

UNIVERSITY OF CALGARY

Captains of Industry Crewing the Ship of State:
Dollar-a-Year Men and Industrial Mobilization in WWII Canada, 1939-1942

by

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A THESIS

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Abstract

This thesis examines the role and influence of Canadian manufacturers and executives working for the Canadian government, known as the dollar-a-year men, in mobilizing the Canadian economy for war production. Based chiefly on primary source research this thesis examines contracting methods, the bureaucratic structure of the Department of Munitions and Supply, and the degree to which the Department reacted to events. This thesis demonstrates that the dollar-a-year men's strategy for industrial mobilization was initially focused on maximizing production at almost any cost, and only started focusing on cost efficiency in late 1942 and early 1943. It is also demonstrated that the current historiography is lacking and that C.D. Howe played a far different role than the historiography describes.

Keywords: Department of Munitions and Supply, Dollar-a-Year Men, C.D. Howe

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“The sin of my ingratitude even now
Was heavy on me. Thou art so far before
That swiftest wing of recompense is slow
To overtake thee. Would thou hadst less deserved,
That the proportion both of thanks and payment
Might have been mine! Only I have left to say,
More is thy due than more than all can pay.”

-William Shakespeare, *Macbeth*

For Frances Patricia Meigs Stuart
It is said a person only starts growing up when they first experience tragedy
I grew up the day she left this world

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Introduction

Before the war is over everything will be needed so let's go ahead anyway. If we lose the war nothing will matter... If we win the war the cost will still have been of no consequence and will have been forgotten.¹

-C.D. Howe, 1940

No Matter the Cost

Thus did C.D. Howe summarize the basic problem confronting planners in the early days of a budding World War that was to span six years. Whereas the principal problem of industrial mobilization in the First World War had been financing, the Canadian government realized in 1939 that if it allowed money to hamstring planning efforts they would be unable to field the kind of military demanded by technological advances made during the subsequent two decades. Not that financing was the same kind of problem it had been twenty years earlier. Canada was richer and the Department of Finance was filled with a new breed of bureaucrat, a group of highly educated and ingenious men who schemed and coordinated to keep the country afloat.²

The most pressing question for government planners and policy makers was how best to

¹ Robert Bothwell, *C.D. Howe: A Biography* (Toronto: McClelland and Stewart, 1979), 133.

² For more on finance in World War II Canada see Robert B. Bryce, *Canada and the Cost of World War II: The International Operations of the Department of Finance 1939-1947* (Montreal: McGill-Queen's University Press, 2005) and David W. Slater, *War Finance and Reconstruction: The Role of Canada's Department of Finance 1939-1946* (Ottawa: Department of Finance, 1995). For more on the growth and sophistication of the bureaucracy see J.L. Granatstein, *The Ottawa Men: The Civil Service Mandarins 1935-1957* (Toronto: Oxford University Press, 1982).

construct everything that was needed. What would be the quickest, most efficient, and most cost-effective way to rearm the armed forces and retool the economy for war?

The solution arrived upon was to create a new department of government tasked solely with running the economy and procuring the supplies the armed forces needed: the Department of Munitions and Supply. This decision was rooted in the desire to avoid allegations of corruption like those against the Shell Committee and Imperial Munitions Board in World War I (hereafter WWI) which were largely the fault of poor management by Sam Hughes.³ From the early days of the war the Department was one of the cornerstones of the Canadian war effort as it was given virtually unlimited authority to regulate, coerce, and influence the economy. Prime Minister Mackenzie King chose his Minister of Transport, Clarence Decatur “C.D.” Howe, to be the Minister of Munitions and Supply as he was not only one of the most able ministers but the one who had the greatest business experience. His power was so far reaching that Howe became known as the “Minister of Everything” and he was credited with the stunning mobilization of the Canadian economy for war.⁴

To accomplish this grand task, Howe relied on a group of businessmen and technocrats to manage their respective sectors of the economy. This group of professionals was quickly dubbed the “dollar-a-year men,” a name based on a similar group of businessmen who had volunteered their services in World War One in the United States.⁵ The name was a misnomer, as many of the men were paid more than a dollar, but the idea of the best educated and most capable men

³ For more on the corruption allegations and fallout from WWI see Michael Bliss, *A Canadian Millionaire: The Life and Business Times of Sir Joseph Flavelle, Bart., 1859-1939* (Toronto: MacMillan of Canada, 1992). Bliss outlines the problems created by Hughes’ poor management and the allegations of profiteering against Flavelle at the end of the war.

⁴ The best biography of Howe thus far is Robert Bothwell and William Kilbourn, *C.D. Howe: A Biography* (Toronto: McClelland and Stewart, 1979). An earlier though less reliable source is Leslie Roberts, *C.D.: The Life and Times of Clarence Decatur Howe* (Toronto: Clarke, Irwin, and Company Limited, 1957).

⁵ For an example of the work of American businessmen in World War One see Robert D. Cuff, “A ‘Dollar-a-Year Man’ in Government: George N. Peek and the War Industries Board,” *The Business History Review* 41, 4 (1967): 404-420.

volunteering their services in patriotic fashion endured nonetheless. However, very little is written about the success of this retooling and armaments program. Though Howe certainly deserves credit for directing Munitions and Supply in what he dubbed the “production miracle,” there is surprisingly little written about the role of the dollar-a-year men in the successes and failures of Munitions and Supply.⁶

In fact, what little scholarly writing has been produced on Canada’s grand industrial strategy during the World War of 1939-1945 (hereafter WWII) consists of either over-generalized or numbing collections of production statistics. Only a comprehensive history of the country’s industrial mobilization will enable historians to understand the framework of the entire Canadian civilian war effort. Much has been written about the importance of finance and labour, to name two, but these facets of the wartime economy can only be properly appreciated in the context of the operations of the Department of Munitions and Supply.⁷ A crucial element of such a history would analyze the motives and interests of both government and business, and how they dovetailed to create an undeniably successful war economy. In other words, how important was the business experience and expertise of the dollar-a-year men and C.D. Howe to the success of the Department of Munitions and Supply?

The degree of research and writing required to fully explore this question exceeds the scope of the present work. Instead, a narrower assessment of just one of the dollar-a-year men may serve to illuminate certain aspects of this topic. However, to successfully undertake this assessment, a few difficult goals must be accomplished. First, a proper survey of the history of

⁶ Canadian Manufacturers’ Association, *Industrial Canada*, Volume 43 (Toronto: Canadian Manufacturers’ Association, 1939), 87.

⁷ See note 2 for sources on war finance. For more on labour history in WWII see Michael D. Stevenson, *Canada’s Greatest Wartime Muddle: National Selective Service and the Mobilization of Human Resources during World War II* (Montreal: McGill-Queen’s University Press, 2001), and Peter S. McInnis, *Harnessing Labour Confrontation: Shaping the Postwar Settlement in Canada, 1943-1950* (Toronto: University of Toronto Press, 2002).

the subject would have to be made in order to establish the dollar-a-year man's credentials as a businessman from which to judge his performance during the war. Second, a meticulous combing of his time at the Department of Munitions and Supply would be needed in order to understand the work he completed and the methods he used. Then links would need to be made between the two, searching for how his experiences or training informed his work at Munitions and Supply. Finally, some sort of control would be needed to see if someone without business experience performed less successfully than the dollar-a-year man. Assuming this could be done with some fraction of the offices that made up Munitions and Supply - seventeen production branches, twenty-seven Crown Corporations, or twenty-eight control branches – only then could the question of the business experience be correlated to the success or failure of the Canadian economy in WWII.

The key difficulty in answering the question posed above lies in the dearth of sources required to conduct the thorough study described. The crux of the problem is that it would require some combination of personal papers, diaries, biographies, and corporate archival sources to establish credentials and experience of each of the dollar-a-year men and many of these sources do not exist. Many of the executives and businessmen in question did not leave enough, if any, personal papers or personal diaries, and what they did leave tends to focus on their private and family life rather than their professional lives. If researchers try to turn to corporate or business archives for sources they will soon run into the most basic problem of business history: corporations and businesses do not open their archives to researchers. This is a well-documented problem that has hindered the writing of business history in Canada and to a lesser degree economic history.⁸ The business histories that have been produced are usually only

⁸ See John H. Archer, "Business Records: The Canadian Scene" in *Canadian Business History: Selected Studies, 1497-1971*, ed. David S. Macmillan (Toronto: McClelland and Stewart Limited, 1972).

at the invitation of the company in question and these companies reserve the right to approve the final product, making them suspect and unreliable.⁹

The question therefore cannot ask what role the business experience and expertise of the dollar-a-year men and C.D. Howe played in the success or failure of the Department of Munitions and Supply. However there is enough documentary evidence in the central registry files of the Department of Munitions and Supply itself to trace the work of the dollar-a-year men within the Department as a group and this in turn provides insight into their contribution to the Canadian war effort. Instead of examining them as individuals this paper will analyze the work of the dollar-a-year men as a collective and try to understand what they were seeking to accomplish. Based on the documentary evidence available, discussed below, the question therefore becomes: **What strategy was pursued in mobilizing the Canadian economy for war and how did the inclusion of dollar-a-year men affect the interaction between the Canadian government and private industry in carrying out this strategy?**

This paper will argue that the government's strategy was initially focused on maximizing production at almost any cost, and only started focusing on cost efficiency in late 1942 and early 1943. Due to the fact that the United States was not a belligerent early in the war, and took steps to limit its economic involvement, the dollar-a-year men in Munitions and Supply initiated a program premised on Canada producing nearly all the material it needed regardless of whether the capacity for such production existed. The production undertaken was, in many fields, beyond the normal capacity of Canadian businesses, but Munitions and Supply directly intervened and financed much of the new capacity in the private sector needed to fulfill the production program. Whereas Canada tended to create many Crown Corporations in fields

⁹ Ibid, 289.

where private industry was lacking or non-existent, the dollar-a-year men first sought a private solution to production problems before creating government enterprises to fill the void.

Furthermore, the inclusion of dollar-a-year men provided an avenue whereby Canadian businesses could influence the procurement process of the Department of Munitions and Supply without going through political channels, something businesses did frequently. Businesses would all too often bid on contracts which they could not fulfill in the time frame needed – at times they were utterly incapable of producing for the deadlines they were promising - and the presence of businessmen in Munitions and Supply acted to moderate the tendency of government to accept bids that the dollar-a-year men knew could not be otherwise completed. While previous procurement agencies used similar methods as the dollar-a-year men, they lacked the business knowledge or experience to evaluate whether or not businesses were able to carry out the obligations they were undertaking for the government.

It is clear that the dollar-a-year men had influence over the government, but to a certain degree they also had power. The creation and operation of the Department hinged on the work of a very select group of dollar-a-year men who formed the “Executive Committee.” This Committee formed the nucleus of the Department when it was created and did everything from drafting the original *Munitions and Supply Act*, approaching and recruiting the original cadre of businessmen to join the Department, and creating the procedures and guidelines to be followed in procurement. The Committee’s members were also responsible for the creation of many of the Orders-in-Council that the Department relied on to carry out much of its mandate, orders that were signed by the Governor General on the recommendation of the Prime Minister.¹⁰ While their power was always checked by their elected masters (Howe, the cabinet, and Mackenzie

¹⁰ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 58, Notes of Meeting with the Canadian Delegation, 21 November 1939, 6.

King), the Committee members' work was very seldom questioned, and it is doubtful these same elected masters could have understood some of the complex legal and business matters being presented to them for approval.

In addition to the thesis argument there will be a number of themes that will be touched upon in each chapter. The first is the impact that the shifts in geopolitics from 1939-1942 had on Canadian economic planning, and how it helps to explain the seemingly haphazard organization of Munitions and Supply in those early years of the war. The second is the preference by Munitions and Supply to select a private sector solution first before turning to government-led industries. The third theme is that the current knowledge about the operations and history of the Department of Munitions and Supply is based on the idea that the dollar-a-year men were brought in because they had the business knowledge to convert the economy more efficiently, but unless "efficient" is defined, the facts seem to support a history that is almost directly contradictory to this "efficient" thesis. The fourth and final theme will be that the current historiography is not only lacking, but is conflicting and often wrong in places and this has contributed to much of the current misunderstanding and the persistence of wartime propaganda that makes this topic difficult to understand.

Historiography

The lack of writing on Munitions and Supply is surprising given that a semi-official – it was written solely by J. de N. Kennedy without the aid of staff - two volume history was published in 1950.¹¹ *History of the Department of Munitions and Supply: Canada in the Second World War* is an excellent collection of the facts of the Department's existence during that time,

¹¹ J. de N. Kennedy, *History of the Department of Munitions and Supply: Canada in the Second World War* (Ottawa: Edmond Cloutier, 1950).

but it suffers in terms of analysis and narrative. One review summarized Kennedy's treatment of the history succinctly: "the book has both the virtues and defects of a dictionary; it is filled with useful and interesting information but the narrative is a little disconnected."¹² Kennedy's history lacks any analysis of the methods employed by the various bodies he catalogues, and in this he manages to plot the dots but not connect them. Kennedy's work is useful for understanding the *what* but not the *how*, and this flaw has perhaps been the greatest reason that no one has written more on the internal workings of the Department. It was another twenty years before any other serious work would be written about Munitions and Supply.

Arms, Men, and Governments: The War Policies of Canada, 1939-1945, published in 1970 by C.P. Stacey, contains a chapter titled "Some Aspects of Supply and Development" which places the work of Munitions and Supply within the wider context of production and the difficulty of trading resources between the United States and United Kingdom.¹³ Stacey also traces some of the work done in the early months of the Department and the techniques favoured by some of the businessmen Howe brought on board early on. From here Stacey quickly resorts to a statistical summary of the work of Munitions and Supply and devotes as much ink to supply and development as he does to research and development and Canada's place in the production of the atomic bomb. Stacey provided some of the first insight into the internal workings of the Department, but cut his examination short. While it is another excellent overview that takes care to place the Department within the larger context of the allied supply program, it does little to further the understanding of how the Department went about its job.

Robert Bothwell and William Kilbourn's *C.D. Howe: A Biography*, published in 1979, devotes two chapters to Howe's time at Munitions and Supply and manages to bring in some of

¹² James R. Warren, "Book Review" *The Canadian Historical Review*, vol. 32, 4, (1951).

¹³ C.P. Stacey, *Arms, Men, and Governments: The War Policies of Canada 1939-1945* (Ottawa: Queen's Printers, 1970).

the dollar-a-year men. However, the focus is placed on the group's overall reputation and relationship to Howe and other members of the Department.¹⁴ The internal politics of Munitions and Supply are brought to light - especially the machinations of H.R. MacMillan - and the skills and aptitudes of certain of Howe's executives. Bothwell and Kilbourn's work did well to bring more attention to the men working under Howe and avoided treating the Department as a monolith with Howe pulling the levers, but as the work is a biography of Howe, it could only go so far in examining the work of the dollar-a-year men.

In 1981, Bothwell published an essay in an edited volume focused on the business leaders outside of Munitions and Supply that concentrated on the resistance of Tory businessmen to the Liberal Howe.¹⁵ Bothwell provides a better examination of the methods employed by the Department in another essay titled "'Who's Paying for Anything These Days?' War Production in Canada 1939-1945", but it is nothing more than a few anecdotes relating to problems that various dollar-a-year men confronted and how they went about solving them.¹⁶ The piece demonstrated that these businessmen were active, able, and creative in applying their experience to the work of procurement. Finally, Bothwell's influence can be seen in a chapter of *Canada 1900-1945* he co-authored with Ian Drummond and John English entitled "The War Economy, 1939-1945."¹⁷ The chapter is an amalgamation of Bothwell's previous work on Munitions and Supply and, for a survey, gives a better treatment of the Department than any other business or economic history.

¹⁴ Bothwell and Kilbourn, *C.D. Howe: A Biography*.

¹⁵ Robert Bothwell, "A Curious Lack of Proportion: Canadian Business and the War," *The Second World War as a National Experience*, ed. Sidney Aster (Ottawa: Canadian Committee for the History of the Second World War, 1981), 16-23.

¹⁶ Robert Bothwell, "'Who's Paying for Anything These Days?' War Production in Canada, 1939-1945," *Mobilization for Total War: The Canadian, American and British Experience 1914-1918, 1939-1945*, ed. N.F. Dreisziger (Waterloo, Ontario: Wilfrid Laurier University Press, 1981) 57-70.

¹⁷ Robert Bothwell, Ian Drummond, and John English, *Canada, 1900-1945* (Toronto: University of Toronto Press, 1987).

A more critical view of the war economy and Howe was not brought forward until 1987, in Michael Bliss's *Northern Enterprise: Five Centuries of Canadian Business*, in a chapter titled "Visible Hand: The Years of C.D. Howe."¹⁸ Bliss works to shed light on what he calls the "Howe mystique" and challenges the accepted narrative of the success of the Department by focusing on some of its failures and follies. Bliss discusses some of the more prominent dollar-a-year men and their method of using accelerated depreciation to encourage production, but this still paints only the most general of pictures. Perhaps Bliss' greatest contribution was to challenge the established narrative of Howe as an "indispensable man", opening up the possibility of a more critical examination of Munitions and Supply and the Canadian war economy.

The late 1980s saw a string of criticisms of Munitions and Supply. Ernest R. Forbes criticized Howe and Munitions and Supply for concentrating industry in Ontario and Quebec to the detriment of the West and the Maritimes in his article "Consolidating Disparity: The Maritimes and the Industrialization of Canada during the Second World War."¹⁹ Michael A. Hennessy's "The Industrial Front: The Scale and Scope of Canadian Industrial Mobilization during the Second World War" and Graham Broad's "'Not Competent to Produce Tanks': The Ram and Tank Production in Canada, 1939-1945" level some criticism at Munitions and Supply for misguided production, but do not manage to discredit the Department for its work, only question the haste and urgency with which some production schemes were carried out.²⁰ Finally, J. A. Schultz offers some heavy criticism of the efficiency with which Munitions and Supply

¹⁸ Michael Bliss, *Northern Enterprise: Five Centuries of Canadian Business* (Toronto: McClelland and Stewart, 1987).

¹⁹ Ernest R. Forbes, "Consolidating Disparity: The Maritimes and the Industrialization of Canada during the Second World War," *Acadiensis* 15, 2 (1986): 3-27.

²⁰ Michael Hennessy, "The Industrial Front: The Scale and Scope of Canadian Industrial Mobilization during the Second World War," *Forging a Nation: Perspectives on the Canadian Military Experience*, ed. Bernd Horn (St. Catharines, Ontario: Vanwell Publishing Limited, 2002): 135-154. Graham Broad, "'Not Competent to Produce Tanks': The Ram and Tank Production in Canada, 1939-1945," *Canadian Military History* 11 (Winter 2002): 24-36.

motivated industry, specifically focusing on the waste created by starting new industries in Canada with no experience in the types of production undertaken. Schultz uses British sources to maximum effect as the United Kingdom complained constantly about Canada's inability to fulfill its commitments.²¹

One of the best examples of how the word of the Department of Munitions and Supply is ignored or misunderstood is exemplified by Jeffrey Keshen's chapter in *Saints, Sinners, and Soldiers: Canada's Second World War*.²² Keshen's work contains valuable chapters on the black market created by rationing and the Wartime Prices and Trade Board which governed the civilian economy. Though both of these chapters are welcomed additions to the historiography his chapter on the economy as a whole gives only a general overview of the Department of Munitions and Supply and focuses on a quantitative description of the final production tally while ignoring how this was achieved. Keshen also reinforces the myth of efficiency when he describes the dollar-a-year men by saying, "Dollar-a-year' men...were brought into Munitions and Supply to ensure that operations ran efficiently and in a business-friendly manner."²³ Keshen offers no explanation or evidence of how Munitions and Supply was made efficient by the dollar-a-year men and instead relies on a lack of evidence to the contrary as proof. This myth of efficiency pervades all writing on both the dollar-a-year men and the Department.

Comment on Sources

As the historiography demonstrates, there is very little written on the Department of Munitions and Supply that focuses on the internal policies, methods, and *modus operandi* of the

²¹ J.A. Schultz, "Shell Game: The Politics of Defence Production 1939-1942," *American Review of Canadian Studies* 16 (1986): 41-57.

²² Jeffrey A. Keshen, *Saints, Sinners, and Soldiers: Canada's Second World War*, (Vancouver: University of British Columbia Press, 2004).

²³ *Ibid*, 43.

actors therein. The majority of histories focus on the creation of the Department and Howe's supposed dominating role, and simply give a quantitative summary of industrial output during the war and leave the reader to connect the dots. Others go slightly further into the Department, detailing some of the people employed and giving the most general descriptions of capital assistance, Crown Corporations, and some of the higher profile dollar-a-year men. Taken together these mean that the current historiography can give us a very basic understanding of Munitions and Supply, but even the departmental history written by Kennedy is only descriptive in nature as it seeks to record what happened but not how decisions were made. What is needed is a history that is more analytical. In seeking to write such a history this thesis thus relies heavily on primary source documents instead of the secondary sources.

The majority of documents that are cited and sourced in subsequent chapters are from the Central Registry Files in the Records Relating to the Department of Munitions and Supply, which are part of the larger Department of Reconstruction and Supply Fonds. These files consist of the paperwork generated by the Department's day-to-day operations: correspondence, orders, contracts, meeting minutes and transcripts. Drawing on this mass of paperwork it is possible to build an understanding of the actions taken to complete the tasks detailed in the descriptive histories. These documents allow us to understand the steps taken to produce tanks instead of simply summarizing the people and companies that produced a given number of tanks.

The problem with this approach is that departmental paperwork tends to document decisions, rather than the process that went into making them. Understanding the decision made to produce tanks helps us understand the internal workings of Munitions and Supply, but without the rationale behind those decisions we still lack knowledge of the process. The cases that are discussed herein make the best effort to discover the rationale behind the decisions made using

documents from the Central Registry Files that detail the discussions or debates that led to decisions. Some files from the Department of National Defence Fonds and Department of Finance Fonds have also been consulted, but there is little in these record groups discussing or providing insight into the internal workings of Munitions and Supply.

In order to supplement the Central Registry Files every attempt has been made to locate the personal files of the dollar-a-year men. Unfortunately, very few exist, and what personal papers have been kept are not of great use in the history of Munitions and Supply. The one large exception is the personal papers of Henry Borden. He served as a legal advisor to Munitions and Supply, and was one of the original dollar-a-year men in the Department. Borden even served on the Executive Committee, an informal group comprised of Howe's closest advisors and the original dollar-a-year men that formed the nucleus of the Department. Borden wrote a personal memoir in 1974 titled "Recollections" that details some of the earliest days at Munitions and Supply, and gives a largely anecdotal perspective on how and why decisions were made.²⁴ Though the fact that he chose to write his memoir over 30 years later might make Borden's writing unreliable, the history he writes correlates with the departmental paperwork, and even helps explain some decisions that are not explained in the Central Registry Files. Some of the details Borden provides seem trivial when compared to the stakes, but the fact that he remembered such details 30 years later and wrote them in a memoir that was meant to tell his family of his accomplishments demonstrates their significance. Borden's memoirs will be used to colour in the details of the Departmental records and provide both context and reasoning for the decisions that were made.

²⁴ LAC, Henry Borden Fonds, MG30-A86, "Recollections," volume 4.

Outline

Chapter 1 establishes who the dollar-a-year men were, how they came together, and how their operations were established in the first years of the war. The fact that so little has been written on the dollar-a-year men means that a proper definition must be given to distinguish between regular bureaucrats and those deserving of the title “dollar-a-year man.” Though a definition is difficult to arrive at, it is necessary to limit the study because slight differences in definitions can increase or limit the number of people under consideration by hundreds. After a definition is determined, a standard profile of a dollar-a-year man will be discussed. This will draw mostly from *Canadian Strength* and will trace some of the common elements in the backgrounds of these men. Though there is no single common thread that links these men, there are a few characteristics that many share. It is not possible to trace the work of every single dollar-a-year man inside the Department, partly because of how numerous they were, but more because of how often people were shifted between positions and the speed with which the Department evolved and changed. Instead, a very specific group of dollar-a-year men will be surveyed, primarily those who composed the Executive Committee and those who maintained positions of importance throughout the period being surveyed.

Next, an examination will be made of the work done by the Department of Munitions and Supply: its mandate, organization, growth, and where dollar-a-year men fit into this complex bureaucracy. What they did is as important as how they did it, which is why the Chapter 1 will also examine the unique bureaucratic mechanisms and powers that the dollar-a-year men had within Munitions and Supply. From the earliest days of the Department and the Executive Committee, to the drafting of the *Munitions and Supply Act*, to the growth of the Department and its legal and administrative instruments – such as Orders-in-Council, departmental policies, and

business committees – the tools used by the dollar-a-year men provide clues as to how they planned and carried out their mobilization strategy.

Having thus established a complete picture of the people and organization, Chapter 2 will look at what the dollar-a-year men did: from the actual contracts to working with private business, the creation of Crown Corporations and their internal debates about how best to get their jobs done. How they did their work is very revealing in trying to figure out their strategy for economic mobilization. Analyzing the contracts used in both producing munitions and retooling factories provides a very clear picture of what the dollar-a-year men were attempting to accomplish and their mentality at the time. Their use of the private sector demonstrates how their own corporate experience and inclinations influenced the way that the war economy functioned in Canada.

Chapter 3 will demonstrate how the structure of the Department evolved and how this evolution was sometimes clumsy and created inefficiency in the early years. To understand why Munitions and Supply functioned the way it did it is necessary to understand how power was divided internally between the dollar-a-year men. Understanding this makes it clear as to why the initial years of the Department seem so disorganized and uncoordinated. The structure of the Department followed its intended goals, but these goals were unclear in the early years of the war.

Chapter 1: Politics and Production

The negotiations leading up to and the making of contracts between the Government and private manufacturers either for the purchase or production of . . . munitions or armaments should be put into the hands of an expert advisory group of competent business men.²⁵
-Bren Gun Commission Report, 1938

Genesis

The idea of the government using businessmen to coordinate defence purchasing was not a new one in 1938, but the weight of a Royal Commission report recommending it meant that ignoring the idea could carry serious political repercussions. Canada had experience with businessmen directing government defence purchasing in World War One when the Borden Government had created the Shell Committee²⁶. The experiment went sour when allegations of political patronage and inefficiency were levelled against Sir Sam Hughes²⁷ and the Borden Government opted – and actively sought – to pass responsibility for defence purchasing to the

²⁵ Henry Hague Davis, *Report of the Royal Commission on the Bren Machine Gun Contract* (Ottawa: J.O. Patenaude, Printer to the King, 1939) 51.

²⁶ The Shell Committee was the Canadian-run predecessor of the Imperial Munitions Board and was tasked with coordinating and placing all orders for shells, primarily howitzer shells, in Canada. It was staffed by businessmen chosen by Sir Sam Hughes who directed the Committee. For more see: David Carnegie, *The History of Munitions Supply in Canada 1914-1918* (London: Longmans, Green and Co., 1925) and Peter E. Rider, “The Imperial Munitions Board and its Relationship to Government, Business and Labour, 1914-1920.” Ph.D Dissertation, University of Toronto, 1974.

²⁷ Hughes was Minister of Militia and Defence and therefore responsible for the Shell Committee. For a better account of his relationship with shell production see the Rider thesis, cited above.

British Government, which it did in November 1915. The lesson had been that business and government make for awkward bedfellows and, after the war was won, defence purchasing was placed in the hands of the Department of National Defence.

The Department of National Defence-led arrangement had worked well, as accountability for purchasing rested with elected officials. However, it also proved a political liability when *Maclean's* broke a story, which was then taken up by J.S. Woodsworth in the House of Commons, that the Minister of National Defence, Ian Mackenzie, had granted a contract for Bren Guns to the John Inglis Company without competition. Prime Minister Mackenzie King, ever the slippery fish, moved quickly and appointed a Royal Commission to investigate.²⁸ The Bren Gun Commission found that there had been undue political pressure on the Department of National Defence that ran contrary to government policy, but not the outright corruption alleged by the opposition. In the end the commissioners recommended that, "munitions or armaments should be put into the hands of an expert advisory group of competent business men."²⁹ King had used the Commission as political cover, and since ignoring its recommendations would look too dismissive, the government again had reason to appoint businessmen to handle defence procurement. It is one of the ironies of history that the move away from government-based procurement was born from allegations that proved to be false regarding a contract that went on to be finished ahead of schedule.

In June 1939, as a result of the Royal Commission report, King's government passed the *Defence Purchasing, Profits Control and Financial Act*. This Act set up the Defence Purchasing Board, the first iteration of the "expert advisory group of competent businessmen" recommended

²⁸ Patrick Brennan, *Reporting the Nation's Business: Press-Government Relations during the Liberal Years, 1935-1957* (Toronto: University of Toronto Press, 1994) 35. *Official Report of Debates of the House of Commons*, Third Session – Eighteenth Parliament, 22 June, 1938 (Ottawa: Edmond Cloutier, Printer to the King's Most Excellent Majesty, 1940) 4120.

²⁹ Henry Hague Davis, *Report of the Royal Commission on the Bren Machine Gun Contract*, 51.

by the Bren Gun Commission. The Act also stipulated that no defence purchase made by the government could provide more than a five percent profit for the company supplying the item. The Defence Purchasing Board (hereafter DPB) was placed under the purview of the Minister of Finance, an important detail that would shape the future functioning of Munitions and Supply. The DPB was tasked only with purchasing the materiel decided upon by the Department of Defence; in this respect it was not an originating body but a conduit through which the military obtained its supplies. It was staffed mainly by men from the purchasing departments of the Canadian National Railway and Canadian Pacific Railway companies.³⁰

From the beginning of operations in July 1939 until the Nazi invasion of Poland on 1 September 1939, the DPB managed to purchase just \$11 million in orders.³¹ From the invasion of Poland until the DPB was replaced on 1 November 1939, it managed to place another \$32 million worth of orders.³² These low numbers were not because of the DPB's lack of power but the result of King promising a war of "limited liability" when Canada entered the conflict. France and Britain were expected to do the majority of fighting, and Canada would provide what aid it could, but this would be chiefly limited to economic support in the form of food and raw materials. The political will for total war and a large modern army did not exist, and was not expected in Canada, but the nature of the unfolding war soon changed that.

The gravity of the situation became clear once Britain declared war. Understanding that the DPB was not powerful enough to meet wartime needs, King asked C.G. Power to prepare a

³⁰ C.P. Stacey, *Arms, Men and Governments: The War Policies of Canada 1939 - 1945*, (Ottawa: Queen's Printer, 1970) 122.

³¹ Jack Granatstein, "Arming the Nation: Canada's Industrial War Effort 1939-1945," <http://www.ceocouncil.ca/publication/arming-the-nation-canadas-industrial-war-effort-1939-1945-by-j-l-granatstein>, 4.

³² While these sums may seem large, they pale in comparison to the 11.6 million of contracts placed by Munitions and Supply in its first month, and particularly when compared to the \$82 million placed by Munitions and Supply in its fourth month of operation.

new bill for the creation of a government department to take over procurement.³³ *The Munitions and Supply Act* was passed in one sitting on 12 September 1939 and provided for the creation of the Department of Munitions and Supply. It would take a few months before the Department would be organized and so in the meantime the DPB was supplanted by the War Supply Board on 1 November 1939. Whereas the DPB had been overseen primarily by bureaucrats from the Department of Finance, the War Supply Board was chaired by the President of Ford of Canada, Wallace Campbell and thus given more autonomy from the bureaucracy. The Board's work was very serious, as when war was declared Canada owned four operational anti-aircraft guns, and had sixteen obsolescent light tanks, all of which had been bought in the past year.³⁴

While Campbell could be considered the first dollar-a-year man, there were others working with him about whom more will be said later, namely: Henry Borden, R.A.C. Henry, W.C. Woodward, and Gordon Scott. This group would go on to become the nucleus of Munitions and Supply, but for the time being they were all appointed by order-in-council to the War Supply Board (hereafter WSB). With the WSB now in control it managed to get many more orders placed than its predecessor, beginning with contracts for automotive equipment, corvettes, and minesweepers. In 1939, the WSB was still quite small, somewhat analogous to the Imperial Munitions Board of World War One, and though the five percent profit cap imposed by the *Defence Purchasing, Profits Control and Financial Act* had been circumvented by the same order-in-council that established the WSB, it still adhered closely to the spirit of the Act and attempted to limit profits. Despite no longer acting as a legal restriction the WSB still kept to the five percent profit cap because it worried about allegations of war profiteering. This limited the WSB's purchasing power, as it could only provide for a five percent profit margin on

³³ J.G. Pickersgill, *The Mackenzie King Record, Volume 1, 1939-1944* (Toronto: University of Toronto Press, 1960) 27.

³⁴ C.P. Stacey, *Arms, Men and Governments*, 103.

contracts. This proved very difficult when the items being produced were new for Canadian businesses, who found their production costs nearly impossible to estimate.

These problems were small compared to the WSB's biggest challenge: Wallace Campbell. At the beginning of the war the WSB was still under the purview of the Minister of Finance. The Minister of Finance of the day, J.L. Ralston, asked King on 16 November 1939 to be relieved of responsibility for Campbell and the WSB. Ralston doubted Campbell's loyalty as he was seen as a Tory businessman, and it was feared that he might pass information to the Opposition to embarrass the Liberal Government. At the time, Campbell was also insisting that he be allowed to act without the oversight of Cabinet, and King noted in his diary that Campbell, "has no understanding of government or government responsibility to Parliament."³⁵ King saw himself as an ally of the working man – no doubt from his years negotiating labour disputes – and also feared Campbell because he was, "an old-fashioned, hard industrialist...unsympathetic with Labour organization. While good as an executive, that type is in the industrial world what dictators are in the political world."³⁶ Henry Borden wrote that Campbell carried a chip on his shoulder after failing to secure free rein to place orders without government oversight of WSB spending, and that Borden could not get Campbell to understand why the government would refuse such a request.³⁷

Campbell's inability to understand how to work within government, coupled with his insistence at using dollar-a-year men as personal secretaries instead of managers, made him so resented that Gordon Scott quit and went back to his previous employer in Montreal.³⁸ Soon

³⁵ William Lyon Mackenzie King, Personal Diary, 16 November 1939.

³⁶ Ibid, 15 November 1939.

³⁷ Library and Archives Canada, Henry Borden Fonds, MG30-A86, "Recollections" file, volume 4, page 86, 1974.

³⁸ Ibid, 93.

thereafter R.A.C. Henry and Henry Borden threatened to quit if Campbell continued³⁹. Just two weeks after Campbell took over, it was agreed that responsibility for the WSB would be transferred to Howe at the Department of Transport, and so began Howe's career as Canada's industrial czar. Howe would take over as Minister of Munitions and Supply when the Department formally took control of all procurement on 9 April 1940.

Dollar-a-Year Definition

As previously stated, the idea of being paid a dollar-a-year was left over from World War One, when the dollar salary was meant as a way to establish a contractual relationship between the government and businessmen. On a few occasions – mostly in 1940 - Members of the House of Commons put the question to the government as to how many dollar-a-year men were in government employment and what they were actually paid. Records show that the Department of Finance was also making inquiries and trying to define who was a dollar-a-year man and who was a regularly paid employee.⁴⁰ In addition, questions were raised about the applicability of government rules regarding the hiring of civil servants to the people working in Munitions and Supply. When these questions were submitted to Munitions and Supply, the Department initially struggled to answer them, as even the Personnel Branch within the Department had not had enough time to properly classify the expanding number of businessmen-bureaucrats.

At its peak, Munitions and Supply had over five thousand employees, but only a limited number of them qualified under the eventually agreed-upon criteria for "dollar-a-year" designation. The most obvious feature of a dollar-a-year man was that he was appointed through an order-in-council, rather than simply having been hired as a regular employee. This was done

³⁹ Robert Bothwell and William Kilbourn, *C.D. Howe: A Biography*, (Toronto: McClelland and Stewart, 1979) 129.

⁴⁰ Library and Archives Canada, Department of National Defence Fonds, RG 24, "Royal Canadian Navy third central registry system" file, volume 9458, part 1, W.S. Fisher to A.L. Macdonald, 27 March 1942.

using powers the Minister was given in the *Munitions and Supply Act*.⁴¹ The majority of dollar-a-year men did not receive a salary from the government and instead received either a per diem allowance, reimbursed expenses, or some combination of the two.⁴² Of the 75 dollar-a-year men appointed in 1940, 21 received a salary and six had their salary, in whole or in part, reimbursed by the company they were working for before coming to work for Munitions and Supply.⁴³ There are records showing that the Department of National Defence brought on people using the same technique, though the number never climbed higher than seven or eight throughout the war.⁴⁴

Character and Environment

The romantic connotations of the dollar-a-year men are largely inspired by wartime propaganda - images of titans of industry piloting the ship of state in transferring the economy from a peacetime to a wartime footing. However, it bears noting that the people brought into the Department would have, broadly speaking, matched the characterization given by propaganda. Few were young, and almost all possessed a university degree. They had worked in business their entire lives, usually in a management capacity, and had mostly started from the lower ranks of their enterprise and worked their way up. Some had founded their own business, but most usually worked for either very well established firms or small companies that were growing and quickly gaining notice.

⁴¹ See 4(2) "Officers, etc." *Munitions and Supply Act*, 1940.

⁴² One letter from Polymer Corporation R.C. Berkinshaw thanks the executives of a number of companies for loaning personnel to setup the Crown Corporation in 1941-1942. See LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 55, *Report of Polymer Corporation Ltd. Prepared for Submission at the Staff Meeting to be Held in Ottawa, Thursday, September 10, 1942*, 9 September 1942, 3.

⁴³ Library and Archives Canada, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 179, "Order-in-Council Appointments in the Dept. of Munitions and Supply for the Year 1940."

⁴⁴ LAC, Department of National Defence Fonds, RG 24, "1903 Army Headquarters Central Registry" file, volume 6536, part 1, Campbell to Maingot, 6 June 1940.

One of the unforeseen consequences of gathering so many dynamic and able men together was probably inevitable - clashes of personality and ego. While each man had been selected for his abilities and was very much working out of a sense of patriotic duty, there can be little doubt that they must have felt somehow superior to others who had not been chosen, and their assignment would only confirm their talents in their own minds. G. K. Sheils, the Deputy Minister of Munitions and Supply, had a reputation for being able to deal with what he dubbed business “prima-donnas.”⁴⁵ There were a number of clashes of personality, most notably between the Director-General of Aircraft Production and the President of Federal Aircraft.⁴⁶

Howe was also noted for being quite adept at sorting out the aforementioned interpersonal disputes between dollar-a-year men, though this ability likely had more to do with his position of authority rather than any personal touch. The Department notably went through a period of political turmoil for two months, coinciding with the same time that Howe was away in the United Kingdom sorting out contracts and aircraft production. The most high profile of the political upsets also occurred in the Department’s early days, and involved H.R. MacMillan, a hardnosed lumber baron from British Columbia who was appointed to be the Timber Controller. The complex affair that follows is covered both in Bothwell and Kilbourn’s biography of Howe and Ken Drushka’s biography of MacMillan, the former making MacMillan out to be a power hungry usurper and the latter chalking it up to a misunderstanding that was sensationalized by the press.⁴⁷ The most in-depth examination of it is covered by Brennan who is the first to give equal treatment to both characters in the drama, especially the revelation that Henry Carmichael -

⁴⁵ *Canadian Strength*, Carolyn Cox ed. (Toronto: The Ryerson Press, 1946) 11.

⁴⁶ Robert Bothwell and William Kilbourn, *C.D. Howe: A Biography* (Toronto: McClelland and Stewart, 1979) 138.

⁴⁷ *Ibid*, 144-149. Ken Drushka, *H.R.: A Biography of H.R. MacMillan* (Madeira Park, B.C.: Harbour Publishing, 1995) 215-217.

one of the most able and respected businessmen in the department – acted with MacMillan, which certainly helps to vindicate MacMillan’s views.⁴⁸

There was blame to be laid at someone’s feet for the ham-fisted and loose organization within the Department in its early days, and Howe, as Minister, deserved to have the buck stop with him. MacMillan was right to raise the issue of disorganization within Munitions and Supply, but evidence suggests that he was less than altruistic in his motives, and other dollar-a-year men noted that at times he could be a bit of a muckraker.⁴⁹ A letter from D.G. MacKenzie to MacMillan quoted the latter’s, “description of the Department of Munitions and Supply as a small group of ‘dynamics’ with a thousand or more ‘camp followers’” and agreed with MacMillan’s assessment that the Department was poorly organized and inefficient.⁵⁰ This contradicts Drushka’s assertions in the MacMillan biography and reinforces the majority of the historiography on the episode suggesting that MacMillan was attempting to influence Departmental policy and gain some power in directing Munitions and Supply. Howe had MacMillan slowly demoted, and by 1941, MacMillan was sent back to British Columbia.

Though the dollar-a-year men were not on the front lines of the war they still felt pressure to increase industrial output as fast as possible in the hopes that this might shorten its duration. One of the best examples of the pressure felt was during a strike at the Aluminum Company of Canada’s plant in Arvida, Quebec during the summer of 1941. The Arvida plant was the largest aluminum plant in Canada, and the strike would let the aluminum freeze in the pots causing weeks of delays in aircraft production throughout the Empire.⁵¹ Henry Borden recalled that

⁴⁸ Brennan, *Reporting the Nations Business: Press-Government Relations during the Liberal Years, 1935-1957*, 44.

⁴⁹ Robert Bothwell and William Kilbourn, *C.D. Howe: A Biography*, 144.

⁵⁰ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, D.G. MacKenzie to H.R. MacMillan, 7 December 1940.

⁵¹ This little known, and even poorer documented drama, led Howe to resign as Minister of Munitions and Supply and it took Mackenzie King an entire weekend to convince Howe to return to his post. Howe only did so once he was granted the power to order troops in to break workers strikes. For more see John MacFarlane, “Agents of

sitting at the Rideau Club with other Department officials drafting a cable to London to explain the situation, “was a very emotional experience for each of us and there were tears shed by all, when we fully realized the effect this lack of aluminum was going to have.”⁵²

Being business executives meant that the dollar-a-year men approached problems from a business perspective. One of the best examples is documented in the minutes of the Gauge Committee from 27 February 1942. On this day the committee discussed the Northern Gauge Company’s inability to meet the standards required of gauge manufacturers and its refusal to change its practices pointing to a problem with the company’s administration. The fact that gauges were in short supply meant that the Gauge Committee could not simply reassign the contracts. The first proposed solution was to replace the administration in the company by having it bought out by a larger firm and using business connections to have this happen as quickly as possible. When this idea was dismissed because it took too much time it was decided to threaten to use the extraordinary powers of the Department and have the government take control of the company directly, and that this threat should be enough to force the company to change their practices. This example exemplifies the thinking of the dollar-a-year men, that the first solution should involve companies buying one another and that when government intervention, in their eyes the least desirable solution, was agreed upon it was on the condition that they should do, “anything up to complete control.”⁵³

Control or Chaos? A Strike at Arvida Helps Clarify Canadian Policy on Using Troops against Workers during the Second World War,” *Canadian Historical Review* 86, no. 4 (December 2005): 619-640.

⁵² LAC, Henry Borden Fonds, MG30-A86, “Recollections,” volume 4, 108.

⁵³ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 141, Gauge Committee: Minutes of a Meeting Held in Room B-155, 27 February 1942, 1.

The Executive Committee

The Executive Committee was one of the first creations within Munitions and Supply and it functioned strictly in an unofficial capacity.⁵⁴ There is no mention of it in the *Munitions and Supply Act*, nor did any Orders-in-Council refer to the position of the men working on it. It reported directly to Howe and was given nearly unlimited power to create and manage the new Department as it saw fit. The Committee met and organized the Department from its first days until it was dissolved on 27 August 1940, when its members were moved into other positions to focus on individual areas of work.⁵⁵ Though it only met for five months, it is referenced many times in Departmental documents and at times in newspaper articles.

The creation of the Executive Committee is one of the highlights of the innovative features of Munitions and Supply, a feature that was internally dubbed “parallel structures.”⁵⁶ The idea was that businessmen would find it difficult to adapt to the procedure, work culture, and structure of the bureaucracy. In order to minimize the learning curve and reduce red tape – a feature of bureaucratic life the businessmen were surely anxious to avoid – a system was adopted whereby an organizational structure more akin to a corporation was instituted. The Executive Committee was one such structure; others included Crown Corporations, the Deputy Minister, and Executive Assistants to the Minister. Amendments to the *Munitions and Supply Act* in June 1940, just three months after the Department took over from the WSB, added a clause “providing

⁵⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, Memorandum from Sheils to Thomson, Tindale, Stairs, Carswell, Sanderson, and Eaton RE: Legal Matters, 2 May 1940.

⁵⁵ “Howe Reorganizes Supply Ministry,” *The Montreal Gazette*, 28 August 1940, 3.

⁵⁶ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, D.G. MacKenzie to C.D. Howe, 10 June 1940.

that the Minister may exercise his powers through the medium of a corporation under certain circumstances.”⁵⁷

Henry Borden details how he and R.A.C. Henry secretly drafted amendments to the *Munitions and Supply Act* in the first weeks of 1940. They then took the amendments to Ralston, the Minister of Finance, who gave them a meeting with Mackenzie King where they convinced the Prime Minister that Campbell had to be sent away, Howe needed to take over, and their amendments needed to be declared through an Order-in-Council.⁵⁸ Three days later the Department of Munitions and Supply took over from the War Supply Board and the amendments written by Borden and Henry were made through Order-in-Council.

The fact that the Executive Committee was not officially recognized in any legislation was not a coincidence; it was orchestrated by the very members who sat on it. A letter regarding a new draft of the *Munitions and Supply Act* from J. de N. Kennedy – the same Kennedy who wrote the departmental history and worked in the Munitions and Supply Legal Branch – to Deputy Minister Sheils states that Henry Borden thought,

that such Committee could function more usefully as a Committee without statutory recognition and without other formalities. I think that Mr. Borden said that this was also the opinion of the other Members of the Executive Committee. Consequently, you will not find any reference to the Committee in the attached draft.⁵⁹

These were the same people who were pushing for the inclusion of “parallel structures” in the *Munitions and Supply Act*, and would use these ideas during their early months organizing the Department. Their work was so consuming that Deputy Minister Sheils sent a letter to all

⁵⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, “Memo Re Main Features of the Bill to Amend the Department of Munitions and Supply Act.”

⁵⁸ Library and Archives Canada, Henry Borden Fonds, MG30-A86, “Recollections” file, volume 4, page 93, 1974.

⁵⁹ Library and Archives Canada, Department of Reconstruction and Supply Fonds, RG 28, “Organization of the Department of Munitions and Supply” series, volume 47 & 48, file no. 1-1-43.

Department personnel on 2 May 1940 asking that all legal matters be referred to Kennedy as, “Mr. Borden’s time is pretty fully taken up at the present with meetings of the Executive Committee, and if matters are referred to him some unnecessary delay may result.”⁶⁰

The Bren Gun pseudo-scandal may have forced the government to place purchasing power to the hands of businessmen, but the memories of WWI and accusations of war profiteering against Joseph Flavelle – in addition to the high profile Nye Committee investigations of the 1930s into the war profiteering “merchants of death” in the United States⁶¹ – were still fresh in the minds of many. The potential for political embarrassment and liability, such as that which arose in the MacMillan affair, was brought to Howe’s attention. A letter dated 15 October 1940 from Watson Sellar⁶² at the Department of Finance marked “Personal” warned Howe against taking too much responsibility on his own shoulders or allowing interdepartmental arrangements to spread responsibility around. Sellers’ words were, “your dollar-a-year men should be kept definitely committed with every deal made; otherwise if, later on, some turn on you, or a political party demands an investigation, they can be troublesome unless you have them now so definitely in the picture that they have either to be silent or support you.”⁶³ He also warned that if Howe were to allow the Department of Justice to take over the legal work for the department, “your men will ‘pass the buck’ whenever you criticize them for delays in the completion of deals.”⁶⁴

⁶⁰ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, G.K. Sheils memo “RE: Legal Matters” 2 May 1940.

⁶¹ For more on the Nye Committee and its influence on fears of war profiteering see John Wiltz, “The Nye Committee Revisited,” *The Historian* 23, issue 2 (1961): 211-233.

⁶² Sellar had been Deputy Minister of Finance from 1930-1932 and then served as Treasury Comptroller from 1939-1940. Shortly after writing the aforementioned letter Sellar was appointed Auditor General.

⁶³ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, Watson Sellar to C.D. Howe, 15 October 1940.

⁶⁴ *Ibid.*

The Executive Committee was composed of seven men, the majority of whom had served on the WSB. They represented a cross section of key industries and business centres in Canada.

The table below outlines their pre-war industry, position and corporate headquarters.⁶⁵

Member	Company	Sector	Position	Headquarters
W.C. Woodward	Woodward Stores Limited	Department Stores	President	Vancouver
R.P. Bell	Pickfords Black Limited	Cold Storage	Director	Halifax
Henry Borden, KC		Law	Barrister	Toronto
W.A. Harrison	Estabrooks Limited	Engineering	Managing Director	St. John
R.A.C. Henry	Beauharnois Power Corporation	Electricity & Heating	General Manager	Montreal
G.W. Scott			Chartered Accountant	Montreal
E.P. Taylor	Canadian Brewers Limited	Brewing	President	Toronto

Their experience was far more extensive than this table shows. Before working in storage, R.P. Bell had founded or directed businesses in shipping, wholesale, real estate development, and lumber.⁶⁶ E.P. Taylor worked as Director at the brokerage firm of McLeod, Young, Weir and Co., before amalgamating eight different breweries to create Canadian Brewers Limited.⁶⁷ R.A.C. Henry had been an engineer for every major railway in Canada before moving to the Department of Railways and Canals where he evaluated grain movement on the Great Lakes, and where he first met Howe.⁶⁸ Henry Borden had worked as an unpaid clerk for his uncle, Sir Robert Borden, at the War Conference of 1918 in London, after which he studied under Stephen Leacock. Borden later worked for the Royal Bank of Canada before studying law

⁶⁵ As reported on 20 June by C.D. Howe to the House of Commons. *Official Report of Debates of the House of Commons*, First Session – Nineteenth Parliament, June 20th, 1940 (Ottawa: Edmond Cloutier, Printer to the King’s Most Excellent Majesty, 1940) 933.

⁶⁶ *Canadian Strength*, Carolyn Cox ed. (Toronto: The Ryerson Press, 1946) 33.

⁶⁷ Richard Rohmer, *E.P. Taylor: The Biography of Edward Plunket Taylor* (Toronto: McClelland and Stewart, 1978) 37.

⁶⁸ *Canadian Strength*, Carolyn Cox ed. (Toronto: The Ryerson Press, 1946) 53.

at Oxford and was considered the best corporate lawyer in Toronto when war broke out.⁶⁹

These men represented some of the most able men in Canadian business at the time. Their recruitment was largely unofficial; when one was brought onboard he would recommend another. *Canadian Strength*, a series of biographic sketches published in *Saturday Night* and the *Montreal Standard*, details some of these anecdotal encounters. Henry had been called and convinced by G.W. Gordon in the days of the WSB.⁷⁰ Bell had originally clashed with Howe over policy when Howe was Transport Minister. After Howe took command of the DMS and upon seeing him on a golf course in Halifax, Bell “dropped his putter, strode up to Howe with hand outstretched, [and said] ‘I just want you to know if I can ever do anything for you, you can count on me.’” Howe called him a week later, asked him how soon he could be in Ottawa, and was disappointed to be told one week. Bell, not one to disappoint, chartered a flight and was in Howe’s office the next morning, “‘That’s better,’ grinned Howe.”⁷¹

As the core group of businessmen grew, they recruited more and more of their colleagues, contacts, and employees to come work at the Department. The parallel structures put in place worked to familiarize the men who were recruited with their own work, and made sure that while the work might be new, the organization was familiar. This structure also helped when dealing with businesses as businesses were also familiar with the organization of the Department, and this helped Canadian businesses understand their customer.

Politics Within the Bureaucracy

This new style of organization was not popular with other departments within the bureaucracy and there were a number of attempts made to curb the power of Munitions and

⁶⁹ Ibid, 149.

⁷⁰ Ibid, 53.

⁷¹ Ibid, 34.

Supply. The very first attempt was made by the Department of Finance, which made moves to maintain powers that it had once held when it controlled the Defence Purchasing Board and the War Supply Board.⁷² Under these previous arrangements, a purchase could not be put through without first receiving the approval of the Department of Finance, and after Munitions and Supply was created Finance lost this power.⁷³ Under the new system, Finance was copied on all purchases, according to procedure, but only after the orders were finalized. Thus, instead of being the final authority on purchasing, Finance was relegated to a bookkeeping role, and even then only once the deals were complete. This meant that Finance, or even the Treasury Board, could not control spending within Munitions and Supply, and there are signs that both of these Departments attempted to assert some control over the tendering process, or at least keep themselves in the loop.

The Department of Justice also objected to the unique practices of Munitions and Supply. In this case, the objection came from the fact that the latter had its own in-house legal branch that did all of the legal work for the Department. Specifically, Justice demanded that it be given the authority to appoint the lawyers in Munitions and Supply in accordance with the *Munitions and Supply Act*. In a letter to Deputy Minister of Justice W. Stuart Edwards, dated 21 October 1940, Howe explained that he had spoken with Minister of Justice Ernest Lapointe, and that Munitions and Supply would thereafter make the appointments jointly.⁷⁴

Though this seems to be Howe giving in to the demands made of him, the tone of the letter suggests that he had made arrangements with Lapointe, and that Munitions and Supply

⁷² LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, R.C. Vaughan to James Ralston, 18 September 1939.

⁷³ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, Campbell to Ralston, 18 September 1939.

⁷⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, C.D. Howe to W. Stuart Edwards, 21 October 1940.

would keep its independence. The conciliatory tone of the letter is underlined by phrases that hint that Howe was not willing to budge on the issue, such as “[your letter] raises some interesting questions of jurisdiction regarding which I think there is room for a difference of opinion.”⁷⁵ The fact that Howe went to the Minister became a hallmark of the way that external interference was dealt with at Munitions and Supply; whenever another department started causing problems, Howe was informed and the matter was quickly sorted out at the highest levels.

The animosity with Justice and Finance is probably best evidenced by a disagreement regarding the taxation of the per diems and allowances paid to the dollar-a-year men. It was the opinion of the Department of Finance that these constituted income, and should be taxed. However, Henry Borden took exception to the situation and provided a legal opinion stating that these payments were not to be taxed.⁷⁶ Finance passed the matter along to the Department of Justice, which was also of the view that the payments to the dollar-a-year men should be taxed. While the taxation of these payments was not a matter of importance, given the revenue raised was not enough to justify the effort that was being put into the matter, the growing hostility between these three departments seems to be the likely source of this exchange. Doug Owram points out as much in his examination of the rise of a professionally educated intelligentsia within the bureaucracy, focused in the Department of Finance. Owram paraphrases Clifford Clark regarding these clashes in the bureaucracy, “the problem must lie with the dollar-a-year men around Howe and not with the permanent civil service.”⁷⁷

⁷⁵ Ibid.

⁷⁶ LAC, Henry Borden Fonds, MG30-A86, “Recollections,” volume 4, 89.

⁷⁷ Doug Owram, *The Government Generation: Canadian intellectuals and the state 1900-1945* (Toronto: University of Toronto Press, 1986) 259.

Parallel structures also worked to circumvent existing government regulations for the civil service. The Treasury Board controlled most of the civil service, including some aspects of hiring and pay. The omission of the Executive Committee from the *Munitions and Supply Act*, and the fact that the dollar-a-year men were appointed by Order-in-Council, excluded them from the purview of the *Civil Service Act*. In the letter from Howe to Edwards discussed above, Edwards brought forward the point that the Civil Service Commission – a body under the Treasury Board with powers to oversee the civil service – had jurisdiction over hiring procedure and that therefore, Howe could not hire however he pleased. Howe’s reply notes that, “I would assume that the approval of the Civil Service Commission will no longer be necessary, having in mind the joint recommendation.”⁷⁸ The joint recommendation he refers to is the agreement he had struck with Lapointe.

Administrative Problems and Mobilization

Klaus Knorr wrote on the factors involved in the uses and measure of power, specifically on the conversion of economic potential to military power. Primary among these factors was the administrative capacity for war, and Knorr states that, “no matter how large the resources which a belligerent nation is able and willing to devote to war, the amount of military power produced depends also on the administrative skill with which these resources are marshalled.”⁷⁹ Alan S. Milward applies similar theories to the Second World War, concluding that, assuming a perfect ability to maximize the resources of labour, raw materials, and production, “political difficulties,

⁷⁸ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, C.D. Howe to W. Stuart Edwards, 21 October 1940.

⁷⁹ Klaus Knorr, *The War Potential of Nations* (Princeton, New Jersey: Princeton University Press, 1956) 99.

social resistance, or administrative friction are usually the first effective limits to be reached.”⁸⁰

Munitions and Supply was the manifestation of the government’s administrative resources to mobilize the economy, and the evolution from the Defence Purchasing Board, to War Supply Board, to Munitions and Supply demonstrates the ideas of Milward and Knorr in action, and the Canadian Government’s resolve to mobilize the economy.

At the outset, Munitions and Supply’s stated goal was to “buy or otherwise acquire, manufacture or otherwise produce, finish, assemble, store and transport, and sell, exchange or otherwise dispose of, munitions of war and supplies.”⁸¹ Though it is clear that the Act gave Howe the power, by hook or by crook, to produce what materiel was needed, the question of how he planned to go about doing it remained vague even as Munitions and Supply was established and Canada entered its eighth month at war. An examination of the early days and initial setup of Munitions and Supply shows a system that was built both to accommodate businessmen working internally, and to easily plug into Canada’s business community.

The “parallel structures” incorporated into the departmental framework kept Munitions and Supply relatively decentralized, while still holding individuals accountable for their actions. Though Howe would not have let such an arrangement happen against his wishes, he was not intimately involved with the creation of the Department. That task fell to the Executive Committee, which organized matters right down to drafting amendments to the *Munitions and Supply Act*. The day-to-day running of the Department was also left to Deputy Minister Sheils and the Executive Committee. Though Howe had absolute power over the Department, his delegation of the work meant that effective control lay in the hands of the dollar-a-year men.

⁸⁰ Alan S. Milward, *War, Economy and Society 1939-1945* (Berkeley, California: University of California Press, 1979) 21.

⁸¹ Munitions and Supply Act, 4.

Howe's genius did not therefore lie in his ability to organize Munitions and Supply. The credit he deserves here is in delegating it to the most able people, but also in his ability to maintain the independence and undisturbed place of the Department within the government as a whole. From the internal rumblings caused by MacMillan, to the interdepartmental turf wars for jurisdiction, and finally in the War Cabinet, Howe was able to give his department the freedom it needed to accomplish its task. If Knorr is correct in his statement that political will and administrative capacity are the limiting agents in the formula for efficient economic mobilization for war, then Howe's actions were, according to theory, for the best in mobilizing the Canadian economy for war. Howe's political abilities served both the Department and himself well, though it is easy to see that this is only true when Howe was right, as the same tendencies brought only ruin to himself and the government in the Pipeline Debate of 1956.

Those early days of the Department demonstrate that the direction being pursued was aimed at bringing business into the Department and working closely with the private sector. The administrative structure was meant to mirror that of a corporation, in order to make the transition into the Department as easy as possible for the businessmen who were to take up posts therein. The commitment to such a structure provides evidence that a conclusion had been reached that more and more dollar-a-year men were to come. Though this decision reflected the trend that had begun with the Royal Commission on the Bren Gun Contract and the establishment of the Defence Purchasing and War Supply Boards, it was a much more ambitious and grand design than anything yet conceived or implemented. The Executive Committee's drafting of the *Munitions and Supply Act* amendments demonstrates a commitment to run the Department like a business, and therefore an approach to resource allocation that would, at least in some part, make use of the market to allocate resources rather than centralized allocation by the government.

Though the design of Munitions and Supply created an organization that could use market mechanisms and the firm model to produce what was needed, it does not mean this is what took place. The framework was established to allow businessmen to dovetail the administrative power of government with the productive capabilities of a free market economy. It must next be demonstrated that this new breed of bureaucratic machine was used for the purposes for which it was designed.

Chapter 2: “That is not a ceiling, that is a sky”

"Regional committees of members of the lumber trade were appointed to the principal lumber producing districts, to advise and assist the Controller in the formulation and execution of his policies"⁸²

-Draft of History of Timber Control

The Free Market Approach

The Department of Munitions and Supply was designed in a way that allowed it to work well with private enterprise in Canada. However, the fact of the Department’s design only shows the potential to work with the private sector. In order to show that the Department worked in this manner, we need to take a closer look at how its work was done. Did Munitions and Supply use this structure in such a way as to harness the private sector to drive production, or was the structure of the Department used so that the government could create state-owned businesses – more popularly known as Crown Corporations – to produce what was needed? The evidence explored below shows that while there was a mix of both of these methods, the free-market approach was preferred over centralized state control.

This being the case, what mechanisms were used by Munitions and Supply to hurry production while keeping the economy as free market-oriented as possible? Here, the evidence shows that the dollar-a-year men favoured a system of business committees that assembled

⁸² LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 16, The Timber Control Internal History, 30 September 1946, 3.

companies of each sector into committees within the Department to coordinate amongst one another and with the government. In addition, the dollar-a-year men instituted a type of contract meant to incentivize production as quickly as possible, though it was not cost efficient. At the same time, they subsidized the capital costs of the expansion of existing production in the private sector. This capital assistance program was largely responsible for the advances in the Canadian economy in that era, and the growth of the manufacturing sector as a proportion of the gross domestic product.

Though these elements were used in tandem from the Department's earliest days, their use changed as the production programs geared up and the war progressed. The Department spent its first year organizing itself, and by 1941 became entirely occupied with expanding industrial production and retooling for war. In 1942 these production programs were in progress and more changes were being made, with 1943 being the peak year for production. As the production strategy was executed, these three elements – special contracts, capital assistance, and the use of business committees – were used differently based on the circumstances of the day. Internal reviews, parliamentary investigation, and even reviews of the work of Munitions and Supply by the Auditor General show that the contracting methods, capital assistance programs, and tendering processes used were either wasteful or not needed by early 1943. While these critiques are true of Canada in 1943, the methods used by the Department between 1939 and 1942 reflect just how desperate the situation was for Canada.

This chapter will demonstrate that the methods used by the dollar-a-year men and the Department were aimed at employing the private sector as the basis for production. The strategy was designed to incentivize production, rather than induce it, and accordingly focused on carrots, rather than sticks. The strategy of the dollar-a-year men was meant to expand and retool the

economy as quickly as possible, which led to increasing costs but not necessarily efficiency. Once the dollar-a-year men had achieved this objective, their program changed from expanding the productive capacity of the private sector to sustaining the artificially-augmented economy. By 1943 the strategy changed to focus on a centrally planned economy, however it all started with a free-market approach to expand production.

Tenders

One of mantras of Munitions and Supply was that it was not an originating body, a phrase that is found in almost all media about and by the Department. The Department of National Defence set the armed forces' requirements, and passed the requirements to Munitions and Supply to decide how and where to meet these needs. The tendering process generally went as follows: first, the production branch within Munitions and Supply which specialized in the item decided where it should be produced.⁸³ If capacity did not exist in Canada, and production likely could not be induced, then the item was given to a Crown Corporation.⁸⁴ If the item could be produced by private industry then the tendering process began.⁸⁵

Tendering was very tightly controlled, going so far as to have tenders submitted in a locked metal box that was accessible only by the legal staff.⁸⁶ Once the tender box was opened, the tenders were reviewed in whatever manner the specific branch designated, and a decision was made on who should get the contract. Here, the expertise of the dollar-a-year men was put

⁸³ At the Department's zenith there were sixteen production branches and twenty eight Crown Corporations

⁸⁴ For more on Crown Corporations see Harold Crabtree, "Crown Corporations in the Canadian War Production Programme," *Quarterly Review of Commerce* 9, no. 3 (Summer 1942): 206-213. For a review of one of the most well-known Crown Corporations see Matthew J. Bellamy, *Profiting the Crown: Canada's Polymer Corporation 1942-1990* (Montreal: McGill-Queen's University Press, 2005).

⁸⁵ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 48, Sub-Heads of Report on Method of Operation and Functioning of The Department of Munitions and Supply, 18 March 1941, 8.

⁸⁶ *Ibid*, 10.

to use, as they reviewed the tenders and gave their opinion as to whether or not they thought the tendering company could fulfill the contract on the terms they had submitted. From this point, the time it took the Department to place the order depended on the circumstances of the contract; if the company required capital assistance, it needed the recommendation of the Production Board – composed of the heads of production branches and Crown Corporations – to the Minister. If it required rationed materials it would need the approval of the Wartime Prices and Trade Board. If it required specialized labour that was not available it would require the attention of the National Selective Service.⁸⁷ If they required none of these specifics, production could begin, but as more was produced there would be increasing shortages of men and materials which could mean long bureaucratic delays.

Very early on it became apparent that it could take weeks, or even months, for the negotiating officers to finalize the details and the Legal Branch to write the contract.⁸⁸ On 14 May 1941 the Legal Branch reported that it was taking an average of three weeks to get contracts through negotiations, legal drafting, review by the production branch and contractor, and then approval by the Minister.⁸⁹ Despite running a night shift of lawyers to keep drafting contracts, they were still falling behind. By April 1942 the number of tenders⁹⁰ opened per day averaged out to 411.⁹¹ Instead of waiting for the contracts to be signed it became standard practice to issue a “go-ahead letter,” which was later replaced by a preliminary contract, to begin work

⁸⁷ See Michael Stevenson, *Canada's Greatest Wartime Muddle: National Selective Service and the Mobilization of Human Resources during World War II* (Montreal and Kingston: McGill-Queen's University Press, 2001).

⁸⁸ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, Memo from Sheils to All Directors-General, 15 March 1941, 2.

⁸⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 54, Legal Branch Progress Report, 14 May 1941, 1.

⁹⁰ Tenders are invitation to companies to make a bid to produce a good. The amount of goods, specifications, and restrictions are listed in the tender

⁹¹ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 55, Secretary's Branch Monthly Report, August 1942, 1.

immediately.⁹² Once the go-ahead letter or preliminary contract was signed production could begin.

The fact that the government was using the *War Measures Act* to avoid having the House of Commons vote on the items Munitions and Supply was purchasing meant that all contracts required an Order-in-Council. Bothwell, Drummond, and English note, “[t]he War Measures Act allowed the government to avoid parliamentary debate, and to act promptly and decisively. Prime Minister King must have been grateful for the former and C.D. Howe for the latter.”⁹³

The Orders-in-Council were only required for contracts that totalled more than \$15,000 and so smaller tenders could be carried out more quickly than larger ones. This fact led to a series of orders being divided up into smaller pieces, until November 1941 when the Auditor General held payment for six contracts. These contracts were all given to the Western Manufacturing Company Ltd., but were being produced in six different factories in Saskatchewan. Due to the fact that, in aggregate, the six contracts totalled over \$15,000, the Auditor General refused to release the funds until an Order-in-Council was issued. On the advice of one of the dollar-a-year men, the Deputy Minister drafted a letter for Howe to sign saying that the Minister believed the contracts in question were “in the public interest and the prices paid fair and reasonable.”⁹⁴ The six contracts were put through despite the objections of the Auditor General and there is no evidence of the Auditor General placing holds on contracts thereafter.⁹⁵

⁹² LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, Structure and Operations of the Canadian Department of Munitions and Supply, 21 April 1941, 24.

⁹³ Robert Bothwell, Ian Drummond, and John English, *Canada, 1900-1945* (Toronto: University of Toronto Press, 1987) 351.

⁹⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 58, File 1-1-135, 25 November 1941, 3.

⁹⁵ By this time the Auditor General was Watson Sellar, the same man who had advised Howe to make sure that his dollar-a-year men could not pass the buck

Contracts

One of the best indicators of the strategy pursued by the dollar-a-year men can be found in the type of contract they chose when placing their orders in the first years of the war. Cost-plus percentage contracts, outlined below, were the contracts of choice in the days of the War Supply Board.⁹⁶ By 1941 a House of Commons Special Committee on War Expenditures began examining all government spending for war and naturally focused on the work of Munitions and Supply; their investigation focused on the above contracting method. Their overall report, and the testimony provided to them, is the only place where a justification for the methods of Munitions and Supply is found.⁹⁷ The records show that dollar-a-year men were arguing over what reasons to give the Committee to justify cost-plus contracts. Howe and Sheils were especially eager for a reason to justify them to the Committee and the House of Commons.

The Committee on War Expenditures' final report to the House of Commons demonstrates that Munitions and Supply took an approach to industrial mobilization that sacrificed cost efficiency and accountability for speed, volume, and short-term gain. An estimated sixty percent – perhaps more - of the contracts entered into by Munitions and Supply had been done on a cost-plus basis with the majority of them being cost-plus percentage.⁹⁸ The report concluded that cost-plus contracts were the worst method for cost efficiency for both government and the producer, and cost-plus percentage contracts were singled out as the worst method of all as they encouraged the government to pay more for what it was buying and gave the producers no incentive to keep their initial production costs down, and even induced them to

⁹⁶ G.K. Sheils worked to obtain copies of American cost-plus contracts when he arrived at the War Supply board, LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 92, Mallory to Borden, 3 November 1939.

⁹⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 48, Structure and Operation of the Canadian Department of Munitions and Supply, 21 April 1941, 3.

⁹⁸ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, Memo RE: Legal Services for Department of Munitions and Supply, 15 October 1940.

increase the cost of the very unit they were contracted to produce. It raises the question: if the entire purpose of bringing dollar-a-year men into the Department was to avoid the exact inefficiencies that cost-plus percentage contracts created, why were they relying on this type of contract so heavily in the first three years of the war?

Answering this question requires an understanding of the different types of cost-plus contracts.⁹⁹ During WWII there were three primary types: cost-plus percentage, cost-plus fixed fee, and cost-plus award. All of these contracting methods were in use by businesses at this time and were discussed in the Committee on War Expenditures' report. Their relative merits and deficiencies were also outlined, and based on this investigation the Committee made recommendations for future contracting policies at Munitions and Supply.

Cost-plus fixed fee contracts pay the producer for the cost of production, plus a fixed fee for every unit produced.¹⁰⁰ The producer has an incentive to produce the items faster, because it can maximize profits by producing as many units as possible. The problem with cost-plus fixed fee contracts is that there is no incentive to keep the costs of each unit low, as the contractor – in this case the government – has promised to pay the cost of each unit. If the cost of each unit increases, then that cost is passed on the contractor. Compared to the other forms of contracts, it was considered by the Committee to be a middle ground, because there was no positive incentive for the producer to let the cost per unit increase.

While cost-plus award contracts were not well understood at this time, the Committee did discuss the model, titling them “cost-plus fixed fee plus bonus” contracts. This contract worked in the same way as a cost-plus fixed fee contract, except that it established a bonus for meeting

⁹⁹ For more on Cost-Plus Contracting see John R. Hiller and Robert D. Tollison, “Incentive Versus Cost-Plus Contracts in Defence Procurement,” *The Journal of Industrial Economics* 26, no. 3 (1978): 239-248.

¹⁰⁰ See T.C. Berends, “Cost Plus Incentive Fee Contracting – Experiences and Structuring,” *International Journal of Project Management* 18, no. 1 (2000): 165-171.

certain benchmarks, usually for keeping unit costs low. This meant that the producer would have an incentive to decrease unit costs, thereby decreasing costs for the purchaser – the government – because of the lower cost of production.¹⁰¹ The problem with these contracts was explained to the Committee using an example:

Mr. Thompson outlined to the Committee a case in which the same item was being made in two plants – one on a cost plus fee basis, and the other on the cost plus fee plus bonus basis. The one on the cost plus fee basis had received over \$2,000,000 of capital assistance while the other had received only about \$250,000 in capital assistance and worked mainly with old machines. Both were required to meet the same production schedule as to quantity and delivery. The company on the cost plus fee basis had an actual audited cost of approximately \$4,900 per unit while the concern operating on cost plus fee plus bonus had a cost of approximately \$3,700 per unit...Obviously, it was better for the Government to pay the more efficient concern its cost of \$3,700 plus a profit of \$450 than to allow a less efficient concern its cost of \$4,900 plus a fee of \$225 even though in the first case the profit might be 12%, and the second 4%.¹⁰²

In this case the company with the higher unit cost and lower bonus felt embarrassed about the size of its profit and handed back all profits over 5%. However there was widespread concern that this case study demonstrated that lower costs could lead to higher profit percentages and this mathematical triviality would cause political problems for the government and morale problems in the factories. It was a perfect illustration of why Munitions and Supply liked to emphasize that it was trying to enforce fair and reasonable prices and not just curtail profits.

Cost-plus percentage contracts were, of the cost-plus style contracts from 1940-1942, the type that were used most often by Munitions and Supply. They obligated the purchaser to pay the cost of each unit produced as well as a percentage of the overall cost of production. The problem with this contract should be readily apparent: there is no incentive for the contractor to

¹⁰¹ See Robert Braucher and Covington Hardee, "Cost-Reimbursement Contracts with the United States," *Stanford Law Review* 5, no. 1 (1952): 4-29.

¹⁰² LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, Minutes of Meeting RE: Contract Negotiations, 26 January 1943, 10.

decrease the unit price of the item being produced. Instead, there is an incentive to increase unit costs, as the producer gets a set percentage of the overall costs; so the producer can increase profit by increasing the unit costs. The advantage of these contracts is that the producer did not need to have an accurate estimated cost per unit when bidding on the contract. This feature made them popular in Canada because Canadian business had very little, if any, knowledge or experience in producing the items they were bidding on. This encouraged companies to place bids that were little more than best guesses because they knew that the Government would pay no matter what the eventual cost.

A producer would only agree to enter into a cost-plus fixed fee contract if they had some idea of the overall cost of production. A producer would have no idea if a contract to produce 10,000 widgets with a fixed fee profit of \$1,000 was desirable unless they knew how much it would cost to make the widgets. If the widgets cost \$0.75 each to produce, then the producer could expect to make a profit of 13%, but if the widgets cost \$7.50 to produce then only a 1% profit would be realized. Having no experience in making widgets, and not knowing how much each widget cost to produce was a large risk on the part of the producer. How much new capital would be required to build these widgets? How many new people would need to be hired to build them? Would workers require special training or new skills? What if the producer could not complete them in time or found it difficult to engineer the widgets? The degree of uncertainty when the unit cost of the widgets is not known means that the producer is taking on larger risks than usual and thus requires a guarantee of a certain percentage of profits, rather than a flat fee. All of these uncertainties made cost-plus percentage contracts more desirable because no matter what the costs the company would be guaranteed a percentage as profit.

When the war started, the Canadian economy, and particularly the manufacturing sector, was not advanced enough to produce the majority of the items that were needed.¹⁰³ This is why cost-plus percentage contracts were used in the majority of contracts. Canadian manufacturers had very little – if any – experience manufacturing munitions, aircraft, tanks, war vessels, and so on. In order to compensate manufacturers for the risk they were taking, the government had to guarantee them a percentage of profit on what they were producing. Since manufacturers typically made somewhere between 10-12% profit on contracts the cost-plus percentage method could help guarantee them a profit on their risk. This is why the 5% profit cap in the *Defence Purchasing, Profits Control and Financial Act* became so cumbersome and was dropped.

The Committee also discussed other forms of contracts. One method of reducing the risk of production was using ceiling contracts whereby the contractor would agree to pay for each unit, but would specify the maximum price it was willing to pay for each, leaving any cost overruns to be absorbed by the producer. Munitions and Supply had tried this method early on but again, an inability to estimate costs meant that the price ceilings were set very high so as not to place too much risk or liability on the private sector. The high ceilings were self-defeating, so much so that upon seeing one such contract a shrewd negotiating officer inside the Department remarked, “[t]hat is not a ceiling – that is a sky.”¹⁰⁴ The use of ceiling contracts was dropped early on, and Munitions and Supply resorted to cost-plus contracts instead.

Kennedy’s history of Munitions and Supply discusses cost-plus contracts twice. The first time is only to mention that their use in the United States in WWI had caused a backlash against

¹⁰³ Manufacturing composed 24.36% of Canadian GDP in 1939 and had increased to 27.48% in 1945. These percentages mask the fact that absolute output had almost tripled in this period, going from \$1,243 million in 1939 to \$2,954 million in 1945. For more see Statistics Canada, *Historical Statistics of Canada: Section F: Gross National Product, the Capital Stock, and Productivity*, Statistics Canada Catalogue no. 11-516-X198300111303. Ottawa. Version updated May 2009, Ottawa, www.statcan.gc.ca/pub/11-516-x/pdf/5500096-eng.pdf (accessed 21 June 2011).

¹⁰⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, Minutes of Meeting RE: Contract Negotiations, 26 January 1943, 8.

suspected war profiteering and resulted in the Nye Committee investigations.¹⁰⁵ He returned to cost-plus contracts when describing the work of Munitions and Supply's Cost Inspection and Audit division. Curiously, Kennedy only highlights that cost-plus contracts were used as little as possible but that, "at the time the Department was first formed, there was no clearly defined policy as to what expenditures would or would not be allowed as a part of the cost of production."¹⁰⁶ The records of the Special Committee on War Expenditures contradict Kennedy's account.

Frank Herbert Brown testified to the Special Committee on War Expenditures that, "Almost daily, contractors were admitting that cost-plus percentage contracts led to waste and extravagance."¹⁰⁷ Brown was a dollar-a-year man with a background in banking, and was known for his knack for restructuring and saving troubled companies during the Depression, everything from shipping to wholesale, mines, mills, foundries, and factories.¹⁰⁸ He was recruited in November 1940, and was placed in charge of streamlining contracting procedures. He testified that Munitions and Supply had to do a better job of acquiring purchasing agents who were, "keen judges not only of the item they were buying but of the people with whom they were dealing."¹⁰⁹ He also stressed that there was a lack of competition in many areas where the government was relying on the private sector, helping to increase the cost to the government.¹¹⁰

The Special Committee on War Expenditures had received similar information from parliamentary investigations in the United Kingdom, but the memorandum filed with Munitions

¹⁰⁵ Kennedy, *History of the Department of Munitions and Supply*, vol. 1, 3.

¹⁰⁶ Kennedy, *History of the Department of Munitions and Supply*, vol. 2, 424.

¹⁰⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, Minutes of Meeting RE: Contract Negotiations, 26 January 1943, 11.

¹⁰⁸ *Canadian Strength*, ed. Carolyn Cox, 191.

¹⁰⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, Minutes of Second Meeting RE: Contract Negotiations, 2 February 1943, 6.

¹¹⁰ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 80, Letter from Sheils to Directors General, 30 November 1942, 1.

and Supply from the Special Committee again cites the lack of production information on which estimates could be based as a justification for their use.¹¹¹ Similar reports were also obtained from Australia, where the War Expenditures Committee of the Australian Parliament reported that cost-plus contracts were leading to excessive profits to companies whose factories had been entirely financed by the government. The Australian committee reached the same conclusions as Canada and Britain, recommending that, “the system of payment to annexe contractors of a percentage of cost of production be discontinued.”¹¹² Nevertheless, the Special Committee did not lay blame at the feet of the dollar-a-year men for having used these contracts, though Munitions and Supply was chided for using such contracts so heavily in the early years of the war. The Special Committee also recommended that the use of cost-plus contracts be ended outright, because this method created incentives for manufacturers to let costs increase.¹¹³

It is clear from the testimony of Munitions and Supply employees and dollar-a-year men that cost-plus percentage contracts were desirable early on because of the lack of experience and knowledge regarding the costs of war materiel. To induce the private sector to retool and transition from peace time production to war time production as quickly as possible required a contracting method that was known to be monetarily inefficient, but would allow manufacturers to take on the production with lower risk.

¹¹¹ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, Minutes of Meeting RE: Contract Negotiations, 26 January 1943, 11.

¹¹² LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 165, Joint Committee on War Expenditure Fourth Progress Report: ‘Cost-Plus’ Contract System, 7 May 1942, 8.

¹¹³ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, Excerpt from House of Commons Special Committee on War Expenditures, 2 February 1943.

Capital Assistance

Contracts were only one method by which Munitions and Supply incentivized production in the private sector. Capital assistance provided a more direct method for companies to retool as quickly as possible by offsetting the cost of converting facilities for war production. Capital assistance was the only form of monetary subsidy that was provided by Munitions and Supply; all other payment came from the Finance or Treasury Departments of the countries placing the orders.¹¹⁴ Munitions and Supply only paid for capital assistance and working capital advances, which were essentially short term loans to pay for early production overhead costs.¹¹⁵ Though capital assistance was the only direct monetary tool used by Munitions and Supply, it did not take the form of a direct payment from the government. Instead, the Department of Munitions and Supply would act as a guarantor on bank loans to companies.¹¹⁶ Assistance could also be provided in the form of machine tools which were being controlled and distributed by Citadel Merchandising, a Crown Corporation.¹¹⁷

The capital assistance program began in the first days of Munitions and Supply, at which point the United Kingdom funded the majority of assistance provided. This changed on 31 March 1943, when all ownership and control of United Kingdom investments in war plants in Canada were transferred to the Canadian government, thereby placing all capital assistance commitments on the shoulders of Munitions and Supply. The Department classified capital assistance into two categories: assistance to government-operated facilities, and assistance to privately operated facilities. By the end of 1944, the Canadian government had committed

¹¹⁴ Much of Canadian production between 1939-1942 went to Britain which helped finance the retooling of factories for the contracts they place in Canada

¹¹⁵ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 48, Sub-Heads of Report on Method of Operation and Functioning of The Department of Munitions and Supply, 18 March 1941, 2.

¹¹⁶ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 48, Structure and Operations of the Canadian Department of Munitions and Supply, 21 April 1941, 21a.

¹¹⁷ Ibid, 22.

\$239,121,884 in capital assistance to the former and \$609,897,340 in capital assistance to the latter.¹¹⁸ Overall, three out of every five dollars spent by Munitions and Supply to expand production facilities was directed at the private sector.

Capital assistance was used most in the early years of the war, when factories were retooling for wartime production. However, reports as early as April 1941 noted that the construction of new plants was slowing because of bottlenecks of raw materials and other manufactured goods. For example, William Drysdale reported on 9 April 1941 that the Munitions Branch had to stop approving capital assistance for the construction of new facilities due to insufficient construction materials to meet the needs of the facilities currently being built. To complicate matters, the largest manufacturers made use of subcontractors in the construction of their facilities, and more bottlenecks in production were caused as subcontractors fell behind in their orders due to a lack of familiarity with their new orders and shortages of raw materials.¹¹⁹

By late 1942, the production program was shifting from the expansion of manufacturing to the maintenance of artificially high levels of production and the management of raw materials in order to keep the complex industrial war engine that was the Canadian economy from stalling. H.J. Carmichael, the Co-ordinator of Production, who oversaw all production branches within the Department, reported to the Production Board on 10 September 1942 that:

We have now passed the stage where it is permissible for us to go on expending millions of dollars on plant extensions and new equipment. Rather we must make the very best use of all existing facilities on a co-ordinated basis and focus all of our attention upon attaining our maximum production at the very earliest possible date, utilizing to the fullest extent facilities already created for which funds have been appropriated.¹²⁰

¹¹⁸ H. Carl Goldenberg, *Government-Financed Expansion of Industrial Capacity in Canada* (Ottawa: Department of Munitions and Supply) 4-7.

¹¹⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 54, Agenda Third Monthly Staff Meeting, 9 April 1941, 2.

¹²⁰ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 55, Report of the Co-ordinator of Production, 10 September 1942, 1.

In just two years, the economy had expanded to such a point that the capacity to manufacture had outstripped the raw materials needed to keep the economy running full bore. Carmichael reported in the same meeting that the most serious problems confronting the economy had become a lack of steel, electricity and labour.¹²¹

Industry Committees

It has been demonstrated that the Department of Munitions and Supply was structured in a way that allowed it to operate much like a business, and that it preferred to use the same management techniques as the private sector, as opposed to those of the civil service. Furthering this trend, Munitions and Supply also created a formal role for companies within the Department to provide advice on the manner in which the Department would carry out its mission. The *Munitions and Supply Act*, as amended using the recommendations of dollar-a-year man Henry Borden, allowed any Controller the power to “direct the owner or any person employed in connection with the business or any part of the business to furnish to him any estimates, returns, or other information relating thereto.”¹²² Controllers and Production Directors exercised this power by appointing industry committees.

History of the Department of Munitions and Supply only makes three mentions of industry committees, and only describes the work of one, the War Metals Advisory Committee, whose members were chosen by the Canadian Institute of Mining and Metallurgy, a mining industry group in peacetime.¹²³ This is a striking omission as there were at least 65 different industry committees within the Department. While the legal rationale for such committees was

¹²¹ Ibid.

¹²² 14.1 (b) “Powers of Controllers of Business” *Munitions and Supply Act*, 1940.

¹²³ Kennedy, *History of the Department of Munitions and Supply*, vol. 2, 100.

to provide Munitions and Supply with coercive powers to mobilize industry, Munitions and Supply had a different internal logic. On 23 January 1942 the Associate Director-General of the Industry & Sub-contract Co-ordination Branch reported to J. P. Pettigrew, Howe's Chief Executive Assistant, that the purpose of the business committees was to increase production, but also stated that "it was feared by...the industry groups that we [Production Boards] would displace them."¹²⁴ In fact the industry committees established by the Department helped assuage the private sector's fears of a state-run economy or that the Government might supplant the private sector for the duration of the war.

The industry committees were a somewhat spontaneous development within Munitions and Supply, and while widely used, they were not understood or at times even known of by higher ranking dollar-a-year men in the Department. Two orders-in-council were passed, P.C. 3187 (17 July 1940) and P.C. 7494 (19 December 1940), allowing Controllers to appoint the committees. Controllers and Production Directors also kept on file blank templates for orders to be passed appointing new industry committees.¹²⁵ This demonstrates that the use of industry committees was a widespread and favoured practice within Munitions and Supply. Yet in late 1941 some bad publicity revealed that higher ranking officials within the Department were unaware of their use.

On 8 November 1941, *Le Devoir* gave a few inches to an article titled "Pas un seul de Québec" ("Not a Single One from Quebec"), a clipping of which still exists in the Departmental files. The article complained that the Controller of Supplies had appointed an advisory committee of five men, all of whom were from Ontario. The article continues to state:

¹²⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 141, Letter from Giles to Pettigrew RE: Industry Committees, 23 January 1942.

¹²⁵ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 58, Blank Metals Controller Industry Committee Appointment Form, 1941.

The Quebec stove industry has no voice whatever in this control committee. The Controller of Supplies, Mr. Williamson, who hasn't a French name exactly, will be advised solely by Ontario people. You can just imagine that Quebec feeling will be aroused to a white heat by such proceedings. It is at any rate well in accord with Mr. Howe's usual manner of dealing with the Province of Quebec. That is not fair, not even just, we must point out, since our Ministers and Deputies do not.¹²⁶

While we have already seen that the Department was guarded by Howe politically, the Liberal Party depended on Quebec for its majority in the House of Commons and so Howe was compelled to rectify the oversight. One month later an inter-office memorandum was sent to Sheils explaining the situation, and proposed a number of possible members from Quebec to be added to the committee in question, all of whom had French surnames. Sheils sent out a Department-wide memorandum on 5 December 1941 instructing that all industry committees should have representation from French Canada.¹²⁷ The memo also instructed each Controller and Production Director to report the creation of any committees within their branch to Sheils directly, as the Department had no record of how many committees existed.

The purpose of industry committees varied widely depending on the needs of the Controller or Production Director who had constituted it. Some branches reported having no industry committees, whereas other branches relied on industry committees carrying out large amounts of the work. For example, the Timber Controller established thirty-six industry committees, while the Steel Controller only had one.

The industry committees used by the various branches of Munitions and Supply fell into two categories. The first type advised the Controller or Production Director on the capabilities of the industry in question. The second type acted as brokerage groups for disseminating contracts.

¹²⁶ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 141, Translation of Clipping from "Le Devoir": Not a Single One from Quebec, File 3-I-5.

¹²⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 141, Departmental Memorandum from Sheils 10 December 1941, File 3-I-5.

While the first type of committee was more numerous, Munitions and Supplies' records contain a number of letters from industry groups attempting to gain access to contracts through industry committees.

The industry committees performing advisory work started out doing surveys in the earliest days of the Department. The Munitions Production Branch reported that the Munitions Production Committee's mandate was to "survey and, if satisfied, to recommend all new projects having to do with the production of any of the items of ammunitions or equipment, etc." needed by the Munitions Production Branch.¹²⁸ The Joint Committee of American and Canadian Ammunition Manufacture and Ammunition Filling Groups consulted on behalf of the Department with the munitions industry and worked to implement standardized practices across the industry, as well as troubleshoot with businesses that were slower or less efficient than others.

Some advisory industry committees were given authority to administer their industry in a set geographic location and report the state of their industry in that region to the Controller or Production Director. The two best known instances of geographic committees fell under the purview of the Timber Controller and the Oil Controller. The former set up regional councils to monitor the logging industry. These councils were staffed by top "lumbermen" of that region and so the industry was given direct access to the Controller.¹²⁹ After H.R. MacMillan was installed as Timber Controller his first act was to bring in many of his pre-war executives to run timber control, and they created the regional committees referred to above.¹³⁰ An unsigned memorandum to Howe dated 27 September 1940 explains that these committees were used

¹²⁸ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 16, History of the Ammunition Production Branch to 31 August 1943, 12.

¹²⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 55, Memorandum RE: June Staff Meeting, 10 June 1941, 2.

¹³⁰ Ken Drushka, *H.R.: A Biography of H.R. MacMillan*, 203.

because, with regards to the lumber required to build airfields for the British Commonwealth Air Training Plan, “in this case the ordinary methods of procedure adopted in procuring lumber would have been completely incapable of meeting the emergency created by the demands.”¹³¹

This was also the case with the Oil Controller who explained that:

To assist in allocating supplies and in moving products from the areas where they are long to the areas where they are short, we have divided the country into five zones, and over each zone we have set up a Committee, drawn on from the industry, which Committee reports to a Co-ordinating Committee¹³²

Practices varied in Munitions and Supply’s other branches and at Crown Corporations. The Steel Controller had a single committee in his office titled the Advisory Committee to the Steel Controller, composed of the vice-presidents of the largest steel concerns in Canada.¹³³ The General Manager of the Wartime Housing Corporation set up local housing committees to report on the state of housing needs.¹³⁴ Even Crown Corporations operated in this manner; Citadel Merchandising Co. had a single committee made up of the largest machine tool companies in Canada, whose task was to “discuss machine tool equipment and tooling, as well as any problems of machining that may come up.”¹³⁵ The Machine Tools Controller reported on 11 June 1941 that machine tools were being produced in such number that they would no longer cause bottlenecks in production and this was entirely because, “the cutting tool industries have

¹³¹ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, Organization of Industry and Supply, 27 September 1940, 2.

¹³² LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 55, Statement by Oil Control to Staff Meeting, 10 September 1942, 2.

¹³³ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 141, Letter from Kilbourn to Sheils RE: Industries Committee, 18 December 1941.

¹³⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 141, Letter from Groggin to Sheils, 15 December 1941.

¹³⁵ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 141, Letter from Arnold to Pettigrew, 23 January 1942.

been brought together and have formed an association, and are co-operating in their endeavour to get production.”¹³⁶

Industry committees attempting to act as brokerage groups were less common. They were formed by industry groups proposing to form and staff a committee within the Department which would control contracting to their industry. Though they were not used widely, there are records of them because letters from companies proposing these types of industry committees still exist in the Departmental archives. Such correspondence followed the same model, beginning with a letter from a group of companies that had banded together with an offer to serve as the contracting arm for the Production Branch in question. Such is the case with a letter to Thomas Arnold, the Machine Tools Controller, on 12 November 1943, in which a group calling itself the Canadian Machine Tools Dealers Association proposed to establish a corporation to “oversee the efficient use of machine tools, and distribution.”¹³⁷ The Canadian Machine Tools Dealers Association was composed of the country’s largest machine tools companies, and its proposal would have given those companies a *de facto* monopoly in the machine tools industry. The proposal also would have essentially given the proposed association the power of the Machine Tools Controller. Arnold never took the Canadian Machine Tools Dealers Association up on their offer and one has to imagine that Arnold also saw their proposal to “oversee the efficient use of machine tools” as little more than a thinly veiled attempt at gaining government-sanctioned control of their own industry.

The Department did make use of brokerage committees however. In a letter dated 28 August 1941 from Deputy Minister Sheils to Major Douglas Hallam, Chair of the Silk

¹³⁶ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 55, Machine Tools Controller Report to Staff Meeting, 11 June 1941, 1.

¹³⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 101, Letter from Whenheis to Arnold, 12 November 1943, 1.

Association of Canada, the Deputy Minister proposed allowing the Association to set up an industry committee that would receive all government orders for fabric materials and distribute them to producers. Sheils also mandated the membership of the proposed committee, as well as the fact that profit had to be kept to a maximum of 5%, and required the use of ceiling contracts.¹³⁸ Another of the brokerage industry committees was the External War Business Committee, which was formed within the General Production Branch at the request of the Radio Manufacturers' Association to secure business from the United Kingdom and, if possible, other governments.¹³⁹

Industry committees served a dual purpose. The dollar-a-year men had the experience and intuition about how the private sector worked, but lacked the real time information to make decisions about mobilizing the private sector due to being removed from their companies. As the entire economy began to retool, the dollar-a-year men required information in order to assess progress and determine which policies were working and which needed altering, and the industry committees provided this information. Conversely, businesses also gained access to the Controllers and Production Directors within the Department, which at this time acted as the heart of the economic system for the country. There is nothing sinister insinuated by this arrangement; this structure provided for vital information sharing, which was critically needed at a time of great change within the economy. Furthermore, the fact that brokerage-style industry committees were used so little should only reinforce the idea that Munitions and Supply was not a clearing house for patronage or cronyism.

¹³⁸ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 141, Letter from Sheils to Hallm, 28 August 1941, 1.

¹³⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 141, Letter from Jackson to Sheils, 15 December 1941.

Dovetailing Public and Private

The idea of leaving war production in the hands of private industry was nothing new in 1940. It had been tried with mixed success in Canada during WWI and records show that the United Kingdom started industrial surveys of Canada in the late 1930s.¹⁴⁰ As far back as 1936 plans had been worked out for the manufacture of military vehicles by General Motors and Ford in Canada.¹⁴¹ In fact, early in the summer of 1940 E.P. Taylor tried to intervene in the creation of a Crown Corporation, proposing –unsuccessfully – instead to have the work done by the John Inglis Company; this attitude of favouring private industry over government owned industry is evidenced throughout the Department.¹⁴²

While twenty-eight Crown Corporations were incorporated in the five years that Munitions and Supply was in operation, they were used as a last resort and only when the private sector was unable to meet a production demand. The majority of money spent directly by the Department went into retooling privately owned industry for war needs through capital assistance. Contracting in the first two years of operations shifted the risk onto government, and away from the private sector by guaranteeing a percentage of production costs as profits.

The tendering process emphasized speed, with some production occurring before contracts were signed. The types of contracts used also placed a premium on speed to such a degree that they sacrificed cost effectiveness. The fact that the House of Commons Special Committee on War Expenditures did not condemn the use of cost-plus percentage contracts is likely attributable to the fact that the sense of urgency was justified. From the start of the war

¹⁴⁰ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, History of the Office of the Co-ordinator of Production, 15 September 1943, Appendix C.

¹⁴¹ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 27, Draft History of Automotive and Tank Production Branch, 6. This was the only planning that had been done in advance and helps to explain why Canada excelled at the production of motor transports

¹⁴² Stacey, *Arms, Men, and Governments*, 498.

until the fall of France, Canada was justified in maintaining a policy of ‘limited liability’, as Britain and France were expected to field the armies and produce the weapons needed to win the war. It was only with the invasion of France and the loss of French weapons production – one of the largest in the world – that Britain began placing large orders in Canada. The end of the ‘Phoney War’ and the Battle of Britain only increased the sense of urgency in Canada, which excused the “go for broke” contracting methods of the early years of Munitions and Supply.

There is a contradiction in this logic, however; the fact that cost-plus percentage contracts were used undermines the very reason for relying on the private sector in the first place. The amount of capital assistance given demonstrates that the private sector was unable, though not incapable, of producing what was needed. The reason for selecting the private sector as the default producer can be explained by a commitment to capitalism and a corresponding hostility towards government intervention in the economy. The notion that private industry would be able to keep costs down is undermined by the use of cost-plus contracts. Today, cost-plus percentage contracts are so thoroughly disliked by governments that some have made it illegal for any government agency to place orders using this instrument.

The recommendation of the Special Committee on War Expenditures to end cost-plus contracts likely stemmed from the United States’ entry into the war and the signature of the Hyde Park Declaration.¹⁴³ The entrance of the United States brought a commitment to rationalize production in order to avoid duplication and to open up Canada to the importation of finished goods, primarily the machine tools and aircraft engines that were lacking in 1940 and 1941. Once the United States entered the war, the contracting methods of the dollar-a-year men shifted towards increasing production while driving down costs.

¹⁴³ See Canada, Parliament, House of Commons Special Committee on War Expenditures, *Minutes of Proceedings, Special Committee on War Expenditures vol.1* (Ottawa: King’s Printers, 1941).

The fact that little was known about industry committees by Department officials helps point to the decentralized nature of Munitions and Supply. It was not until industry committees posed a serious political problem that higher-ranking administrators within Munitions and Supply insisted on being briefed on industry committees. Among the consequences, bringing private sector businessmen in to advise the dollar-a-year men helped to reinforce their private sector inclinations.

The strategy of the dollar-a-year men was based more on incentivizing production than inducing it – using carrots rather than sticks. The strategy of the dollar-a-year men was to expand and retool the economy as quickly as possible, which meant increasing costs over efficiency. Once they had achieved this objective, their program changed from expanding the private sector's productive capacity to sustaining this artificially augmented economy. This approach can be partially attributed to the circumstances of the war at the time and to a preference for private enterprise over government-operated Crown Corporations.

Chapter 3: Form Follows Function

The procurement, within the necessary time limit of 560 sets of forging dies...from facilities already over-taxed, would have been impossible, had not the Committee (largely through personal friendships) been able to arrange for the production of most of these dies in the United States.¹⁴⁴

-Eric Lehner, 15 December 1948

Means to an End

The evolution of the organization and structure of the Department of Munitions and Supply fits with architect Louis Sullivan's 1896 precept "that form ever follows function." The work of the Department was contingent on outside factors because the entire rationale of Canada's industrial plan was based on exporting to its allies. From the policy of 'limited liability' in the earliest days of the war, to the fall of France and the entry of the United States, the approach to industrial mobilization in Canada evolved rapidly. The structure of the Department also shifted as the plan for industrial mobilization shifted during the early phases of the war between 1939 and 1942.

By examining these structures and changes, in combination with the work that was done by various boards within the Department, we gain a better understanding of the strategy pursued by the dollar-a-year men. This chapter examines the two principal boards that worked to

¹⁴⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 24, Letter from Lehner to J. de N. Kennedy, 15 December 1948.

coordinate the majority of the work of Munitions and Supply: the Wartime Industries Control Board and the Production Board. The direction that the dollar-a-year men took in mobilizing and retooling the economy for war can be traced by following the evolution and work of these two committees.

The Wartime Industries Control Board (hereafter WICB) was the primary tool for control of the civilian economy in Canada.¹⁴⁵ When historians described the Department by saying that Munitions and Supply “removed much of the illusion that events were controlled by the invisible natural laws of Adam Smith,” or that it “removed the laws of supply and demand for the duration of the war,” they are talking, whether they know it or not, about the WICB.¹⁴⁶ It was the WICB that rationed civilian consumption and limited civilian production to increase output in the war economy, and the highest ranking dollar-a-year men on the WICB worked as Controllers to accomplish this task. The industry committees discussed above were used mostly by the Controllers of the WICB.

The Production Board dealt strictly with increasing production and the retooling of industries for war. Its purpose was to bring together all of the heads of the production branches to prevent competition for resources or the creation of production redundancies. The contracting methods and capital assistance programs previously described were the work of the Production Board. Whereas the WICB was in charge of the heavy handed rationing and control of supplies and raw materials, the Production Board’s work focused strictly on transitioning the economy to a wartime footing and increasing wartime production.

¹⁴⁵ Surprisingly little is known about the Wartime Industries Control Board to this day. The only serious work done on this body is Douglas Hart, “State Economic Management in Wartime: A Study of the ‘Regimentation’ of Industry in the Canadian Industrial Mobilization, 1939-1945,” (Unpublished PhD Thesis: York University, 1981).

¹⁴⁶ E. R. Forbes, “Consolidating Disparity: The Maritimes and the Industrialization of Canada during the Second World War” in *Challenging the Regional Stereotype: Essays on the 20th Century Maritimes*, ed. E. R. Forbes (Fredericton, N.B.: Acadiensis Press, 1989) 173.

The Production Board and WIBC's structural changes offer insightful clues into the work of the Department, but just as important are the tools these two boards used to carry out their work. This chapter will therefore analyze the use of the order-in-council as the primary legal mechanism through which the Department carried out the majority of its work. A brief outline of the use of orders-in-council will demonstrate that Munitions and Supply was initially poorly organized and ran in a haphazard manner. It was not until mid-1941 that better regulations and structures were created governing the use of orders-in-council for purchasing and regulating supply. The creation of these regulations also coincided with the period in which the majority of purchases were made in the first years of the Department. Examining the use of orders-in-council gives insight into both the pace and process of the work of the WICB and the Production Board.

This chapter will demonstrate that while the goal was clear for everyone working within the Department, there was a lack of communication between Production Directors and Controllers between 1939 and 1942. The slack in the economy created by the Great Depression allowed Munitions and Supply to remain very decentralized in its early years, but once the slack was taken up it became ever more difficult for dollar-a-year men to run their individual sectors without stepping on the toes of their colleagues. The problem became one of diminishing returns; the more mobilized the economy became the harder it was to further increase production. This fact was due in part to the increasing scarcity of resources but also because of the artificially high levels of production.

The lack of close coordination within Munitions and Supply meant that duplication occurred and close coordination was lacking between the WICB and Production Board. Once the economy was running at full prewar capacity it became necessary to restructure the Department

so as to facilitate closer coordination among its various branches. Between 1939 and 1942 Munitions and Supply was reacting to events instead of anticipating them. Once the momentum of the Axis ended and the Allies formed a long-term strategy, the Department began a much more coordinated production program.

The Wartime Industries Control Board

The WICB was created on 24 July 1940, during the opening days of the Battle of Britain and mere days after France surrendered to Nazi Germany. The WICB was created by order-in-council P.C. 2715 which outlined that the Control Board was, “to consist of the Controllers from time to time appointed by the Governor in Council on the recommendation of the Minister of Munitions and Supply.”¹⁴⁷ The rationale for the WICB was also set forward in the order which states that “it would be advisable that such Controllers, as and when appointed, should act in respect to common problems along similar lines and in conjunction with the Foreign Exchange Control Board.”¹⁴⁸ This early outline gave the WICB no power over the Controllers and the WICB was only meant to be a forum for communication. This was reasonable at the time as there were only four Controllers, but this number soon ballooned as more Controllers were needed to regulate the flow of increasingly scarce resources.

The emphasis in P.C. 2715 was not on coordination between the Controllers but with the Foreign Exchange Control Board. This was because of the fact that Canadian trade was based on balancing a trade deficit with the United States against a trade surplus with Britain. Though the United States was not a belligerent until the end of 1941 and had enacted strict armament trade laws in the first years of the war, Canada was still importing goods from the United States and

¹⁴⁷ See *Proclamations and Orders-in-Council – War Measures Act* (Ottawa: King’s Printers, 1940) 74.

¹⁴⁸ *Ibid.*

had to work to maintain the balance. The enactment of the cash and carry only exacerbated the problem of U.S. dollar reserves for Canada. Therefore the Controllers were expected to coordinate with the Foreign Exchange Control Board lest their activities seriously destabilize this balance. The Foreign Exchange Control Board was itself created by an order-in-council on 15 September 1939 and operated under the authority of the Minister of Finance.¹⁴⁹ Once again this coordination, and at times lack thereof, served to feed the tensions between the Department of Finance and Munitions and Supply.

Another important feature of this early iteration of the WICB is that it had no authority over the Controllers. This meant that there was no central direction for the Controllers to follow and any coordination that the WICB brought about was only due to the influence of its individual members upon one another. With only four Controllers in mid-1940 this was not a major flaw in the design of the WICB, but by the end of the war there were 17 Controllers and this number grew and shrunk as new Controllers were created or existing ones were merged together, depending on the circumstances. The Chairman of the WICB during this period, Steel Controller Hugh Scully, was little more than the contact person for the Foreign Exchange Control Board and was given no power to direct or manage his fellow Controllers. Scully's selection as the first Chairman was due to his nine years as the Secretary of the Canadian Manufacturers Association (hereafter CMA) and the connections he forged in that post.¹⁵⁰ Scully's experience at the CMA made him adept at coordinating industry through influence rather than authority.

Who were the architects of this decentralized structure? Once again the ubiquitous Executive Committee takes all responsibility. Not only was the WICB their idea, but they

¹⁴⁹ Alan O. Gibbons, "Foreign Exchange Control in Canada, 1939-1951," in *The Canadian Journal of Economics and Political Science* 19, issue 1 (February 1953): 35.

¹⁵⁰ Cox, *Canadian Strength*, 14.

penned order-in-council P.C. 2715 creating the Control Board.¹⁵¹ This is not to say that the Executive Committee was all powerful; the order-in-council still had to pass before the eyes of the Minister, Prime Minister, and Governor General before being enacted. Though this demonstrates that the Executive Committee could not act unilaterally, the fact that they were authoring orders on behalf of the government, ones that became law, shows the influence they had in the early days of the Department and the degree to which they guided the course and direction of industrial mobilization. The influence of these dollar-a-year men is that much more noteworthy, and irregular, because of the fact that they were not legally recognized and operated with only the blessing of Howe.

The title of Controller was almost a misnomer as there was very little that needed to be controlled in 1940. It was during this time that the Controllers worked primarily as purchasers, rationing only those supplies that were difficult to procure. Controllers used business contacts to find and purchase the raw materials needed in early production programs. C.D. Howe questioned the necessity of having Controllers use businesses to direct government purchasing for fear of corruption or profiteering, but his fears were quickly put to rest. A memorandum written by members of the Executive Committee to Howe, dated 20 September 1940, justified the usefulness of Controllers by pointing out that:

the proof of the efficiency of such method of control has been very clearly demonstrated in the case of the Timber Controller, through whose activities it was possible within a very short period of time to provide for the very large requirements of lumber for the accelerated Air Training Scheme program...the lumber requirements for which necessitated the purchase of practically all the dry building lumber available in the Dominion of Canada...In this case the ordinary methods of procedure adopted in procuring lumber would have been completely

¹⁵¹ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 24, "History of the Wartime Industries Control Board: Part 1, The Organization and Personnel of the Early Board." 1.

incapable of meeting the emergency created by the demands of the two accelerated programs above mentioned.¹⁵²

By August 1941 the economic situation of the war had changed dramatically and required a shift in organization by the WICB. Not only had France been conquered, but the United States had agreed to open up economically to Canada on 20 April 1941 when the two countries signed the Hyde Park Declaration, thereby relieving the problem of dollar reserves.¹⁵³ The rationale for using the WICB to coordinate with the Foreign Exchange Control Board no longer held. With Britain no longer under immediate threat of invasion and the Soviet Union also fighting the Nazis, the “go-for-broke” pace and completely decentralized organization of industrial mobilization was no longer necessary, and a long term plan could be instituted, so the structure of the WICB began changing to meet this new reality.

The decentralized structure of the WICB remained in place until 29 August 1941 when order-in-council P.C. 6835 created the Wartime Industries Control Board Regulations. These regulations were created to ensure closer coordination between the Controllers.¹⁵⁴ On 8 October 1941, P.C. 7824 was enacted giving Controllers the power to pass Controller’s Orders instead of having to pass orders-in-council every time they wished to restrict, ration, or control supplies. The caveat to this was that the Chairman of the WICB was given the power to veto the decisions of any Controller and required the Chairman to sign off on any orders passed by the Controllers.

The WICB created by P.C. 6835 and 7824 was a different creature from its predecessor. This second iteration had a Chairman who could decide what was required and how it would be

¹⁵² LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, “Organization of Industry and Supply”, 27 September 1940, 2.

¹⁵³ See J.L. Granatstein, R.D. Cuff, “The Hyde Park Declaration 1941: Origins and Significance” in *Canadian Historical Review* 55, no. 1 (1974): 59-80.

¹⁵⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, “History of the Wartime Industries Control Board: Part 1, The Organization and Personnel of the Early Board.” 3.

done. Though he was given the power to veto any of the orders of the Controllers, the Chairman still lacked the power to appoint or fire the Controllers as they were still put in place via order-in-council. The worst case scenario under this arrangement would have been a Controller who refused to comply with the Chairman's wishes and a Chairman who refused to approve any of the Controller's orders.

While there is no evidence that such a stalemate ever arose, there were complaints that the Chairman lacked the power to be able to fire Controllers. Eric Hehner, Assistant Secretary of the WICB from 1941 until 1944 when he became Secretary, wrote to Kennedy with notes on a draft of Kennedy's history and gave recommendations should the WICB ever need to be reconstituted.¹⁵⁵ Hehner wrote that the updated organization of 1941 still left the Chairman with too little power over the Controllers and this therefore stressed the role of "personalities" in persuading others to follow one course or action or another.¹⁵⁶ Disagreements therefore caused personalities to clash and left the Chairman to be more of a political figure than administrator. Hehner then compared it to the Wartime Prices and Trade Board¹⁵⁷ — which had vested complete central authority in their Chairman.

J.G. Godsoe, Chairman of the WICB from November 1943 until the end of the war, went against Hehner's comments in another letter to Kennedy and said, "So far as my experience was concerned I would say that the Board functioned very well and with a minimum of difficulties."¹⁵⁸ Godsoe's word is difficult to dispute because he spent almost two years as the Chairman of the WICB, but Hehner had one carefully worded phrase in his recommendation

¹⁵⁵ Kennedy, *History of the Department of Munitions and Supply*, vol. 2, 20.

¹⁵⁶ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 24, Letter from Lehner to J. de N. Kennedy, 15 December 1948, 1.

¹⁵⁷ The Wartime Prices and Trade Board was similar to the WICB, the biggest difference between the two was that the WPTB was concerned more with the civilian economy and food stuffs.

¹⁵⁸ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 24, Letter from Goodsoe to J. de N. Kennedy, 23 December 1948.

which would seem to explain why Godsoe did not see the difficulties Hehner described. Hehner wrote, “Once again, only those who lived through the experience of wasted weeks negotiating top-level procedural agreements on subjects which would have been clerical matters only if within one organization, can appreciate the very real importance of simplifying the organizational structure.”¹⁵⁹ Goodsoe would not have been involved in these procedural agreements and they would have been left to people like Hehner to negotiate.

The WICB created by P.C. 6835 and 7824, while still not giving complete control to the Chairman, helped give the WICB direction, something sorely lacking from its previous structure. The WICB’s change in structure was a response to a change in its work and the new demands that were being placed upon it. By the end of 1941 production had increased five times over what it had been at the beginning of 1940, and the slack in the economy that had been created by the Great Depression was almost taken up. The changes to the WICB were therefore in response to the new needs of the war economy.

Whereas the Controllers of the WICB had been purchasers during 1940, this second iteration of the Control Board gave the Controllers more power to regulate their respective sectors. Despite having regulatory powers, the Controllers were reluctant to use them; they instead relied on the decentralized practices that had served them well in 1940. Even Howe was reluctant to interfere in either the economy or the internal workings of the WICB.

The Munitions and Supply Act gave Controllers the power to compel any business to hand over records they requested in cases where Controllers suspected the business was unable to fulfill its contracts. The Act also gave them the power to take over any business from its owner and run it directly. The exact wording in the Act was, “(c) in carrying on the business or any part

¹⁵⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, Letter from Lehner to J. de N. Kennedy, 15 December 1948, 3.

thereof, the controller shall be deemed to be acting as the agent of the owner, except that the owner shall not have any right to control the business or such part thereof.”¹⁶⁰ The Act went further and allowed the Minister to instruct a Controller to do whatever is needed, “for the purpose of carrying on the business or any part thereof.”¹⁶¹

Despite having these powers there is no evidence that they were ever used by the Controllers. A report from WICB Vice Chairman A. H. Williamson to a staff meeting of the Control Board on 10 September 1942 reported that restrictive actions of Controllers took the form of limiting or stopping the manufacture of certain items. For essential consumer items they would go a step further and control distribution and it is this aspect of the Controllers work that constituted the rationing system with which many Canada were familiar.¹⁶²

Rationing and production restrictions increased into 1941 as the economic slack of the Great Depression was taken up. The law of unintended consequences meant that as one good was rationed it would create a demand for a replacement good, and so the job of rationing one item could create different - and sometimes even more serious – shortages. It was only when the restrictions and the rationing became so complex and caused counterproductive shortages in other areas of the economy that the WICB began creating internal regulations for coordination between Controllers. It was also at this time, in late 1942, that the WICB began coordinating more closely with the Production Board.

Not only did the WICB not use its more heavy-handed powers to interfere in the internal workings of companies, it made a point of not interfering. Minutes of a meeting of Controllers on 9 February 1943 have them discussing the use of the Minister’s Powers clause of the

¹⁶⁰ “The Department of Munitions and Supply Act And Amendments to Date” (Ottawa: King’s Printer, 1940) 11.

¹⁶¹ Ibid.

¹⁶² LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 55, Wartime Industries Control Board: Report for Staff Meeting, 10 September 1942.

Munitions and Supply Act (discussed above) to compel businesses to accept contracts at prices set by the WICB. The suggestion was made and discussed at length, but when all was said and done, “it was agreed that while we should not hesitate to use them if necessary, they should be employed only on rare occasions and as a last resort.”¹⁶³ While it surely would have been foolhardy to expect that taking direct control of all factories would have solved problems, the presence of businessmen as the key operators in the Department made them reluctant to exercise government control over the economy in any instance.

Examples of letters from Controllers to companies tend to be very general and ask for the companies to self-report both the amount of available machinery and productive capacity.¹⁶⁴ These letters never mention the fact that the Controllers have the power to compel businesses to produce this information. If these powers were never used and the people in charge of using them were reluctant to do so, what was their purpose? The answer here seems to be that companies were more likely to cooperate when they knew the possible consequences of working against the Controllers could be a total loss of their companies. The possibility of heavy handed government interference in business therefore prevented its use.

This also demonstrates the inclination of the dollar-a-year men to see government interference as counterproductive to production. The powers of the Controllers were written into the *Munitions and Supply Act* by the Executive Committee. These powers gave Munitions and Supply a credible threat while the handing of these powers over to businessmen ensured they would be used sparingly. The very act of giving the Controllers teeth meant they would not have to use them, the threat of heavy handed action was enough to ensure it was not needed. Thus the only real change that was brought about in the WICB by the increasing scarcity of goods in the

¹⁶³ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 80, Minutes of Third Meeting Re: Contract Negotiations, 9 February 1941, 4.

¹⁶⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 77.

economy was better organization and the creation of internal regulations to guarantee better coordination amongst different areas of the Department.

The Production Board

The Production Board was an entirely different beast from the WICB. The entire rationale for the creation of the Department of Munitions and Supply was to procure the materiel needed for fighting the war, and this task was embodied by the Production Board whose mission was to coordinate the conversion of industry to a wartime footing. The WICB's rationing and control of the civilian economy was only needed because of the pressure the Production Board placed upon the economy, and the WICB's work was meant to increase the economic capacity at the disposal of the Production Board. As Kennedy's history states, "the establishment of the Production Board led to the creation of the War Industries Control Board" though this statement is totally at odds with the chronology of events.¹⁶⁵ It is likely Kennedy meant to say that the work of the Production Board necessitated the work of the WICB.

The Production Board was the heart of the effort to increase industrial output in Canada, and it is safe to say that the Production Board formed the nucleus of Munitions and Supply whereas all other areas were concerned with maintaining whatever artificial economy the Production Board created. Kennedy's history states that the Production Board was formally established on 21 August 1942. Kennedy spends only two paragraphs on the various informal committees that preceded the Production Board, and in so doing completely overlooks the efforts to coordinate the production effort in the first three years of the war.¹⁶⁶ As we have seen, these early years were turbulent for the Department and the archival records reveal that coordination of

¹⁶⁵ Kennedy, *History of the Department of Munitions and Supply*, vol. 1, 14.

¹⁶⁶ *Ibid.*

the production branches was haphazard in 1940 and 1941.¹⁶⁷ When better procedures were adopted, it led to internal organization but not efficiency. The work of the Production Board and its predecessors was highly interventionist, but this intervention took the form of money that was given to many companies with few stipulations and little oversight. It was not until 1943 that the Production Board began tightening their fiscal belt and keeping close track of expenditures.

Though the Production Board was not formally created until August 1943, it did have a number of analogous, though less formal, predecessors. Kennedy's history states that the first variation of the Production Board was titled the Production Committee. It consisted of the heads of all of the Production Branches and would meet twice a week to discuss any mutual problems.¹⁶⁸ It was not a formalized committee and never had any rules or regulations to govern itself - it was simply a forum for discussion.

A draft internal history of the Production Board, written in 1943, describes the bi-weekly meetings of the first Production Directors beginning 29 September 1941 to coordinate amongst themselves.¹⁶⁹ This group started with two people: former Vice President of the Montreal Locomotive Works, W.F. Drysdale, and E.J. Brunning, who was the President of Consumer's Glass with experience running an American shell factory in WWI. The work quickly became too demanding for two people and in quick succession more dollar-a-year men joined the meetings. These included: President of the Saint John Dry Dock Company, Frank Ross, and President of McKinnon Industries and General Manager of Motors of Canada, Harry Carmichael. No internal documents were found that correspond to the Production Committee Kennedy describes, and it is likely a narrative was established after the fact to describe this informal body. It had no formal

¹⁶⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 24, Production Board Draft History, 1.

¹⁶⁸ Kennedy, *History of the Department of Munitions and Supply*, vol. 1, 13.

¹⁶⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 24, Production Board Draft History, 4.

date of establishment – it seems to have been self-organized – but its tenure did come to an end with the formal establishment of the Munitions Production Committee.¹⁷⁰

Kennedy's history provides a one paragraph summation of the mandate of the Munitions Production Committee, but it will suffice to say its primary responsibilities were to oversee the creation of new facilities for production, recommend capital assistance, place orders, and to anticipate shortages that would arise from new production programs.¹⁷¹ In short, it provided oversight for the work of Production Controllers in the same way the WICB oversaw the work of Controllers. This new committee met once a week and though it was given a formal mandate, it had no regulations and kept no minutes of meetings.

The lack of a written record for either the Production Committee or the Munitions Production Committee makes it difficult to know exactly what was discussed or how decisions were taken. The discussion of the contracting procedures and capital assistance procedures above are one of the best methods to deduce what was being done by the Production Directors early on. Working from the paperwork of the department makes it possible to know what was done, but we still lack the rationale behind many of the decisions.

The main clues as to what went on at the Production Board in those early years can be gleaned by looking at the work of some of the Production Directors. Despite the fact that the Department changed rapidly between 1939 and 1943, the work that was performed was always transferred to newly named branches but was still under the direction of the same men; two such examples are the work of the Naval Armament and Equipment Branch and the Ammunition Branch.

¹⁷⁰ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 48, Sheils Memorandum to the Department of Munitions and Supply RE: Organization, 10 September 1941, 5.

¹⁷¹ Kennedy, *History of the Department of Munitions and Supply*, vol. 1, 13.

The Naval Armament and Equipment Branch (hereafter NAE Branch) was created in August 1940, but this was simply the legal step of formalizing work that had begun in September 1939 at the outbreak of war. The same is true of the Ammunition Branch whose formal creation in May 1940 merely absorbed work which had begun in September 1939 with the War Supply Board.¹⁷² Both of these branches inherited a number of production programs that were born out of early agreements between Canada and the United Kingdom to produce badly needed munitions and weapons.¹⁷³

Kennedy's history of Munitions and Supply points out that just before the outbreak of war the Canadian Manufacturers Association made a visit to the United Kingdom to examine manufacturing methods and explore the possibility of having Britain place orders in Canada. Britain reciprocated and sent the British Technical Mission to Canada to survey industrial potential.¹⁷⁴ War was declared before they could return to Britain and so they formed the core of the British permanent mission in Ottawa, and spent the war keeping track of all British orders in Canada.¹⁷⁵ The delegates of this permanent mission were the first to instruct Canadian manufacturers on how to build many of the munitions and weapons they would produce for the rest of the war.

During the tenure of the War Supply Board the majority of British purchases placed in Canada were 'educational orders' meant to test Canadian industrial prowess.¹⁷⁶ It was not until Munitions and Supply formally took over in April 1940 that full orders could be placed with the

¹⁷² LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 27, Report of Activities of the Arsenal and Small Arms Ammunition Branch, 5.

¹⁷³ Ibid, 6. The best example of are the plans to build transport vehicles in Canada from 1936.

¹⁷⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 16, *Ammunition Production Branch to August 31st, 1943*, 5.

¹⁷⁵ Kennedy, *History of the Department of Munitions and Supply*, vol. 1, 34.

¹⁷⁶ Educational orders were given by the government to companies to test their ability to produce certain items. The companies were able to test their ability to manufacture new items and estimate the price to produce these items. The government benefited in having more information about the ability of companies to manufacture items.

capital assistance needed for mass production. The defeat of France meant the loss of the French industrial base, and the evacuation of Dunkirk created an increased demand for munitions and weapons from Britain. All of these events in tandem created the supply and demand that gave rationale to retooling for war.

The educational orders from Britain were the catalyst for quick production once Munitions and Supply took over. The economic slack left over from the Great Depression meant that the educational orders required no expansion of industry. The War Supply Board had asked the Canadian Manufacturers Association to make a survey of industrial capacity for malleable castings foundries and found that capacity existed for 45,000 tons of production but only 25,000 tons was produced in 1939. The slack was taken up in 1940 and the industry met its 45,000 ton capacity.¹⁷⁷ This led to the intervention of Munitions and Supply and the extension of capital assistance to increase the capacity of casting foundries.

In early 1940 the largest orders from Britain were for 25-pounder field guns, Bofors guns, and 3.7” anti-aircraft guns as well as the accompanying ammunition.¹⁷⁸ By the end of 1940, with the industry working at capacity but with more orders being placed, Munitions and Supply turned to the private sector for suggestions to increase production of these items. The greatest problem was the need for dies with which to cut steel and create the myriad of parts needed for the items listed above. Representatives from the largest companies in the drop forging sector – the Dominion Forge and Stamping Company, Hates Steel Products, Canada Foundries and

¹⁷⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, History of the Joint Supervisors of Production of Malleable Castings in Canada.

¹⁷⁸ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, History of the Armament Die and Forging Committee and the Drop Forge War Service Committee in co-ordinating production of drop forgings for war production, Appendix D.

Forgings, and the Steel Company of Canada – met at the Department and offered to form a committee to “handle, as an industry, this serious problem.”¹⁷⁹

Using an order-in-council to create it, these companies formed the Armament Die and Forging Committee. The Committee was given, “authority to arrange for the purchase of forging dies in the United States and Canada, wherever they are procurable, and to allocate the production of the forgings themselves where they could be made to the best advantage.”¹⁸⁰ An early draft history of the Production Board, dated 15 September 1943, took special care to note that “the procurement [of late 1940], within the necessary time limit of 560 sets of forging dies, at a cost of about half a million dollars, from facilities already over-taxed, would have been impossible, had not the Committee (largely through personal friendships) been able to arrange for the production of most of these dies in the United States.”¹⁸¹ Shortages of drop forgings were alleviated and managed thanks entirely to the work of the Armament Die and Forging Committee.

Malleable foundries were expanded in 1941 and produced 75,000 tons that year, an increase of 67% over 1940, and this put pressure on cutting dies again.¹⁸² This shortage led to the expansion of the Armament Die and Forging Committee in March 1942 to include all companies in Canada requiring cutting dies, and it was renamed the Drop Forge War Service Committee.¹⁸³ By this time Canada had the capacity to begin producing its own cutting tools,

¹⁷⁹ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, History of the Armament Die and Forging Committee and Drop Forge War Service Committee in co-ordinating production of drop forgings for war production, 2.

¹⁸⁰ Ibid.

¹⁸¹ Ibid, 5.

¹⁸² LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, History of the Armament Die and Forging Committee and the Drop Forge War Service Committee in co-ordinating production of drop forgings for war production, Appendix D.

¹⁸³ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, History of the Joint Supervisors of Production of Malleable Castings in Canada, Appendix C.

something that had only been done on a small scale before the war, and about 250 of the 1100 cutting tools that were ordered were produced in Canada.¹⁸⁴

Both Kennedy's history and the unpublished draft history of the Production Board point out the critically important job that was done by the Armament Die and Forging Committee and the Drop Forge War Service Committee. These committees did not handle all orders for cutting dies, only those that could not be purchased by purchasing agents of the Department.¹⁸⁵ As such, they functioned as an extra-departmental purchasing authority, one with access to departmental coffers without being bound by departmental regulations.

One specific quote from the draft history of the Production Board, which was authored by C.J. Stenning and appears nearly verbatim in Kennedy's history, specifically notes that "very few of the 'problems' could have been satisfactorily solved had there not been effective coordination of the whole production."¹⁸⁶ This co-ordination could not have been effective without sincere cooperation among executives of all drop forge plants." The Drop Forge War Service Committee was also able to rationalize production among its members, ensuring that companies were not competing for resources or duplicating production.

As an example of how the early versions of the Production Board worked, the example of malleable forgings demonstrates a tendency for a private sector solution over a government or public sector solution. Munitions and Supply was asking a committee of businessmen to decide the best course to be taken to increase production and place orders while at the same time

¹⁸⁴ Kennedy, *History of the Department of Munitions and Supply*, vol. 1, 18. The importance of cutting tools cannot be understated. They were required for the production of almost every item that required metal. One Bofors Gun had upwards of 150 metal parts that requires cutting tools to manufacture. The archival documents for Munitions and Supply constantly mention the shortage of machine tools and how a lack of these precious tools could undermine the entire Canadian production program.

¹⁸⁵ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 55, Machine Tools Controller Staff Meeting, 11 June 1941, 1.

¹⁸⁶ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 24, History of the Armament Die and Forging Committee and Drop Forge War Service Committee in co-ordinating production of drop forgings for war production, 6.

financing the expansion of assets owned by these same businessmen. The fact that the Armament Die and Forgings Committee was formed by the largest companies of the forgings industry meant these companies constituted a de facto cartel in their sector. One would expect that smaller companies would have fought against such an industrial model, but the large companies subcontracted to the smaller ones and kept harmony within their industry.¹⁸⁷ This pattern was repeated in almost all industries, helping to cement an industrial system that saw a few dominant companies control the majority of war work and subcontract to the smaller companies - Canada's own take on trickle down economics.

The historiography is replete with over-generalized statements about how Munitions and Supply essentially ran a state economy during WWII, and with only a superficial knowledge of the internal workings of the Department this is excusable. C.D. Howe told the House of Commons that:

We have used the powers indicated in this bill, to dictate the prices at which people should undertake work. We have gone into a plant and said 'We want this article. The price is so much. You must manufacture this article. If you are not satisfied with the price you can take your case to the Exchequer Court.' As the need grows more urgent, we will use this power very extensively.¹⁸⁸

If Howe is to be taken at his word then historians should be forgiven for portraying Munitions and Supply as creating a state-run command economy. While Munitions and Supply did exercise heavy control of the civilian economy and intervened during material shortages, the Production Board and its constituent branches ran a much more decentralized operation. In many instances it was the polar opposite of the centralization that the historiography describes.

¹⁸⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 141, Giles to Pettigrew RE: Industry Committees, 23 January 1942.

¹⁸⁸ William Kilbourn, *The Elements Combined: A History of the Steel Company of Canada* (Toronto: Clarke, Irwin, 1960) 165.

Orders-in-Council

Another clue as to the strategy and direction pursued by the dollar-a-year men between 1939 and 1942 comes from the use of orders-in-council. An order-in-council is a, “[notice] of an administrative decision made by the federal cabinet, signed by the Governor in Council (Governor General). Orders in Council are notices of appointments, regulations, or legislative orders related to and authorized by existing legislation.”¹⁸⁹ In this case the legislation they operated under was the *War Measures Act*, which gave nearly unlimited powers to the government, and the *Munitions and Supply Act* with a near universal definition of “supplies”.

The period between 1939 and 1945 saw 6414 of these orders passed.¹⁹⁰ While this number is large it is not unexpected, for governments use orders-in-council to direct the operations of departments in both war and peace. What is startling about this number is the circumstances under which they were used. The establishment of Munitions and Supply gave C.D. Howe the power to recommend any order-in-council he saw fit, combined with power to control “supplies” which, through their loose definition, could include almost anything. Every one of the orders-in-council used under these pretences began with the following statement, “on the recommendation of the Minister of Munitions and Supply and under and by virtue of the powers conferred on the Governor in Council by the War Measures Act and by the Department of Munitions and Supply Act...”¹⁹¹ A small sampling of these include:

P.C. 3109: Amending Defence Purchasing Board regulations. Oct. 12, 1939

P.C. 2521: Approving modification and alterations in marketing project *re* canned lobsters.

¹⁸⁹ *Glossary – Canada Gazette*, accessed: November 28, 2008. Available at <<http://canadagazette.gc.ca/glossary-e.html>>

¹⁹⁰ *Government Run Rampant*, Canadian Military Heritage Website. Accessed: November 28, 2008. Available at <http://www.cmhg.gc.ca/cmh/en/page_689.asp>

¹⁹¹ *Proclamations and Orders in Council: Relating to War*, Volume 5 (Ottawa: Edmond Cloutier, Printer to the King’s Most Excellent Majesty, 1942) 21.

P.C. 5886: Extending restrictions on importation of fresh or frozen pork to December 31st, 1940.

P.C. 1170: Amplifying powers of Steel Controller (P.C. 2742, 24th June 1940)

The official procedure for passing orders-in-council gives one the idea that either the Prime Minister or Governor General understood what they were dealing with. But there were an average of three orders-in-council passed per day during the war and it is unreasonable to think that Mackenzie King, or even Howe, understood everything they were passing along. The official process is meant to act as a democratic safeguard, making the Prime Minister responsible for all orders-in-council being passed, but during the war this process became *pro forma* in the larger bureaucratic technique for fighting the war. If the people formally passing and recommending these orders-in-council were not aware of their contents, who was?

The answer can be found deep within Munitions and Supply. The Legal Branch was responsible for the drafting of all legal documents, including orders-in-council.¹⁹² It was also responsible for translating the plans of the Production Directors and Controllers into legalese. The process of having orders-in-council passed proved cumbersome and by the time France had fallen Howe signed an order-in-council to amend the process by which Controllers and Production Directors could exercise their power. This new arrangement allowed the dollar-a-year men to pass Production Orders or Controllers Orders that had the full power of an order-in-council without having to go through the onerous process of passing these matters before the Minister, Prime Minister, and Governor General.¹⁹³

¹⁹²LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 54, Legal Branch Staff Meeting, 14 May 1941, 1.

¹⁹³ LAC, Records relating to the Department of Munitions and Supply, RG 28, "Central Registry File," volume 58, Instruction Letter No. 20a, 4 September 1941.

This removed the few remaining democratic safeguards preventing quick action by the Department. Only Howe, an order-in-council, or an act of Parliament could stop the Controllers and Production Directors from carrying out their work thereafter, but of these three only Howe had any real grasp of exactly what the dollar-a-year men were doing. Yet even before Howe had recommended this change to passing orders-in-council the Australian government was asking for details about how “State Boards of Management” were legally setup to allow “decentralization of control of wartime production” in Canada¹⁹⁴

A quantitative analysis of orders-in-council passed by the WICB shows that the Board made relatively little use of this legal instrument until late 1941.¹⁹⁵ The final quarter of 1941 saw both the reorganization of the WICB and Howe’s order-in-council allowing for the use of Controllers Orders and Production Orders instead of orders-in-council. The number of orders-in-council spiked in last quarter of 1941 at 39, and then averaged at 15 per quarter for the next two years. At the same time the number of Controllers Orders and Production Orders spiked in the final quarter of 1941, with 68 being passed. The average number passed per quarter over the next two years was 59.

There were very few orders-in-council issued by the WICB in 1940 and there are two reasons for this. First is the fact that the WICB was still quite informal up to 1941, and there was less need for controls as the economy was still retooling. The second reason is that the WICB was still relying heavily on industry committees to regulate industries and was forced to turn to the more heavy handed and catch all solution of Controllers and Production Orders once

¹⁹⁴ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 48, Letter from G.K. Sheils to C.D. Howe, 22 August 1940.

¹⁹⁵ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 24, Wartime Industries Control Board: No. of Orders and Orders-in-Council Issued Per Quarter, 27 November 1943.

production was rationalized among the Allies and a long term production plan could be implemented.

The More Things Change

This chapter has sought to outline how the structure of the Department of Munitions and Supply evolved to meet the demands of the war. As the events of the war unfolded between 1939 and 1942 the Department grew and changed, but its methods remained remarkably consistent. The idea that the dollar-a-year men provided either insight or experience in the task at hand misses the fact that no one had any experience in industrial mobilization on this scale. Some of the dollar-a-year men had experience in the WWI economy but the Canadian economic contribution in WWI was far simpler than anything attempted by Canada in WWII.

The chronology of events and the work of the Department point to the fact that most actions were reactionary rather than anticipatory. The Department only changed when the situation demanded it. There are arguments for this being both a positive and negative characteristic for the Department. As a positive, very little time was wasted on frivolous debate and internal examination, the kind of inward focus on process that typifies plodding bureaucracies. On the other hand the argument can be made that bottlenecks occurred which some foresight might have worked to counter.

While there are undoubtedly cases where dollar-a-year men failed to anticipate a problem in time to prevent it, the idea that Controllers and Production Directors should have countered all problems before they occurred is farcical. The economy is a system characterized by complex interdependence. The problems of creating and following a strategy to control the economy fit the definition of a “wicked problem” which is defined as, “involv[ing] ceaseless interaction of

systems within systems, the constant possibility of surprise, and the primacy of the law of unintended consequences.”¹⁹⁶ In pointing out that “care must also be taken to guard against the possibility that limitations on the use of one article in short supply may not automatically created an additional demand for some other material equally or almost as scarce,” a report of the WICB made it clear that this was a known problem.¹⁹⁷ The dollar-a-year men understood the complexity of their goals and made sure that the bureaucratic mechanisms they adopted were flexible enough to handle with such complexity.

The fact of the matter is that not all problems could have been anticipated. However, this fact also provides further justification for why the Department worked the way it did. Making sure that one agency was responsible for all purchasing and economic control guaranteed that all problems would be dealt with by one group instead of disparate organizations like in the United States. The fact that all decisions were made by one body meant that information always went through one place; that the bottle only had one neck.

The WICB and Production Board operated on a very *ad hoc* basis before they were reorganized and formalized in 1941. From this we learn two important facts. The first is that industrial mobilization could be carried out by a decentralized structure because in these early years the economy was still taking up the slack created by the Great Depression. The second fact we learn is that there was weak coordination in the early years because of the urgency of the situation. Though they were experienced and savvy businessmen, they had no experience in

¹⁹⁶ Leon Fuerth, “Cyberpower from the Presidential Perspective,” in *Cyberpower and National Security*, Franklin D. Kramer et al., eds. (Washington D.C., Potomac Books, 2009) 557. For more information see John C. Camillus, “Strategy as a Wicked Problem” in *Harvard Business Review* 86, issue 5 (2008) 100-101.

¹⁹⁷ LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 55, Wartime Industries Control Board: Report for Staff Meeting, 10 September 1942.

running a rational war economy and were responding to the situation at hand. In this sense no one was likely qualified to handle the situation, but this is not to say that it was mishandled.

There has been criticism levelled at the Department for its failings, some of which are discussed above, but these critiques fail to consider the context of the situation. The years between 1939 and 1943 were the most volatile of the war, with the very real possibility that Nazi Germany would overrun Britain and/or the Soviet Union. The urgency of the situation combined with the meagre experience Canada had in industrial manufacturing at this point in its industrial development should excuse many of the failings of Munitions and Supply. Once it became clear that every day might not be Britain's last, the Soviet Union could hold out, and the United States would be entering the war, it became possible to justify a long term strategy for production. Until that time the situation was dire and the Department's structure reflects the fact that work was being undertaken without a larger operational plan or strategy in place. The Department of Munitions and Supply was very much a product of its environment, and as such form followed function.

Conclusion

A big historiographical gap is the study of mobilization and demobilization of Canadian industry. Few Canadians (or their wartime allies) appreciate the extent of Canada's industrial expansion during the war.¹⁹⁸

-Desmond Morton

Canadian history of the Second World War combines what is known from academic scholarship with the remnants of wartime propaganda and enduring myths. A prime example of the lasting influence of wartime propaganda and enduring myths on the popular understanding of Canada's place in World War II is the popular account of the federal government's industrial mobilization. With the adoption of a 'total war' strategy during the desperate months of 1940, Ottawa created the Department of Munitions and Supply under C.D. Howe to direct the vast industrial projects a woefully unprepared Canada needed to arm. As the 'czar' of the war economy, Howe quickly recruited some of the country's most accomplished business executives – the proverbial 'dollar-a-year men' - to staff his Department. Almost overnight, armed with nearly unlimited power and the best technical know-how in the country, the 'Minister of Everything' and his department engineered a miracle, or so the popular history of the Canadian war economy and wartime government leadership tell us.

¹⁹⁸ Desmond Morton, *When Canada Won the War*

It is true that Howe was the nexus around which Munitions and Supply functioned but this does not mean that he ran day to day operations or made major decisions. It is true that the Department of Munitions and Supply was given total authority over the Canadian economy but this does not mean that it controlled the economy directly or used heavy handed methods to retool for war. It is also true that the Canadian economy churned out more than had ever been thought possible, but this does not mean it was a miracle or that the dollar-a-year men were responsible for this production feat. When trying to separate myth from fact we find that there is some truth in the fiction and some fiction in the truth.

This thesis has sought to demonstrate two essential points about the Department of Munitions and Supply. The first is that the historiography regarding the Department is a near void in Canadian war history, and what little exists is contradictory, vague, and at times even incorrect. This lack of history is not a startling discovery as most of the literature about the Department spends as much time discussing what is not known as it does discussing what is. It is the lack of accuracy in the current body of literature that is disturbing, and what exists should be taken as little more than general overviews of how the Department of Munitions and Supply functioned.

The second essential point of this thesis is that the Department of Munitions and Supply was not efficient in the way that most people believe. In cases such as tank production the Department cannot be blamed because the choice of production was made by the Department of National Defence.¹⁹⁹ Tank production illustrates the degree to which Canada was unable to,

¹⁹⁹ For more on the problems with early tank production in Canada, see Graham Broad, “‘Not competent to produce tanks’ The Ram and Tank Production in Canada, 1939-1945” *Canadian Military History* 11, no.1 (Winter 2002): 24-36.

though not incapable of, producing many of the items it agreed to in those early years.²⁰⁰ While writing the draft history for the Department, Kennedy asked for the recommendations of the Production Directors and Director of Tank Production J.H. Berry wrote that he recommended that “Unless conditions make it necessary, the manufacture of heavy tanks should not be undertaken in Canada.”²⁰¹ The majority of the work done by the Department between 1939 and the start of 1943 was very loosely coordinated. The idea of the DMS working as a well-oiled machine is most likely due to the fact that coordination and efficiency was stressed after 1942 and that this is the image the government sought to project.

Chapter 1 sought to give definition to the hitherto poorly defined concept of “dollar-a-year man.” It also highlighted the importance of the dollar-a-year men and the Executive Committee in determining both the structure and procedures of the Department. The Department was structured in such a way as to allow both businessmen and the private sector to integrate quickly and facilitate production and retooling as speedily as possible. The parallel structure model served the Department well despite its questionable lack of democratic safeguards. Howe’s importance in this enterprise was in keeping parliamentary politics and bureaucratic politics from interfering with the work of the Department. Howe was also the core around which the Department formed as he helped recruit many of the first dollar-a-year men who knew him as a competent businessman. Howe thus deserves credit for both his early recruitment choices and trusting the decisions of the dollar-a-year men and not obstructing their work.

Chapter 2 sought to examine how the Department used its unique structure and powers to carry out its goal of mobilization. The dollar-a-year men had a preference for a private-sector

²⁰⁰ A history of how the war facilitated the transfer of technical knowledge and productive capacity in Canada would be a welcomed addition to the existing literature.

²⁰¹ Berry’s draft recommendations were edited from “should not be undertaken” to “should be avoided” in one of the final drafts. See LAC, Records relating to the Department of Munitions and Supply, RG 28, “Central Registry File,” volume 27, Berry to Kennedy, 3 May 1947, 2.

solution over a government-run solution, though they did turn to Crown Corporations when the private sector was unable to fulfill a contract. The use of cost-plus contracts was meant to shift the economic risks of production, primarily for items that had never been produced in Canada, onto the government. This ensured that the private sector would take production contracts which it might not otherwise have taken and that these contracts were low risk and guaranteed monetary returns. Though contracts ensured fiscal security for the private sector, they traded cost-efficiency for speed as it would have taken longer to setup Crown Corporations to produce what was needed.

Industry committees were another innovative method of guaranteeing that the private sector could interact with the Department directly and could work jointly with the government in coordinating and executing war on the industrial front. This relationship had two primary benefits for the Department. First, it helped to assuage businessmen's fears of government usurping the role of the private sector in the economic life of the country. Second, it provided a conduit for the flow of information from the private sector to Production Directors and Controllers within the Department, ensuring that dollar-a-year men had real time information about the state of the economy and problems as they arose.

Chapter 3 demonstrated that the methods described in the proceeding chapters were not simply a matter of decision but also a product of circumstance. The geopolitical realities brought about by the initial isolation of Britain and her former dominions and then the addition of the Soviet Union and the United States as co-belligerents meant dramatic shifts in strategy for the entire Allied war effort and this affected production as much as any other area of the war. The sharing of resources and the rationalization of production in 1941 meant a reorganization of the rationale that the Department had been working under, as it became possible to specialize and

there was no longer a need to produce all items at any cost. The adoption of more rigid purchasing guidelines in late 1942 reflects the degree to which the Department was reacting to events. While this was partially as result of the slack in the economy created by the Great Depression, it also coincided with the entrance of the United States into the war. Before this, however, the Department focused on speed and attempted to produce almost every piece of materiel needed despite the lack of technical capability to do so.

This thesis began by asking the question: What strategy was pursued in mobilizing the Canadian economy for war and how did the inclusion of dollar-a-year men affect the interaction between the Canadian government and private industry in carrying out this strategy? In order to answer this question it was necessary to first establish who the dollar-a-year men were and then focus on the methods used to carry out their work. The lack of research into the work of the Department of Munitions and Supply has meant that almost all of the research required to answer these two questions is primary source, and though it is far from exhaustive it does begin to paint the broad strokes of the methods and work of Canada's industrial war effort.

The Canadian strategy for industrial mobilization during 1939-1943 was to spend whatever was needed in order to retool for war production as quickly as possible. This was complicated by the fact that Canada was attempting to manufacture many types of munitions, vehicles, planes, and ships that were almost entirely beyond its technical capabilities. This was due in part to the fact that Canada was Britain's principal ally between 1939 and 1941 but also due to the fact that Canada lacked open access to markets in the United States.

The fact that the vast majority of this new production was beyond the capabilities of the Canadian economy did not deter the dollar-a-year men. They used measures that induced change, such as cost-plus contracts and industry committees, rather than use draconian

regulations or attempt direct government control of factories. The government thereby directly subsidized the costs of retooling but also allowed for accelerated depreciation of these assets to offset the expectation of lower profits during the war. These techniques ensured that Canadian industry was able to retool quickly without having to foot the bill themselves and kept profits at pre-1939 levels while still ensuring an increase in absolute profits.

The inclusion of dollar-a-year men into the Department of Munitions and Supply helped to assuage the fears of the private sector about the possibility of direct government control over the economy. The dollar-a-year men acted as conduits between the government and the private sector and helped to make sure that each worked to the maximum benefit of the other. These men helped guarantee that the government would not interfere more than was necessary in production while vetting the contracting process to make sure that businesses were capable of producing what they were bidding on. In this way the dollar-a-year men worked to guard against the excesses of each camp and ensure a more stable relationship and wartime economy.

The impact of the dollar-a-year men is clear in the work of the Department but the way that the Executive Committee functioned raises difficult questions about the loosening of democratic safeguards during the war. It is clear that the dollar-a-year men had influence, but to what degree did they have power? From this research it has been demonstrated that they dollar-a-year men were given the freedom to carry out the conversion of industry and war production as they saw fit. However they were always beholden to an elected master: Howe. Howe very rarely second guessed their work, but the fact remains that he could have reversed any decision made within the Department and thereby always maintained control. Ultimately they had a great deal of influence but no power.

The case of the Stove Advisory Committee and the grumblings of the under-representation of Francophone Quebec in industry committees demonstrate that Howe could involve himself when he saw fit. The real questionable loosening of democratic safeguards comes from the passage of the *Munitions and Supply Act* which stated that Howe was exempt from all laws and regulations up to that point, making him the “czar of Canada’s economy” in the truest sense.²⁰² In hindsight it seems to be a dangerous move towards authoritarianism, but it should help to underscore the urgency of the situation and highlight the action Parliament was willing to take in order to support Britain.

C.D. Howe was correct in 1940 when he predicted that the cost of the war would be of no consequence, but a modern reading of this quote makes it seem as if Howe was talking about spending money to build whatever was needed efficiently. This research sees Howe’s edict in a new light. In order to overcome the problems of production Howe was willing to pay any price. It is reasonable to assume that Howe’s industrial strategy was meant to be efficient, and the inclusion of the dollar-a-year men seems to suggest that knowledge and experience would be used to overcome the problems of retooling. The truth is that no amount of knowledge or experience could retool efficiently. Money was not always spent well but it was used to overcome the endless problems of retooling the economy for war. The idea that the dollar-a-year men brought about an efficient wartime economy is correct, but it was not cost efficiency or production efficiency. Between 1939 and 1942 the work of the dollar-a-year men was meant to make efficient use of the one resource that was in critically short supply: time.

“The sinews of war are infinite money.”
-Cicero

²⁰² The War Economy and Controls: C.D. Howe, Canadian War Museum, last modified 22 October 2009, http://www.warmuseum.ca/cwm/exhibitions/newspapers/canadawar/cdhowe_e.shtml

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