at least at this time, enthusiastically endorsed:

²⁸See Figures 3 and 4 in Appendix A.

²⁹MT, 7 August 1909, p. 612.

³⁰For an historical account of the long-term ineffectiveness of price-fixing agreements and the fragile nature of industry cartels in Canada, see M. Bliss, A Living Profit: Studies in the Social History of Canadian Business, 1883-1911 (Toronto, 1974).

I reported that the amalgamation of the three mills was not a defensible financial proposition, but that the union of all the cement mills in Canada was. Moreover, I contended that the formation of such a vast trust was practicable; that it could be floated successfully and produce an adequate and better return to the investor than the existing system of separate ownership.¹

A merger of only three cement plants was not a "defensible proposition" because it would not have had the market power to effectively deal with over-capacity. Cement companies were anxious to enter the consolidation precisely because of the tremendous need for rationalisation of plants in central Canada where the industry was overbuilt. Such an organisation would also be capable of planning the construction of new cement plants to avoid the irrational pattern of overdevelopment of the last few years. The capacity of the ten companies making up Canada Cement was still double the existing requirements in 1909.² An administrative entity which could distribute capacity in the most economical manner possible seemed the only rational solution.

The relationship between technological and organisational change, overcapacity and the formation of mergers has been well-documented by Naomi Lamoreaux who suggests that this was the major cause of the turn of the century merger wave in the United

¹BBK, G/17/2, excerpt from Lord Beaverbrook's draft autobiography later published as My Early Years (Fredericton, N.B., 1964).

²Statement to shareholders by C.C. Ballantyne, Vice-President, Canada Cement Company, Limited, Annual Report, 1909.

States. Lamoreaux argues that the innovations in high throughput production processes during the 1880s led to overproduction in many American industries. This coupled with a depression beginning in 1893 resulted in such severe price wars and ruthless competition that thousands of firms were driven into bankruptcy. Survival could no longer be guaranteed by price-fixing through cartels of independent producers -- a practice which had become quite prevalent in the decades before the turn of the century. Now tight combinations -- amalgamations which produced a single unified enterprise often with enough monopoly power to impose prices at least temporarily -- provided the only means of survival. Using as examples the steel and newsprint industries, Lamoreaux concludes that the Great Merger Wave was the product of a defensive reaction by firms in industries employing new processes of high output production.³³

Overcapacity was also a prevalent theme in many rapidly changing industries in Canada by the end of the nineteenth century. The simultaneous introduction of high throughput processes in a number of competing plants produced a desperate situation. The enormous fixed-costs that were sunk into the new mass-production processes and the new factories in which they were housed prevented firms from simply easing back when supply suddenly outstripped demand and pushed selling prices beneath the

³³N. Lamoreaux, The Great Merger Movement in American Business, 1895-1904 (Cambridge, 1985).

cost of production. Paradoxically, many firms had no realistic alternative, in the face of slumping prices caused by overcapacity, than to continue producing. Most of the cost of production remained even if the plant was temporarily shut down and in the absence of effective and enforceable cartel agreements, any unilateral decision to quit producing would only exacerbate the situation for the individual firm. There was no graceful exit from the industry; high-fixed costs even made voluntary winding-up, always an option in the past, painfully difficult.

The desire to regulate output and keep "prices firm" was the principal motive behind consolidations in industries such as fruit and vegetable canning as well as salmon packing where high through-put technology had the most dramatic impact on the output capacity of individual firms.³⁴ It was apparent to contemporary

³⁴For the relationship between technological change and overcapacity in the salmon canning industry, see: P.W. O'Bannon, "Waves of Change: Mechanization in the Pacific Coast Canned-Salmon Industry, 1864-1914", Technology and Culture, vol. 28, no. 3 (July 1987); D.J. Reid, "Company Mergers in the Fraser River Salmon Canning Industry, 1885-1902", CHR, vol. LVI, no. 3 (September 1975); D.A. Stacey, Sockeye and Tinplate: Technological Change in the Fraser River Canning Industry, 1871-1912, (Victoria, B.C., 1982). The introduction of mechanised, high-speed canning lines caused overproduction in the fruit and vegetable canning industry. This produced a number of cartel associations and finally two spectacular consolidations: The Canadian Canners Consolidated merger of 22 companies in 1903 and the Dominion Canners merger of this company plus 17 other independent companies in 1910. See L. Elder, The History of Canadian Canners Limited 1903-1986, company publication (1986).

observers that "[i]n this present age of rapid machinery...there is a very general disposition towards over-production by manufacturers."³⁵ The issue of whether overcapacity was the major motive behind mergers before or during the first Canadian merger wave cannot, however, be answered by referring to a few case examples.³⁶ It can only be tested by a rigorous examination of the technological state of every manufacturing industry in which merger activity is prominent -- an examination which is beyond the scope of this work.

It is clear, however, that even after the formation of Canada Cement, the industry continued to be plagued by overcapacity, a situation that did not dissipate until after the Second World War. By 1920, Canada Cement was trying to turn this liability into a virtue by arguing that the corporation's long-term interests were better served by keeping production capacity well ahead of existing demand in Canada. In this way, the company would always be ready for a surge in demand thus

³⁵ MT, 8 November 1889, p. 553.

³⁶ Moreover, it was likely long-term industrial decline, rather than the introduction of high through-put technology, which caused overcapacity in the Canadian textile industry. The Dominion Cotton Mill amalgamation of nine existing textile mills in 1890, the first major Canadian merger, was motivated by overproduction and idle plants. The industry continued to slide into slow decline after this, however, and further mergers became necessary to regulate output. MT, 13 February 1991, p. 1005; 4 March 1992, p. 1054; B.J. Austin, "Life Cycles and Strategy of a Canadian Company: Dominion Textile, 1873-1973", unpublished Ph.D. thesis, Concordia University, 1985.

preventing the potential negative effects of import competition at such a time. Although never enough to keep all of Canada Cement's plants busy, demand increased steadily during the 1920s.³⁷ The strategy would have eventually succeeded if the 1930s had not reversed this increase in domestic consumption. Previously tolerable under conditions of growth, the high-fixed costs of idle plants and equipment almost sunk Canada Cement during the Great Depression. The company immediately stopped paying common stock dividends. In 1932, preference dividends were suspended and not resumed for five years. Canada Cement was barely recovering when the Second World War interceded to increase the demand for cement.³⁸

Very early on, overcapacity prodded Canada Cement into developing an export business. Beginning in 1918, Canada Cement relied on low price and most importantly on the quality of its product to develop a foreign clientele and, by the first part of the 1920s, its foreign business compensated for temporary slumps in Canadian sales. After 1925, however, European competitors began to cut increasingly into Canada Cement's foreign sales and

³⁷In the good years of the 1920s Canada Cement's production hovered around one-half and slightly more of its total capacity. Canada Cement Company, Limited, Annual Reports, 1920-1929.

³⁸Canada Cement's plants were operating at 32 per cent of capacity in 1932, the worse year of the Great Depression, but even in the peak year of 1929, its cement plants were not running at anything more than 70 per cent capacity. Canada Cement Company, Limited, Annual Reports, 1909-1940.

this, combined with the onset of the Depression, resulted in a very weak export business. At the same time, it appears that Canada Cement never complemented its exports with foreign branch plant operations even during the 1920s when such a strategy would have been financially feasible. In 1926, it did purchase an American gypsum company to guarantee a supply of raw material but this was not part of an effort to compete in the American market.³⁹

Through a policy of steadily decreasing the price of cement to the customer, however, Canada Cement continued to supply almost all of the Canadian demand throughout the interwar period. Its Canadian competitors were forced to drop their prices in response to Canada Cement's policy or go out of business. Although portland cement enjoyed tariff protection, Canada Cement proudly announced in 1920 that Canadian consumers were now paying less for cement than American or British consumers.⁴⁰ The company achieved this level of efficiency through an extensive program of capital reinvestment which took the form of technological improvements, research and development, backward integration to guarantee the supply and transportation of raw materials, forward integration to ensure adequate and economical distribution of its product, and diversification to stabilise

³⁹Canada Cement Company, Limited, Annual Reports, 1909-1940.

⁴⁰Canada Cement Company, Limited, Annual Report, 1920.

income.

Within two years of its formation, every Canada Cement plant was equipped with a modern industrial laboratory and trained chemists to test more systematically raw materials and finished product.⁴¹ Research and development projects were undertaken such as Canada Cement's experiments on the recovery of potash byproducts in its kilns.⁴² Even in the depths of the depression, when capital expenditures were cut to the bone, equipment was still being updated to ensure that it kept up with the most recent developments in the industry.⁴³ Such technological improvements were accompanied by profound organisational changes. Canada Cement moved immediately to redress the imbalance of having numerous plants in central Canada, particularly Ontario, and an absence of producing units in Western Canada and the Maritimes, and thereby reduce transportation costs, always a major factor for a bulky product like cement. By 1913, it purchased an existing operation at Exshaw, Alberta, established a new plant at Medicine Hat, Alberta, transformed a plant in Winnipeg, and began the search for a suitable Maritime site for a

⁴¹Canada Cement Company, Limited, Annual Report, 1911.

⁴²Canada Cement Company, Limited, Annual Report, 1918.

⁴³Canada Cement Company, Limited, Annual Report, 1938.

cement plant to serve the eastern seaboard.⁴⁴ It then reduced the price for Western cement, which was still selling considerably above the central Canadian price. Ten years later the capacity of the plants in the prairie provinces substantially exceeded the consumption of the region but this only anticipated the pattern of growth over the next seven years when the rate of cement consumption in the west grew faster relative to the rate of consumption of central and eastern Canada.⁴⁵

In 1912, a wholly-owned subsidiary, Canada Cement Transport Company, was incorporated and two steamships were purchased to transport coal to Canada Cement's plants to avoid the expense and unreliability of existing rail and steamship services. By the end of the 1920s, Canada Cement had constructed a series of storage and shipping plants at St. John, Halifax, Quebec City, Toronto and Windsor and two self-discharging ships, one to service the eastern seaboard and the other to service the Great Lakes, were put into operation to carry cement and gypsum between these storage and shipping points. Backward integration was achieved when Canada Cement purchased gypsum quarries in Nova Scotia as through the purchase of the Pennsylvania Gypsum Company

⁴⁴After years of searching, the company eventually found a suitable Maritime site for a cement plant at Havelock, New Brunswick, which it purchased in 1921. It did not build on this site until 1950, however, because of continuing overcapacity in the Canadian industry. Canada Cement Company, Limited, Annual Reports, 1923, 1950.

⁴⁵Canada Cement Company, Limited, Annual Report, 1928.

in 1926.⁴⁶

The earnings from cement fluctuated considerably with the business cycle. To broaden its earning base, Canada Cement established a wholly-owned real-estate subsidiary, the St. Lawrence Land Company, in 1922. By this time, Canada Cement had also begun to invest in the shares of other companies to obtain a balanced corporate portfolio. It was in fact these investments outside of cement which, according to the company, allowed it to carry its excess capacity while still cutting the retail price of cement. Whether or not this is correct, it is clear that these outside investments likely saved Canada Cement during the Great Depression.⁴⁷

In spite of beginning life with a financial handicap and the industry-wide impediment of substantial overcapacity, Canada Cement's performance between 1909 and 1939 was relatively good. This can be attributed to a structure which produced technological and organisational efficiency, ensured safety and economy of supply and distribution, and allowed the company to thrive in the geographically immense but (for the most part)

⁴⁶Canada Cement Company, Limited, Annual Reports, 1912, 1926-1930. In 1928, Canada Cement sold its shares in this company to the Atlantic Gypsum Products Corporation of Portsmouth, New Hampshire, a company which agreed to supply its eastern plants with raw gypsum rock. Canada Cement then held its own deposits of gypsum in reserve for the future.

⁴⁷Canada Cement Company, Limited, Annual Reports, 1922-1939.

sparingly populated national market. The corporate strategies of diversification, constant investment in technological improvement, and leadership in price-cutting worked to the company's long-term advantage.

On the negative side, Canada Cement's relatively meagre surplus in its first two years of operation limited its rationalisation program and its investment in transportation facilities. More importantly, as earnings quickly negated this disadvantage, the Company's relatively relaxed attitude to export markets and its failure to adopt a policy of foreign direct investment were shortcomings which eventually resulted in the company losing competitive ground to a French multinational, Lafarge Corporation, during the 1960s. This led ultimately to the corporate reorganisation of the cement industry with the merger between the French company and Canada Cement in 1969-70.⁴⁸

4.3 The Canadian Car and Foundry Company

Unlike the cement industry, overcapacity did not play a role in the merger of the largest rolling stock manufacturers in Canada. If anything, the firms which made up Canadian Car were

⁴⁸Canada Cement Company, Limited, Annual Reports, 1965-1969; Lafarge Canada, Limited, Annual Report, 1969.

straining to keep up with domestic demand.⁴⁹ One of the oldest industries established in Canada, rolling stock manufacturing sprang up in the 1850s during the first Canadian spurt of railway building. Freight and passenger cars were produced by both, railway companies and specialised rolling stock manufacturers, thus joining the textile and farm implement industries as the major manufacturing sectors during Canada's first industrial revolution.⁵⁰

The Laurier boom brought in the last and most extensive phase of railway building in Canada. Their own shops now incapable of meeting the increase in demand, the older railway companies began to purchase more cars from independent manufacturers. Certainly, the Canadian Pacific Railway, which had the largest shops in Canada, was unable to meet its own demand by the early 1900s.⁵¹ Preferring to put all their investment into building track, the newer railway companies

⁴⁹The real growth in the railway services industry is depicted in Figure 2 of Appendix A. The growth of the rolling stock industry during the Laurier boom is captured in Figure 15 of Appendix A which depicts real output in transportation equipment manufacturing, a category largely made up of railway car manufacturing.

⁵⁰P. Craven and T. Traves, "Canadian Railways as Manufacturers, 1850-1880", Perspectives on Canadian Economic History, ed. D. McCalla (Toronto, 1987).

⁵¹For example, by 1906, the Canadian Pacific Railway workshop at Maisonneuve (Montreal) could not meet that company's requirements and it was forced to place an order with the Dominion Car Company for 200 coal-transporting steel cars at a cost of \$1.5 million. MT, 9 February 1906, p. 1061.

bought all of their cars from the rolling stock manufacturers. The Canadian Northern, the Grand Trunk Pacific and the National Transcontinental railways, expanding so rapidly between 1900 and 1915, ordered almost all of their rolling stock from the specialist firms.⁵² This encouraged considerable growth in the rolling stock companies and by 1906 three large independents were producing the majority of the rolling stock in Canada.⁵³

Rhodes Curry was an old Maritime establishment which had grown steadily since its formation in 1893. Dominion Car and Foundry and the Canada Car Company were newcomers that had just settled in Canada before the 1909 merger.⁵⁴ Canada Car was established in Montreal in 1905 by interests associated with the Pressed Steel Car Company of the United States in conjunction with some Canadian capital. Like Rhodes Curry, it manufactured wooden passenger and freight cars. In 1905, Rhodes Curry

⁵²G.R. Stevens, Canadian National Railways, vol. 1 (Toronto, 1960); W.K. Lamb, History of the Canadian Pacific Railway (New York, 1977); J.A. Eagle, The Canadian Pacific Railway and the Development of Western Canada, 1896-1914 (Montreal, 1989); T.D. Regehr, The Canadian Northern Railway: Pioneer Road of the Northern Prairies, 1895-1915 (Toronto, 1976);

⁵³A.E. Epp, "Cooperation Among Capitalists: The Canadian Merger Movement 1909-13", unpublished Ph.D. thesis, The Johns Hopkins University, 1973, pp. 532-35.

⁵⁴Rhodes Curry was the product of an 1893 merger between an Amherst manufacturer and the New Brunswick Foundry, Rolling Mills and Car Works. The two companies combined their capital to build a modern rolling stock plant at Amherst. MT, 21 April 1893, p. 1258; T.W. Acheson, "The National Policy and the Industrialization of the Maritimes, 1880-1910", Acadiensis, vol. 1 no. 2 (Spring 1972), p. 73.

purchased a manufacturing plant and property at Sydney, Nova Scotia, in order to begin manufacturing pressed steel cars, increasingly in demand by the railways. The project did not get off the ground because of the inability of the Dominion Iron and Steel Company to roll suitable plates.⁵⁵ Instead, in 1906 the Dominion Car and Foundry Company was established in Montreal by the Kelley rolling stock interests of Chicago to build the first "Canadian" steel car manufacturing plant.⁵⁶

Industry growth had put such a strain on Rhodes Curry that in 1909 it had to increase its issued capital from \$346,000 to \$3 million.⁵⁷ Aitken handled the reorganisation. Immediately afterwards, he discussed the possibility of an industry-wide merger with Canada Car and Dominion Car and Foundry. Secret negotiations followed and, before there was even a chance to float the securities of the reorganised Rhodes Curry, the new deal was announced in October, 1909. Aitken's role was central in the merger but it is clear that the President and chief stockholder of Rhodes Curry, Nathaniel Curry, played a significant role in the merger negotiations and was instrumental in determining the basis of valuation and the new management of

⁵⁵ MT, 7 July 1905, p. 14; 21 July 1905, p. 74.

⁵⁶ BBK, prospectus of Canadian Car, G/19/early financial circulars; extract from the St. John Sun, no date (1909), A/39/Rhodes Curry & Co. A. E. Epp, op. cit., p. 544.

⁵⁷ MT, 3 July 1909, p. 136.

the consolidation.⁵⁸ Naturally, Curry was made President of the new consolidation. He, along with the other major shareholders of Rhodes Curry and Dominion Car, had a long-term stake in the future profitability of Canadian Car. All had accepted securities in the new consolidation instead of cash for their holdings and it is conceivable that they insisted on a conservative capitalisation for the new company thus restricting the issue of common stock.⁵⁹

Canadian Car's preference share and bond issues were one of the most conspicuous financial successes of the Canadian merger wave. Unusual for industrial issues of the day, Canadian Car's preference shares sold without the added incentive of bonus common stock. To the amazement of the financial press, the subsequent issue of bonds sold at a premium. Subscription lists in the United States and Canada were hardly opened when the list in London was already over-subscribed. The bonds were purchased at 2.5 per cent above par in London and within one week the price had advanced to 6 per cent above par.⁶⁰

⁵⁸BBK, correspondence, Aitken to Wood, 29 June 1909, 25 September 1909, A/42/J.E. Wood; letter, Aitken to Stavert, 12 July 1909, A/40/misc S; letter, Aitken to William, 9 August 1909, A/42/misc W; telegrams, Aitken and W.V. Kelley, President, American Steel Foundries, and Aitken and Curry, September and October 1909, A/36/misc K; letter, Curry to Aitken, 23 October 1909, A/39/Rhodes Curry & Co.

⁵⁹MT, 30 October 1909, p. 1812.

⁶⁰MT, 5 February 1910, p. 514; 12 February 1910, p. 716.

Investors were particularly keen because they had been assured of Canadian Car's monopoly of the rolling stock industry protected from outside competition by the tariff, as this excerpt from the original prospectus indicates:

The combined capacity of all other car companies in Canada is probably not over 10 freight cars per day, as compared with this Company's present capacity of 75 cars per day. Car builders in Canada are protected from Foreign competition by a duty of 30 per cent on rolling stock and parts thereof.⁶¹

In fact, this impression of monopoly was very misleading. The prospectus omitted mention of the manufacturing capacity of the railway companies themselves; the extensive car manufacturing shops of the Canadian Pacific Railway alone could provide effective competition. Moreover, the tariff did not protect the company from foreign direct investment and new Canadian investment. Competition from these sources emerged almost immediately after the merger. As can be seen in Table 10 below, the tremendous demand for rolling stock between 1909 and the Great War acted like a magnet for new investment.

In 1910, a group of Maritime financiers injected new money and reorganised one of the smaller rolling stock manufacturers into the Nova Scotia Car Works which issued \$1,743,000 of

⁶¹BBK, President's statement of company's position dated 19 January 1910, and prospectus of Canadian Car, G/19/early financial circulars.

Table 10

ROLLING STOCK IN OPERATION IN CANADA. SELECTED YEARS

<u>Years</u>	Passenger Cars (number)	per cent increase	Freight Cars (number)	per cent increase
1905*	3,130	-	87,574	-
1907	3,642	(6%)	107,407	(23%)
1908	4,026	11%	115,709	8%
1909	4,192	4%	117,779	2%
1910	4,320	3%	119,713	2%
1911	4,513	5%	127,518	7%
1912	4,946	10%	140,918	11%
1913	5,696	15%	182,221	29%
1915*	6,326	(11%)	201,790	(11%)

SOURCE: 1907-1913 derived from MT, 22 January 1915, p. 22; * 1905 and 1915 derived from A. E. Epp, "Cooperation Among Capitalists: The Canadian Merger Movement 1909-1913", unpublished Ph.D. thesis, The Johns Hopkins University, 1973, p. 534.

capital. Additions and extensive improvements were made and within a few months the plant was producing 12 cars a day, had secured an order from the Canadian Northern Railway for 1,000 freight cars and was rapidly expanding its plant to boost its daily capacity.⁶² In July, 1912, the National Steel Car Company was incorporated by American interests and its plant, with a capacity of 30 cars a day, was erected in Hamilton, fast becoming the centre of primary and secondary steel production in Canada.⁶³ At the same time the Nova Scotia Steel & Coal Company established

⁶²MT, 29 October 1910, p. 1821; 22 April 1911, p. 1617; 4 November 1911, p. 1952.

⁶³AFR, vol. XIII (May 1913), p. 257; vol. XIV (May 1914), p. 254.

a car manufacturing subsidiary. With an issued capital of over \$2.5 million and the support of a fully integrated steel company, Scotia's subsidiary, the Eastern Car Works, was poised to compete directly with Canadian Car.⁶⁴ These new competitors, employing the most modern techniques of production and corporate organisation, quickly began to snatch orders for rolling stock away from Canadian Car. The industry would remain highly competitive in the decades following the Great War.⁶⁵

Canadian Car survived and even prospered in this environment because of its vigorous strategy of vertical integration to secure its inputs and more efficiently distribute its output.⁶⁶ At the time of the merger, a very large proportion of the materials used in assembling railway cars were not manufactured in Canada. Canadian Car replaced these high-cost imports by manufacturing the equipment itself, which implied major modifications and extensions to its existing plants and the

⁶⁴ AFR, vol. XIII (May 1913), p. 262.

⁶⁵ The industry reached a peak in total output and value in 1929. Historical Statistics of Canada, ed. F.H. Leacy (Ottawa, 2nd ed., 1983), Quantity and value of railway car shipments, 1917-1975, series R725 and R726. Nevertheless, it appears that its fastest growth rate was experienced in the years immediately preceding the Great War.

⁶⁶ In 1912, for example, Canadian Car received the largest single order for rolling stock ever given in Canada: a \$6 million order for freight cars from the Canadian Pacific Railway. MT, 24 August 1912, p. 332.

erection of new plants including an axle plant in Montreal.⁶⁷ In addition, Canadian Car bought out its existing Canadian suppliers. In 1911, the largest producer of steel castings in Canada, the Montreal Steel Works, as well as the steel foundry and rolling mills of the Ontario Iron and Steel Company, were purchased by Canadian Car and amalgamated into a subsidiary, Canadian Steel Foundries, which then proceeded to construct the company's largest plant.⁶⁸

In July, 1912, Canadian Car purchased the Pratt & Letchworth company of Brantford, Ontario, the largest malleable iron manufacturer in Canada. This firm, a subsidiary of an American company, manufactured a number of its parent's specialised equipment under license. The patents on these "specialties", many of which were required as inputs in the building of rolling stock, came with the buy-out and Canadian Car continued to manufacture them under the Pratt & Letchworth name thereby widening its sources of income.⁶⁹ With its new and acquired

⁶⁷ MT, 4 May 1912, p. 1835; 2 November 1912, p. 674.

⁶⁸ Canadian Car and Foundry Company, Limited, Annual Report, 1911. Canadian Car was the largest of the Montreal Steel Work's customers before the merger. Nathaniel Curry was made the President of Canadian Steel Foundries which then proceeded to issue \$3 million of bonds on the London capital market. MT, 3 December 1910, p. 2726; 14 January 1911, p. 217; 11 February 1911, p. 648.

⁶⁹ Pratt & Letchworth originally intended to join a consolidation of the entire Canadian malleable iron industry. When negotiations broke down in July, 1912, Canadian Car purchased the option on Pratt & Letchworth "to avoid the danger of being unable to secure a sufficient supply" of the special

plants in the provinces of Ontario, Quebec and Nova Scotia, Canadian Car was assured of a continuous, timely and relatively inexpensive supply of all the basic steel inputs required in rolling stock manufacturing. In the 1912 Annual Report, the President, Nathaniel Curry, claimed that Canadian Car was "probably the most self-contained car building company in the world, manufacturing as it does, nearly everything that enters into the construction of railway cars."⁷⁰

The construction, contracting and lumber business previously conducted by the Rhodes Curry company was hived off into a third subsidiary while the car manufacturing plant at Amherst was integrated into the two Montreal plants as well as a new \$1 million plant being built at the western end of Lake Superior. Built between 1912 and 1914, the Fort William works were intended to supply the immense rail network in Western Canada servicing the movements of grain from the prairies to the Great Lakes and the west coast. At the opening of the Great War, Canadian Car owned eight plants which were strategically distributed along an

equipment manufactured by the company. The President of Pratt & Letchworth, J.C. Bradley, of Buffalo, New York, was made a director of Canadian Car. Canadian Car and Foundry Company, Limited, Annual Report, 1912.

⁷⁰Canadian Car and Foundry Company, Limited, Annual Report, 1912.

east-west expanse of 3,000 kilometres.⁷¹

Like Canada Cement and Stelco, Canadian Car survived the downturn in demand for capital goods during the Great War by manufacturing armaments. Canadian Car went further than these companies, however, in seeking new business, and within two years after the opening of hostilities, had secured multi-million dollar contracts and advances from the Imperial Russian and French governments. Rather than passively wait for British and Canadian armament contracts -- the strategy of most Canadian industrials including Canada Cement and Stelco -- Canadian Car sent representatives to Europe to make new deals, constructed a shipbuilding works at Fort William and erected an armaments factory in New Jersey to handle some of the new business flooding in. In addition to an order for 2,000 steel tank cars, Canadian Car agreed to supply the Imperial Russian government with \$52 million worth of shrapnel and high explosive shells. Canadian Car manufactured thousands of freight cars ordered by the French government in 1916. After the American entry into the War, it obtained a \$10.5 million contract to supply the United States navy with ships. This was followed by a contract for 12 mine

⁷¹Canadian Car and Foundry Company, Limited, Annual Report, 1914. The Fort William works were substantially completed by August, 1914, but Canada's entry into the War as well as the business depression commencing in the latter half of 1913, prevented the company from putting the new plant into immediate action.

sweepers.⁷²

The transition back to civilian production in 1918 was a difficult one as Canadian Car had become very dependent on war-related business for its growth and profitability.⁷³ Although Canadian Car managed the move back into rolling stock manufacturing, the company showed little of the dynamism that it had exhibited before the Great War and during the conflict itself. Because of the long-run decline in the demand for rolling stock the company established some subsidiaries and began to diversify. During the serious slumps of 1922, 1925-26 and 1928 these outside investments proved their importance. When the bottom fell out of the rolling stock industry between 1931 and 1936, Canadian Car's diversification literally paid dividends (and bond interest). In the depth of the Great Depression, Canadian Car established an aircraft division to offset its sparse earnings from rolling stock. The company set up the most modern aircraft factory in Canada at Fort William. In spite of these many attempts at diversification, however, nothing could change the basic fact that railway car manufacturing was a

⁷²MT, 14 May 1915, p. 14; 14 January 1916, p. 20; 24 March 1916, p. 7; 19 January 1917, p. 14; 1 February 1918, p. 34; 15 February 1918, p. 16.

⁷³Canadian Car and Foundry Company, Limited, Annual Reports, 1914-1919. Gross profits had risen from a low of \$322,000 in 1915 to \$1,292,000 in 1916, and \$2,573,000 in 1917. Net profits rose similarly: \$258,000 in 1915, \$353,000 in 1916, and \$1,413,000 in 1917. MT, 26 April 1918, p. 38.

declining industry, weakening Canadian Car in the process. In 1955, Hawker Siddeley, a British multinational, purchased control of Canadian Car paying \$30 a share for common stock that had been worth double that value in 1909.⁷⁴

4.4 The Steel Company of Canada

The Stelco merger had no immediate impact on the structure of the Canadian primary steel industry. This was a consolidation of four secondary steel producers with one of the smaller Canadian primary manufacturers -- the Hamilton Steel and Iron Company. Impressed by the United States Steel Corporation merger completed eight years before, Aitken initially set out in 1909 to create a merger of all the major primary steel producers in the country. In particular, he wanted to meld together the three largest companies of the day: the Algoma Steel Corporation (then known as the Lake Superior Corporation), the Dominion Iron and Steel Company (DISCO) and the Nova Scotia Steel & Coal Company (Scotia).⁷⁵ Hamilton Steel and Iron was, in terms of size,

⁷⁴Canadian Car and Foundry Company, Limited, Annual Reports, 1919-1939; Historical Statistics of Canada, ed. F.H. Leacy, op. cit.. Information concerning Hawker Siddeley was given to me by Larry McNally, Archivist, Economic/Scientific Archives, National Archives of Canada.

⁷⁵Algoma's history is well-covered in D. McDowall, Steel at the Sault: Francis H. Clergue, Sir James Dunn, and the Algoma Steel Corporation, 1901-1956 (Toronto, 1984). Some information on DISCO and Scotia can be found in W.J.A. Donald, The Canadian Iron and Steel Industry (Boston, 1915); D. Frank, "The Cape Breton Coal Industry and the Rise and Fall of the British Empire Steel Corporation", Acadiensis, vol. 7, no. 1 (Autumn 1977); and

hardly a member of this club. Although Aitken wanted it in the amalgamation, presumably because of the strategic location of its plant and the quality of its management, he had no intention of making Hamilton Steel the core of an integrated steel merger.⁷⁶ This was an accidental consequence of the failure of his negotiations with the big three Canadian steel producers.

In 1909, Aitken, along with Toronto financier E.R. Wood, formed a syndicate to effect a merger between DISCO and the Dominion Iron Corporation, the largest coal producer in Canada. The terms of the giant merger were hammered out in November and December of 1909 and, after all the stock had been exchanged, the Dominion Steel Corporation was eventually formed in 1910.⁷⁷ This was the first move on Aitken's part to consolidate the entire industry. His second step was to get control of Scotia. Since his strained personal relationship with the President of Scotia, Robert E. Harris, precluded direct negotiations, Aitken

K. Inwood, "Local Control, Resources and the Nova Scotia Steel and Coal Company", Canadian Historical Association, Historical Papers (1986). Hamilton Iron and Steel is briefly discussed in W. Kilbourn's The Elements Combined: A History of The Steel Company of Canada (Toronto, 1960).

⁷⁶BBK, telegram, Aitken to Cahan, 9 March 1910, G/3/Cahan. In this telegram, Aitken says that he "will likely consolidate with Soo [Algoma Steel Corporation], which is favored by President Drummond".

⁷⁷BBK, letter, Aitken to F. Taylor, 18 November 1909, A/41/misc T; letter, Aitken to Cahan, 26 November 1909, G/3/Cahan; letter, A.J. Brown to Aitken, 24 December 1909, A/30/misc Bo-Bu. MT, 21 November 1909, p. 2112-13; 5 November 1910, p. 1928.

approached Scotia through a neutral party, E.R. Wood. Harris saw through the ploy and, as commented on in the Wall Street Journal of 2 December, 1909, the "leading interests behind the Nova Scotia Steel & Coal Co." remain "opposed to the company being included" in the big steel merger sought by Aitken.

Shifting ground, Aitken decided to purchase control of Scotia in what was the first significant hostile takeover bid in the history of modern Canadian business. Discovering that a "raids" on the company was being launched from Montreal, Harris and his fellow directors took defensive action by passing a 20 per cent stock bonus to Scotia's shareholders. By February, 1910, Aitken's forces thought they controlled a bare majority of Scotia's voting shares and waited confidently for the annual shareholders meeting scheduled for the 31st of March to replace Harris and some of his fellow directors with their own people. Harris, in a brilliant piece of financial manoeuvreing, began anonymously buying back shares held by brokers for the Aitken group placing many of these with disinterested and out-of-reach investors in Britain.⁷⁸ By the time Aitken realised what had

⁷⁸The Aitken group could not afford to buy all at once a majority of Scotia shares, therefore, they asked various friendly brokers to purchase shares on their behalf promising that they would eventually acquire them at a set minimum price (a few percentage points above the price at which they were originally purchased by the brokers) or at the market price, whichever was higher. This got the stock out of the possession of the Harris group but not firmly in the possession of the Aitken group as nothing could prevent the brokers from trading in Scotia stock while waiting for the Aitken group to raise further cash.

taken place it was too late; although he did some very heavy buying in the last days of March the majority had been lost by the date set for the annual shareholders meeting.⁷⁹ This was to be Aitken's bitterest defeat in his Canadian business career but he continued his steel merger plans without Scotia.

At the very same time that he was fighting for control of Scotia, Aitken purchased a steel finishing company called the Montreal Rolling Mills for \$4.2 million after a quick but expert evaluation of the property.⁸⁰ This was to be the bait to entice Dominion Steel, Algoma and Hamilton Steel into a merger. Immediately after the purchase, Aitken opened negotiations with a number of smaller secondary steel producers while trying to convince the primary producers of the benefits which would flow from one big integrated steel company.⁸¹ Even after negotiations

⁷⁹Surprisingly, there is virtually no record of Aitken's attempted takeover of Scotia in the BBK collection, but there is a very good record of it in the Hon. Robert E. Harris Papers, PANS, MG 1, vol. 398, no. 4 -- Harris's personal scrapbook containing numerous articles on the attempted takeover of Scotia entitled "The Raid on the Nova Scotia Steel & Coal Company, Limited, by the Forget, Osler contingent, Montreal, Headed by W. Maximillan [sic] Aitken, Esq, Beginning at New Glasgow, N.S., March 30th 1910" -- and no. 5 -- folder containing various newsclippings from the daily press and the financial press. The takeover bid is also described in the Thomas Cantley Papers, PANS, MG, vol. 170, Cantley letter book. See also K. Inwood, op. cit., pp. 259-63. Some question remains as to what Aitken ultimately intended with the Scotia takeover -- it is possible that a merger with Canadian Car would have been the result.

⁸⁰W. Kilbourn, op.cit., pp. 61-62.

⁸¹BBK, letter, Aitken to Holt, 12 March 1910, A/47/Holt.

with Algoma were abruptly discontinued for reasons never made public, Aitken convinced Robert Hobson, the President of Hamilton Steel, of the desirability of a merger. Aitken and Hobson now worked together to try to convince J.H. Plummer, the President of Dominion Steel, of the need for at least one of the "big three" to be in the consolidation and, failing this, of the benefits that would flow from a cartel-type agreement.⁸² Plummer liked neither idea, possibly because of the refusal of Scotia and Algoma to participate, but he remained worried about the control that Aitken's new merger might have over Canadian wire and nail production as well as other finished steel products.⁸³ He countered with the suggestion that Dominion Steel and Aitken's new consolidation divide up the secondary steel industry to prevent too much competition:

I have given a good deal of consideration to the matter discussed with you and Mr. Hobson on Tuesday.

While I would not say positively that an alliance could not be made which would work satisfactorily, and be effective for the purpose in view, I have grave doubts of its possibility.

On the other hand we certainly could not sit still and see a strong concern formed to take up practically the whole wire and nail business of Canada, with the ultimate power of excluding us and our product if they saw fit. The course which your negotiations have taken forces on us the immediate adoption of a policy which will protect our interests, and the only policy which

⁸² Evidence of negotiations between Aitken and Dominion Steel are found in BBK, 1910 correspondence, Aitken and J.H. Plummer, A/50/Plummer.

⁸³ The companies which formed Stelco controlled over 50 per cent of the hardware lines of the steel finishing business in Canada. W. Kilbourn, op.cit., p. 83.

will be effective, it seems to me, is to own or control large well-equipped plants at two points such as Montreal and Fort William. If for this purpose we could get your options on the Dominion Wire Company and the [Montreal Rolling Mills] that would give us what we require without any increase in competition.⁸⁴

Aitken refused to sell either the Montreal Rolling Mills or his option on Dominion Wire to Dominion Steel and a new steel merger was consummated on 9 June, 1910, without Algoma, Dominion Steel or Scotia being included.⁸⁵ Aitken concluded that the combination of a smaller but geographically well-located primary producer -- Hamilton had recently emerged as the centre of the steel products industry in Canada -- together with some of the largest secondary steel producers in the country was a good long-term financial gamble even if it did not have a short-term monopoly position similar to Canada Cement nor the appearance of monopoly which he used to great advantage on the Canadian Car prospectus. Ultimately, this company turned out to be Aitken's most successful merger and likely the most profitable to him personally, when he sold most of his holdings in the late 1920s.

Stelco's contact with Aitken, particularly as a consequence of the \$1 million cash payout, was hurtful to the company in the

⁸⁴BBK, letter (marked 'private'), Plummer to Aitken, 1 June 1910, A/50/Plummer.

⁸⁵Aitken did promise, however, that some kind of "arrangement" could be worked out with Dominion Steel to quell Plummer's fears about an "outbreak" of competition. BBK, telegrams, Plummer and Aitken, 8 June 1910, A/50/Plummer.

short-term.⁸⁶ The company was overcapitalised relative to Canadian Car and this served to depress share prices and caused great hardship during the 1913 financial depression. By the end of the Great War, however, Stelco had become a financially strong company reliant more on retained earnings than on security issues.⁸⁷ A combination of good management, technological innovation, organisational adaptation, and increasing vertical integration provided the endogenous reasons for Stelco's success during its first years. According to the company's historian, the union of varied secondary steel producers with an efficient and well-located primary producer made economic sense from the very beginning:

Although still a small steel business by American standards, Stelco was one of the most complex and varied horizontal mergers yet made in the steel-finishing industry anywhere in the world. It was also advanced as a vertical integration of the steps in the steel-making process. As such, it was well started on the road to technological progress and efficiency in the twentieth-century steel industry.⁸⁸

⁸⁶See Chapter Three, p. 71.

⁸⁷The amount raised in the first preference stock and bond flotations did not provide Stelco with adequate working capital and within a year another \$500,000 worth of bonds had to be issued for the construction of two additional 50-ton open hearth furnaces, new machinery as well as a new blooming mill, billet mill, and a rod and bar mill at Hamilton. Two years later Stelco made a further issue of \$850,000 worth of bonds for working capital. The Steel Company of Canada, Limited, Annual Reports, 1911 and 1913.

⁸⁸W. Kilbourn, op.cit., p. 84.

Within two years of its birth, Stelco was producing everything from basic pig iron to steel bars, angles, bands, billets, blooms, wire, nuts, bolts, wrought pipe, railway axles and fastenings, white lead, putty, shot, nails, spikes, fencing, tacks, screws, rivets, as well as iron, brass and copper wire, rivets and burrs.⁸⁹ By 1914, Stelco's 14 plants were geographically spread out from Montreal and Lachine in the east to the central Canadian plants in Hamilton, Brantford, Toronto, Belleville and Gananoque, and finally to Fort William at the western end of Lake Superior.⁹⁰

Stelco's long-term success was a product of internal dynamism and the nature of the evolution of the Canadian steel industry during the twentieth century. Stelco's biggest competitors, Algoma and Dominion Steel, were heavily dependent on the production of one main product, steel rails, and after the demand for this product peaked in 1913, both companies had great difficulty adjusting. On the other hand, as illustrated in Table 11 below, the demand for semi-finished and finished steel products grew considerably after 1913 in large part because of the increasing demand for new consumer durables such as automobiles, stoves, washing machines, which incorporated a large amount of steel.

⁸⁹The Steel Company of Canada, Limited, Annual Report, 1912.

⁹⁰The Steel Company of Canada, Limited, Annual Report, 1914.

Table 11

CANADIAN PRIMARY AND SECONDARY STEEL PRODUCTION, 1900-1940
(thousands of short tons)

<u>year</u>	<u>ingots & castings</u>	<u>rails</u>	<u>steel shapes</u>	<u>bars</u>	<u>pipes tubes</u>
1900	26	1	-	-	-
1905	452	200	-	-	-
1910	822	410	-	-	-
1915	1,021	235	-	-	-
1920	1,233	255	-	387	-
1925	843	217	-	244	-
1930	1,131	261	36	184	111
1935	1,055	122	43	244	70
1940	2,254	200	184	454	143

SOURCE: Historical Statistics of Canada, eds. M.C. Urquhart and K.A.H. Buckley (Toronto, 1965), Physical output of manufactured steel products, series Q283-Q287.

In the 1920s, Stelco found itself located in the heart of the Canadian consumer durable and electrical equipment industries concentrated as they were in southern Ontario. Stelco's market share of secondary steel output, always high, steadily grew but its increasing market share of primary steel output better reflects the company's great success. By 1918, Stelco controlled 18 per cent of Canadian steel ingot production compared to 10 percent in 1910; this would rise to 50 per cent by the 1950s. Stelco quickly became the largest producer of primary and secondary steel in Canada and remains in that position today.⁹¹

⁹¹W. Kilbourn, op.cit., pp. 83, 112 and 128.

4.5 The impact of mergers on relative performance and industrial organisation

The most peculiar aspect of these case studies is the extent to which the initial financial condition of the companies had so little bearing on their ultimate performance. Canada Cement was the most disadvantaged of the three yet its subsequent performance proved strong. Overcapitalised almost as much as Canada Cement, Stelco was, in addition, burdened by an insufficiency of capital in its first two years. Nevertheless, it ultimately became the best performer in the group. The most conservatively capitalised and possessing the most working capital, Canadian Car fared extremely well in the first decade of its existence but its performance began to decline thereafter.

Without a comprehensive examination of the structure and strategies of all three companies, which is beyond the scope of the present work, it is impossible to explain with any precision the reasons for their ultimate performance.⁹² It does appear, however, that exogenous factors such as the long-term trajectory of the industry itself had much more of a bearing on the performance of companies than their initial financial structure.

⁹²In fact, given the sparseness of the information available on each company, it is doubtful that an accurate picture of their strategies, structures and performance can be presented.

The fact that the rolling stock industry went into terminal decline by the 1920s while the cement and steel industries continued to grow gave Canada Cement and Stelco an obvious advantage. Stelco benefitted immensely from the tremendous growth of the automobile and appliance industries during the 1920s.

To the extent that endogenous factors affected their ultimate performance, however, the strategies of all three companies were remarkably similar. Unlike the branch plants established in Canada by the large American industrials, companies such as Canada Cement, Canadian Car and Stelco could not depend on parent companies for their technical advances. They were thrown on their own resources for research and development. All three were innovators as well as imitators in a technological sense. In terms of firm organisation, they all appear to have quickly adopted the structure of the modern industrial enterprise that had been pioneered in the United States and Germany.⁹³ In these respects, all three companies were "world-class" or close to it.

⁹³I am employing the A. Chandler's characterisation of modern business enterprise contained in The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass., 1977), pp. 6-11, and in "The Emergence of Managerial Capitalism", BHR, vol. LVIII, no. 4 (Winter 1984).

On the negative side, all three companies adopted a more conservative national policy of meeting domestic demand rather than a global strategy of increasing market share beyond Canada. With the exception of Canadian Car's activities during the Great War, none of the companies were successful in developing a significant export market. For reasons not yet clear, none of the companies embarked upon a strategy of foreign direct investment preferring the safety and greater certainty of a protected domestic market.⁹⁴ This choice eventually resulted in the acquisition of Canadian Car by a British conglomerate and the merger of Canada Cement with a vigorous French multinational. Paradoxically, Stelco continues to thrive under the same conservative strategy.

In terms of the degree of competitiveness or monopolisation, the industrial organisation of each industry was fundamentally altered by only one of the three mergers. The steel and rolling stock industries were at best robustly competitive and at worst

⁹⁴In this, the companies do not appear to have been unique among Canadian companies. This "failing" of Canadian business has been commented on often. Various reasons, from the negative impact of the protective tariff which encouraged American direct investment to a lack of entrepreneurial ambition and the innate conservatism of Canadian industrial elite, have been used to explain this phenomenon. See J.H. Dales, The Protective Tariff in Canada's Development (Toronto, 1966); G. Williams, Not for Export: Towards a Political Economy of Canada's Arrested Industrialization (Toronto, 1983); T. Traves, The State and Enterprise: Canadian Manufacturers and the Federal Government (Toronto, 1979); M. Bliss, op. cit.; R.T. Naylor, The History of Canadian Business, 1867-1914, 2 vols. (Toronto, 1975).

oligopolistic both before and after the Stelco and Canadian Car consolidations. The cement industry was characterised by a dominant firm with a competitive fringe that included the constant threat of export competition and, more importantly, the menace of direct competition from American or European branch plants.⁹⁵ The threat of competition was likely the motive force behind Canada Cement's low-pricing strategy as well as a key factor in prodding it to innovate in the cement production process and to create new forms of portland cement.

Certainly, none of the companies, not even Canada Cement, had the kind of monopoly power desired by their creators and shareholders. Canadian Car was faced with new entrants immediately after its formation. Stelco was forced to compete from the beginning because of the failure to involve the three largest primary producers in the consolidation. It was difficult to create a monopoly for not only economic reasons. During the gilded age, there was significant popular opposition to the creation of monopolies and this was translated into political opposition to the mergers; particularly the mergers created by Max Aitken.

⁹⁵For a theoretical description of dominant firm analysis, see F.M. Scherer, Industrial Market Structure and Economic Performance (Boston, 2nd ed., 1980), pp. 232-264.

CHAPTER FIVE

ANTITRUST AND THE POLITICS OF MERGER

5.1 From combines to mergers: the illusion of legislation

The cement merger set off alarms throughout Canada. For over twenty years, the Canadian public had been unhappy about the uncompetitive practices of a business community that insisted on suppressing market forces by fixing prices and restricting output by agreement.¹ This popular discontent had occasionally erupted forcing a political response by Canadian legislators who were, in general, more sympathetic to such collusive practices than the general public. The only politicians that were hostile in principle to such anticompetitive behaviour were a small faction of ideological free-traders within the Liberal Party. Viewing free trade as a panacea for all evils including price-fixing, however, they were more interested in getting tariffs reduced than in antitrust legislation. This group was a minority, however, and successive Conservative and Liberal administrations from the 1880s to the 1900s, while giving the appearance of action, refused to enact tough antitrust legislation to reduce anticompetitive practices.

¹In A Living Profit: Studies in the Social History of Canadian Business, 1883-1911 (Toronto, 1974), M. Bliss dissects the source of the attitude which resulted in this behavior which he refers to as the "flight from competition."

The first anti-cartel legislation came on the crest of public pressure led by farm organisations, after a Parliamentary investigation of cartels revealed pervasive price-fixing practices at every level of the Canadian economy.² The new "anti-combines" law was passed in 1889 without the necessary administrative machinery for it to be properly enforced. The law was laughable in its ineffectiveness.³ No one even bothered to test the legislation until 1897 when the American Tobacco Company of Canada was acquitted on a charge of price-fixing through tied-dealer contracts.⁴

²See the Select Committee Report on Alleged Combinations in Manufactures, Trade and Insurance in Canada (Ottawa, 1888), submitted to the House of Commons on 16 May 1888. The report fueled the demand for the removal of protectionist tariffs which were popularly believed to be the "cause" of price-fixing. The Macdonald Conservatives, committed as they were to the National Policy of tariff protection, passed the anti-combines legislation to cure the abuses of price-fixing without affecting tariffs.

³In particular, see M. Bliss, "Another Anti-Trust Tradition: Canadian Anti-Combines Policy, 1889-1910", BHR, vol. XLVII, no. 2 (Summer 1973), and R.T. Naylor, The History of Canadian Business, 1867-1914 (Toronto, 1975), vol. II, pp. 162-194. For general information on first anti-combines legislation, see P.K. Gorecki and W.T. Stanbury, The Objectives of Canadian Competition Policy, 1888-1983 (Montreal, 1984); A. Ball, Canadian Anti-Trust Legislation (Baltimore, 1934); L.G. Reynolds, The Control of Competition in Canada (Cambridge, Mass., 1940); O.J. McDiarmid, Commercial Policy in the Canadian Economy (Cambridge, Mass., 1946), pp. 189-207; M. Cohen, "The Canadian Antitrust Laws: Doctrinal and Legislative Beginnings", Canadian Bar Review, vol. 16, no. 3 (September 1938).

⁴The Queen v. American Tobacco Company of Canada (1897) 3 Revue de Jurisprudence (Quebec), pp. 453-64.

That same year, the new Liberal government under Wilfred Laurier, amended the Tariff Act to placate the farm and free-trade vote which had recently put it into office. This law permitted the removal of tariff protection for any industry engaging in cartel activity. According to the committed free-traders within the Liberal Party, this was going to be a far more effective weapon against collusive agreements than any antitrust law. The Canadian Press Association, a group of Canadian newspaper owners that felt it had been held hostage by the high fixed prices of newsprint manufacturers, took advantage of the legislation. They ultimately won their case -- duties on some types of paper were reduced by 40 per cent -- but the costs they incurred in the process were so prohibitive that this "anti-combine" provision was never again used.⁵

Although the Canadian anti-combines law was too weak to attack existing price-fixing agreements, the ability of the cartels to keep up prices was overrated by the public. New cartel agreements were constantly being set up because they were continually falling apart. When opportunity knocked, cartel members bolted from agreements to obtain additional business. Restrictions on price and quantity meant that everyone had surplus inventory which they were willing to dump at cut-rate prices. Owners tried to conceal these breaches of agreement from

⁵HCD, 12 April 1910, pp. 6843-45.

fellow cartel members but, of course, they were discovered sooner or later. The perception of pervasive anti-competitive behavior, sustained by the public nature of such arrangements in an environment permissive of cartel behaviour, must accordingly be balanced by the less publicised failings of industry associations to enforce price and quantity agreements.⁶ Nevertheless, it was this perception that fueled the populist outcry against the "combines" -- the contemporary term for any firm or association of firms that engaged in price-fixing.

One of the reasons that many members in the Liberal government only paid lip service to supporting free trade was the apparent impossibility of obtaining a tariff agreement with the United States, just then becoming Canada's largest trading partner. Taking a sharp turn towards increased protection in the years after the Civil War, the government of the United States refused to negotiate the lowering of tariffs. Laurier and his Liberal Party arrived in office only to be greeted by the passage of the Dingley Tariff of 1897 raising American tariffs even higher. Thrown on the defensive, Laurier's government responded by increasing tariffs on American products while granting a preference to British goods. Aside from the "anti-combine" provision in the Tariff Act, Laurier did nothing more about strengthening Canadian antitrust law. Instead, he waited for an

⁶M. Bliss, A Living Profit: Studies in the Social History of Canadian Business, 1883-1911, op.cit; R.T. Naylor, op.cit.

opportunity to lower tariffs in a reciprocal agreement with the United States -- an opportunity that would not arrive until 1910.⁷

The agitation against the combines died down in the prosperity of the Laurier boom and did not re-emerge until rising prices during the merger wave of 1909-1912 restored vigour to the campaign. By this time the public was facing a different kind of combine. In fact, mergers provided a sharper focus of attention for the "anti-tariff and anti-combine" coalition than cartels. In 1909, a group of representatives from various agrarian organisations met with Prime Minister Laurier to air their grievances and demand legislative redress. They claimed that the "combines" -- a term which was now used to cover both cartels and mergers -- were collecting millions of dollars in unearned profit.⁸ When the Canada Cement consolidation became public knowledge a few months later, farm organs such as the Grain Growers Guide launched a virulent attack on the cement monopoly. The farm groups selected Canada Cement as the most infamous example of the danger posed by this new form of monopoly alleging that it had increased the price of cement and acted as a conduit funnelling millions of dollars of monopoly profits into the

⁷L.E. Ellis, Reciprocity 1911: A Study in Canadian-American Relations (New Haven, Conn., 1939), pp. 2-10; O.J. McDiarmid, op.cit., pp. 203-229.

⁸HCD, 12 April 1910, p. 6828; O.J. McDiarmid, op.cit., pp. 203-254.

pockets of promoters. Aitken, in particular, was singled out for attack.⁹

Aitken realized that the sheer size of his industrial mergers made them vulnerable but underestimated the impact of such public attacks.¹⁰ He had only to look at the example of the United States Steel Corporation merger which had been under constant criticism by a similar coalition of American farm organisations since its formation in 1901-02. J.P. Morgan Jr. had been singled out for personal attack for allegedly reaping millions of dollars of promotional stock as profit.

When the criticism began, Aitken defended his mergers by conducting a press campaign intended to shape public opinion and minimize the damage of such attacks. In newspapers that printed his point of view without alteration, Aitken argued that the consolidation and rationalisation of Canada's major cement companies lowered the costs of production and therefore would

⁹E.C. Drury, Farmer Premier (Toronto, 1966), p. 53. In 1909-10, Drury was the informal leader of the coalition of farm organisations which attacked tariffs in general and the cement merger and Aitken in particular.

¹⁰On 15 September, 1909, Aitken wrote the following to his lawyer and principal confidant, Charles Cahan: "Owing to the importance of the [Canada Cement Company], I think we are liable to attack." It was to be a prescient comment. BBK, G/3/9.

eventually lead to lower cement prices for the consumer.¹¹ Aitken was correct in a long-term sense but this did not change the fact that, in its first year of operations, Canada Cement kept prices firm and may even have raised prices in regions like the Maritimes and Western Canada thus supporting the allegations in the press.¹²

While Aitken could point to the existence of a number of independent Canadian cement companies and the eventual decline of cement prices to counter the allegation of monopoly, he could not defend the merger against the charge of stock-watering as it was

¹¹In a letter dated 10 January 1910, Aitken wrote the following to The Times upon their request for information on the cement merger: "If you want a defence of the consolidation of Cement Companies, I will be very glad to write you a defence providing you agree to publish it as I have written it, or not publish it at all." He then peevishly added: "On the other hand, if you want a condemnation of the Canada Cement Company, I would be pleased to refer you to some of my esteemed friends who are so anxious to protect the long-suffering consumers." BBK, A/51/misc T.

¹²This was even admitted by a Liberal member of Parliament who wrote a confidential letter to Prime Minister Laurier defending Canada Cement: "Two or three years ago the price of cement was so low in Canada that most of the factories were operated at a loss. After the merger was effected the prices were raised but not unreasonably and not more than to allow a reasonable profit... Prices were lowered toward the latter part of last summer and are now lower than the prices fixed after the forming of the merger. There is yet a strong competition between the merger and the many non-merger companies, and this competition will ensure a continuance of reasonable prices to the consumer." Laurier Papers, NAC, MB 26, G, Reel C900, letter, Miller to Laurier, 16 December 1910. Based on allegations contained in the Grain Growers Guide, R.T. Naylor, op.cit., p. 190, states that "[t]he merger coincided with a great building boom in Canada, and as a result the average price of cement in Winnipeg rose immediately from \$1.80 to \$2.40 per barrel."

popularly understood. Advising one of his RSC managers that it was "useless to argue that the present capitalisation of the Canada Cement Company is justified", Aitken admitted that the common stock issue had "discounted Canada's future growth and development" -- like every other high-risk flotation of the day, he might have added.¹³ The controlling shareholders of the companies then being consolidated by Aitken became increasingly concerned and they appealed to him to keep a lower profile. By the end of October, 1909, Aitken felt obliged to drop other consolidation schemes that had been in the works for months:

I do not believe I can take any interest in any more consolidations at the present time. My friends have asked me not to make any further consolidations, because it is thought that any further developments along other lines by me will tend to interfere with the consolidations already accomplished... I do not think further consolidations would be favorably received, and would result in considerable outcry.¹⁴

By late 1910, the merger movement that had commenced with the Amalgamated Asbestos and Canada Cement consolidations had turned into a flood, and the Laurier government came under increasing pressure to do something about the situation. In November of that year, the cement merger began to be criticised in the House of Commons by the opposition. The Laurier

¹³BBK, letter, Aitken to Killam, 20 November 1909, A/36/Killam.

¹⁴BBK, letter, Aitken to A.W. MacArthur of the Standard Ideal Company, Ltd., 30 October 1909, A/37/misc Mc-Mac.

government responded by promising remedial measures in the current Parliamentary session.¹⁵ Aitken's business colleagues became nervous about the possibility that this new legislation would directly attack Canada Cement and Canadian Car and they reminded Aitken, who at times appeared infuriatingly oblivious to the political dangers involved, to keep himself out of the public eye.¹⁶

The following month, a deputation of nearly 1,000 farmers representing the major farm organisations of Canada arrived in Ottawa, virtually storming the House of Commons, to place their petitions before the Laurier government.¹⁷ The following day, Laurier reassured one of his Members of Parliament that he intended to keep the tariff on cement despite the immense political pressure for its removal but told his political ally "to gauge public sentiment very closely in your section of the community. The matter is not free from some danger, though I think we may be able to overcome it." He then reflected that "[t]he resolutions presented by the farmers yesterday are so exaggerated that I believe they would rather defeat

¹⁵ HCD, 16 November 1909, pp. 106-07.

¹⁶ BBK, letters, Aitken and H.C. Blair, 22 November 1909 and 24 November 1909, A/30/misc Ba-Bl; letters, Thomson and Butler, 26 November 1909 and 27 November 1909, and Butler to Aitken, 27 November 1909, A/30/misc Bo-Bu.

¹⁷ Canadian Annual Review, 1910, pp. 328-335.

themselves."¹⁸ Nevertheless, Laurier recognised the political danger of his government not taking some action and in a dramatic reversal a few months later decided that the tariff on cement would have to be reduced after all.¹⁹

In January, 1910, Laurier's new Minister of Labour, Mackenzie King, presented a novel piece of antitrust legislation in the House of Commons entitled the Combines Investigation Act which was ostensibly intended to deal with all forms of monopoly.²⁰ The opposition continued to clamour for Canada Cement's prosecution under the old anti-combines law but King refused to commit the government.²¹ Instead, during the second reading of the new legislation, he held up Canada Cement as an example of the benefits which could flow from big business. The opposition countered by using Canada Cement as the chief

¹⁸ Laurier Papers, NAC, MG 26, G, Reel C900, letter, Laurier to Miller, 17 December 1910.

¹⁹ By January, 1911, a tariff agreement had been reached between Canada and the United States in which a majority of natural products would be admitted free (Schedule A) and the remainder, admitted at lower or identical duties (Schedule B). A very few manufactured products from Canada were to be allowed into the United States at a lower rate (Schedule C) while duties on a few American manufactures, most notably cement, were to be significantly reduced (Schedule D). The agreement and the reduction in the cement tariff were never implemented as a consequence of the Liberal's election defeat in September 1911. Canadian Annual Review, 1911, pp. 28-30; M.B. Percy, K.H. Norrie and R.G. Johnston, "Reciprocity and the Canadian General Election of 1911", EEH, vol. XIX, no. 4 (October 1982).

²⁰ HCD, 18 January 1910, pp. 2057-2060.

²¹ HCD, 24 January 1910, pp. 2296-2297.

illustration of the evils produced by mergers.²²

The legislation passed into law but was not used against Canada Cement nor any of the other numerous amalgamations which sprang into existence during the merger wave. Nor was there any indication that Laurier wanted the legislation used against such companies. His minister, Mackenzie King, although he appeared to be interested in the issue of combines and had worked hard producing a very complex and subtle piece of legislation, was not a trust buster. On the contrary, he greatly admired big business. He had become familiar with the organisation and operation of modern industrial enterprises while studying political economy at Harvard University before his entrance into Canadian politics.²³ In the process, Mackenzie King became an advocate of large organisations in general and big business in particular and he had no intention of drafting a law that would impede what he saw as a natural and progressive development. He viewed American antitrust law as basically mistaken in that it attacked all large organisations destroying the good "monopolies" along with the bad, as he explained to his colleagues in Parliament:

²²HCD, 12 April 1910, pp.6802-6934.

²³R.M. Dawson, William Lyon Mackenzie King: A Political Biography (London, 1958), vol. 1, pp. 198-205. F.A. McGregor, The Fall and Rise of Mackenzie King: 1911-1919 (Toronto, 1962), p. 40.

The legislation differs...from legislation of a like nature which has been introduced in other countries in that it is not aimed against combines or mergers as such, but rather against the exercise...of the powers which they get from that form of organization. This is an age of organization and not merely of local or national competition but of world-wide competition and any industry or any nation which wishes to hold its own in the field of competition must do much in the way of perfecting organization. A highly organized industry should, from the facilities it has of improving production, lead to greater efficiency and economies of one kind and another, which should...benefit the consuming public.²⁴

Relying mainly on investigation and publicity rather than punitive measures, the Combines Investigation Act required a complaint alleging an abuse of monopoly power to be laid by at least six persons. This would be followed by a judicial review determining if prima facie grounds existed for the allegation, and, if there were such grounds, a Board would then be organised to investigate and report. By not providing any administrative machinery, Mackenzie King ensured that the costs of the complex procedure rested on the applicants thus safeguarding companies against frivolous complaints. In fact, the legislation was only used once in nine years because of its complexity and expense. This did not disturb King or the Conservatives who were swept into office the following year. The majority of politicians of both parties simply had no commitment to the objectives of

²⁴ HCD, 18 January 1910, p. 2057.

antitrust policy.²⁵

The merger movement continued unabated during 1910 and 1911 and Laurier was increasingly pestered about Canada Cement, stock-watering and promoters' profiteering.²⁶ By this time, however, Laurier was absorbed in finding a more universal solution to the political problem of calming agrarian dissent while at the same time retaining the support of manufacturers in central and eastern Canada. Political circumstances in the United States had finally shifted enough to make trade reciprocity with Canada not only acceptable but desirable. On the Canadian side, the explosion of agrarian dissent in 1910 seemed to make free trade with the United States, at least in natural products, farm implements and cement, a political necessity. A prospective agreement was presented in Parliament in January, 1911. To keep the manufacturers happy, the agreement was limited to natural products with two exceptions intended to keep the agricultural interests satisfied; the tariff on agricultural machinery and

²⁵See M. Bliss, "Another Anti-Trust Tradition: Canadian Anti-Combines Policy, 1889-1910", op.cit.; P.K Gorecki and W.T. Stanbury, op.cit.; and R.T. Naylor, op.cit.

²⁶Upon being asked again why his government was refusing to remove the duty on cement, Laurier petulantly sent one Western farmer a copy of the Combines Investigation Act asking the man why he along with others who had apparently suffered so much from the cement combine had not taken advantage of the legislation. Laurier Papers, NAC, MG 26, Reel C900, letters, J.R. Dutton of Riverside Farms, Manitoba, and Laurier, 8 February 1911 and 14 February 1911.

portland cement would be removed.²⁷

Laurier had hoped that the Combines Investigation Act would temporarily protect his government against attacks for inaction on the "combines" and stock-watering until the tariff agreement was ratified by both governments. The strategy was not entirely successful. In February, 1911, demands were made for a Royal Commission of investigation into the connection between mergers and inflation as well as into the damage caused by high-risk methods of flotation.²⁸ Robert Borden, the leader of the Conservative opposition, attacked government inaction on the merger question. He pointed out two types of consolidation that were, in his opinion, prima facie injurious: "those which are created for the purpose of excluding competition and raising prices, and those the capitalization of which is very exaggerated."²⁹

²⁷HCD, 26 January 1911, pp. 2440-2476; L. E. Ellis, op.cit., pp. 11-70; C.P. Stacey, Canada and the Age of Conflict: A History of Canadian External Policies, 1861-1921 (Toronto, 1977), pp. 122-149; R.C. Brown and R. Cook, Canada, 1896-1921: A Nation Transformed (Toronto, 1974), pp. 162-187.

²⁸HCD, 2 February 1911, pp. 2927-2940. It was popularly believed that the inflation of the period was directly related to the higher commodity prices imposed by mergers. This was given scholarly acceptance with the appearance of a popular yet "scholarly" book by J.J. Harpell entitled Canadian National Economy, the Causes of High Prices and Their Effect Upon the Country, MT, 25 March 1911, p. 1232.

²⁹HCD, 2 February 1911, p. 2956. Borden only wanted to embarrass the government. He was a personal friend of Max Aitken and an accomplished corporate lawyer familiar with high-risk finance and sympathetic to its methods.

Although King claimed that the Combines Investigation Act was sufficient to deal with all the abuses of monopoly power, the opposition increasingly shifted focus, urging the government to pass securities legislation to deal with the abuses of promoters. To "avoid the evils of high finance" as exemplified in the United States, Canada should, they argued, "regulate the issue of securities by all public companies."³⁰ Questions then began to focus on the Stelco merger.³¹ On 25 May 1911, the bombshell fell directly on Max Aitken when a senior officer and major shareholder of Canada Cement went public with his allegations of profiteering. The matter immediately became a sensation in the press.³² Editorials viciously attacking Canada Cement and Aitken began to appear throughout the country. The Toronto Globe asserted that Canadians in all parts of the nation were up in arms against the Canada Cement merger and that the feelings of the people warranted "drastic action by the Government."³³

5.2 The Fleming assault: the reality of business and politics

Mackenzie King and the Combines Investigation Act turned out

³⁰HCD, 2 February 1911, pp. 2950-2951.

³¹HCD, 19 July 1911, p. 9690.

³²BBK, Montreal Star, 12 May 1911, G/19/Borden correspondence

³³BBK, H/81/newspaper cuttings, various newspapers. Quotation is from a comment on the Toronto Globe attack in the Montreal Star, dated 26 May 1911.

to be far less of a threat to Aitken than dissatisfied business colleagues. The danger emanated from the hard-nosed nature of the merger negotiations themselves. Aitken was successful because of his ability to make generous promises to prospective merger companies and then pay the lowest prices possible for their properties. Initial figures were invariably deflated as more careful assessments were made of asset value and additional amounts were deducted for depreciation. Moreover, in the later stages, Aitken pressured controlling shareholders to accept securities in the new company rather than cash as initially agreed-upon.³⁴ Aitken became more forceful as the vendors became increasingly committed to the merger and could only with the greatest of difficulty and expense quit the negotiations. Aitken played the game harder and shrewder than any promoter of his day. This was bound to create disagreements and mistrust particularly when the amounts and the terms that some of the rival firms were "coming in at" were purposely concealed from the other firms.³⁵

In the cement merger, the opening offers, made contingent on adjustments for depreciation, were so generous that one company

³⁴In the Canada Cement merger, Aitken decided that, while cash would be offered for the initial properties, the promotional syndicate would pay no more than \$4.5 million in cash. Any further expenses for properties had to be paid in Canada Cement stock rather than cash. BBK, letter, Aitken to Thorn, 27 August 1909, A/32/ Canada Cement.

³⁵BBK, G/3/examinations for discovery of J.S. Irvin and Hugh Fleming, 23 November 1912, 8 October 1913, and 24 October 1913.

official referred to Aitken and the promotional syndicate as the "gold wagon".³⁶ Upon investigation of the value of inventories as well as the condition of the plant, downward adjustments were made by Aitken.³⁷ The initial euphoria quickly gave way to suspicion, envy and mutual recriminations as some owners felt that they were being taken in at an unfair value relative to the generous remuneration their rivals were thought to be receiving.³⁸ And then there were the inducements -- the "secret" payments of common stock that were made by the promotional syndicate to certain officers of certain companies for convincing their fellow directors and shareholders of the advisability of giving up their corporate autonomy in favour of a consolidation.³⁹ The officers and controlling shareholders left

³⁶BBK, letter, R. Richards of the Canadian Portland Cement Company to Aitken, 19 August 1909, A/32/Canada Cement, Canadian Portland Cement: "Hope you are going along successfully and that no one is letting the gold wagon pass without taking their share."

³⁷BBK, letters, Aitken to Canadian Portland Cement and Lehigh Portland Cement, 4 October 1909, A/32/Canada Cement; letters, Cahan to Aitken, 10 October 1909, 23 November 1909, A/31/Cahan.

³⁸BBK, letter, General Manager, Belleville Portland Cement Company, to Aitken, 12 October 1909, A/32/Canada Cement, Belleville Portland Cement Co.

³⁹J.S. Irvin, the managing director of International Portland Cement and the industry "insider" working on behalf of the promotional syndicate, wrote the following to Aitken after his meeting in New York with Mr. Kelly, the President of Vulcan Portland Cement: "Mr. Kelly I find to be a gentleman, a shrewd business man, but I fancy, not above looking for a little inside profit." BBK, letter, Irvin to Aitken, 5 June 1909, A/32/Canada Cement, J.S. Irvin.

out of such arrangements understandably felt betrayed upon discovering the existence of such payments.

The ownership interests of Sir Sandford Fleming, Canada's most famous railway surveyor and engineer and a director in the Canadian Pacific Railway, were at the core of the cement merger. An old man by 1909, Sir Sandford was the nominal president of the International Portland Cement, Western Canada Cement and Coal, and Eastern Portland Cement companies, while his ownership interests were represented by his son, Hugh Fleming. The cement companies themselves were being run by one of the most talented cement managers in Canada, Joseph S. Irvin. The International cement factory was one of the most modern and technically advanced cement plants in Canada.⁴⁰ The Eastern Portland Cement plant was just being constructed in 1909 with the most modern cement manufacturing equipment available and other firms were apprehensive about the competition they would soon be facing from the newest plant in the Dominion.⁴¹

But not was all well with the Fleming interests. Western Canada Cement, known as the Exshaw company because of its

⁴⁰MT, 17 February 1905, p. 1092; International Portland Cement Co., Limited, Souvenir of the History, Development and Future of Portland Cement (Ottawa, 1909).

⁴¹BBK, letter, J.M. Kilbourn, President of the Lakefield Portland Cement Co. to Aitken, 15 July 1909, A/32/Canada Cement, Kilbourn.

location at Exshaw, Alberta, had never recovered from a series of strikes during 1907-08. It was now overly burdened with interest payments to its British bondholders and outstanding loans to the Bank of Montreal. In 1909, Exshaw was on the verge of bankruptcy. The fact that Exshaw, like the International company, was technologically one of the foremost cement plants in Canada, made it that much more desirable to rescue.⁴² Irvin decided that an amalgamation with the other Fleming cement enterprises was necessary to save Exshaw. In this way, Exshaw could draw on the financial strength of International and Eastern until it was back on its feet and could take advantage of its industrial capacity.

Irvin called upon Exshaw's largest creditor, the Bank of Montreal, to elicit its opinion concerning the merger rescue scheme. The Bank supported Irvin's proposal seeing in it the possibility of salvaging its own investment. Sir Edward Clouston, the Bank of Montreal's general manager, suggested, however, that Irvin seek the assistance of a professional financial promoter to put together the merger. He recommended Max Aitken.⁴³ Clouston, in association with Sir William van

⁴²MT, 10 August 1906, p. 195.

⁴³BBK, G/3/examinations for discovery. This is Irvin's evidence in his examination for discovery in a law suit launched by the Bank of Montreal against Irvin, Sir Sandford Fleming and Hugh Fleming on their personal guarantees for the Exshaw company's indebtedness. Aitken claimed that he was approached by Irvin before the Bank of Montreal was involved. This is unlikely given the Bank of Montreal's interest in the Exshaw company and

Horne, the one-time general manager of the Canadian Pacific Railway, had previously dealt with Aitken in ventures such as the Demerara Electric Company, and had come to the conclusion that he was the nation's most able financier despite his young age.

Aitken took control of the merger and turned it into a far more ambitious project. Moving Irvin to the sidelines, Aitken invited further companies to join the merger. Everything went relatively smoothly until Aitken refused to go along with the valuation placed on the Exshaw company by Irvin and the Flemings thereby revealing their conflicting objectives. Aitken wanted the outcome of the merger to be the strongest cement company possible and any property that entered at a value substantially above its real worth would weaken the whole. On the other hand, Irvin and the Flemings only wanted a merger because they saw it as a way of saving the Exshaw company. They refused to accept Aitken's agenda. With all the other agreements in place, Hugh Fleming and Irvin held up agreement on the International and Eastern companies to force Aitken into immediately accepting the virtually bankrupt Exshaw company into the merger at a generous price. Aitken refused. Instead, he pressured International's shareholders into accepting a securities-only payout even though some cash had originally been promised. In addition, Aitken forced Irvin and Fleming to accept less for the Eastern

its close relationship with Aitken during the course of the merger. BBK, letter, Aitken to Doble, 29 January 1913, G/3/7.

properties. He then delayed the date on which the Exshaw company was to enter the merger thus further weakening its already fragile position.⁴⁴

This infuriated Irvin and Hugh Fleming who then called upon the assistance of Fleming's aged father, Sir Sandford, a man whose reputation the promotional syndicate had already used in making him the Honorary President of Canada Cement. Irvin and the younger Fleming urged Sir Sandford to use all his political and financial connections to pressure Aitken and the promotional syndicate into buying Exshaw.⁴⁵ In February, 1910, Sir Sandford began to approach his fellow Canada Cement directors about the situation. To his surprise, he found that they implicitly supported the actions of the promotional syndicate; Canada Cement was in no hurry to purchase the bankrupt Exshaw plant at an inflated price. Realising this, Sir Sandford changed his tactics and tried to embarrass his fellow directors into immediately purchasing the Exshaw plant by alleging that the organisation of the company itself was based on a fraud.⁴⁶

As Sir Sandford began to make inquiries about the actions of

⁴⁴BBK, letter, Aitken to A.R. Doble, 29 January 1913, G/3/Fleming suit.

⁴⁵BBK, G/3/examinations for discovery, evidence of Hugh Fleming dated 8 October 1913, and evidence of J.S. Irvin dated 23 November 1912.

⁴⁶Sandford Fleming Papers, AONT, MU 1051, Envelope 49.

the promotional syndicate, Canada Cement's executive directors and general manager took defensive action and refused to divulge further information. In a fury, Sir Sandford sent formal letters to the President and the Vice-President of Canada Cement protesting against the hiding of information from a fellow director. He demanded an immediate investigation of the manner in which the company had been organised by the Bond and Share Co. -- the enterprise incorporated and managed by Aitken to organise the Canada Cement merger. Before the general shareholders meeting in March, 1910, Sir Sandford refused to accept the Report of the Board of Directors. He argued that the first line of the company's balance sheet, stating that the cost of the properties entering the company was \$27 million, was patently false and should be amended. His fellow directors overruled his objection and the Report was adopted and presented to the shareholders. As news of the dispute began to leak to the press along with Sir Sandford's determination to continue asking questions, the company finally agreed to the appointment of two lawyers to investigate Aitken's handling of the merger.⁴⁷

⁴⁷In one respect, the inquiry could hardly have been perceived as impartial by Sir Sandford, Hugh Fleming and Joseph Irvin. The two lawyers appointed to conduct the investigation were H. Almon Lovett and John W. Orde. Lovett was an old and close associate of Aitken as well as Canada Cement's solicitor. Orde had acted for Irvin, Fleming and International Portland Cement during the protracted merger negotiations but was subsequently retained by the Bank of Montreal in its suit against Sir Sandford, J.S. Irvin, Hugh Fleming and the Exshaw company for the recovery of money owed to the Bank by Exshaw and its personal guarantors. Sandford Fleming Papers, AONT, MU 1051, Envelope 49, printed material contained in "letter from Sir Sandford Fleming with his resignation as Honorary President". BBK,

At the conclusion of the internal inquiry in the summer of 1910, Canada Cement was advised that no basis existed for a legal action by Canada Cement against the Bond and Share Co. Aitken and the promotional syndicate had received just over \$21 million par value in securities; this was worth, in real terms, approximately \$13 million. Out of this amount, the Bond and Share Co. had paid \$7 million in cash for the properties entering the merger, and transferred another \$1.77 million in cash to Canada Cement for working capital. This Sir Sandford recognised but what he refused to accept was that much of the common stock did not remain in the hands of the Bond and Share Co. -- it had been shot through to the many members of the underwriting syndicates who, in turn, passed on a large percentage to brokers and finally to investors who received a 25 per cent bonus of common stock for every preference share purchased.⁴⁸ Sir Sandford either did not understand the principles of high-risk finance or found it convenient to feign ignorance. At any rate, he insisted that the Bond and Share Co., in particular Aitken, had misappropriated all of the common shares.

G/3/examinations for discovery, evidence of J.S. Irvin dated 23 November 1912, and evidence of Hugh Fleming dated 8 October 1913.

⁴⁸ Sandford Fleming Papers, AONT, MU 1051, Envelope 49, letter, Sir Sandford to W.C. Edwards, President, Canada Cement Company, 13 February 1911.

In reality, the profit was considerably less. It appears that the Bond and Share Co. itself may have realised no more than \$25,000 profit on the promotion.⁴⁹ Other evidence indicates that the RSC received \$2 million par value worth of common stock, approximately \$400,000 in real terms after Canada Cement's stock was listed on the exchanges, for guaranteeing the sale of \$4 million of bonds. In addition, Aitken received \$378,500 par value in common stock for acting as an underwriter in his personal capacity as well as \$600,000 par value common stock in his capacity as a trustee for other underwriters who preferred not to be identified by other members of the promotional syndicate.⁵⁰ Few in the financial world, particularly Aitken, considered this a generous remuneration given the substantial risk undertaken by the organisational and distributional syndicates.⁵¹ All the other Canada Cement directors refused to accept Sir Sandford's contention that Aitken and the Bond and

⁴⁹BBK, letter, Aitken to V.M. Drury, 1 April 1912, G/3/Fleming suit.

⁵⁰LSE, MS 18,000/153B/335, application to grant a quotation for \$19 million ordinary shares of Canada Cement Company, Limited dated 24 May 1911, list of common shareholders dated 1 February 1911.

⁵¹BBK, letters, Aitken to V.M. Drury, 1 April 1912, and Aitken to A.R. Doble, 1 April 1912, G/3/Fleming suit.

Share Co. had fraudulently misappropriated over \$12 million.⁵²

As anger mounted over Sir Sandford's incessant attacks on Canada Cement, the directors then decided to circumvent Irvin and the Flemings and obtain the Exshaw property in another manner thus escalating the conflict. Most of Exshaw's debentures were actually held in Britain. Since 1908-09, when Exshaw first encountered serious financial problems, an English Bondholders' Committee had been established to protect the interests of British investors. Canada Cement began to negotiate directly with the Committee proposing that they exchange their debentures at somewhat less than par for Canada Cement bonds. Upon discovering these negotiations, Sir Sandford made a counter-proposal. A new company would be incorporated to take over the British-held debentures at par and, with money derived from a new issue of securities, Exshaw would slowly dispose of its indebtedness and become profitable. The English Bondholders' Committee rejected Sir Sandford's proposal in favour of Canada Cement's offer. The deal was completed in early 1911 at which time the Exshaw company was liquidated and the Flemings and Irvin were left owing money to the secured creditors, in particular the

⁵²Sir Sandford later lowered this figure to \$2.878 million after taking into consideration the existing market value of the securities and the amount paid out in cash by the promotional syndicate. Sandford Fleming Papers, AONT, MU 1051, Envelope 49, letter, Sir Sandford Fleming to W.C. Edwards, President, Canada Cement Company, 5 January 1911.

Bank of Montreal.⁵³ During liquidation, the Exshaw cement plant was sold by the Sheriff to Canada Cement for the bargain price of \$1 million.⁵⁴

Sir Sandford blamed Aitken for everything that had transpired. He turned to the political arena in a last desperate effort to force some kind of settlement and to seek revenge. Sending his booklet of allegations to Prime Minister Laurier, Sir Sandford stated that: "I have under advice omitted the name of the person who has pocketed so many millions wrongfully (viz. William Maxwell Aitken)."⁵⁵ Spotting a potential problem and out of respect for the old man, Laurier immediately agreed to see Sir Sandford but could not assuage him.⁵⁶ When his request failed, Sir Sandford demanded that Laurier order a public investigation

⁵³LSE 18000/153B/335, 1910-11 correspondence of the Trustees for the English Bondholders of the Western Canada Cement and Coal Company, Limited, in application to grant a quotation for \$19 million ordinary shares of Canada Cement Company, Limited dated 24 May 1911; Sandford Fleming Papers, AONT, MU 1051, Envelope 49. Aitken acted as Canada Cement's representative in the negotiations with the Trustees of the English Bondholders' Committee; BBK, 1910 correspondence, Aitken and Dunsford, H/85/Western Canada Cement controversy. Aitken used the services of lawyer and friend R.B. Bennett to keep him posted on Exshaw from Alberta. Bennett Papers, NAC, MG 26, K, Reel M3174, telegram, Aitken to Bennett, 23 June 1910; letter, Aitken to Bennett, 31 August 1910.

⁵⁴MT, 11 February 1911, p. 648.

⁵⁵Laurier Papers, NAC, M.G. 26, G, Reel C902, letter, Sir Sandford Fleming to Laurier, 5 April 1910.

⁵⁶Laurier Papers, NAC, M.G. 26, G, Reel C902, letter, Laurier to Fleming, 7 April 1911.

into the organisation of Canada Cement by laying his allegations of fraud before the Parliamentary Private Bills Committee on 12 May 1911.⁵⁷ At first, the government announced that it was going to order the inquiry, but reversed itself soon after. Many prominent Liberals had supported Aitken in his struggle with Sir Sandford and it is possible that Laurier was afraid of where an investigation might end if there was even a drop of truth to the allegations.⁵⁸

Laurier also had more pressing problems that summer. He was fighting an election on the issue of implementing his reciprocal trade agreement with the United States. Most of the opposition to the agreement, and hence to his Party's re-election, came from the powerful manufacturers and financiers of central Canada, people like Aitken and his business associates. Aitken was particularly dangerous. He had poured his own money into a periodical he created specifically to fight the reciprocity agreement with the United States. Aitken and his financial and industrial associates were at one on the issue of tariffs. They wanted substantial protection against American imports for private and, in some cases, for ideological reasons. Endorsing the ideas of Joseph Chamberlain, they argued for an Imperial zollverein. Aitken and his colleagues were dubious of Laurier's

⁵⁷BBK, article from the Montreal Star, 12 May 1911, G/19/Borden.

⁵⁸BBK, telegram, Doble to Aitken, 18 May 1911, H/80/Doble.

commitment to the Empire and his proposed trade agreement with the United States only served to confirm their suspicions.

Aitken, himself, believed that Canada was an integral and permanent part of the Empire and he drew no distinction between being a citizen of Canada or a citizen of Britain -- they were one and the same. Following the Stelco merger in July, 1910, Aitken travelled to Britain on business. His British associates, such as Ian Hamilton Benn and Bonar Law, were members of the Unionist Party with seats in the House of Commons. The men had enough respect for Aitken that they encouraged him to find a suitable seat and run for the Unionist Party. This he did and before the year was out, Aitken became the elected member for Ashton-under-Lyne and one of a small group of colonials who had succeeded in entering the House of Commons.⁵⁹ He viewed this as a way to gain some political experience before entering the rough and tumble of Canadian politics.

Aitken and the leader of the Conservative opposition, Robert Borden, kept in touch in the months preceding the Canadian election. Borden assumed that Aitken would immediately give up his seat in Britain and come to Canada to fight the election on behalf of the Conservatives and become the leader of the Maritime

⁵⁹Aitken's election is covered admirably by A.J.P. Taylor in Beaverbrook (London, 1972), pp.43-68.

wing of the Party.⁶⁰ Aitken and his Canada Cement associates were worried about the bad publicity the company was receiving as a consequence of Sir Sandford's campaign and Laurier was concerned about Aitken being directly involved in the coming election fight. A deal was struck as disclosed in this letter to Aitken:

...Brierly is to go to Ottawa and assure Sir Wilfred [Laurier] and his ministers that you have absolutely given up any idea of entering Canadian politics and have decided to accept a very responsible position in the Unionist party in England. This he thinks will get at the root of the whole evil as he states they have been very much frightened at Ottawa that you were coming out to take charge of New Brunswick and Nova Scotia on behalf of the Conservative party. He further states the Government do not want an investigation in the Canada Cement Co. as they do not know where these investigations would end. In fact they are afraid of an investigation and as soon as they know that there is no possibility of your entering Canadian politics they will do everything to prevent an investigation.⁶¹

Aitken had previously attempted to defend himself and the promotional syndicate publicly during the Fleming attack but had repeatedly been warned not to do so. Now, he would be required to keep permanently silent. Reluctantly he followed the advice of his Canadian colleagues and accepted their statements that the

⁶⁰BBK, letters, Borden to Aitken, 9 May 1911, 24 May 1911, G/19/Borden.

⁶¹BBK, letter, Drury to Aitken, 13 July 1911, G/19/Canada Cement.

whole controversy would disappear within weeks.⁶² All miscalculated the long term consequences of Sir Sandford's campaign, however, and the repercussion that would flow from Aitken not answering Sir Sandford's charges. The Conservatives went on to win the election without Aitken's assistance and no investigation was ever ordered. Although Canada Cement soon recovered from the bad publicity, Aitken's reputation would remain permanently tarnished. He could never enter Canadian politics as his name was now synonymous with fraudulent profiteering. He decided to permanently reside in Britain where the rumours of his Canadian "misdeeds" were of lesser consequence.

⁶²BBK, letter, Drury to Aitken, 13 July 1911, G/19/Canada Cement; letter, Aitken to Doble, 20 June 1911, H/80/Doble.

CHAPTER SIX

THE PURPOSE AND STRUCTURE OF A NEW SERIES OF MERGER STATISTICS FOR CANADIAN MANUFACTURING INDUSTRY, 1885-1918

6.1 Mergers in comparative economic history

Mergers appear to be an integral part of the transformation of the most advanced industrial nations taking place at the turn of the century -- a metamorphosis referred to as the "second industrial revolution." This phrase, as argued in the previous Chapters, encompasses abrupt technological, organisational and financial changes. Mergers were in fact a product of all three factors. High through-put technology required larger plants and more sophisticated organisations -- a need which could be immediately satisfied through rapid external growth. Immediate demands for large amounts of capital to meet the high fixed costs imposed by new technology produced a demand for security financing and resulted in the separation of ownership from control. While some acquisitions and mergers were a response to the technological and organisational needs of the day, as they continue to be today, the majority of the great multi-firm consolidations of the gilded age were often rooted in the impatient desire to be immediately large and noticeable and thereby grab the attention of the average investor.

Some scholars have concluded that the sudden bursts of

external corporate growth we call merger waves accelerated the development of the modern industrial economy. According to Ralph Nelson, mergers were a "basic force" in moulding the industrial structure of twentieth century America. Nelson generated a new series of merger statistics for American companies covering the period, 1895-1920, specifically to analyse the impact of the turn of the century spurt of consolidations -- the Great Merger Wave -- on the existing structure of the corporate economy of the United States. Nelson concluded that the Great Merger Wave was the turning point in the evolution of the American economy. It transformed "many industries, formerly characterized by many small and medium-sized firms, into those in which one or a few very large enterprises occupied leading positions" and laid "the foundations for the industrial structure that has characterized most of American industry" ever since.¹

On the other hand, Alfred Chandler has singled out vertical integration rather than mergers as the operative factor in this fundamental transformation. The inference is that mergers played a relatively neutral role in the emergence of the American corporate economy. Most mergers involved horizontal integration but those that survived were found to have adopted a strategy of vertical integration after their brief burst of external growth. This integration, in a backward direction to secure inputs and in

¹R. Nelson, Merger Movements in American Industry, 1895-1956 (Princeton, N.J., 1959), p. 5.

a forward direction into distribution and marketing, was more often achieved through more gradual, internal expansion. Although accelerating this process for some firms and at certain times, mergers were not essential to the emergence of the modern business enterprise.²

Both Chandler and Nelson paint too black and white a picture of the consequences of the Great Merger Wave. Certainly, as Chandler states, most of the mergers involved mainly horizontal as opposed to vertical integration.³ Nevertheless, varying degrees of vertical integration were achieved in most mergers even while they can be characterised as predominately horizontal. Even in cases where a negligible amount of vertical integration was produced, the consequent scale of the new enterprises necessitated such profound organisational and technological changes that they were pushed into a strategy of vertical integration in order to survive. Moreover, this aspect of mergers was often predicted by the organisers themselves.⁴

²A.D. Chandler, The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass., 1977), pp. 331-39.

³This applies as much to Canada as to the United States. Over 80 per cent of all mergers between 1885 and 1918 were horizontal in nature. See Table 24 in Appendix D.

⁴V.P. Carosso, The Morgans: Private International Bankers, 1854-1913 (Cambridge, Mass., 1987); H.O. O'Hagan, Leaves from My Life, 2 vols. (London, 1929). Max Aitken foresaw the organisational difficulties posed by the 11 firm Canada Cement merger and procured the most able "outside" professional manager he could find for the company. As discussed in Chapter Four, Canada Cement immediately embarked upon a strategy of backward and forward integration. BBK, 1909 correspondence, Aitken and

Although firms that remained horizontal consolidations were quickly smothered by new competitors, the striking fact remains that most mergers evolved into successful enterprises that shaped the modern American corporate landscape. In Nelson's survey of the 100 largest American corporations of 1955, 63 had gone through "important" mergers at some time in their history. Of these, 38 had their major merger before 1916, 20 of which could be traced directly back to the Great Merger Wave of 1898-1902. This contrasts with a mere 11 companies which trace their origins to the merger wave of the 1920s -- which, in quantitative terms, was larger than the Great Merger Wave. This also compares favorably with the fact that only 37 of the 100 largest corporations of 1955 did not have a demonstrably important merger in their history. According to Nelson's definition, an important merger includes only those that give a company a leading position in its industry. This definition rejects all mergers of indeterminate importance; Nelson thus ensures that he does not overestimate the impact that mergers likely had on the growth of industrial corporations.⁵

While statistically correct, Nelson may be overstating his case by suggesting that the rapid external growth of the Great

F.P. Jones, G/19/Canada Cement.

⁵R. Nelson, op.cit., p. 4. Also see S. Livermore, "The Success of Industrial Mergers", QJE, vol. 4, no. 4 (November 1935).

Merger Wave "laid the foundation" for the industrial structure of twentieth century America. Mergers were merely one link in an intricate process. Based on the evidence of the Canadian experience already presented, it is submitted that the great multi-firm consolidations of the gilded age were a response to the demands of investors for the securities of large manufacturing enterprises -- particularly those perceived to be capable of wielding market power. Promoters catapulted a proposition into a shape acceptable to investors by melding together several similar enterprises, none individually of interest to these same investors. The chain of causation ran from technology to organisation to finance, with mergers to a lesser or greater degree being symptomatic of all three stages but with multi-firm consolidations most closely related to the factor of financial change.

By virtue of a wealth of American merger statistics, gathered mainly in response to antitrust laws, conclusions "about mergers and structural change have tended, faute de mieux, to be derived from the American experience."⁶ The poor quality and inconsistent nature of empirical data on merger activity in other advanced industrial nations had previously precluded fruitful comparisons with the American experience. However, recent

⁶L. Hannah, "Mergers in British Manufacturing Industry, 1880-1918", Oxford Economic Papers, vol. 26, no. 1 (March 1974), p. 1.

empirical studies on early merger activity in Britain and Germany now permit some point of comparison.

Leslie Hannah has generated a relatively comprehensive series of merger statistics for Britain during the gilded age.⁷ The results indicate a close correspondence with the American evidence in some important respects. Britain experienced a dramatic increase in merger activity at the end of the nineteenth century, the peak years of which were 1898-1902. Multi-firm consolidations comprised the bulk of this activity. This burst of activity corresponded with higher than average stock prices. There was one crucial difference, however. The Great Merger Wave in America "produced" a fundamental change in the nation's industrial structure whereas the majority of British mergers tended to preserve the existing structure. Multi-firm consolidations in Britain more resembled the cartel associations they evolved out of than the centrally directed, multidivisional industrial enterprises then emerging out of the American merger wave. It was not until the interwar period, particularly the merger wave of 1925-1929, that the modern industrial enterprise became entrenched in Britain.⁸ Using the 100 largest British

⁷Ibid.

⁸L. Hannah, "Visible and Invisible Hands in Great Britain", Managerial Hierarchies: Comparative Perspectives on the Rise of the Modern Industrial Enterprise, eds. A.D. Chandler and H. Daems (Cambridge, Mass., 1980), and The Rise of the Corporate Economy (London, 2nd ed., 1983), pp. 22-40.

companies of 1948 as the standard, Hannah found that the majority of the chief mergers in British manufacturing industry occurred after the First World War. Of the 51 companies for which a major merger could be clearly identified, 19 were concentrated in the decade of the 1920s.⁹

In 1982, a sample of the larger industrial mergers in Germany during the gilded age was published for the first time in English by Richard Tilly. Although the small-scale sampling technique used by Tilly clearly delineated it from the more comprehensive techniques employed by Nelson and Hannah, the timing of merger activity in the three most important industrial nations was almost identical. Tilly also concluded that, in absolute terms, the German merger wave was smaller than those which occurred at the same time in Britain and the United States. On the other hand, at least based on Tilly's rather disparate sample, the average German merger was twice as large as the average British merger while the average American consolidation was several times larger than either.¹⁰

⁹L. Hannah, "The Political Economy of Mergers in British Manufacturing Industry between the Wars", unpublished D.Phil. thesis, Oxford University, 1974, pp. 143-145 and Appendix D.

¹⁰R. Tilly, "Mergers, External Growth, and Finance in the Development of Large-Scale Enterprise in Germany, 1880-1913", *JEH*, vol. XLII, no. 3 (September 1982).

In qualitative terms, it appears that the impact of mergers in the German case was very similar to the American although fewer German companies were propelled into "commanding market positions" through merger.¹¹ Such market position was available to German firms -- and to British and Canadian firms for that matter -- through cartels, an activity penalised in the United States by a vigorous antitrust policy. The German cartels differed significantly from the British or Canadian variety, however, in that their activities extended beyond price-fixing into shared control of resources and the establishment of selling agencies and "head offices" that coordinated the decision-making of all the cartel members.¹² The end result was often the same kind of vertical integration and multidivisional organisational framework beginning to dominate the American corporate economy. Moreover, the combinations produced in the German cartel system were often "tighter" than the loose affiliations of British firms that banded together within the legal framework of a corporation but continued to be a disparate collection of family firms

¹¹R. Tilly, op.cit.

¹²R.A. Brady, The Rationalization Movement in German Industry (Berkeley, 1933); E. Maschke, "Outline of the History of German Cartels from 1873 to 1914", Essays in European Economic History 1709-1914, eds. F. Crouzet, W.H. Chaloner and W.M. Stern (London, 1969); F. Voigt, "German Experience with Cartels and their Control during Pre-War and Post-War Periods", Competition, Cartels and their Regulation, ed. J.P. Miller (Amsterdam, 1962); J. Kocka, "The Rise of the Modern Industrial Enterprise in Germany", and L. Hannah, "Mergers, Cartels and Concentration: Legal Factors in the U.S. and European Experience", Law and the Formation of the Big Enterprises in the 19th and Early 20th Centuries, eds. N. Horn and J. Kocka (Göttingen, 1979).

without central authority and little planning. Many multi-unit British consolidations, such as the Calico Printers' Association and the Associated Portland Cement Manufacturers Company, at least initially, did not put in place effective managerial or organisational structures unlike their German, American and Canadian counterparts.¹³

It may be significant, however, that in Germany's leading industry, merger rather than cartel produced the winning combination of vertical integration, organisational structure, managerial hierarchy, technological innovation and capital availability.¹⁴ Tilly concludes that mergers in German heavy electrical engineering were "an important part of the recipe" for the success of that industry.¹⁵ In fact, one-half of all German mergers were concentrated in the heavy industry group, a sector in which Germany was a world leader. Thus, mergers, although not playing a leading role as illustrated by the impact of the cartels on industrial structure, appear to have played more than a neutral role in Germany's industrial success. In Britain, mergers before 1914 have at best a neutral impact, and at worse a

¹³L. Hannah, "Visible and Invisible Hands in Great Britain", op.cit., and The Rise of the Corporate Economy, op. cit., pp. 21-26.

¹⁴J. Kocka, "Family and Bureaucracy in German Industrial Management, 1850-1914: Siemens in Comparative Perspective", BHR, vol. XLV, no. 2 (Summer 1971).

¹⁵R. Tilly, op.cit., p. 642.

negative effect, on industrial structure.

The preceding comparisons must be heavily qualified by the incompatible structure of the merger series generated by Nelson, Hannah and Tilly. The German series in particular is different in kind from the British and American series and the comments concerning the quantitative and qualitative nature of German mergers relative to British and American mergers are highly tentative. While the basic structure of the Nelson and Hannah series is compatible, thus permitting more confidence in Anglo-American comparisons, significant variations do exist and these must be constantly borne in mind. Previous merger studies for Canada covering the same period do exist but they were found too sketchy and inadequate to provide a basis of comparison with the Nelson and Hannah studies.

6.2 The limitations of previous Canadian studies

The first large-scale empirical study of Canadian merger activity was conducted by the Dominion Bureau of Statistics (DBS) in 1934-35. Their report was published in 1935 as part of the Royal Commission on Price Spreads.¹⁶ To protect the interests of

¹⁶ Report of the Royal Commission on Price Spreads (Ottawa, 1935). Some background to the Bennett government's decision to launch the Price Spreads Inquiry of 1934 and to place the maverick Conservative H.H. Stevens as its chief investigator can be found in J.R.H. Wilbur, "H.H. Stevens and R.B. Bennett, 1930-34", CHR, vol. XLIII, no. 1 (March 1962).

the companies providing information to the DBS, only the scantiest of information was included in the Royal Commission Report. The annual number of mergers and firm disappearances were tabulated for the period 1900-1933. Value was based on issued capital until 1920 and net assets after that date but no indication of the calculation procedure was provided. No attempt was made to calculate a value for firm disappearances. For the years before 1920 we have no idea whether issued capital includes or excludes bonded debt in addition to equity capital.¹⁷ Moreover, to protect the confidentiality of the firms submitting information to the DBS, the Royal Commission Report did not identify the firms nor did it indicate the type of firms that were included or not included in the sample.

Fortunately, the confidential background report used by the Price Spreads Inquiry Commissioners was located. It discloses the classes of "industry" included as well as the name of each firm along with its "issued capital."¹⁸ Quite naturally, the Commission's industrial classification scheme differs in some respects from the Canadian Standard Industrial Classification (SIC) scheme first introduced in 1948.¹⁹ More significant in

¹⁷Ibid., pp. 28, 331.

¹⁸H.H. Stevens Papers, NAC, MG 27, III, B9, vol. 94, "Consolidations in Canadian Industry and Commerce, January 1, 1900 to December 31, 1933 (Confidential Report)".

¹⁹Dominion Bureau of Statistics, Standard Industrial Classification Manual (Ottawa, 1948).

terms of this study, some of the Commission's classes of industry would not fall within the general category of manufacturing industry as defined in the 1948 SIC or the most recent Canadian SIC.²⁰ These include some mining, quarrying, wholesale and retail trade industries. Thus, the DBS series varies from the Nelson sample of manufacturing and mining industry and the Hannah merger series restricted to manufacturing industry as defined under the relevant American and British SIC schemes.²¹ The term "issued capital" is never defined in the Royal Commission Report or in the Commissioners' confidential background report. Nevertheless, a comparison of the "issued capital" of individual corporations disclosed in the confidential background report with the issued capital figures for the new series presented in Chapter Seven indicates that "issued capital" included bonded debt in addition to equity capital in most cases.²²

²⁰Statistics Canada, Standard Industrial Classification 1980 (Ottawa, 1980). Figures 5 to 21 in Appendix A refer to the 17 major manufacturing industry groups under the 1948 SIC.

²¹"Consolidations in Canadian Industry and Commerce, January 1, 1900 to December 31, 1933 (Confidential Report)", op. cit.. In particular, the DBS series includes service sectors such as grain-handling, amusements, and a third "miscellaneous" catch-all trade category that includes retail operations such as those of the United Cigar Stores Ltd. of Canada.

²²There were a few inconsistencies such as the 1902 Nova Scotia Steel & Coal merger where bonded debt was not included. In addition, the figures were often slightly higher than my own figures indicating that the compiler examined the level of issued capital a year or two after the merger while my procedure was to determine the amount of issued capital within the first six months of merger or less. "Consolidations in Canadian Industry and Commerce, January 1, 1900 to December 31, 1933 (Confidential Report)", op. cit., pp. 11-16.

J.C. Weldon's series of mergers in Canadian industry for the period 1900-1948, first published in 1966, reworked the DBS figures.²³ This sample, like the DBS sample, was limited to those mergers covered in the leading American and Canadian financial manuals and therefore excluded closely-held companies as well as smaller publicly-owned companies. While excluding some types of service industries such as financial enterprises, Weldon's series includes firms classified as public utilities (telephone, shipping lines, together with light, water and power companies) and trade and service companies such as movie theatres, food and clothing stores as well as other retailers. On the other hand, Weldon's series excludes one manufacturing industry -- petroleum refining. This results in a divergence in the number of mergers and firm disappearances between the DBS and the Weldon series.

The other factor differentiating the DBS and Weldon series is the manner in which the value of mergers was estimated. Weldon uses "gross assets (less depreciation) of the enterprises absorbed in the consolidations" but offers the reader little indication of the exact manner in which these "net" asset figures were calculated. Where this could not be calculated, Weldon used "nominal weights". Again, the formula or method used to

²³J.C. Weldon, "Consolidations in Canadian Industry, 1900-1948", Restrictive Trade Practices in Canada: Selected Readings, ed. L.A. Skeoch (Toronto, 1966).

calculate these weights is not disclosed, although this procedure was "required for less than one-fifth of all mergers", mainly concentrated in the early years.²⁴

The DBS and Weldon series do not attempt to cover mergers before 1900. This is unfortunate as this represents the mid-point of the first large merger wave experienced in the United States and Britain and the beginning of the German merger wave. The reason lies more in the inherit limitations of their sources rather than the perceived unimportance of the period. For the pre-1921 period, the DBS relied entirely on the statistics gathered by H.G. Stapells presented in the form of a M.A. thesis in 1922.²⁵ Although some of the mergers in the Stapells series were excluded by Weldon because of their industrial classification and a few mergers not contained in the Stapells thesis were added, the Weldon series depended almost as heavily on Stapells' work as the DBS series. Stapells' list of mergers does not go back before 1900, therefore, the DBS and Weldon series are similarly limited. It appears that Stapells relied mainly on the Annual Financial Review, a Canadian financial manual which only began to be published in 1900.

²⁴Ibid., p. 233.

²⁵H.G. Stapells, "The Recent Consolidation Movement in Canadian Industry", unpublished M.A. thesis, University of Toronto, 1922. Stapells's series of mergers, 1900-1920, are listed by year on pp. 16-34.

In another thesis by A.E. Epp, some data can be found on Canadian industrial mergers before 1900 although the information provided is sparse.²⁶ The number of mergers is tabulated for the years 1890-1913, but the number of firm disappearances is only provided for 1909-1913. Epp limits his estimates of merger value to the latter period as well, thus restricting its usefulness for our purposes. Rather than using issued capital or net assets, Epp uses authorised capitalisation to estimate the value of mergers consummated after 1908 but it is not clear whether debt capital is included as a part of the capitalisation figures.

Even more problematic, Epp's industrial classification varies considerably from the British, American and the other Canadian studies. Epp creates four new broad non-SIC categories of industry: primary, production supply, infrastructure supply, and consumer supply. Some transportation and retailing firms are included in the latter two categories thus moving us beyond the realm of manufacturing industry but still without definitional delimitation. What is included or excluded in these non-manufacturing categories appears to be quite flexible. Epp based his series on the financial press of the day, the only existing source of merger data before 1900, as will be discussed below.

²⁶A.E. Epp, "Cooperation Among Capitalists: The Canadian Merger Movement 1909-13", unpublished Ph.D. thesis, The Johns Hopkins University, 1973.

6.3 The structure of the new series

From the above discussion it should be self-evident that it was necessary to generate a new series of merger statistics for Canadian manufacturing industry to permit a reasonable comparison of Canada's experience with that of other nations, in particular Britain and the United States. The information upon which this series was based came from a variety of sources that included public and private archives in Britain and Canada, financial manuals, government reports, industry histories, individual business histories, theses, and most significant of all, the Monetary Times, the largest and the most "national" financial periodical of the age in Canada. The range of sources was necessarily much wider than that used by Hannah and Nelson to generate their series although, as in this study, both of them relied on one major source of information.

Nelson depended mainly on the Commercial and Financial Chronicle, a financial periodical not dissimilar from the Monetary Times but aimed more at the professional investor than the wider business audience targeted by the Canadian publication. Hannah relied on published business histories for the period, 1880-1918, a source that would have produced few results in the

Canadian context due to the paucity of such material.²⁷ The sources determine the bias of each sample. Nelson's merger series is heavily weighted towards larger public companies with listings on the major stock exchanges. Given that only survivors commission business histories, Hannah's series is slanted towards the more successful firms but is less biased towards publicly quoted companies. The present series is biased towards the large companies deemed newsworthy by the Monetary Times but is less slanted towards publicly quoted companies unlike the Nelson series. For this reason, however, the Canadian series will be more comprehensive than the American and British series as it includes a larger number of smaller firms. This can be corrected in any comparison by eliminating those Canadian mergers falling beneath a given critical size or, alternatively, by temporarily excluding those companies not issuing shares or bonds to the public. This is more important in comparisons with the Nelson series where a cut-off limit exists than in the Hannah series where all mergers, irrespective of size, were included.

The new merger index arrayed in Appendix D was restricted to Canadian manufacturing enterprises. These are defined as companies incorporated under the federal or provincial laws of

²⁷I arrived at this judgment after a careful perusal of P. Craven, A. Forrest and T. Traves's relatively comprehensive "Canadian Company Histories: A Checklist" in Communiqué (Spring, 1981), and after examining a number of company histories both on and off this checklist to determine their usefulness. The results were less than encouraging.

Canada and whose operations are conducted predominantly in Canada.²⁸ An exception was made only in the case of few "free-standing" enterprises which, although organized in accordance with the laws of a jurisdiction other than Canada, had their administrative head offices and operations based entirely in Canada.²⁹ Merger activity involving Canadian firms, if it occurred outside Canada, was excluded. Acquisitions of Canadian enterprises in Canada by foreign firms were similarly excluded.

A minimum of four pieces of data was required for a merger to be included in the new series: the name of the new entity in

²⁸Although Canadian incorporated subsidiaries of American industrial enterprises are included in this definition, it is interesting to note that few of the numerous branch plants established in Canada during the period of the Laurier boom engaged in merger activity. These subsidiaries relied largely on a strategy of internal growth funded by profit retention and the occasional security flotation, rather than on the strategies of external growth of their American parent companies. M Wilkins, The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914 (Cambridge, Mass., 1970); H.G.J. Aitken, American Capital and Canadian Resources (Cambridge, Mass., 1961); H. Marshall, F. Southard and K.W. Taylor, Canadian-American Industry: A Study in International Investment (Toronto, 1936); D.G. Paterson, British Direct Investment in Canada, 1890-1914 (Toronto, 1976). Also see MT, 13 November 1909, pp. 2012-2025 for a list of American branch plants in Canada. At this time, Montreal had 18 branch plants while Toronto, the magnet for such activity in Canada, already had 52 branch companies.

²⁹There were only three of these free-standing companies involved in merger activity which were included in the series: the British Columbia Canning Company merger of 1889, the Anglo-British Columbia Packing merger of 1890, and the North American Pulp and Paper Companies Trust merger of 1915. For a discussion of "free-standing" companies see M. Wilkins, "The Free-standing Company, 1870-1914: An Important Type of British Foreign Direct Investment", EHR, 2nd ser., vol. XLI, no. 2 (May 1988).

a merger-by-consolidation or the name of the corporate acquirer in a merger-by-acquisition; the number of firm disappearances in any single merger; the calendar year in which the merger was completed; and the standard industrial classification of the merger and the firm disappearances. Mergers that did not meet these four requirements were excluded from the series. It was felt that these were the minimum requirements to generate a sample useful in comparisons with the British and American merger statistics. As it is a small-sample study, the German series is too dissimilar to be used as a reference point and will not be referred to except in discussions concerning very general trends.

A multiplicity of information was sought for each individual merger that clearly went beyond what was needed for comparative purposes with the Nelson and Hannah series. This additional data was collected to provide a macro counterpart to the micro study of promotion, finance and mergers contained in the previous Chapters. In Chapter Eight, this macro data will be of aid in determining the general causes of merger waves. For example, the connection between buoyant security prices and mergers has long been recognised by scholars. Nelson found that mergers were more strongly correlated with merger activity than with so-called "economic" variables such as the level of industrial production.³⁰ Hannah came to the same conclusion for Britain

³⁰R. Nelson, op.cit., pp. 117-119.

both in the period 1880-1918 and for the interwar period.³¹ Weldon also noted that the pattern of merger movements in Canada generally followed the same pattern as common stock prices although no test other than a visual inspection of peaks and troughs was performed.³²

This additional data included whether a merger was organised by existing company owners or whether an outside promoter was involved. If the latter was the case, an attempt was made to determine if this promoter initiated the merger or if he was simply called in to arrange new financing after the controlling shareholders had made a final decision to consolidate. The name of the promoters involved were recorded along with their institutional affiliation. Note was made of public flotations immediately following mergers, the location of the flotations, the type and amount of securities involved and the percentage of the total issue thus being sold, the market price of the securities, and the percentage of bonus stock, if any, included in the sale. If the securities were subsequently listed, the names of the stock exchanges and the date of quotation were recorded.

³¹L. Hannah, "The Political Economy of Mergers in British Manufacturing Industry between the Wars", op.cit., and "Mergers in British Manufacturing Industry, 1880-1918", op.cit.

³²J.C. Weldon, op.cit., pp. 230-31.

It was impossible to collect all of the above financial information for the vast majority of mergers; indeed, few of the mergers had even one-half of the financial data searched for. As patchy as the information came out, however, it does provide a substantial data base enriching the case study material discussed in previous Chapters. Moreover, the data illustrates the nature of the connection between mergers, capital markets and the evolution of corporate finance during a period of rapid economic change. The Canadian data also indicates the evolution from local funding of manufacturing to the internationalisation of corporate finance, a process repeated in every industrial nation.

In this study, mergers were defined to include both consolidations and acquisitions hence the use of the phrases mergers-by-consolidation and mergers-by-acquisition. Acquisition involves the purchase of one or more firms by a company which retains its corporate identity. Consolidation implies the combining of two or more firms which submerge their identity into a new corporate entity. The category of consolidation embraces the large number of multi-firm amalgamations so typical of mergers during the gilded age in Canada as well as Britain and the United States. The definition of consolidation used in this study is identical to that used by Hannah, but varies slightly from Nelson's definition of consolidation which involves a minimum of three firms. To accommodate this difference, the Canadian sample can be manipulated in order to reclassify such

two-firm consolidations as acquisitions to make the series compatible with the Nelson series.³³

To ensure "equality of treatment" between acquisitions and consolidations, one firm disappearance was subtracted from the total number of firm disappearances for each consolidation. There was generally little difficulty in discovering the number of firm disappearances as well as the names of the individual firms entering the mergers. In rare cases, however, the source(s) simply indicated that an unspecified number of firms had merged. In such cases, the following procedure, consistent with the approaches used by Nelson and Hannah, was adopted: one firm disappearance is assumed where words like "few" or "some" were used to describe the number of companies involved in a merger; two firm disappearances were allocated where the words "several", "a number" and "various" were used; three firm disappearances were assumed if the words "many", "a large number" or "a lot" were used.

Mergers were dated as precisely as possible to create a quarterly series of merger data in addition to the annual series. The date of consummation was deemed to be the date the merger was substantially completed, defined as the date of effective

³³Although consolidation is not precisely defined by Nelson, his examples imply the "three-firm" definition. R. Nelson, op.cit., p. 21.

transfer of control. Where that information was not available, proxies such as the date of incorporation, corporate applications for changes in capitalisation, date of issue of first prospectus, date of first flotation, or similar data was used. The most consistent source for dating was the Monetary Times in which case the following procedure was adopted. If the completion of the merger was announced after the tenth day of the month, that month would be used as the effective date of the transfer of control. If before, then the preceding month was used and in this manner the merger was placed within the appropriate quarter. This is consistent with Nelson's approach in creating his quarterly series.³⁴

As much information as possible was gathered on the business activities of the mergers in the new series. This was necessary in order to utilise the SIC system as the demarcation for inclusion in the series. The predominant business of the firms entering mergers were also identified to permit some analysis of the degree of vertical and horizontal integration involved in each merger. Past analyses concerning this issue have floundered because of the absence of a rigorous definition of such terms which the use of a SIC system can provide. I have assumed vertical integration where the predominant business conducted by at least one of the major firms (defined as any firm or

³⁴R. Nelson, op.cit., p. 21. The British series for 1880-1918 is restricted to annual data.

combination of firms that make up a minimum of one-quarter of the value of the new enterprise calculated either in terms of capitalisation or total assets) entering the merger has a different three-digit SIC classification than the new entity as defined under the 1948 SIC.³⁵

In addition, the SIC permits identification of the industries most affected by merger activity thus yielding a comparison with Britain and the United States. To facilitate such comparisons, the Canadian mergers were reclassified according to the British and American SIC systems which differ in some important respects from the Canadian one. Hannah used the British SIC of 1958 ranking the number of firm disappearances by decade according to 17 major manufacturing industry groups.³⁶ Nelson used the United States Standard Industrial Classification Manual for 1945 for manufacturing industry as amended in 1949 for mining industry.

Contrary to the Nelson series, mining mergers have been excluded from the Canadian series because of the difficulty of obtaining adequate information for most mergers falling within this category. Any comparisons with the Nelson series must be

³⁵By convention, scholars studying Canadian economic history use the 1948 SIC to ensure compatibility of work. All mergers are alternatively classified under the four-digit 1980 SIC.

³⁶L. Hannah, "Mergers in British Manufacturing Industry, 1880-1918", op.cit., p. 18.

qualified by this difference in the two samples. It should be noted, however, that the difference between the American series and the new Canadian series is not that significant. The Canadian series, like the British series, included "mining" operations if a requisite degree of processing or smelting was involved. Nelson also included such operations in his sample but, since both manufacturing and mining industries were included, he consolidated them under one activity in the following manner: Coke products (manufacturing) and bituminous coal (mining) were both classified under the one mining classification; granite product (manufacturing) and granite quarries (mining) were classified under the granite mining category; cement manufacturing and cement quarrying were both designated the latter category; lime manufacturing and lime quarrying were classified as mining; talc refining (manufacturing) and talc mining were categorised under the latter; iron and steel production and iron ore mining were both classified under the manufacturing category; salt refining (manufacturing) and salt mining were jointly classified under the manufacturing SIC category.³⁷ The Canadian series, consistent with the British series, classifies many of these difficult cases as manufacturing if some secondary refining, processing or manufacturing beyond the extraction stage is involved. Thus, many of the enterprises classified as mining by Nelson would come

³⁷R. Nelson, op.cit., p. 17.

under the general manufacturing category in the Hannah sample and in the present series.³⁸ In other words, in terms of the SIC, the three series are much more compatible than it appears at first glance.

Theoretically, the value or "volume" of mergers and firm disappearances rather than the total number of mergers and firm disappearances in any given unit of time is a superior indicator of actual merger activity. Unfortunately, this tends to be the most difficult piece of data to obtain and, even once obtained, is subject to the greatest difficulties. In fact, in all the series discussed above, including the new Canadian series, value estimates could not be made for a significant percentage of mergers. Moreover, every one of these series uses a different proxy to estimate the value of mergers and firm disappearances thereby seriously limiting meaningful comparisons. As a consequence, the number of mergers and firm disappearances is, at present, a much safer basis of comparison than the corresponding value series. The valuations methods used by Nelson and Hannah are briefly summarised to demonstrate that a number of different indices for value had to be employed in the new series to permit

³⁸Hannah admits that in constructing the British series "it was sometimes difficult to distinguish ironstone mining from iron manufacture and gypsum mines from the manufacture of plaster, so that some mining mergers may in fact have been included in the series and classified to their related manufacturing industry." L. Hannah, "Mergers in British Manufacturing Industry, 1880-1918", op.cit., p. 20.

useful comparisons.

Nelson used the authorised equity capitalisation of each merger as his only estimate of value. He admitted that issued capital (either including or excluding bonded debt) would have been preferable as an estimate of actual value but this data was not available in enough cases. Moreover, other superior measures of value such as total assets or sales "were found for only relatively few consolidations."³⁹ Most mergers-by-consolidation provided figures for authorised equity capital but many mergers-by-acquisition did not. Where authorised equity capital was unavailable, Nelson used gross assets or purchase prices, whichever was available, on the assumption that they are "roughly equivalent."⁴⁰ If these figures were not available then Nelson assigned a value equal to the average of the authorised equity capitalisation of the pertinent three-digit SIC group. In rare cases, where the relevant SIC group had no more than one observation, the average value for the general two-digit SIC group was utilised.⁴¹

Unlike Nelson, Hannah assigned a value to firm disappearances rather than mergers, using a very different

³⁹R. Nelson, op.cit., pp. 17-18.

⁴⁰The results of the Canadian series indicate that this is not a reliable assumption.

⁴¹R. Nelson, op. cit., pp. 18-19.

estimate of value. As in Nelson's mergers-by-acquisition, Hannah found value data for less than 50 per cent of British firm disappearances.⁴² Using the market value of firm disappearances, particularly the purchase price paid for companies, Hannah's problems with valuation relate more to consolidations than acquisitions. In the latter, Hannah could use the actual price paid for a company. Where shares were exchanged in place of a cash settlement, then the market value of the shares was used. Where such data was not available, Hannah employed any one of the following: the nominal value of the shares disappearing, an appropriate fraction of the total share capital of the "acquirer" or the values listed for the newly purchased company in the balance sheet of the acquiring company. Although, as he admits, "this procedure is not formally satisfying because it mixes data which are, in principle, incompatible", the unavailability of actual purchase prices or the market value of shares required such methods. In situations where less than 100 per cent (but more than 50 per cent) of the capital was purchased, Hannah restricted the value to the capital actually purchased.⁴³

The present series uses the valuation methods of both Nelson and Hannah and abides by the procedures outlined above. In

⁴²Ibid., p. 9; L. Hannah, "Mergers in British Manufacturing Industry, 1880-1918", op.cit., p. 19.

⁴³L. Hannah, "Mergers in British Manufacturing Industry, 1880-1918", op.cit., p. 28.

addition, a number of alternative methods of valuations are also provided which can be used to check the strengths and weaknesses of the "authorised capital" and "purchase price" techniques. To remain consistent with these studies, consolidations and acquisitions are standardised by categorising the largest company in a consolidation as the acquirer. No one method could be relied upon in determining the largest firm but various indices, such as the value of the shares transferred to the companies entering the consolidation or the size of the authorised or issued capital of the companies, were employed.⁴⁴ The total assets figure was based on an appraisal of the individual properties entering a merger rather than the total asset figure indicated in the first year's balance sheet of the merged company. Where purchase price information was lacking, as it was in most cases, an estimate of the value of firm disappearances was obtained by subtracting out the value of the properties of the largest firm from the total asset figure when this was available. The capitalisation figures are disaggregated into bonded debt (bonds and debentures), preference shares and common shares.

⁴⁴Wherever possible, the market value of shares was used but in many cases it was necessary to rely on nominal value.

CHAPTER SEVEN

MERGERS IN CANADIAN MANUFACTURING INDUSTRY, 1885-1918

7.1 The number and value of Canadian mergers

The annual results of the new series in terms of the number of mergers and firm disappearances and the percentage of consolidations and acquisitions are summarised in Table 12 below. Measured in terms of both the number of mergers and the number of firm disappearances, the years from 1909 to 1912 constitute the most sustained period of merger activity during the gilded age. This merger wave was preceded by smaller bursts of merger activity in 1889-1893, 1899-1903 and 1905-1907, as illustrated in Figure 22.¹ The first two sub-periods are roughly coincident with increased merger activity in Britain and the United States but these bursts, characterized by a tiny number of large consolidations, were substantially smaller in Canada. The Dominion Cotton Company merger of 1891 resulted in 8 firm disappearances while the British Columbia Packers consolidation of 1902 and the Canadian Canners' merger of 1903 were responsible for 44 and 22 firm disappearances, respectively. This pattern contrasts with the numerous British and American mergers during these years, and with the first Canadian merger wave itself, when a significant number of multi-firm consolidations were

¹Appendix D, p. 273.

consummated with no single merger dominating in any one year.

Table 12

NUMBER OF MERGERS, CONSOLIDATIONS, ACQUISITIONS
AND FIRM DISAPPEARANCES (FD) IN
CANADIAN MANUFACTURING INDUSTRY, 1885-1918

<u>Year</u>	<u>Mergers</u>	<u>Cons (%)</u>	<u>Acq (%)</u>	<u>FD</u>
1885	3	2	1	3
1886	0	0	0	0
1887	1	0	1	1
1888	1	1	0	1
1889	6	2	4	9
1890	3	2	1	14
1891	7	4	3	14
1892	6	4	2	10
1893	6	4	2	8
1894	0	0	0	0
1895	4	2	2	4
1896	0	0	0	0
1897	0	0	0	0
1898	2	1	1	6
1899	4	4	0	11
1900	7	3	4	10
1901	7	4	3	25
1902	3	2	1	51
1903	3	1	2	24
1904	4	1	3	5
1905	10	7	3	26
1906	8	5	3	14
1907	6	1	5	11
1908	3	3	0	7
1909	12	10 (83%)	2 (17%)	52
1910	22	20 (91%)	2 (9%)	69
1911	16	12 (75%)	4 (25%)	37
1912	13	8 (62%)	5 (38%)	20
1913	8	5	3	17
1914	1	0	1	2
1915	3	2	1	4
1916	1	0	1	1
1917	3	2	1	5
1918	1	1	0	3
TOTAL	174	113 (65%)	61 (35%)	464

SOURCE: Appendix D.

By removing the largest merger (as measured by the number of firm disappearances) from every year, we can "smooth out" the series and reveal the underlying pattern. This amended series is illustrated in Figure 23.² The three increases in merger activity before 1909 are now revealed as relatively small bursts while the merger movement of 1909-1912 retains the same contours and intensity of the unadjusted series displayed in Figure 22. By revealing the relative absence of merger activity before 1909, Figure 23 better depicts the trend of Canadian merger activity between 1885 and 1918.

In absolute terms the Canadian merger wave was substantially smaller than the British and American merger waves at the turn of the century. Relative to its size, however, Canada's merger movement was quite remarkable in its intensity. Canada had a GNP approximately one-sixteenth and one-tenth the size of the respective GNPs of the United States and Britain as of 1900. In addition, Canada's per capita level of industrialisation, as defined by manufacturing production, was between one-half and one-third of those same nations in 1913.³

²Appendix D, p. 274.

³GNP estimates were based on P. Bairoch's estimates for the United Kingdom in 1960 U.S. dollars; "Europe's Gross National Product: 1800-1975", JEEH, vol. 5, no. 2 (Fall 1976). Estimates for the per capita level of industrialisation (as measured by the volume of manufacturing production) for the United Kingdom and the United States as well as Canada are found in P. Bairoch, "International Industrialization Levels from 1750 to 1980", JEEH, vol. 11, no. 2 (Fall 1982).

Approximately 65 per cent of Canadian mergers over the period 1885-1918 took the form of consolidations rather than acquisitions, a trend that was particularly pronounced during the peak years of the merger movement from 1909 to 1912. Similar to the experience in the United States and Britain, mergers-by-consolidation played a much more significant role than mergers-by-acquisition during the merger waves of the gilded age than they would in subsequent years. This is a reflection of the unique financial demands of the era as opposed to the technological or organisational rationale for such mergers. Figure 24⁴ portrays the cyclical and relatively stable pattern of mergers-by-acquisition over time. This contrasts with the more unique configuration of consolidations, clustered in the years 1909-1912.

Value data is much less reliable than number data due to the absence of accurate information on capitalisation of consolidations, purchase price of acquisitions and asset value of properties entering mergers. Only 59 percent of mergers produced some information concerning capitalisation, often in the form of a vague statement concerning "total capital" without any indication as to whether this referred to authorised or issued capital or whether it included bonded debt in addition to equity capital. A total of 42 per cent of mergers provided sufficient

⁴Appendix D, p. 275.

information to disaggregate capital into separate categories of securities -- common shares, preference shares, bonds and debentures.

Table 13 below and Figure 25⁵ summarise this information as well as other proxies for value. Total authorised capital (TAC) includes bonded debt in addition to equity capital while authorised capital (AC) excludes authorised bond and debenture issues. Total issued capital (TIC) consists of all issued capital including debt capital. This later amount is omitted under the category of issued capital (IC). In cases where the so-called "total capital" was mentioned but was not disaggregated, this amount was used for all four categories of TAC, AC, TIC and IC.

Despite the deficiencies in the capitalisation data, the results obtained reinforce the trends observed in Table 12. The merger movement should perhaps be extended to embrace the year 1913 according to capitalisation values, but there is little question that 1909 marks the beginning of the first Canadian merger wave. The capitalisation data also supports the existence of minor bursts of merger activity in the first years of the 1890s as well as at the turn of the century. This data reflects the increase in merger activity in 1905 corresponding with a

⁵Appendix D, p. 276.

Table 13

VALUE OF MERGERS IN CANADIAN MANUFACTURING INDUSTRY,
1885-1918
(in \$ millions)

<u>Year</u>	<u>TAC</u>	<u>AC</u>	<u>TIC</u>	<u>IC</u>	<u>NO.</u>	<u>AIC</u>
1885	-	-	-	-	-	-
1886	-	-	-	-	-	-
1887	1.0	1.0	1.0	1.0	1	1.0
1888	-	-	-	-	-	-
1889	0.5	0.5	0.5	0.5	1	0.5
1890	1.0	1.0	0.5	0.5	1	0.5
1891	10.0	10.0	6.5	6.5	2	3.3
1892	0.3	0.3	0.3	0.3	1	0.3
1893	3.1	3.1	3.0	3.0	2	1.5
1894	-	-	-	-	-	-
1895	-	-	-	-	-	-
1896	-	-	-	-	-	-
1897	-	-	-	-	-	-
1898	-	-	-	-	-	-
1899	8.8	8.8	7.8	7.8	4	2.0
1900	18.7	16.2	15.3	12.8	6	2.1
1901	4.7	4.7	4.0	4.0	3	1.3
1902	4.1	4.1	2.8	2.8	2	1.4
1903	2.5	2.5	2.5	2.5	1	2.5
1904	-	-	-	-	-	-
1905	13.6	10.2	10.1	7.1	3	2.4
1906	23.6	19.8	21.0	17.3	6	2.9
1907	25.0	10.0	17.5	10.0	1	10.0
1908	40.5	38.0	39.3	36.8	2	18.4
1909	132.5	98.5	103.3	81.8	10	8.2
1910	163.1	131.9	131.7	108.6	17	6.4
1911	94.4	73.6	71.0	56.0	14	4.0
1912	66.2	52.5	48.2	36.4	12	3.0
1913	92.2	61.5	76.6	51.1	7	7.3
1914	5.0	4.0	4.6	3.6	1	3.6
1915	4.0	4.0	3.6	3.6	2	1.8
1916	1.3	1.3	1.3	1.3	1	1.3
1917	32.6	22.6	26.9	20.3	3	6.8
1918	-	-	-	-	-	-

TAC: total authorized capital

AC: authorized capital

TIC: total issued capital

IC: issued capital

NO: number of mergers with
value data available

AIC: annual average issued
capital

SOURCE: Appendix D.

substantial increase in national income which eventually provides the lift-off into sustained external growth after 1908 despite the temporary economic downturn of 1907.

Obtaining information on the purchase price of acquisitions was considerably more difficult. Only 20 of a total of 61 acquisitions disclosed this data. Moreover, since this purchase price data relates only to acquisitions, it is not reliable as an indication of merger activity given that 65 per cent of total merger activity from 1885 until 1918 took the form of consolidations. Estimates of asset value are even less dependable as an index of merger activity than estimates of acquisition value. Merely 20 per cent of all mergers produced sufficient information upon which to base an estimate of the market value of the properties entering a consolidation or the properties purchased in a merger-by-acquisition. Although purchase price and asset data are broadly consistent with trends revealed in the number and capitalisation series, the dependability of this information is seriously open to question. Capitalisation estimates afford a superior value index for Canadian merger activity but even these are so deficient, certainly for the years before 1905, that international comparisons should be restricted to the number series.

7.2 Industrial grouping of merger activity

Table 14 classifies merger activity by decade according to

the 17 major industrial groups as defined under the 1948 SIC. Using both mergers and firm disappearances as an index of merger activity, the three most prominent manufacturing industries are food and beverages, iron and steel, and textiles. Although rankings vary depending on whether the merger or firm disappearances index is used, the two measures are roughly consistent for the eight most active industries.

Table 14

MERGERS AND FIRM DISAPPEARANCES (FD) BY INDUSTRY, 1885-1918
(industry rank in brackets)

<u>Industry Group</u>	<u>Mergers</u>	<u>FD</u>
Food and beverages	34	(2)
Tobacco and tobacco products	3	5
Rubber products	4	10
Leather products	4	5
Textile products	17	(3)
Clothing	1	3
Wood products	9	(8)
Paper products	10	(7)
Printing and publishing	1	3
Iron and steel products	43	(1)
Transportation equipment	11	(4)
Non-ferrous metal products	7	13
Electrical apparatus and supplies	3	3
Non-metallic mineral products	10	(6)
Petroleum refining and coal products	3	8
Chemical products	11	(5)
Miscellaneous manufacturing industries	<u>3</u>	<u>7</u>
	<u>174</u>	<u>464</u>

SOURCE: Appendix D.

The following analysis will be restricted to the use of the firm disappearances index for comparisons with Britain and the United States, as this was the index used by Hannah and Nelson for their industry grouping results.

Table 15 below illustrates merger activity by industry according to sub-periods thus providing an indication of changes over time. During the decade 1885-1894, merger activity was most pronounced in the textile industry, the key sector of the first industrial revolution in Canada. External growth in the textile industry decreased substantially during the subsequent two decades due mainly to depressed conditions in the industry and long-term decline relative to the new industries of the second industrial revolution -- including the steel products sector, an industry that consistently exhibited a large amount of merger activity.⁶

We can better appreciate the nature of Canadian merger activity by industry and its implications by using the merger series generated by Nelson and Hannah as points of comparison. The Canadian data was reclassified according to the 21 two-digit manufacturing industry groups of the United States Standard Industrial Classification Manual for 1945 and the 17 major

⁶According to Figure 9 in Appendix A, the textile industry began to stagnate after 1898. See Figure 14 in Appendix A for real growth in the iron and steel industry.

Table 15

INDUSTRIAL COMPOSITION OF CANADIAN MERGER ACTIVITY
BY PERIOD
(industry rank in brackets)

<u>Industry Group</u>	<u>Firm Disappearances</u>		
	<u>1885-1894</u>	<u>1895-1904</u>	<u>1905-1918</u>
Food and beverage	17	(2)	72
Tobacco and products	0	1	4
Rubber products	0	0	10
Leather products	1	(5)	2
Textile products	26	(1)	4
Clothing	0	0	3
Wood products	1	18	(2)
Paper products	0	1	11
Printing and publishing	0	0	0
Iron and steel products	11	(3)	16
Transportation equipment	1	(5)	6
Non-ferrous minerals	0	5	8
Electrical apparatus	0	1	2
Non-metallic minerals	0	0	39
Petroleum and coal prod	0	8	(4)
Chemicals	2	(4)	0
Misc manufacturing	<u>1</u>	<u>2</u>	<u>4</u>
	<u>60</u>	<u>136</u>	<u>268</u>

SOURCE: Appendix D.

manufacturing industry groups of the United Kingdom Central Statistical Office's Standard Industrial Classification of 1959.⁷ In Tables 16 and 17 below the top ten industries -- as defined by the British and American SICs -- are ranked in descending order according to their degree of merger activity. The periods of comparison -- limited by the periods chosen by Hannah (1880-1918) and Nelson (1895-1920) -- are not identical but roughly equivalent.

⁷See Table 24 in Appendix D.

Table 16

**CANADA-UK COMPARISON OF MERGER ACTIVITY
BY INDUSTRY GROUP
(using UK SIC)**

<u>Industry Group</u>		<u>Rank</u>
	<u>Canada</u>	<u>UK</u>
Food	1	4
Metal manufacture	2	5
Chemicals	3	3
Textiles	4	1
Bricks, pottery, glass, cement	5	6
Timber and furniture, etc.	6	15
Vehicles	7	10
Paper, printing and publishing	8	8
Drink	9	2
Metal goods not elsewhere specified	10	9
Non-electrical engineering		7

SOURCE: Appendix D.

The ranking results in Table 16 illustrate the remarkable similarity between Canada and Britain in terms of the industries which experienced the most intense merger activity during the gilded age. Merger activity in the textile industry is most pronounced in Britain where large textile consolidations dominated the turn of the century merger wave. The Bradford Dyers, British Cotton and Wool Dyers, Calico Printers, and Bleachers' Association alone accounted for 164 firm disappearances. Many of these mergers did little to alter the industrial structure of the industry and were motivated mainly by

a desire to protect market share.⁸ Much the same scenario was being played out in the Canadian textile sector -- an industry that was experiencing relatively stagnant growth during the Laurier boom. Although this industry produced the first large Canadian mergers, such external growth did little to alter the basic organisational structure of the textile companies.⁹

The two industry rankings which diverge -- timber and furniture, and drink -- can be explained by the difference in the nature of the national economies. A frontier society with immense reserves of timber lands, the forest products industry has for almost two centuries been an important sector in the Canadian economy. The most industrialised nation in the world before the First World War, Britain had insignificant forest reserves and, in fact, imported most of its lumber and wood products from nations such as Canada. The Canadian Furniture Manufacturers' 16 firm consolidation of 1900, involving an issued capital of \$2.3 million, was motivated by a desire to augment the

⁸L. Hannah, The Rise of the Corporate Economy (London, 2nd ed., 1983), p. 21.

⁹B.J. Austin, "Life Cycles and Strategy of a Canadian Company: Dominion Textile, 1873-1973", unpublished Ph.D. thesis, Concordia University, 1985, pp. 1-112. After examining the major consolidations in the Canadian textile industry from the Hochelaga Cotton merger of 1885 to the Dominion Textile merger of 1905, Austin concludes they were mainly defensive in origin, intended to protect markets and secure stability. Austin concludes that Canadian textile companies did not become modern industrial enterprises within the Chandlerian meaning of the phrase until after the Second World War.

already large percentage of Canadian furniture exports to Britain.¹⁰ On the other hand, the Canadian brewing industry was substantially less built-up than the British industry and one immense multi-firm consolidation, the National Breweries merger of 1909 involving 14 firms and a total issued capital of \$7.0 million, was responsible for almost one-half of all the external growth in this industry between 1885 and 1918.¹¹

The fact that the first and second industrial revolutions in Canada were compressed into the latter half of the nineteenth century explains the relative unimportance of the non-electrical engineering industry, a sector in which the steam and coal-powered technology of the first industrial revolution played a large role. This perhaps accounts for the insignificant degree of external growth experienced in this industry during the gilded age.¹²

A Canadian-American comparison of merger activity by industry, as displayed in Table 17, also reveals a similarity of pattern again with a couple of differences. External growth in the American textile industry is far less significant in relative terms to the Canadian experience. This may be due to the Nelson

¹⁰AFR, vol. I (July 1901), pp. 79-81.

¹¹MT, 3 April 1909, p. 1774.

¹²See Table 24 in Appendix D. Only 4 mergers and 4 firm disappearances are recorded for this industry.

Table 17

**CANADA-US COMPARISON OF MERGER ACTIVITY
BY INDUSTRY GROUP
(using US SIC)**

<u>Industry Group</u>	<u>Canada</u>	<u>Rank</u> <u>US</u>
Food and kindred products	1	1
Textiles	2	10
Stone, clay, glass, cement products	3	7
Primary metals	4	2
Chemicals	5	3
Metal products	6	5
Transportation equipment	7	4
Furniture, fixtures	8	16
Lumber, wood products	9	6
Paper and allied products	10	11
Tobacco products		8
Petroleum products		9

SOURCE: Appendix D.

merger series not covering the years before 1895 when most of the merger activity in the American textile industry likely took place.

Both Canada and the United States experienced the largest amount of merger activity in the food industry.¹³ This is one industry that experienced less external growth in Britain relative to North America. The reason likely can be found in the more gradual adoption of refrigerated facilities by the

¹³The high value and steady growth of the Canadian food processing industry, by far the most important sector within the food and beverage major industry group, is depicted in Figure 5 in Appendix A.

processors of perishable food products, such as meat and fish packers, as well as the less rapid employment of continuous-process machinery, particularly in the fruit and vegetable canning industry, in Britain. American firms such as Swift & Company and Armour & Company pioneered integrated meat packing operations using refrigeration while Heinz, Borden's and Libby mastered the use of high through-put, continuous-process canning assembly lines. Mergers play a prominent role in the growth of these companies and in the emerging modern food industry generally in the United States.¹⁴ In the Canadian industry, there was a similar fusing of rapid external growth, technological change and organisational integration. The most prominent example was the Dominion Canners Company of Canada (later known as Canadian Canners') which grew out of a consolidation of Canadian Consolidated Canners and 17 other vegetable and fruit canning companies. Canadian Consolidated was itself the creature of a 23 firm amalgamation of central Canadian canning companies in 1903.¹⁵ The process was repeated in the British Columbia salmon canning industry and to a lesser extent in the Atlantic coast fish packing industry.¹⁶

¹⁴A.D. Chandler, The Visible Hand: The Managerial Revolution in American Business (Cambridge, Mass., 1977), pp. 300-02, 348-50 and Appendix A.

¹⁵L. Elder, The History of Canadian Canners Limited 1903-1986, company publication (1986).

¹⁶C. Lyons, Salmon: Our Heritage: The Story of a Province and an Industry, British Columbia Packers Limited, company publication (1969); D.A. Stacey, Sockeye and Tinplate: Technological Change in the Fraser River Canning Industry, 1871-

It is interesting to note that external growth was more pronounced in the Canadian iron and steel industry than in the British industry. As can be seen in Appendix D, the vast majority of this merger activity was in the steel and steel products sectors rather than in the older iron industry thus supporting the contention that mergers aided in directing large amounts of capital to a leading-edge sector of the second industrial revolution. Nevertheless, after the iron and steel category is disaggregated into primary metals, metal products, and machinery according to the Standard Industrial Classification of the United States as displayed in Table 17, we can see that mergers were comparatively more concentrated in the American primary and secondary steel as well as machinery industries. This is, no doubt, a reflection of the United States' technological leadership (to some extent shared with Germany) in these industries during the second industrial revolution. The Canadian steel industry did not get off the ground until the very beginning of the twentieth century and manufacturers in Canada were heavily dependent on American machinery imports throughout the gilded age and, indeed, remain so to the present.

The relatively high ranking of the Canadian stone, clay,

1912, (Victoria, B.C., 1982). Although little research exists on technological and organisational changes in the Canadian Atlantic fish industry, the vertical nature of the Atlantic Fish Company and the Maritime Fish Corporation mergers of 1907 and 1910 supports this contention. MT, 29 June 1907, p. 2088; 14 May 1910, p. 2619.

glass and cement (non-metallic minerals) category can be traced to a handful of multi-firm consolidations in the asbestos and portland cement industries of 1909. The Amalgamated Asbestos and Canada Cement consolidations were, in fact, the first great mergers of the 1909-1912 wave. In one year, they along with the Black Lake Asbestos and Independent Portland Cement mergers of 1909 were responsible for the bulk of merger activity in this industry.

7.3 Security financing and merger promotion

As can be seen in Appendix D, the vast majority of mergers-by-consolidation involved a new capital issue. Financial data concerning public security issues and stock exchange listings is so sparse before 1909, however, that little reliance should be placed on the few results available. Out of a total of 18 mergers-by-consolidation with sufficient disaggregated issued capital data, only five reveal information concerning the proportion of issued capital that was sold via a public issue.¹⁷ In part, this is due to poorer reporting on consolidations by the financial press before the merger wave. It is also due, however, to the fact that a larger proportion of consolidations at this time involved closely-held companies that did not have any

¹⁷Canadian Cycle and Motor (1900), Canadian Flour Mills (1900), United Factories (1901), Beaver Oil & Gas (1901) and Brandrum-Henderson (1906). See Appendix D.

intention of opening their ownership to the general public. Stock in the new entity was transferred to the controlling shareholders of the companies entering the consolidation as payment for their assets. Further securities would then be issued pari passu to these same individuals to raise working capital for the company.¹⁸

Information concerning the proportion of issued capital distributed publicly as well as subsequent stock market listings improves substantially during the years of the Canadian merger wave. Out of a total of 39 consolidations with disaggregated issued capital data, 24 disclose the following data concerning public issues: the place and date of the public flotation, the amount of the issue, whether the securities were sold at par, or at a premium or a discount, and whether any stock bonus was included in the sale. Out of this group, 14 consolidations disclose the date and location of subsequent stock exchange quotations.¹⁹ These mergers thus provide a sample population from which certain general trends can be observed. Although the

¹⁸The Massey-Harris consolidation of 1891 illustrates this form of closely-held industrial finance. \$2.7 million par value of ordinary shares in the new company were distributed to the Massey and Harris interests for the properties entering the merger. \$300,000 ordinary shares "were sold on a pro-rata basis to the existing stockholders to provide working capital" with no outside capital entering the consolidated enterprise. See M. Denison, Harvest Triumphant: The Story of Massey-Harris (London, 1949), pp. 120-21.

¹⁹See Table 25 in Appendix D.

sample is biased towards some of the large mergers because of the reporting practices of financial manuals and periodicals, considerable effort was made to track down the information listed above for some smaller Canadian issues in order to balance out the sample. To an extent this was successful.²⁰

The decision whether to use bonds or preference shares for a first flotation following a merger promotion seemed to be dependent on the jurisdiction of the flotation rather than on the idiosyncrasies of individual promoters or any accepted rules of Canadian finance. Ten of the 24 flotations took place solely in Britain or were aimed mainly at the British market, and of these, seven were bond and debenture flotations. British investors preferred such securities to preference shares perceiving them as inherently less risky and, therefore, Canadian promoters tried to accommodate this preference.²¹ Bond and debenture issues floated

²⁰Six of the 24 consolidations involved introductory flotations of \$400,000 or less and were intended for the smaller Canadian investment market. These include Carriage Factories (\$300,000 preferred), Dominion Canners (\$100,000 preferred), Canada Machinery (\$200,000 bond), Belding Paul & Corticelli (\$400,000 preferred), Sherwin-Williams (\$300,000 preferred) and Canada Foundries & Forgings (\$150,000 preferred).

²¹This is, in part, consistent with Kennedy's thesis that the aggregate British portfolio was "bond-laden, conservative and chosen to suit the taste of discriminating rentiers". W.P. Kennedy, Industrial Structure, Capital Markets and the Origins of British Economic Decline (Cambridge, 1987), p. 151. On the other hand, many of these "industrial" investments were inherently risky as the number of British bondholder committee established before the Great War attest. Further, the substantial British investment in Canadian mining ventures, notorious for their high failure rate, also betrays a less than "risk-adverse" nature. See F.W. Field, Capital Investments in Canada (Toronto, 3rd ed.,

on the London market were proportionately larger than flotations of preferred stock. The average size of preferred stock issues was roughly one-half the average size of bond and debenture issues floated on the London market -- in excess of 1.8 million.²² In two of the three cases where preferred stock issues were floated on the London market, it is interesting to note that major bond issues were also floated within just a few months of the introductory preferred stock flotation.²³

In the sample, nine of the 12 preferred share issues were intended for the Canadian market. Consistent with North American practice, eight of these nine flotations were accompanied by a common stock bonus. Also in keeping with financial practices in the New World, the par price of one-half of the preferred stock issues was discounted. The common stock bonuses ranged between 20 per cent and 60 per cent but almost one-half of the firms in the sample passed a common stock bonus of 25 per cent, the most customary amount "given" with purchases of preferred stock or bonds. In two cases, a 25 per cent preference stock bonus was

1914), p. 14.

²²In the 24 firm sample, the unweighted mean size of the bond and debenture issues equals \$1,803,000 while the mean of the preferred stock issues is \$875,000. See Table 25 in Appendix D for details.

²³The two companies were Canada Cement and Canadian Car and Foundry. It appears that Max Aitken intended to make both preferred and bond flotations on the British market but put the preferred issues a few months ahead of the bond issues.

given to investors along with common stock bonuses but this appears to have been a rare practice.²⁴

The 14 consolidations that reveal the date of listing on stock exchanges indicate a time-lag of between one month and 26 months for quotation after public subscription. The average time-lag was between seven and eight months. The locale of stock exchange listing depended on whether investors were largely British or Canadian and, if the latter, whether the majority were from Toronto or Montreal. It is likely that trading in the securities of the consolidations in the unlisted departments of the stock exchanges commenced almost immediately after the public issue thereby acting like a bridge between the issue and the formal listing. The creation of an active secondary market, a necessary condition of which was the listing of the companies' securities on a major public exchange, was one of the stated objectives of most consolidations during the first Canadian merger wave according to the statements of intention contained in contemporary prospectuses.

7.4 Major promoters during the first Canadian merger wave

The financial information gathered to generate the

²⁴This was offered in the Amalgamated Asbestos and Black Lake Asbestos flotations, both of which were promoted by Clarence J. McCuaig of McCuaig & Bros. This practice of using senior securities as a bonus may have contributed to the great financial difficulties of both companies during the coming years.

statistical series included data on merger promoters and their affiliations.²⁵ This supplements the previous case study of Max Aitken and the Royal Securities Corporation and provides a broader context in which to place their operations. As a consequence of the financial press's lack of interest, there is little data on the promoters of Canadian manufacturing mergers before 1909. Judging by the few names associated with these early mergers it appears that the age of the professional merger promoter in Canada was ushered in by the Canadian merger wave.²⁶

The appellation "promoter" must be defined lest all financiers connected with the securing of capital for industrial mergers be identified as such. The full-fledged promoter generally did much more than prepare, advertise, help underwrite and sell the securities of a new consolidation. He was directly involved in the formation of the enterprise itself -- a function that included negotiating and purchasing options on existing

²⁵See Table 25 in Appendix D.

²⁶The few "merger promoters" active before 1909 hardly resembled the professional financiers that emerged out of the first Canadian merger wave. John F. Stairs (Acadia Sugar Company, 1893) and Robert Jaffray (Canadian Cycle & Motor Company, 1899) were general businessmen as opposed to financiers specialising in merger negotiation and the promotion and underwriting of first flotations. Stairs was a financial and industrial "jack-of-all-trades" while Jaffray, although he conceived the Canadian Cycle merger, did not have sufficient financial muscle to carry out the merger plan and was forced to sell out to the George Cox-National Trust group of Toronto. MT, 4 August 1893, p. 131; 30 September 1904, p. 421; H.G. Stapells, "The Recent Consolidation Movement in Canadian Industry", unpublished M.A. thesis, University of Toronto, 1922, pp. 79-88.

companies (or purchasing such companies outright), legally creating the new enterprise, and deciding upon the amount of share capital and its categorisation. Some promoters such as Max Aitken went further by first conceiving of the consolidation possibilities of a particular industry.²⁷ While not all three aspects of merger promotion -- its discovery, its assembly and its presentation -- need be present to identify a financier as a "promoter", the following discussion is limited to those individuals who performed most of these functions most of the time and all three at some point in their careers.

The most significant of the gilded age promoters, measured by the number of mergers and their value, were Max Aitken, Arthur J. Nesbitt, Garnet P. Grant, Cawthra Mulock and Clarence J. McCuaig. Although the function of a promoter, particularly at the conception and negotiation stage, is a very individual one dominated by personality, this should never obscure the organisational nature of promotion. All of the men listed above were supported by substantial financial organisations as well as more informal but nevertheless crucial networks of financial colleagues upon which they could depend in any new merger venture. In Canada, the preferred financial intermediaries were investment bond houses but trust companies and brokerage houses were also used; in practice, all tended to resemble in function

²⁷Aitken created the Stelco and Canada Cement mergers but acted more as a facilitator in the Canadian Car consolidation.

wholesale bond houses like the Dominion Securities Corporation and the Royal Securities Corporation.

Garnet P. Grant formed the Dominion Bond Company of Montreal specifically to "back" his promotional activities. Grant organised four major consolidations during the first Canadian merger wave. The Carriage Factories merger of October, 1909 was followed four months later by the Dominion Canners' merger. In July, 1910, the Canada Machinery Corporation made its first appearance, succeeded by the Belding Paul & Corticelli merger of April, 1911. In every case the Dominion Bond Company was assisted in the flotations by a major Montreal brokerage firm.²⁸ By 1911, Dominion Bond had established an office in London, a must for all financial intermediaries involved in large-scale merger flotation given the quantity of securities issued on the British market.²⁹

Arthur J. Nesbitt was one of Max Aitken's top security salesman as well as the Royal Securities Corporation's European

²⁸J.A. Mackay & Co. made the Carriage Factories issue while C. Meredith & Co. underwrote the largest block of Dominion Canners' stock. C. Meredith & Co., and its principal, Charles Meredith, appear to have taken care of much of the financial end of Grant's other mergers as well as the Tuckett Tobacco and Dominion Glass mergers. MT, 2 October 1909, p. 1422; 29 January 1910, p. 543; 19 March 1910, p. 1254; 18 June 1910, p. 2514; 23 July 1910, p. 415; 22 April 1911, p. 1625; 25 November 1911, p. 2245. H.G. Stapells, op.cit., pp. 88-89, 107-08.

²⁹MT, 21 October 1911, p. 1717.

emissary in 1907.³⁰ In 1908, Nesbitt severed his connection with Aitken and went into business on his own. He conceived the Investment Trust Company, became its first general manager and convinced a number of other financiers to contribute capital and sit on the board of directors. In a 13 month period between March, 1910 and April, 1911, Nesbitt was responsible for promoting the Canadian Cereal & Milling, Canadian Steel Foundries and International Milling Company of Canada mergers. In at least two of the above, Nesbitt assembled and presented the proposition through the Investment Trust Company and may even have originated the mergers. In the Canadian Steel Foundries merger he was acting on behalf of the Canadian Car & Foundry Company, although he was directly involved in obtaining the options on the properties entering the merger. Relying heavily on the British market as an outlet for its securities, the Investment Trust Company established a London office in early 1910.³¹ He resigned as general manager of Investment Trust in late 1911 and formed Nesbitt, Thompson Company, Limited, which, although not a major player during the gilded age, would become one of the most active promotional firms during the merger wave of the late 1920s.³²

³⁰See Chapter Three.

³¹MT, 29 January 1910, p. 514; 11 June 1910, p. 2432b; 11 February 1911, p. 648; 22 April 1911, p. 1617.

³²MT, 10 October 1908, p. 597; 15 July 1911, p. 321; 25 November 1911, p. 2220; 25 May 1912, p. 2143. Canada Cement Company, Limited, Annual Report, 1927.

Clarence J. McCuaig was the senior member of the Montreal brokerage firm of McCuaig Bros. & Co. McCuaig set off the merger wave in April, 1909 with the Amalgamated Asbestos consolidation. The public portion of the bond issue was floated simultaneously in London, New York, Philadelphia and Montreal. This was quickly followed by another asbestos merger promoted by McCuaig and associates in September, 1909. McCuaig worked in conjunction with some of the most notable lawyers and financiers of Montreal as well as the most well-connected French-Canadian financier of the day, Rodolphe Forget. Colleagues such a Forget gave McCuaig privileged access to the Paris capital market as well as the London market. Despite these advantages, Amalgamated Asbestos turned out to be the most infamous failure of the merger movement.³³

Cawthra Mulock, a Toronto stock broker and the principal of the stock brokerage company Cawthra Mulock & Co., was the merger promoter behind the Maple Leaf Milling Company and Canada Bread Company mergers of 1910 and 1911. Measured in terms of public offering, Mulock's mergers were in the same class as those discussed above but the distribution of securities in his new enterprises was limited to the Canadian market -- shares were sold mainly in Ontario and their subsequent listing was limited

³³ MT, 10 April 1909, p. 1816; 12 February 1910, p. 716; 5 March 1910, p. 1010; 15 October 1910, p. 1643; 4 March 1911, pp. 917, 932.

to the Toronto Stock Exchange. Moreover, unlike all of the previously mentioned promoters, Mulock does not appear to have had a British connection. He did establish the Guardian Trust Company in June, 1910, likely to extend his financial manoeuvrability in his promotional activities.³⁴

³⁴MT, 23 April 1910, p. 1724; 4 June 1910, p. 2332.

CHAPTER EIGHT

TOWARDS A GENERAL THEORY OF MERGER CAUSATION

8.1 The general versus the historically unique explanation

In previous Chapters, some propositions have been put forward concerning the appearance of the first sustained wave of merger activity in Canada. The emergence of a broad market for industrial securities was a necessary precondition for sustained large-scale merger activity but, by itself, does not adequately explain the appearance of the first Canadian merger wave. Certainly, it is of limited value in explaining the precise timing of the merger wave and is of no assistance in predicting the appearance of subsequent merger waves because of its historical specificity. Lamoreaux's overcapacity theory, another historically unique explanation, is subject to the same difficulty.¹

The evidence suggests that the emergence of a market for industrial securities and the introduction of high through-put processes were phenomena taking place throughout the gilded age and can hardly be used to further particularise the timing of merger waves in the United States or Canada. Other operative

¹N. Lamoreaux, The Great Merger Movement in American Business, 1895-1904 (Cambridge, 1985). See Chapter Four.

factors must account for this timing. Moreover, these may be causal factors common to all merger waves irrespective of location or historical period. The search for such a "general theory" of merger activity has actually preoccupied scholars much more than the historically unique explanations.²

Such a general theory does not impair the validity of the historically unique explanations. It is suggested that the two operate together and that either form of interpretation is necessarily incomplete by itself. To produce a complete explanation it is necessary to bring together the general as well as the unique factors which result in the occurrence of a certain phenomenon at any given time. The two explanations are frequently separated only because of the very different methodologies they require. In questions of economic history, the deductive methods of economic theory normally lead to the elaboration of a general model while the inductive methods of history spawn the unique explanation and the two often have

²An excellent compendium of modern empirical merger studies covering the post-World War II era can be found in The Determinants and Effects of Mergers: An International Comparison, ed. D.C. Mueller (Cambridge, Mass., 1980); M. Gort, "An Economic Disturbance Theory of Mergers", QJE, vol. 83, no. 4 (November 1969); D.C. Mueller, "A Theory of Conglomerate Mergers", QJE, vol. 83, no. 4 (November 1969); W.F. Shughart and R.D. Tollison, "The Random Character of Merger Activity", Rand Journal of Economics, vol. 15, no. 4 (Winter 1984).

difficulty working together.³ The purpose of this Chapter is to test certain regularities in merger activity and thereby arrive at a general theory of causation. This will then be used in conjunction with the historically unique factors to produce a more complete explanation of the first Canadian merger wave.

8.2 The buoyant stock market supposition

The most accepted explanation of the general cause of merger waves is the financial theory, so-called because of the central role played by "financial" as opposed to underlying "economic" factors. It is based on an observable correlation between intense spurts of merger activity and high security prices, consequently, the expression "buoyant stock market hypothesis"⁴ better particularises such a relationship. As will be discussed below, however, the precise nature of the correlative relationship is so open to question that "supposition" rather than "hypothesis" more accurately describes the theoretical vagueness of this alleged relationship. The supposition is that merger waves are closely associated with, and perhaps caused by,

³On the difficulties of working with the two methods simultaneously, see J.R.T. Hughes, "Fact and Theory in Economic History", Explorations in Entrepreneurial History, vol. 3, no. 2 (April 1966).

⁴This phrase was used in an unpublished working paper by R. Sylla, J.W. Wilson and C.P. Jones, "Financial Markets and the Great Merger Wave of 1895-1904", presented at the Washington Economic History Seminar, 29 April 1988.

sustained bull markets in industrial share prices and that this positive correlation is consistently stronger than the correlation between merger waves and real economic activity generally measured by industrial output.

The correlation between security prices and merger activity has been tested in empirical studies conducted by Nelson, Hannah and Tilly on merger waves during the gilded age in the United States, Britain and Germany, respectively. The evidence thus far is consistent; a strong positive relationship between high share prices and merger waves holds for all the countries examined. While industrial production and merger activity in the United States were more highly correlated during periods of recession and depression, Nelson found that, relative to share prices, industrial production exhibited a weak correlation with mergers during the years of sustained merger activity.⁵ Hannah found that in a multiple regression of share prices and manufacturing production on merger activity, the relationship between the "real economic variable" of production and mergers was not only weaker than the relationship between the "financial" share price variable and mergers but that the former relationship was a negative rather than a positive one.⁶ In his small-sample study

⁵R. Nelson, Merger Movements in American Industry, 1895-1956 (Princeton, N.J., 1959), pp. 116-121.

⁶L. Hannah, "Mergers in British Manufacturing Industry, 1880-1918", Oxford Economic Papers, vol. 26, no. 1 (March 1974), p. 9.

on German mergers, Tilly found a strong positive correlation between merger activity and share prices and a weak positive correlation between merger activity and industrial production.⁷

The buoyant stock market supposition also holds for Canada with some qualifications. Testing was limited by the absence of a share price index covering the years before 1900.⁸ So few mergers before this date made public security issues or had any direct or indirect connection with the public stock exchanges that it would be dangerous to blindly regress share prices on Canadian merger activity before 1900, even if such data were available. Unfortunately, this eliminates a number of observations thus constraining the number of independent variables used in any multiple regression analysis, particularly if a large number of lags are employed as they are in causality test analysis. To remedy this difficulty and to provide a comparison over a longer term, the new merger data was spliced onto the series of Canadian merger statistics generated by J.C.

⁷R. Tilly, "Mergers, External Growth, and Finance in the Development of Large-Scale Enterprise in Germany, 1880-1913", JEH, vol. XLII, no. 3 (September 1982), pp. 649-50.

⁸The sole series of security prices I could locate covering the years of the gilded age and the interwar period was an index of Canadian common stock prices, 1900-1936=100, published by J.C. Weldon in "Consolidations in Canadian Industry, 1900-1948", Restrictive Trade Practices in Canada: Selected Readings, ed. L.A. Skeoch (Toronto, 1966), pp. 236-37.

Welcom.⁹

The regression results below indicate that a statistically significant correlation between merger activity and stock prices generally held throughout the period, 1900-1948. However, the relationship was weaker in the first years of the twentieth century relative to the years following the First World War. This can be explained by the fact that, although the tendency of Canadian firms to release their securities for public trading strengthened over time, even as late as the Canadian merger wave of 1909-1912, less than one-half of mergers involved public security issues and substantially less than this number had their shares listed on a public stock exchange.¹⁰

More difficult to rationalise is the fact that between 1936 and 1942, the normally positive relationship between the two variables turned negative revealing a paradoxical exception to the general rule. This phenomenon is not unique to Canada. J.F. Weston noted a similar negative correlation between security prices and mergers in the United States between 1940 and 1947 and

⁹Ibid. There are some methodological difficulties concerning this procedure in that Weldon did not restrict his series to manufacturing industry as defined in the Dominion Bureau of Statistics' Standard Industrial Classification Manual of 1948. Nevertheless, the number of companies outside this definition constituted a relatively small percentage of the total sample justifying the use of the series for this purpose.

¹⁰See Table 25 in Appendix D.

concluded that, at least for these years, "depressed stock prices tended to stimulate mergers because buyers could acquire assets at a lower cost by purchasing another company, than by building the facilities themselves."¹¹ This could have been what occurred in Canada during the last years of the Great Depression given the number of companies forced to sell their assets at fire-sale prices and the opportunities this presented to the few firms who had managed to survive with a cash balance. Of course, this does not answer the question of why this occurred in Canada five years before a similar phenomenon appeared in the United States. More significantly, it brings into question the whole buoyant stock market supposition. In particular, how can low stock prices dampen merger activity in one historical period of time while, in another, they stimulate merger activity?

We must consider the possibility that stock prices are a surrogate for the public's expectations about future industrial investment -- the expected yield of capital. If these expectations are optimistic, stock prices will be high and investment in external growth will be stimulated. This indirect relationship, however, can break down. In the depth of a depression (which, if severe and lengthy, can precipitate a collapse in the marginal efficiency of capital according to Keynes) or in a war economy, when the state takes over many

¹¹J.F. Weston, The Role of Mergers in the Growth of Large Firms (Berkeley, 1953) p. 81.

market activities, stock prices may in fact become a very unreliable surrogate for such expectations.¹² Although it cannot be within the purview of this present work to analyse this paradox, we can speculate that in such periods, stock prices may indeed exhibit little correlation with merger activity or even a statistically significant negative correlation.

Nevertheless, it is difficult to argue that there was not a direct link between security prices and mergers during the gilded age. High-risk financing put a premium on unloading a huge amount of securities during the subscription period (generally one week). Timing a flotation to coincide with a bull market was more likely to produce a success than advancing a flotation in a bear market. The study of Max Aitken's activities suggests that the level of securities prices was a very important consideration to the merger-makers of the first Canadian merger wave. For example, when attempting to amalgamate a number of Canadian flour mills companies, Aitken was "very anxious to complete a

¹²Certainly, a prolonged economic depression or a state of war are factors capable of drastically changing existing expectations concerning the "prospective yield on capital", an element more important than the current yield according to Keynes's formulation of the marginal efficiency of capital. Keynes emphasises the state of confidence of the business community as the most important determinant of the marginal efficiency of capital by being a determinant of the "state of long-term expectations". See J.M. Keynes, The General Theory of Employment, Interest, and Money (New York, first Harbinger ed., 1964, orig. publ. 1936), pp. 47, 135-149.

consolidation while the good bond market" lasted.¹³ Aitken's fellow promoters in the City of London felt the same way and urged him to rush the cement consolidation through while high stock prices prevailed in order to take advantage of the bullishness of the average British investor.¹⁴

Using the number of mergers as an index of merger activity the stock buoyancy supposition was tested on annual data over the entire period, 1900-1948, as well as over sub-periods within those years. Although the regressions are restricted to the spliced series, regressions on merger activity were also run using only Weldon's series to check the consistency of both samples. Similar results were obtained in both cases.

In the following equations, the numbers in parentheses are t-statistics, F refers to F-statistics, DW is the Durbin-Watson statistic and N refers to the number of observations in the sample. If ordinary least squares (OLS) estimation produced a DW statistic which did not permit rejecting the null hypothesis of serial correlation then a generalised least squares (GLS) estimate was made using the Cochrane-Orcutt method. Equation (1) tests the relationship between stock prices and mergers over

¹³BBK, letter, Aitken to A.J. Adamson, 17 May 1909, A/42/misc W.

¹⁴BBK, letter, F. Dunsford of the Anglo-Canadian Finance Company, London, to Aitken, 30 June 1909, A/32/Dunsford.

the entire period, 1900-1948.¹⁵

$$(1) \quad \text{MERGER}(1900-1948) = -16.588 + 0.325\text{STOCK}$$
$$(-2.32) \quad (9.27)$$

$$\text{R-Bar-Squared} = 0.79 \quad F(2,45) = 89.51 \quad DW = 2.05$$
$$N = 49 \quad \text{GLS estimation}$$

As shown in equation (2) the statistical significance of the stock-price coefficient drops for the years preceding 1919. The goodness-of-fit of the equation also diminishes considerably.

$$(2) \quad \text{MERGER}(1900-1918) = -24.491 + 0.438\text{STOCK}$$
$$(-1.37) \quad (1.70)$$

$$\text{R-Bar-Squared} = 0.52 \quad F(2,15) = 10.23 \quad DW = 1.73$$
$$N = 19 \quad \text{GLS estimation}$$

By regressing the stock-price variable on only those mergers which listed their securities on a public exchange or sold at least a portion of their securities through a public flotation in equation (3), we can see the test results improve.¹⁶

$$(3) \quad \text{NEWMERGER}(1900-1918) = -20.659 + 0.317\text{STOCK}$$
$$(-2.11) \quad (2.42)$$

$$\text{R-Bar-Squared} = 0.63 \quad F(2,15) = 15.59 \quad DW = 1.94$$
$$N = 19 \quad \text{GLS estimation}$$

¹⁵Equations (1) through (4) were also run using firm disappearances in place of mergers as dependent variable. The results were consistent in all respects with only a slight reduction in their statistical significance. Due to the very large negative coefficients for the constant term and the low positive stock price coefficients, these simple equations must be treated with great caution. This problem does not occur in Tables A6-29.

¹⁶The variable NEWMERGER was obtained by removing all those mergers in Appendix D which did not have at least one of these two characteristics.

When the period 1900-1948 was disaggregated into further sub-periods, a major structural break was discovered. Between 1935 and 1942, the simple stock-price model of merger activity loses its predictive ability. During these years, particularly from 1935 to 1939, stock prices have a negative correlation with merger activity. This predictive failure of the model is illustrated in Figures 26 and 27.^D

In equation (4) the goodness-of-fit for the share-price variable increases remarkably when the years after the structural break are excluded.

$$(4) \quad \text{MERGER}(1900-1934) = -29.143 + 0.505\text{STOCK}$$
$$(-9.42) \quad (15.99)$$

R-Bar-Squared = 0.88 F(1,33) = 255.69 DW = 1.85
N = 35 OLS estimation

In the following section, causality testing of other variables against the stock-price variable will be restricted to the years 1900-1934. It is a period, however, which not only frames the two major Canadian merger booms before the Second World War but also includes the critical years of the Great Depression.

^DAppendix E, pp. 283 and 284, respectively. Figure 27 illustrates the nature of the structural break when the first difference operators of mergers and stock prices are regressed.

8.3 The Granger and Sims tests of causality

The above analysis is limited to simple correlations. Little or nothing can be said about causation. To begin constructing a general explanation of merger activity, however, it is necessary to examine the causative links between merger activity and stock prices and between merger activity and other variables. Clark, Chakrabarti and Chiang have recently applied causality tests to search for the causative links in American mergers between 1919 and 1979.¹⁸ The Granger direct test of causality and Sims's two-sided regression test of causality are similarly applied to the Canadian data and the results tabulated in Appendix E.¹⁹

Before the procedure is described, the nature of the causality implied in these tests and the appropriate context within which to place the results must be clarified. At present, there is significant debate in philosophy concerning the meaning of "causality" and this is mirrored in the controversy in the econometrics literature about the nature of causality in

¹⁸J.J. Clark, A.K. Chakrabarti and T.C. Chiang, "Stock Prices and Merger Movements: Interactive Relations", Weltwirtschaftliches Archiv, vol. 124, no. 2 (1988).

¹⁹See Tables 26 and 27, pp. 279 and 280, respectively. The original specification of these tests can be found in C.W.J. Granger, "Investigating Causal Relations by Econometric Models and Cross-Spectral Methods", Econometrica, vol. 37, no. 3 (July 1969); C.A. Sims, "Money, Income and Causality", AER, vol. LXII, no. 3 (June 1972).

estimation procedures. One of the more accepted philosophical definitions of causation, "predictability according to a law or a set of laws", differs somewhat from "a reduction in forecasting variance with respect to a particular information set", the definition of causality proposed by the econometrician Clive Granger in his direct estimation procedure.²⁰ In particular, if X and Y are two time series sets and if past data about X can be used to acquire a more accurate forecast of the predicted value of Y than could have been acquired from past data about Y alone, then Y can be said to be caused by X.²¹

Although the concept of law or theory does not appear in Granger's definition, Zellner has pointed out the danger of testing without regard to some a priori theoretical framework, what he terms a "law or a set of laws". These so-called laws can be based on information which is fully quantitative (metrical), semi-quantitative (topological) or entirely qualitative. The qualitative information obtained from the case study of investment banking and merger promotion in Chapters Three and Four which suggest a direct causative relationship between stock prices and merger activity provides us with strong a priori

²⁰The summaries of the philosophical and econometric definitions are drawn from Arnold Zellner's discussion in "Causality and Econometrics", Three Aspects of Policy and Policy-Making: Knowledge, Data and Institutions, eds K. Brunner and A.H. Meltzer (Amsterdam, 1979).

²¹J.J. Clark, A.K. Chakrabarti and T.C. Chiang, op.cit., p. 288.

grounds.

The Granger estimation procedure can be specified as:

$$\Delta Y(t) = \sum_{k=1}^m a(k) \Delta Y(t-k) + \sum_{j=1}^n b(j) \Delta X(t-j) + e(t)$$

where $Y(t)$ and $X(t)$ are two stationary series with $a(k)$ and $b(j)$ as the corresponding coefficients; $e(t)$ is a disturbance term without autocorrelation. The first difference operator, Δ , is used to transform the data into a stationary series and to dampen possible multicollinearity produced as a result of a common time trend. Under the null hypothesis that $X(t)$ does not "cause" $Y(t)$, we set $b(j) = 0$ for $j = 1, 2, \dots, n$. In addition to the lagged variables, a contemporaneous variable is also included to test the importance of the contemporaneous variable relative the lagged variables and to test the hypothesis that no causation exists at all. By placing X as the dependent variable we can perform the Granger procedure in the reverse direction to test the null hypothesis that Y does not cause X , specified as follows:

$$\Delta X(t) = \sum_{k=1}^m A(k) \Delta X(t-k) + \sum_{j=1}^n B(j) \Delta Y(t-j) + e(t)$$

In a further causality test, the Sims procedure specified below is used to estimate whether the coefficients on the future values are statistically significant:

$$\Delta Y(t) = \sum_{j=0}^m A(j) \Delta X(t-j) + \sum_{j=1}^n B(j) \Delta X(t+j) + e(t)$$

$A(j)$ is the coefficient on the current and lagged values of X and $B(j)$ is the coefficient on the future values of X . Reverse causation in the Sims test can be specified as follows:

$$\Delta X(t) = \sum_{j=0}^m a(j) \Delta Y(t-j) + \sum_{j=1}^n b(j) \Delta Y(t+j) + e(t)$$

Both tests of causality employ F-statistics derived from constrained and unconstrained equations to determine whether causation exists as well as the direction of causation. These causation results are illustrated in Tables 18, 19 and 20 below. When the null hypothesis is rejected, causation and its direction are indicated by an arrow, $==>$. When the null hypothesis is accepted the symbol $=/=>$ denotes no causal direction. The asterisk, *, indicates significance at the 5 per cent level. The dependent variable is, in all cases, the number of mergers in Canadian manufacturing industry.

From Table 18, we can conclude that there is an interactive relationship between stock prices and merger activity and that this relationship is largely contemporaneous, with high stock prices causing mergers but mergers in turn producing higher stock prices. According to the individual t-tests, this relationship holds to a more limited degree when the independent variable is lagged one period. Stock prices as recorded in the existing year

Table 18

GRANGER AND SIMS TESTS ON THE CAUSAL RELATIONSHIP BETWEEN
MERGER ACTIVITY (M) AND STOCK PRICES (S)
(Canada, 1900-1934)

<u>Equations</u>	<u>Hypothesis</u>	<u>F-stat</u>	<u>Causation</u>
Granger Test	lagged variables=0		
(1) & (2)	$b(1)=\dots=b(4)=0$	0.53	$S =/=> M$
(1) & (3)	$b(0)=\dots=b(4)=0$	6.02*	$S \===== M$
(8) & (9)	$B(1)=\dots=B(4)=0$	3.58*	$M \===== S$
(8) & (10)	$B(0)=\dots=B(4)=0$	18.49*	$M \===== S$
Sims Test	future variables = 0		
(1) & (24)	$b(1)=\dots=b(4)=0$	4.02*	$S \===== M$
(1) & (18)	$B(1)=\dots=B(4)=0$	2.48*	$M \===== S$

SOURCE: Tables 26 and 27, Appendix E.

and in the preceding year cause merger activity and, conversely, contemporaneous as well as past-period merger activity cause high stock prices.

It is likely that the feedback effect between stock prices and mergers, when it reaches a fevered pitch, produces the phenomenon we call merger waves. Before we can pursue this possibility, we should determine the relationship between mergers and other variables, particularly underlying "economic" variables such as industrial output as was done by Nelson and Hannah as well as by Clark, Chakrabarti and Chiang in their more recent study. Unfortunately, we are faced with a statistical limitation in this respect. There are no annual series of industrial output

statistics for Canada covering the relevant period. Morris Altman has recently completed an annual series of real value added for Canadian manufacturing industry but it ends in 1924 thereby preventing causality testing over the period 1900 to 1934.²²

In its place, real gross national product (GNP) will be used as a proxy for general economic conditions to test against the financial factor of stock prices. The causality results depicted below in Table 19, indicate again an interactive relationship between the buoyancy of the economy as a whole and merger activity. These findings point out the danger of relying on an exclusively financial theory of merger causation. It appears that merger activity is encouraged during the prosperous periods of the business cycle and that the business cycle itself is affected by merger activity, no doubt through the large amount of investment represented by rapid rates of external growth. These results, though not as statistically significant as the results in Table 18, suggest that underlying economic factors are likely important in encouraging merger activity and that external growth

²²M. Altman, op.cit., table 9, pp. 52-53. In a series of two-variable and multi-variable regressions the manufacturing variable was not statistically significant. For example:

$$\text{MERGER}(1900-1926) = -40.836 + 0.660\text{STOCK} - 0.002\text{MANUF}$$
$$(-6.02) \quad (5.73) \quad (-0.18)$$

$$\text{R-Bar-Squared} = 0.68 \quad F(2,24) = 28.97 \quad DW = 1.73$$
$$N = 27 \quad \text{OLS estimation}$$

through consolidation and acquisition is a factor in the real growth of an economy.

Table 19

GRANGER AND SIMS TESTS ON THE CAUSAL RELATIONSHIP BETWEEN
MERGER ACTIVITY (M) AND GROSS NATIONAL PRODUCT (G)
(Canada, 1900-1934)

<u>Equations</u>	<u>Hypothesis</u>	<u>F-stat</u>	<u>Causation</u>
Granger Test	lagged and contemporaneous variables=0		
(1) & (4)	$b(1)=\dots=b(4)=0$	1.54	$\Delta G =/=> \Delta M$
(1) & (5)	$b(0)=\dots=b(4)=0$	3.44*	$\Delta G ==> \Delta M$
(11) & (12)	$B(1)=\dots=B(4)=0$	1.42	$\Delta M =/=> \Delta G$
(11) & (13)	$B(0)=\dots=B(4)=0$	3.31*	$\Delta M ==> \Delta G$
Sims Test	future variables = 0		
(25) & (26)	$b(1)=\dots=b(4)=0$	2.23*	$\Delta G ==> \Delta M$
(19) & (20)	$B(1)=\dots=B(4)=0$	3.54*	$\Delta M ==> \Delta G$

SOURCE: Tables 26 and 27, Appendix E.

Based on a priori grounds as well as the case study evidence already presented, interest rates may determine the level of merger activity in two ways. Given that acquisitions and consolidations involve a purchase of existing assets, the level of interest rates would appear to be an important determinant of the decision by owners to choose this growth strategy relative to a strategy of assembling new assets, what we call internal growth. We can call this the merger investment hypothesis.

The interest rate variable is also important from the point of view of the merger promoter. Max Aitken, for example, depended upon large amounts of borrowed money to finance his options to purchase and, if the consolidation went forward, to cover the cash portion of the purchase of the assets of existing industry owners and to provide immediate operating expenses for the new entity. Promoters, therefore, by means of call-loans, borrowed very large amounts of money on a short-term basis recouping their outlays with the successful issue of the consolidation's securities. It seems logical, therefore, that the lower the cost of borrowing such money the greater the capacity of promoters to engage in further merger activity. We can call this the capacity hypothesis.

In testing the above hypotheses against merger activity, we are limited to a long-term rate of interest due to the unavailability of short-term interest rate data covering the years in question. According to Table 20 below, we must accept the null hypothesis of no relationship between merger activity and interest rates. It must be emphasised, however, that we cannot accurately test the capacity hypothesis or perhaps even the merger investment hypothesis without a short-term interest rate variable and until we have such data it is dangerous to draw any definite conclusions from these causality results.

Table 20

**GRANGER AND SIMS TESTS ON THE CAUSAL RELATIONSHIP BETWEEN
MERGER ACTIVITY (M) AND INTEREST RATES (I)
(Canada, 1900-1934)**

<u>Equations</u>	<u>Hypothesis</u>	<u>F-stat</u>	<u>Causation</u>
Granger Test	lagged and contemporaneous variable=0		
(1) & (6)	$b(1)=\dots=b(4)=0$	0.09	$\Delta I =/=> \Delta M$
(1) & (7)	$b(0)=\dots=b(4)=0$	0.15	$\Delta I =/=> \Delta M$
(14) & (15)	$B(1)=\dots=B(4)=0$	0.58	$\Delta M =/=> \Delta I$
(14) & (16)	$B(0)=\dots=B(4)=0$	0.59	$\Delta M =/=> \Delta I$
Sims Test	future variables=0		
(27) & (28)	$b(1)=\dots=b(4)=0$	0.34	$\Delta I =/=> \Delta M$
(21) & (22)	$B(1)=\dots=B(4)=0$	1.40	$\Delta M =/=> \Delta I$

SOURCE: Tables 26 and 27, Appendix E.

An alternate measure of merger activity, firm disappearances, was used as a control on the main results by recalculating all the causality tests using firm disappearances as the dependent variable in place of the number of mergers. The results confirm to a considerable degree the results obtained using the number of mergers as a dependent variable.²³

Consequently, it appears that there is an interactive and largely contemporaneous positive causative relationship between

²³See Tables 28 and 29 in Appendix E, pp. 281 and 282, respectively.

merger activity on the one hand and stock prices as well as the general level of economic growth on the other hand. Of the two, the stronger relationship is that between merger activity and stock prices. This aggregate result confirms the micro evidence of the importance placed by promoters on the level of stock prices in bringing forward merger propositions but it also reveals that merger activity itself produces higher stock prices.

In effect, this suggests that once stock prices are high enough to initiate considerable merger activity the process begins to feed upon itself pushing stock prices even higher.²⁴ The process comes to an abrupt halt through a severe shock which appears to be endogenous to the system itself -- the collapse of a significant industrial flotation and, along with it, the temporary loss of confidence in the promoters and investment banks behind the issue. The failure of a major industrial issue can trigger the failure of other issues, which in turn can further erode confidence in the financial system as a whole. In Keynes's terms, the marginal efficiency of capital collapses and industrial securities become undervalued when only days before they were overvalued. Such "market corrections" during the gilded age tended to be extreme.

²⁴This close connection between mergers and stock-price activity is certainly plausible in the Canadian case before 1914 as the majority of listed "industrials" had experienced some form of merger activity in the preceding five years. AFR, vol. XIV (May 1914).

CHAPTER NINE

CONCLUSION

The case study information in Chapters Two through Five can now be combined with the aggregate data and causality tests of Chapters Six, Seven and Eight to present a more complete analysis of the connections between corporate promotion, mergers and the finance of manufacturing industry during the gilded age. Although the methodology employed in both parts may seem incompatible, the insights obtained from each can be fused into a coherent whole not qualified by the limitations of a macro or a micro analysis standing alone.

The technological and organisational changes wrought during the second industrial revolution in Canada markedly increased the fixed costs of manufacturing firms. This produced a demand for capital that often exceeded the amount that could be delivered by profit retention, investment by family or local community members, or by short-term bank advances. Large amounts of capital began to be delivered through the pooling together of the funds of thousands of investors, the vast majority of whom had no direct connection to the enterprise being funded.

A specialised group of financiers known as corporate promoters emerged to facilitate the transfer of individual savings to manufacturing enterprises. These promoters worked to

increase the supply of capital by enlarging the potential pool of savings. This was done through the creation of new markets for industrial securities and the expansion of the share of savings that individual investors were willing to earmark for industrial companies relative to other forms of investment including government securities and bank deposits. The well-publicised security flotation based on pyramidal, high-risk financial methods provided the maximum profit incentive possible to promoters, underwriters and brokers to search out investors and sell the new industrial issues. At the same time, the tremendous cost associated with the failure of a flotation was a powerful motivation to make issues successful even at the expense of some short-term loss.

Corporate promoters were in fact merger promoters as consolidations became an essential ingredient in facilitating capital issues. The promoter's most important job was to "package" the industrial firm in such a way that investors would be eager to purchase its securities. This often meant constructing new corporate entities through merger. From the promoter's perspective industrial flotations and mergers were closely connected in two ways. First, firms had to be a certain "minimum" size to appeal to public investors. Investors were attracted to industrial enterprises with some degree of monopoly power and, therefore, which held out the possibility of monopoly profits. In industries plagued by overproduction, investors

assumed that some control over price and output was necessary to achieve a minimum level of profitability. Large consolidations seemed to promise both monopoly profits and price stability. Second, industrial enterprises had to be above a critical size before a quotation on a major public stock exchange would be permitted. Although a flotation could occur without a subsequent public listing, investors were willing to pay more for the securities of enterprises they knew would eventually be listed. The quotation was itself the mark of a "quality industrial" and stock exchanges were thought to reduce fluctuations in the price of the securities. From the perspective of the industrial's major shareholders, large size was desirable in that it reduced the average cost of the capital issue. Given the size of most firms in the late nineteenth century, only external growth instantaneously achieved through a multi-firm consolidation could provide the requisite size to immediately realize all three objectives.

Merger promoters, particularly those that initiated consolidations, became the dominant financiers of Canadian industry at the peak of the Laurier boom which coincided precisely with the merger wave of 1909-1912. Max Aitken is likely the most extreme example of the promoter who concentrated as much on originating mergers as in facilitating finance. Naturally, promoters who were responsible for overturning traditional methods of finance and who acted as principals rather

than as mere financial agents, disturbed the status quo, producing repercussions within the Canadian polity. The reaction took two forms. Mergers themselves were criticised for gouging the consumer, preventing new competition, and other non-competitive practices. Some promoters, in particular Aitken, were accused of profiteering and defrauding company treasuries. A populist coalition pressured the federal government into taking action to stem the tide of mergers. This opposition was not successful, however, in obtaining effective antitrust legislation or in gaining free trade which, according to the populists, would have stripped away tariff protection and thereby destroyed the "combines".

Nonetheless, tariff protection did not shield these companies from the competition of new entrants which were often in the form of branch plants set up by American corporations to circumvent high duties. Moreover, it gave no advantage to the new consolidations in competing on the international marketplace. In fact, the export market established by Canada Cement, Canadian Car and Stelco was modest. Although all three companies quickly instituted managerial and organisational changes that characterised the most modern industrial enterprises of the twentieth century none pursued an aggressive strategy of foreign direct investment. This "failing" appears to have been common to many of the Canadian consolidations created during the Laurier boom and to Canadian industrial enterprises generally.

To explain the appearance of the merger wave of 1909-1912 we must reconstruct the stages of a high-risk flotation. First, options to purchase were obtained from those companies interested in entering the merger. Once agreement was reached, a new entity was incorporated. The promotional syndicate would then purchase the senior securities of the company at an agreed-upon price taking the common shares as promotional profit. The stock would then be underwritten and sub-underwritten. With the publication of a prospectus stating the value and earning-power of the amalgamated assets as well as the objectives of the new entity, the securities would be released for public sale through an initial subscription heavily advertised by the original syndicate and the underwriters. A common stock bonus, a more popular feature in North America than in Britain, was offered to these investors depending on the inherent strength of the senior securities and on the nature of the capital market.

If the stock was fully subscribed or, even better, oversubscribed, applications would then be made to have the senior securities listed on the stock exchange as promised in the prospectus. The choice of exchange depended on where it was likely that most future trading in the stock would take place. If mainly Canadian investors were involved, then a listing on the Toronto and Montreal exchanges would suffice, but if a large number of British investors were already involved or if British brokers and investors would participate in future security

issues, an application would be made to the London Stock Exchange. The whole process, from merger negotiations to public listing, could take as little time as three months or as much time as three years. This depended on the difficulty of negotiations and the obstacles in obtaining a quotation on the London Stock Exchange.

The money thus raised from the public subscription would be used to carry out the merger plans as indicated in the prospectus which generally included rationalisation and the erection of new plant and equipment. The consequences of the merger afterwards depended more on the management put in place, the corporate strategies evolved, and the trajectory of the industry itself, than on the initial financial advantages or disadvantages. The impact of finance capitalism with its legacy of overcapitalisation and high-debt loads was ultimately a temporary one.

While extraordinary profits provided the motive, high stock prices furnished the opportunity for mergers. According to both the case study research and the aggregate statistical evidence, the industrial flotations of newly consolidated mergers were dependent on stock market conditions. New merger flotations would begin during an upward rise in stock prices, flourish during an extended period of high prices and then die off with a sustained downward movement of stock market prices. Causality

tests demonstrate that there was a significant feedback effect in that intense merger activity also pushed up stock prices.

Before a sustained wave of merger activity was possible, however, an extensive market for Canadian industrial securities had to be created. The high stock prices at the turn of the century did not produce a significant merger movement in Canada because no such market yet existed. This contrasts with merger movements at that time in the United States, Britain and Germany, all of which had recently witnessed the emergence of markets for industrial securities. The market for Canadian industrials was being created by high-risk financial methods at the turn of the century but there were still too few large manufacturing firms and the Canadian investment community was too shallow to support a full-blown merger wave. The tremendous growth of manufacturing firms combined with the creation of an extensive market in Britain for Canadian industrial securities in the following decade, were the necessary pre-conditions for the first major merger wave. The recurrence of high stock prices in 1909 was sufficient tinder to start the movement.

Merger activity does not occur in a "financial" vacuum, however. The level of economic growth must be substantial enough to support the average investor's optimistic expectations or a speculative phase cannot occur. A simple stock buoyancy theory of merger activity, therefore, will never be adequate. This is

the reason why merger movements are restricted to periods of economic prosperity irrespective of the relative level of stock prices. This economic factor explains why the normally positive correlation between stock prices and merger activity became negative during the later years of the Great Depression in Canada.

Since the first merger movements of the gilded age, sustained bull markets have always been marked by merger activity of one type or another. At first, multi-firm consolidations constituted the bulk of this activity but acquisitions became much more important by the merger boom of the 1920s and dominated the post-World War II era. New methods of merger financing continue to drive the financial system. Moreover, in this process of creative destruction, they may even be capable of once again shaking the system to its knees. In New York, where high-risk merger flotations were pioneered, the consequences of the rise and decline of "junk-bond" financing reverberates throughout the financial centres of the world. At the same time, some very familiar arguments about the role of promoters, the nature of security financing, and its role in the real economy are being raised.¹

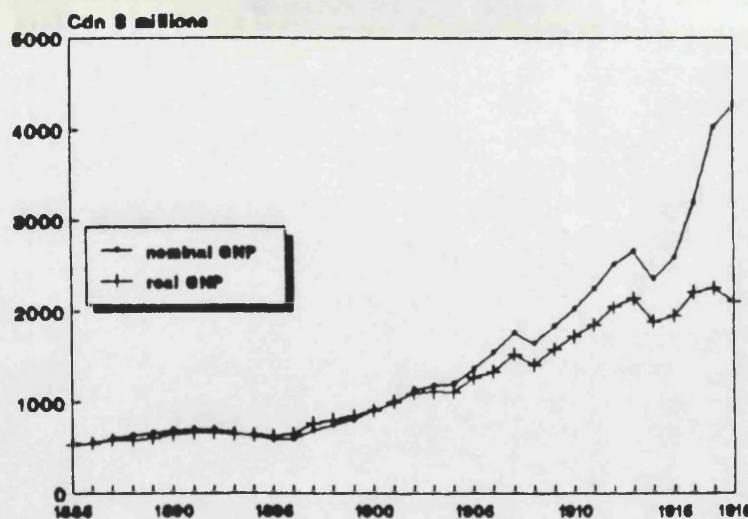
¹M. Schrage, "Drexel's Demise Should Be a Warning About Financial Innovations", The Washington Post, 16 February 1990.

APPENDIX A

REAL GROWTH IN THE CANADIAN ECONOMY, 1885-1918: TOTAL GROWTH, SECTORAL GROWTH AND GROWTH BY SIC (1948) MAJOR INDUSTRY GROUPS

SOURCE: Derived from M. Altman, "Revised Estimates of Real Canadian GNP and Growth and Pre and Post World War Two Volatility of the Canadian Business Cycle with some Comparison to the American Record", unpublished paper, Department of Economics, University of Saskatchewan, 1989.

FIGURE 1, CANADIAN GNP, 1886-1918



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FIGURE 2, RAILWAY SERVICES INDUSTRY
REAL TRANSPORTATION OUTPUT, 1886-1918

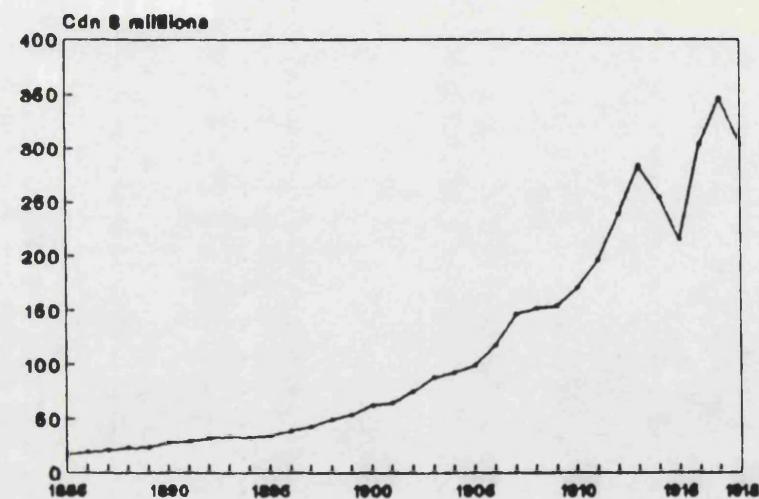


FIGURE 3, CONSTRUCTION INDUSTRY
REAL OUTPUT, 1886 - 1918

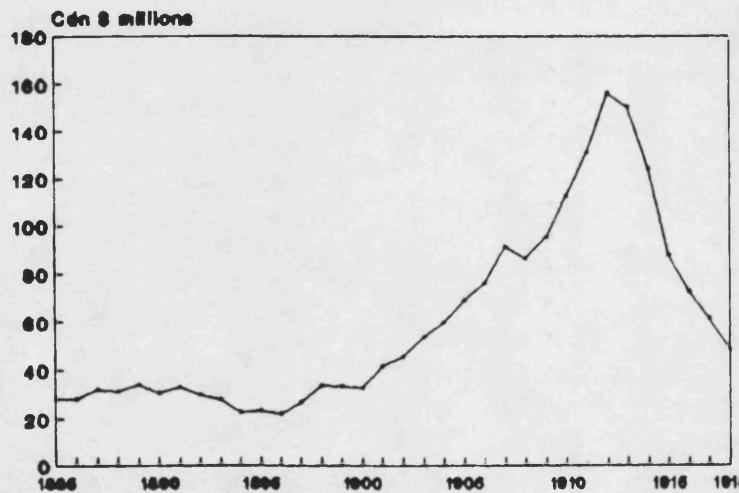


FIGURE 4, CANADIAN MANUFACTURING
REAL OUTPUT, 1886 - 1918

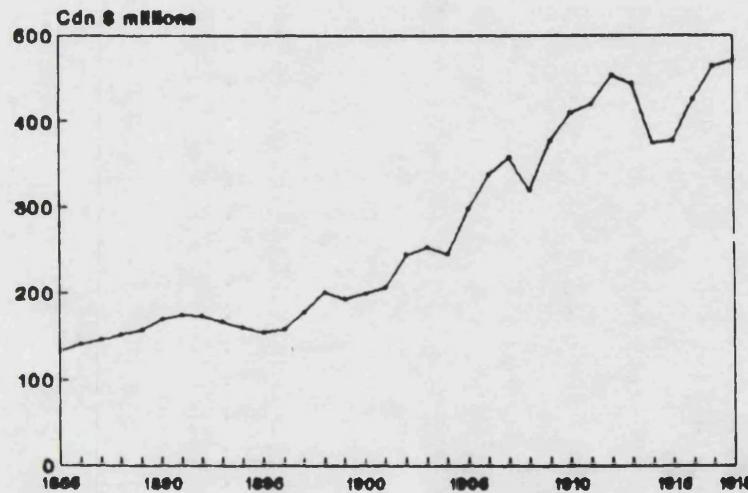
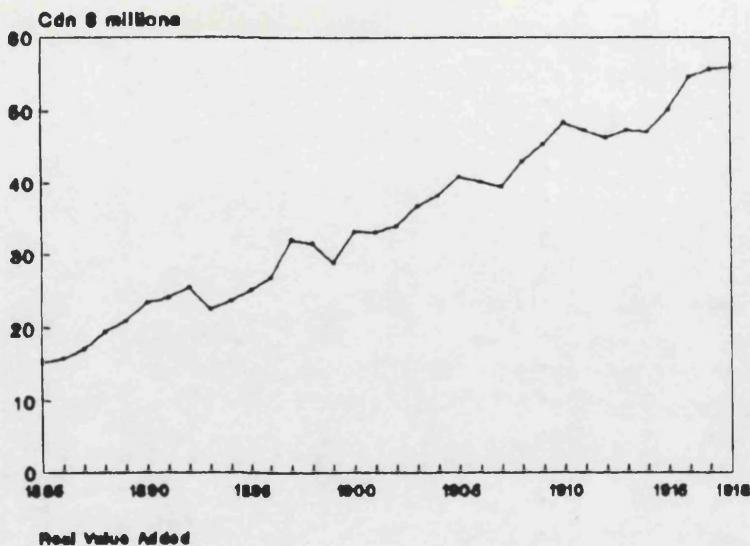


FIGURE 5, FOOD & BEVERAGE, 1885-1918
SIC MAJOR INDUSTRY GROUP I



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FIG. 6, TOBACCO MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP II

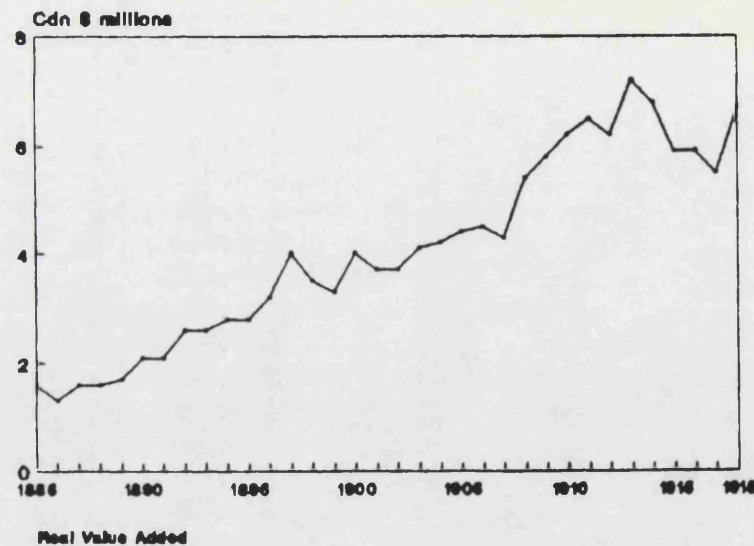


FIG. 7, RUBBER PRODUCTS MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP III

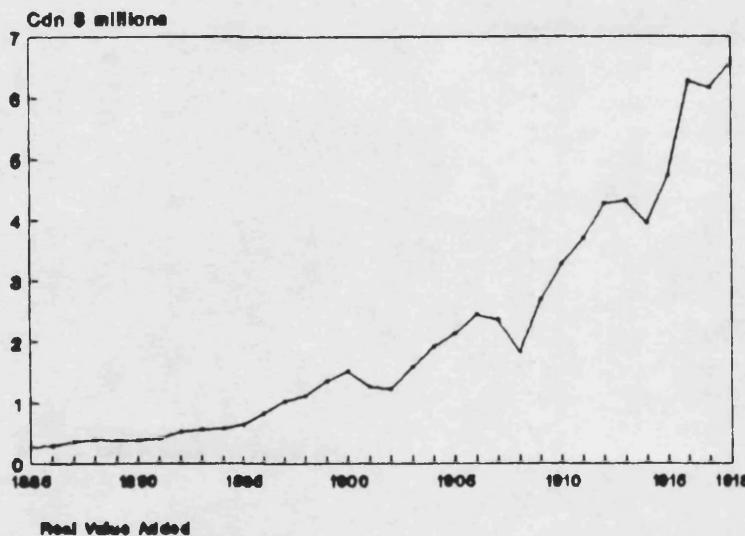


FIG. 8, LEATHER MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP IV

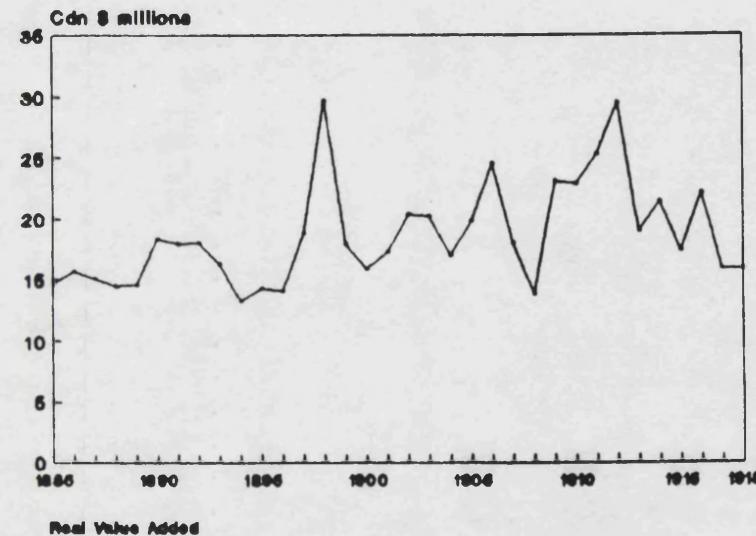
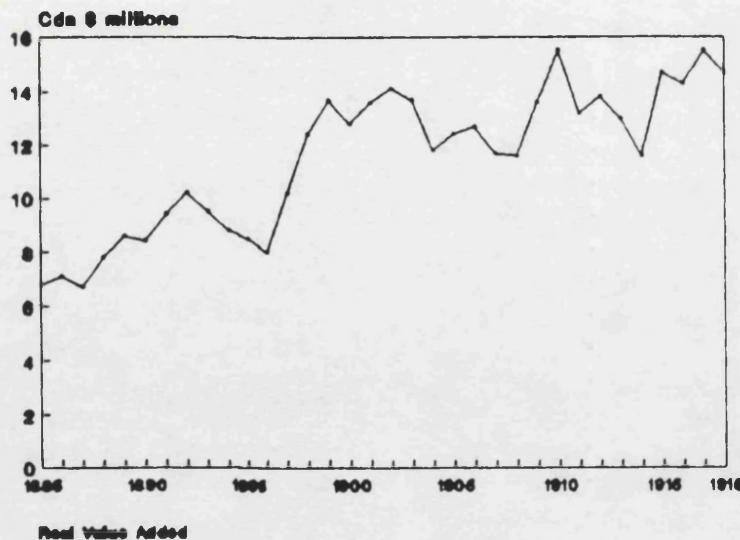


FIG. 9, TEXTILE MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP V



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FIG. 10, CLOTHING MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP VI

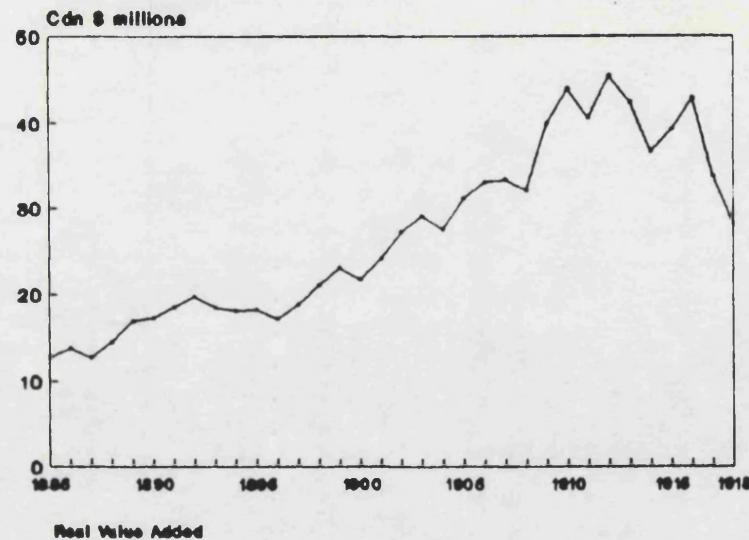


FIG. 11, WOOD & PRODUCTS MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP VII

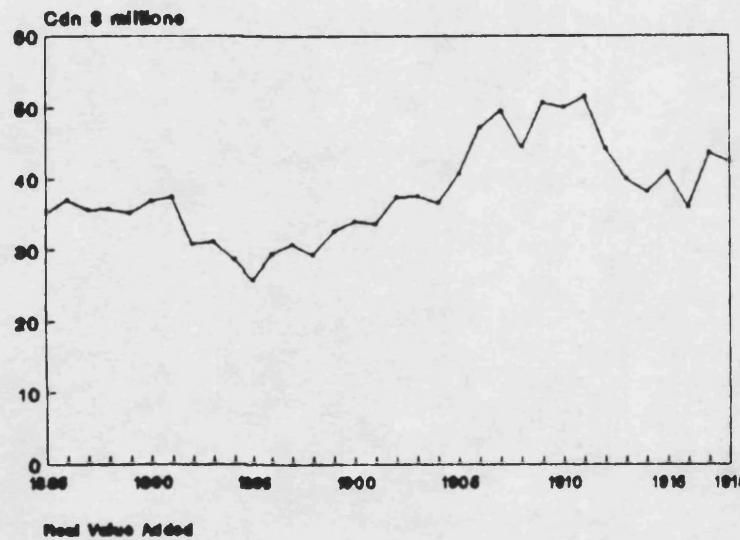


FIG. 12, PAPER MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP VIII

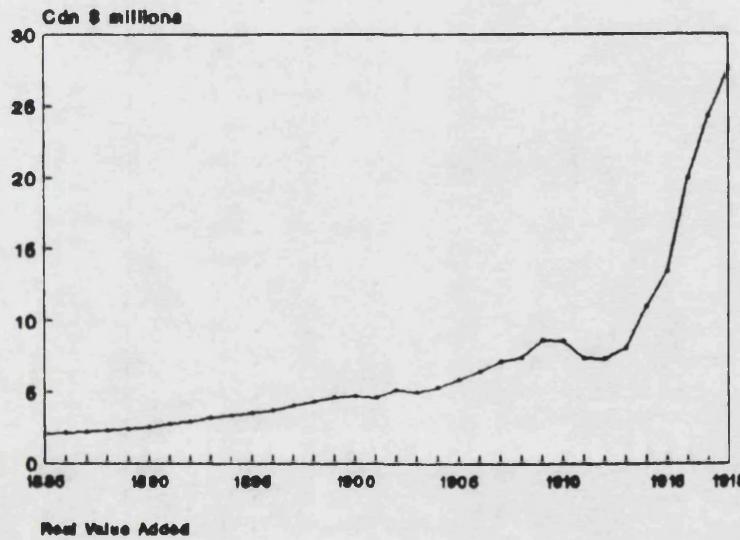


FIG. 13, PRINTING & PUBLISHING, 1885-1918
SIC MAJOR INDUSTRY GROUP IX

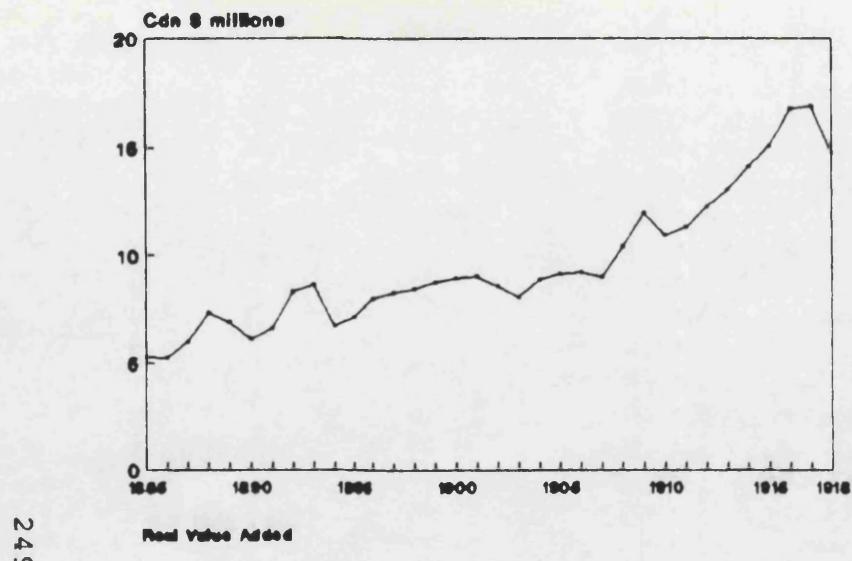


FIG. 15, TRANSPORTATION EQUIPMENT, 1885-1918
SIC MAJOR INDUSTRY GROUP XI

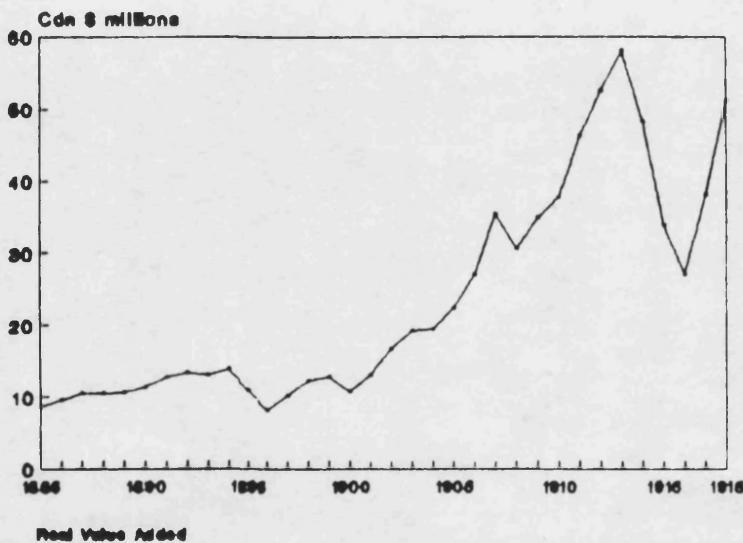


FIG. 14, IRON & STEEL MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP X

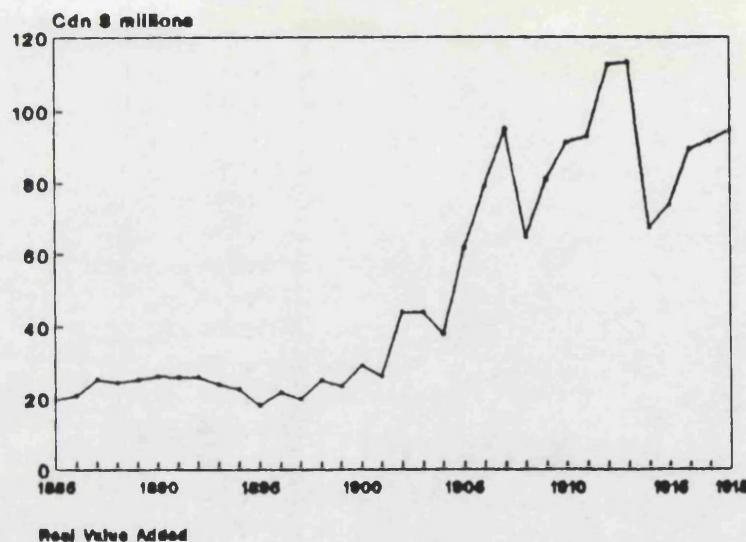


FIG. 16, NONFERROUS METAL PRODUCTS, 1885-1918
SIC MAJOR INDUSTRY GROUP XII

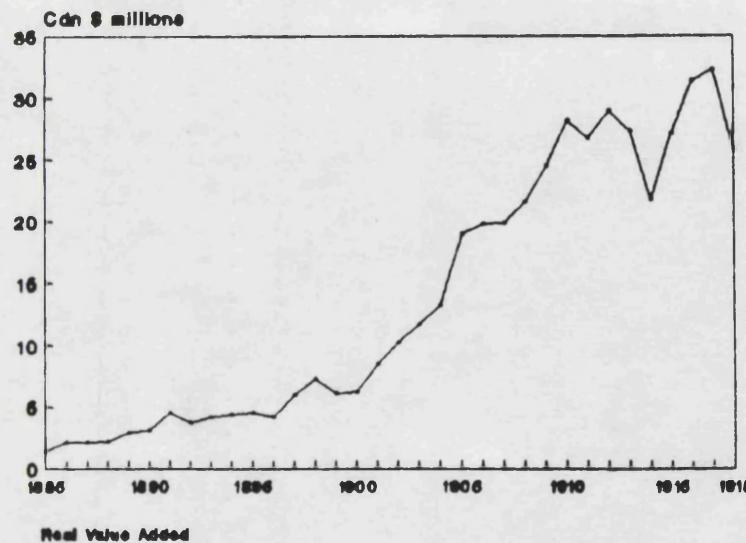


FIG. 17, ELECTRICAL GOODS MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP XIII

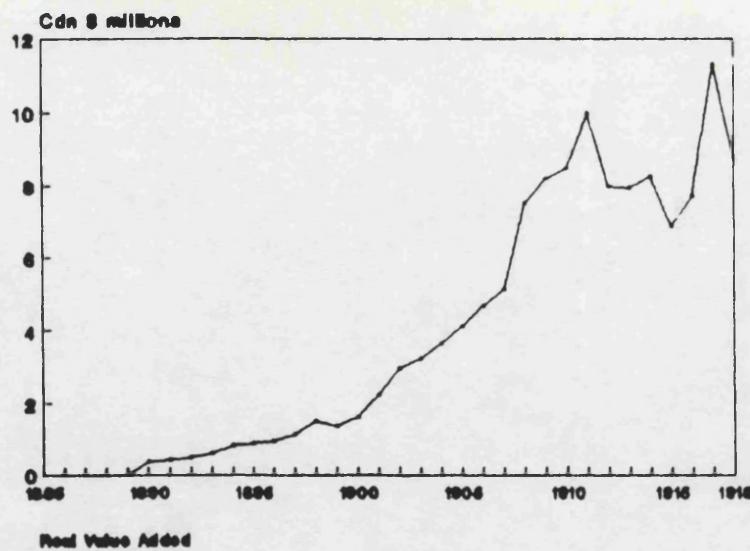


FIG. 18, MINERAL PRODUCTS MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP XIV

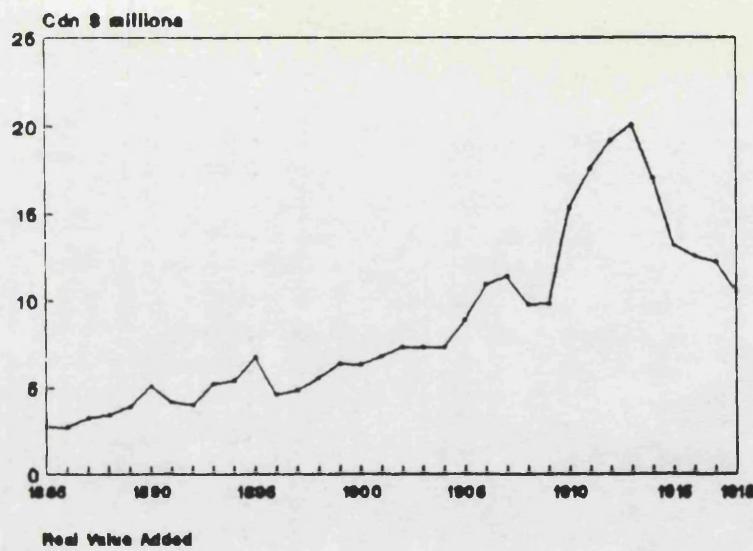


FIG. 19, PETROLEUM & COAL PRODUCTS, 1885-1918
SIC MAJOR INDUSTRY GROUP XV

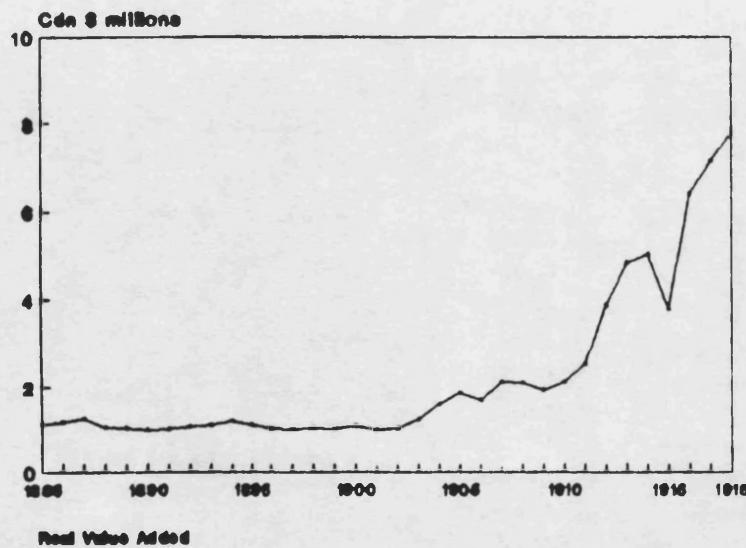


FIG. 20, CHEMICAL PRODUCTS MANUFACTURING, 1885-1918
SIC MAJOR INDUSTRY GROUP XVI

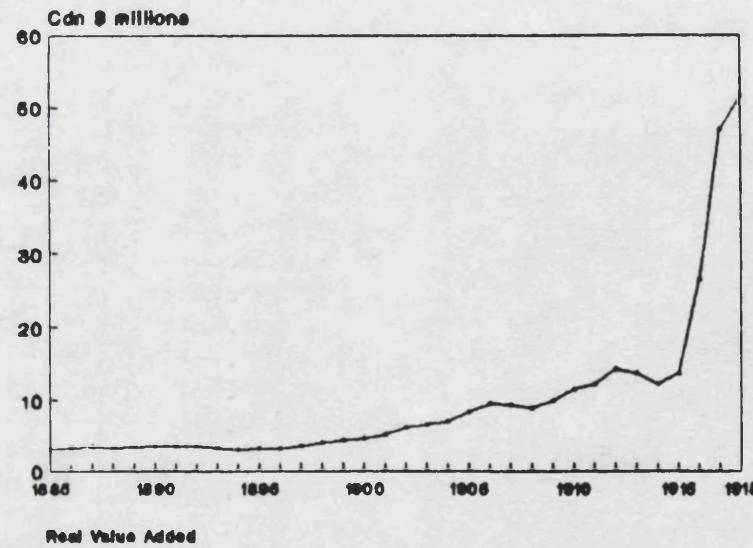
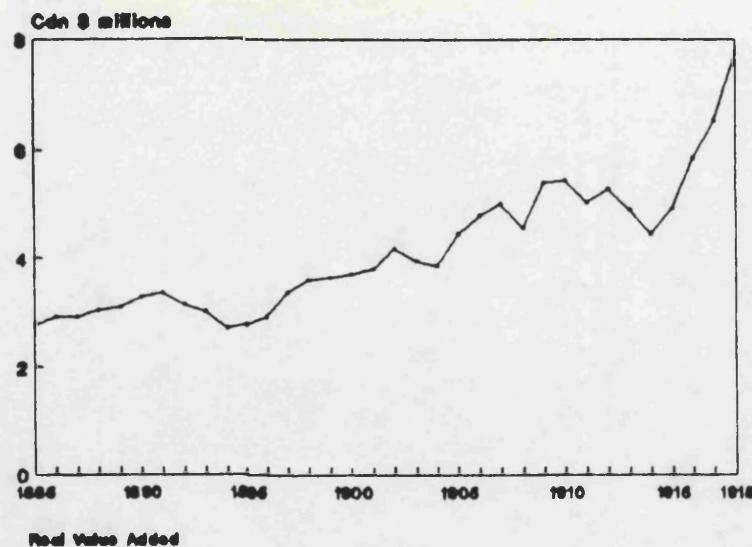


FIG. 21, MISCELLANEOUS MANUFACTURING, 1886-1918
SIC MAJOR INDUSTRY GROUP XVII



APPENDIX B

LIST OF CANADIAN MANUFACTURING INDUSTRY FLOTATIONS IN LONDON: January, 1905 to December, 1913

SOURCE: Derived from F.W. Field, Capital Investments in Canada (Toronto, 3rd ed., 1914), Appendix, List of Canadian Flotations in London, January, 1905, to March, 1912, pp. 259-282.

Table 21

LIST OF CANADIAN MANUFACTURING INDUSTRY FLOTATIONS
IN LONDON: JANUARY, 1905 TO DECEMBER, 1913
(£ thousands)

<u>Year</u>	<u>Month</u>	<u>Name of Company</u>	<u>Nominal Amount</u>	<u>Issued at</u>	<u>Actual Amount</u>
1905	Mar	Imperial Paper Mills	60	par	60
1905	May	Western Can Pulp & P	300	par	300
1905	Aug	Western Can Cem & Coal	225	par	225
			585		585
1906	Feb	Cdn General Electric	220	142.5	314
1906	Jun	Cdn Pac Sulphite Pulp	83	par	83
			303		397
1907	Jun	Annapolis Iron Co	140	92	129
1907	Oct	Cdn General Electric	400	par	400
			540		529
1908	Jan	Penmans, Limited	300	97.5	293
1908	Jul	Penmans, Limited	170	par	170
1908	Jul	Western Can Flour Mills	225	par	225
1908	Oct	Canada Iron Corp	364	99.5	362
			1059		1050
1909	Jan	Montreal Cotton Co	200	97.5	195
1909	Feb	British-Cdn Asbestos Co	144	95	137
1909	Feb	National Drug & Chemical	300	par	300
1909	Apr	Lake Superior Corp	1029	90	926
1909	Jul	Dominion Iron & Steel	1200	93	1116
1909	Jul	Standard Chemical Co	100	98.5	96
1909	Oct	Canada Cement Company	360	93	335
1909	Nov	Cdn Car & Foundry	648	95	616
			3981		3721
1910	Jan	Canada Cement Company	206	par	206
1910	Feb	Cdn Car & Foundry	483	par	483
1910	Feb	Amalgamated Asbestos	624	92	575
1910	May	Nova Scotia Steel & Coal	309	95	294
1910	May	Cdn Oil Prod & Refining	75	par	75
1910	Jun	Dominion Sawmills	800	95	760
1910	Jul	Steel Co of Canada	925	110	1017
1910	Jul	National Drug & Chemical	49	par	49

<u>Year</u>	<u>Month</u>	<u>Name of Company</u>	<u>Nominal Amount</u>	<u>Issued at</u>	<u>Actual Amount</u>
1910	Aug	Noiseless Typewriter Co	20	par	20
1910	Nov	Lake Sup Iron & Chem	616	par	616
1910	Nov	Cdn Mills & Timber	100	par	100
1910	Nov	Price Bros & Co	1000	87	870
1910	Nov	Cdn North Pacific Fish	400	86	344
1910	Dec	Western Can Bag & Env	<u>12</u>	par	<u>12</u>
			5619		5421
1911	Mar	Cdn Steel Foundries	411	par	411
1911	Mar	P Burns & Co.	200	par	200
1911	Mar	Lake Superior Paper Co	719	97	697
1911	Mar	Spanish River Pulp & P	267	98.5	263
1911	Mar	Std Chemical Iron & Lum	200	par	200
1911	Apr	Canadian Cottons, Ltd	370	93	344
1911	May	Cockshutt Plow Co	750	102	765
1911	May	Ames-Holden-McCready	206	101	208
1911	Jun	Belding Paul & Cortic	154	90	154
1911	Jun	Steel Co of Canada	200	94	188
1911	Jun	Dominion Sawmills	1028	97.5	1002
1911	Jun	Mond Nickel Co	250	par	250
1911	Nov	Wpg Paint & Glass Co	82	par	82
1911	Dec	B C Fisheries, Ltd	<u>125</u>	par	<u>125</u>
			4965		4889
1912	Apr	Dominion Steel Corp	1000	95	950
1912	May	Algoma Steel Corp	1130	93	1051
1912	Jun	Calgary Brewing & Malt	247	86	212
1912	Jun	Riordan Pulp & Paper Co	317	97	307
1912	Jun	Riordan Pulp & Paper Co	158	95	151
1912	Oct	B C Breweries Ltd	<u>583</u>	95	<u>554</u>
			3435		3225
1913	May	Phoenix Bridge & Iron	154	96	148
1913	May	Phoenix Bridge & Iron	164	50	82
1913	May	Cdn Car & Foundry	185	114	211
1913	Jun	Dominion Canners, Ltd	154	99.5	153
1913	Jun	Dominion Glass Co	296	97.5	288
1913	Jun	Imperial Tobacco Co	417	par	417
1913	Jun	National Drug & Chemicl	200	par	200
1913	Jul	British North Am Tobac	50	par	50
1913	Jul	Cdn Car & Foundry	308	107	330
1913	Jul	J H Sherrard Manuf Co	150	par	150
1913	Oct	Nova Scotia Steel & Coal	200	98	196
1913	Oct	San Martin Manuf Co	150	par	150
1913	Nov	Dominion Steel Corp	700	97	679
1913	Nov	Spanish River Pulp & P	<u>300</u>	96	<u>288</u>
			3428		3342

APPENDIX C

**CASE STUDY OF CANADIAN CAR AND FOUNDRY COMPANY, LIMITED
LONDON SHARE FLOTATION OF 1909**

The following information concerning the underwriting and brokering of Canadian Car and Foundry Company's preference share flotation was derived from the documentation submitted by the company to the London Stock Exchange concerning an application to list \$3.5 million common shares and \$5.0 million preference shares.¹ Most of the preference shares were sold to British investors during the London flotation of November, 1909. A large portion of the common stock was distributed to the various underwriters and brokers of the City of London who participated in the flotation in payment for their services, despite the company's official statement to the London Stock Exchange that the entire block of the \$3.5 million common shares had "been allotted to the shareholders of the amalgamating Companies...in payment for property and assets."²

Included in the documentation was a list of the largest shareholders of Canadian Car common stock. Although dated some nine months after Canadian Car's preferred stock flotation, the document is of value in determining the cluster of British investment bankers and brokers involved in the flotation of one of the largest Canadian industrials during the gilded age. Table 22 below is a list of those underwriters and brokers holding

¹LSE, MS 18000/145B/759, application to grant a quotation for common stock and seven per cent cumulative preferred stock of Canadian Car and Foundry Company, Limited dated 4 March 1910.

²Ibid.

Canadian Car common stock, ranked according to the size of their holdings. With the exception of one name, all had a City of London address.³

Table 22

ENGLISH UNDERWRITERS AND BROKERS IN THE
CANADIAN CAR PREFERENCE SHARE FLOTATION OF NOVEMBER, 1909

<u>Name</u>	<u>Common shares par value (\$)</u>
Western Canada Trust	1,029,400
Fielding Son & MacLeod	629,000
Sperling & Co.	247,700
A.V. Gehlcken (Western Trust Co.)	120,700
T.E. Johns	118,000
Western Canada Trust (I.H. Benn)	86,600
W. MacLeod (Fielding Son & MacLeod)	80,100
Canadian Agency	58,000
E.F. Kelly	40,000
E.G. Redpath (Carr Sons & Tod)	28,900
F.G. Scott (Carr Sons & Tod)	27,000
Lazard Bros. & Co.	27,000
Tomkinson Brunton & Co.	26,200
Holland & Balfour	23,000
Speyer Bros.	22,000
Baker Mason & Co.	18,700
Carl Meyer	15,000
Kleinwort Sons & Co.	15,000
A.E. Bowen	13,500
A.G. Tontes	13,000
L. Gerald	11,200
	<hr/>
	2,650,000

SOURCE: Derived from LSE, MS 18000/145B/759, list of the largest holdings in Canadian Car common stock contained in a document dated 22 August 1910.

³This was E.F. Kelly whose address was noted as Newbury, Berkshire, England.

The list is an eclectic mixture. Large and established investment banks, such as Kleinwort, Sons & Co., Lazard Bros. & Co. and Speyer Bros.⁴, are included along with small jobbing and brokerage houses now long forgotten. Some of these smaller firms, such as Western Canada Trust, the Canadian Agency and Sperling & Co., specialised in Canadian security issues.⁵

Ian Hamilton Benn of the Western Canadian Trust Company and William MacLeod of Fielding Son & MacLeod were the most significant members of the English promotional syndicate. They distributed Canadian Car's securities among a broad group of underwriting and brokerage houses; and important factor in one of the most successful Canadian industrial issues floated on the London market during the Canadian merger wave. The profits that went to their firms amounted to an aggregate par value of \$1,658,400. Given that a \$100 par value Canadian Car common stock was worth over \$60 when first listed in Canada in early 1910 (rising to a high of \$90 in 1911), this was a considerable profit and goes far to explain "the City's" enthusiasm for Canadian industrial flotations. Moreover, in their capacity as individual underwriters, Benn and MacLeod received an aggregate

⁴See S. Chapman, The Rise of Merchant Banking (London, 1984), pp. 200-201.

⁵See R.C. Michie, "Dunn, Fischer & Co. in the City of London, 1906-14", BH, vol. XXX, no. 2 (April 1988) for an informative summary of the London firms specialized in Canadian securities.

of \$166,700 par value common stock as profit.

The Canadian Agency, a London investment bank that had begun to specialize in Canadian municipal, industrial, railway and land issues by 1906,⁶ had been responsible for Canada Cement's London flotation of October, 1909. The initial reception to Canada Cement's shares was quite good but within a couple of weeks the whole issue became "stuck" and the price of the shares began to plummet. Aitken sent his top employee to London to investigate the situation. They concluded that the Canadian Agency had been responsible for the failure of the flotation by not widely enough distributing the underwriting of Canada Cement securities. This left a bad impression among the various jobbers and brokers interested in Canadian securities who then refused to recommend the issue. Aitken was furious enough to ensure that the Canadian Agency was not put in charge of the Canadian Car and Stelco promotional syndicates. Nevertheless, he was concerned about the possibility of retaliation and, therefore, allowed the firm to handle a smaller slice of his subsequent issues.⁷

⁶Earl Grey (Fourth Earl) Papers, Department of Paleography and Diplomatic, University of Durham, memorandum by Arthur Grenfell on the Canadian Agency, 1914. I am grateful to R. Michie for informing me about the existence of this archival material.

⁷BBK, letter, Aitken to MacLeod, 18 November 1909, A/38 W.M. MacLeod; letters, Aitken and Killam, 14 November 1909, 19 November 1909, A/36/Killam.

There were very few large holdings of Canadian Car's common stock by Canadian residents.⁸ Neither Max Aitken nor the Royal Securities Corporation held any common stock in the company. Aitken and E.R. Wood, the main members of the Canadian promotional syndicate, decided at the last minute not to take the risk involved in the English flotation thereby giving up a common stock profit. As Aitken explained to a colleague:

Wood and I were entitled to 25% of common stock, but we let this go altogether rather than take our chances on the English issue...The expectation of a good profit flitted during the night time, and for the sake of avoiding liability I found myself no great amount to the good.⁹

⁸There were only four significant Canadian holdings. Nathaniel Curry held \$110,000 of common stock while M. Curry, a family member, held \$13,400. Nathaniel Curry was the President of Rhodes Curry and became the new President of Canadian Car. The Curry family likely received these shares as payment for promotional services and for their shares in Rhodes Curry. A member of the large Toronto brokerage house of H. O'Hara & Co. held \$197,700 and J. Redmond of Montreal held \$20,000. Both were likely involved in marketing the small amount of Canadian Car preference stock reserved for the Canadian market and these amounts represent their profits: LSE, MS 18000/145B/759, list of largest holdings of Canadian Car common stock dated 22 August 1910.

⁹BBK, letter, Aitken to Johnston, 9 November 1909, A/41/Thompson, Tilley & Johnston.

APPENDIX D

MERGERS IN CANADIAN MANUFACTURING INDUSTRY, 1885-1918

LIST OF ABBREVIATIONS

Jurisdiction of incorporation and Head office

BC: British Columbia
Fed: Canadian federal laws
Mass: Massachusetts, US
NB: New Brunswick
NS: Nova Scotia
ON: Ontario
PQ: Quebec

General sources of data

AR: Archive
BH: Business history
FM: Financial manual
IC: Industrial Canada
(monthly periodical)
IN: Industrial history
GO: Government Report
MT: Monetary Times
MTAR: Monetary Times Annual Review
TH: Thesis

TABLE 23

MERGERS BY ALPHABETICAL CODE
CANADIAN MANUFACTURING INDUSTRY, 1885-1918

MERGER	CORPORATE NAME OF MERGER	DATE OF MERGER	HEAD OFFICE	INCORP SOURCE OF DATA	NO. OF MERGER
AASB	Amalgamated Asbestos Corporation, Ltd.	04/10/09	Montreal	-	MT 10 April 09, 1815
ACAD	Acadia Sugar Refinery Company	08/04/93	Halifax	-	MT 4 Aug 93, 131
ACCA	Acme Can Works, Ltd.	10/31/05	Montreal	-	IC Oct 05, 218
ACME	Acme Motor Carriage Machinery Company, Limited	10/22/10	Hamilton	-	MT 22 Oct 10, 1723
ADAM	The Adams Tobacco Company	01/09/85	Montreal	-	MT 9 Jan 85, 769
AMES	Ames Holden Company	03/01/89	Montreal	-	MT 1 March 89, 994
AMHO	Ames-Holden McCready, Ltd.	03/04/11	Montreal	-	MT 4 March 11, 932
ANBR	Anglo-British Columbia Packing Co., Ltd.	05/22/90	New West BC	Uk	MT 22 May 91, 1429
ASEF	Asepto Soap, Ltd.	04/02/10	St John NB	-	MT 2 April 10, 1420
ATFI	The Atlantic Fish Company, Limited	06/29/07	Lunenburg NS	-	MT 29 June 07, 2088
BADD	Badgerow, Faulkner Vinegar Manufacturing Co.	10/18/89	Toronto	-	MT 18 Oct 89, 456
BCAN	The British Columbia Canning Company	03/29/89	London UK	UK	MT 29 March 89
BCIF	British Columbia Iron Manufacturing Company	04/18/02	Victoria	-	MT 18 April 02, 1354
BCIW	British Columbia Iron Works Company	10/28/92	Vancouver	-	MT 28 Oct 92, 487
BCPA	British Columbia Packers Association	05/20/02	New West BC	US	FM AFR(III 21)
BCRE	British Columbia Breweries Ltd.	10/26/12	Montreal	-	MT 26 Oct 12, 642
BEAV	The Beaver Oil & Gas Company, Limited	10/11/01	Brantford ON	ON	MT 11 Oct 01, 471
BEPA	Belding Paul & Corticelli Silk Co., Ltd.	04/22/11	Montreal	-	MT 22 April 11, 1625
BERB	Berlin Brush Works	12/14/93	Berlin ON	-	MT 14 Dec 94, 760
BIRI1	Henry Birks & Sons, Ltd.	12/31/98	Montreal	-	BH Macleod, 68
BIRI2	Henry Birks & Sons, Ltd.	04/30/07	Montreal	-	IC April 1907, 727
BIRI3	Henry Birks & Sons, Ltd.	10/07/11	Montreal	-	MT 7 Oct 11, 1519
BLLA	Black Lake Asbestos Co., Ltd.	08/28/09	Montreal	Fed	MT 28 Aug 09, 924
BOLT	Canada Bolt & Nut Co., Ltd.	02/12/10	Toronto	-	MT 12 Feb 10, 714
BRAN1	Brandrae-Henderson, Ltd.	11/10/06	Montreal	Fed	AR MLRD BBK Papers
BRAN2	Brandrae-Henderson, Ltd.	12/31/15	Montreal	Fed	TH Stapells
BRAS	British-Canadian Asbestos Company, Limited	12/31/07	-	-	IN Mendels 36
BRDG1	Dominion Bridge Co., Ltd.	12/07/12	Lachine PQ	Fed	MT 7 Dec 12, 850
BRDG2	Dominion Bridge Co., Ltd.	12/21/17	Lachine PQ	Fed	MT 21 Dec 17, 29,50
BRFC	Canada Bread Co., Ltd.	08/12/11	Toronto	ON	MT 12 Aug 11, 726
BRGM	Bromton Pulp and Paper Company	06/30/07	Brookfalls PQ	-	IC June 07, 863
BURT	F.N. Burt Co., Ltd.	09/11/09	Toronto	ON	AR MLRD BBK Papers
CACM1	Canadian Cycle and Motor Co., Ltd.	09/30/99	Toronto	-	FM AFR(II 76)
CACM2	Canadian Cycle and Motor Co., Ltd.	11/16/06	Toronto	-	MT 16 Nov 06, 617
CAFL	Canadian Flour Mills Co., Limited	12/07/00	Halifax	Fed	MT 7 Dec 00
CAFU	Canadian Furniture Manufacturers Ltd.	01/11/01	-	-	MT 11 Jan 01, B98-99
CANN1	Canadian Canners Consolidated Companies	04/14/03	Hamilton	ON	BH Elder 21
CANN2	Canadian Canners' Limited	12/31/09	Hamilton	ON	BH Elder 25
CAMP	Canada Paint Company	03/04/92	Montreal	-	MT 4 March 92, 1054
CARB	Canada Carbide Co., Ltd.	07/01/11	Ottawa	-	MT 1 July 11, 126
CART	G. Carter Son & Co., Limited	06/27/02	St Marys ON	-	MT 27 June 02, 1678
CASK	Dominion Manufacturers, Ltd.	03/22/13	-	-	MT 22 March 13, 594
CASO	Canadian Soaps, Ltd.	05/11/12	-	-	MT 11 May 12, 1939
CAST	Canadian Steel Foundries, Ltd.	02/11/11	Montreal	-	MT 11 Feb 11, 648
CCAR1	Canadian Car & Foundry Co., Ltd.	10/29/09	Montreal	Fed	AR MLRD BBK Papers
CCAR2	Canadian Car & Foundry Co., Ltd.	08/31/12	Montreal	Fed	MTAR 1912
CCEM	Canada Cement Company Ltd.	09/14/09	Montreal	Fed	AR MLRD BBK Papers

MERGERS BY ALPHABETICAL CODE
CANADIAN MANUFACTURING INDUSTRY, 1885-1918

MERGER	CORPORATE NAME OF MERGER	DATE OF MERGER	HEAD OFFICE	INCORP SOURCE OF DATA	NO. OF MERGER
	CODE				
CCER	Canadian Cereal & Milling Co., Ltd.	03/19/10	Toronto	Fed	MT 29 Jan 10, 443
CCOT	Canadian Cottons, Ltd.	05/31/10	Montreal	-	MT 27 Aug 10, 944
CFAC	Carriage Factories, Ltd.	09/11/09	Montreal	Fed	MT 11 Sept 09, 1114
CGEC1	Canadian General Electric Co., Ltd.	10/31/00	Toronto	Fed	FM AFR(I) 84
CGEC2	Canadian General Electric Co., Ltd.	05/31/13	Toronto	Fed	MT 31 May 13, 928
CGEC3	Canadian General Electric Co., Ltd.	09/27/13	Toronto	Fed	MT 27 Sept 13, 536
CHEM	Standard Chemical Iron & Lumber Co. of Canada	03/31/11	Toronto	-	MT 8 April 11, 1423
CICE	Consolidated Ice Company, Ltd.	04/09/10	Montreal	-	MT 9 April 10, 151c
CITY	City Dairy Co., Ltd.	09/02/11	Toronto	-	MT 2 Sept 11, 1021
CJEN	Canadian Jewellers, Ltd.	08/26/11	Montreal	-	MT 26 Aug 11, 920
CLAY	Canadian Consolidated Clay Co., Ltd.	02/17/12	Pictou NS	-	MT 17 Feb 12, 757
COCK	Locknutt Flom Co., Ltd.	05/12/11	Brantford ON	-	FM AFR(XII) 200
COIL	Canadian Consolidated Oil Co., Ltd.	04/30/04	Toronto	-	IC, April 04, 459
COLD	Canadian Colored Cotton Mills Co., Ltd.	04/29/92	Montreal	-	MT 19 April 92, 1302
COMI	Consolidated Mining & Smelting Co. (Cominco)	02/28/06	Toronto	-	FM AFR(VI), 270
CONV	Canadian Converters Co., Ltd.	12/31/06	Montreal	-	FM AFR(II) 141
CORD	Consumers Cordage Company	12/31/90	-	-	BH Acheson art. 80
CORU	Canadian Hart Corundum Wheel Co.	11/30/05	Hamilton	-	IC Nov 05, 281
CSAW	The Canada Saw Company, Limited	01/01/05	Ottawa	Fed	MT 27 Dec 04, 840
DASH	McInnon, Dash & Metal Works Co.	11/23/00	St Cath ON	-	MT 23 Nov 00, 654
DBOX	Dominion Box & Package Company	05/07/10	-	-	MT 7 May 10, 1913
DCAN	Dominion Canners Limited	02/19/10	Hamilton	Fed	MT 5 March 10, 818
DFOS	Dominion Foundries & Steel, Ltd.	12/31/17	Hamilton	-	TH Stapells
DOBL	Dominion Blanket and Fibre Company	10/28/92	Montreal	-	MT 28 Oct 92, 484
DOCG1	Dominion Cotton Mills Company	02/13/91	Montreal	-	MT 13 Feb 91, 1005
DOCG2	Dominion Cotton Mills Company	10/30/91	Montreal	-	MT 30 Oct 91, 516
DOCG3	Dominion Cotton Mills Company	03/18/92	Montreal	-	MT 18 March 92, 1131
DOEX	Dominion Explosives, Ltd.	10/06/10	-	-	MT 8 Oct 10, 519
DRUG	National Drug & Chemical Company of Canada, Ltd.	12/22/05	Montreal	-	MT 17 Nov 05, 64
ESTE	Dominion Steel Corporation Ltd.	06/30/10	Sydney NS	NS	FM AFR(XI) 187
EDPA	Edward Fertington Pulp and Paper Company	06/15/12	-	-	MT 15 June 12, 2431
EDWA	Edwardsburg Starch Co.	03/31/04	Cardinal ON	-	IC March 04, 413
FEAT	Canadian Consolidated Felt Co., Ltd.	10/09/09	Berlin ON	-	MT 9 Oct 09, 1513
FLDF	Canada Flour Mills Company	07/22/11	Toronto	-	MT 22 July 11, 419
FOFG	Canada Foundries & Forgings, Ltd.	02/24/12	Brockville	Fed	MT 24 Feb 12, 853
FFDS	Frost & Wood Company, Limited	05/31/01	Sa Falls ON	-	MT 31 May 01, 1602
GANA	Gananoque Spring & Axle Co., Ltd.	12/31/09	Gananoque ON	-	TH Stapells 19
GILL	Gill Soart Manufacturing Company	06/23/93	Brockville	-	MT 23 June 93, 1531
GLAS	Dominion Glass Co., Ltd.	05/24/13	Montreal	Fed	MT 24 May 13, 903
GLCV	Toronto Glove and Tanning Co., Limited	01/30/05	Toronto	-	IC Jan 05, 381
GMCC	General Motors of Canada, Ltd.	11/01/18	Oshawa, ON	Fed	MT 15 Nov 18, 33
GOOD	Goodvear Tire and Rubber Company of Canada	11/12/10	Toronto	-	MT 12 Nov 10, 2022
GRAN	Granby Consolidated Mining, Smelting & Power Co.	02/22/01	Toronto	-	MT 14 June 01, 1609
HAST	Hamilton Steel & Iron Co.	12/31/99	Hamilton	-	BH Kilbourn
HOCO1	The Hochelaga Cotton Co.	12/01/85	Montreal	-	MT 20 Feb 85, 940
HOCO2	The Hochelaga Cotton Co.	04/12/89	Montreal	-	MT 12 April 89, 1179
HOWS	Howard Smith Paper Mills, Ltd.	11/24/16	-	-	MT 24 Nov 16, 24A
					170

MERGERS BY ALPHABETICAL CODE
CANADIAN MANUFACTURING INDUSTRY, 1895-1918

MERGER	CORPORATE NAME OF MERGER	DATE OF MERGER	HEAD OFFICE	INCORP SOURCE OF DATA	NO. OF MERGER
	CODE				
HUNT	Huntsville Lumber Company	11/29/01	-	MT 29 Nov 01, 680	56
IMIL	International Milling Co. of Canada Ltd.	04/22/11	-	Fed MT 22 April 11, 1617	132
IMO1	Imperial Oil Company, Ltd.	07/01/98	Toronto	- BH Ewing	37
IMPT	Imperial Tobacco Company of Canada	07/11/06	Montreal	Fed MT 4 July 06, 13	91
INVE	Inverness Copper Co., Ltd.	12/30/04	Halifax	- IC Dec 05, 329	66
IFOR	Independent Portland Cement Company	09/18/09	Toronto	- MT 18 Sept 09, 1215	100
IRON	Canada Iron Corporation	12/30/08	Montreal	- AR MAC M630 ABE	93
IRUB	Independent Rubber Company	11/26/10	Merriton ON	- MT 26 Nov 10, 2229	126
LAWD1	Lake of the Woods Milling Company, Ltd.	07/19/91	Montreal	- AR ADnt M5350	18
LAWD2	Lake of the Woods Milling Company, Ltd.	04/10/06	Montreal	- AR ADnt M5350	80
LAWD3	Lake of the Woods Milling Company, Ltd.	06/05/14	Montreal	- MT 5 June 14, 11,21	166
LDND	Londonderry Iron Company	05/27/87	Montreal	- MT 27 May 87, 1402	4
MACH	Canada Machinery Corporation, Limited	07/20/10	Galt ON	FMAFR(IIa 72 II 155)	119
MAHA1	Massey-Harris Company, Limited	05/06/91	Toronto	- MT 8 May 91, 1363	17
MAHA2	Massey-Harris Company, Limited	12/30/91	Toronto	- BH Denison, 121	21
MAHA3	Massey-Harris Company, Limited	12/31/95	Toronto	- MT 6 Dec 95, 728	36
MAHA4	Massey-Harris Company, Limited	10/07/04	Toronto	- 60 RCCC(1, 123)	65
MAPL	Maple Leaf Milling Co., Ltd.	04/23/10	Toronto	ON MT 23 April 10,	112
MASS	Massey Manufacturing Company	03/14/90	Toronto	- MT 14 March 90, 1124	12
MATH	Mathews Laing, Ltd.	10/21/11	-	- MT 21 Oct 11, 1713	142
MESH	Metal Shingle & Siding Co., Ltd.	11/30/12	Winnipeg	- MT 30 Nov 12, 811	154
MFIS	Maritimes Fish Corporation, Ltd.	05/14/10	-	- MT 14 May 10, 2619	115
MITI	British Columbia Mills Timber and Trading Co.	04/17/91	Vancouver	- MT 17 April 91, 1268	16
MOON	Mooney Biscuit & Candy Company, Limited	02/01/12	Stratford ON	- MT 1 Feb 13, 297	158
MOPA	Montague Paper Company	12/06/95	-	- MT 6 Dec 95, 728	35
MROM	Montreal Rolling Mills	05/22/03	Montreal	- MT 22 May 03, 1571	62
NAKR	National Breweries Ltd.	04/03/09	Montreal	- MT 3 April 09, 1774	94
NAFP	North American Pulp & Paper Companies Trust	05/05/15	Boston, Mass	US MT 28 May 15, 32	167
NOCL	Nova Scotia Clay Works, Ltd.	06/01/12	Halifax	NS FM AFR(IIII 321)	148
NSFO	Nova Scotia Steel & Forge Company, Limited	12/31/89	-	- MTAR 1916, 213	11
NDPF	Canadian North Pacific Fisheries, Ltd.	10/29/10	Toronto	Fed MT 29 Oct 10, 1820	124
NOVA	Nova Scotia Steel Company, Limited	01/31/95	New Glasgow	- MT 24 Jan 96, 853	33
NSSC	Nova Scotia Steel & Coal Company, Ltd.	07/22/00	New Glasgow	- MT 22 July 00, 108	44
ONLE1	Ontario Lead and Barbed Wire Co., Ltd.	12/18/85	Toronto	- MT 18 Dec 85, 679	3
ONLE2	Ontario Lead and Barbed Wire Co., Ltd.	09/20/89	Toronto	- MT 20 Sept 89, 346	9
ONST	Ontario Steel Products Co., Ltd.	06/14/13	-	Fed MT 14 June 13, 1902	163
OTIS	Otis-Fensor Elevator Co., Limited	03/17/05	Toronto	- MT 17 March 05, 1244	70
PALU	Canadian Pacific Lumber Co., Ltd.	12/31/11	-	- TH Stapells 25	144
PANI	Patterson-Wisner Company, Limited	10/16/91	Woodstock ON	- MT 16 Oct 91, 454	19
PEMA	Pennman Manufacturing Co.	04/21/53	Paris ON	- MT 21 April 93, 1254	27
PERL	G.H. Perley Company	12/07/00	-	- MT 23 Dec 00, 728	48
PORO	Portland Rolling Mills Company, Ltd.	06/28/95	St. John NB	- MT 28 June 95, 1e76	34
PROV	Provincial Paper Mills Co., Ltd	05/31/13	Toronto	- MT 31 May 13, 934	162
RENF	Renfrew Flour Mills, Ltd.	12/31/12	-	- TH Stapells 28	157
RHOD1	Rhodes, Curry & Co., Ltd.	04/21/93	Asherst NS	- MT 21 April 93, 1258	28
RHOD2	Rhodes, Curry & Co., Ltd.	07/21/05	Asherst NS	- MT 21 July 05, 74	72
RIDR	Riordon Pulp & Paper Co., Ltd.	12/31/10	Montreal	- MT 12 Oct 12, 583	127

MERGERS BY ALPHABETICAL CODE
CANADIAN MANUFACTURING INDUSTRY, 1825-1918

MERGER CODE	CORPORATE NAME OF MERGER	DATE OF MERGER	HEAD OFFICE	INCORP SOURCE OF DATA	NO. OF MERGER
ADJD	Acason, Jones & Whitman, Ltd.	02/16/10	Halifax	Fed	MT 12 Feb 10, 714
ADMA	Rogers Manufacturing Company	01/31/07	Toronto	-	IC Jan 07, 512
ADYS	Revel Soap Company	11/28/08	Vancouver	-	MT 26 Nov. 08, 887
ADBR1	Canadian Consolidated Rubber Co., Ltd.	11/30/06	Montreal	-	FM AFR(VII) 341
ADBR2	Canadian Consolidated Rubber Co., Ltd.	03/31/07	Montreal	-	FM AFR(VII) 351
ADSL	Great Western Saddlers Company	04/07/99	Calgary	-	MT 7 April 99, 103
ADME	Sheet Metal Products Company of Canada	09/06/10	Toronto	-	MT 6 Aug 10, 619
ADSH	Sherman-Williams Company of Canada Limited	06/10/11	Montreal	Fed	MT 10 June 11, 2721
ADSM	Simeon Company, Limited	11/06/09	Toronto	ON	MT 6 Nov 09, 1911
ADSM	The Simpson Brick Company	10/31/10	Toronto	-	IC Aug 10, 36
ADSP	Smart Bag Company, Limited	01/24/05	-	-	FM AFR(VII) 352
ADSP1	Spanish River Pulp & Paper Co., Ltd.	10/17/10	Toronto	ON	MT 17 Aug 10, 712
ADSP2	Spanish River Pulp & Paper Co., Ltd.	10/02/10	Toronto	ON	MT 2 Aug 10, 721
ADSP	Steel & Fabrication Limited	10/01/10	Toronto	-	MT 26 May 10, 2721
ADST	Stansfields, Ltd.	11/19/11	Toronto, NB	-	MT 18 Nov. 11, 2721
ADST	The Canada Starch Company, Limited	01/22/06	Cardinal, ON	-	SR MAC Company Paper
ADST	Steel Company of Canada, Ltd.	06/20/10	Hamilton	Fed	AR MLRS BBI Papers
ADST	Stompin' Featle Co., Ltd.	01/24/05	Montreal	-	FM AFR..., 1441
ADST	Tuckett Tobacco Co., Ltd.	06/01/12	-	-	MT 1 June 12, 2247
ADST	George E. Tuckett & Co.	10/27/03	Hamilton	-	MT 27 March 03, 1303
ADST	Tuchoper-Wunderlich Company	05/26/11	Winnipeg	-	MT 26 Aug 11, 427
ADST	United Canneries of British Columbia	01/17/05	Vancouver	-	MT 17 Nov 99, 641
ADST	United Enterprises Limited	10/04/01	Toronto	ON	MT 4 Oct 01, 438-39
ADST	Vancouver Engineering Works, Limited	02/15/01	Victoria BC	-	MT 15 Feb 01, 1045
ADST	Victoria Brewing Company	08/11/93	Victoria BC	-	MT 11 Aug 93, 158
ADST	Waterloo Manufacturing Company	09/28/86	Waterloo, ON	-	MT 28 Sept 86
ADST	Canadian Western Foundry & Supply Co., Ltd.	12/31/15	-	-	TH Stapeils
ADST	Western Canada Flour Mills Company, Limited	10/31/05	Toronto	ON	IC Oct 05, 218
ADST	Whalen Pulp & Paper Mills, Ltd.	10/31/17	-	-	TH Stapeils
ADST	Wolthorn Pulp Co., Ltd.	05/31/05	Toronto	-	IC May 05, 625
ADST	Canadian Western Lumber Company	04/23/10	-	BC	MT 23 April 10
ADST	Saart Woods, Ltd.	10/21/12	Montreal	-	MT 21 Dec 12
ADST	Canadian Woodsen Company, Limited	01/16/00	-	-	MT 16 Feb 00, 1078

*** Total ***

15225

TABLE 24

NUMBER, VALUE AND SIC OF MERGERS IN
CANADIAN MANUFACTURING INDUSTRY, 1885-1918

MERGER CODE	CIN	CON	CON	US	UP	HORIZ	CONS	FIRM	AUTH	ISSUE	AUTH	ISSUE	AUTH	ISSUE	TOTAL	ASSET	PURCH	NO. OF	
	1948	1980	CATE6	CATE6	CATE6	CATE6	VERT	ACC	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
6501	WGRM	230	1221	1	111	111	H	a	1	0	0	0	0	0	0	0	0	0	1
5511	MC001	252	1629	v	11	x1	H	c	1	0	0	0	0	0	0	0	0	0	2
6504	ONL01	327	3059	x	11	v	V	c	1	0	0	0	0	0	0	0	0	0	3
8702	LONE	325	2919	x	11	v	V	a	1	0	0	0	0	0	0	0	1000	0	4
8803	WALD	310	2941	x	11	v	H	c	1	0	0	0	0	0	0	0	0	0	5
8901	AMEE	241	1712	1v	x111	x111	H	a	1	0	0	0	0	0	0	0	0	0	6
8901	EGAN	210	1021	1	11	1	H	c	4	0	0	0	0	0	0	0	500	0	7
8702	MC002	252	1829	v	11	x1	V	a	1	0	0	0	0	0	0	0	0	370	8
8903	ONL02	327	3059	x	111	v	H	a	1	0	0	0	0	0	0	0	0	0	9
8904	8456	212	1031	1	11	1	H	c	1	0	0	0	0	0	0	0	0	0	10
29	WDFD	325	2919	v	11	v	H	c	1	0	0	0	0	0	0	0	0	0	11
9101	MASS	311	3111	x	x111	v	H	a	1	0	0	0	0	0	0	0	0	0	12
9002	ANBR	210	1021	1	11	1	H	c	7	8	8	500	250	500	250	0	0	0	
90	CORD	265	1999	v	11	x1	H	c	6	0	0	0	0	0	0	0	0	0	14
9101	DC001	252	1829	v	11	x1	H	c	9	0	0	0	0	0	0	0	0	0	15
9102	MTI1	285	2512	vii	11	xv	H	c	1	0	0	0	0	0	0	0	0	0	16
9102	MAHAI	311	3111	x	xv11	v	H	c	1	x	x	x	x	x	5000	3000	0	2700	0
9103	LAWD1	214	1051	1	11	1	H	a	1	0	0	0	0	0	0	0	0	60	18
9104	PAW1	311	3111	x	xv11	v	H	c	1	0	0	0	0	0	0	0	0	0	19
9104	DC002	252	1829	v	11	x1	H	c	1	0	0	0	0	0	0	0	0	0	20
9104	MAHAI	311	3111	x	xv11	v	H	a	1	x	x	x	x	x	5000	3500	0	3200	500
9201	CAMP	364	3751	xvi	x	11	H	a	1	x	x	x	x	x	5000	3500	0	0	21
9201	DC002	252	1629	v	11	x1	H	c	2	0	0	0	0	0	0	0	0	0	22
9202	ELD0	252	1829	v	11	x1	H	c	5	0	0	0	0	0	0	0	0	0	23
9204	DB06	255	1821	v	11	x1	H	c	1	0	0	0	0	0	0	0	250	0	25
9204	BEIM	326	2941	x	xv	v	H	a	1	0	0	0	0	0	0	0	0	0	26
9201	PEWA	255	1821	v	11	x1	H	c	2	0	0	0	0	0	0	0	0	0	27
9202	FH001	336	3261	x1	xvix	x	H	c	1	0	0	0	0	0	0	0	250	1300	0
9202	FILL	311	2941	x	xv	v	L	a	1	0	0	0	0	0	0	0	0	0	28
9307	AGAD	217	1081	1	11	1	H	c	2	x	x	1400	1400	1400	1400	0	2800	0	30
9307	WIBF	211	1131	1	11	1	H	c	1	0	0	0	0	0	0	0	0	0	31
9204	BERB	391	3971	xvii	xxi	xvii	H	a	1	0	0	0	0	0	0	0	0	0	32
9501	NOVA	325	2919	x	xv	v	V	c	1	0	0	0	0	0	0	0	0	0	33
9502	FORD	327	2059	x	xvi	v	H	c	1	0	0	0	0	0	0	0	0	0	34
9504	MOFA	294	2711	viii	viiii	xvi	V	a	1	0	0	0	0	0	0	0	0	0	35
95	MAHAI	311	3111	x	xvii	v	H	a	1	0	0	0	0	0	0	0	0	0	36
9903	IM01	375	3611	xv	x1	xv	H	c	5	0	0	0	0	0	0	0	0	0	37
98	BIRK1	340	3921	xii	xvi	x1	H	a	1	0	0	0	0	0	0	0	0	0	38
9902	SR01	249	1711	1v	x111	x111	H	c	2	0	0	0	0	0	0	0	250	0	39
9903	CACM1	332	3931	x1	xvix	x	H	c	5	x	x	3000	2500	3000	3000	0	0	0	
9904	UNCA	210	1021	1	11	1	H	c	3	0	0	0	0	0	0	0	500	0	41
99	MAST	325	2919	x	xv	v	V	c	1	0	0	0	0	0	0	0	2000	0	42
0001	MC01	255	1821	v	11	x1	H	c	4	0	0	0	0	0	0	0	769	0	43
0003	NEEC	325	2919	x	xv	v	V	c	1	2500	2500	2000	1050	5000	3090	0	0	0	44
0004	DBED1	35	33	x111	xviiii	xviiii	V	a	1	x	x	300	300	1200	1200	0	2200	300	45
0004	CACM2	332	3931	x1	xvix	x	H	a	1	x	x	3000	2500	3000	3000	0	0	0	46

NUMBER, VALUE AND SIC OF MERGERS IN
CANADIAN MANUFACTURING INDUSTRY, 1855-1918

MERGER CODE	DATE	CIN	CDN	CDN	US	UN	HORIZ	CONS	FIRM	AUTH	ISSUE	AUTH	ISSUE	AUTH	ISSUE	TOTAL	ASSET	PURCH	NO. OF		
										OP	DR	DISAP	BOND	BOND	PREF	PREF	COMMON	COMMON	CAP	VALUE	PRICE
										ACB	ACB	ACB	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	
0004	1849	326	3049	x	xvi	v	v	c	c	1	0	0	0	0	0	0	0	300	0	6	47
0004	PEEL	285	2512	vii	vii	xv	xv	h	a	1	0	0	0	0	0	0	0	0	0	150	48
0004	CAFL	214	1051	i	ii	i	ii	h	a	1	0	0	0	0	0	0	0	650	0	0	49
0101	CARL	286	2611	vii	vii	xv	xv	h	c	16	x	x	2000	1300	1000	1000	0	0	1860	0	50
0101	LENG	316	2941	x	xv	vii	vii	v	a	1	0	0	0	0	0	0	0	0	0	0	51
0101	BRAN	345	2529	xii	xv	xv	vii	h	c	3	0	0	0	0	0	0	0	0	0	0	52
0102	ERDE	311	3111	x	xvii	v	h	a	c	1	0	0	0	0	0	0	0	0	0	0	53
0104	UNFA	351	3991	xvii	xxi	xv	xv	h	c	2	x	x	600	800	600	600	0	0	0	0	54
0104	BEAN	375	3611	xv	xii	xv	h	c	c	1	x	x	75	75	175	175	0	0	0	0	55
0104	HUNT	285	2512	vii	vii	xv	xv	h	a	1	0	0	0	0	0	0	0	0	0	225	56
0202	BEIR	320	2941	x	xv	v	h	c	c	6	0	0	0	0	0	0	0	0	0	0	57
0202	ESPA	210	1051	i	ii	i	ii	h	c	44	x	x	1500	1250	2500	1500	0	0	0	0	58
0202	CART	214	1051	i	ii	i	ii	h	a	1	0	0	0	0	0	0	0	90	0	0	59
0201	TOCH	236	1221	ii	iii	iii	iii	h	a	2	0	0	0	0	0	0	0	0	0	0	60
0202	CANNI	212	1031	i	ii	i	ii	h	c	22	0	0	0	0	0	0	0	2500	0	0	61
0302	MPOM	325	2919	x	xv	v	v	a	a	1	0	0	0	0	0	0	0	0	0	0	62
0401	EDWA	228	1099	i	ii	i	ii	v	a	1	0	0	0	0	0	0	0	0	0	0	63
0402	COIL	375	3611	xv	xii	xv	xv	h	c	2	0	0	0	0	0	0	0	0	0	0	64
0402	MANA4	311	3111	x	xvii	v	h	a	c	1	0	0	0	0	0	0	0	0	0	0	65
0404	INNE	345	2529	xii	xv	xv	vii	v	a	1	0	0	0	0	0	0	0	0	0	0	66
0501	CSAW	319	3063	x	xvi	v	h	c	c	1	0	0	0	0	0	0	0	0	0	0	67
0501	TEAT	252	1829	x	xv	xii	h	c	c	3	3370	3060	7500	5000	2500	1850	0	0	0	0	68
0501	ELDV	245	2493	xv	xiiii	xiiii	h	c	c	1	0	0	0	0	0	0	0	0	0	0	69
0501	OTIS	314	3192	x	xviii	viiii	h	c	c	1	0	0	0	0	0	0	0	0	0	0	70
0502	BILL	311	3111	x	xvii	v	h	a	c	1	0	0	0	0	0	0	0	0	0	0	71
0503	EMOEC	336	3261	xii	xvix	xv	v	a	c	1	0	0	0	0	0	0	0	0	0	0	72
0504	ALCA	326	3040	x	xvi	v	h	a	c	1	0	0	0	0	0	0	0	0	0	0	73
0504	WESE	214	1051	i	ii	i	ii	h	c	1	0	0	0	0	0	0	0	0	0	0	74
0504	CDRU	361	3521	xiv	xiv	xiv	xiv	h	c	1	0	0	0	0	0	0	0	75	0	0	75
0504	TRUS	363	3741	xvi	x	xv	h	c	c	15	0	0	0	0	0	0	0	0	0	0	76
0501	STAR	222	1059	i	ii	i	ii	h	c	2	x	x	1250	1250	1250	1250	1250	1250	1250	1250	77
0601	SMAR	282	1921	v	xv	xii	h	a	c	1	x	x	500	400	500	250	0	0	0	150	78
0601	CEMI	349	2529	xii	xv	xii	vii	v	a	3	x	x	x	x	x	x	5500	4700	0	0	79
0602	EM002	214	1051	i	ii	i	ii	h	a	1	750	750	1500	1500	2500	2000	0	0	0	950	80
0603	SIMB	364	3511	xiv	xii	xiv	xiv	h	a	1	0	0	0	0	0	0	0	0	0	0	81
0604	BFAN1	364	3761	xvi	x	xv	h	c	c	1	500	370	500	220	1250	970	0	0	0	0	82
0604	RUBR1	229	1511	iii	xii	xv	h	c	c	2	2600	2600	2000	1980	3000	2805	0	0	0	0	83
06	CONV	272	2434	xii	v	xiiii	h	c	c	3	0	0	0	0	0	0	0	0	0	0	84
0701	EDMA	330	2941	x	xv	v	v	a	c	1	0	0	0	0	0	0	0	0	0	0	85
0701	RUBR2	239	1511	iii	xii	xv	h	a	c	2	0	0	0	0	0	0	0	0	0	0	86
0702	BIRKC	343	3921	xii	xvi	vii	vii	h	a	1	0	0	0	0	0	0	0	0	0	0	87
0702	ATFI	210	1051	i	ii	i	ii	h	a	1	0	0	0	0	0	0	0	0	0	0	88
0702	BROM	294	2711	viii	viiii	xvi	h	a	c	1	0	0	0	0	0	0	0	0	0	0	89
07	BRAS	362	1111	xiv	xiv	xiv	h	c	c	5	15000	7500	1875	1875	8125	8125	0	0	0	0	90
0803	IMET	230	1221	ii	iii	iii	h	c	c	3	0	0	0	0	0	0	0	30000	0	0	91
0804	EDYS	385	3761	xvi	x	xv	h	c	c	2	0	0	0	0	0	0	0	0	0	0	92

NUMBER, VALUE AND SIC OF MERGERS IN
CANADIAN MANUFACTURING INDUSTRY, 1885-1918

MERGER NO.	DATE	CON-	CON-	US	U	HORIZ	CONS	FIRM	AUTH	ISSUE	AUTH	ISSUE	AUTH	ISSUE	TOTAL	ASSET	PURCH	NO. OF	
		SIC	SIC	SIC	SIC	OR	OR	DISAP	BOND	BOND	PREF	PREF	COMMON	COMMON	CAP	VALUE	PRICE	MERGER	
		1946	1980	CATES	CATES	CATES	VEFT	ACR	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000		
9504	IRON	325	2919 x	zv	v	H	c	2	2500	2500	3000	2800	5000	4000	0	0	0	93	
9982	NARR	222	1131 i	ii	ii	H	c	13	2500	2000	4000	2775	6000	2254	0	0	0	94	
9922	ASHB	362	3592 xiv	xiv	xiv	H	c	4	15000	7500	1875	1875	8125	8125	0	0	0	95	
9923	ELLA	362	xiv	xiv	xiv	H	c	3	1500	1000	1000	1000	3000	3000	0	500	0	96	
9924	CFAC	339	3299 x1	xvix	x	H	c	3	1000	500	2000	1200	2000	1200	0	0	0	97	
9921	EGPT	349	2611 ix	ix	xvi	V	c	3	1500	1500	7500	7500	7500	7500	0	850	0	98	
9923	CCEM	363	3521 xiv	xiv	xiv	H	c	10	8000	5000	11000	10500	19000	13500	0	17000	0	99	
9923	IFOR	363	3521 xiv	xiv	xiv	H	c	7	0	0	0	0	0	0	10000	4000	0	100	
9924	FELT	259	1911 v	v	x1	H	c	2	500	500	500	500	1500	1500	0	0	0	101	
0524	CCAR	336	3261 x1	xvix	x	H	c	2	4000	3500	7500	5000	5000	3500	0	7500	0	102	
9924	SIEM	262	2521 vii	vi	xv	H	c	3	x	x	500	400	500	500	0	0	0	102	
09	CANN2	212	1031 i	ii	i	H	a	1	0	0	0	0	0	0	0	0	0	104	
09	SANA	325	3099 x	xvi	v	H	a	1	0	0	0	0	0	0	0	0	0	105	
1001	BOLT	317	3053 x	xv	v	H	c	3	1000	650	1250	900	1250	900	0	0	0	106	
1001	RCOJ	210	1021 i	ii	i	H	c	2	2000	1860	900	848	850	850	0	0	0	107	
1001	ICAN	212	1031 i	ii	i	H	c	17	2500	1500	5000	2100	5000	2100	0	2350	0	108	
1001	ICER	214	1051 i	ii	i	H	c	7	1000	750	2000	1250	2000	1250	0	0	0	109	
1002	ASEP	385	3761 xvi	x	xv	H	c	2	50	50	25	25	126	92	0	0	0	110	
1002	CICE	363	3529 xvii	xvii	xvii	H	c	4	6	6	0	0	0	0	0	0	0	111	
1002	MEFL	214	1051 i	ii	i	H	c	1	x	x	2500	2500	2500	2500	0	3770	0	112	
1002	MLUM	285	2512 vii	vi	xv	H	a	1	0	0	0	0	0	0	0	0	0	113	
1002	DEOJ	287	2732 viii	vi	xv	H	c	1	0	0	0	0	0	0	0	0	0	114	
1002	MFIS	210	1021 i	ii	i	V	c	2	250	125	500	100	500	300	0	0	0	115	
1002	CCOT	252	1829 v	v	x1	H	c	2	5000	5000	4500	3528	3500	2716	0	0	0	116	
1002	DSCE	325	291 z	xv	v	V	c	1	2500	1500	0	0	50000	35600	0	0	0	117	
1002	STEL	325	291 x	xv	v	V	c	4	10000	6850	10000	6500	15000	11500	0	13350	0	118	
1003	MACH	324	3193 x	xvi	v	H	c	4	1000	400	1500	850	1500	625	0	0	0	119	
1003	SHEE	326	3022 z	xvi	v	H	c	2	0	0	0	0	0	0	5000	0	0	120	
1004	ERAD	329	3259 x	xvi	v	V	c	2	1500	750	2000	162	1600	1110	0	0	0	121	
1004	ICEX	381	3795 xvi	x	xv	H	c	3	0	0	0	0	0	0	0	0	0	122	
1004	ADME	334	3231 x1	xvix	x	V	c	1	0	0	0	0	0	0	1000	0	0	123	
1004	NRPF	210	1021 i	ii	i	H	c	2	1947	1947	x	x	4000	4000	0	0	0	124	
1004	GGG1	339	1511 1111	x11	1v	H	a	1	0	0	0	0	0	0	0	0	0	125	
1004	IRUB	236	1712 1111	x11	x112	H	c	5	0	0	0	0	0	0	0	500	0	0	126
10	F10R	294	2731 viii	x111	xvi	H	c	1	2500	1500	1500	1500	4500	4500	0	3000	0	127	
1101	CAST	325	2919 x	xv	v	V	c	1	5000	3550	2000	1430	3000	3000	0	3000	0	128	
1101	MMHD	241	1712 iv	x1111	x1111	H	c	1	1500	1000	5000	2500	5000	3500	0	0	0	129	
1101	CHEM	389	3712 xvi	x	xv	V	c	3	1000	1000	3750	2500	2250	2250	0	0	0	130	
1102	BEPA	260	1829 v	v	x1	H	c	2	1000	750	1250	850	1250	750	0	1610	0	131	
1102	IMIL	214	1051 i	ii	i	H	c	1	1000	750	2000	1250	2000	1250	0	0	0	132	
1102	COCH	311	3111 x	xvii	v	V	a	2	x	x	7500	5000	7500	5000	0	0	0	133	
1102	SMER	384	3751 xvi	x	xv	H	c	1	4000	2450	4000	3000	4000	4000	0	4000	0	134	
1103	CARB	389	3711 xvi	x	xv	H	c	2	2000	1280	150	150	2000	800	0	0	0	135	
1103	FLOR	214	1051 i	ii	i	H	c	7	0	0	0	0	0	0	0	0	0	136	
1103	BRED	219	1072 i	ii	i	H	c	4	1250	1250	1250	1250	2500	2500	0	840	0	137	
1103	EDEN	343	3921 xii	xvi	v1	H	c	3	x	x	2500	2500	2500	2500	0	0	0	138	

NUMBER, VALUE AND SIC OF MERGERS IN
CANADIAN MANUFACTURING INDUSTRY, 1885-1910

MERGER CODE DATE	CDN SIC 1948 1980	CDN SIC CATE6	CDN SIC CATE6	US SIC CATE6	UV SIC CATE6	HORIZ OR CATE6	CONS OR CATE6	FIRM ACG	AUTH DISAP	AUTH ISSUE		AUTH ISSUE		AUTH ISSUE		TOTAL CAP \$000	ASSET VALUE \$000	PURCH PRICE \$000	NO. OF MERGERS		
										BDND \$000	BDND \$000	PREF \$000	PREF \$000	COMMON \$000	COMMON \$000						
1103	TUDA 334	3231 xi	xxii x	H	z	1	0	0	0	0	0	0	0	0	0	3000	0	0	0	134	
1103	CITY 209	1041 i	ii	1	H	a	1	0	0	700	450	525	525	0	0	0	0	0	175	140	
1104	BIRAK 343	3921 xi	xxii vi	H	e	1	0	0	0	0	0	0	0	0	0	0	0	0	500	141	
1104	MATH 260	1011 i	ii	1	H	c	2	2000	1200	2500	2000	2500	2000	0	0	0	0	0	0	142	
1104	STAN 255	1621 v	iv	x1	H	a	1	0	0	0	0	0	0	0	0	0	0	0	0	143	
11	FALU 285	2912 viii	v1	xx	H	c	4	2000	1750	0	0	3000	2000	0	0	0	0	0	0	144	
1201	DEAT 364	3511 xi	xi	xi	H	c	2	0	0	0	0	0	0	0	0	2000	0	0	0	145	
1201	FOR6 335	3251 xi	xxix	x	V	c	2	750	500	2000	1250	2000	1250	0	0	1300	0	0	0	146	
1201	CASO 385	37e1 xvi	v	iv	H	c	1	0	0	600	525	1200	800	0	0	0	0	0	0	147	
1202	NOCL 364	3511 xi	xi	xi	H	c	3	0	0	1000	300	1600	300	0	0	0	0	0	0	148	
1202	TECB 239	1221 ii	ii	ii	H	c	1	0	0	2000	2000	2500	2500	0	0	0	0	0	0	149	
1202	EDFA 294	2711 viii	viii	xvi	V	a	1	0	0	0	0	0	0	0	0	0	0	2000	0	150	
1203	SEAN1 254	2712 viii	viii	xvi	H	a	1	4000	4000	3000	2250	4000	3000	0	0	0	0	0	0	151	
1203	CEAR2 336	3261 xi	xxix	x	V	a	1	4000	4000	7500	5000	5000	3500	0	20800	600	0	0	152		
1204	BCRE 222	1131 i	ii	ii	H	c	2	5000	3250	0	5000	5000	3000	0	0	0	0	0	0	153	
1204	MESH 326	3049 x	xvi	v	H	a	3	0	0	500	500	1000	1000	0	0	0	0	0	0	154	
1204	BRDG1 315	3029 x	xvi	vii	H	a	1	0	0	0	0	0	0	0	0	0	0	0	0	155	
1204	WOOD 263	1931 v	v	x1	H	c	1	0	0	0	2500	1000	2500	1500	0	0	0	0	0	0	156
12	RENF 214	1051 i	ii	ii	H	c	1	0	0	2500	1000	2500	1500	0	0	0	0	0	0	157	
1301	MOON 216	1071 i	ii	ii	H	c	3	0	0	0	0	0	0	0	0	0	0	0	0	158	
1301	CASH 288	2581 vii	v1	xx	H	c	4	550	550	1000	1000	2000	2000	0	0	0	0	0	0	159	
1302	GLAS 565	3561 xi	xi	xi	H	c	3	3000	2000	3000	2600	5000	4250	0	4300	0	0	0	160		
1302	CBED2 35	33 xiii	xxviii	viii	V	a	1	12000	10000	2000	2000	10000	8000	0	0	0	0	0	0	161	
1302	PROV 294	2712 viii	viii	xvi	H	c	1	0	0	2400	2400	2600	2600	0	0	0	0	0	0	162	
1302	ONST 329	3099 x	xvi	v	V	c	3	600	600	750	750	750	750	0	0	0	0	0	0	163	
1303	SPAN2 294	2712 viii	viii	xvi	H	a	1	2500	2425	10000	6700	10000	8000	0	0	0	0	0	0	164	
1303	CBED3 35	33 xiii	xxviii	viii	V	a	1	12000	10000	2000	2000	10000	8000	0	0	0	0	0	0	165	
1402	LAWOD 214	1051 i	ii	ii	H	e	2	1000	1000	1500	1500	2500	2100	0	0	0	0	0	0	166	
1502	NHPP 294	2711 viii	viii	xvi	H	c	1	0	0	2000	1590	1000	1000	0	0	0	0	0	0	167	
15	WEFO 32	3099 x	xvi	v	H	c	2	0	0	0	0	0	0	0	1000	0	0	0	0	168	
15	FRAN2 364	3751 xvi	v	iv	H	e	1	0	0	0	0	0	0	0	0	0	0	0	0	169	
1604	HOWS 294	2712 viii	viii	xvi	H	a	1	0	0	475	475	834	834	0	0	0	0	0	0	170	
1704	BRDG2 315	3029 x	xvi	vii	V	a	1	0	0	0	0	0	0	0	6500	0	0	0	171		
17	IFOS 325	291 x	xv	v	H	c	1	0	0	1000	720	5000	3000	0	0	0	0	0	0	172	
17	WMPU 294	1711 viii	viii	xvi	H	c	3	10000	6550	2100	2100	8000	6000	0	0	0	0	0	0	173	
1804	GWOC 334	3231 x1	xxix	x	c	c	3	0	0	0	0	0	0	0	0	0	0	0	0	174	

*** Total ***

464 168617 123417 180575 137301 324600 252436 74759 101153 7400 15225

0 - no information

Ø - zero

TABLE 25

SECURITY FINANCING AND MERGER PROMOTION
THE CANADIAN MERGER WAVE, 1909-1912

MERGE CODE	DATE OF ISSUE	AMOUNT ISSUED \$000	TYPE ISSUED SEC DISC	PREM. WITH ISSUE	ZEDUS ISSUED OF CAF	% OF TOTAL ISSUED OF CAF	MAIN LOCUS OF ISSUE	PRINCIPAL PROMOTER	INSTITUTIONAL AFFILIATION OF PROMOTER	STOCK EXCHANGE LISTED	GAP: ISSUE EACH 000	
WAGE	-	-	-	-	-	-	-	-	-	-	-	
WAGE	Feb 1910	3000	Bond	6%	2520	25%	531	0%	C. J. McCuaig	McCuaig Bros. & Co.	MSE TSE PME LSE	-
WLLH	Sept 1909	1000	Bond	par	2520	50%	1002	CAN	C. J. McCuaig	McCuaig Bros. & Co.	MSE TSE	4
EFAC	Nov 1909	300	Pref	6%	2520	-	251	CAN	E. F. Grant	J. A. Mackay & Co.	NO	-
EATL	Sept 1909	750	Pref	par	2520	-	1002	CAN	A. E. Aches	A. E. Aches & Co.	TSE	2
CCEN	Sept 1909	1600	Pref	6%	2520	-	362	0%	F. Aitken	Royal Securities Corporation	MSE TSE LSE	6
ICER	-	-	-	-	-	-	-	-	-	-	-	
FELT	-	-	-	-	-	-	-	-	I. L. McGibbon	Canadian Consolidated Rubber	-	-
CCAF	Nov 1909	2150	Pref	6%	-	-	682	0%	F. Aitken	Royal Securities Corporation	MSE TSE LSE	4
CCAF	Nov 1909	400	Pref	par	-	-	1002	CAN	-	-	-	
CANN	-	-	-	-	-	-	-	-	-	-	-	
CANA	-	-	-	-	-	-	-	-	-	-	-	
BELT	-	-	-	-	-	-	-	-	L. Harris	-	-	
BOJO	-	-	-	-	-	-	-	-	-	-	-	
DCAN	June 1910	100	Pref	par	2520	-	52	CAN	E. F. Grant	Dominion Bond Company	TSE unlisted	7
CCAF	April 1910	1250	Pref	par	5020	-	1002	CAN	A. J. Nesbitt	Investment Trust Company	TSE	8
ASER	-	-	-	-	-	-	-	-	-	-	-	
CICE	-	-	-	-	-	-	-	-	-	-	-	
WAFL	Feb 1910	2000	Pref	par	2520	-	802	CAN	C. Mulock	Cauthra Mulock & Co.	TSE	2
MLUP	-	-	-	-	-	-	-	-	-	-	-	
DECI	-	-	-	-	-	-	-	-	-	-	-	
MFIS	-	-	-	-	-	-	-	-	A. H. Brittain	-	-	
CCOT	April 1911	1800	Bond	6%	-	-	362	0%	-	-	LSE MSE	4
DETE	-	1500	Deb	-	-	-	0%	0%	E. R. Wood	Dominion Securities Corp.	TSE MSE LSE	-
STEL	July 1910	4500	Bond	6%	-	-	662	0%	F. Aitken	Royal Securities Corporation	TSE MSE LSE	10
RHCD	July 1910	200	Bond	par	2520	-	502	CAN	E. F. Grant	Dominion Bond Company	TSE	21
SHEE	-	-	-	-	-	-	-	-	-	-	-	
SEAD	Feb 1911	750	Pref	par	6520	-	1002	CAN	H. Pellatt	Pellatt & Pellatt	-	-
SEDI	-	-	-	-	-	-	-	-	-	-	-	
ACME	-	-	-	-	-	-	-	-	-	-	-	
NCRR	Nov 1910	1947	Deb	6%	-	-	1002	0%	B. Mackenzie	Canadian Northern Railway	-	-
EDCC	-	-	-	-	-	-	-	-	-	-	-	
IFLR	-	-	-	-	-	-	-	-	-	-	-	
EAST	Jan 1911	2000	Bond	par	-	-	552	0%	A. J. Nesbitt	Investment Trust Company	-	-
AMPC	Feb 1911	1000	Bond	6%	-	-	1002	0%	I. L. McGibbon	Canadian Consolidated Rubber	MSE	26
CHEM	March 1911	1000	Pref	par	-	-	402	0%	-	-	-	-
BEPA	April 1911	400	Pref	6%	5	2520	472	CAN	E. F. Grant	Dominion Bond Company	-	-
IMIL	July 1911	525	Bond	6%	5	-	702	CAN	A. J. Nesbitt	Investment Trust Company	-	-
CCDI	May 1911	3750	Pref	6%	2	-	752	0%	-	-	-	-
SHEP	June 1911	300	Pref	6%	2520	-	102	CAN	E. H. Cahan	All-London Securities Corp	MSE	1
CAFB	-	-	-	-	-	-	-	-	-	-	-	
FLOR	-	-	-	-	-	-	-	-	-	-	-	

SECURITY FINANCING AND MERGER PROMOTION
THE CANADIAN MERGER WAVE, 1909-1912

MERGER CODE	DATE OF PUBLIC ISSUE	AMOUNT \$000	TYPE ISSUED SEC	PREM. DISC	ZBONUS WITH ISSUE	% OF TOTAL ISSUED OF CAP	MAIN LOCUS OF ISSUE	PRINCIPAL PROMOTER	INSTITUTIONAL AFFILIATION OF PROMOTER	STOCK EXCHANGE LISTED	GAP: ISSUE EXCH BDS
BREZ	July 1911	1250	Bond	98.5	25%	100%	CAN	C Mullock	C Mullock & Co (Guardian Trust)	TSE	11
COEN	-	-	-	-	-	-	-	J A Mackay	Mackay & Co.	-	-
TUDA	-	-	-	-	-	-	-	-	-	-	-
CITI	-	-	-	-	-	-	-	-	-	-	-
ETRN3	-	-	-	-	-	-	-	-	-	-	-
MATH	-	-	-	-	-	-	-	-	-	-	-
ETAN	-	-	-	-	-	-	-	-	-	-	-
ELU	-	-	-	-	-	-	-	-	-	-	-
CLAY	-	-	-	-	-	-	-	-	-	-	-
FORG	April 1912	150	Pref	998	-	12%	CAN	-	-	-	-
CASD	-	-	-	-	-	-	-	-	-	-	-
NOCL	-	-	-	-	-	-	-	-	-	-	-
TTOB	-	-	-	-	-	-	C	Meredith	C Meredith & Co.	MSE	-
EDPA	-	-	-	-	-	-	-	-	-	-	-
SPAN1	-	-	-	-	-	-	-	-	-	-	-
CCAR2	May 1913	900	Pref	8114	-	-	UK	internal	Canadian Car & Foundry	LSE MSE TSE	-
SCRE	Oct 1912	2574	Bond	955	-	98%	UK	-	-	-	-
MESH	-	-	-	-	-	-	-	-	-	-	-
BRDG1	-	-	-	-	-	-	-	-	-	-	-
MEUL	-	-	-	-	-	-	-	-	-	-	-
RENF	-	-	-	-	-	-	-	-	-	-	-

FIGURE 22, MERGERS & FIRM DISAPPEARANCES
CANADIAN MANUFACTURING, 1885-1918

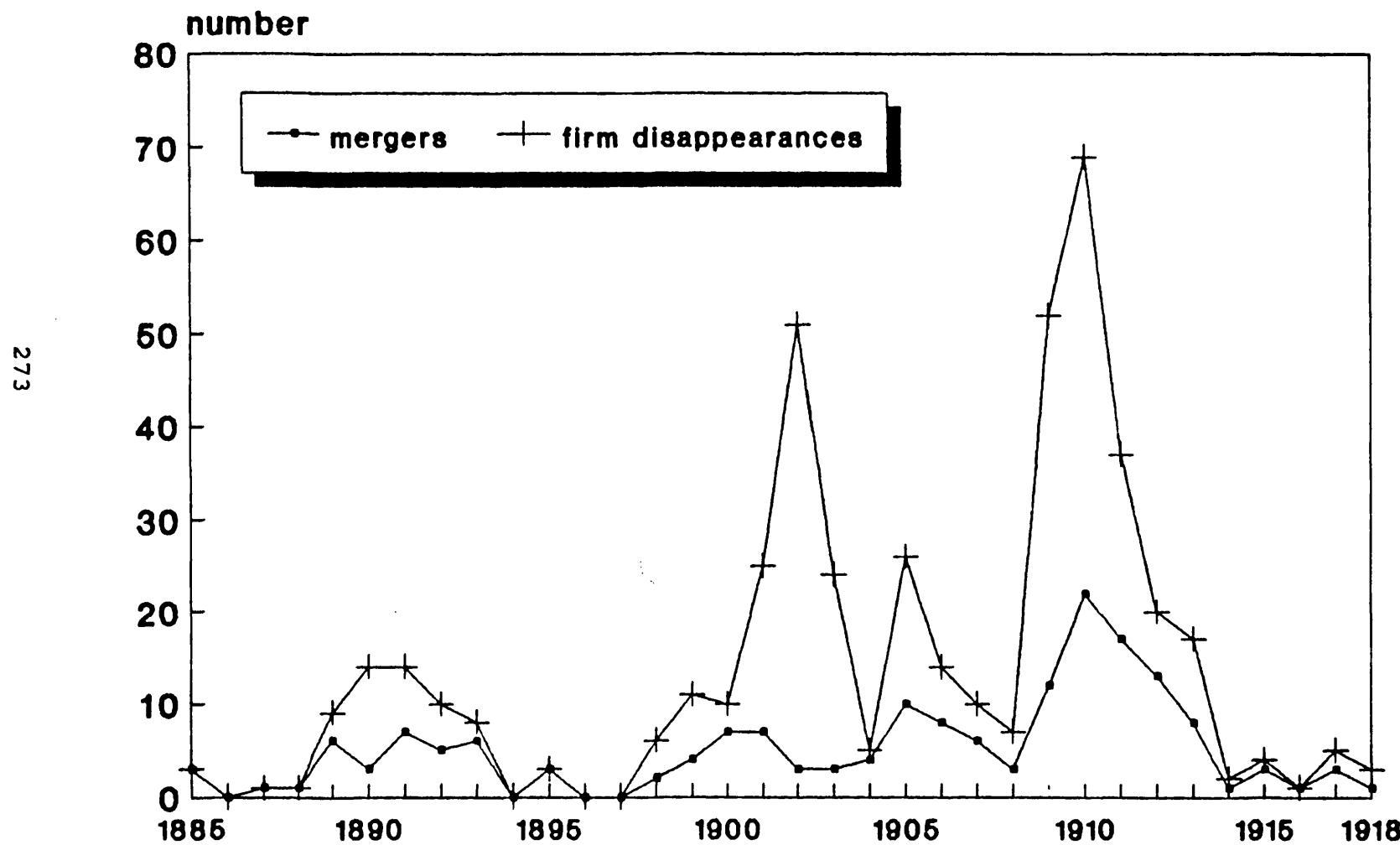
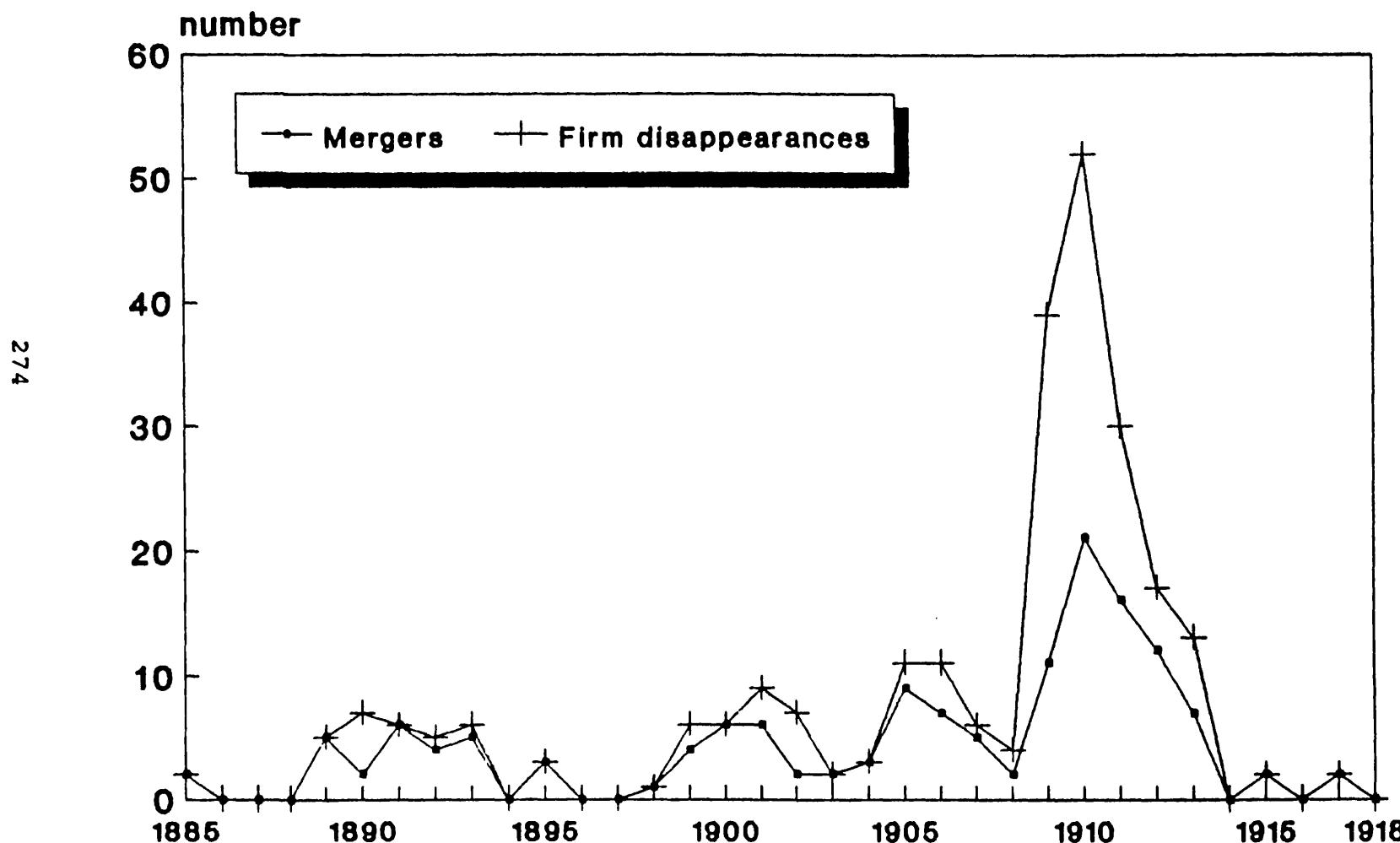


FIGURE 23, SMOOTHED MERGER DATA (*)
CANADIAN MANUFACTURING, 1885-1918



(*) The data was smoothed by removing the largest merger (measured by the number of firm disappearances) in every year.

FIGURE 24, ACQUISITIONS & CONSOLIDATIONS
CANADIAN MANUFACTURING, 1885-1918

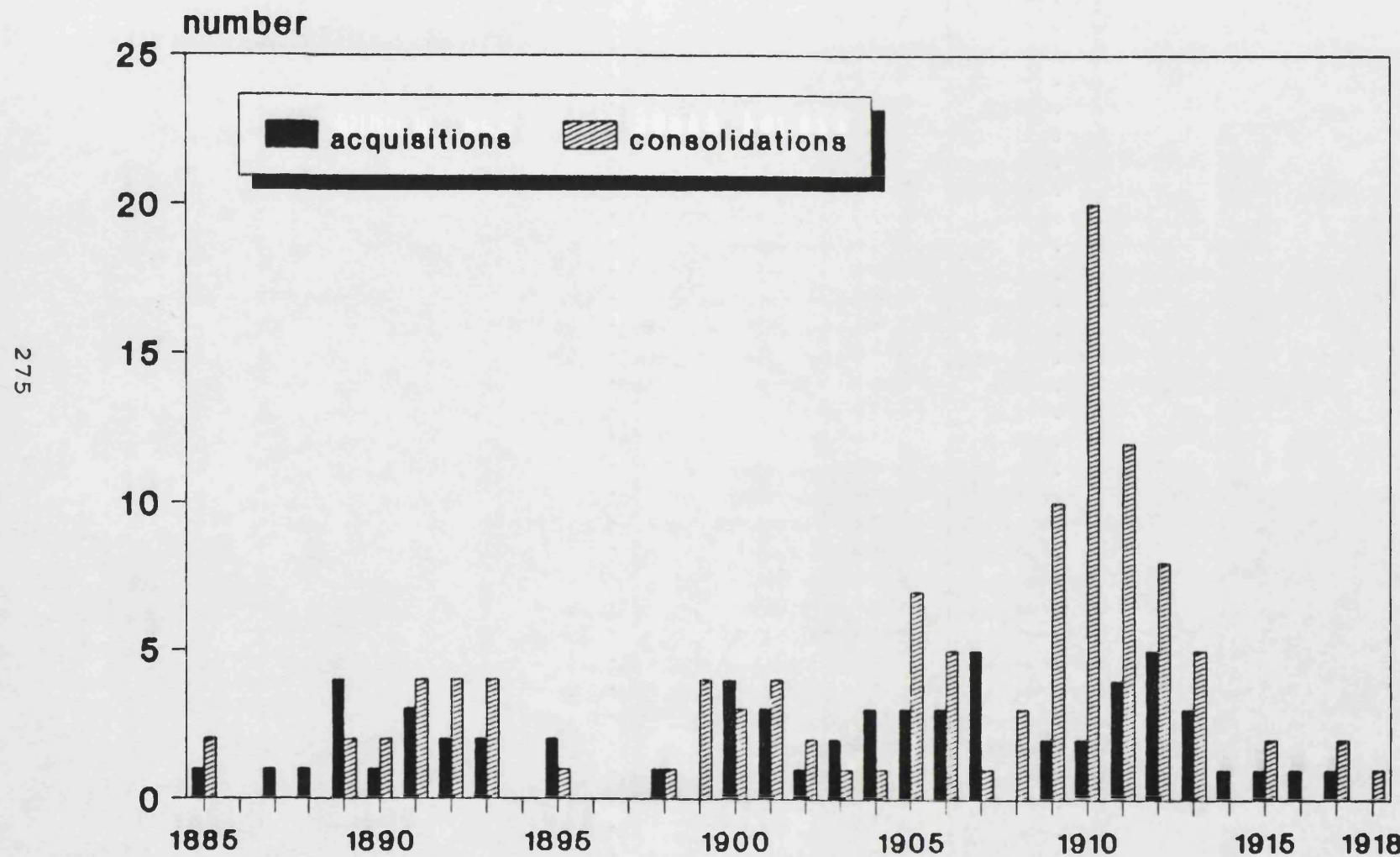
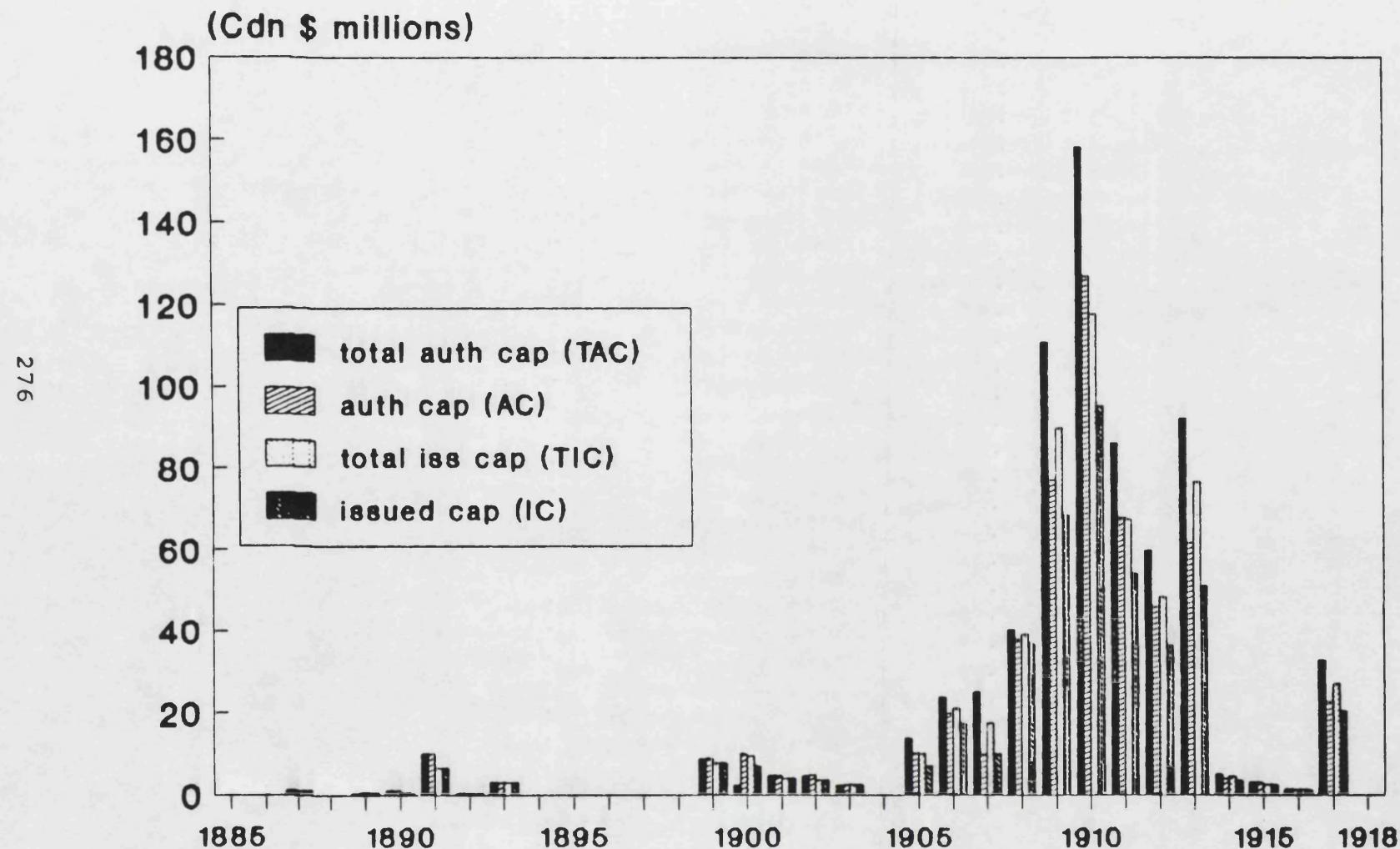


FIGURE 25, CAPITALISATION
CANADIAN MANUFACTURING MERGERS, 1885-1918



APPENDIX E

**CAUSALITY TESTS ON MERGER ACTIVITY
IN CANADIAN INDUSTRY, 1900-1934**

TABLE 26

ESTIMATES OF GRANGER TEST REGRESSIONS FOR MERGER ACTIVITY,
COMMON STOCK PRICES, GNP, AND INTEREST RATES

Canada, 1900 - 1914

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No. eq.	Indep. var.	α	Coefficient of lagged dependent variable				Coefficient of incremental variable				R^2	F	D.W.		
			a(1)	a(2)	a(3)	a(4)	b(0)	b(1)	b(2)	b(3)	b(4)				
Dependent variable: $\Delta M(t)$															
(1)	$\Delta M(t-k)$	0.623 (0.33)	0.251 (1.47)	-0.262 (-1.48)	0.127 (0.72)	-0.374 (-2.09)						0.19 0.08	1.76 (4.30)	1.87 3779.4	
(2)	$\Delta M(t-k)$	0.725 (0.31)	-0.018 (-0.05)	-0.691 (-1.25)	-0.152 (-0.28)	-0.978 (-2.06)		0.402 (1.38)	-0.144 (-0.44)	0.494 (1.55)	0.167 (0.87)		0.34 0.08	1.33 (8.21)	1.80 3078.0
(3)	$\Delta M(t-k)$	0.092 (0.07)	-0.858 (-3.53)	-0.673 (-2.17)	-0.348 (-1.13)	-0.667 (-2.47)	0.650 (6.85)*	0.335 (2.04)	0.147 (0.78)	0.497 (2.78)*	0.210 (1.96)		0.80 0.71	8.98 (9.20)	1.78 920.53
(4)	$\Delta M(t-k)$	-0.206 (-0.08)	0.156 (0.72)	-0.365 (-1.68)	-0.148 (-0.67)	-0.357 (-1.59)		0.013 (0.05)	0.003 (0.16)	0.029 (1.96)	-0.019 (-1.17)		0.35 0.14	1.71 (8.26)	1.82 3055.3
(5)	$\Delta M(t-k)$	-2.449 (-1.07)	0.002 (0.01)	-0.408 (-2.14)	-0.178 (-0.93)	-0.194 (-0.95)	0.033 (3.02)*	0.006 (0.42)	0.009 (0.62)	0.030 (2.27)*	-0.014 (-0.93)		0.52 0.35	3.01 (9.25)	1.73 2238.4
(6)	$\Delta M(t-k)$	1.034 (0.41)	1.221 (0.94)	-0.239 (-0.97)	0.053 (0.22)	-0.326 (-1.22)		-5.149 (-0.54)	0.363 (0.03)	-5.642 (-0.49)	-1.003 (-0.09)		0.22 -0.08	0.73 (8.21)	1.85 3633.2
(7)	$\Delta M(t-k)$	0.952 (0.37)	0.262 (1.07)	-0.258 (-1.03)	0.088 (0.35)	-0.290 (-1.06)	-6.993 (-0.75)	-3.230 (-0.32)	-0.073 (-0.01)	-2.616 (-0.21)	-2.180 (-0.19)		0.24 -0.10	0.69 (9.20)	1.85 3534.2
			A(1)	A(2)	A(3)	A(4)	B(0)	B(1)	B(2)	B(3)	B(4)				
Dependent variable: $\Delta S(t)$															
(8)	$\Delta S(t-k)$	1.366 (0.39)	0.610 (3.01)	-0.393 (-1.65)	-0.122 (-0.50)	-0.131 (-0.54)						0.44 0.35	4.90 (4.25)	2.00 8597.6	
(9)	$\Delta S(t-k)$	0.975 (0.32)	0.103 (0.27)	-0.447 (-1.06)	-0.005 (-0.01)	-0.066 (-0.27)		1.293 (2.68)*	-0.028 (-0.04)	0.302 (0.43)	-0.479 (-0.78)		0.67 0.54	5.25 (8.21)	1.98 5113.3
(10)	$\Delta S(t-k)$	0.192 (0.11)	-0.331 (-1.50)	-0.292 (-1.23)	-0.538 (-2.21)	-0.246 (-1.75)	1.079 (6.85)*	1.313 (4.85)*	0.718 (1.73)	0.466 (1.17)	0.577 (1.53)		0.90 0.86	20.06 (9.20)	1.96 1529.2
Dependent variable: $\Delta G(t)$															
(11)	$\Delta G(t-k)$	69.052 (1.96)	0.440 (2.40)	-0.203 (-0.99)	-0.050 (-0.24)	-0.307 (-1.42)						0.22 0.12	2.17 (4.30)	2.05 906476.9	
(12)	$\Delta G(t-k)$	67.699 (1.74)	0.215 (0.91)	-0.181 (-0.74)	-0.009 (-0.04)	-0.173 (-0.67)		4.648 (1.37)	1.293 (0.38)	0.908 (0.26)	-4.921 (-1.41)		0.36 0.17	1.85 (8.26)	2.15 744338.2
(13)	$\Delta G(t-k)$	69.361 (2.05)	0.112 (0.54)	-0.201 (-0.94)	-0.246 (-1.13)	-0.017 (-0.07)	8.071 (3.02)*	3.389 (1.14)	4.241 (1.36)	2.103 (0.70)	-2.044 (-0.64)		0.53 0.37	3.18 (9.25)	2.06 545339.1
Dependent variable: $\Delta I(t)$															
(14)	$\Delta I(t-k)$	0.009 (0.15)	0.210 (1.05)	-0.147 (-0.75)	0.560 (2.65)	-0.350 (-1.52)						0.26 0.14	2.22 (4.25)	1.89 2.2625	
(15)	$\Delta I(t-k)$	-0.012 (-0.20)	0.274 (1.22)	-0.062 (-0.24)	0.433 (1.60)	-0.168 (-0.63)		0.006 (1.06)	-0.003 (-0.44)	0.005 (0.88)	0.005 (0.82)		0.34 0.09	1.35 (8.21)	1.90 2.0258
(16)	$\Delta I(t-k)$	-0.008 (-0.13)	0.254 (1.11)	-0.061 (-0.24)	0.411 (1.50)	-0.172 (-0.64)	-0.004 (-0.75)	0.007 (1.17)	-0.004 (-0.59)	0.005 (0.91)	0.004 (0.59)		0.36 0.07	1.24 (9.20)	1.90 1.9705

TABLE 27

ESTIMATES OF SIMS TEST REGRESSIONS FOR MERGER ACTIVITY,
COMMON STOCK PRICES, GNP, AND INTEREST RATES

Canada, 1900 - 1934

No. of eq.	Indep. var. eq.	α	Coefficient of future variable				Coefficient of current and lagged variable				R^2	F R^2 (k-1)(n-k)	D.W. RSS	
			B(1)	B(3)	B(2)	B(1)	A(0)	A(1)	A(2)	A(3)	A(4)			
Dependent variable: $\Delta M(t)$														
(17) $\Delta S(t-j)$	-0.154 (-0.09)						0.489 (4.77)	-0.159 (-1.32)	0.037 (0.28)	0.104 (0.82)	-0.039 (-0.31)	0.53 0.44	5.49 (5.24)	2.95 2164.3
(18) $\Delta S(t+j)$	-0.115 $\Delta S(t-j)$ (-0.08)	-0.013 (-0.16)	0.091 (1.02)	-0.219 (-2.23)	0.428 (4.41)	0.235 (2.29)*	-0.046 (-0.45)	0.072 (0.70)	0.092 (0.90)	-0.044 (-0.43)	0.77 0.66	7.28 (9.20)	2.90 1084.5	
(19) $\Delta G(t-j)$	-0.800 (-0.38)						0.033 (3.25)*	0.000 (0.01)	-0.010 (-0.83)	0.023 (2.02)	-0.021 (-1.71)	0.41 0.31	4.09 (5.29)	1.70 2737.1
(20) $\Delta G(t+j)$	2.301 $\Delta G(t-j)$ (0.88)	-0.029 (-2.87)	-0.002 (-0.19)	0.012 (1.23)	0.005 (0.51)	0.019 (1.88)	-0.003 (-0.26)	-0.010 (-0.98)	0.026 (2.58)*	-0.040 (-3.10)*	0.63 0.49	4.64 (9.25)	2.00 1747.5	
(21) $\Delta I(t-j)$	0.608 (0.25)						-6.877 (-0.79)	-9.277 (-1.04)	3.729 (0.43)	-2.431 (-0.23)	-0.511 (-0.05)	0.11 -0.07	0.60 (5.24)	1.49 4119.8
(22) $\Delta I(t+j)$	1.383 $\Delta I(t-j)$ (0.56)	18.387 (2.06)	3.263 (0.36)	-0.864 (-0.09)	-0.406 (-0.04)	-12.536 (-1.17)	-12.675 (-1.13)	9.430 (0.36)	8.801 (0.78)	-5.889 (-0.54)	0.39 0.09	1.29 (9.18)	1.22 2810.4	
		b(4)	b(3)	b(2)	b(1)	a(0)	a(1)	a(2)	a(3)	a(4)				
Dependent variable: $\Delta S(t)$														
(23) $\Delta M(t-j)$	1.016 (0.66)					0.942 (6.55)*	1.049 (7.51)*	-0.102 (-0.71)	-0.350 (-2.48)*	-0.237 (-1.56)	0.86 0.83	33.83 (5.28)	2.23 2187.7	
(24) $\Delta M(t+j)$	1.050 $\Delta M(t-j)$ (0.68)	-0.084 (-0.57)	0.073 (0.47)	-0.237 (-1.48)	0.275 (1.71)	0.779 (4.53)*	1.168 (7.24)*	-0.236 (-1.46)	-0.239 (-1.53)	-0.297 (-1.90)	0.88 0.83	19.12 (9.24)	2.15 1885.2	
Dependent variable: $\Delta G(t)$														
(25) $\Delta M(t-j)$	51.930 (2.09)					6.940 (2.93)*	4.266 (1.86)	2.340 (0.99)	0.066 (0.03)	-4.109 (-1.65)	0.47 0.38	5.24 (5.29)	1.87 614362.9	
(26) $\Delta M(t+j)$	50.397 $\Delta M(t-j)$ (2.02)	-2.370 (-0.98)	4.199 (1.67)	-1.042 (-0.40)	3.249 (1.23)	5.052 (1.78)	6.504 (2.45)*	1.367 (0.51)	1.093 (0.43)	-4.108 (-1.60)	0.55 0.38	3.33 (9.25)	1.72 531559.0	
Dependent variable: $\Delta I(t)$														
(27) $\Delta M(t-j)$	0.002 (0.05)					-0.006 (-1.19)	0.008 (1.65)	-0.004 (-0.95)	0.003 (0.62)	0.008 (1.55)	0.24 0.10	1.75 (5.28)	1.40 2.354	
(28) $\Delta M(t+j)$	0.005 $\Delta M(t-j)$ (0.09)	-0.004 (-0.73)	0.001 (0.24)	0.001 (0.22)	-0.004 (-0.72)	-0.005 (-0.91)	0.007 (1.22)	-0.004 (-0.63)	0.001 (0.13)	0.008 (1.51)	0.28 0.01	1.03 (9.24)	1.38 2.226	

TABLE 28

ESTIMATES OF GRANGER TEST REGRESSIONS FOR FIRM DISAPPEARANCES,
COMMON STOCK PRICES, GNP, AND INTEREST RATES

Canada, 1900 - 1934

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No. eq.	Indep. var.	α	Coefficient of lagged dependent variable				Coefficient of incremental variable				R ²	F	D.W.	
			a(1)	a(2)	a(3)	a(4)	b(0)	b(1)	b(2)	b(3)	b(4)			
Dependent variable: $\Delta F(t)$														
(1) $\Delta F(t-k)$ $\Delta S(t-j)$	0.704 (0.13)	-0.028 (-0.16)	-0.165 (-0.93)	0.026 (0.15)	-0.222 (-1.21)							0.07 -0.06	0.54 (4,30)	2.02 30679.1
(2) $\Delta F(t-k)$ $\Delta S(t-j)$	-0.132 (-0.02)	-0.359 (-1.11)	-0.288 (-0.67)	0.191 (0.45)	-0.147 (-0.41)		0.950 (1.56)	-0.618 (-0.94)	0.172 (0.25)	-0.079 (-0.16)		0.21 -0.10	0.68 (8,21)	1.96 24527.4
(3) $\Delta F(t-k)$ $\Delta S(t-j)$	-2.592 (-0.63)	-0.783 (-3.57)	-0.422 (-1.54)	-0.263 (-0.94)	-0.428 (-1.83)	1.531 (5.65)*	0.447 (1.13)	0.094 (0.21)	0.895 (1.98)	0.212 (0.68)		0.69 0.56	5.04 (9,20)	1.91 9453.5
(4) $\Delta F(t-k)$ $\Delta G(t-j)$	1.747 (0.26)	-0.081 (-0.38)	-0.244 (-1.11)	-0.182 (-0.82)	-0.133 (-0.61)		0.051 (1.30)	-0.037 (-0.89)	0.084 (2.11)*	-0.088 (-2.03)		0.31 0.10	1.49 (8,26)	1.92 22559.9
(5) $\Delta F(t-k)$ $\Delta G(t-j)$	-5.352 (-0.86)	-0.223 (-1.18)	-0.356 (-1.86)	-0.240 (-1.25)	-0.082 (-0.44)	0.089 (3.18)*	0.029 (0.83)	-0.011 (-0.31)	0.087 (2.54)*	-0.062 (-1.60)		0.51 0.34	2.90 (9,25)	1.82 16074.5
(6) $\Delta F(t-k)$ $\Delta I(t-j)$	1.933 (0.29)	-0.077 (-0.35)	-0.096 (-0.44)	-0.068 (-0.32)	-0.219 (-0.96)		-21.256 (-0.87)	7.716 (0.29)	-6.816 (-0.24)	-16.683 (-0.57)		0.14 -0.18	0.44 (8,21)	1.89 26445.2
(7) $\Delta F(t-k)$ $\Delta I(t-j)$	1.910 (0.28)	-0.066 (-0.29)	-0.095 (-0.43)	-0.044 (-0.20)	-0.191 (-0.81)	-15.719 (-0.64)	-17.752 (-0.70)	6.415 (0.24)	1.323 (0.04)	-20.577 (-0.68)		0.16 -0.22	0.43 (9,20)	1.88 25919.4
		A(1)	A(2)	A(3)	A(4)	B(0)	B(1)	B(2)	B(3)	B(4)				
Dependent variable: $\Delta S(t)$														
(8) $\Delta S(t-k)$ $\Delta F(t-j)$	1.366 (0.39)	0.610 (3.01)	-0.393 (-1.65)	-0.122 (-0.50)	-0.131 (-0.54)							0.44 0.35	4.90 (4,25)	2.00 8597.6
(9) $\Delta S(t-k)$ $\Delta F(t-j)$	1.608 (0.49)	0.329 (1.05)	-0.465 (-1.38)	-0.473 (-1.35)	-0.190 (-0.76)		0.277 (1.67)	0.087 (0.40)	0.296 (1.38)	0.184 (1.00)		0.58 0.42	3.63 (8,21)	1.94 6435.1
(10) $\Delta S(t-k)$ $\Delta F(t-j)$	1.660 (0.79)	-0.053 (-0.25)	-0.217 (-0.99)	-0.542 (-2.43)	-0.158 (-1.00)	0.402 (5.65)*	0.421 (3.88)*	0.203 (1.44)	0.220 (1.60)	0.242 (2.07)		0.84 0.77	11.51 (9,20)	1.90 2480.3
Dependent variable: $\Delta G(t)$														
(11) $\Delta G(t-k)$ $\Delta F(t-j)$	69.052 (1.96)	0.440 (2.40)	-0.203 (-0.99)	-0.049 (-0.24)	-0.307 (-1.42)							0.22 0.12	2.17 (4,30)	2.05 906476.9
(12) $\Delta G(t-k)$ $\Delta F(t-j)$	79.683 (1.95)	0.252 (1.06)	-0.286 (-1.16)	-0.035 (-0.15)	-0.301 (-1.15)		1.599 (1.24)	1.261 (0.96)	0.646 (0.48)	-0.572 (-0.44)		0.30 0.09	1.40 (8,26)	2.09 817193.0
(13) $\Delta G(t-k)$ $\Delta F(t-j)$	74.045 (2.11)	0.086 (0.41)	-0.168 (-0.78)	-0.305 (-1.37)	-0.015 (-0.06)	3.227 (3.18)*	1.860 (1.67)	2.047 (1.77)	1.234 (1.06)	-0.144 (-0.13)		0.50 0.32	2.80 (9,25)	1.99 582270.3
Dependent variable: $\Delta I(t)$														
(14) $\Delta I(t-k)$ $\Delta F(t-j)$	0.009 (0.15)	0.210 (1.05)	-0.147 (-0.75)	0.560 (2.65)	-0.350 (-1.52)							0.26 0.14	2.22 (4,25)	1.89 2.2625
(15) $\Delta I(t-k)$ $\Delta F(t-j)$	-0.002 (-0.03)	0.223 (1.02)	-0.083 (-0.35)	0.519 (2.06)	-0.248 (-0.95)		0.001 (0.36)	0.000 (0.05)	0.002 (0.80)	0.002 (0.86)		0.31 0.04	1.16 (8,21)	1.88 2.1278
(16) $\Delta I(t-k)$ $\Delta F(t-j)$	0.001 (0.02)	0.196 (0.87)	-0.073 (-0.30)	0.509 (2.00)	-0.269 (-1.01)	-0.001 (-0.64)	0.001 (0.31)	-0.000 (-0.01)	0.001 (0.74)	0.001 (0.70)		0.32 0.01	1.05 (9,20)	1.87 2.0855

TABLE 29

ESTIMATES OF SIMS TEST REGRESSIONS FOR FIRM DISAPPEARANCES
COMMON STOCK PRICES, GNP, AND INTEREST RATES

Canada, 1900 - 1934

No. eq.	Indep. var. eq.	α	Coefficient of future variable				Coefficient of current and lagged variable				R^2	F	D.W.	
			B(4)	B(3)	B(2)	B(1)	A(0)	A(1)	A(2)	A(3)	A(4)			
Dependent variable: $\Delta F(t)$														
(17) $\Delta S(t-j)$	-0.294 (-0.06)						1.099 (3.72)	-0.435 (-1.25)	0.005 (0.01)	0.302 (0.83)	-0.213 (-0.59)	0.42 0.30	3.43 (5.24)	3.05 18016.7
(18) $\Delta S(t-j)$	-0.362 (-0.07)	0.040 (0.15)	0.274 (0.89)	-0.549 (-1.63)	0.951 (2.86)	0.587 (1.67)	-0.198 (-0.56)	0.097 (0.27)	0.282 (0.80)	-0.250 (-0.71)	0.59 0.40	3.16 (9.20)	3.01 12740.2	
(19) $\Delta G(t-j)$	-0.322 (-0.06)						0.075 (2.81)*	0.002 (0.06)	-0.047 (-1.54)	0.075 (2.50)*	-0.077 (-2.34)*	0.43 0.33	4.38 (5.29)	2.01 18734.2
(20) $\Delta G(t-j)$	6.284 (0.84)	-0.060 (-2.09)	-0.003 (-0.12)	0.031 (1.14)	-0.000 (-0.02)	0.050 (1.71)	-0.005 (-0.17)	-0.047 (-1.59)	0.080 (2.77)*	-0.117 (-3.16)*	0.56 0.40	3.54 (9.25)	2.20 14466.1	
(21) $\Delta I(t-j)$	1.071 (0.17)						-19.940 (-0.89)	-17.584 (-0.77)	15.929 (0.72)	-0.083 (-0.00)	-16.115 (-0.60)	0.13 -0.06	0.69 (5.24)	1.96 26974.7
(22) $\Delta I(t-j)$	3.098 (0.50)	53.188 (2.36)	7.250 (0.31)	-7.011 (-0.30)	-12.793 (-0.50)	-31.436 (-1.16)	-23.827 (-0.84)	34.695 (1.25)	27.415 (0.96)	-31.356 (-1.14)	0.42 0.13	1.43 (9.18)	1.70 17994.6	
		b(4)	b(3)	b(2)	b(1)	b(0)	a(1)	a(2)	a(3)	a(4)				
Dependent variable: $\Delta S(t)$														
(23) $\Delta F(t-j)$	1.035 (0.49)					0.412 (5.92)*	0.400 (5.88)*	0.026 (0.38)	-0.104 (-1.51)	-0.054 (-0.75)	0.73 0.68	15.13 (5.28)	1.80 4160.9	
(24) $\Delta F(t-j)$	0.962 (0.46)	-0.029 (-0.40)	-0.043 (-0.60)	-0.070 (-0.98)	0.110 (1.55)	0.399 (5.51)*	0.409 (5.79)*	0.004 (0.05)	-0.089 (-1.25)	-0.057 (-0.78)	0.77 0.69	8.99 (9.24)	1.70 3524.5	
Dependent variable: $\Delta G(t)$														
(25) $\Delta F(t-j)$	51.851 (2.01)					2.981 (3.44)*	2.044 (2.41)*	1.362 (1.59)	0.180 (0.21)	-0.925 (-1.03)	0.43 0.33	4.33 (5.29)	1.80 669461.2	
(26) $\Delta F(t-j)$	51.882 (2.03)	-0.901 (-1.01)	1.301 (1.47)	-0.101 (-0.11)	1.199 (1.36)	2.832 (3.15)*	2.439 (2.78)*	1.367 (1.55)	0.416 (0.47)	-0.714 (-0.79)	0.52 0.34	2.97 (9.25)	1.57 565452.5	
Dependent variable: $\Delta I(t)$														
(27) $\Delta F(t-j)$	0.008 (0.15)					-0.001 (-0.84)	0.001 (0.63)	-0.001 (-0.58)	0.001 (0.58)	0.003 (1.48)	0.15 -0.01	0.95 (5.28)	1.58 2.6403	
(28) $\Delta F(t-j)$	0.010 (0.19)	-0.002 (-0.97)	-0.000 (-0.26)	0.001 (0.32)	-0.002 (-0.91)	-0.002 (-0.95)	0.001 (0.31)	-0.001 (-0.51)	0.000 (0.24)	0.003 (1.34)	0.21 -0.08	0.72 (9.24)	1.48 2.4312	

FIGURE 26

STRUCTURAL BREAK IN THE
SIMPLE STOCK PRICE MODEL OF MERGER ACTIVITY

Plot of Actual and Static Forecast

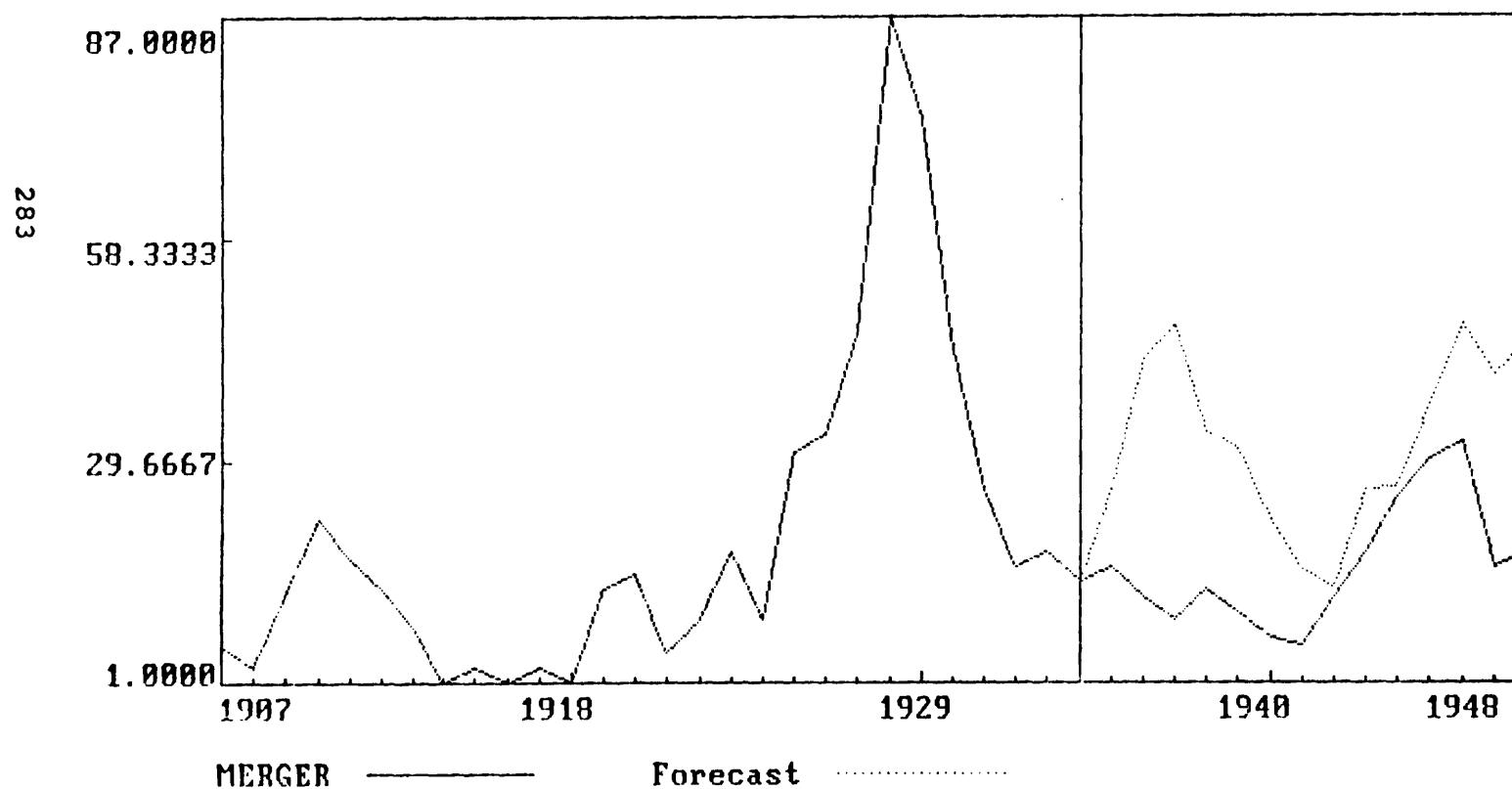
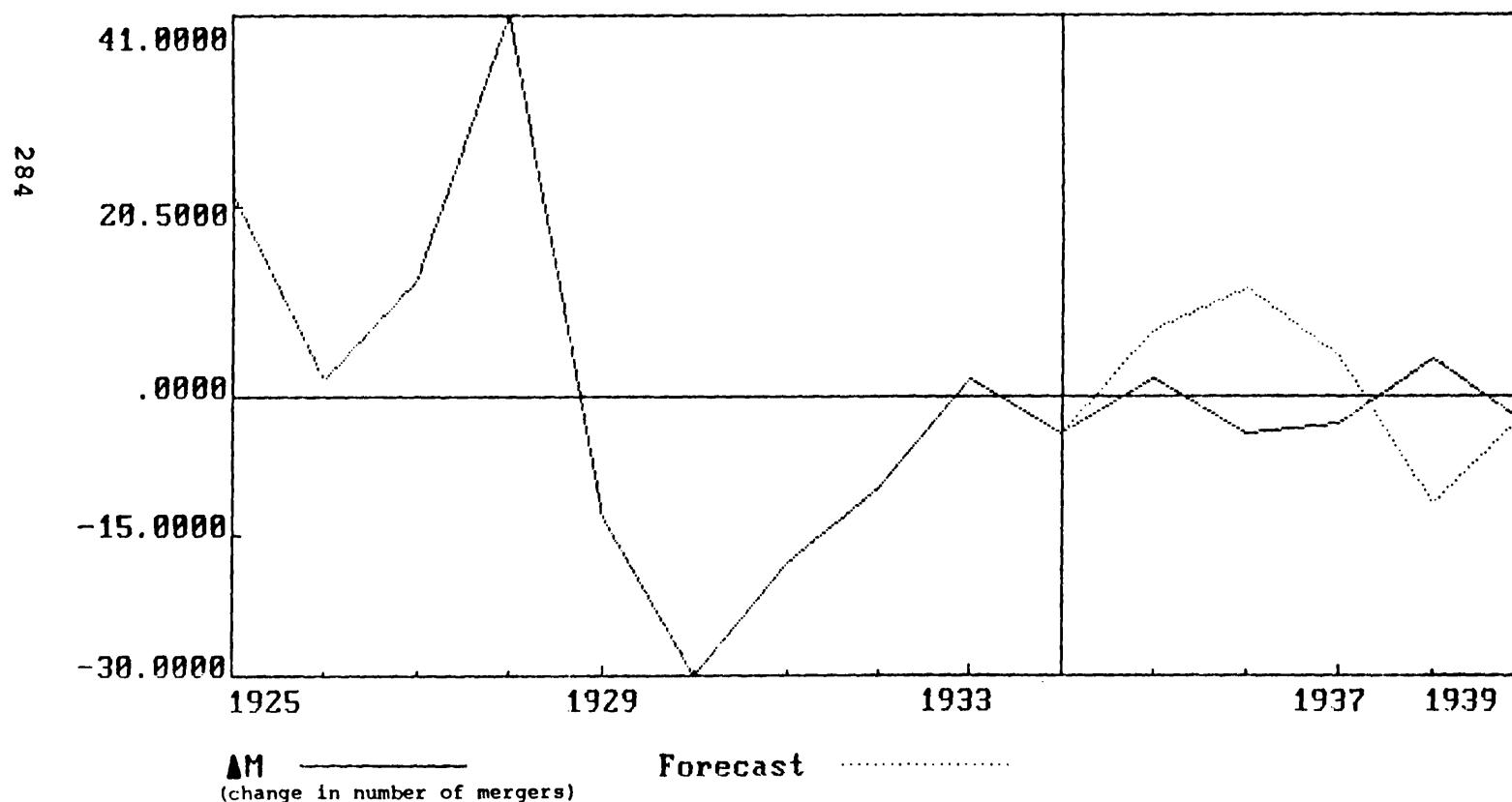


FIGURE 27

STRUCTURAL BREAK IN THE
SIMPLE STOCK PRICE MODEL OF MERGER ACTIVITY
(USING FIRST DIFFERENCE OPERATORS FOR MERGERS AND STOCK PRICES)

Plot of Actual and Static Forecast



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